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2002 Health Care Survey of DoD Beneficiaries:

Adult Technical Manual

Final

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Chapter 1

Introduction

The 2002 Adult Health Care Survey of Department of Defense Beneficiaries (HCSDB) is the primary tool with which the TRICARE Management Activity (TMA) of the Assistant Secretary of Defense (Health Affairs) monitors the opinions and experiences of military health system (MHS) beneficiaries. The HCSDB was conducted annually from 1995 to 2000; subsequently, it has been conducted quarterly. Specifically, the HCSDB is designed to answer the following questions:

- How *satisfied* are DoD beneficiaries with their health care and their health plan?
- How does overall satisfaction with military treatment facilities (MTFs) compare with satisfaction with civilian treatment facilities (CTFs)?
- Does *access* to military and civilian facilities meet TRICARE standards?
- Is beneficiaries' use of preventive health care services in line with national goals, such as those outlined in *Healthy People 2010*?
- Has beneficiaries' use of MHS services changed over time?
- What aspects of MHS care contribute most to beneficiary satisfaction with their health care experiences? With which aspects are beneficiaries least satisfied?
- What are the demographic characteristics of MHS beneficiaries?

The HCSDB is a quarterly mail survey of a representative sample of MHS beneficiaries. It is sponsored by the TRICARE Management Activity in the Office of the Assistant Secretary of Defense (Health Affairs) [OASD(HA)] under authority of the National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484). The DoD Defense Manpower Data Center (DMDC) prepares the sampling frame, which consists of selected variables for each MHS beneficiary in the Defense Enrollment Eligibility Reporting System (DEERS) database on a specified reference date. DEERS includes everyone who is eligible for a MHS benefit (i.e., everyone in the Uniformed Services--Army, Air Force, Navy, Marine Corps, Coast Guard, the Commissioned Corps of the Public Health Service, National Oceanic and Atmospheric Administration, Guard/Reserve personnel who are activated for more than 30 days -- and other special categories of people who qualify for benefits). DEERS includes those on active duty, those retired from military careers, immediate family members of people in the previous two categories, and surviving family members of people in these categories.

Each quarter, Mathematica Policy Research, Inc. (MPR, Washington, D.C.) prepares a sample of 45,000 adult beneficiaries. National Research Corporation (NRC) fields the survey each quarter. MPR analyzes the survey data, reports on the results, and once per year prepares this document, the 2002 Health Survey of DoD Beneficiaries: Adult Technical Manual.

The manual is designed as a reference tool to be used by analysts in the OASD/HA as they interpret the survey findings and prepare briefings. The manual provides detailed documentation on the following: naming conventions for variables, editing procedures, selection of records, computation of response rates, recoding of variables, computation of weights, variance estimation, and construction of tables and charts for the reports. The manual enables an analyst to link each

cell in each table (or chart) in the reports to the associated question in the adult questionnaire and/or to the variable in the survey database. The manual also enables an analyst to follow, and replicate if desired, the processing of the raw survey data through each step in the production of the final database.

A. OVERVIEW OF THE HCSDB

1. Sample Design

The 2002 adult sample design is based on three sample stratifications--enrollment type, beneficiary type, and geographic area. *Enrollment type* is defined by whether or not the beneficiary is enrolled in TRICARE Prime. Unlike in previous surveys, we did not create separate strata for beneficiaries enrolled in Prime with a military primary care manager (PCM) and beneficiaries enrolled in Prime with a civilian PCM.

Beneficiary type is defined as active duty, active duty family members, retirees and family members under age 65, and non-active duty beneficiaries and their family members age 65 and over. Compared with previous surveys, this stratification causes a larger proportion of the sample to be allocated to active duty personnel and their family members, and a smaller proportion of the sample to be allocated to retirees.

The *geographic area* stratification depends on enrollment type. Beneficiaries enrolled in Prime that have a military PCM typically receive much of their health care from a military treatment facility (MTF), that is a military hospital or clinic. The geographic stratification for such beneficiaries is determined by the MTF that bears the financial responsibility for the beneficiary's health care. This stratification does not depend on the location of the beneficiary's residence, although most such beneficiaries live within the catchment area of the responsible MTF.

Those enrolled in Prime with a civilian PCM typically receive much of their health care from a TRICARE contractor. The geographic stratification for these beneficiaries is the catchment area in which they live.

Those not enrolled in Prime typically receive much of their care through TRICARE Extra/Standard (CHAMPUS) or through a non-MHS health plan. The service area they live in determines the geographic stratification. Conceptually, the service area is the health care market area in which the beneficiary resides. Operationally, the service area is the group of catchment areas in the metropolitan area the beneficiary lives in. For beneficiaries who do not live in a metropolitan area, the service area is the same as the catchment area where they live.

Similar to last year's survey, more military clinics, as opposed to military hospitals, were included in the list of geographic areas. This means that a larger proportion of the 2002 sample is allocated to beneficiaries who receive much of their health care from a military clinic, and a smaller proportion is allocated to those receiving much of their care from a military hospital.

2. 2002 Adult HCSDB

The HCSDB questionnaire was converted from an annual to a quarterly survey in 2000, and is fielded in each quarter to a representative sample of MHS beneficiaries. The adult questionnaire for Quarter 4 is reproduced in Appendix A. The 2002 survey consists of an unchanging core questionnaire with supplements that differ from quarter to quarter.

The core adult questionnaire includes the following topics:

- Use of health care
- Use of preventive health care
- Type of health plan covering the beneficiary
- Satisfaction with health plan
- Satisfaction with health care
- Access to health care
- Demographic characteristics

The name of this year's survey reflects a new naming convention. Prior to 2000, the year in the survey's name reflected the year that respondents were asked to think about when answering the questions. For example, although the 2000 HCSDB was fielded in 2001, it asked beneficiaries to think about the prior 12 months (mostly 2000) as the reference period for their responses. Under the new naming convention, the survey title refers to the year the questionnaires are fielded, so this year's survey is the 2002 HSCDB. Because of the name change, there is no "2001" survey, even though the questionnaire was administered continuously in each quarter of 2001 and 2002.

3. Survey Response – Quarters I - IV

Each quarter in 2002, we sent surveys to a random sample of 45,000 adult MHS beneficiaries. In Quarter 1, we received completed surveys from 29 percent of the sample. In Quarters II and III, 33 percent of sample members returned completed surveys. In Quarter IV, we received completed surveys from 29 percent of the beneficiaries sampled. Information pertaining to how we developed these response rates is presented in Chapter 4.

It should be noted that above cited response rates do not reflect late arriving responses from the surveys fielded in the first three quarters. The response rates are based on the number of completed surveys returned to the survey vendor at the end of the fielding period. The annual combined dataset, however, includes the surveys returned after the end of the fielding period. Therefore, the revised annual response rates were 31 percent for Quarters I and II, and 32 and 29 percent for Quarters III and IV, respectively.

4. Database Development

MPR edits the data, selects records for inclusion in the final database, and constructs variables to be used in reports. To ensure that the survey data is representative of the DEERS population, MPR develops weights to take account of the initial sampling, the sampled individuals who chose not to respond to the survey, and post-stratification if the beneficiary's key information is updated.

5. Reports

MPR analyzed the data and produced several reports explaining the findings on topics such as satisfaction, access to care, health care use, and use of preventive services. These reports will be available on the TRICARE website at http://www.TRICARE.USD.mil:

- 2002 TRICARE Consumer Reports
- 2002 TRICARE Consumer Watch
- National Executive Summary Report

B. ORGANIZATION OF THIS MANUAL

Chapter 2 presents the procedures used in fielding the survey. Chapter 3 explains how the database was developed. It covers naming conventions, editing procedures, record selection criteria, descriptions of all variable types, definitions of each constructed variable, the development of satisfaction and health status scales, and weighting procedures. Chapter 4 describes how the database was analyzed and describes the rules for developing response rates and table and chart specifications for the National Executive Summary Report. In addition, it includes an explanation of the dependent variables and independent variables, and the methodology for estimating the variance of estimates. The manual concludes with the following technical appendices:

- Appendix A: Annotated questionnaire – Quarters I-IV survey questionnaire annotated with database variable names
- Appendix B: Survey Fielding Letters – Letters sent to the respondents
- Appendix C: Plan for Data Quality – Coding Scheme – Quarters I-IV
- Appendix D: A table mapping MTFs to the catchment area and region. The table also indicates the type of facility, such as teaching hospital or clinic, and the service affiliation of the MTF.
- Appendix E: Response rate tables for selected domains
- Appendix F: Technical Description of the 2002 TRICARE Consumer Reports
- Appendix G: SAS Code for File Development
- Appendix H: SAS Code for Statistical and Web Specifications for the 2002 TRICARE Consumer Reports
- Appendix I: SAS Code for 2002 TRICARE Consumer Watch
- Appendix J: The SUDAAN code for calculating variance estimates
- Appendix K: SAS Code for the 2002 National Executive Summary Report

Chapter 2

Survey of Adults

This chapter presents information on the survey administration cycle for the Quarter 4, 2002 Adult Health Care Survey of DoD Beneficiaries (HCSDB), with specific details on the survey mailing cycle and the number of surveys received.

A. SURVEY OPERATIONS ACTIVITIES

The operational support for mailing the survey involved four mailings to beneficiaries between September 3, 2002 and November 11, 2002. Targeted mailings and re-mailings have been integrated into the mailing administration in order to increase response rates. The mailings are as follows: notification letter, first survey mailing, reminder/thank you post card, and second survey mailing. The notification letter was a short letter of explanation encouraging beneficiaries to participate. The first and second surveys were mailed with a cover letter of explanation. The reminder/thank you post card was mailed between the first and second surveys reminding beneficiaries to complete the survey and thanking those beneficiaries who had completed the survey. Examples of these are available in Appendix B. All mailings have been completed. The field period closed on December 6, 2002.

B. ADDRESS UPDATE ACTIVITIES PRIOR TO AND DURING SURVEY ADMINISTRATION

National Research Corporation (NRC) received the sample file from MPR on August 8, 2002. The file contained 45,000 records of DoD beneficiaries and 74 variables constructed from the Defense Enrollment Eligibility Reporting System (DEERS). The file was sent to an NCOA vendor for address updating on August 8, 2002. NRC sent a copy of all sample records to an outside vendor to receive address hygiene services and to be interfaced with the National Change of Address (NCOA) database to obtain updated address information. The NCOA vendor returned the updated address file and this information, along with the sample file from MPR, were loaded into NRC's proprietary software system known as Qualysis. Qualysis is NRC's "quality process" software and business discipline that standardizes and automates the entire survey process from data quality checks to the scanning of returned surveys.

The Configuration Manager module in Qualysis contains the layout for all mail items (e.g., the survey, cover letters, thank you/reminder postcards), mail methodology, and cover letter personalization. The notification letter was sent to the mailing address provided by the NCOA vendor when available. Records that were not updated by the NCOA vendor were mailed to one of the three DEERS addresses: residential address, sponsor address, and unit address. When possible, the residential address was given preference over the sponsor address and likewise the sponsor address was given preference over the unit address. When all records had been assigned an address for the notification letter-mailing step, Qualysis began generating the personalized letters. The notification letter was mailed on September 3, 2002.

The process of updating addresses is a continuous process throughout the survey administration cycle. During survey administration, address updates are obtained from multiple sources:

- Self report by beneficiaries (via telephone, voice mail, or fax).
- Address correction information from the United States Postal Service (USPS).
- Out of date forwarding address information from the USPS.
- Mail items returned by the USPS as non-deliverable.

Updated address information was added to Qualyisis through the use of the DoD Beneficiary Update System (DoDBUS), an interface created by NRC developers to allow new address information to be entered into Qualysis and to track changes when using the DEERS supplied addresses.

Address information received directly from the beneficiary was considered the most accurate and was the first address used whenever possible. Beneficiaries were provided with toll free telephone and toll free fax phone numbers and voice mail option to use in order to update their addresses. Collect calls were also available if a beneficiary could not access the toll free telephone number. The telephone and fax numbers were printed on the notification letter, the reminder/thank you card, and the cover letter that accompanied the first survey.

The United States Postal Service also provided address update information in the form of Address Correction Services. This service is accessed by the use of the "Address Service Requested" indicia on the notification letter located on the outer envelopes of the first and second surveys. Many post offices returned updated address information on diskettes, which were loaded, into Qualysis. Post offices that did not have access to this technology returned copies of the mail piece with the old and new addresses provided. This information was entered into Qualysis through the DoDBUS.

The DoDBUS also provided the interface to enter non-deliverable mail pieces and mark the address used for that mail step as invalid. If other addresses were available, the DoDBUS operator would choose the next available address for the next mail step. When all addresses had been exhausted, the record was marked as a "final non-deliverable" and no further mailings were attempted. Second surveys that were returned as non-deliverable were also marked as "final non-deliverables" as it was the final mail step in this methodology.

Based on data from the final returns data set, a total of 2,422 beneficiaries did not have sufficient address information and were not included in any of the mail steps. The remaining beneficiaries were mailed the notification letter. Prior to mailing the first survey, NRC removed any beneficiaries who were marked as "final non-deliverable" or any beneficiary who contacted NRC and refused to participate or was found to be ineligible. First surveys were mailed on October 7, 2002. The reminder/thank you card was mailed on October 21, 2002. The reminder card was sent to all beneficiaries who received the first survey, with the exception of those beneficiaries whose first survey was returned and their record marked as "final non-deliverable". Second surveys were mailed on November 11, 2002. Second surveys were mailed to all beneficiaries who did not return a first survey and whose records had not been marked as "final non-deliverable".

Table 2.1 summarizes address sources by each of the four beneficiary categories. This table shows the source of the last address used in sending a mailing piece to a beneficiary. As in previous years, the largest number of invalid addresses fell in the Active Duty category. It has been speculated that this is due, in part, to this group's mobility. However, the table also suggests that DEERS supplied addresses were used 80% of the time.

TABLE 2.1

FREQUENCY AND PERCENT DISTRIBUTION OF FINAL DISPOSITION OF SURVEY SAMPLE BY BENEFICIARY GROUP – QUARTERS 1-IV

Final Survey Disposition	Active Duty	Active Duty Dependents	Retirees and Family Members < 65	Retirees and Family Members > 65	Total
Returned non-blank survey	17,022 9.5%	13,277 7.4%	17,299 9.6%	7,712 4.3%	55,310 30.8%
Blank - temp ill or incapacitated	0 0.9%	0 0.0%	1 0.0%	2 0.0%	3 0.9%
Blank - deceased	7 0.0%	4 0.0%	48 0.0%	108 1.1%	167 1.1%
Blank - incarcerated or perm incapacitated	0 0.0%	1 0.0%	7 0.0%	15 0.0%	23 0.0%
Blank - left military or divorced during fielding period	34 0.0%	16 0.0%	6 0.0%	1 0.0%	57 0.0%
Blank - not eligible for MHS during fielding period	14 0.0%	65 0.0%	26 0.0%	2 0.0%	107 0.0%
Blank - other eligible	11 0.0%	23 0.0%	13 0.0%	7 0.0%	54 0.0%
Blank - no reason	53,349 29.6%	26,314 14.6%	13,584 7.5%	1,971 1.1%	95,218 52.8%
No return - active refuser	16 0.0%	26 0.0%	20 0.0%	9 0.0%	71 0.0%
PND - no address remaining	6,487 3.6%	2,184 1.2%	1,288 0.7%	354 0.2%	10,635 5.7%
PND - address remaining	4,092 2.3%	3,656 2.0%	435 0.3%	57 0.0%	8,240 4.6%
Original Non-Locatable - no address at start	6,874 3.8%	1,734 1.0%	853 0.5%	306 0.2%	9,767 5.5%
Beneficiary writes and refuses participation	1 0.0%	2 0.0%	1 0.0%	0 0.0%	4 0.0%
Total =					180,000 100.0%

* Note: This table does not include duplicate surveys.

Table 2.2 summarizes the address sources for returned surveys exclusive for Quarter 4 of the 2002 Adult HCSDB data file. The data shows that over 84% of the returned surveys were mailed to the residential beneficiary address supplied by DEERS.

TABLE 2.2

FREQUENCY OF ADDRESS SOURCES FOR RETURNED SURVEYS
(N = 13,022)

Address Type	Frequency (n)	Percent of Returns
DEERS Residential	11,054	84.9%
DEERS Sponsor	138	1.1%
DEERS Unit	230	1.8%
Phone/Voice Mail	89	0.7%
NCOA	1,002	7.7%
Fax	24	0.2%
ACR & ODF	785	3.7%
Electronic ACR	0	0.00%
Total	13,022	100.00%

Note: If beneficiaries returned more than one completed survey, both surveys were included in the numbers in Table 2.2.

C. LETTER PROCESSING PROCEDURES

A vital component involved in the effective management and monitoring of the data collection process is the Survey Control System (SCS). The SCS ensures that data are accurate, integrated, and available during all phases of the survey administration. NRC's unique identifier - known as a "lithocode" - links all records in the SCS to the original sample file. The lithocode is a unique identification number assigned by Qualysis at the time that letters or surveys are generated. A new lithocode number is created for each mail step. These lithocodes are stored for each beneficiary in a table in the SCS. This allows NRC staff to determine whether a returned survey is a first or second survey and identify instances where a beneficiary may return both the first and second survey. The lithocode also allows the surveys to be monitored without use of a beneficiary's social security number or other information that could identify the beneficiary. Lithocodes are used to identify the beneficiary when returned surveys are scanned, whenever beneficiaries are removed from future mailings due to refusal/ineligibility or no valid address, and when addresses are updated or changed in DoDBUS.

D. SURVEY ADMINISTRATION TIMELINE

The HCSDB mailing process was designed so that each beneficiary with a usable address could receive up to four documents: a notification letter, a first survey, a reminder/thank you card, and a second survey. If a beneficiary returned a first survey, a second survey was not sent. If a beneficiary refused to participate or was ineligible, they were removed from future mail steps as well. Beneficiaries who were marked as "final non-deliverable" also were removed from future mail steps.

A total of 42,578 notification letters were mailed on September 3, 2002. Immediately following this mailing, NRC staff began entering address changes and updating records to indicate beneficiaries who identified themselves as refusing to participate or as ineligible to participate. There were 1,033

records marked as "final non-deliverable" and 103 records marked as refused/ineligible prior to mailing the first survey. The survey is a 16-page booklet accompanied by a cover letter of explanation and a postage paid return envelope. A total of 41,442 first surveys were mailed to beneficiaries on October 7, 2002.

The reminder/thank you card was sent to 39,443 beneficiaries on October 21, 2002. The number of reminder/thank you cards was reduced by 332 records marked as "final non-deliverables", 74 records marked as refused/ineligible, and 1,593 records marked due to beneficiaries who returned the first survey.

The second survey was mailed to 31,450 beneficiaries on November 11, 2002. This number was reduced by 944 records marked as "final non-deliverables", 111 records marked as refused/ineligible, and 6,938 records marked due to beneficiaries who returned the first survey.

Prior to the mailing of the first survey, 20 questionnaires were completed by NRC staff and scanned into the SCS. A data set file was created and copies of the questionnaires were sent to the analysis contractor to determine if the file was readable and scanned correctly.

Table 2.3 summarizes the HCSDB mailings. Data includes the date of each mail step, the quantity mailed in each step, and the number of records that were removed prior to the next mail step.

TABLE 2.3

MAILING TIMELINE – QUARTER IV

Mail Step	Action	Records Removed	Sample
	Total Sample Size		45,000
	Subtract no address	263	
	Subtract bad address	2,159	
	Total: beneficiaries not receiving a pre note		2,422
Notification Letter	Mailed on 09/03/02		42,578
	Subtract PND	1,033	
	Subtract ineligible/refused	103	
	Total		1,136
First Survey	Mailed on 10/07/02		41,442
	Subtract PND	332	
	Subtract ineligible/refused	74	
	Subtract 1st surveys received	1,593	
	Total		1,999
Reminder/Thank You Post Card	Mailed on 10/21/02		39,443
	Subtract PND	944	
	Subtract ineligible/refused	111	
	Subtract 1st Surveys received	6,938	
	Total		7,993
Second Survey	Mailed on 11/11/02		31,450

E. PROCESSING AND CLASSIFICATION OF INCOMING SURVEYS

Returned surveys were visually checked for any written comments prior to scanning. Refusal or ineligibility comments were entered into Qualysis using the DoDBUS. Any other comments were referred to the Account Director to be forwarded to the DoD Task Manager.

Each morning, NRC staff open non-deliverables and update address changes or "final non-deliverable" status for each record. Surveys are scanned using software called FAQSS. The Scanner Interface module of Qualysis receives the information from FAQSS and identifies the beneficiary and their responses to the survey questions.

Surveys must be imported from the Qualysis directory into the FAQSS System by running a "create text definitions files" from the scanner interface application. During the import process, the surveys are run through three passes. In the first pass, the lithocode is read. Any unread lithocodes are manually entered. The system then creates a lithocode list. From the complete lithocode list, Qualysis exports the text definition files to match the lithocodes. Lastly, FAQSS separates the files into batches and moves them into the processing queue.

The next step in scanning is batch processing. This template is used by the processor to find response areas and to read the responses as valid or spurious. If the system is not 99 percent certain of a response, it is sent to a data editing workstation.

Any questionable marks as detected by the processor are brought up at the data editing station for review by an editor. The editor decides if the mark is a valid response and enters the appropriate system instructions. If the editor is unable to determine the response, a "non-response" instruction is entered. From scanner interface, a transfer results application is applied which moves the scanning files into the Qualysis database and logs the transaction. A final check is then performed to ensure that all surveys have been entered in the Qualysis database.

Throughout the administration of HCSDB, all records are marked with a final disposition code known as FLAG_FIN. Some records (such as no valid addresses) can be marked prior to the first mail step. Other records cannot be marked until all mail steps have been completed. The FLAG_FIN variables and their descriptions are

- FLAG_FIN=1
  Returned survey – survey was completed and returned.

- FLAG_FIN=2
  Returned ineligible – survey was returned with at least one question marked and information that the beneficiary was ineligible. The information indicating ineligibility may have come by phone, fax, or the survey itself.

- FLAG_FIN=3
  Returned blank – temporarily ill or incapacitated. Survey was returned blank along with information that the beneficiary was temporarily ill or incapacitated. These sample members were eligible.

- FLAG_FIN=4
  Returned blank – deceased. Survey was returned blank along with information that the beneficiary was deceased. These sample members were ineligible.

- FLAG_FIN=5
  Returned blank – incarcerated or permanently incapacitated. Survey was returned blank along with information that the beneficiary was incarcerated or permanently hospitalized. These sample members were ineligible.

- FLAG_FIN=6
  Returned blank – left military or divorced after 04/30/02, retired. Survey was returned blank along with information that the beneficiary left the military after 04/30/02, divorced after 04/30/02, or retired. These sample members were eligible.

- FLAG_FIN=7
  Returned blank – not eligible on 04/30/02. Survey was returned blank along with information that the beneficiary was not eligible for Military Health System Plan on 04/30/02. These sample members were ineligible.

- FLAG_FIN=8
  Returned blank – other eligible. Survey was returned blank along with a reason given by the sample member. These sample members were eligible.

- FLAG_FIN=9
  Returned blank – no reason. Survey was returned blank without an explanation. These sample members were eligible.

- FLAG_FIN=10
  No return – temporarily ill or incapacitated. Survey was not returned and beneficiary was temporarily ill or incapacitated. These sample members were eligible.

- FLAG_FIN=11
  No return – active refuser. Survey was not returned and beneficiary refused to take part in the survey. These sample members were eligible.

- FLAG_FIN=12
  No return – deceased. Survey was not returned and beneficiary deceased. These sample members were ineligible.

- FLAG_FIN=13
  No return – incarcerated or permanently incapacitated. Survey was not returned, beneficiary was incarcerated or permanently hospitalized. These sample members were ineligible.

- FLAG_FIN=14
  No return – left military or divorced after 04/30/02, retired. Survey was not returned, beneficiary left service after 04/30/02, divorced after 04/30/02, or retired. These sample members were eligible.

- FLAG_FIN=15
  No return – not eligible on 04/30/02. Survey was not returned, beneficiary was not eligible for Military Health System Plan on 04/30/02. These sample members were ineligible.

- FLAG_FIN=16
  No return – other eligible. Survey was not returned, beneficiary gave other reason for not completing the survey. These sample members were eligible.

- FLAG_FIN=17
  No return – no reason. Survey was not returned, beneficiary gave no reason.

- FLAG_FIN=18
  PND – no address remaining. All addresses were attempted, mailing was returned PND.

- FLAG_FIN=19
  PND – address remaining at the close of field. At the close of field, the last address used was found invalid, next available was not attempted.

- FLAG_FIN=20
  Original Non-Locatable – no address at start of mailing. Substantially incomplete or blank address field before the survey was administered, no mailings attempted.

- FLAG_FIN=21
  Beneficiary provides written documentation declining to participate but doesn't specify a reason.

- FLAG_FIN=22
  Beneficiary indicates they are hospitalized but without providing any way to determine whether incapacity is temporary or permanent. Therefore, eligibility determination cannot be made.

- FLAG_FIN=23
  Returned blank – deployed. Survey was returned blank along with information that the beneficiary was deployed.

- FLAG_FIN=24
  No return – deployed. Survey was not returned, beneficiary was deployed.

Table 2.4 documents the final disposition of the survey sample by each beneficiary group. The ENBGSMPL variable was used to create the beneficiary groups. The ENBGSMPL variable has values 1-10. The value of 1 is = Active Duty; values of 2, 3, & 4 = Active Duty Dependents, values of 5, 6, & 7 = Retired and Family Members < 65; and values of 8, 9, & 10 = Retired and Family Members > 65.

TABLE 2.4

FREQUENCY AND PERCENT DISTRIBUTION OF FINAL DISPOSITION OF SURVEY SAMPLE BY BENEFICIARY GROUP

Final Survey Disposition	Active Duty	Active Duty Dependents	Retirees and Family Members < 65	Retirees and Family Members > 65	Total
Returned non-blank survey	3,775 8.39%	2,789 6.20%	4,230 9.40%	2,123 4.72%	12,917 28.70%
Returned - ineligible	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - temp ill or incapacitated	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - deceased	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - incarcerated or perm incapacitated	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - left military or divorced after 04/30/02	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - not eligible for MHS on 04/30/02	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - other eligible	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - no reason	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
No return - temp ill or incapacitated	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
No return - active refuser	2 0.00%	11 0.02%	3 0.01%	2 0.00%	18 0.04%
No return - deceased	3 0.01%	1 0.00%	5 0.01%	11 0.02%	20 0.04%
No return - incarcerated or perm incapacitated	0 0.00%	1 0.00%	2 0.00%	3 0.01%	6 0.01%
No return - left military or divorced after 04/30/02	8 0.02%	10 0.02%	5 0.01%	1 0.00%	24 0.05%
No return - not eligible on 04/30/02	1 0.01%	6 0.01%	6 0.01%	0 0.00%	13 0.03%
No return - other eligible	5 0.01%	5 0.01%	2 0.00%	3 0.01%	11 0.02%
No return - no reason given	13,723 30.50%	6,843 15.21%	3,684 8.19%	595 1.32%	24,928 55.40%
PND - no address remaining	1,630 3.62%	480 1.07%	264 0.59%	74 0.16%	2,337 5.19%
PND - address remaining	1,157 2.57%	954 2.12%	148 0.33%	20 0.04%	2,279 5.06%
Original Non-Locatable - no address at start	1,692 3.76%	433 0.96%	228 0.51%	69 0.15%	2,422 5.38%
Beneficiary writes and refuses participation	1 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.00%
Hospitalized - unknown if temp or perm incapacitated	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
Blank - deployed	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
No return - deployed	57 0.13%	3 0.01%	1 0.00%	0 0.00%	22 0.05%
Total	21,985 48.86%	11,536 25.64%	8,578 19.06%	2,901 6.45%	45,000 100.00%

* Note: This table does not include duplicate surveys.

The data in Table 2.5 displays the number of first and second surveys returned.

TABLE 2.5

RETURNED SURVEYS BY SURVEY TYPE

Survey Indicator	First Survey	Second Survey	Total
Returned non-blank survey	10,407 79.92%	2,510 19.28%	12,917 99.19%
Returned non-blank duplicate survey	0 0.00%	105 0.81%	105 0.81%
Total	10,407 79.92%	2,615 20.08%	13,022 100.00%

Note: This table includes duplicate surveys.

Chapter 3

Database

This chapter explains the process of developing the raw survey data into a final database free of inconsistencies and ready for analysis. We discuss the design of the database; cleaning, editing, and implementing the coding scheme; record selection; and constructing variables.

A. DATABASE DESIGN

The 2002 Adult HCSDB consists of variables from various sources. When NRC delivers the file to MPR after fielding the sample, the following types of variables are present:

- DEERS information on beneficiary group, social security number, sex, age, etc.
- Sampling variables used to place beneficiaries in appropriate strata
- Core and supplemental questionnaire responses
- NRC information from fielding the sample, such as scan date and flags developed during the fielding to assist us in determining eligibility

MPR added the following types of variables to the database:

- Updated DEERS variables from the time of data collection to be used for post-stratification
- Coding Scheme flags
- Constructed variables for analysis
- Weights

In addition, MPR updated and cleaned the questionnaire responses using the coding scheme tables found in Appendix C. Each quarter, the final public-use file will contain only the recoded responses; this will help users to avoid using an uncleaned response for analysis. We structured the final database so that all variables from a particular source are grouped by position. Table 3.1 lists all variables in the annual database by source and briefly describes these sources. For specific information on variable location within the database, refer to the "2002 Adult Health Care Survey of DoD Beneficiaries: Adult Codebook and User's Guide."

1. Data Sources

a. DEERS

Standard Technologies, Inc. (STI) provided the sampling frame to MPR prior to the selection of the sample. DEERS information such as sex, date of birth, and service are retained in the database; this data is current as of the time of sample selection.

b. Sampling Variables

MPR developed variables during the sample selection procedure that were instrumental in placing beneficiaries in appropriate strata. Many of the variables are retained on the database.

c. Questionnaire Responses

These variables represent the cleaned values for all responses to the questionnaire. The original values scanned in by NRC are cleaned and recoded as necessary to ensure that responses are consistent throughout the questionnaire. The coding scheme tables found in Appendix C are the basis for insuring data quality.

d. Survey Fielding Variables

In the process of fielding the survey, NRC created a number of variables that we retain in the database. Certain of these variables, information that came in by phone, for example, assist us in determining eligibility.

e. Coding Scheme Flags

Each table of the Coding Scheme (see Appendix C) has a flag associated with it that indicates the pattern of original responses and any recodes that were done. For example, the table for Note 5 has a flag N5.

f. Constructed Variables

MPR constructed additional variables that were used in the TRICARE Consumer Reports, TRICARE Consumer Watch, and the National Executive Summary Report. Often these variables were regroupings of questionnaire responses or the creation of a binary variable to indicate whether or not a TRICARE standard was met. Complete information on each constructed variable is found in section 3.D.

g. Weights

MPR developed weights for each record in the final database. Weights are required for the following reasons:

- To compensate for variable probabilities of selection
- To adjust for differential response rates
- To improve the precision of survey-based estimates through post-stratification

SAMPLING VARIABLES	
MPRID	Unique MPR identifier
SVCSMPL	Branch of Service
SEXSMPL	Sex
STRATUM	Sampling stratum
CACSMPL	Catchment Area
ENBGSMPL	Enrollment by beneficiary category
MPCSMPL	Sampling military rank
NHFF	Stratum Sample Size

SERVAREA	Service Area
DCATCH	Catchment Area
DMIS_ID	DMIS ID
E1	Eligibility indicator for period = 1
E2	Eligibility indicator for period = 2
E3	Eligibility indicator for period = 3
E4	Eligibility indicator for period = 4
E5	Eligibility indicator for period = 5
E6	Eligibility indicator for period = 6
E7	Eligibility indicator for period = 7
E8	Eligibility indicator for period = 8
ONTIME	Responded within 8 weeks of mail-out
DEERS VARIABLES	
SERVAFF	Service Affiliation
MRTLSTAT	Marital Status
RACEETHN	Race/Ethnicity
PNSEXCD	Person Gender
LEGDDSCD	DDS Code
DAGEQY	Age at time of data collection
PCM	Primary Manager Code (CIV or MIL)
TSPSITE	TSP Site (regardless of age)
DBENCAT	Beneficiary Category
DMEDELG	Medical Privilege Code
DSPONSVC	Derived Sponsor Branch of Service
MBRRELCD	Member Relationship Code
MEDTYPE	Medicare Type
PATCAT	Aggregated Beneficiary Category
PNLCATCD	Personnel Category Code (Duty Status)
FIELDAGE	Age at start of fielding period
FNSTATUS	Final Status
KEYCOUNT	Number of key questions answered
QUESTIONNAIRE CORE VARIABLES	
H02001	Are you the person listed on the envelope?
H02002A	Which of the following healthcare plans are you currently covered by - TRICARE Prime?
H02002C	Which of the following healthcare plans are you currently covered by - TRICARE Extra/Standard (CHAMPUS)?
H02002F	Which of the following healthcare plans are you currently covered by – MEDICARE?
H02002G	Which of the following healthcare plans are you currently covered by – FEHBP?

H02002H	Which of the following healthcare plans are you currently covered by – MEDICAID?
H02002I	Which of the following healthcare plans are you currently covered by – Civilian HMO?
H02002J	Which of the following healthcare plans are you currently covered by – Other civilian?
H02002K	Which of the following healthcare plans are you currently covered by – USFHP?
H02002L	Which of the following healthcare plans are you currently covered by – Not sure?
H02002M	Which of the following healthcare plans are you currently covered by – Veterans?
H02002N	Which of the following healthcare plans are you currently covered by – TRICARE Plus?
H02002O	Which of the following healthcare plans are you currently covered by – TRICARE for Life
H02003	Currently, are you covered by Medicare Part A?
H02004	Currently, are you covered by Medicare Part B?
H02005	Currently, are you covered by Medicare supplemental insurance?
H02006	Which health plan did you use for all or most of your healthcare in the last 12 months?
H02007	How many months or years in a row have you been in this health plan?
H02008	When you joined your health plan or at any time since then, did you get a new personal doctor or nurse?
H02009	With the choices your health plan gave you, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?
H02010	Do you have one person you think of as your personal doctor or nurse?
H02011	Use any number from 0 to 10 where 0 is the worst personal doctor or nurse possible, and 10 is the best personal doctor or nurse possible. How would you rate your personal doctor or nurse now?
H02012	Are you currently enrolled in TRICARE Prime?
H02013	As a member of TRICARE Prime, do you have a Primary Care Manager (PCM) based in a military or civilian facility?
H02014	Do you know your PCM's name?
H02015	In the last 12 months, did you or a doctor or nurse think you needed to see a specialist?
H02016	In the last 12 months, how much of a problem, if any, was it to get a referral to a specialist that you needed to see?
H02017	In the last 12 months, did you see a specialist?
H02018	Use any number from 0 to 10 where 0 is the worst specialist possible, and 10 is the best specialist possible. How would you rate the specialist?
H02019	In the last 12 months, was the specialist you saw most often the same doctor as your personal doctor?
H02020	In the last 12 months, did you call a doctor's office or clinic during regular office hours to get help or advice for yourself?
H02021	In the last 12 months, when you called during regular office hours, how often did you get the help or advice you need?
H02022	In the last 12 months, did you make any appointments with a doctor or other health provider for regular or routine health care?
H02023	In the last 12 months, how often did you get an appointment for regular or routine healthcare as soon as you wanted?

H02024	In the last 12 moths, how many days did you usually have to wait between making an appointment for regular or routine care and actually seeing a provider?
H02025	In the last 12 months, did you have an illness or injury that needed care right away from a doctor's office, clinic or emergency room?
H02026	In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?
H02027	In the last 12 months, how long did you usually have to wait between trying to get care and actually seeing a provider for an illness or injury?
H02028	In the last 12 months, how many times did you go to an emergency room to get care for yourself?
H02029	In the last 12 months (not counting times you went to an emergency room) how many times did you go to a doctor's office or clinic to get care for yourself?
H02030	In the last 12 months, how much of a problem, if any, was it to get care you or a doctor believed necessary?
H02031	In the last 12 months, how much of a problem, if any, were delays in healthcare while you waited for approval from your health plan?
H02032	In the last 12 months, how often did you wait in the doctor's office or clinic more than 15 minutes past your appointment time to see the person you went to see?
H02033	In the last 12 months, how often did office staff at a doctor's office or clinic treat you with courtesy and respect?
H02034	In the last 12 months, how often were office staff at a doctor's office or clinic as helpful as you thought they should be?
H02035	In the last 12 months, how often did doctors or other health providers listen carefully to you?
H02036	In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?
H02037	In the last 12 months, how often did doctors or other health providers show respect for what you had to say?
H02038	In the last 12 months, how often did doctors or other health providers spend enough time with you?
H02039	Use any number from 0 to 10 where 0 is the worst healthcare possible, and 10 is the best healthcare possible. How would you rate your healthcare?
H02040	In the last 12 months, how many prescriptions did you have that were written by a civilian provider but were filled at a military pharmacy? Include refills.
H02041	In the last 12 months, where did you go most often for your health care?
H02042	What is the single most important reason to you in your decision to use a military treatment facility for your healthcare?
H02043	In the last 12 months, did you or anyone else send in any claims to your health plan?
H02044	In the last 12 months, how often did your health plan handle your claims in a reasonable time?
H02045	In the last 12 months, how often did your health plan handle your claims correctly?
H02046	In the last 12 months, before you went for care, how often did your health plan make it clear how much you would have to pay?
H02047	In the last 12 months, did you look for any information in written materials from your health plan?

H02048	In the last 12 months, how much of a problem, if any, was it to find or understand information in the written materials?
H02049	In the last 12 months, did you call your health plan's customer service to get information or help?
H02050	In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?
H02051	In the last 12 months, have you called or written your health plan with a complaint or problem?
H02052	How long did it take for the health plan to resolve your complaint?
H02053	Was your complaint or problem settled to your satisfaction?
H02054	In the last 12 months, did you have any experiences with paperwork for your health plan?
H02055	In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?
H02056	Use any number from 0 to 10 where 0 is the worst health plan possible, and 10 is the best health plan possible. How would you rate your health plan now?
H02057	If you are currently enrolled in TRICARE Prime, how likely are you to disenroll from TRICARE Prime for a different type of health plan in the next 12 months?
H02058	Not counting when you were sick or pregnant, when was the last time you had a general medical or physical examination or checkup?
H02059	When did you last have a blood pressure reading?
H02060	Do you know if your blood pressure is too high?
H02061	When did you last have a cholesterol screening, that is, a test to determine the level of cholesterol in your blood?
H02062	When did you last have a flu shot?
H02063	Have you ever smoked at least 100 cigarettes in your entire life?
H02064	Do you now smoke everyday, some days or not at all?
H02065	How long has it been since you quit smoking cigarettes?
H02066	In the last 12 months, on how many visits were you advised to quit smoking by a doctor or other health provider in your plan?
H02067	Are you male or female?
H02068	When was the last time you had a prostate gland examination or blood test for prostate disease?
H02069	When did you last have a Pap smear test?
H02070	Are you under age 40?
H02071	When was the last time your breasts were checked by mammography?
H02072	When was the last time you had a breast exam by a health care professional?
H02073	Have you been pregnant in the last 12 months or are you pregnant now?
H02074	In what trimester is your pregnancy?
H02075	In which trimester did you first receive prenatal care?
H02076	In general, how would you rate your overall health plan?
H02077	Are you of Hispanic or Latino origin or descent?

SREDA	What is the highest grade or level of school that you have completed – 8th grade or less?
SRRACEA	What is your race - White?
SRRACEB	What is your race - Black or African American?
SRRACEC	What is your race - American Indian or Alaska Native?
SRRACED	What is your race - Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, or Vietnamese)?
SRRACEE	What is your race - Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)?
SRAGE	What is your age now?
	QUARTER 1 : SUPPLEMENTAL VARIABLES
S02S01	Overall, how would you rate your health during the past four weeks?
S02S02	During the past four weeks, how much did physical health problems limit your usual physical activities?
S02S03	During the past four weeks, how much difficulty did you have doing your daily work, both at home and away from home because of your physical health?
S02S04	How much bodily pain have you had during the past four weeks?
S02S05	During the past four weeks, how much energy did you have?
S02S06	During the past four weeks, how much did your physical health or emotional problems limit your social activities with family or friends?
S02S07	During the past four weeks, how much have you been bothered by emotional problems?
S02S08	During the past four weeks, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities?
S02S09	Compared to one year ago, how would you rate your health in general now?
S02L01	Before receiving this survey, were you aware of TRICARE for Life?
S02L02	How much of a problem, if any, is it to understand your health benefits under TRICARE for Life?
S02L03A	What additional information about TRICARE for Life would you like to have? – What is covered?
S02L03B	What additional information about TRICARE for Life would you like to have? – Who is eligible?
S02L03C	What additional information about TRICARE for Life would you like to have? – How your doctor gets paid?
S02L03D	What additional information about TRICARE for Life would you like to have? – How TRICARE affects VA benefits?
S02L03E	What additional information about TRICARE for Life would you like to have? – Whether private insurance should be dropped?
S02L03F	What additional information about TRICARE for Life would you like to have? – Where to get help or information?
S02L03G	What additional information about TRICARE for Life would you like to have? – How to make sure you are eligible?
S02L03H	What additional information about TRICARE for Life would you like to have? – Which doctors you can see?

S02L03I	What additional information about TRICARE for Life would you like to have? – Do not need additional information.
S02L04A	How helpful were the following sources of information about your benefits under TRICARE for Life? – TRICARE benefits counselor or advisor
S02L04B	How helpful were the following sources of information about your benefits under TRICARE for Life? – TRICARE toll-free phone number
S02L04C	How helpful were the following sources of information about your benefits under TRICARE for Life? – Medicare or Social Security
S02L04D	How helpful were the following sources of information about your benefits under TRICARE for Life? – Your primary doctor
S02L04E	How helpful were the following sources of information about your benefits under TRICARE for Life? – TRICARE website
S02L04F	How helpful were the following sources of information about your benefits under TRICARE for Life? – Direct mailings from TRICARE
S02L04G	How helpful were the following sources of information about your benefits under TRICARE for Life? – Military publication
S02L04H	How helpful were the following sources of information about your benefits under TRICARE for Life? – Civilian retiree publication
S02L04I	How helpful were the following sources of information about your benefits under TRICARE for Life? – Other
S02L05	On which of the sources listed in Question 92 did you rely most for information about TRICARE for Life?
S02L06	As a result of the new benefits under TRICARE for Life, did you enroll in Medicare Part B?
S02L07	As a result of your new benefits under TRICARE for Life, did you drop a Medigap (private Medicare supplement) insurance policy or other private health insurance policy?
S02L08	As a result of your new benefits under TRICARE for Life, did you disenroll from a civilian HMO?
S02L09	Under TRICARE for Life, where do you plan to get most of your health care?
S02L10	Since October 1, 2001, have you received medical care from civilian sources (other than prescription drugs)?
S02L11	Did any health care provider ask for payment from you at the time of service for medical care you received since October 1, 2001?
S02L12	A bill is a request for payment for services received. Did you get a bill or bills for medical care you received since October 1, 2001 that you thought should have been covered by both Medicare and TRICARE?
S02L13A	How have you responded to the bill or bills? – Paid or intend to pay bill
S02L13B	How have you responded to the bill or bills? – Ignoring bill
S02L13C	How have you responded to the bill or bills? – Have contacted or intend to contact provider
S02L13D	How have you responded to the bill or bills? – Have contacted or intend to contact TRICARE
S02L13E	How have you responded to the bill or bills? – Have contacted or intend to contact Medicare
S02L14	Has the billing matter been resolved to your satisfaction?

S02L15	As a result of your new benefits under TRICARE for Life and TRICARE Senior Pharmacy, did you change the type of pharmacy where you get prescription drugs?
S02L16	Since April 1, 2001 at what type of pharmacy have you filled most of your prescriptions?
S02L17	Please indicate the extent to which you agree or disagree with the following statement about TRICARE for Life: I am satisfied with my TRICARE for Life benefits.
	QUARTER 2 : SUPPLEMENTAL VARIABLES
S02C01	Is this person a general doctor, a specialist doctor, a physician assistant, or a nurse?
S02C02	How many months or years have you been going to your personal doctor or nurse?
S02C03	Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?
S02C04	Does your personal doctor or nurse understand how any health problems you have affect your day-to-day life?
S02C05	In the last 12 months, how many times did you go to specialists for care for yourself?
S02C06	In the last 12 months, were any decisions made about your health care?
S02C07	In the last 12 months, how often were you involved as much as you wanted in these decisions about your health care?
S02C08	In the last 12 months, how much of a problem, if any, was it to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?
S02C09	Use any number from 0 to 10 where 0 is the worst healthcare possible, and 10 is the best healthcare possible. How would you rate all of your healthcare?
S02C10	In the last 12 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?
S02C11	In the last 12 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?
S02C12	In the last 12 months, how much of a problem, if any, was it to get the special therapy you needed through your health plan?
S02C13	In the last 12 months, did you need someone to come into your home to give you home health care or assistance?
S02C14	In the last 12 months, how much of a problem, if any, was it to get the care or assistance you needed through your health plan?
S02C15	Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?
S02C16	Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?
S02C17	Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?
S02C18	We want to know your rating of how well your health plan has done in providing the equipment, services, and help you need.
S02C19	In the last 12 months, have you been a patient in a hospital overnight or longer?
S02C20	Do you now have any physical or medical conditions that have lasted for at least 3 months? [Women: DO NOT include pregnancy.]

S02C21	In the last 12 months, have you seen a doctor or other health provider more than twice for any of these conditions?
S02C22	Have you been taking prescription medicine for at least 3 months for any of these conditions?
S02E01	In the past 12 months, have you received any eyewear from a military treatment facility?
S02E02	Did you receive your eyewear as soon as you wanted?
S02E03	In the past 12 months, how much of a problem, if any, was it to get eyeglass frames that you considered appealing, from a military treatment facility?
S02E04	In the past 12 months, how much of a problem, if any, was it to get eyeqear or eyeglasses that had the correct prescription?
S02E05	In the past 12 months, how much of a problem, if any, was it to get eyeglass frames that properly fit you?
S02E06	Do you wear "Frame of Choice" eyewear?
S02E07	Is your "Frame of Choice" your preferred military eyewear?
S02E08	What is the most important factor in your decision to use military-issue eyewear or eyeglasses?
S02E09	Would you recommend military-issue eyeglasses to your family and friends?
	QUARTER 3 : SUPPLEMENTAL VARIABLES
S02D01	In the last 12 months, did you get care from a dentist's office or dental clinic?
S02D02	In the last 12 months, how many times did you go to a dentist's office or dental clinic for care for yourself?
S02D03	How would you rate your dental care?
S02M01	In the last 12 months, did you need any treatment or counseling for a personal or family problem?
S02M02	In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?
S02M03	How would you rate your treatment or counseling?
S02P01	In the last 12 months, did you get any new prescription medicine or refill a prescription?
S02P02	In the last 12 months, how much of a problem, if any, was it to get your prescription medicine from your health plan?
S02P03	In the last 12 months, how often did you get the prescription medicine you needed from your health plan?
S02X01	In general, how would you rate your overall mental or emotional health now?
S02X02	How would you rate your life overall right now?
	QUARTER 4 : SUPPLEMENTAL VARIABLES
S02T01	How much do you feel you know about what medical services TFL covers or does not cover?
S02T02	How much do you feel you know about how much you have to pay for medical services?
S02T03	How much do you feel you know about supplemental or Medigap coverage such as what it covers or how it works with TRICARE for Life to pay medical claims?
S02T04	How much do you feel you know about getting medical services at a MTF?

S02T05	How much do you feel you know about choosing or finding a doctor or other health care provider?
S02T06	In the past 12 months, how much of your healthcare, other than prescription drugs, did you get from MTFs?
S02T07	In the past 12 months, how many times did you visit a doctor's office, clinic or emergency room at a MTF?
S02T08	In the past 12 months, how many nights did you stay overnight as a patient at a MTF?
S02T09A	In the past 12 months, did you use a MTF for emergency care from an emergency room?
S02T09B	In the past 12 months, did you use a MTF for urgent care from someplace other than an emergency room?
S02T09C	In the past 12 months, did you use a MTF preventive care, such as a prostate exam or a breast exam?
S02T09D	In the past 12 months, did you use a MTF for routine care, such as a physical check-up?
S02T09E	In the past 12 months, did you use a MTF for hospital care in which you stayed overnight at a MTF?
S02T09F	In the past 12 months, did you use a MTF for labs and x-rays?
S02T09G	In the past 12 months, did you use a MTF for surgery or diagnostic procedures that did not require an overnight stay?
S02T09H	In the past 12 months, did you use a MTF for care from a specialist?
S02T10	In the past 12 months, where have you gotten most of your prescriptions filled?
S02T11	In the 12 months before TRICARE for Life became available (before October 1, 2001), how much of your healthcare, other than prescription drugs, did you get from MTFs?
S02T12	In the past 12 months (after October 1, 2001), how much of a problem was it to get as much healthcare as you wanted from MTFs?
	SURVEY FIELDING VARIABLES
FLAG_FIN	Final Disposition
DUPFLAG	Multiple Response Indicator
	CODING SCHEME FLAGS AND COUNTS
N1	Coding Scheme flag for Note 1
N2	Coding Scheme flag for Note 2
N3	Coding Scheme flag for Note 3
N4	Coding Scheme flag for Note 4
N5	Coding Scheme flag for Note 5
N6	Coding Scheme flag for Note 6
N7	Coding Scheme flag for Note 7
N8	Coding Scheme flag for Note 8
N9	Coding Scheme flag for Note 9
N10	Coding Scheme flag for Note 10
N11	Coding Scheme flag for Note 11
N12	Coding Scheme flag for Note 12

N13	Coding Scheme flag for Note 13
N14	Coding Scheme flag for Note 14
N15	Coding Scheme flag for Note 15
N22	Coding Scheme flag for Note 22
N24	Coding Scheme flag for Note 24
N25A	Coding Scheme flag for Note 25A
N25B	Coding Scheme flag for Note 25B
N25C	Coding Scheme flag for Note 25C
N26	Coding Scheme flag for Note 26
N27	Coding Scheme flag for Note 27
N28	Coding Scheme flag for Note 28
N29	Coding Scheme flag for Note 29
N30	Coding Scheme flag for Note 30
N31	Coding Scheme flag for Note 31
N32	Coding Scheme flag for Note 32
N33	Coding Scheme flag for Note 33
N34	Coding Scheme flag for Note 34
N35	Coding Scheme flag for Note 35
MISS_1	Count of skip pattern violations
MISS_4	Count of incomplete grid errors
MISS_5	Count of scalable response of “don’t know” or “not sure”
MISS_6	Count of not applicable/valid skips
MISS_7	Count of out-of-range errors
MISS_8	Count of multiple response errors
MISS_9	Count of no response (invalid skip)
MISS_TOT	Total number of missing responses
CONSTRUCTED VARIABLES	
QUARTER	Survey Quarter
XENRLLMT	Beneficiary’s enrollment status in TRICARE Prime
XENR_PCM	TRICARE Enrollment by PCM type
XINS_COV	Insurance Coverage
XQENROLL	TRICARE Enrollment according to questionnaire responses
XREGION	Beneficiary’s regional assignment (15 regions and unassigned)
CONUS	CONUS/OCONUS Indicator
OUTCATCH	Out of catchment area Indicator
XSEXA	Beneficiary’s sex- Male or Female
XBNFGRP	Beneficiary group with population age 65 and over excluded from Active Duty and Family Members of Active Duty

KDISENRL	Intention to disenroll, coded as binary form 1 / 2
KMILOFFC	Waited more than 15 minutes at military facility, coded in binary form 1 / 2
KCIVOFFC	Waited more than 15 minutes at civilian facility, coded in binary form 1 / 2
KBGPRB1	Big problem getting referrals to a specialist coded in binary form 1 / 2
KBGPRB2	Big problem getting necessary care coded in binary form 1 / 2
KMILOPQY	Outpatient visits to military facility
KCIVOPQY	Outpatient visits to civilian facility
KCIVINS	Beneficiary is covered by civilian insurance
KPRSCPTN	7 or more civilian prescriptions filled by military pharmacy, coded in binary form ½
KBRSTCR	Women age 40 and older who have ever had a mammogram and a breast exam
HP_PRNTL	If pregnant in the last year, received prenatal care in first trimester, coded in binary form 1 / 2
HP_MAMOG	Women age 40 and over, had a mammogram within past 2 years, coded in binary form 1 / 2
HP_MAM50	Women age 50 and over, had a mammogram within past 2 years, coded in binary form 1 / 2
HP_PAP	For all women, had a pap smear in last 3 years, coded in binary form 1 / 2
HP_BP	Had a blood pressure check in last 2 years and know results, coded in binary form 1 / 2
HP_FLU	For persons age 65 and older, had a flu shot in last 12 months, coded in binary form 1 / 2
HP_PROS	For men age 50 and over, had a prostate exam within last 12 months, coded in binary form 1 / 2
HP_GP	Had a general medical or physical examination or checkup in the last 12 months.
HP_BRST	For all women age 40 and older, had a breast physical exam in the past 12 months.
HP_CHOL	Had a cholesterol screening in the past 5years.
HP_SMOKE	For all current adult smokers and those who quit smoking within the past year, were advised to quit smoking by a health provider in the past 12 months
HP_SMOKH	Smoker under HEDIS definition
HP_CESS	Had smoking cessation counseling
SF8PF	Physical Functioning
SF8RP	Role Physical
SF8BP	Bodily Pain
SF8GH	General Health
SF8VT	Vitality
SF8SF	Social Functioning
SF8RE	Role Emotional
SF8MH	Mental Health
PCS_8	Physical Health Summary
MCS_8	Mental Health Summary
KMID_H	Below Median Physical Health

KMID_MH	Below Median Mental Health
	WEIGHTS
BWT	Basic Sampling Weight
ADJ_CELL	Adjusted STRATUM Cell
WRWT	Final weight
WRWT1-WRWT60	Replicated/Jackknife weight 1-60
CWRWT	Combined Annual Weights
CWRWT1-240	Combined Replicate Weights 1-240

Weighting procedures are discussed in section 3.E.

2. Variable Naming Conventions

To preserve continuity with survey data from previous years, MPR followed the same variable naming conventions for the core questions used for the 1996, 1997, 1998, 1999, and 2000 survey data with a few exceptions. Variable naming conventions for the 2002 Adult HCSDB core and supplemental questions, shown in Table 3.2 correspond to those of previous years. The suffix "__O" will be used to distinguish the original version of the variable from the recoded version. The public use files for the adult survey will contain only recoded variables.

Variables created from most survey questions begin with the character "H". Thenext two characters are the third and fourth digits of the survey year. A small number of self-reputed demographic variables begin with the characters "SR".

Each quarter, the questionnaire includes a battery of questions on specific health care topics concerning services offered to MHS beneficiaries. Supplemental questions contain the same number of alphanumeric characters as the core questions; each variable begins with an "S" to distinguish it as a supplemental question.

3. Missing Value Conventions

The 2002 conventions for missing variables are the same as the 2000 conventions. All missing value conventions used in the 2002 HCSDB are shown in Table 3.3

TABLE 3.2

NAMING CONVENTIONS FOR 2002 HCSDB VARIABLES – QUARTERS I-IV
(VARIABLES REPRESENTING SURVEY QUESTIONS)

1st Character: Survey Type	2nd – 3rd Characters: Survey Year	4th – 6th Characters: Question #	Additional Characters: Additional Information
H= Health Beneficiaries (18 and older, Adult Questionnaire) --- S = Supplemental Question	02	001 to 077 --- Quarter 1 S01-S09 – Supplemental questions using the SF-8 battery of health status questions. L01-L17 – Supplemental questions on awareness and use of TRICARE For Life by beneficiaries age 65 and over who enroll in Medicare Part B. Quarter 2 CO1-C22 – Supplemental questions on specialists and special therapy E01 – E09 – Supplemental questions on eyeglasses and eyewear Quarter 3 D01 – D03 Supplemental questions on dental care M01 – M03 Supplemental questions on mental well-being. P01 – P03 Supplemental questions on prescription drugs X01- X02 Supplemental questions on overall health Quarter 4 T01 – T12 Supplemental questions on TRICARE for LIFE	A to O are used to label responses associated with a multiple response question _O denotes an original version of a recoded variable ---

1st Characters: Variable Group	Additional Characters: Additional Information
SR=Self-reported demographic data	Descriptive text, e.g., SREDA
N=Coding scheme notes	Number referring to Note, e.g., N2
X=Constructed independent variable	Descriptive text, e.g., XREGION
HP=Constructed *Healthy People 2010* variable	Descriptive text, e.g., HP_BP (had blood pressure screening in past two years and know the results)
K=Constructed dependent variables	Descriptive text, e.g., KMILOPQY (total number of outpatient visits to military facility)
SF8=SF8 Health status variables	Descriptive text, e.g., SF8 MH (mental health score)

TABLE 3.3

CODING OF MISSING DATA AND "NOT APPLICABLE" RESPONSES

ASCII or Raw Source Data	Edited and Cleaned SAS Data	Description
Numeric	Numeric	
-9	.	No response
-8	.A	Multiple response error
-7	.O	Out of range error
-6	.N	Not applicable or valid skip
-5	.D	Scalable response of "Don't know" or "Not sure"
-4	.I	Incomplete grid error
-1	.C	Question should have been skipped, not answered
	.B	No survey received

B. CLEANING AND EDITING

Data cleaning and editing procedures ensure that the data are free of inconsistencies and errors. Standard edit checks include the following:

- Checks for multiple surveys returned for any one person
- Checks for multiple responses to any question that should have one response
- Range checks for appropriate values within a single question
- Logic checks for consistent responses throughout the questionnaire

We computed frequencies and cross tabulations of values at various stages in the process to verify the accuracy of the data. Data editing and cleaning proceeded in the following way:

1. Scan Review

NRC spot checked the scanned results from the original survey to verify the accuracy of the scanning process and made any necessary corrections by viewing the returned survey.

2. Additional NRC Editing and Coding

In preparing the database for MPR, NRC used variable names and response values provided by MPR in the annotated questionnaires (see Appendix A). NRC delivered to MPR a database in SAS format. In this database, any questions with no response were encoded with a SAS missing value code of '.'. Also, as part of the scanning procedure, NRC entered the SAS missing value of '.A' for any question with multiple responses where a single response was required.

3. Duplicate or Multiple Surveys

At this stage, NRC delivered to MPR a file containing one record for every beneficiary in the sample, plus additional records for every duplicate survey or multiple surveys received from any beneficiary. These duplicates and multiples were eliminated during record selection, and only the most complete questionnaire in the group was retained in the final database. Record selection is discussed in Section 3.C.

4. Removal of Sensitive or Confidential Information

The file that MPR received from NRC contained sensitive information such as Social Security Number (SSN). Any confidential information was immediately removed from the file. Each beneficiary had already been given a generic ID (MPRID) substitute during sample selection, the MPRID was retained as a means to uniquely identify each individual.

5. Initial Frequencies

MPR computed frequencies for all fields in the original data file. These tabulations served as a reference for the file in its original form and allowed comparison to final frequencies from previous years, helping to pinpoint problem areas that needed cleaning and editing. MPR examined these frequencies and cross-tabulations, using the results to adapt and modify the cleaning and editing specifications as necessary.

6. Data Cleaning and Recoding of Variables

MPR's plan for data quality for each quarter is found in the 2002 Adult Coding Scheme. It contains detailed instructions for all editing procedures used to correct data inconsistencies and errors. The Coding Scheme tables are found in Appendix C. These tables outline in detail the approach for recoding self-reported fields, doing range checks, logic checks, and skip pattern checks to ensure that responses are consistent throughout the questionnaire. The Coding Scheme tables specify all possible original responses and any recoding, also indicating if backward coding or forward coding was used. Every skip pattern is assigned a note number shown in the annotated questionnaire (Appendix A). This note number defines the flag (for example, the Note 5 flag is N5) that is set to indicate the pattern of the original responses and any recoding. Thus, if the value of N5 is 2, the reader can look at line 2 in the Note 5 table for the original and recoded response values.

The SAS program implementing the coding scheme is found in Appendix G.

a. Check Self-Reported Fields

Several survey questions seek information that can be verified with DEERS data and/or sampling variables. Nevertheless, in recoding these self-reported fields (such as sex, active duty status, and TRICARE enrollment) we used the questionnaire responses unless they were missing; in which case, we used the DEERS data. For example, if the question on the sex of the beneficiary was not answered, the recoded variable for self-reported sex was not considered missing but was given the DEERS value for gender. If there was any disagreement between questionnaire responses and DEERS data, the questionnaire response generally took precedence.

In many tables and charts in the reports, the DEERS information was used rather than the recoded self-reported information for active duty status and TRICARE enrollment.

b. Skip Pattern Checks

At several points in the survey, the respondent should skip certain questions. If the response pattern is inconsistent with the skip pattern, each response in the series will be checked to determine which are most accurate, given the answers to other questions. Questions that are appropriately skipped were set to the SAS missing value of '.N'. Inconsistent responses, such as answering questions that should be skipped or not answering questions that should be answered, were examined for patterns that could be resolved. Frequently, responses to subsequent questions provide the information needed to infer the response to a question that was left blank. The 2002 Adult Coding Scheme (see Appendix C) specifically addresses every skip pattern and shows the recoded values for variables within each pattern; we back coded and/or forward coded to ensure that all responses are consistent within a sequence.

c. Missing Values

NRC initially encoded any question with missing responses to a SAS missing value code of '.'. After verifying skip patterns, MPR recoded some of these responses to reflect valid skips (SAS missing value code of '.N'). The complete list of codes for types of missing values such as multiple responses, incomplete grids, and questions that should not have been answered is shown in Table 3.3.

Occasionally, missing questionnaire responses can be inferred by examining other responses. For example, if a respondent fails to answer Question 20 about getting advice or help over the phone from his/her doctor's office or clinic, but goes on to answer how often he/she received help or advice, then we assume that the answer to Question 21 should have been "yes". Using this technique, we recoded some missing questionnaire responses to legitimate responses.

d. Multiple Response Errors

If a respondent gives more than one answer to a question that should have only one answer, the response to that question was generally coded with a SAS missing value of '.A'. Using an approach similar to that used for missing values, we examined other questionnaire responses in an attempt to infer what the respondent intended for those questions with multiple marks. For example, if there are multiple responses to H02020 "In the last 12 months, did you call a doctor's office or clinic *during regular office hours* to get help or advice *for yourself*?" and the response to H02021 indicates that the respondent usually got the medical advice they needed for themselves, we assume that the response to H02020 should have been "yes".

e. Logic Checks

Most logic problems are due to inconsistent skip patterns, for example, when a male answers a question intended for women only. Other internal inconsistencies were resolved in the same manner as skip pattern inconsistencies — by looking at the answers to all related questions. For instance, several questions related to smoking were examined as a group to determine the most appropriate response pattern so that any inconsistent response could be reconciled to the other responses in the group.

7. Quality Assurance

MPR created an edit flag for each Coding Scheme table that indicates what, if any, edits were made in the cleaning and editing process. This logic was also used in previous years; variables such as N5 (see Appendix C) indicate exactly what pattern of the Coding Scheme was followed for a particular set of responses. These edit flags have a unique value for each set of original and recoded values, allowing us to match original values and recoded values for any particular sequence.

In order to validate the editing and cleaning process, MPR prepared cross-tabulations between the original variables and the recoded variables with the corresponding edit flag. This revealed any discrepancies that needed to be addressed. In addition, we compared unweighted frequencies of each variable with the frequencies from the original file to verify that each variable was accurately recoded. MPR reviewed these tabulations for each variable in the survey. If necessary, the earlier edit procedures were modified and the Coding Scheme program rerun. The resulting file was clean and ready for analysis.

C. RECORD SELECTION

To select final records, we first defined a code that classifies each sampled beneficiary as to his/her final response status. To determine this response status, we used postal delivery information provided by NRC for each sampled beneficiary. This information is contained in the FLAG_FIN variable which is described in Table 3.4

TABLE 3.4

FLAG_FIN VARIABLE FOR 2002 HCSDB

Value	Questionnaire Return Disposition	Reason/Explanation Given	Eligibility
1	Returned survey	Completed and returned	Eligible
2	Returned ineligible	Returned with at least one question marked and information that the beneficiary was ineligible	Ineligible
3	Returned blank	Information sent that beneficiary is temporarily ill or incapacitated	Eligible
4	Returned blank	Information sent that beneficiary is deceased	Ineligible
5	Returned blank	Information sent that beneficiary is incarcerated or permanently incapacitated	Ineligible
6	Returned blank	Information sent that beneficiary left military, or divorced after reference date, or retired	Eligible
7	Returned blank	Information sent that beneficiary was not eligible reference date	Ineligible
8	Returned blank	Blank form accompanied by reason for not participating	Eligible
9	Returned blank	No reason given	----
10	No return	Temporarily ill or incapacitated. Information came in by phone	Eligible
11	No return	Active refuser. Information came in by phone	Eligible
12	No return	Deceased. Information came in by phone	Ineligible
13	No return	Incarcerated or permanently incapacitated. Information came in by phone	Ineligible
14	No return	Left military or divorced after reference date, or retired. Information came in by phone	Eligible
15	No return	Not eligible on reference date. Information came in by phone	Ineligible
16	No return	Other eligible. Information came in by phone	Eligible
17	No return	No reason	---
18	PND	No address remaining	---
19	PND	Address remaining at the close of field	---
20	Original Non-Locatable	No address at start of mailing	---
21	No return or returned blank	Written documentation declining participation, no reason given	Eligible
22	No return or returned blank	Hospitalized but no indication if temporary or permanent	---
23	Returned blank	Deployed	Eligible
24	No return	Deployed	Eligible

Using the above variables in Table 3.4, we classified all sampled beneficiaries into four groups:

- **Group 1**: Eligible, Questionnaire Returned. Beneficiaries who were eligible for the survey and returned a questionnaire with at least one question answered (FLAG_FIN = 1)
- **Group 2:** Eligible, Questionnaire Not Returned (or returned blank). Beneficiaries who did not complete a questionnaire but who were determined to be eligible for military health care by the reference date, that is, not deceased, not incarcerated, not permanently hospitalized (FLAG_FIN = 3, 6, 8, 10, 11, 14, 16, 21, 23, 24)

- **Group 3:** Ineligible Beneficiaries who were ineligible because of death, institutionalization, or no longer being in the MHS as of the reference date (FLAG_FIN = 2, 4, 5, 7, 12, 13, 15)
- **Group 4:** Eligibility Unknown. Beneficiaries who did not complete a questionnaire and for whom survey eligibility could not be determined (FLAG_FIN = 9, 17, 18, 19, 20, 22)

Group 1 was then divided into two subgroups according to the number of survey items completed (including legitimate skip responses):

- G1-1. Complete Questionnaire Returned
- G1-2. Incomplete Questionnaire Returned

G1-1 consists of eligible respondents who answered “enough” questions to be classified as having completed the questionnaire. G1-2 consists of eligible respondents who answered only a few questions. To determine if a questionnaire is complete, 29 key questions were chosen. These key questions were adapted from the complete questionnaire rule for the CAHPS 2.0. The key survey variables are: H02006, H02008, H02009, H02010, H02011, H02012, H02013, H02015, H02017, H02018, H02020, H02021, H02022, H02025, H02026, H02028, H02029, H02030, H02032, H02039, H02041, H02047, H02049, H02054, H02056, H02077, S02S01, SREDA, and SRRACE. If fifteen or more of these key items are completed, then the questionnaire can be counted as complete.

Furthermore, we also subdivided Group 4 into the following:

- G4-1 for Locatable-blank return/no reason or no return/no reason (FLAG_FIN = 9, 17, 22)
- G4-2 for Nonlocatable-postal nondeliverable/no address, postal nondeliverable/had address, or original nonlocatable (FLAG_FIN = 18, 19, 20).

With this information, we can calculate the location rate (see Section 4.A).

With a code (FNSTATUS) for the final response/eligible status, we classified all sampled beneficiaries using the following values of FNSTATUS:

- 11 for G1-1
- 12 for G1-2
- 20 for Group 2
- 30 for Group 3
- 41 for G4-1
- 42 for G4-2

There were 132 duplicate questionnaires (Quarters I-IV) in the data set NRC delivered. All duplicates were classified into one of the above six groups. We then retained the one questionnaire for each beneficiary that had the most "valid" information for the usual record selection process. For example, if two returned questionnaires from the same beneficiary have FNSTATUS code values of 11, 12, 20, 41, or 42, we retained the questionnaire with the smaller value. However, if one of a pair of questionnaires belongs to Group 3 (FNSTATUS = 3, i.e., ineligible), then we regarded the questionnaire as being ineligible.

Only beneficiaries with FNSTATUS = 11 were retained. All other records were dropped. In Quarters I-IV, we retained 13,063 respondents.

D. CONSTRUCTED VARIABLES

One of the most important aspects of database development is the formation of constructed variables and scale variables to support analysis. Constructed variables are formed when no single question in the survey defines the construct of interest. In Table 3.1 there is a list of all constructed variables for 2002.

1. Demographic Variables

a. Region (XREGION)

Catchment area codes (CACSMPL) are used to classify beneficiaries into specific regions. The XREGION variable partitions all catchment areas into non-overlapped regions so that we can report catchment-level estimates in the catchment reports. The regions are defined as follows:

1 = Northeast

2 = Mid-Atlantic

3 = Southeast

4 = Gulfsouth

5 = Heartland

6 = Southwest

7,8 = Central

9 = Southern California

10 = Golden Gate

11 = Northwest

12 = Hawaii

13 = Europe

14 = Western Pacific Command (Asia)

15 = TRICARE Latin America

16 = Alaska

.= Unassigned (CACSMPL = 9999)

For the purposes of our analysis, Region 7 and Region 8 were combined.

```
/* XREGION -HEALTH CARE REGIONS */

IF CACSMPL IN ('0035', '0036', '0037', '0066', '0067', '0068', '0069', '0081', '0086', '0100',
              '0123', '0306', '0310', '0321', '0326', '0330', '0385', '0413', '6201', '9901')
              THEN XREGION= 1;
ELSE IF CACSMPL IN ('0089', '0090', '0091', '0092', '0120', '0121', '0122', '0124', '0335',
              '0432', '0433', '0378', '0387', '0508', '7143', '7286', '7294', '9902')
              THEN XREGION= 2;
ELSE IF CACSMPL IN ('0039', '0041', '0045', '0046', '0047', '0048', '0049', '0050', '0051',
              '0101', '0103', '0104', '0105', '0337', '0356', '0422', '0511', '9903')
              THEN XREGION= 3;
ELSE IF CACSMPL IN ('0001', '0002', '0003', '0004', '0038', '0042', '0043', '0073', '0074',
```

```
        '0107', '0297', '7139', '9904')
        THEN XREGION= 4;
ELSE IF CACSMPL IN ('0055', '0056', '0060', '0061', '0095', '9905')
        THEN XREGION= 5;
ELSE IF CACSMPL IN ('0013', '0062', '0064', '0096', '0097', '0098', '0109', '0110', '0112',
        '0113', '0114', '0117', '0118', '0338', '0363', '0364', '0365', '0366', '1587', '1592',
        '7236', '9906')
        THEN XREGION= 6;
ELSE IF CACSMPL IN ('0008', '0009', '0010', '0079', '0083', '0084', '0085', '0108', '9907')
        THEN XREGION= 7;
ELSE IF CACSMPL IN ('0031', '0032', '0033', '0053', '0057', '0058', '0059', '0075', '0076',
        '0077', '0078', '0093', '0094', '0106', '0119', '0129', '0252', '7200', '7293', '9908')
        THEN XREGION= 8;
ELSE IF CACSMPL IN ('0018', '0019', '0024', '0026', '0029', '0030', '0131', '0213', '0248', '5205',
        '9909')
        THEN XREGION= 9;
ELSE IF CACSMPL IN ('0014', '0015', '0028', '0235', '0250', '9910')
        THEN XREGION=10;
ELSE IF CACSMPL IN ('0125', '0126', '0127', '0128', '0395', '1646', '9911')
        THEN XREGION=11;
ELSE IF CACSMPL IN ('0052', '0280', '0287', '0534', '7043', '9912')
        THEN XREGION=12;
ELSE IF CACSMPL IN ('0606', '0607', '0609', '0617', '0618', '0623', '0624', '0629', '0633',
        '0635', '0653', '0805', '0806', '0808', '0814', '8931', '8982', '9913')
        THEN XREGION=13;
ELSE IF CACSMPL IN ('0610', '0612', '0620', '0621', '0622', '0637', '0638', '0639', '0640',
        '0802', '0804', '0853', '0862', '9914')
        THEN XREGION=14;
ELSE IF CACSMPL IN ('0449', '0613', '0615', '0616', '9915')
        THEN XREGION=15;
ELSE IF CACSMPL IN ('0005', '0006', '0203', '9916')
        THEN XREGION=16;
    ELSE IF CACSMPL = 9999
        THEN XREGION= .;
```

b. Continental United States (CONUS)

XREGION is used to classify beneficiaries either in the continental United States (CONUS) or overseas (OCONUS).

Assign indicator of CONUS based on XREGION. CONUS stands for Contential United States but it includes both Alaska and Hawaii.

```
IF     XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN CONUS=1;
ELSE IF XREGION IN (13,14,15)                THEN CONUS=0;
ELSE IF XREGION = .                          THEN CONUS=.;
```

c. Out of Catchment Area (OUTCATCH)

CACSMPL is used to classify beneficiaries either in a catchment area or outside a catchment area.

Assign indicator of OUTCATCH based on CACSMPL.

```
IF CACSMPL > 9900 THEN OUTCATCH=1;     /* Out of catchment area */
  ELSE OUTCATCH=0;                     /* Catchment area       */
```

d. Gender of Beneficiary (XSEXA)

XSEXA is constructed using self reported sex, gender identified on the DEERS database, and answers to gender specific questions.

```
/** Note 25 - gender H02067, SEX, H02068, H02069--H02075, XSEXA */

/* use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed MALE, FMALE based on gender specific questions */


  IF H02068 > 0 THEN MALE=1;     /* prostate */
  ELSE MALE = 0;
  IF H02069>0 OR H02070>0 OR H02071>0 OR H02072>0 OR H02073>0
    OR H02074>0 OR H02075>0  THEN FMALE=1; /* mammogram/pap
smear/PREGNANT*/
  ELSE FMALE = 0;
  IF H02067=. OR H02067=.A THEN DO;
    IF (SEX='F' AND MALE AND FMALE) THEN DO;
      N25A=1;
      XSEXA=2;
    END;
    ELSE IF (SEX='F' AND MALE=0 AND FMALE=0) THEN DO;
      N25A=2;
      XSEXA=2;
    END;
    ELSE IF (SEX='M' AND MALE AND FMALE) THEN DO;
      N25A=3;
      XSEXA=1;
    END;
    ELSE IF (SEX='M' AND MALE=0 AND FMALE=0) THEN DO;
      N25A=4;
      XSEXA=1;
    END;
    ELSE IF MALE AND NOT FMALE THEN DO;
      N25A=5;
      XSEXA=1;
    END;
    ELSE IF FMALE AND NOT MALE THEN DO;
      N25A=6;
      XSEXA=2;
    END;
    ELSE IF (SEX='Z' AND MALE AND FMALE) THEN DO;
      N25A=7;
      XSEXA=.;
    END;
    ELSE IF (SEX='Z' AND MALE=0 AND FMALE=0) THEN DO;
      N25A=8;
      XSEXA=.;
    END;
  END;
  ELSE IF (H02067=1) THEN DO;
    IF MALE AND NOT FMALE THEN DO;
      N25A=9;
      XSEXA=1;
    END;
```

```
    ELSE IF NOT MALE AND FMALE THEN DO;
      IF SEX='F' THEN DO;
        N25A=10;
        XSEXA=2;
      END;
      ELSE DO;
        N25A=11;
        XSEXA=1;
      END;
    END;
    ELSE IF MALE AND FMALE THEN DO;
      N25A=12;
      XSEXA=1;
    END;
    ELSE IF MALE=0 AND FMALE=0 THEN DO;
      N25A=13;
      XSEXA=1;
    END;
  END;
  ELSE IF (H02067=2) THEN DO;
    IF NOT MALE AND FMALE THEN DO;
     N25A=14;
     XSEXA=2;
    END;
    ELSE IF MALE AND NOT FMALE THEN DO;
      IF SEX='M' THEN DO;
       N25A=15;
       XSEXA=1;
      END;
      ELSE DO;
        N25A=16;
        XSEXA=2;
      END;
    END;
    ELSE IF MALE AND FMALE THEN DO;
      N25A=17;
      XSEXA=2;
    END;
    ELSE IF MALE=0 AND FMALE=0 THEN DO;
      N25A=18;
      XSEXA=2;
    END;
  END;
```

e. Beneficiary Group (XBNFGRP)

We redefined beneficiary groups to exclude active duty personnel and active duty family members who are age 65 or older. The variable XBNFGRP reconstructs beneficiary groups into the following values:

1 = Active Duty, under 65

2 = Family members of active duty, under 65

3 = Retirees, survivors, and family members, under 65

4 = Retirees, survivors, and family members, 65 or over

.= Unknown/other

```
/* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty
        and Family Members of Active Duty */
IF FIELDAGE  >= 65 AND ENBGSMPL IN (1, 2, 3, 4) THEN XBNFGRP = .;
  ELSE IF ENBGSMPL = 1 THEN XBNFGRP = 1
  ELSE IF ENBGSMPL IN (2, 3, 4) THEN XBNFGRP = 2;
  ELSE IF ENBGSMPL IN (5, 6, 7) THEN XBNFGRP = 3;
  ELSE IF ENBGSMPL IN (8, 9, 10) THEN XBNFGRP = 4;
```

2. TRICARE Prime Enrollment and Insurance Coverage

a. TRICARE Prime Enrollment Status (XENRLLMT)

For reporting purposes, a person is considered enrolled in TRICARE Prime if they are under 65 and the poststratification enrollment type (ENBGSMPL), based on DEERS data, indicates that they were enrolled at the time of data collection. Because it is important to view the experiences of active duty personnel separately from other enrollees, there is a separate category for active duty (under 65) — they are automatically enrolled in Prime. The five categories for TRICARE Prime enrollment are as follows:

1 = Active duty, under 65

2 = Other enrollees, under 65

3 = Not enrolled in TRICARE Prime, under 65

4 = Not enrolled in TRICARE Prime, 65 or over

5 = Enrolled in TRICARE Prime, 65 or over

. = Unknown

```
 /* XENRLLMT--ENROLLMENT STATUS */
 IF 18 <= FIELDAGE < 65 THEN DO;
   IF ENBGSMPL = 1 THEN XENRLLMT = 1;                /*   Active duty (<65) */
   ELSE IF ENBGSMPL IN (2, 3, 5, 6) THEN XENRLLMT = 2;    /*    Non-active duty enrolled
(<65)*/
   ELSE IF ENBGSMPL IN (4, 7) THEN XENRLLMT = 3;        /*   Not Enrolled (<65)*/
 END;
 ELSE IF FIELDAGE  > = 65 THEN DO;
   IF ENBGSMPL = 10 THEN XENRLLMT = 4;               /*   Not Enrolled (65+)*/
   IF ENBGSMPL IN (8, 9) THEN XENRLLMT = 5;           /*   Enrolled (65+)    */
 END;
```

b. TRICARE Prime Enrollment Status by Primary Care Manager (XENR_PCM)

This variable, similar to the previous variable XENRLLMT, separates the 'other enrollees' category into those with a military primary care manager (PCM) and those with a civilian PCM. Active duty personnel are automatically enrolled and always have a military PCM. XENR_PCM has six possible values:

1 = Active duty, under 65, military PCM

2 = Other enrollees, under 65, military PCM

3 = Other enrollees, under 65, civilian PCM

4 = Not enrolled in TRICARE Prime, under 65

5 = Not enrolled in TRICARE Prime, 65 or over

6 = Enrolled in TRICARE Prime, 65 or over, military PCM

7 = Enrolled in TRICARE Prime, 65 or over, civilian PCM

. = Unknown

```
/* XENR_PCM--ENROLLMENT BY PCM TYPE */
IF 18 <= FIELDAGE < 65 THEN DO;
  IF ENBGSMPL = 1 THEN XENR_PCM = 1;            /*  Active duty (<65)       */
  ELSE IF ENBGSMPL IN (3, 6) THEN XENR_PCM = 2;  /*  Enrolled (<65) - mil PCM */
  ELSE IF ENBGSMPL IN (2, 5) THEN XENR_PCM = 3;  /*  Enrolled (<65) - civ PCM */
  ELSE IF ENBGSMPL IN (4, 7) THEN XENR_PCM = 4;  /*  Not Enrolled (<65)      */
END;
 ELSE IF FIELDAGE > = 65 THEN DO;
   IF ENBGSMPL = 10 THEN XENR_PCM = 5;          /*  Not Enrolled (65+)      */
   IF ENBGSMPL = 9 THEN XENR_PCM = 6;           /*  Enrolled (65+)-mil PCM  */
   IF ENBGSMPL = 8 THEN XENR_PCM = 7;           /*  Enrolled (65+)-civ PCM  */  /*NJ_Q2*/
 END;
```

c. TRICARE Prime Enrollment Status by PCM from Questionnaire Responses (XQENROLL)

The variable XQENROLL is analogous to the previous variable XENR_PCM but rather than using the DEERS information to determine enrollment, the responses to questions 12 and 13 are used to determine the status of the respondent according to the following categories:

1 = Active duty, under 65, military PCM

2 = Other enrollees, under 65, military PCM

3 = Other enrollees, under 65, civilian PCM

4- = Not enrolled in TRICARE Prime, under 65

5 = Not enrolled in TRICARE Prime, 65 or over

. = Unknown

If a respondent is unsure about their PCM, a default value comes from the poststratification variable (ENBGSMPL).

```
/* XQENROLL--ENROLLMENT ACCORDING TO QUESTIONNAIRE RESPONSES AND */
/* USING DEERS SAMPLING VALUES  */
IF ENBGSMPL = 1 AND 18 <= FIELDAGE < 65 THEN XQENROLL = 1;   /* Active Duty (<65)*/

  ELSE IF 18 <= FIELDAGE < 65 AND H02012 = 1 THEN DO;
    IF H02013 = 1 THEN XQENROLL = 2;              /*  Enrolled (<65) - mil PCM */
```

```
    ELSE IF H02013 = 2 THEN XQENROLL = 3;            /*  Enrolled (<65) - civ PCM */

    ELSE IF H02013 = 3 THEN DO;
      IF ENBGSMPL IN (3, 6) THEN XQENROLL = 2;       /* Enrolled (<65) - Mil PCM */
      ELSE IF ENBGSMPL IN (2, 5) THEN XQENROLL = 3;  /* Enrolled (<65) - Civ PCM */
    END;
  END;
  ELSE IF H02012 NE 1 THEN DO;
    IF 18 <= FIELDAGE < 65 THEN XQENROLL = 4;        /* Not enrolled (<65)   */
    ELSE IF FIELDAGE >= 65 THEN XQENROLL = 5;        /* Not enrolled (>=65) */
  END;
```

d. Most–Used Health Plan (XINS_COV)

The respondent's most–used health plan comes directly from Question 6 (unless the respondent is active duty). All active duty personnel are automatically enrolled in Prime. The eight categories for this variable are as follows:

1 = Active duty, under 65

2 = Other TRICARE Prime enrollees, under 65

3 = TRICARE Standard/Extra (CHAMPUS)

4 = Medicare Part A and/or Part B

5 = Other civilian health insurance or civilian HMO

6 = Prime, 65 or over

7 = TRICARE Plus and Medicare

8 = Veterans Administration (VA)

. = Unknown

```
/* XINS_COV--INSURANCE COVERAGE */
IF XENRLLMT = 1 THEN XINS_COV =1;                    /* Prime <65-Active Duty */
  ELSE IF 18 <= FIELDAGE  < 65 AND H02006 IN (1) THEN XINS_COV = 2; /* Prime <65-Non-active
Duty */
  ELSE IF H02006 = 3 THEN XINS_COV = 3;              /* Standard/Extra */
  ELSE IF H02006 = 11 THEN XINS_COV = 7;             /* Plus and Medicare */
  ELSE IF H02006 IN (4, 12) THEN XINS_COV = 4;       /* Medicare and TFL*/
  ELSE IF H02006 IN (5,6, 7, 8, 9) THEN XINS_COV = 5; /* Other civilian health insurance*/
  ELSE IF H02006 = 10 THEN XINS_COV = 8;             /* Veterans Administration (VA) */
  ELSE IF (FIELDAGE>= 65 AND XENRLLMT = 5 AND H002006 = 1) THEN XINS_COV = 6;
/* Prime, >= 65 */
ELSE IF H02003 = 1 AND H02004 = 1 AND H02006 NE.N THEN XINS_COV = 4; /*NEW Q2
Medicare/Medicaid */
```

e. Types of Coverage (KCIVINS)

A binary variable was created to indicate if the respondent is covered by Civilian insurance (KCIVINS).

This variables has the following values:

1 = Yes

2 = No

.= Unknown

```
/* KCIVINS--IS BENEFICIARY COVERED BY CIVILIAN INSURANCE */
IF H02002G=1 OR H02002I=1 OR H02002J=1 THEN KCIVINS=1;          /* YES  */
  ELSE KCIVINS=2;                                               /* NO   */
```

3. Satisfaction Measures

a. Enrollment Intentions (KDISENRL)

If a non-active duty respondent is enrolled in TRICARE Prime, he or she is asked about the likelihood of disenrolling (Question 57). A binary variable is created to group the responses to the enrollment questions into these categories:

1 = response of likely or very likely

2 = all other valid responses

. = missing response

```
/* KDISENRL--INTENTION TO DISNEROLL */
IF H02057  IN (4, 5) THEN KDISENRL = 1;                 /* Yes */
  ELSE IF H02057  IN (1, 2, 3, .D) THEN KDISENRL = 2;   /* No  */
```

4. Access to Care (KMILOFFC, KCIVOFFC, KBGPRB1, KBGPRB2)

Some of the survey questions on access relate to a TRICARE performance standard. For these questions, we constructed binary variables, separately for beneficiaries using military and civilian facilities, to approximate the TRICARE standard. Table 3.5 presents those standards that were analyzed in the reports. The new variables have the following values:

1 = Standard was met

2 = Standard was not met

= Missing information

TABLE 3.5

TRICARE STANDARDS FOR ACCESS

Access Measure	TRICARE Standard	Variable Name	Relevant Question
Waiting Room Wait	Within 15 minutes	KMILOFFC, KCIVOFFC	32

```
/* KMILOFFC--OFFICE WAIT MORE THAN 15 MINUTES AT MILITARY FACILITES
  KCIVOFFC--OFFICE WAIT MORE THAN 15 MINUTES AT CIVILIAN FACILITES */
IF H02041  = 1 THEN DO;                          /* Military */
  IF H02032  IN (3,4) THEN KMILOFFC = 1;          /* Yes */
  ELSE IF H02032  IN (1,2) THEN KMILOFFC = 2;     /* No  */
END;
  ELSE IF H02041 IN (2, 3, 4) THEN DO;           /* Civilian */
    IF H02032 IN (3,4) THEN KCIVOFFC = 1;         /* Yes */
    ELSE IF H02032  IN (1,2) THEN KCIVOFFC = 2;   /* No */
  END;
```

Question 16 asks how much of a problem, if any, it was to get a referral to a specialist. The responses to this question are regrouped by a binary variable KBGPRB1. KBGPRB1 looks at these two categories:

1 = Those who reported a “big problem”

2 = Those who reported not a “big problem”

. = Missing response

```
/* KBGPRB1--BIG PROBLEM GETTING REFERRALS TO SPECIALISTS */
IF H02016 = 1 THEN KBGPRB1 = 1;                  /* YES */
  ELSE IF H02016 IN (2,3) THEN KBGPRB1 = 2;       /* NO  */
```

Similarly, variable KBGPRB2 was constructed. Question 30 asks about how much of a problem, if any, it was to get the care you or a doctor believed necessary. The responses to this question are regrouped by a binary variable KBGPRB2. KBGPRB2 looks at these two categories:

1 = Those who reported a “big problem”

2 = Those who reported not a “big problem”

. = Missing response

```
/* KBGPRB2--BIG PROBLEM GETTING NECESSARY CARE */
IF H02030 = 1 THEN KBGPRB2 = 1;                  /* YES */
   ELSE IF H02030 IN (2,3) THEN KBGPRB2 = 2;     /* NO  */
```

5. Preventive Care (KBRSTCR, HP_PRNTL, HP_MAMOG, HP_MAM50, HP_PAP, HP_BP, HP_FLU, HP_PROS, HP_GP, HP_CHOL, HP_SMOKE, HP_BRST HP_SMOKH, HP_CESS)

As in some of the access analyses, preventive care analyses incorporated either a TRICARE standard or a federal Healthy People 2010 objective. We constructed new binary variables from the responses to indicate whether the respondent received the preventive care service within the recommended time period. See Table 3.6 for the list of the variables developed for analysis of

preventive care; these variables will be compared to the TRICARE standard or Healthy People 2010 Goal. The new variables have the following values:

1 = Received service within the recommended time period

2 = Did not receive service within the recommended time period

.= Missing information

```
/* KBRSTCR--WOMEN 40>=, EVER HAD MAMMOGRAM & EVER HAD BREAST EXAM */
IF XSEXA = 2 AND FIELDAGE  >= 40 THEN DO;
  IF (H02071 IN (5, 4, 3, 2) AND H02072 IN (5, 4, 3, 2)) THEN KBRSTCR = 1;   /* Yes */
  ELSE IF (H02071 = 1 OR H02072=1)  THEN KBRSTCR = 2;                  /* No */
END;

/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER
*/
IF H02073 IN (1,2) THEN DO;                              /*   Pregnant in last 12 months   */
  IF H02075 = 4 THEN HP_PRNTL = 1;                       /*   Yes   */
    ELSE IF (H02074 = 1 AND H02075 = 1) THEN HP_PRNTL = .;    /* <3 months pregnant now */
    ELSE IF H02075 IN (1,2,3) THEN HP_PRNTL = 2;           /*   No */
END;

/* HP_MAMOG--FOR WOMEN AGE 40 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS
*/
IF XSEXA = 2 AND FIELDAGE  >= 40 THEN DO;
  IF H02071 IN (5, 4) THEN HP_MAMOG = 1;          /* Yes */
  ELSE IF H02071 IN (1, 2, 3) THEN HP_MAMOG = 2;    /* No */
END;

/* HP_MAM50--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS
*/
IF XSEXA = 2 AND FIELDAGE  >= 50 THEN DO;
  IF H02071 IN (5, 4) THEN HP_MAM50 = 1;          /* Yes */
  ELSE IF H02071 IN (1, 2, 3) THEN HP_MAM50 = 2;    /* No */
END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
IF XSEXA = 2 THEN DO;
  IF H02069 IN (4, 5) THEN HP_PAP = 1;            /* Yes */
  ELSE IF H02069 IN (1, 2, 3) THEN HP_PAP = 2;      /* No  */
END;

/* HP_BP--HAD BLOOD PRESSURE SCREENING IN LAST 2 YEARS AND KNOW RESULT */
IF H02059 IN (2,3) AND H02060 IN (1,2) THEN HP_BP = 1;   /* Yes     */
  ELSE IF H02059 = 1 THEN HP_BP = 2;                /* No      */
  ELSE IF H02059 < 0 OR H02060 < 0 THEN HP_BP = .;      /* Unknown */
  ELSE HP_BP = 2;                                   /* No      */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
IF FIELDAGE >= 65 THEN DO;
  IF H02062 = 4 THEN HP_FLU = 1;                  /*   Yes */
  ELSE IF H02062 IN (1, 2, 3) THEN HP_FLU = 2;      /*   No  */
END;

/* HP_PROS--FOR MEN AGE 50 AND OVER, HAD PROSTRATE EXAM W/IN PAST 12
MONTHS */
```

```
IF XSEXA = 1 AND FIELDAGE  >= 50 THEN DO;
  IF H02068 = 5 THEN HP_PROS = 1;                /*   Yes */
  ELSE IF H02068 IN (1, 2, 3, 4) THEN HP_PROS = 2;   /*   No   */
END;

/* HP_GP--EXCEPT WHEN SICK OR PREGNANT, GENERAL PHYSICAL EXAM W/IN PAST 12
MONTHS */
IF H02058 = 5 THEN HP_GP = 1;                    /*   Yes    */
  ELSE IF H02058 IN (1, 2, 3, 4) THEN HP_GP = 2;    /*   No     */

/* HP_CHOL--HAD CHOLESTEROL SCREENING IN PAST 5 YEARS */
IF H02061 IN (3, 4, 5) THEN HP_CHOL = 1;           /*    Yes   */
  ELSE IF H02061 IN (1, 2) THEN HP_CHOL = 2;       /*    No    */

/* HP_SMOKE--ADVISED TO QUIT SMOKING IN PAST 12 MONTHS */
IF H02066 IN (2, 3, 4, 5) THEN HP_SMOKE = 1;       /*   Yes   */
  ELSE IF H02066 = 1 THEN HP_SMOKE = 2;            /*   No    */

/* HP_BRST--BREAST EXAM IN PAST 12 MONTHS */
IF XSEXA=2 AND FIELDAGE >= 40 THEN DO;
  IF H02072 = 5 THEN HP_BRST = 1;                /*   Yes   */
  ELSE IF H02072 IN (1, 2, 3, 4) THEN HP_BRST = 2;  /*   No    */
END;

/*HP_SMOKH—SMOKER UNDER HEDIS DEFINITION */
IF H02063 IN (1, 2) THEN DO;
  IF H02063 = 1 AND (H02064 = 3 OR H02064 = 4 OR
  (H02064 = 2 AND H02065 = 3)) THEN HP_SMOKH = 1;
  ELSE HP_SMOKH = 2;

/* HP_CESS—HAD SMOKING CESSATION COUNSELING */
IF HP_SMOKH = 1 AND H02029 >1 AND H02066 >0 THEN DO;
  IF H02066 >1 THEN HP_CESS = 1;
  ELSE HP_CESS = 2;
END;
```

TABLE 3.6

PREVENTIVE CARE STANDARDS

Preventive Care Delivered	Question Number – Q1	Variable Name	Received Service In Recommended Time Period (Numerator)	Population Involved (Denominator)	Standard
General Physical	58	HP_GP	Number with care in the past 12 months	Adults	None
Blood Pressure Check	59 & 60	HP_BP	Number with care in the past 24 months and know the results	Adults	95% within past 2 years
Cholesterol Screening	61	HP_CHOL	Number with care in the past 60 months	Adults	80% in the past 60 months
Flu Shot	62	HP_FLU	Number with care in the past 12 months	Adults age 65 and older	90% in past year, age 65 and over
Pap Smear	69	HP_PAP	Number with care in the past 36 months	Adult females	90% in the past 36 months
Mammography	71	HP_MAMOG	Number with care in the past 24 months	Females age 40 and over	70% in the past 24 months
Mammography	71	HP_MAM50	Number with care in the past 24 months	Females age 50 and over	60% in the past 24 months
Breast Exam	72	HP_BRST	Number with care in the past 12 months	Females age 40 and over	60% in the past 12 months
Prostate Exam	68	HP_PROS	Number with care in the past 12 months.	Males age 50 and over	All males age 50 and over an annual exam and PSA blood test
Smoking Counseling	66	HP_SMOKE	Number with care in the past 12 months	All current adult smokers and those who quit smoking within the past year	75% in past year
Prenatal Care	75	HP_PRNTL	Number with care in the first trimester	Currently pregnant adult females and all adult females who were pregnant in the past 12 months, excluding those less than 3 months pregnant who haven't received care	90% had care in first trimester

6. Utilization

a. Outpatient Utilization (KMILOPQY, KCIVOPQY)

Question 29 contains the total outpatient visits. This is called KMILOPQY and adjusted to reflect zero visits for those with no care or those who get their care from civilian facilities or KCIVOPQY, after similar adjustments for no care at civilian facilities.

```
/* KMILOPQY--OUTPATIENT VISITS TO MILITARY FACILITY
  KCIVOPQY--OUTPATIENT VISITS TO CIVILIAN FACILITY */
IF H02041 = 1 THEN DO;
  KMILOPQY=H02029;
  KCIVOPQY=1;
END;
ELSE IF H02041 IN  (2, 3, 4) THEN DO;
  KCIVOPQY=H02029;
  KMILOPQY=1;
END;
ELSE IF H02041 = 5 THEN DO;
  KMILOPQY=1;
  KCIVOPQY=1;
END;
```

b. Use of Military Pharmacies to Fill Civilian Prescriptions (KPRSCPTN)

KPRSCPTN is a binary variable created to indicate if a respondent had six or more prescriptions that were written by a civilian provider but were filled by a military pharmacy.

```
/* KPRSCPTN--6 OR MORE CIVILIAN PRESCRIPTIONS FILLED BY MILITARY PHARMACY */
IF H02040 IN (3,4,5) THEN KPRSCPTN = 1;      /* YES */
  IF H02040 IN (1,2) THEN KPRSCPTN = 2;     /* NO */
```

7. Health Status (SF8PF, SF8RP, SF8BP,SF8GH, SF8VT, SF8SF, SF8RE, SF8MH PCS_8, MCS_8, KMID_H, KMID_MH)

Results for the health status are reported in summary measure format using the system provided in the manual "SF-8: How to Score the SF-8 Physical and Mental Health Summary Scales" (Ware, Kosinski, and Keller 1995). The SF-8 scale is based on a battery of questions developed by the Medical Outcomes Trust. The summary scales measure physical and mental health components and eight health subscales including physical functioning, role-physical, bodily-pain, general health, vitality, social functioning, role-emotional and mental health. The SF-8 was administered in Quarter I, 2002.

```
  /* Physical Functioning - SF8PF */

  IF S02S02=5 THEN SF8PF=21.46;
    ELSE IF S02S02=4 THEN SF8PF=30.31;
    ELSE IF S02S02=3 THEN SF8PF=40.07;
    ELSE IF S02S02=2 THEN SF8PF=48.33;
    ELSE IF S02S02=1 THEN SF8PF=54.05;
    ELSE SF8PF=.;

  /* Role Physical - SF8RP */
```

```
IF S02S03=5 THEN SF8RP=23.01;
  ELSE IF S02S03=4 THEN SF8RP=28.32;
  ELSE IF S02S03=3 THEN SF8RP=38.71;
  ELSE IF S02S03=2 THEN SF8RP=46.92;
  ELSE IF S02S03=1 THEN SF8RP=53.98;
  ELSE SF8RP=.;

/* Bodily Pain - SF8BP */

IF S02S04=6 THEN SF8BP=25.45;
  ELSE IF S02S04=5 THEN SF8BP=31.48;
  ELSE IF S02S04=4 THEN SF8BP=40.07;
  ELSE IF S02S04=3 THEN SF8BP=47.67;
  ELSE IF S02S04=2 THEN SF8BP=53.35;
  ELSE IF S02S04=1 THEN SF8BP=60.77;
  ELSE SF8BP=.;

/* General Health - SF8GH */

IF S02S01=6 THEN SF8GH=22.81;
  ELSE IF S02S01=5 THEN SF8GH=32.56;
  ELSE IF S02S01=4 THEN SF8GH=38.41;
  ELSE IF S02S01=3 THEN SF8GH=46.43;
  ELSE IF S02S01=2 THEN SF8GH=52.83;
  ELSE IF S02S01=1 THEN SF8GH=59.45;
  ELSE SF8GH=.;

/* Vitality - SF8VT */

IF S02S05=5 THEN SF8VT=28.14;
  ELSE IF S02S05=4 THEN SF8VT=35.81;
  ELSE IF S02S05=3 THEN SF8VT=45.16;
  ELSE IF S02S05=2 THEN SF8VT=55.62;
  ELSE IF S02S05=1 THEN SF8VT=61.83;
  ELSE SF8VT=.;


/* Social Functioning - SF8SF */

IF S02S06=5 THEN SF8SF=23.44;
  ELSE IF S02S06=4 THEN SF8SF=29.53;
  ELSE IF S02S06=3 THEN SF8SF=40.41;
  ELSE IF S02S06=2 THEN SF8SF=49.47;
  ELSE IF S02S06=1 THEN SF8SF=55.25;
  ELSE SF8SF=.;

/* Role Emotional - SF8RE */

IF S02S08=5 THEN SF8RE=21.66;
  ELSE IF S02S08=4 THEN SF8RE=29.25;
  ELSE IF S02S08=3 THEN SF8RE=38.09;
  ELSE IF S02S08=2 THEN SF8RE=45.66;
  ELSE IF S02S08=1 THEN SF8RE=52.42;
  ELSE SF8RE=.;

/* Mental Health - SF8MH */
```

```
  IF S02S07=5 THEN SF8MH=21.40;
    ELSE IF S02S07=4 THEN SF8MH=31.62;
    ELSE IF S02S07=3 THEN SF8MH=41.53;
    ELSE IF S02S07=2 THEN SF8MH=49.59;
    ELSE IF S02S07=1 THEN SF8MH=56.79;
    ELSE SF8MH=.;
```

The final equations to create the physical health and mental health summary scores are listed below. The equations show the weighting and aggregation of indicator variables.

```
PCS_8 = (0.30544*SF8PF) + (0.49395*SF8RP) + (0.33962*SF8BP) + (0.20007*SF8GH) +
(0.10304*SF8VT) +
        (0.01253*SF8SF) + (0.03484*SF8RE) + (-0.29206*SF8MH) + (-9.36839);

MCS_8 = (-0.19183*SF8PF) + (-0.17030*SF8RP) + (-0.02507*SF8BP) + (0.03625*SF8GH) +
(0.25699*SF8VT) +
        (0.21312*SF8SF) + (0.37965*SF8RE) + (0.71838*SF8MH) + (-10.11675);
```

Many of the reports show the percentage of respondents whose health status measures fall below the national median after adjustments for age and gender (KMID_H, KMID_MH). These are binary variables where a value of 1 indicates that the condition is true and a values of 2 indicates that the condition if false.

```
IF (FIELDAGE < 18 OR XSEXA < 0 OR PCS_8 = .) THEN KMID_H=.;
/* BELOW MEDIAN PHYSICAL HEALTH - MALES */
    ELSE IF (18 <= FIELDAGE <= 24 AND XSEXA = 1 AND PCS_8 < 54.69) THEN KMID_H=1;
    ELSE IF (25 <= FIELDAGE <= 29 AND XSEXA = 1 AND PCS_8 < 54.41) THEN KMID_H=1;
    ELSE IF (30 <= FIELDAGE <= 34 AND XSEXA = 1 AND PCS_8 < 53.32) THEN KMID_H=1;
    ELSE IF (35 <= FIELDAGE <= 39 AND XSEXA = 1 AND PCS_8 < 53.71) THEN KMID_H=1;
    ELSE IF (40 <= FIELDAGE <= 44 AND XSEXA = 1 AND PCS_8 < 53.32) THEN KMID_H=1;
    ELSE IF (45 <= FIELDAGE <= 49 AND XSEXA = 1 AND PCS_8 < 51.89) THEN KMID_H=1;
    ELSE IF (50 <= FIELDAGE <= 54 AND XSEXA = 1 AND PCS_8 < 51.33) THEN KMID_H=1;
    ELSE IF (55 <= FIELDAGE <= 59 AND XSEXA = 1 AND PCS_8 < 52.02) THEN KMID_H=1;
    ELSE IF (60 <= FIELDAGE <= 64 AND XSEXA = 1 AND PCS_8 < 51.74) THEN KMID_H=1;
    ELSE IF (65 <= FIELDAGE <= 69 AND XSEXA = 1 AND PCS_8 < 50.81) THEN KMID_H=1;
    ELSE IF (70 <= FIELDAGE <= 74 AND XSEXA = 1 AND PCS_8 < 51.00) THEN KMID_H=1;
    ELSE IF (FIELDAGE >= 75 AND XSEXA = 1 AND PCS_8 < 48.74) THEN KMID_H=1;
/* BELOW MEDIAN PHYSICAL HEALTH - FEMALES */
    ELSE IF (18 <= FIELDAGE <= 24 AND XSEXA = 2 AND PCS_8 < 52.28) THEN KMID_H=1;
    ELSE IF (25 <= FIELDAGE <= 29 AND XSEXA = 2 AND PCS_8 < 52.47) THEN KMID_H=1;
    ELSE IF (30 <= FIELDAGE <= 34 AND XSEXA = 2 AND PCS_8 < 51.73) THEN KMID_H=1;
    ELSE IF (35 <= FIELDAGE <= 39 AND XSEXA = 2 AND PCS_8 < 51.96) THEN KMID_H=1;
    ELSE IF (40 <= FIELDAGE <= 44 AND XSEXA = 2 AND PCS_8 < 51.25) THEN KMID_H=1;
    ELSE IF (45 <= FIELDAGE <= 49 AND XSEXA = 2 AND PCS_8 < 49.22) THEN KMID_H=1;
    ELSE IF (50 <= FIELDAGE <= 54 AND XSEXA = 2 AND PCS_8 < 49.16) THEN KMID_H=1;
    ELSE IF (55 <= FIELDAGE <= 59 AND XSEXA = 2 AND PCS_8 < 49.92) THEN KMID_H=1;
    ELSE IF (60 <= FIELDAGE <= 64 AND XSEXA = 2 AND PCS_8 < 49.82) THEN KMID_H=1;
    ELSE IF (65 <= FIELDAGE <= 69 AND XSEXA = 2 AND PCS_8 < 49.37) THEN KMID_H=1;
    ELSE IF (70 <= FIELDAGE <= 74 AND XSEXA = 2 AND PCS_8 < 49.31) THEN KMID_H=1;
    ELSE IF (FIELDAGE >= 75 AND XSEXA = 2 AND PCS_8 < 45.60) THEN KMID_H=1;
/*****************************************/
    ELSE KMID_H=2;

  IF (FIELDAGE < 18 OR XSEXA < 0 OR PCS_8 = .) THEN KMID_MH=.;
/* BELOW MEDIAN MENTAL HEALTH - MALES */
```

```
    ELSE IF (18 <= FIELDAGE <= 24 AND XSEXA = 1 AND MCS_8 < 49.45) THEN
KMID_MH=1;
    ELSE IF (25 <= FIELDAGE <= 29 AND XSEXA = 1 AND MCS_8 < 50.22) THEN
KMID_MH=1;
    ELSE IF (30 <= FIELDAGE <= 34 AND XSEXA = 1 AND MCS_8 < 50.37) THEN
KMID_MH=1;
    ELSE IF (35 <= FIELDAGE <= 39 AND XSEXA = 1 AND MCS_8 < 52.45) THEN
KMID_MH=1;
    ELSE IF (40 <= FIELDAGE <= 44 AND XSEXA = 1 AND MCS_8 < 52.16) THEN
KMID_MH=1;
    ELSE IF (45 <= FIELDAGE <= 49 AND XSEXA = 1 AND MCS_8 < 52.16) THEN
KMID_MH=1;
    ELSE IF (50 <= FIELDAGE <= 54 AND XSEXA = 1 AND MCS_8 < 52.76) THEN
KMID_MH=1;
    ELSE IF (55 <= FIELDAGE <= 59 AND XSEXA = 1 AND MCS_8 < 53.72) THEN
KMID_MH=1;
    ELSE IF (60 <= FIELDAGE <= 64 AND XSEXA = 1 AND MCS_8 < 55.55) THEN
KMID_MH=1;
    ELSE IF (65 <= FIELDAGE <= 69 AND XSEXA = 1 AND MCS_8 < 55.63) THEN
KMID_MH=1;
    ELSE IF (70 <= FIELDAGE <= 74 AND XSEXA = 1 AND MCS_8 < 55.09) THEN
KMID_MH=1;
    ELSE IF (FIELDAGE >= 75 AND XSEXA = 1 AND MCS_8 < 54.76) THEN KMID_MH=1;
/* BELOW MEDIAN MENTAL HEALTH - FEMALES */
    ELSE IF (18 <= FIELDAGE <= 24 AND XSEXA = 2 AND MCS_8 < 46.30) THEN
KMID_MH=1;
    ELSE IF (25 <= FIELDAGE <= 29 AND XSEXA = 2 AND MCS_8 < 47.35) THEN
KMID_MH=1;
    ELSE IF (30 <= FIELDAGE <= 34 AND XSEXA = 2 AND MCS_8 < 47.51) THEN
KMID_MH=1;
    ELSE IF (35 <= FIELDAGE <= 39 AND XSEXA = 2 AND MCS_8 < 48.86) THEN
KMID_MH=1;
    ELSE IF (40 <= FIELDAGE <= 44 AND XSEXA = 2 AND MCS_8 < 50.35) THEN
KMID_MH=1;
    ELSE IF (45 <= FIELDAGE <= 49 AND XSEXA = 2 AND MCS_8 < 48.88) THEN
KMID_MH=1;
    ELSE IF (50 <= FIELDAGE <= 54 AND XSEXA = 2 AND MCS_8 < 50.32) THEN
KMID_MH=1;
    ELSE IF (55 <= FIELDAGE <= 59 AND XSEXA = 2 AND MCS_8 < 52.16) THEN
KMID_MH=1;
    ELSE IF (60 <= FIELDAGE <= 64 AND XSEXA = 2 AND MCS_8 < 52.54) THEN
KMID_MH=1;
    ELSE IF (65 <= FIELDAGE <= 69 AND XSEXA = 2 AND MCS_8 < 53.41) THEN
KMID_MH=1;
    ELSE IF (70 <= FIELDAGE <= 74 AND XSEXA = 2 AND MCS_8 < 53.12) THEN
KMID_MH=1;
    ELSE IF (FIELDAGE >= 75 AND XSEXA = 2 AND MCS_8 < 55.22) THEN KMID_MH=1;
```

E. WEIGHTING PROCEDURES

Quarterly and Annual estimates based on the 2002 HCSDB must account for the survey's complex sample design and for possible bias due to nonresponse. As a part of sample selection, MPR constructed sampling weights (BWT) that reflect the differential selection probabilities used to sample beneficiaries across strata. Nonresponse can also lead to bias in the estimate of the respondent sample with respect to the total population of DoD health care beneficiaries. Adjustments were made to the sampling weights, BWT, to compensate for such bias, using a

weighting class method. We also generated replicate weights for the final database so that users have the option of obtaining variance estimates with a replication method as well as the Taylor series method. This section presents these weighting procedures for the 2002 Adult HCSDB.

1. Constructing the Sampling Weight

The sampling weight was constructed on the basis of the sample design. In the 2002 Adult HCSDB, stratified sampling was used to select the samples that would receive the questionnaire. Sampling was independently executed within strata defined by combinations of three domains: enrollment status groups; beneficiary groups; and geographic areas.

The sample was selected with differential probabilities of selection across strata. Sample sizes were driven by predetermined precision requirements. For further details of the 2002 adult sample design, see the *Health Care Survey of DoD Beneficiaries: 2001 Adult Sampling Report* (MPR, 2001). Our first step in weighting was to construct sampling weights that reflect these unequal sampling rates. These sampling weights can be viewed as the number of population elements each sampled beneficiary represents. The sampling weight was defined as the inverse of the beneficiary's selection probability or:

(1) $$W_s(h,i) = \frac{N(h)}{n(h)}$$

where:

$W_s(h,i)$ is the sampling weight for the i-th sampled beneficiary within the h-th stratum,

$N(h)$ is the total number of beneficiaries in the h-th stratum, and
$n(h)$ is the number of sampled beneficiaries from stratum h.

The sum of the sampling weights over selections i, from the h-th stratum equals the total population size of the h-th stratum or $N(h)$.

2. Adjustment for Total Nonresponse

Survey estimates obtained from respondent data only can be biased with respect to describing characteristics of the total population (Lessler and Kalsbeek 1992). The choice of an appropriate method depends on the response mechanism that underlies the study population. To reduce this bias, we developed procedures to compensate for the potential bias due to nonresponse. We adjusted for nonresponse independently within classes, with the assumptions that both response and characteristics directly or indirectly related to survey variables are homogeneous within class. Two types of nonresponse were associated with the 2002 Adult HCSDB:

- Unit or total nonresponse occurs when a sampled beneficiary did not respond to the survey questionnaire (e.g., refusals, no questionnaire returned, blank questionnaire returned, bad address).
- Item nonresponse occurs when a question that should have been answered is not answered (e.g., refusal to answer, no response).

Because item response rates in previous surveys were high, statistical imputation, a technique used to compensate for item nonresponse, was not used in the 2002 Adult HCSDB. To account for unit or total nonresponse, we implemented a weighting class adjustment.

3. Weighting Class Adjustments

Weighting class adjustments were made by partitioning the sample into groups, called *weighting classes*, and then adjusting the weights of respondents within each class so that they sum to the weight total for nonrespondents and respondents from that class. Implicit in the weighting class adjustment is the assumption that — had the nonrespondents responded — their responses would have been distributed in the same way as the responses of the other respondents in their weighting class.

The 2002 Adult HCSDB weighting classes were defined on the basis of the stratification variables: TRICARE Prime enrollment status, beneficiary group, and geographic area.

Nonresponse adjustment factors for the 2002 Adult HCSDB were calculated in two steps. First, we adjusted the sampling weights to account for sampled beneficiaries for whom eligibility status could not be determined. Sampled beneficiaries were then grouped as follows according to their response status d:

d=1 Eligible — completed questionnaire returned (FNSTATUS = 11)

d=2 Eligible — incomplete or no questionnaire returned (FNSTATUS = 12 or 20)

d=3 Ineligible — deceased, incarcerated or permanently incapacitated beneficiary (FNSTATUS = 30)

d=4 Eligibility unknown — no questionnaire or eligibility data (FNSTATUS = 41 or 42)

Within weighting class *c*, the weights of the *d*=4 nonrespondents with unknown eligibility were redistributed to the cases for which eligibility was known (*d*=1,2,3), using an adjustment factor $A_{wc1}(c,d)$ that was defined to be zero for *d*=4 and defined as:

$$(2)\quad A_{wc1}(c,d) = \frac{\sum_{i\in S(c)} W_s(c,i)}{\sum_{i\in S(c)} I_1(i)W_s(c,i) + \sum_{i\in S(c)} I_2(i)W_s(c,i) + \sum_{i\in S(c)} I_3 W_s(c,i)} \quad \text{for } d = 1, 2, 3$$

where:

$A_{wc1}(c,d)$ is the eligibility-status adjustment factor for weighting class *c* and response status code *d*,

$I_d(i)$ is the indicator function that has a value of 1 if sampled unit *i* has a response status code of *d* and 0 otherwise,

$S(c)$ is the set of sample members belonging to weighting class *c*, and

$W_s(c,i)$ is the sampling weight (BWT) for the *i*-th sample beneficiary from weighting class *c* before adjustment.

The adjustment $A_{wc1}(c,d)$ was then applied to the sampling weights to obtain the eligibility-status adjusted weight. Beneficiaries in weighting class *c* with response status code of *d* were assigned the eligibility-status adjusted weight:

$$(3)\quad W_{wc1}(c,d,i) = A_{wc1}(c,d)\, W_s(c,i) \text{ for } d = 1, 2, 3$$

Note that since d=4 cases have adjustment factors of zero, they also have adjusted weights of zero.

The next step in weighting was to adjust for incomplete or missing questionnaires from beneficiaries known to be eligible. For this adjustment, the weighting class c from the previous step was again partitioned into groups according to the beneficiary's response status code d. Within weighting class c, the weights of the d=2 nonresponding eligibles were redistributed to the responding eligibles d=1, using an adjustment factor $A_{wc2}(c,d)$ that was defined to be zero for d=2,4. For Group 1 (d=1), the questionnaire-completion adjustment or $A_{wc2}(c,1)$ factor for class c was computed as:

$$A_{wc2}(c,1) = \frac{\sum_{i \in S(c)} I_1(i) W_{wc1}(c,i) + \sum_{i \in S(c)} I_2(i) W_{wc1}(c,i)}{\sum_{i \in S(c)} I_1(i) W_{wc1}(c,i)} \quad (4)$$

By definition, all d=3 ineligible beneficiaries "respond," so the d=3 adjustment factor is 1, or $A_{wc2}(c,3)$=1. The questionnaire-completion adjusted weight was calculated as the product of the questionnaire-completion adjustment $A_{wc2}(c,d)$ and the previous eligibility-status adjusted weight $W_{wc1}(c,d,i)$, or:

$$W_{wc2}(c,d,i) = A_2(c,d)\, W_{wc1}(c,d,i) \quad (5)$$

As a result of this step, all nonrespondents (d=2,4) had questionnaire-completion adjusted weights of zero, while the weight for ineligible cases (d=3) remained unchanged, or $W_{wc2}(c,3,i)=W_{wc1}(c,3,i)$.

4. Calculation of Combined Annual Weights

A dataset combining the four consecutive quarterly data was constructed. Since there were a total of 2,401 late respondents who were not included in the Quarters 1–3 2002 files, the first three quarters were re-weighted before they were merged into the combined annual dataset. The new Quarters 1–3 datasets contain the responses of respondents who "trickled" in past the deadline for the survey. In addition, a few additional changes were made in re-weighting the data in order to provide consistent small cell collapsements among the quarters. First, we uniformly collapsed small cells for all four quarters. Collapsing cells uniformly across all quarters ensures that all quarters, ultimately, contain identical catchment areas and identical final adjusted cells. We applied the Quarter 4 general collapsing rules for small cells to all four quarters. After implementing the abovementioned changes to the data and obtaining new weights, the Quarter 1 – Quarter 3 datasets and the Quarter 4 dataset were merged to form a combined annual dataset with data for all four quarters.

Because combined sample sizes are sufficiently large to provide statistically reliable estimates with this combined dataset, users will be able to calculate survey estimates for finer domains, such as catchment areas. Construction of an appropriate weight will allow users to consider the combined data as the data from a single survey. Quarterly weights are still included so that users may continue to calculate quarterly estimates and retain the ability to combine any sequential four quarters into a combined data set.

The method used for combining the four quarters and calculating combined estimates assumes that the variance in estimates from one quarter to the next is merely due sampling variation. That is, combined estimates can be calculated from the four independent samples by averaging the estimates for the four quarters. These combined estimates will, in fact, be more precise than the quarterly estimates because they average out the variation across quarters (For a further discussion, see Friedman, et al. 2002).

We calculated the final survey weight for each quarter within the combined dataset. Without the loss of generality, let us denote the current quarter by Q4. Then, the combined dataset would include the four quarterly datasets: Q1, Q2, Q3, and Q4. Let us denote quarterly final survey weights by WQ1, WQ2, WQ3, and WQ4. To retain the sum of the weights from the combined data as the population count, we average the population over the four quarters, by rescaling each quarterly survey weights to meet the following condition:

(6) $$WCOM = q_i x WQi$$

where q_i is between 0 and 1 with the constraint $q_1 + q_2 + q_3 + q_4 = 1$. We can make choice of q_1 based on various assumptions. We have decided that each quarterly contribution should be equal. If we assume an equal relationship among the quarters, then, each q_1 is as follows:

$$q_1 = 0.25;\ q_2 = 0.25;\ q_3 = 0.25;\ q_4 = 0.25$$

Then, the weight for the combined annual data will be *WCOM* in (6).

The final data file retains the quarterly sampling stratum variables and quarterly weight as well as the combined weight. The file also contains an indicator variable for the quarters. From this combined dataset, one can calculate both combined data and revised quarterly estimates.

5. Trimming Extreme Weights

In evaluating the final combined annual analysis weight, we observed that a few weights were outliers, that is, well outside the distribution of the vast majority of the weights. Large variation in weights leads to larger variances and reduced precision of estimates. We identified five cases with extraordinarily large weights. All of these cases were in out-of-catchment areas and were sampled in the first quarter. We decided to trim these weights. This procedure might introduce a small bias in estimates, but it significantly reduces the variance.

First, we identified trimming classes. The objective of forming these classes was to keep like beneficiaries together. We identified five trimming classes, three of which were a combination of out-of-catchment areas and regions 13 (Europe), 14 (Western Pacific), and 15 (Latin America and Canada). The fourth class was comprised of cases not assigned to a catchment area. The fifth trimming class consists of all other cases. We reviewed the distribution of the weights within each trimming class, and identified reasonable cut off levels for the maximum weight in each class. In the class composed of all other cases, we observed no outliers and did not trim any weights.

The goal of trimming is to set a maximum weight while maintaining the original sums of weights within each class. After choosing a maximum weight we then calculated an adjustment factor for each class. This adjustment factor ensures that the sum of the weights remains constant. Let *t* be the number of cases in trimming class *c* that are greater than the maximum weight *K*.

Then, the trimming adjustment A_{tc}(c) is defined as:

(7) If t > 0 $$A_{tc}(c) = \frac{\sum WCOM(c) - t(c)K(c)}{\sum WCOM(c) - \sum_{d=1} WCOM(c)}$$

If t = 0 $$A_{tc}(c) = 1$$

where *WCOM* is the final weight for the combined data and *d* = 1 indicates cases with weights greater than *K*. The final weight for the combined data is

(8) $$WCOM_t = A_{tc}(c)WCOM(c)$$

To check the effect of weight trimming, we estimated various measures before trimming and after trimming and compared them to the 2001 estimates. As you can see in Table 3.7 below, the differences in the overall estimates are small and not unidirectional. On the regional level, however, some differences were detected, yet these differences too were not unidirectional, so it is difficult to determine whether the trimmed or the untrimmed estimates are more accurate.

TABLE 3.7

ESTIMATES BEFORE AND AFTER WEIGHT TRIMMING

Variable	Description	2002 Before trimming		2002 After trimming		2001 Estimates	
		Count	Percent	Count	Percent	Count	Percent
HP_BP	Had a blood pressure check in past 2 yrs	49,517	91.8	49,517	91.8	53,609	88.0
HP_BRST	(Women 40+) had a breast exam in past 2 yrs	10,055	68.5	10,055	68.5	11,899	68.8
HP_CHOL	Had a cholesterol screening in past 5 yrs	42,896	81.7	42,896	81.7	48,189	81.1
HP_FLU	(Age 65+) had a flu shot in past year	5,412	70.5	5,412	70.6	8,172	73.3
HP_GP	Had an examination or checkup in past yr	29,773	56.9	29,773	56.9	33,814	56.6
HP_MAMOG	(Women 40+) had a mammogram in past 2 yrs	12,083	83.4	12,083	83.5	14,155	84.1
HP_PAP	(All women) had a pap smear in past 3 yrs	24,804	86.9	24,804	86.9	28,861	88.1
HP_PRNTL	(If pregnant in past yr) received prenatal care in 1st trimester	2,311	85.0	2,311	85.0	2,514	88.2
HP_SMOKE	(Adult smokers and recent quitters) advised to quit smoking in past yr	6,346	62.3	6,346	62.2	6,591	60.7
HP_PROS	(Men 50+) had a prostrate exam within past yr	6,458	65.9	6,458	65.7	8,503	65.5
HP_MAM50	(Women 50+) had a mammogram within past 2 yrs	8,222	85.5	8,222	85.6	9,881	85.7
KDISENRL	Intention to disenroll	2,190	6.1	2,190	6.1	2,547	7.7

4. Calculation of Jackknife Replicate

A series of jackknife replicate weights are calculated and attached to each beneficiary record in the database. In jackknife replication, a prescribed number of replicates are generated by deleting selected cases from the full sample. Software for replication methods requires either replicate weights or sample design information, including the sampling weight and stratification information. WesVarPC® (Brick et al. 1996) is a publicly available package for replications methods which may be used to produce variance estimates. WesVarPC allows jackknife variance estimation for two primary sampling units per stratum up to 100 strata, or up to 256 replicates without stratification. However, the design for the 2002 HCSDB for adults involves 382 adjustment cells. To use WesVarPC, we modified the design to create fewer strata. The two options for doing this are to (1) form fewer than 256 replicates by ignoring stratification or (2) form replicates by collapsing strata to fewer than 100 and by assigning each unit to one of two pseudo primary sampling units (PSUs).

For either option, the entire weighting process as described in the previous sections must be applied for each jackknife replicate.

We use option 1 to construct the quarterly jackknife replicates as follows. First, the entire file of sampled beneficiaries is sorted in sample selection order in which the stratification variables are used in the sorting process. Next, 60 mutually exclusive and exhaustive systematic subsamples of the full sample are identified in the sorted file. A jackknife replicate is then obtained by dropping one subsample from the full sample. As each subsample is dropped in turn, the same number of different jackknife replicates as subsamples is defined. The entire weighting process as applied to the full sample is then applied separately to each of the jackknife replicates to produce a set of replicate weights for each record. Then, the series of jackknife replicate weights (WRWT1 – WRWT60) is attached to the final data in order to construct jackknife replication variance estimates. These replicate weights should be used to estimate variances of quarterly estimates.

We also constructed 240 jackknife replicates for combined estimates by calculating the weights in a manner similar to the one described above. For the combined data, a jackknife replicate was obtained by using the quarterly jackknife replicate weights and the quarterly analysis weights. To compute the replicate weights for the combined file from quarter q_i (where i = 1 to 4) we used the quarterly replicate weight $WRWT_j$ where j = 1 to 60 and the quarterly weight WQ_k (where k = 1 to 4) for all cases where i is not equal to k. Therefore, we have four times sixty or 240 jackknife replicates. For each replicate each quarter contributes an equal 25 percent toward the total weight. For example, for the first replicate, we used the replicates weights associated with the first replicate in quarter 1, $WRWT_1$, and the final quarterly weights for quarters 2, 3, and 4, WQ_2, WQ_3, and WQ_4. The combined replicate weight is then calculated as:

(9) If quarter i = 1, then $CWRWT_1 = 0.25 \times WRWT_1$

Otherwise $CWRWT_1 = 0.25 \times WQ_i$

Like the analysis weight, each replicate weight (CWRWT1-CWRWT240) for the combined data set was trimmed. The same procedure described above was used for each replicate weight. These trimmed replicate weights are the final variables needed for jackknife variance estimation for combined annual estimates.

Chapter
4

Analysis

This chapter explains how the HCSDB variables were processed during the analysis phase of the project. It covers the procedure for calculating response rates, developing dependent and independent variables for the analysis and estimating the variance of the statistics. The National Executive Summary Report is described briefly along with an outline of the steps involved in creating charts for the reports.

A. RESPONSE RATES

In this section, we present the procedures for response rate calculations along with a brief analysis of response rates for domains of interest. Response rates for the 2002 Adult HCSDB were calculated in the same way as they were calculated in 2001. The procedure is based on the guidelines established by the Council of American Survey Research Organization (CASRO 1982) in defining a response rate.

1. Definition of Response Rates

In calculating response rates and related measures, we considered two different rates: *unweighted* and *weighted*. The unweighted version of the response rate represents the counted proportion of respondents among all sampled units, and the *weighted* version indicates the estimated proportion of respondents among all population units, and it is weighted by the sampling weight. When sampling rates across all strata are equal, these two approaches give the same result. However, the 2002 HCSDB used different sampling rates across strata. So, it is useful to show both "unweighted" and "weighted" response rates. We calculated these two response rates in the same way. As presented in Chapter 3, all sampled beneficiaries were completely classified into these four main (six detailed) groups: Group 1 (G1-1 and G1-2), Group 2, Group 3, and Group 4 (G4-1 and G4-2):

- Group 1 (G1-1): eligible and complete questionnaire returned;
- Group 1 (G1-2): eligible and incomplete questionnaire returned;
- Group 2: eligible and questionnaire not returned;
- Group 3: ineligible
- Group 4 (G4-1): eligibility unknown and locatable; and
- Group 4 (G4-2): eligibility unknown and unlocatable.

The unweighted counts reflect the number of sampled cases (n_i for Group i, where i =1,2,3,4), and the weighted counts reflect the estimated population size[1] ($\hat{N}_i$ for Group i, where i =1,2,3,4) for the four main response categories.

These weighted and unweighted counts were also calculated for the subgroups G1-1, G1-2, G4-1, and G4-2, where we denote the unweighted counts by $n_{1,1}$, $n_{1,2}$, $n_{4,1}$, and $n_{4,2}$, and the weighted counts by $\hat{N}_{1,1}, \hat{N}_{1,2}, \hat{N}_{4,1}, \text{and } \hat{N}_{4,2}$. With these values, we calculated response rates as follows.

Response rates are a product of two measures: the location rate and the completion rate. To calculate the location rate, we first estimated the number of Group 4 "located" beneficiaries who were expected to be eligible for the survey:

(1)

$$l = \left(\frac{n_1 + n_2}{n_1 + n_2 + n_3} \right) n_{4,1} \qquad \text{and} \qquad l_w = \left(\frac{\hat{N}_1 + \hat{N}_2}{\hat{N}_1 + \hat{N}_2 + \hat{N}_3} \right) \hat{N}_{4,1}$$

where l and l_w are unweighted and weighted estimates of the number of "located" beneficiaries among Group 4. Then, the unweighted and weighted "location rates" are defined by:

(2)

$$LR = \frac{n_1 + n_2 + l}{n_1 + n_2 + n_4 \left(\frac{n_1 + n_2}{n_1 + n_2 + n_3} \right)} \qquad \text{and} \qquad LR_w = \frac{\hat{N}_1 + \hat{N}_2 + l_w}{\hat{N}_1 + \hat{N}_2 + \hat{N}_4 \left(\frac{\hat{N}_1 + \hat{N}_2}{\hat{N}_1 + \hat{N}_2 + \hat{N}_3} \right)}.$$

And the corresponding unweighted and weighted "completion rates" are defined by:

(3)

$$CR = \frac{n_{1,1}}{n_1 + n_2 + l} \qquad \text{and} \qquad CR_w = \frac{\hat{N}_{1,1}}{\hat{N}_1 + \hat{N}_2 + l_w}.$$

[1]The weighted sum of sampled units can be regarded as an estimated population size. The base weight (BWT) was used in calculating weighted counts, where BWT is the inverse of selection probability.

The final response rates in Equation (4) can be obtained by multiplying the location rate in Equation (2) by the completion rate in Equation (3).

(4)

$$FRR = LR \times CR \text{ and } FRR_w = LR_w \times CR_w$$

In the definitions in Equations (1) through (4), the subscript "w" indicates that all calculations involve weighted counts. The method used to calculate response rates is consistent with the CASRO guidelines.

2. Reporting

We examined response rates to identify patterns across different domains or characteristics. While analysts prefer weighted rates that reflect the estimated proportion of respondents among all population beneficiaries, operational staff often is interested in getting unweighted measures. All tables include unweighted and weighted values under columns headed "Unweighted" and "Weighted", respectively. In the following, we focus on discussing unweighted response rates for domains of interest.

Table 4.1 includes response rates for the 2002 Adult HCSDB for all quarters of 2002 as well as for the combined annual dataset (for a further discussion of the combining process, please see section E.4 at the end of this chapter). It also contains response rates by beneficiary groups, and by enrollment status.

- Overall: The overall unweighted response rate for the combined 2002 Adult HCSDB was about 30 percent (which is found in Table 4.1 in the row of "Overall"). This rate is substantially lower than the 35 percent rate achieved in the first quarter 2000 survey.
- Beneficiary group and enrollment status: All response rates according to beneficiary groups and enrollment status show similar patterns as the 2000 survey, i.e., active duty beneficiaries had the lowest response rates and beneficiaries 65 years and older had the highest rate.[1]
- The response rates for the first three quarters include late responders (respondents whose surveys "trickled-in" after the deadline). Therefore, the first three quarters have a higher level of response than the fourth quarter.

[1] However, response patterns vary considerably across beneficiary and enrollment groups. The relatively low level of response for active duty persons and their family members may be related to frequent relocations and subsequent difficulty in obtaining updated address information within the fielding period.

TABLE 4.1

RESPONSE RATES OVERALL AND BY ENROLLEE BENEFICIARY GROUP: QUARTERS I- IV, 2002

	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
	RR (%)	RR_W (%)	RR (%)	RR_W (%)	RR (%)	RR_W (%)	RR (%)	RR_W (%)	RR (%)	RR_W (%)
Overall	31.0	46.0	31.2	46.7	31.5	45.9	28.5	44.3	30.4	46.0
Active duty	21.1	18.2	19.8	18.6	19.9	18.9	17.0	16.0	19.4	18.2
Active duty family, enrollee	32.5	31.8	32.0	32.9	32.8	33.6	27.3	27.7	31.2	31.8
Active duty family, non-enrollee	21.7	22.8	21.4	23.5	21.3	22.9	18.5	20.8	20.7	22.8
Retired,<65,enrollee	58.5	58.2	55.5	56.6	57.6	58.6	54.8	57.9	56.6	58.2
Retired,<65,non-enrollee	45.2	50.4	46.7	52.0	46.5	50.9	43.8	48.7	45.6	50.4
Retired,65+	73.3	73.0	73.1	73.4	71.7	71.6	72.3	73.1	72.6	73.0

RR = Unweighted data

RR_W = Weighted data

For domains of special interest, Appendix E contains tables showing response rates and weighted response rates for each quarter and the combined dataset. We summarize results about combined response rates for selected domains as follows:

- Regions: Response rates across regions range from 16 percent for Western Pacific Command to 39 percent for Golden Gate (Table E.1).
- Sex: Response rate for men is 27 percent as compared to 36 percent for women. (Table E.2).
- Conus: Response rate for CONUS is 33 percent as compared to 18 percent for OCONUS. (Table E.3).
- Catchment areas: Combined response rates across catchment areas range from 13 percent for NH Yokosura to 46 percent for Ft. Belvoir. (Table E.4).
- Beneficiary groups by sex: Women respond at a higher rate than men for both active duty and active duty family members, 22 percent versus 19 percent and 29 percent versus 17 percent, respectively. The opposite pattern emerges for retirees, survivors and family members 65 and older. The response rates for retirees less than 65 are virtually the same for men and women. (Table E.5).
- Beneficiary group by service affiliation (Army, Navy, Air Force, Marine Corps, Coast Guard): Among service affiliations, the smallest combined response rate comes from active duty in the Marine Corps with 11 percent and the largest from beneficiaries over 65 from the Coast Guard with 79 percent (Table E.6).

B. VARIANCE ESTIMATION

Due to the complex sample design, variance estimation for the 2002 HCSDB is not simple, and may be most easily achieved using one of two methods. The first, the Taylor Series Linearization via SUDAAN™ (Shah et al. 1996), is a direct variance estimation method, which may be used to calculate the standard errors (the squared root of the variance) of estimates. For the 2002 HCSDB analyses, we used the Taylor series linearization method. For analysts who prefer a replication method of variance estimation, replicate weights for jackknife replication are provided in the public use file. This section details the two approaches to calculating variance estimates associated with the 2002 HCSDB of the characteristics of interest.

1. Taylor Series Linearization

MPR uses Taylor series linearization to produce standard errors for the estimates from the 2002 HCSDB. For most sample designs, including the 2002 HCSDB, design-based variance estimates for linear estimators of totals and means can be obtained with explicit formulas. Estimators for nonlinear parameters, such as ratios, do not have exact expressions for the variance. The Taylor series linearization method approximates the variance of a nonlinear estimator with the variances of the linear terms from the Taylor series expansion for the estimator (Woodruff 1971). To calculate variance estimates based on the Taylor series linearization method, given HCSDB's stratified sampling design, we need to identify stratum as well as the final analysis weight for each data record. We included these variables on the final database. For variance estimation, we use the general-purpose statistical software package SUDAAN to produce Taylor series variance estimates. SUDAAN is the most widely used of the publicly available software packages based on the Taylor series linearization method. In SUDAAN, the user specifies the sample design and includes the stratum variables and the analysis weight for each record. Unlike WesVarPC, SUDAAN allows for unlimited strata, so stratification effects can be incorporated in calculating standard errors.

Some of the reported estimates are composite scale scores that are linear functions of individual estimates. The sampling variances for these scale estimates can be directly obtained from the usual design-based variance estimation formula by incorporating the covariance terms among individual items within the scale.

Let $\bar{y} = \dfrac{\sum_{h=1}^{L}\sum_{i=1}^{n_h} W_{hi} Y_{hi}}{\sum_{h}\sum_{i} W_{hi}}$

denote an estimator of a composite scale where the individual composite measure for beneficiary (*h*, *i*) consists of *r* items is thus denoted as:

$$Y_{hi} = \sum_{j=1}^{r} X_{hi,j} / r \quad .$$

Then, a customary variance estimator of $\bar{y}$ is the sum of the item variances and covariances among item estimates:

$$v(\bar{y}) = \frac{1}{r^2}\left\{\sum_{j=1}^{r} \mathrm{var}(\bar{x}_j) + \sum_{j \neq j'} \mathrm{cov}(\bar{x}_j, \bar{x}_{j'})\right\} \quad ,$$

Variance components can be obtained from the usual survey specific software such as SUDAAN and WesVarPC..

2. Jackknife Replication

Resampling methods are often used in estimating the variance for surveys with complex designs. In resampling, the sample is treated as if it was a population, and many smaller samples are drawn from the original sample (Lohr, pages 298-308). The subsamples are then used to compute the variance. Replication methods have been recommended for surveys in which the sample design is complex, nonresponse adjustments are needed, and statistics of interest are complicated. In such

surveys, the usual design-based estimation formula is extremely difficult or impossible to develop (see, for example, Wolter 1985, pages 317-318). Jackknife replicate weights can be used to calculate the standard errors of estimates. An estimate of a characteristic of interest is calculated (with the same formula as the full sample estimate) using each set of replicate weights; these replicate estimates are used to derive the variance of the full sample statistic.

The jackknife variance of the full sample statistic of interest is estimated from the variability among the replicated estimates. When the replicate weights are produced according to the above procedure, jackknife replicate standard errors can be produced using custom written software or publicly available statistical software. For instance, WesVarPC® (Brick et al. 1996) is a popular software package that calculates standard errors based on replication methods. It produces standard errors for functions of survey estimates such as differences and ratios as well as simple estimates such as mean, proportion, and totals. Additional details about the jackknife replication approach are given in Wolter (1985). Like other replication methods, the jackknife variance estimation can be easily implemented for any form of estimate without further algebraic work.

C. SIGNIFICANCE TESTS

In certain charts in the adult report cards and the National Executive Summary Report (NESR) statistical testing is done to show which columns of the chart (values of the independent variable) are statistically different from all CONUS regions as a whole. Positional arrows show if a region is statistically better than the CONUS regions (an arrow pointing up) or statistically worse than the CONUS regions (an arrow pointing down); if there is no arrow, there is no statistical difference.

The null hypothesis for this significance test is that the mean for the column is essentially equal with the CONUS mean, and the alternative is that the mean for the column is different from the CONUS mean. That is, we are testing:

$$H_0: \mu_1 = \mu_2 \quad \text{vs.} \quad H_a: \mu_1 \neq \mu_2$$

For instance, μ_1 might represent the characteristic of interest for the active duty group while μ_2 might represent the same characteristic for all CONUS regions.

With large sample sizes, the estimator $\overline{y_1} - \overline{y_2}$ is approximately distributed as a normal distribution with mean zero and variance $\sigma^2_{\overline{y_1}-\overline{y_2}}$ under the null hypothesis. In testing the hypothesis, a test Statistic T is thus calculated as:

$$T = \frac{\overline{y_1} - \overline{y_2}}{\hat{\sigma}_{\overline{y_1}-\overline{y_2}}}.$$

With $\alpha = 0.05$, the null hypothesis should be rejected if $|T| > 1.96$. The denominator of T, the standard error of $\overline{y_1} - \overline{y_2}$, can be calculated as the square root of the variance estimator $\hat{\sigma}^2_{\overline{y_1}-\overline{y_2}}$:

$$\hat{\sigma}^2_{\overline{y_1}-\overline{y_2}} = \text{var}(\overline{y_1}) + \text{var}(\overline{y_2}) - 2\,\text{cov}(\overline{y_1}, \overline{y_2}).$$

If $\overline{y_1}$ and $\overline{y_2}$ are independent, then the covariance term equals zero and thus the variance estimator can be easily obtained as the sum of two individual variance estimators. However, there

are some cases in which the condition of independence does not hold. For example, Active Duty MTF group is not independent with the CONUS regions because these two domains share Active duty group within the CONUS regions. So the covariance term should be incorporated in calculating the variance estimator of the estimator of the difference. With suitable algebra and program modification, these covariance terms were calculated for all such cases. All detailed programs are included in Appendices H and K.

D. DEMOGRAPHIC ADJUSTMENTS

All scores in the TRICARE Consumer Reports are adjusted for patient characteristics affecting their scores. Scores can be adjusted for a wide range of socioeconomic and demographic variables.

The purpose of risk adjustment is to make comparisons of outcomes, either internally or to external benchmarks, that control for characteristics beyond the health care provider's control. Based on previous work with satisfaction scales derived from CAHPS, it appears that satisfaction increases with age and decreases with poor health across social classes and insurance types. Besides controlling for these factors, the methodology used:

- Permits risk-adjusted comparisons among regions and catchment areas within and across beneficiary and enrollment groups
- Permits testing the hypothesis that the difference in risk-adjusted scores between a region or catchment area and a benchmark is due to chance
- Is appropriate for CAHPS composites and global satisfaction ratings.

The methodology used is an adaptation of that found in CAHPS 2.0 Survey and Reporting Kit (DHHS, 1999)

The model used for this adjustment is:

$$Y_{ijkl} = \beta_{1l} A_{1l} + \beta_{2l} A_{2l} + ... + \beta_{7l} A_{7l} + \beta_{8l} P_l + \varepsilon_{ijkl} ,$$

where Y_{ijkl} is a dependent variable, β_{ql}'s are parameters to be estimated, A_{ql}'s are age dummy variables (A_{ql} = 1 if the beneficiary is in age group q, and 0 otherwise; A_l = age 18-24, A_2 = age 24-34, A_3 = age 35-44, A_4 = age 45-54, A_5 = age 55-64, A_6 = age 65-74, and A_7 = age 75 and older), P_l is health status. The subscripts *i*, *j*, *k and l* refer to the region, MTF, and beneficiary, and beneficiary in enrollment group, respectively.

Given 15 regions and *J*+1 catchment areas, the specifications that we use are:

$$\varepsilon_{ijkl} = \delta_{0l} + \delta_{1l} R_{1l} + \delta_{2l} R_{2l} + ... + \delta_{15l} R_{15l} + w_{ijkl} ,$$

where R_i 's are regional dummy variables (R_{il} = 1 if the beneficiary is in region *i* and beneficiary group *l*, and 0 otherwise), and

$$\varepsilon_{ijkl} = \gamma_{0l} + \gamma_{1l} H_{1l} + \gamma_{2l} H_{2l} + ... + \gamma_{Jl} H_{Jl} + w_{ijkl} ,$$

where H_{ij} 's are catchment area dummy variables (H_{jl} = 1 if the beneficiary is in catchment area *j* and beneficiary group *l*, and 0 otherwise). The first specification is used when catchment area values are not reported, and the second when catchment areas are reported.

The methods for calculating demographically adjusted values and testing hypotheses of differences in demographically adjusted scores among providers vary with the way ε_{ijkl} is defined. For specification 1, the adjusted mean of the dependent variable *Y* for region *i* can be obtained as:

$$\overline{y_i} = \hat{\delta}_0 + \hat{\delta}_i + \hat{\beta}_1\hat{A}_1 + \hat{\beta}_2\hat{A}_2 + \ldots + \hat{\beta}_7\hat{A}_7 + \hat{\beta}_8\hat{P},$$

where $\hat{\beta}_i$'s are estimated model parameters, $\hat{A}_i$'s are weighted proportions of age group *i* among the total U.S. population, and $\hat{P}$ is the weighted MHS means of the variable *P.* For beneficiary group *l*, the adjusted regional value is:

$$\overline{y_{il}} = \hat{\delta}_{0l} + \hat{\delta}_{il} + \hat{\beta}_{1l}\hat{A} + \hat{\beta}_{2l}\hat{A}_{2l} + \ldots + \hat{\beta}_{7l}\hat{A}_{7l} + \hat{\beta}_{8l}\hat{P}_l,$$

where $\hat{A}_{ql}$'s are weighted proportions of age group *q* in the MHS.

For specification 2, an adjusted catchment area value can be calculated as:

$$\overline{y_{ijl}} = \hat{\gamma}_{0l} + \hat{\gamma}_{ijl} + \hat{\beta}_{1l}\hat{A}_{1l} + \hat{\beta}_{2l}\hat{A}_{2l} + \ldots + \hat{\beta}_{7l}\hat{A}_{7l} + \hat{\beta}_{8l}\hat{P}_l,$$

while the regional value can be calculated as:

$$\overline{y_{il}} = \hat{\gamma}_{0l} + \overline{\hat{\gamma}}_{il} + \hat{\beta}_{1l}\hat{A}_{1l} + \hat{\beta}_{2l}\hat{A}_{2l} + \ldots + \hat{\beta}_{7l}\hat{A}_{7l} + \hat{\beta}_{8l}\hat{P}_l,$$

where $\overline{\hat{\gamma}}_{il}$ is the weighted mean for all catchment areas in Region i.

Standard errors then can be estimated as the standard error of residuals for catchment areas or regions using SUDAAN. These standard errors can be used in hypothesis tests comparing adjusted values to other adjusted values or to external benchmarks. Composite values are calculated as averages of regional or catchment area adjusted values for questions making up the composites, in which each question is equally weighted.

Benchmarks can also be adjusted for age and health status as are scores taken from survey responses. If the benchmark data set contains age and health status information, we fit a model of the form

$$y = \alpha + \beta_1 A_1 + \beta_2 A_7 + \ldots + \beta_7 A_7 + \beta_8 P$$

where the A's are age groups and P is health status. Then the adjusted benchmark is

$$\hat{y}_l = \hat{\alpha} + \hat{\beta}_1\overline{A}_{1l} + \hat{\beta}_2\overline{A}_{2l} + \ldots + \hat{\beta}_7\overline{A}_{7l} + \hat{\beta}_8\overline{P}_l$$

using the mean values of A and P for beneficiary group l.

The adjusted values for that beneficiary group can then be compared to a benchmark appropriate for their age distribution and health status.

In some cases, it may be desirable for a single benchmark to be presented in comparison to many beneficiary groups. We accomplish this by recentering scores for beneficiary groups. In the Consumer Reports, described below, the benchmark presented is the all users beneficiary group,

but scores for many other beneficiary groups are also presented. Each score and benchmark is calculated for the appropriate beneficiary group. Then a recentering factor for each beneficiary group is calculated as the difference in adjusted benchmarks between a beneficiary group and the all users group. For the all users group, that recentering factor is zero. The recentering factor is added to score for each region or catchment area for that beneficiary group. Thus beneficiary groups can also be compared controlling for age and health status and can be compared to the same benchmark.

E. CALCULATING SCORES

Consumer Reports (see below) include four types of scores, CAHPS composites, ratings, a preventive care composite and a total score.

1. Composites and Ratings

The preventive care composite is calculated as $P_i = \Sigma w_i r_i$, where w is the proportion of the eligible population for whom the preventive care measure is relevant and r is the proportion of that eligible group receiving preventive care.

CAHPS composites are calculated as

$$S_i=(1/n_i)\ \Sigma(q_j/k_j),$$

where n_i is the number of questions in the composite *i*, q_j is the number giving a favorable response to question *j* in the composite *i*, and k_j is the number responding to that question *j*. The value n_i is calculated using sampling weights. CAHPS ratings are calculated as

$$S_i=q_i/k_i,$$

where q_i is the number giving a favorable response and k_i is the (weighted) number responding to rating *i*. All scores are adjusted for age and health status (see above).

2. Total Score

The total score, T, is a weighted average of 11 scales shown in the Consumer Reports. $T=\Sigma w_i S_i$, where S_i is a composite or rating score calculated for a geographic area such as a region. The total weight is $w_i = f_i p_i$.

The weights f_i come from $F(1)=\Sigma f_i S_i$, where F(1) is the first component identified in principal components analysis. For an observation to be included, all variables must be non-missing. These weights are the same for all enrollment groups and beneficiary groups. The total score $T=\Sigma w_i S_i$, where S_i are composite scores or rating scores and $w_i=f_i$ are factor weights for CAHPS composites or ratings based on principal components analysis using NCBD data. The factor analysis is performed over ratings and composites calculated for health plans. Composite scores from the benchmark data are

$$S_{hi}=(1/n_i)\ \Sigma(q_{hj}/k_{hj}\ ),$$

where k_{hj} is the number of people in health plan h responding to question j, q_{hj} is the number in health plan h giving a favorable response to j in composite *i*. Ratings are

$$S_{hi}= q_{hi}/k_{hi}$$

the proportion responding favorably. These values are adjusted for age and health status.

The weights f_i come from $F(1)=\Sigma f_i S_{hi}$, where F(1) is the first component identified in principal components analysis. The preventive care composite receives a weight of 1/11.

F. TESTS FOR TREND

In the Consumer Reports (see below), we use linear regression to estimate and test for statistical significance a quarterly rate of change. Our estimate for the rate of change is

$$T = \sum_{t=1}^{4} w_t (S_t - \bar{S})(t - \bar{t}) / \sum_{t=1}^{4} w_t (t - \bar{t})^2 ,$$

where t is the quarter, S_i is the score and w_i is the total weight of quarter i's observations. In order to test the hypothesis that trend is zero, we use the standard error for the trend coefficient

$$\sigma = \frac{\sqrt{\sum_{t=1}^{4} w_t^2 \sigma_t^2}}{\sum_{t=1}^{4} w_t}, \text{ and}$$

$$S = \sigma / \sqrt{\sum_{t=1}^{4} w_t (t - \bar{t})^2 / \sum_{t=1}^{4} w_t}$$

where σ_i is the standard error for quarter i. The hypothesis test is based on a t-test of the hypothesis that T=0, where n is the total number of observations for all 4 quarters p=Prob(abs(T/S)>0,n).

G. DEPENDENT AND INDEPENDENT VARIABLES

Dependent, or outcome, variables represent the research questions the survey is designed to answer. For example, beneficiary satisfaction and access are dependent variables in this analysis. The research questions are listed in Chapter I. Generally, dependent variables form the rows of the tables and the vertical axis of the charts.

Independent, or explanatory, variables do not directly represent research questions, but they may help to explain the differences in one or more of the outcome variables. They may also be correlated with one or more dependent variables. For example, a beneficiary's satisfaction with health care may be correlated with their age and/or TRICARE Prime enrollment status. Each table is designed to help determine whether a particular dependent variable is correlated with a particular independent variable. Independent variables form the columns of the tables and the horizontal axis of the charts.

In analyzing the relationship between dependent and independent variables, MPR produced charts and tables that are found in the reports described below. Beginning with the HCSDB in a SAS format, MPR programmers developed SAS procedures such as PROC FREQ and PROC MEANS and SAS-callable SUDAAN procedures such as PROC DESCRIPT and PROC CROSSTAB to generate the relevant statistics (e.g., per cents, means, and standard errors). These statistical values were moved directly from SAS programs to Excel tables using a dynamic data exchange to populate the cells of the tables. Graphical displays were generated from table values wherever feasible.

H. REPORTS

This section lists the three types of reports produced and states the main purpose of each report: 2002 TRICARE Consumer Reports, the TRICARE Consumer Watch, and the National Executive Summary Report (NESR). The 2002 TRICARE Consumer Reports and the TRICARE Consumer Watch are presented on a quarterly basis and display results from the most recent quarter. The NESR is produced annually and describes findings from all four quarters of survey data.

1. 2002 TRICARE Consumer Reports

a. Purpose

The purpose of the Consumer Reports is to provide Lead Agents and MTF commanders with a comprehensive description of TRICARE beneficiaries' satisfaction with care, access to care, and use of preventive care, in comparison with other regions and catchment areas, and with relevant national benchmarks. MHS scores are adjusted using demographic characteristics. Both quarterly and annual Consumer Reports are produced. The quarterly reports present results from the most recent quarter for each region and for CONUS MHS by beneficiary status and enrollment group, making it easy for the reader to compare findings across groups and quarters. The annual report is a cumulative report that combines results from four quarters and previous years and presents results by catchment area and region.

b. Consumer Report Production

1. Content

The quarterly Consumer Reports presents 12 scores for all beneficiary groups and all enrollment by region and CONUS MHS overall. Scores are presented in the following areas: getting needed care, getting care quickly, courteous and helpful office staff, how well doctors communicate, customer service, claims processing, rating of the health plan, health care, personal doctor, and specialist, and preventive care standards. The first 6 scores are CAHPS composites, which group together responses to several related survey questions. The CAHPS composite questions are shown in Appendix F.

The four ratings of health care and health care providers are: health plan, health care, PCM, and specialist. Rating is based on a scale of 0 to 10, where 0 is the worst and 10 is the best. The scores are adjusted for patient age and health status and are presented relative to national benchmarks, which are also adjusted for age and health status.

The Preventive Care Composite is based on how beneficiaries compare preventive care services offered through the MHS with the Healthy People 2010 goals. Preventive care indicators include prenatal care, hypertension, mammography and Pap smears.

A total score combines the other 11 scales into a global performance rating.

2. Format

a. Programming Specifications

Data for the Consumer Reports is arranged in a SAS data set, consists of records indexed by region, catchment area, enrollment group, beneficiary category, and table column. A benchmark corresponding to the MHS population is also included in the SAS data set. Records contain scores and categorical variables showing their existence and directions of significant differences. The

benchmark record contains national mean values, where available, for a comparable non-MHS population.

The data file serves as the basis for the electronic reports and quality assurance. The file for the 2002 HCSDB is updated each quarter and referenced by the report card application. In each quarter, a separate annual and quarterly file is created. The quarterly and annual reports are coded with HTML and a program generates the information in the form of a data set corresponding to the cells in the tables of the reports described below. Appendix H contains the programs to generate the Consumer Reports.

b. Web Specifications

Quarterly Consumer Reports are published in a tabular, interactive, HTML format on TRICARE's website, allowing users to "drill down" in the reports to follow the performance of the MHS over time by enrollment status and beneficiary group. Each report consists of several pages of tables. The first set of tables presents the findings for a single quarter for all enrollment and beneficiary groups by region and CONUS MHS. A second set of tables presents the findings for the current quarter and for the past quarters for each enrollment and beneficiary group, by regions and CONUS MHS. Significant differences between the scores and the benchmark are indicated by color, bolding and italics. Scores significantly above the benchmark are green and bold. Scores significantly below the benchmark are red and italicized.

Like the quarterly report, the annual report is presented in HTML tabular format. One set of tables shows cumulative scores for the 2002 HCSDB by region for all beneficiary groups and enrollment groups. Another set shows scores for the questions that make up the composite, along with composites or ratings from prior years. The third set of tables shows scores for the catchment areas that make up the MHS regions.

2. TRICARE Consumer Watch

a. Purpose

Like the TRICARE Consumer Reports, the TRICARE Consumer Watch is targeted to Lead Agents and MTF commanders. TRICARE Consumer Watch presents key results from the quarterly HCSDB in a graphical format. The exhibits present TRICARE beneficiaries' experiences with their health care and health plan and utilization rates for preventive services. Each quarter, the Consumer Watch contains a special report on a specific aspect of health care affecting TRICARE beneficiaries. The TRICARE Consumer Watch is produced on a quarterly basis for all regions and three service affiliations. In the fourth quarter, the TRICARE Consumer Watch is produced for all catchment areas.

b. 2002 TRICARE Consumer Watch Production

1. Content

The Consumer Watch contains graphs presenting three ratings and six composite scores. These graphs are based on data from the Consumer Reports. Beneficiaries are asked to rate their experiences with their health care and health plan, and their personal provider on a scale of 0 to 10 where 0 is the worst and 10 is the best. Composite scores evaluate beneficiaries' experiences with: getting needed care, getting care quickly, courteous and helpful office staff, how well doctors communicate, customer service, and claims processing. Using data from the National CAHPS Benchmarking Database, ratings and composites are compared to experiences of individuals in civilian health plans. Ratings and composites are also compared to results from previous surveys.

Utilization of preventive care services are measured against the goals established by Healthy People 2010 as well as results from the prior years. Preventive care indicators include preventive cancer screenings, such as mammography and Pap smears, hypertension screening, and prenatal care.

Another graph depicts current Prime enrollees' intent to disenroll from TRICARE Prime. This graph compares the percentage of retirees or family members of active duty or retirees who plan to disenroll for each region and CONUS. Each quarter, the special report section highlights a certain health care topic. The first quarter features data on beneficiaries' experiences with the new TRICARE For Life program: what information they want about it, what changes in private or Medicare coverage they are planning, where they plan to get their care, and what problems they have encountered.

2. Format

a. Programming Specifications

Data for the Consumer Watch is arranged in a SAS data set, and consists of records indexed by region, catchment area, enrollment group, and beneficiary category. Scores for the rating and composite graphs utilize the same programs as the TRICARE Consumer Reports. The data file for the Consumer Watch is updated each quarter. The programs to generate the Consumer Watch are in Appendix I.

b. Report Production Specifications

Though the Consumer Watch files reside on TRICARE's website, it is designed to be used primarily in print form. The reports are created in portable document format (PDF). The Consumer Watch is arranged on two pages; the key findings are presented as bar graphs. Preventive care scores are presented in table format.

3. National Executive Summary Report

a. Purpose

The purpose of the National Executive Summary Report is to provide OASD(HA), in general, and TMA, in particular, with a comprehensive national summary of the HCSDB findings. The National Executive Summary Report bar charts reflect survey data from all respondents in the domestic MHS.

b. Procedures for Report Production

1. Content

There are multiple steps required to design tables and charts and then to populate them with data from the HCSDB. These steps are described below.

2. Format

a. Programming Specifications

MPR wrote the programs to populate the charts in SAS, using SAS-callable SUDAAN. There are two different types of programs used to create the charts. One type of program creates the charts that show the average ratings of a variable, and the second type of program is used to create the charts that show percentages. The programs for average ratings use the SAS procedure PROC

DESCRIPT, and the VAR, TABLES, SUBGROUP, SUBPOPN, and OUTPUT statements are changed for each chart. The programs that calculate percentages use the PROC CROSSTAB procedure, and the TABLES, SUBGROUP, SUBPOPN, and OUTPUT statements in that procedure are changed for each chart. There is a separate program for each chart, and for each chapter of the report there is an overall program that runs all of the individual chart programs in that chapter. The chapter program contains macro variables for region, name of the data file, location of program files, and name of the Excel file containing the charts. This facilitates making changes when the programs are run for each region, as all changes are made just once in the overall chapter program.

Each chart program also contains a DDE link to run the SAS output for each chart into the Excel file, onto the worksheet that contains the standard error table associated with the chart. The data is set up to run into cells on the worksheet that are below the table that is already there. The DDE link contains row and column references for where to start running the data into Excel and where to end. The data series for each chart and the standard error tables then reference these cells. A sample cell reference looks like:

- ='Table1'!A1

This example takes the value from the first column (A) and first row (1) of the worksheet labeled Table1.

There are separate programs that calculate significance so that arrows can be added to the charts to indicate whether a finding is significantly higher or lower than the CONUS MHS average or to an external benchmark. Output of these programs is a value of 0, 1, or 2 for each bar in the chart;

- 0 denotes no significant difference
- 1 denotes a value significantly higher than CONUS MHS
- 2 denotes a value significantly lower then CONUS MHS

These values are moved into the appropriate Excel worksheet using a DDE link within the significance test program. A macro written in VBA adds the appropriate arrows to the charts by identifying the value for each bar in the chart and drawing the appropriate arrow to the left of the data label above the bar.

Finally, each completed chart is moved from Excel into its corresponding Word template. To ensure uniformity of the size of each chart within the Word template, all charts are formatted in Excel to be the same size when printed. This is done manually, and each step listed below must be done for each chart:

- The first step in moving the charts from Excel to Word is to hold down the Shift key while selecting the Edit menu on the Excel toolbar and then selecting the option to Copy Picture. This brings up a menu with options for copying both the size and appearance of the picture as it is shown on the screen or when printed. For both options, the charts are copied with the option of "as shown when printed".
- The Word template is then brought up on the screen, and the chart is pasted into the Word document by selecting either Ctrl-V or Paste on the Edit menu.

The chart can then be moved to the correct place in the template, and a border is placed around the chart by selecting the Format menu on the Word tool bar and clicking on Picture. When this brings up another menu, select the Colors and Lines tab, change the line color to black, and then click the OK button on the menu to draw a solid border. The programs that generate the National Executive Summary Report are in Appendix K.

b. Report Production Specifications

The first step in creating the charts/tables for the reports is creating a chart/table shell in Excel. Charts in Excel are created using the Chart Wizard:

- First select the type of chart to show. For most charts in the reports, these are clustered column charts.
- Next select the data range, which is the group of cells that contain the data to go into the charts. These data are grouped into series, and the series labels are used in the legend, while group labels are used as x-axis labels.
- Select Chart Options. This is where the axis titles are entered and where formatting of the axes, gridlines, legend, and data labels occur.
- Finally, place the chart on the correct worksheet.

Once all of the charts for the reports are created, they should be formatted with the same fonts and colors and set up to be the same size when printed. The size of the charts is established by using Page Setup from the File menu and changing the margins as follows:

- Top margin is 0.975
- Right margin is 1.0
- Bottom margin is 4.8
- Left margin is 0.9.

In addition, each chart is set to print landscape.

To create tables in Excel, start with a blank worksheet and type the title across the top row. The headings for each column in the table go into the second row, and row labels go into the first column of the worksheet. Once all of the labels are in place, format the table in this manner:

- Align the labels
- Add borders and shading
- Cells that contain the data should be centered and formatted to show one decimal place
- Cells that contain the standard errors should be formatted to appear in parentheses

Once all of the charts and tables are created in Excel, three macros written in Visual Basic for Applications (VBA) within Excel will automate tasks required for each region. One macro requires the user to input the region number or name, then changes all region references in chart labels, table titles, table labels, and any other references within the spreadsheet to the new region number or name. Two other macros copy the worksheets containing tables to new worksheets, in order to make printing of the tables easier and quicker.

The next step in producing the report is to develop a template page in Word for each chart. The top of the page of each template shows the chart title and associated questions. In the middle of each page is a space for the chart. The bottom left side of the page shows the population, sample size, and descriptions of the chart axes, and the bottom right side of the page includes the description of what the chart shows and the findings section.

Finally, each completed chart is moved from Excel into its corresponding Word template. To ensure uniformity of the size of each chart within the Word template, all charts are formatted in Excel to be the same size when printed. This is done manually, and each step listed below must be done for each chart:

- The first step in moving the charts from Excel to Word is to hold down the Shift key while selecting the Edit menu on the Excel toolbar and then selecting the option to Copy Picture. This brings up a menu with options for copying both the size and appearance of the picture as it is shown on the screen or when printed. For both options, the charts are copied with the option of "as shown when printed".
- The Word template is then brought up on the screen, and the chart is pasted into the Word document by selecting either Ctrl-V or Paste on the Edit menu.

The chart can then be moved to the correct place in the template, and a border is placed around the chart by selecting the Format menu on the Word tool bar and clicking on Picture. When this brings up another menu, select the Colors and Lines tab, change the line color to black, and then click the OK button on the menu to draw a solid border

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APPENDIX A

ANNOTATED QUESTIONNAIRE – QUARTERS I-IV

RCS: DD-HA(A) 1942
Expires: 09/12/03

Health Care Survey of DoD Beneficiaries

January 2002

18781297

SURVEY INSTRUCTIONS

Answer all the questions by checking the circle to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see a note that tells you what question to answer next, like this:

○ Yes **Go to Question 1**
○ No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If you have misplaced the envelope, our address is:

Office of the Assistant Secretary of Defense (Health Affairs)
c/o Survey Processing Center
PO Box 82660
Lincoln, NE 68501-9462

According to the Privacy Act of 1974 (Public Law 93-579), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C., Chapter 55, Public Law 102-484, E.O. 9397.

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military healthcare system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None

Disclosure: Voluntary. Failure to respond will not result in any penalty to the respondent. However, maximum participation is encouraged so that data will be as complete and representative as possible.

SURVEY STARTS HERE

This survey is about the health care of the person addressed in the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to the person named in the cover letter.

1. **Are you the person whose name appears on the mailing label of this envelope?**

H02001

1 ○ Yes **Go to Question 2**
2 ○ No **Please give this questionnaire to the person addressed on the envelope.**

2. Which of the following health plans are you currently covered by? MARK ALL THAT APPLY.

H02002A-H02002O

a. **Military Health Plans**

A ○ TRICARE Prime
C ○ TRICARE Extra or Standard (CHAMPUS)
N ○ TRICARE Plus
O ○ TRICARE for Life

b. **Other Health Plans**

F ○ Medicare
G ○ Federal Employees Health Benefit Program (FEHBP)
H ○ Medicaid
I ○ A civilian HMO (such as Kaiser)
J ○ Other civilian health insurance (such as Blue Cross)
K ○ Uniformed Services Family Health Plan (USFHP)
M ○ The Veterans Administration (VA)
L ○ Not Sure

3. **Currently, are you covered by Medicare Part A?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part A helps pay for inpatient hospital care.

H02003

1 ○ Yes, I am now covered by Medicare Part A
2 ○ No, I am not covered by Medicare Part A

4. **Currently, are you covered by Medicare Part B?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H02004

1 ○ Yes, I am now covered by Medicare Part B
2 ○ No, I am not covered by Medicare Part B

5. **Currently, are you covered by Medicare supplemental insurance?** Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H02005

1 ○ Yes, I am now covered by Medicare supplemental insurance
2 ○ No, I am not covered by Medicare supplemental insurance

6. Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE.

H02006 | See Note 1

a. **Military Health Plan**

1 ○ TRICARE Prime
3 ○ TRICARE Extra or Standard (CHAMPUS)
11 ○ TRICARE Plus and Medicare
12 ○ TRICARE for Life and Medicare

b. **Other Health Plan**

4 ○ Medicare
5 ○ Federal Employees Health Benefit Program (FEHBP)
6 ○ Medicaid
7 ○ A civilian HMO (such as Kaiser)
8 ○ Other civilian health insurance (such as Blue Cross)
9 ○ Uniformed Services Family Health Plan (USFHP)
10 ○ The Veterans Administration (VA)
-5 ○ Not Sure
-6 ○ Did not use any health plan in the last 12 months **Go to Question 8**

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 6.

7. **How many months or years in a row have you been in this health plan?**

H02007 | See Note 1

1 ⬭ Less than 6 months
2 ⬭ 6 up to 12 months
3 ⬭ 12 up to 24 months
4 ⬭ 2 up to 5 years
5 ⬭ 5 up to 10 years
6 ⬭ 10 or more years

YOUR PERSONAL DOCTOR, OR NURSE

The next questions ask you about your own healthcare. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

8. **A personal doctor or nurse is the health provider who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant.**

H02008 | See Note 2

When you joined your health plan or at any time since then, did you get a new personal doctor or nurse?

1 ⬭ Yes 2 ⬭ No **Go to Question 10**

9. **With the choices your health plan gave you, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?**

H02009 | See Note 2

1 ⬭ A big problem 2 ⬭ A small problem 3 ⬭ Not a problem -6 ⬭ I didn't get a new personal doctor or nurse.

10. **Do you have one person you think of as your personal doctor or nurse?**

H02010 | See Note 3

1 ⬭ Yes 2 ⬭ No **Go to Question 12**

11. **We want to know your rating of your personal doctor or nurse.**

Use any number from 0 to 10 where 0 is the worst personal doctor or nurse possible, and 10 is the best personal doctor or nurse possible. How would you rate your personal doctor or nurse now?

H02011 | See Note 3

⬭ 0 Worst personal doctor or nurse possible
⬭ 1
⬭ 2
⬭ 3
⬭ 4
⬭ 5
⬭ 6
⬭ 7
⬭ 8
⬭ 9
⬭ 10 Best personal doctor or nurse possible
-6 ⬭ I don't have a personal doctor or nurse.

12. **Are you currently enrolled in TRICARE Prime?**

H02012 | See Note 4

1 ⬭ Yes 2 ⬭ No **Go to Question 15**

13. **As a member of TRICARE Prime, do you have a Primary Care Manager (PCM) based in a military or civilian facility?**

(In TRICARE Prime, a PCM is a healthcare provider who is your primary point of contact with the health system. He or she provides routine care, coordinates your total healthcare, arranges for hospital admissions, makes referrals to specialists, maintains health records, and recommends preventive and wellness services.)

H02013 | See Note 4

1 ○ A primary care manager based at a military facility
2 ○ A primary care manager based at a civilian facility
3 ○ Not sure
-6 ○ Not a member of TRICARE Prime

14. **Do you know your PCM's name?**

1 ○ Yes 2 ○ No

H02014 | See Note 4

GETTING HEALTHCARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits.

15. **Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of healthcare.**

H02015 | See Note 5

In the last 12 months, did you or a doctor or nurse think you needed to see a specialist?

1 ○ Yes 2 ○ No **Go to Question 17**

16. **In the last 12 months, how much of a problem, if any, was it to get a referral to a specialist that you needed to see?**

H02016 | See Note 5

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't need to see a specialist in the last 12 months.

17. **In the last 12 months, did you see a specialist?**

1 ○ Yes 2 ○ No **Go to Question 20**

H02017 | See Note 6

18. **We want to know your rating of the specialist you saw most often in the last 12 months, including a personal doctor if he or she was a specialist.**

H02018 | See Note 6

Use any number from 0 to 10 where 0 is the worst specialist possible, and 10 is the best specialist possible. How would you rate the specialist?

○ 0 Worst specialist possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best specialist possible
-6 ○ I didn't see a specialist in the last 12 months.

19. **In the last 12 months, was the specialist you saw most often the same doctor as your personal doctor?**

1 ⬭ Yes 2 ⬭ No -6 ⬭ I don't have a personal doctor or I didn't see a specialist in the last 12 months.

H02019 | See Note 6

CALLING DOCTORS' OFFICES

20. **In the last 12 months, did you call a doctor's office or clinic during regular office hours to get help or advice for yourself?**

1 ⬭ Yes 2 ⬭ No **Go to Question 22**

H02020 | See Note 7

21. **In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed ?**

1 ⬭ Never 3 ⬭ Usually -6 ⬭ I didn't call for help or advice during regular office hours in the last 12 months.
2 ⬭ Sometimes 4 ⬭ Always

H02021 | See Note 7

YOUR HEALTHCARE IN THE LAST 12 MONTHS

22. **A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for healthcare.**

In the last 12 months, did you make any appointments with a doctor or other health provider for regular or routine healthcare?

1 ⬭ Yes 2 ⬭ No **Go to Question 25**

H02022 | See Note 8

23. **In the last 12 months, how often did you get an appointment for regular or routine healthcare as soon as you wanted?**

1 ⬭ Never 3 ⬭ Usually -6 ⬭ I didn't need an appointment for regular or routine care in the last 12 months.
2 ⬭ Sometimes 4 ⬭ Always

H02023 | See Note 8

24. **In the last 12 months, how many days did you usually have to wait between making an appointment for regular or routine care and actually seeing a provider?**

1 ⬭ Same day 4 ⬭ 4-7 days 7 ⬭ 31 days or longer
2 ⬭ 1 day 5 ⬭ 8-14 days 8 ⬭ I tried but could not get an appointment.
3 ⬭ 2-3 days 6 ⬭ 15-30 days -6 ⬭ I didn't need an appointment for regular or routine care in the last 12 months.

H02024 | See Note 8

25. **In the last 12 months, did you have an illness or injury that needed care right away from a doctor's office, clinic, or emergency room?**

1 ⬭ Yes 2 ⬭ No **Go to Question 28**

H02025 | See Note 9

26. **In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?**

H02026 | See Note 9

1 ⬭ Never 3 ⬭ Usually -6 ⬭ I didn't need care right away for an illness or injury in last 12 months.
2 ⬭ Sometimes 4 ⬭ Always

27. **In the last 12 months, how long did you usually have to wait between trying to get care and actually seeing a provider for an illness or injury?**

H02027 | See Note 9

1 ○ Same day 4 ○ 3 days 7 ○ 15 days or longer
2 ○ 1 day 5 ○ 4-7 days -6 ○ I didn't need care right away for an illness or injury in the last 12 months.
3 ○ 2 days 6 ○ 8-14 days

28. **In the last 12 months, how many times did you go to an emergency room to get care for yourself?**

1 ○ None 2 ○ 1 3 ○ 2-3 4 ○ 4-6 5 ○ More than 6

H02028

29. **In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get care for yourself?**

H02029 | See Note 10

1 ○ None **Go to Question 40** 2 ○ 1 3 ○ 2 4 ○ 3 5 ○ 4 6 ○ 5 to 9 7 ○ 10 or more

30. **In the last 12 months, how much of a problem, if any, was it to get the care you or a doctor believed necessary?**

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

H02030 | See Note 10

31. **In the last 12 months, how much of a problem, if any, were delays in healthcare while you waited for approval from your health plan?**

H02031 | See Note 10

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

32. **In the last 12 months, how often did you wait in the doctor's office or clinic more than 15 minutes past your appointment time to see the person you went to see?**

H02032 | See Note 10

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

33. **In the last 12 months, how often did office staff at a doctor's office or clinic treat you with courtesy and respect?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02033 | See Note 10

34. **In the last 12 months, how often were office staff at a doctor's office or clinic as helpful as you thought they should be?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02034 | See Note 10

35. **In the last 12 months, how often did doctors or other health providers listen carefully to you?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02035 | See Note 10

36. **In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02036 | See Note 10

37. **In the last 12 months, how often did doctors or other health providers show respect for what you had to say?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02037 | See Note 10

38. **In the last 12 months, how often did doctors or other health providers spend enough time with you?**

1 ⬭ Never 2 ⬭ Sometimes 3 ⬭ Usually 4 ⬭ Always -6 ⬭ I had no visits in the last 12 months.

H02038 | See Note 10

39. **We want to know your rating of all your healthcare in the last 12 months from all doctors and other health providers.**

Use any number from 0 to 10 where 0 is the worst healthcare possible, and 10 is the best healthcare possible. How would you rate all your healthcare?

H02039 | See Note 10

⬭ 0 Worst healthcare possible
⬭ 1
⬭ 2
⬭ 3
⬭ 4
⬭ 5
⬭ 6
⬭ 7
⬭ 8
⬭ 9
⬭ 10 Best healthcare possible
-6 ⬭ I had no visits in the last 12 months.

40. **In the last 12 months, how many prescriptions did you have that were written by a civilian provider but were filled at a military pharmacy? INCLUDE REFILLS.**

H02040

1 ⬭ None 2 ⬭ 1-5 3 ⬭ 6-10 4 ⬭ 11-15 5 ⬭ More than 15

41. **In the last 12 months, where did you go most often for your healthcare? MARK ONLY ONE ANSWER.**

H02041

1 ⬭ A military facility - This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
2 ⬭ A civilian facility - This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
3 ⬭ Uniformed Services Family Health Plan facility (USFHP)
4 ⬭ Veterans Affairs (VA) clinic or hospital
5 ⬭ I went to none of the listed types of facilities in the last 12 months.

42. **What is the single most important reason to you in your decision to use a military treatment facility (MTF) for your healthcare? MARK ONLY ONE**

H02042

1 ⬭ Cost to you
2 ⬭ Convenience of location
3 ⬭ Quality of healthcare
4 ⬭ Convenience of telephone access
5 ⬭ Timeliness of appointments
6 ⬭ Military courtesy
7 ⬭ Relationship with a personal physician
8 ⬭ Co-location of services in a MTF
9 ⬭ Lack of paperwork/claims
10 ⬭ I am active duty and entitled to MTF care

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 6.

43. **Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you.**

H02043 | See Note 11

In the last 12 months, did you or anyone else send in any claims to your health plan?

1 ⬭ Yes 2 ⬭ No **Go to Question 47** -5 ⬭ Don't know **Go to Question 47**

44. **In the last 12 months, how often did your health plan handle your claims in a reasonable time?**

H02044 | See Note 11

1 ⬭ Never 3 ⬭ Usually -5 ⬭ Don't know
2 ⬭ Sometimes 4 ⬭ Always -6 ⬭ No claims were sent for me in the last 12 months.

45. **In the last 12 months, how often did your health plan handle your claims correctly?**

H02045 | See Note 11

1 ⬭ Never 3 ⬭ Usually -5 ⬭ Don't know
2 ⬭ Sometimes 4 ⬭ Always -6 ⬭ No claims were sent for me in the last 12 months.

46. **In the last 12 months, before you went for care, how often did your health plan make it clear how much you would have to pay?**

H02046 | See Note 11

1 ⬭ Never 3 ⬭ Usually -5 ⬭ Don't know
2 ⬭ Sometimes 4 ⬭ Always -6 ⬭ No claims were sent for me in the last 12 months.

47. **In the last 12 months, did you look for any information in written materials from your health plan?**

H02047 | See Note 12

1 ⬭ Yes 2 ⬭ No **Go to Question 49**

48. **In the last 12 months, how much of a problem, if any, was it to find or understand information in the written materials?**

H02048 | See Note 12

1 ⬭ A big problem 3 ⬭ Not a problem
2 ⬭ A small problem -6 ⬭ I didn't look for information from my health plan in the last 12 months.

49. **In the last 12 months, did you call your health plan's customer service to get information or help?**

H02049 | See Note 13

1 ⬭ Yes 2 ⬭ No **Go to Question 51**

50. **In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?**

H02050 | See Note 13

1 ⬭ A big problem 3 ⬭ Not a problem
2 ⬭ A small problem -6 ⬭ I didn't call my health plan's customer service in the last 12 months.

51. **In the last 12 months, have you called or written your health plan with a complaint or problem?**

H02051 | See Note 14

1 ⬭ Yes 2 ⬭ No **Go to Question 54**

52. **How long did it take for the health plan to resolve your complaint?**

H02052 | See Note 14

1 ⬭ Same day 5 ⬭ 4 or more weeks
2 ⬭ 1 week 6 ⬭ I am still waiting for it to be settled.
3 ⬭ 2 weeks -6 ⬭ I haven't called or written with a complaint or problem in the last 12 months.
4 ⬭ 3 weeks

53. **Was your complaint or problem settled to your satisfaction?**

H02053 | See Note 14

1 ⬭ Yes
2 ⬭ No
3 ⬭ I am still waiting for it to be settled.
-6 ⬭ I haven't called or written with a complaint or problem in the last 12 months.

54. **Paperwork means things like having your records changed, processing forms, or other paperwork related to getting care.**

In the last 12 months, did you have any experiences with paperwork for your health plan?

H02054 | See Note 15

1 ⬭ Yes
2 ⬭ No **Go to Question 56**

55. **In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?**

H02055 | See Note 15

1 ⬭ A big problem
2 ⬭ A small problem
3 ⬭ Not a problem
-6 ⬭ I didn't have any experiences with paperwork for my health plan in the last 12 months.

56. **We want to know your rating of all your experience with your health plan.**

Use any number from 0 to 10 where 0 is the worst health plan possible, and 10 is the best health plan possible. How would you rate your health plan now?

H02056

⬭ 0 Worst health plan possible
⬭ 1
⬭ 2
⬭ 3
⬭ 4
⬭ 5
⬭ 6
⬭ 7
⬭ 8
⬭ 9
⬭ 10 Best health plan possible

57. **If you are currently enrolled in TRICARE Prime, how likely are you to disenroll from TRICARE Prime for a different type of health plan in the next 12 months?**

H02057

1 ⬭ Very unlikely
2 ⬭ Unlikely
3 ⬭ Neither likely nor unlikely
4 ⬭ Likely
5 ⬭ Very likely
-5 ⬭ Not sure
-6 ⬭ I am not currently enrolled in TRICARE Prime.

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or a cholesterol screening are examples of preventive care.

58. **Not counting when you were sick or pregnant, when was the last time you had a general medical or physical examination or checkup?**

H02058

5 ⬭ Less than 12 months ago
4 ⬭ 1 to 2 years ago
3 ⬭ More than 2 but less than 5 years ago
2 ⬭ 5 or more years ago
1 ⬭ Never had a general physical or checkup

59. **When did you last have a blood pressure reading?**

H02059

3 ○ Less than 12 months ago 2 ○ 1 to 2 years ago 1 ○ More than 2 years ago

60. **Do you know if your blood pressure is too high?**

H02060

1 ○ Yes, it is too high 2 ○ No, it is not too high 3 ○ Don't know

61. **When did you last have a cholesterol screening, that is, a test to determine the level of cholesterol in your blood?**

5 ○ Less than 12 months ago 3 ○ More than 2 but less than 5 years ago 1 ○ Never had a cholesterol screening
4 ○ 1 to 2 years ago 2 ○ 5 or more years ago

H02061

62. **When did you last have a flu shot?**

4 ○ Less than 12 months ago 3 ○ 1 to 2 years ago 2 ○ More than 2 years ago 1 ○ Never had a flu shot

H02062

63. **Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?**

1 ○ Yes 2 ○ No **Go to Question 67** -5 ○ Don't know **Go to Question 67**

H02063 | See Note 24

64. **Do you now smoke every day, some days or not at all?**

4 ○ Every day **Go to Question 66** 2 ○ Not at all **Go to Question 65**
3 ○ Some days **Go to Question 66** -5 ○ Don't know **Go to Question 67**

H02064 | See Note 24

65. **How long has it been since you <u>quit smoking</u> cigarettes?**

3 ○ Less than 12 months **Go to Question 66** -5 ○ Don't know **Go to Question 67**
2 ○ 12 months or more **Go to Question 67**

H02065 | See Note 24

66. **In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?**

1 ○ None 2 ○ 1 visit 3 ○ 2 to 4 visits 4 ○ 5 to 9 visits 5 ○ 10 or more visits

H02066 | See Note 24

67. **Are you male or female?**

1 ○ Male **Go to Question 68** 2 ○ Female **Go to Question 69**

H02067 | See Note 25, Part A

68. **When was the last time you had a prostate gland examination or blood test for prostate disease?**

5 ○ Within the last 12 months 3 ○ More than 2 but less than 5 years ago 1 ○ Never had a prostate gland examination
4 ○ 1 to 2 years ago 2 ○ 5 or more years ago

Go to Question 76

H02068 | See Note 25, Part A & B

69. **When did you last have a Pap smear test?**

5 ○ Within the last 12 months 3 ○ More than 3 but less than 5 years ago 1 ○ Never had a Pap smear test
4 ○ 1 to 3 years ago 2 ○ 5 or more years ago

H02069 | See Note 25, Part A & C

70. **Are you under age 40?**

1 ⬭ Yes **Go to Question 73** 2 ⬭ No

H02070 | See Note 25, Part A & C | See Note 26

71. **When was the last time your breasts were checked by mammography?**

5 ⬭ Within the last 12 months
4 ⬭ 1 to 2 years ago
3 ⬭ More than 2 years but less than 5 years ago
2 ⬭ 5 or more years ago
1 ⬭ Never had a mammogram

H02071 | See Note 25, Part A & C | See Note 26

72. **When was the last time you had a breast exam by a healthcare professional?**

5 ⬭ Within the last 12 months
4 ⬭ 1 to 2 years ago
3 ⬭ More than 2 years but less than 5 years ago
2 ⬭ 5 or more years ago
1 ⬭ Never had a breast exam

H02072 | See Note 25, Part A & C | See Note 26

73. **Have you been pregnant in the last 12 months or are you pregnant now?**

1 ⬭ Yes, I am currently pregnant **Go to Question 74**
2 ⬭ No, I am not currently pregnant, but have been in the past 12 months **Go to Question 75**
3 ⬭ No, I am not currently pregnant, and have not been pregnant in the past 12 months **Go to Question 76**

H02073 | See Note 25, Part A & C | See Note 27

74. **In what trimester is your pregnancy?**

1 ⬭ First trimester 2 ⬭ Second trimester 3 ⬭ Third trimester

H02074 | See Note 25, Part A & C | See Note 27

75. **In which trimester did you first receive prenatal care?**

4 ⬭ First trimester 3 ⬭ Second trimester 2 ⬭ Third trimester 1 ⬭ Did not receive prenatal care

H02075 | See Note 25, Part A & C | See Note 27

ABOUT YOU

These questions are about your health now and your current daily activities. Please try to answer every question as accurately as you can. Please circle one answer for each question.

76. **Overall, how would you rate your health during the past 4 weeks?**

1 ⬭ Excellent 2 ⬭ Very Good 3 ⬭ Good 4 ⬭ Fair 5 ⬭ Poor 6 ⬭ Very Poor

S02S01

77. **During the past 4 weeks, how much did physical health problems limit your usual physical activities (such as walking or climbing stairs)?**

1 ⬭ Not at all 2 ⬭ Very little 3 ⬭ Somewhat 4 ⬭ Quite a lot 5 ⬭ Could not do physical activities

S02S02

78. **During the past 4 weeks, how much difficulty did you have doing your daily work, both at home and away from home, because of your physical health?**

1 ⬭ Not at all 2 ⬭ A little bit 3 ⬭ Some 4 ⬭ Quite a lot 5 ⬭ Could not do daily work

S02S03

79. **How much bodily pain have you had during the past 4 weeks?**

1 ⬭ None 2 ⬭ Very mild 3 ⬭ Mild 4 ⬭ Moderate 5 ⬭ Severe 6 ⬭ Very severe

S02S04

80. **During the <u>past 4 weeks</u>, how much energy did you have?**

S02S05

1 ⬭ Very much 2 ⬭ Quite a lot 3 ⬭ Some 4 ⬭ A little 5 ⬭ None

81. **During the <u>past 4 weeks</u>, how much did your physical health or emotional problems limit your social activities with family or friends?**

S02S06

1 ⬭ Not at all 2 ⬭ Very little 3 ⬭ Somewhat 4 ⬭ Quite a lot 5 ⬭ Could not do social activities

82. **During the <u>past 4 weeks</u>, how much have you been bothered by <u>emotional problems</u> (such as feeling anxious, depressed or irritable)?**

S02S07

1 ⬭ Not at all 2 ⬭ Slightly 3 ⬭ Moderately 4 ⬭ Quite a lot 5 ⬭ Extremely

83. **During the <u>past 4 weeks</u>, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities?**

S02S08

1 ⬭ Not at all 2 ⬭ Very little 3 ⬭ Somewhat 4 ⬭ Quite a lot 5 ⬭ Could not do daily activities

84. **For this last question, we would like you to shift your focus to look back over the past year. Compared <u>to one year ago</u>, how would you rate your health in general now?**

S02S09

1 ⬭ Much better now than one year ago
2 ⬭ Somewhat better now than one year ago
3 ⬭ About the same as one year ago
4 ⬭ Somewhat worse now than one year ago
5 ⬭ Much worse now than one year ago

85. **What is the highest grade or level of school that you have completed?**

SREDA

1 ⬭ 8th grade or less
2 ⬭ Some high school, but did not graduate
3 ⬭ High school graduate or GED
4 ⬭ Some college or 2-year degree
5 ⬭ 4-year college graduate
6 ⬭ More than 4-year college degree

86. **Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)**

H02077

1 ⬭ No, not Spanish, Hispanic, or Latino
2 ⬭ Yes, Mexican, Mexican American, Chicano
3 ⬭ Yes, Puerto Rican
4 ⬭ Yes, Cuban
5 ⬭ Yes, other Spanish, Hispanic, or Latino

87. **What is your race? (Mark ONE OR MORE races to indicate what you consider yourself to be.)**

SRACEA-SRACEE

A ⬭ White
B ⬭ Black or African American
C ⬭ American Indian or Alaska Native
D ⬭ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ⬭ Native Hawaiian or other Pacific Islander (e.g., Somoan, Guamanian, or Chamorro)

88. **What is your age now?**

SRAGE

See Note 22

1 ⬭ 18 to 24 **Go to the End of the Questionnaire**
2 ⬭ 25 to 34 **Go to the End of the Questionnaire**
3 ⬭ 35 to 44 **Go to the End of the Questionnaire**
4 ⬭ 45 to 54 **Go to the End of the Questionnaire**
5 ⬭ 55 to 64 **Go to the End of the Questionnaire**
6 ⬭ 65 to 74 **Go to Question 89**
7 ⬭ 75 or older **Go to Question 89**

TRICARE FOR LIFE

As of October 1, 2001, military retirees age 65 or over who enroll in Medicare Part B are eligible for a new benefit called TRICARE for Life. Under TRICARE for Life, TRICARE acts as supplemental insurance to Medicare. The following questions ask about how these new benefits have affected you.

89. **Before receiving this survey, were you aware of TRICARE for life?**

S02L01

See Note 22, 28

1 ⬭ Yes 2 ⬭ No **Go to Question 103**

90. **How much of a problem, if any, is it to understand your health benefits under TRICARE for Life?**

S02L02

1 ⬭ A big problem 2 ⬭ A small problem 3 ⬭ Not a problem -6 ⬭ I am not covered by TRICARE for Life

See Note 22, 28

91. **What additional information about TRICARE for Life would you like to have? MARK ALL THAT APPLY**

S02L03A-S02L03I

See Note 22, 28

A ⬭ What is covered
B ⬭ Who is eligible
C ⬭ How your doctor gets paid
D ⬭ How TRICARE for Life affects VA benefits
E ⬭ Whether private insurance should be dropped
F ⬭ Where to get help or information
G ⬭ How to make sure you are eligible
H ⬭ Which doctors you can see
I ⬭ I do not need additional information about TRICARE for Life

92. **How helpful were the following sources of information about your benefits under TRICARE for Life? MARK ALL THAT APPLY.**

S02L04A-S02L04I

See Note 22, 28

	Very helpful	Somewhat helpful	Not helpful	Did not consult
a. A local TRICARE benefits counselor or advisor (for example, a Beneficiary Counseling and Assistance Coordinator or BCAC)	4 ⬭	3 ⬭	2 ⬭	1 ⬭
b. A TRICARE toll-free phone number (for example, 1-888-DOD-LIFE or 1-877-DOD-MEDS)	4 ⬭	3 ⬭	2 ⬭	1 ⬭
c. Medicare or Social Security	4 ⬭	3 ⬭	2 ⬭	1 ⬭
d. Your primary doctor	4 ⬭	3 ⬭	2 ⬭	1 ⬭
e. The TRICARE website	4 ⬭	3 ⬭	2 ⬭	1 ⬭
f. Direct mailings from TRICARE	4 ⬭	3 ⬭	2 ⬭	1 ⬭
g. A military publication	4 ⬭	3 ⬭	2 ⬭	1 ⬭
h. A civilian retiree publication	4 ⬭	3 ⬭	2 ⬭	1 ⬭
i. Other	4 ⬭	3 ⬭	2 ⬭	1 ⬭

93. **On which of the sources listed in Question 92 did you rely most for information about TRICARE for Life? MARK ONLY ONE.**

S02L05

See Note 22, 28

1 ⬭ A local TRICARE benefits counselor or advisor (for example, BCAC)
2 ⬭ A TRICARE toll-free phone number (for example, 1-888-DOD-LIFE or 1-877-DOD-MEDS)
3 ⬭ Medicare or Social Security
4 ⬭ Your primary doctor
5 ⬭ The TRICARE website
6 ⬭ Direct mailings from TRICARE
7 ⬭ A military publication
8 ⬭ A civilian retiree publication
9 ⬭ Other

94. **As a result of the new benefits under TRICARE for Life, did you enroll in Medicare Part B?**

S02L06 | See Note 22, 28, 29

1 ○ Yes
2 ○ No, I was already enrolled in Medicare Part B
3 ○ No, I have not enrolled in Medicare Part B but I plan to enroll
4 ○ No, I have not enrolled in Medicare Part B and do not intend to **Go to Question 103**
-6 ○ I am not eligible for TRICARE for Life **Go to Question 103**

95. **As a result of your new benefits under TRICARE for Life, did you drop a Medigap (private Medicare supplement) insurance policy or other private health insurance policy?**

S02L07 | See Note 22, 28-30

1 ○ Yes
2 ○ No, I was not covered by Medigap or other private insurance
3 ○ No, I did not drop my Medigap or other private insurance but I plan to do so
4 ○ No, I did not drop my Medigap or other private insurance and do not intend to
-6 ○ I am not eligible for TRICARE for Life **Go to Question 103**

96. **As a result of your new benefits under TRICARE for Life, did you disenroll from a civilian HMO?**

S02L08 | See Note 22, 28-31

1 ○ Yes 2 ○ No -6 ○ I am not eligible for TRICARE for Life **Go to Question 103**

97. **Under TRICARE for Life, where do you plan to get most of your health care?**

S02L09 | See Note 22, 28-32

1 ○ From military facilities 3 ○ From VA facilities
2 ○ From civilian facilities -6 ○ I am not eligible for TRICARE for Life **Go to Question 103**

98. **Since October 1, 2001, have you received medical care from civilian sources (other than prescription drugs)?**

S02L10 | See Note 22, 28-33

1 ○ Yes 2 ○ No **Go to Question 103**

99. **Did any health care provider ask for payment from you at the time of service for medical care you received since October 1, 2001?**

S02L11 | See Note 22, 28-34

1 ○ Yes 2 ○ No -6 ○ I have not received medical care since October 1 **Go to Question 103**

100. **A bill is a request for payment for services received. Did you get a bill or bills for medical care you received since October 1, 2001 that you thought should have been covered by both Medicare and TRICARE?**

1 ○ Yes 2 ○ No **Go to Question 103** -6 ○ I have not received medical care since October 1 **Go to Question 103**

S02L12 | See Note 22, 28-35

101. **How have you responded to the bill or bills? MARK ALL THAT APPLY.**

A ○ I paid or intend to pay the bill or bills
B ○ I am ignoring the bill or bills
C ○ I have contacted or intend to contact the provider
D ○ I have contacted or intend to contact TRICARE
E ○ I have contacted or intend to contact Medicare

S02L13A-S02L13E | See Note 22, 28-35

102. **Has the billing matter been resolved to your satisfaction?**

1 ○ Yes 2 ○ No -6 ○ I have not received a bill or bills since October 1 **Go to Question 103**

S02L14 | See Note 22, 28-36

Through TRICARE Senior Pharmacy, which began April 1, 2001, TRICARE helps to pay for prescription drugs from civilian pharmacies and from the National Mail Order Pharmacy (NMOP).

103. **As a result of your new benefits under TRICARE for Life and TRICARE Senior Pharmacy, did you change the type of pharmacy where you get prescription drugs?**

S02L15 | See Note 22, 34-36

1 ⬭ Yes 2 ⬭ No

104. **Since April 1, 2001 at what type of pharmacy have you filled most of your prescriptions?**

1 ⬭ At military pharmacies
2 ⬭ At civilian pharmacies in the TRICARE network
3 ⬭ At civilian pharmacies outside the TRICARE network
4 ⬭ At the National Mail Order Pharmacy (NMOP)
-6 ⬭ I have not filled any prescriptions since April 1, 2001

S02L16 | See Note 22, 34-36

105. **Please indicate the extent to which you agree or disagree with the following statement about TRICARE for Life:**

I am satisfied with my TRICARE for Life benefits.

S02L17 | See Note 22

5 ⬭ Strongly Agree 4 ⬭ Agree 3 ⬭ Neither Agree nor Disagree 2 ⬭ Disagree 1 ⬭ Strongly Disagree

THANK YOU

Please return the completed survey in the postage-paid envelope.

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RCS: DD-HA(A) 1942
Expires: 09/12/03

Health Care Survey of DoD Beneficiaries

April 2002

20385848

SURVEY INSTRUCTIONS

Answer all the questions by checking the circle to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see a note that tells you what question to answer next, like this:

○ Yes **Go to Question 1**
○ No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If you have misplaced the envelope, our address is:

Office of the Assistant Secretary of Defense (Health Affairs)
c/o Survey Processing Center
PO Box 82660
Lincoln, NE 68501-9462

According to the Privacy Act of 1974 (Public Law 93-579), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C., Chapter 55, Public Law 102-484, E.O. 9397.

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military healthcare system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None

Disclosure: Voluntary. Failure to respond will not result in any penalty to the respondent. However, maximum participation is encouraged so that data will be as complete and representative as possible.

SURVEY STARTS HERE

This survey is about the health care of the person addressed in the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to the person named in the cover letter.

1. Are you the person whose name appears on the mailing label of this envelope?

1 ○ Yes **Go to Question 2**
2 ○ No **Please give this questionnaire to the person addressed on the envelope.**

H02001

0C4XTK2E
20385848

2. By which of the following health plans are you currently covered? MARK ALL THAT APPLY.

a. Military Health Plans

H02002A-H02002O

A ○ TRICARE Prime
C ○ TRICARE Extra or Standard (CHAMPUS)
N ○ TRICARE Plus
O ○ TRICARE for Life

b. Other Health Plans

F ○ Medicare
G ○ Federal Employees Health Benefit Program (FEHBP)
H ○ Medicaid
I ○ A civilian HMO (such as Kaiser)
J ○ Other civilian health insurance (such as Blue Cross)
K ○ Uniformed Services Family Health Plan (USFHP)
M ○ The Veterans Administration (VA)
L ○ Not Sure

3. **Currently, are you covered by Medicare Part A?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part A helps pay for inpatient hospital care.

H02003

1 ○ Yes, I am now covered by Medicare Part A
2 ○ No, I am not covered by Medicare Part A

4. **Currently, are you covered by Medicare Part B?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H02004

1 ○ Yes, I am now covered by Medicare Part B
2 ○ No, I am not covered by Medicare Part B

5. **Currently, are you covered by Medicare supplemental insurance?** Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H02005

1 ○ Yes, I am now covered by Medicare supplemental insurance
2 ○ No, I am not covered by Medicare supplemental insurance

6. Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE.

a. Military Health Plan

H02006

See Note 1

1 ○ TRICARE Prime
3 ○ TRICARE Extra or Standard (CHAMPUS)
11 ○ TRICARE Plus and Medicare
12 ○ TRICARE for Life and Medicare

b. Other Health Plan

4 ○ Medicare
5 ○ Federal Employees Health Benefit Program (FEHBP)
6 ○ Medicaid
7 ○ A civilian HMO (such as Kaiser)
8 ○ Other civilian health insurance (such as Blue Cross)
9 ○ Uniformed Services Family Health Plan (USFHP)
10 ○ The Veterans Administration (VA)
-5 ○ Not Sure
-6 ○ Did not use any health plan in the last 12 months **Go to Question 8**

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 6.

7. How many months or years in a row have you been in this health plan?

H02007

See Note 1

1 ○ Less than 6 months
2 ○ 6 up to 12 months
3 ○ 12 up to 24 months
4 ○ 2 up to 5 years
5 ○ 5 up to 10 years
6 ○ 10 or more years

8. In the last 12 months, where did you go most often for your healthcare? MARK ONLY ONE ANSWER.

H02041

1 ○ A military facility - This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
2 ○ A civilian facility - This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
3 ○ Uniformed Services Family Health Plan facility (USFHP)
4 ○ Veterans Affairs (VA) clinic or hospital
5 ○ I went to none of the listed types of facilities in the last 12 months.

YOUR PERSONAL DOCTOR, OR NURSE

The next questions ask you about your own healthcare. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

9. A personal doctor or nurse is the health provider who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant.

When you joined your health plan or at any time since then, did you get a new personal doctor or nurse?

H02008

See Note 2

1 ○ Yes 2 ○ No **Go to Question 11**

10. With the choices your health plan gave you, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?

H02009

See Note 2

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I didn't get a new personal doctor or nurse.

11. Do you have one person you think of as your personal doctor or nurse?

H02010

See Note 3

1 ○ Yes 2 ○ No **Go to Question 17**

12. Is this person a general doctor, a specialist doctor, a physician assistant, or a nurse?

S02C01

See Note 3

1 ○ General doctor (Family practice or internal medicine)
2 ○ Specialist doctor
3 ○ Physician assistant
4 ○ Nurse
-6 ○ I don't have a personal doctor or nurse

13. How many months or years have you been going to your personal doctor or nurse?

S02C02

See Note 3

1 ○ Less than 6 months
2 ○ 6 up to 12 months
3 ○ 12 up to 24 months
4 ○ 2 up to 5 years
5 ○ 5 years or more
-6 ○ I don't have a personal doctor or nurse

[redacted]

14. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?

S02C03 | See Note 3 | See Note 4

1 ⬭ Yes 2 ⬭ No **Go to Question 16**

15. Does your personal doctor or nurse understand how any health problems you have affect your day-to-day life?

S02C04

1 ⬭ Yes 2 ⬭ No -6 ⬭ I don't have any health problems or I don't have a personal doctor or nurse

See Note 3

See Note 4

16. We want to know your rating of your personal doctor or nurse.

Use any number from 0 to 10 where 0 is the worst personal doctor or nurse possible, and 10 is the best personal doctor or nurse possible. How would you rate your personal doctor or nurse now?

H02011

See Note 3

⬭ 0 Worst personal doctor or nurse possible
⬭ 1
⬭ 2
⬭ 3
⬭ 4
⬭ 5
⬭ 6
⬭ 7
⬭ 8
⬭ 9
⬭ 10 Best personal doctor or nurse possible
-6 ⬭ I don't have a personal doctor or nurse.

17. Are you currently enrolled in TRICARE Prime?

H02012 | See Note 5

1 ⬭ Yes 2 ⬭ No **Go to Question 20**

18. As a member of TRICARE Prime, do you have a Primary Care Manager (PCM) based in a military or civilian facility?

(In TRICARE Prime, a PCM is a healthcare provider who is your primary point of contact with the health system. He or she provides routine care, coordinates your total healthcare, arranges for hospital admissions, makes referrals to specialists, maintains health records, and recommends preventive and wellness services.)

H02013 | See Note 5

1 ⬭ A primary care manager based at a military facility
2 ⬭ A primary care manager based at a civilian facility
3 ⬭ Not sure
-6 ⬭ Not a member of TRICARE Prime

19. Do you know your PCM's name?

H02014 | See Note 5

1 ⬭ Yes 2 ⬭ No

GETTING HEALTHCARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits.

20. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of healthcare.

In the last 12 months, did you or a doctor or nurse think you needed to see a specialist?

H02015

See Note 6

1 ⬭ Yes 2 ⬭ No **Go to Question 22**

[redacted] [redacted]

21. In the last 12 months, how much of a problem, if any, was it to get a referral to a specialist that you needed to see?

H02016 | See Note 6

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't need to see a specialist in the last 12 months.

22. In the last 12 months, did you see a specialist?

H02017 | See Note 7

1 ○ Yes 2 ○ No **Go to Question 26**

23. In the past 12 months, how many times did you go to specialists for care for yourself?

S02C05 | See Note 7 | See Note 8

-6 ○ None **Go to Question 26**
1 ○ 1
2 ○ 2
3 ○ 3
4 ○ 4
5 ○ 5 to 9
6 ○ 10 or more

24. We want to know your rating of the specialist you saw most often in the last 12 months, including a personal doctor if he or she was a specialist.

H02018 | See Note 7 | See Note 8

Use any number from 0 to 10 where 0 is the worst specialist possible, and 10 is the best specialist possible. How would you rate the specialist?

○ 0 Worst specialist possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best specialist possible
-6 ○ I didn't see a specialist in the last 12 months.

25. In the last 12 months, was the specialist you saw most often the same doctor as your personal doctor? H02019

1 ○ Yes 2 ○ No -6 ○ I don't have a personal doctor or I didn't see a specialist in the last 12 months. | See Note 7 | See Note 8

CALLING DOCTORS' OFFICES

26. In the last 12 months, did you call a doctor's office or clinic during regular office hours to get help or advice for yourself?

H02020 | See Note 9

1 ○ Yes 2 ○ No **Go to Question 28**

[redacted]

27. In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed ?

1 ⬭ Never 3 ⬭ Usually -6 ⬭ I didn't call for help or advice during regular office hours in the last 12 months.
2 ⬭ Sometimes 4 ⬭ Always

H02021

See Note 9

YOUR HEALTHCARE IN THE LAST 12 MONTHS

28. A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for healthcare.

H02022

See Note 10

In the last 12 months, did you make any appointments with a doctor or other health provider for regular or routine healthcare?

1 ⬭ Yes 2 ⬭ No **Go to Question 31**

29. In the last 12 months, how often did you get an appointment for regular or routine healthcare as soon as you wanted?

1 ⬭ Never 3 ⬭ Usually -6 ⬭ I didn't need an appointment for regular or routine care in the last 12 months.
2 ⬭ Sometimes 4 ⬭ Always

H02023

See Note 10

30. In the last 12 months, how many days did you usually have to wait between making an appointment for regular or routine care and actually seeing a provider?

H02024

1 ⬭ Same day 4 ⬭ 4-7 days 7 ⬭ 31 days or longer
2 ⬭ 1 day 5 ⬭ 8-14 days 8 ⬭ I tried but could not get an appointment.
3 ⬭ 2-3 days 6 ⬭ 15-30 days -6 ⬭ I didn't need an appointment for regular or routine care in the last 12 months.

See Note 10

31. In the last 12 months, did you have an illness or injury that needed care right away from a doctor's office, clinic, or emergency room?

H02025

1 ⬭ Yes 2 ⬭ No **Go to Question 34**

See Note 11

32. In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?

H02026

1 ⬭ Never 3 ⬭ Usually -6 ⬭ I didn't need care right away for an illness or injury in last 12 months.
2 ⬭ Sometimes 4 ⬭ Always

See Note 11

33. In the last 12 months, how long did you usually have to wait between trying to get care and actually seeing a provider for an illness or injury?

H02027

1 ⬭ Same day 4 ⬭ 3 days 7 ⬭ 15 days or longer
2 ⬭ 1 day 5 ⬭ 4-7 days -6 ⬭ I didn't need care right away for an illness or injury in the last 12 months.
3 ⬭ 2 days 6 ⬭ 8-14 days

See Note 11

34. In the last 12 months, how many times did you go to an emergency room to get care for yourself?

1 ⬭ None 2 ⬭ 1 3 ⬭ 2-3 4 ⬭ 4-6 5 ⬭ More than 6

H02028

[redacted] [redacted]

[redacted]

35. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get care for yourself?

H02029

1 ○ None **Go to Question 49** 2 ○ 1 3 ○ 2 4 ○ 3 5 ○ 4 6 ○ 5 to 9 7 ○ 10 or more

See Note 12

36. In the last 12 months, how much of a problem, if any, was it to get the care you or a doctor believed necessary?

H02030

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

See Note 12

37. In the last 12 months, how much of a problem, if any, were delays in healthcare while you waited for approval from your health plan?

H02031

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

See Note 12

38. In the last 12 months, how often did you wait in the doctor's office or clinic more than 15 minutes past your appointment time to see the person you went to see?

H02032

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

39. In the last 12 months, how often did office staff at a doctor's office or clinic treat you with courtesy and respect?

H02033

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

40. In the last 12 months, how often were office staff at a doctor's office or clinic as helpful as you thought they should be?

H02034

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

41. In the last 12 months, how often did doctors or other health providers listen carefully to you?

H02035

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

42. In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?

H02036

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

43. In the last 12 months, how often did doctors or other health providers show respect for what you had to say?

H02037

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

44. In the last 12 months, how often did doctors or other health providers spend enough time with you?

H02038

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

See Note 12

45. We want to know how you, your doctors, and other health providers make decisions about your healthcare.

In the past 12 months, were any decisions made about your healthcare?

S02C06

See Note 12

1 ○ Yes 2 ○ No **Go to Question 48**

See Note 13

46. In the last 12 months, how often were you involved as much as you wanted in these decisions about your healthcare?

S02C07

1 ⬭ Never
2 ⬭ Sometimes
3 ⬭ Usually
4 ⬭ Always
-6 ⬭ No decisions were made about my healthcare in the last 12 months.

See Note 12 | See Note 13

47. In the last 12 months, how much of a problem, if any, was it to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?

S02C08

1 ⬭ A big problem
2 ⬭ A small problem
3 ⬭ Not a problem
-6 ⬭ No decisions were made about my healthcare in the last 12 months

See Note 12 | See Note 13

48. We want to know your rating of all your healthcare in the last 12 months from all doctors and other health providers.

Use any number from 0 to 10 where 0 is the worst healthcare possible, and 10 is the best healthcare possible. How would you rate all your healthcare?

H02039

⬭ 0 Worst healthcare possible
⬭ 1
⬭ 2
⬭ 3
⬭ 4
⬭ 5
⬭ 6
⬭ 7
⬭ 8
⬭ 9
⬭ 10 Best healthcare possible
-6 ⬭ I had no visits in the last 12 months.

See Note 12

49. In the last 12 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?

S02C09

1 ⬭ Yes 2 ⬭ No **Go to Question 51**

See Note 14

50. In the last 12 months, how much of a problem, if any, was it to get the special medical equipment you needed through your health plan?

S02C10

1 ⬭ A big problem
2 ⬭ A small problem
3 ⬭ Not a problem
-6 ⬭ I didn't need to get any special medical equipment in the last 12 months

See Note 14

51. In the last 12 months, did you have any health problems that needed special therapy, such a physical, occupational, or speech therapy?

S02C11

1 ⬭ Yes 2 ⬭ No **Go to Question 53**

See Note 15

52. In the last 12 months, how much of problem, if any, was it to get the special therapy you needed through your health plan?

S02C12

1 ⬭ A big problem
2 ⬭ A small problem
3 ⬭ Not a problem
-6 ⬭ I didn't need special therapy in the last 12 months

See Note 15

53. Home health care or assistance means home nursing, help with bathing or dressing, and help with basic household tasks.

In the last 12 months, did you need someone to come into your home to give you home health care or assistance?

S02C13

See Note 16

1 ○ Yes 2 ○ No **Go to Question 55**

54. In the last 12 months, how much of a problem, if any, was it to get the care or assistance you needed through your health plan?

S02C14

See Note 16

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't need home health care or assistance in the last 12

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 6.

55. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you.

H02043

In the last 12 months, did you or anyone else send in any claims to your health plan?

See Note 17

1 ○ Yes 2 ○ No **Go to Question 59** -5 ○ Don't know **Go to Question 59**

56. In the last 12 months, how often did your health plan handle your claims in a reasonable time?

H02044

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always
-5 ○ Don't know
-6 ○ No claims were sent for me in the last 12 months.

See Note 17

57. In the last 12 months, how often did your health plan handle your claims correctly?

H02045

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always
-5 ○ Don't know
-6 ○ No claims were sent for me in the last 12 months.

See Note 17

58. In the last 12 months, before you went for care, how often did your health plan make it clear how much you would have to pay?

H02046

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always
-5 ○ Don't know
-6 ○ No claims were sent for me in the last 12 months.

See Note 17

59. In the last 12 months, did you look for any information in written materials from your health plan?

H02047

1 ○ Yes 2 ○ No **Go to Question 61**

See Note 18

60. In the last 12 months, how much of a problem, if any, was it to find or understand information in the written materials?

H02048

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't look for information from my health plan in the last 12 months.

See Note 18

61. In the last 12 months, did you call your health plan's customer service to get information or help?

H02049

1 ○ Yes 2 ○ No **Go to Question 63**

See Note 19

62. In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?

H02050 | See Note 19

1 ⬭ A big problem
2 ⬭ A small problem
3 ⬭ Not a problem
-6 ⬭ I didn't call my health plan's customer service in the last 12 months.

63. In the last 12 months, have you called or written your health plan with a complaint or problem?

H02051 | See Note 20

1 ⬭ Yes 2 ⬭ No **Go to Question 66**

64. How long did it take for the health plan to <u>resolve</u> your complaint?

H02052 | See Note 20

1 ⬭ Same day
2 ⬭ 1 week
3 ⬭ 2 weeks
4 ⬭ 3 weeks
5 ⬭ 4 or more weeks
6 ⬭ I am still waiting for it to be settled.
-6 ⬭ I haven't called or written with a complaint or problem in the last 12 months.

65. Was your <u>complaint or problem</u> settled to your satisfaction?

H02053 | See Note 20

1 ⬭ Yes
2 ⬭ No
3 ⬭ I am still waiting for it to be settled.
-6 ⬭ I haven't called or written with a complaint or problem in the last 12 months.

66. <u>Paperwork</u> means things like having your records changed, processing forms, or other paperwork related to getting care.

In the last 12 months, did you have any experiences with paperwork for your health plan?

H02054 | See Note 21

1 ⬭ Yes 2 ⬭ No **Go to Question 68**

67. In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?

H02055 | See Note 21

1 ⬭ A big problem
2 ⬭ A small problem
3 ⬭ Not a problem
-6 ⬭ I didn't have any experiences with paperwork for my health plan in the last 12 months.

68. We want to know your rating of all your experience with <u>your health plan</u>.

Use <u>any number from 0 to 10</u> where 0 is the worst health plan possible, and 10 is the best health plan possible. How would you rate your health plan <u>now</u>?

H02056

⬭ 0 Worst health plan possible
⬭ 1
⬭ 2
⬭ 3
⬭ 4
⬭ 5
⬭ 6
⬭ 7
⬭ 8
⬭ 9
⬭ 10 Best health plan possible

[redacted]

69. If you are currently enrolled in TRICARE Prime, how likely are you to disenroll from TRICARE Prime for a different type of health plan in the next 12 months?

H02057

1 ○ Very unlikely
2 ○ Unlikely
3 ○ Neither likely nor unlikely
4 ○ Likely
5 ○ Very likely
-5 ○ Not sure
-6 ○ I am not currently enrolled in TRICARE Prime.

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or a cholesterol screening are examples of preventive care.

70. Not counting when you were sick or pregnant, when was the last time you had a general medical or physical examination or checkup?

H02058

5 ○ Less than 12 months ago
4 ○ 1 to 2 years ago
3 ○ More than 2 but less than 5 years ago
2 ○ 5 or more years ago
1 ○ Never had a general physical or checkup

71. When did you last have a blood pressure reading?

H02059

3 ○ Less than 12 months ago
2 ○ 1 to 2 years ago
1 ○ More than 2 years ago

72. Do you know if your blood pressure is too high?

H02060

1 ○ Yes, it is too high
2 ○ No, it is not too high
3 ○ Don't know

73. When did you last have a cholesterol screening, that is, a test to determine the level of cholesterol in your blood?

H02061

5 ○ Less than 12 months ago
4 ○ 1 to 2 years ago
3 ○ More than 2 but less than 5 years ago
2 ○ 5 or more years ago
1 ○ Never had a cholesterol screening

74. When did you last have a flu shot?

H02062

4 ○ Less than 12 months ago
3 ○ 1 to 2 years ago
2 ○ More than 2 years ago
1 ○ Never had a flu shot

75. Have you ever smoked at least 100 cigarettes in your entire life?

H02063

1 ○ Yes
2 ○ No **Go to Question 79**
-5 ○ Don't know **Go to Question 79**

See Note 24

76. Do you now smoke every day, some days or not at all?

H02064

4 ○ Every day **Go to Question 78**
3 ○ Some days **Go to Question 78**
2 ○ Not at all **Go to Question 77**
-5 ○ Don't know **Go to Question 79**

See Note 24

77. How long has it been since you quit smoking cigarettes?

H02065

3 ○ Less than 12 months **Go to Question 78**
2 ○ 12 months or more **Go to Question 79**
-5 ○ Don't know **Go to Question 79**

See Note 24

78. In the last 12 months, on how many visits were you advised to quit smoking by a doctor or other health provider in your plan?

1 ⬭ None 2 ⬭ 1 visit 3 ⬭ 2 to 4 visits 4 ⬭ 5 to 9 visits 5 ⬭ 10 or more visits

H02066 | See Note 24

79. Are you male or female?

1 ⬭ Male **Go to Question 80** 2 ⬭ Female **Go to Question 81**

H02067 | See Note 25, Part A

80. When was the last time you had a prostate gland examination or blood test for prostate disease?

5 ⬭ Within the last 12 months 3 ⬭ More than 2 but less than 5 years ago 1 ⬭ Never had a prostate gland examination
4 ⬭ 1 to 2 years ago 2 ⬭ 5 or more years ago

H02068 | See Note 25, Parts A & B

Go to Question 88

81. When did you last have a Pap smear test?

H02069 | See Note 25, Parts A & C

5 ⬭ Within the last 12 months 3 ⬭ More than 3 but less than 5 years ago 1 ⬭ Never had a Pap smear test
4 ⬭ 1 to 3 years ago 2 ⬭ 5 or more years ago

82. Are you under age 40?

H02070 | See Note 25, Parts A & C | See Note 26

1 ⬭ Yes **Go to Question 85** 2 ⬭ No

83. When was the last time your breasts were checked by mammography?

5 ⬭ Within the last 12 months 3 ⬭ More than 2 years but less than 5 years ago 1 ⬭ Never had a mammogram
4 ⬭ 1 to 2 years ago 2 ⬭ 5 or more years ago

H02071 | See Note 25, Parts A & C | See Note 26

84. When was the last time you had a breast exam by a healthcare professional?

5 ⬭ Within the last 12 months 3 ⬭ More than 2 years but less than 5 years ago 1 ⬭ Never had a breast exam
4 ⬭ 1 to 2 years ago 2 ⬭ 5 or more years ago

H02072 | See Note 25, Parts A & C | See Note 26

85. Have you been pregnant in the last 12 months or are you pregnant now?

H02073 | See Note 25, Parts A & C | See Note 27

1 ⬭ Yes, I am currently pregnant **Go to Question 86**
2 ⬭ No, I am not currently pregnant, but have been in the past 12 months **Go to Question 87**
3 ⬭ No, I am not currently pregnant, and have not been pregnant in the past 12 months **Go to Question 88**

86. In what trimester is your pregnancy?

H02074 | See Note 25, Parts A & C | See Note 27

1 ⬭ First trimester 2 ⬭ Second trimester 3 ⬭ Third trimester

87. In which trimester did you first receive prenatal care?

H02075 | See Note 25, Parts A & C | See Note 27

4 ⬭ First trimester 3 ⬭ Second trimester 2 ⬭ Third trimester 1 ⬭ Did not receive prenatal care

ABOUT YOU

88. In general, how would you rate your overall health now?

H02076

5 ○ Excellent 4 ○ Very good 3 ○ Good 2 ○ Fair 1 ○ Poor

89. Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as *eating, dressing, or getting around the house?*

S02C15

1 ○ Yes 2 ○ No

90. Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?

S02C16

1 ○ Yes 2 ○ No

91. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?

S02C17

1 ○ Yes 2 ○ No

92. We want to know your rating of how well your health plan has done in providing the equipment, services, and help you need.

Use any number from 0 to 10 where 0 is the worst your plan could do and 10 is the best your plan could do. How would you rate your health plan now?

S02C18

○ 0 Worst your health plan could do
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best your health plan could do

93. In the last 12 months, have you been a patient in a hospital overnight or longer?

S02C19

1 ○ Yes 2 ○ No

94. Do you now have any physicial or medical conditions that have lasted for at least 3 months? [Women: DO NOT include pregnancy.]

S02C20 | See Note 28

1 ○ Yes 2 ○ No **Go to Question 97**

95. In the last 12 months, have you seen a doctor or other health provider more than twice for any of these conditions?

1 ○ Yes 2 ○ No -6 ○ I have no conditions that have lasted 3 months

S02C21 | See Note 28

[redacted]

96. Have you been taking prescription medicine for at least 3 months for any of these conditions?

S02C22

1 ⬭ Yes 2 ⬭ No -6 ⬭ I have no conditions that have lasted 3 months

See Note 28

97. What is the highest grade or level of school that you have completed?

SREDA

1 ⬭ 8th grade or less
2 ⬭ Some high school, but did not graduate
3 ⬭ High school graduate or GED
4 ⬭ Some college or 2-year degree
5 ⬭ 4-year college graduate
6 ⬭ More than 4-year college degree

98. Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)

H02077

1 ⬭ No, not Spanish, Hispanic, or Latino
2 ⬭ Yes, Mexican, Mexican American, Chicano
3 ⬭ Yes, Puerto Rican
4 ⬭ Yes, Cuban
5 ⬭ Yes, other Spanish, Hispanic, or Latino

99. What is your race? (Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRACEA-SRACEE

A ⬭ White
B ⬭ Black or African American
C ⬭ American Indian or Alaska Native
D ⬭ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ⬭ Native Hawaiian or other Pacific Islander (e.g., Somoan, Guamanian, or Chamorro)

100. What is your age now?

SRAGE

1 ⬭ 18 to 24 2 ⬭ 25 to 34 3 ⬭ 35 to 44 4 ⬭ 45 to 54 5 ⬭ 55 to 64 6 ⬭ 65 to 74 7 ⬭ 75 or older

EYE GLASSES OR EYE WEAR

The next series of questions ask you about your experiences in getting eyeglasses or eyewear from a military treatment facility.

101. In the last 12 months, have received any eyewear from a military treatment facility?

1 ⬭ Yes 2 ⬭ No **Go to the End of the Questionnaire**

S02E01 See Note 29

102. Did you receive your eyewear as soon as you wanted?

1 ⬭ Yes 2 ⬭ No

S02E02 See Note 29

103. In the last 12 months, how much of a problem, if any, was it to get eyeglass frames that you considered appealing, from a military treatment facility?

1 ⬭ A big problem 2 ⬭ A small problem 3 ⬭ Not a problem

S02E03 See Note 29

104. In the last 12 months, how much of a problem, if any, was it to get eyewear or eyeglasses that had the correct prescription?

1 ⬭ A big problem 2 ⬭ A small problem 3 ⬭ Not a problem

S02E04 See Note 29

[redacted] [redacted]

105. In the last 12 months, how much of a problem, if any, was it to get eyeglass frames that properly fit you?

1 ⬭ A big problem 2 ⬭ A small problem 3 ⬭ Not a problem

S02E05 | See Note 29

The Frames of Choice Program entitles active duty personnel to select one pair of civilian-style frames every 12 months at no cost from military eye clinics.

106. Do you wear "Frame of Choice" eyewear?

S02E06 | See Note 29 | See Note 30

-6 ⬭ I am not active duty **Go to Question 107**
1 ⬭ Yes
2 ⬭ No, I am active duty but do not wear "Frame of Choice" eyewear **Go to Question 107**

107. Is your "Frame of Choice" your preferred military eyewear?

S02E07 | See Note 29 | See Note 30

1 ⬭ Yes 2 ⬭ No

108. What is the most important factor in your decision to use military-issue eyewear or eyeglasses?

Select only one

1 ⬭ Cost to you
2 ⬭ Variety of eyeglass frames to choose from
3 ⬭ Convenience of location
4 ⬭ Timely delivery of eyewear/eyeglasses
5 ⬭ Quality of eyeglass frame
6 ⬭ Quality of eye care
7 ⬭ Customer service

S02E08 | See Note 29

109. Would you recommend military-issue eyeglasses to your family and friends?

S02E09 | See Note 29

1 ⬭ Yes 2 ⬭ No

THANK YOU

Please return the completed survey in the postage-paid envelope.

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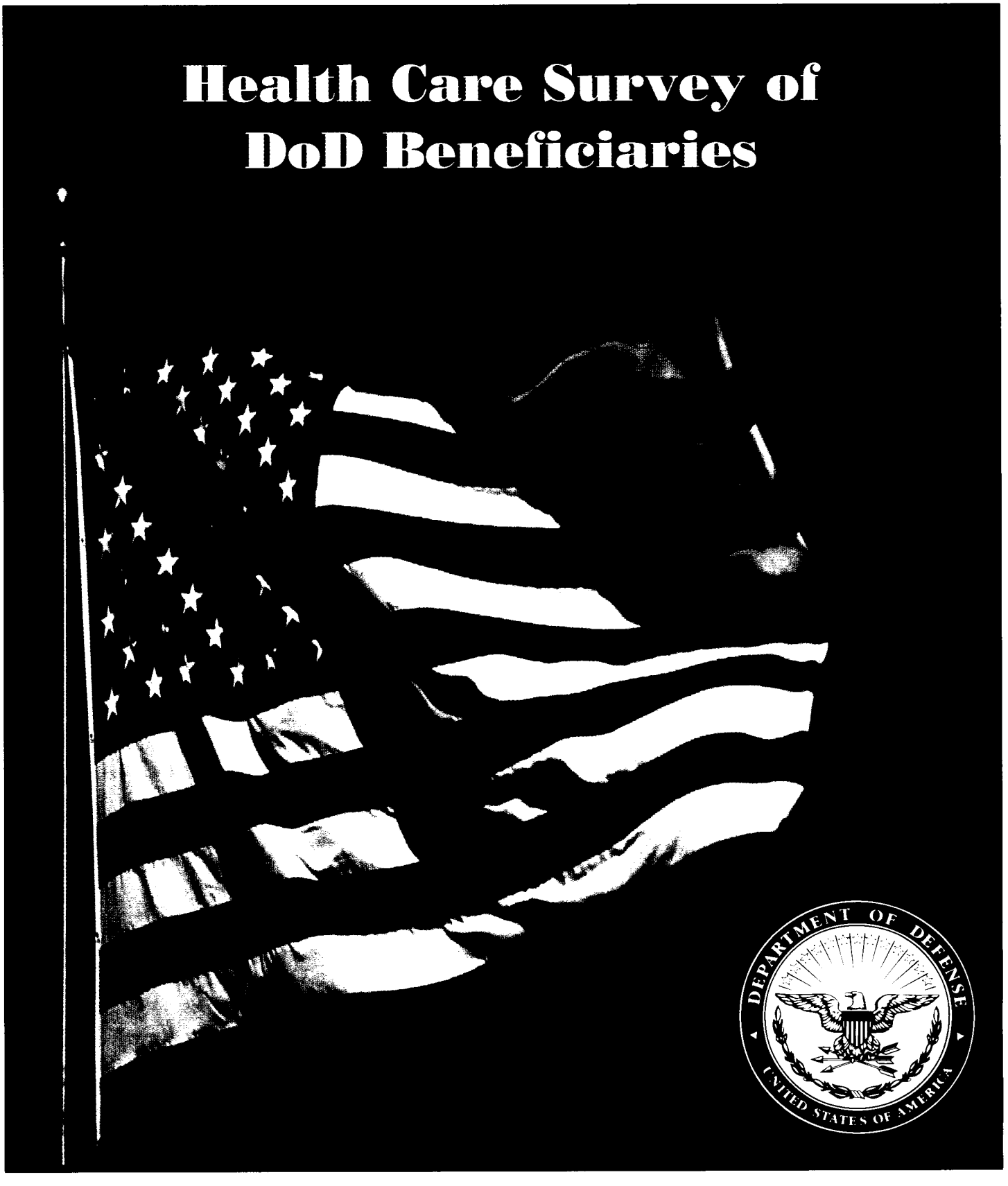
Health Care Survey of DoD Beneficiaries



July 2002

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SURVEY INSTRUCTIONS

Answer all the questions by checking the circle to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see a note that tells you what question to answer next, like this:

○ Yes **Go to Question 1**
○ No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If you have misplaced the envelope, our address is:

Office of the Assistant Secretary of Defense (Health Affairs)
c/o Survey Processing Center
PO Box 82660
Lincoln, NE 68501-9462

According to the Privacy Act of 1974 (Public Law 93-579), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C., Chapter 55, Public Law 102-484, E.O. 9397.

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military healthcare system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None

Disclosure: Voluntary. Failure to respond will not result in any penalty to the respondent. However, maximum participation is encouraged so that data will be as complete and representative as possible.

----------SURVEY STARTS HERE----------

This survey is about the health care of the person addressed in the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to the person named in the cover letter.

1. Are you the person whose name appears on the mailing label of this envelope?

H02001

1 ○ Yes **Go to Question 2**
2 ○ No **Please give this questionnaire to the person addressed on the envelope.**

2. **By which of the following health plans are you currently covered? MARK ALL THAT APPLY.**

a. Military Health Plans

A ○ TRICARE Prime
C ○ TRICARE Extra or Standard (CHAMPUS)
N ○ TRICARE Plus

H02002A-H02002N

b. Other Health Plans

F ○ Medicare
G ○ Federal Employees Health Benefit Program (FEHBP)
H ○ Medicaid
I ○ A civilian HMO (such as Kaiser)
J ○ Other civilian health insurance (such as Blue Cross)
K ○ Uniformed Services Family Health Plan (USFHP)
M ○ The Veterans Administration (VA)
L ○ Not Sure

3. **Currently, are you covered by Medicare Part A?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part A helps pay for inpatient hospital care.

1 ○ Yes, I am now covered by Medicare Part A
2 ○ No, I am not covered by Medicare Part A

H02003

4. **Currently, are you covered by Medicare Part B?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

1 ○ Yes, I am now covered by Medicare Part B
2 ○ No, I am not covered by Medicare Part B

H02004

5. **Currently, are you covered by Medicare supplemental insurance?** Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

1 ○ Yes, I am now covered by Medicare supplemental insurance
2 ○ No, I am not covered by Medicare supplemental insurance

H02005

6. **Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE.**

1 ○ TRICARE Prime
3 ○ TRICARE Extra or Standard (CHAMPUS)
11 ○ TRICARE Plus
4 ○ Medicare
5 ○ Federal Employees Health Benefit Program (FEHBP)
6 ○ Medicaid
7 ○ A civilian HMO (such as Kaiser)
8 ○ Other civilian health insurance (such as Blue Cross)
9 ○ Uniformed Services Family Health Plan (USFHP)
10 ○ The Veterans Administration (VA)
-5 ○ Not sure
-6 ○ Did not use any health plan in the last 12 months **Go to Question 8**

H02006

See Note 1

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 6.

7. **How many months or years in a row have you been in this health plan?**

1 ○ Less than 6 months
2 ○ 6 up to 12 months
3 ○ 12 up to 24 months
4 ○ 2 up to 5 years
5 ○ 5 up to 10 years
6 ○ 10 or more years

H02007
See Note 1

YOUR PERSONAL DOCTOR, OR NURSE

The next questions ask about your own healthcare. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

8. **A personal doctor or nurse is the health provider who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant.**

When you joined your health plan or at any time since then, did you get a new personal doctor or nurse?

1 ○ Yes 2 ○ No **Go to Question 10**

H02008
See Note 2

9. **With the choices your health plan gave you, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?**

H02009 See Note 2

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I didn't get a new personal doctor or nurse.

10. **Do you have one person you think of as your personal doctor or nurse?**

1 ○ Yes 2 ○ No **Go to Question 12**

H02010
See Note 3

11. **We want to know your rating of your personal doctor or nurse.**

Use any number from 0 to 10 where 0 is the worst personal doctor or nurse possible, and 10 is the best personal doctor or nurse possible. How would you rate your personal doctor or nurse now?

○ 0 Worst personal doctor or nurse possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best personal doctor or nurse possible
-6 ○ I don't have a personal doctor or nurse.

H02011
See Note 3

12. **Are you currently enrolled in TRICARE Prime?**

1 ○ Yes 2 ○ No **Go to Question 15**

H02012
See Note 4

13. **As a member of TRICARE Prime, do you have a Primary Care Manager (PCM) based in a military or civilian facility?**

(In TRICARE Prime, a PCM is a healthcare provider who is your primary point of contact with the health system. He or she provides routine care, coordinates your total healthcare, arranges for hospital admissions, makes referrals to specialists, maintains health records, and recommends preventive and wellness services.)

H02013

1 ○ A primary care manager based at a military facility
2 ○ A primary care manager based at a civilian facility
3 ○ Not sure **Go to Question 15**
-6 ○ Not a member of TRICARE Prime **Go to Question 15**

See Note 4 | See Note 5

14. **Do you know your PCM's name?**

H02014

1 ○ Yes 2 ○ No

See Note 4 | See Note 5

----------GETTING HEALTHCARE FROM A SPECIALIST----------

When you answer the next questions, do not include dental visits.

15. **Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of healthcare.**

In the last 12 months, did you or a doctor or nurse think you needed to see a specialist?

H02015

See Note 6

1 ○ Yes 2 ○ No **Go to Question 17**

16. **In the last 12 months, how much of a problem, if any, was it to get a referral to a specialist that you needed to see?**

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't need to see a specialist in the last 12 months.

H02016

See Note 6

17. **In the last 12 months, did you see a specialist?**

H02017

1 ○ Yes 2 ○ No **Go to Question 20**

See Note 7

18. **We want to know your rating of the specialist you saw most often in the last 12 months, including a personal doctor if he or she was a specialist.**

H02018

See Note 7

Use any number from 0 to 10 where 0 is the worst specialist possible, and 10 is the best specialist possible. How would you rate the specialist?

○ 0 Worst specialist possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best specialist possible
-6 ○ I didn't see a specialist in the last 12 months.

19. **In the last 12 months, was the specialist you saw most often the same doctor as your personal doctor?**

H02019

See Note 7

1 ○ Yes 2 ○ No -6 ○ I don't have a personal doctor or I didn't see a specialist in the last 12 months.

CALLING DOCTORS' OFFICES

20. **In the last 12 months, did you call a doctor's office or clinic during regular office hours to get help or advice for yourself?**

H02020

See Note 8

1 ○ Yes 2 ○ No **Go to Question 22**

21. **In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed ?**

1 ○ Never 3 ○ Usually -6 ○ I didn't call for help or advice during regular office hours in the last 12 months.
2 ○ Sometimes 4 ○ Always

H02021

See Note 8

YOUR HEALTHCARE IN THE LAST 12 MONTHS

22. **A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for healthcare.**

In the last 12 months, did you make any appointments with a doctor or other health provider for regular or routine healthcare?

H02022

See Note 9

1 ○ Yes 2 ○ No **Go to Question 25**

23. **In the last 12 months, how often did you get an appointment for regular or routine healthcare as soon as you wanted?**

1 ○ Never 3 ○ Usually -6 ○ I didn't need an appointment for regular or routine care in the last 12 months.
2 ○ Sometimes 4 ○ Always

H02023 See Note 9

24. **In the last 12 months, how many days did you usually have to wait between making an appointment for regular or routine care and actually seeing a provider?**

H02024

See Note 9

1 ○ Same day 4 ○ 4-7 days 7 ○ 31 days or longer
2 ○ 1 day 5 ○ 8-14 days 8 ○ I tried but could not get an appointment.
3 ○ 2-3 days 6 ○ 15-30 days -6 ○ I didn't need an appointment for regular or routine care in the last 12 months.

25. **In the last 12 months, did you have an illness or injury that needed care right away from a doctor's office, clinic, or emergency room?**

H02025

See Note 10

1 ○ Yes 2 ○ No **Go to Question 28**

26. **In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?**

H02026

See Note 10

1 ○ Never 3 ○ Usually -6 ○ I didn't need care right away for an illness or injury in last 12 months.
2 ○ Sometimes 4 ○ Always

27. **In the last 12 months, how long did you usually have to wait between trying to get care and actually seeing a provider for an illness or injury?**

H02027

See Note 10

1 ○ Same day 4 ○ 3 days 7 ○ 15 days or longer
2 ○ 1 day 5 ○ 4-7 days -6 ○ I didn't need care right away for an illness or injury in the last 12 months.
3 ○ 2 days 6 ○ 8-14 days

28. **In the last 12 months, how many times did you go to an emergency room to get care for yourself?**

1 ○ None 2 ○ 1 3 ○ 2-3 4 ○ 4-6 5 ○ More than 6

H02028

29. **In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get care for yourself?**

1 ○ None **Go to Question 40** 2 ○ 1 3 ○ 2 4 ○ 3 5 ○ 4 6 ○ 5 to 9 7 ○ 10 or more

H02029

See Note 11

30. **In the last 12 months, how much of a problem, if any, was it to get the care you or a doctor believed necessary?**

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

H02030

See Note 11

31. **In the last 12 months, how much of a problem, if any, were delays in healthcare while you waited for approval from your health plan?**

1 ○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

H02031

See Note 11

32. **In the last 12 months, how often did you wait in the doctor's office or clinic more than 15 minutes past your appointment time to see the person you went to see?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02032

See Note 11

33. **In the last 12 months, how often did office staff at a doctor's office or clinic treat you with courtesy and respect?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02033

See Note 11

34. **In the last 12 months, how often were office staff at a doctor's office or clinic as helpful as you thought they should be?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02034

See Note 11

35. **In the last 12 months, how often did doctors or other health providers listen carefully to you?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02035

See Note 11

36. **In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02036

See Note 11

37. **In the last 12 months, how often did doctors or other health providers show respect for what you had to say?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02037

See Note 11

38. **In the last 12 months, how often did doctors or other health providers spend enough time with you?**

1 ○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02038

See Note 11

39. **We want to know your rating of all your healthcare in the last 12 months from all doctors and other health providers.**

Use any number from 0 to 10 where 0 is the worst healthcare possible, and 10 is the best healthcare possible. How would you rate all your healthcare?

H02039

See Note 11

○ 0 Worst healthcare possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best healthcare possible
-6 ○ I had no visits in the last 12 months.

DENTAL CARE

40. **In the last 12 months, did you get care from a dentist's office or dental clinic?**

S02D01

See Note 12

1 ○ Yes 2 ○ No **Go to Question 43**

41. **In the last 12 months, how many times did you go to a dentist's office or dental clinic for care for yourself?**

S02D02

See Note 12

1 ○ None **Go to Question 43** 2 ○ 1 3 ○ 2 4 ○ 3 5 ○ 4 6 ○ 5 to 9 7 ○ 10 or more

42. **We want to know your rating of your dental care from all dentists and other dental providers in the last 12 months.**

Use any number from 0 to 10 where 0 is the worst dental care possible, and 10 is the best care possible. How would you rate your dental care?

S02D03

See Note 12

○ 0 Worst dental care possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best dental care possible
-6 ○ I didn't have any dental care in the last 12 months.

BEHAVIORAL HEALTH

43. In the last 12 months, did you need any treatment or counseling for a personal or family problem?

S02M01

1 ○ Yes 2 ○ No **Go to Question 46**

See Note 13

44. In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?

S02M02

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't get any prescriptions in the last 12 months

See Note 13

45. We want to know your rating of all the treatment or counseling you got in the last 12 months.

Use any number from 0 to 10 where 0 is the worst treatment or counseling possible, and 10 is the best treatment or counseling possible. How would you rate your treatment or counseling?

S02M03

○ 0 Worst treatment or counseling possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best treatment or counseling possible

See Note 13

PRESCRIPTION MEDICINE

46. In the last 12 months, did you get any new prescription medicine or refill a prescription?

S02P01

1 ○ Yes 2 ○ No **Go to Question 50**

See Note 14

47. In the last 12 months, how much of a problem, if any, was it to get your prescription medicine from your health plan?

S02P02

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't get any prescriptions in the last 12 months

See Note 14

48. In the last 12 months, how often did you get the prescription medicine you needed through your health plan?

S02P03

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always
-6 ○ I didn't get any prescriptions in the last 12 months

See Note 14

49. **In the last 12 months, how many prescriptions did you have that were written by a civilian provider but were filled at a military pharmacy? INCLUDE REFILLS.**

H02040

1 ○ None 2 ○ 1-5 3 ○ 6-10 4 ○ 11-15 5 ○ More than 15

50. **In the last 12 months, where did you go most often for your healthcare? MARK ONLY ONE ANSWER.**

H02041

1 ○ A military facility - This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
2 ○ A civilian facility - This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
3 ○ Uniformed Services Family Health Plan facility (USFHP)
4 ○ Veterans Affairs (VA) clinic or hospital
5 ○ I went to none of the listed types of facilities in the last 12 months.

51. **What is the single most important reason to you in your decision whether to use a military treatment facility (MTF) for your healthcare? MARK ONLY ONE**

H02042

1 ○ Cost to you
2 ○ Convenience of location
3 ○ Quality of healthcare
4 ○ Convenience of telephone access
5 ○ Timeliness of appointments
6 ○ Military courtesy
7 ○ Relationship with a personal physician
8 ○ Co-location of services in a MTF
9 ○ Lack of paperwork/claims
10 ○ I am active duty and entitled to MTF care

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 6.

52. **Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you.**

H02043

In the last 12 months, did you or anyone else send in any claims to your health plan?

See Note 15

1 ○ Yes 2 ○ No **Go to Question 56** -5 ○ Don't know **Go to Question 56**

53. **In the last 12 months, how often did your health plan handle your claims in a reasonable time?**

H02044

1 ○ Never 3 ○ Usually -5 ○ Don't know
2 ○ Sometimes 4 ○ Always -6 ○ No claims were sent for me in the last 12 months.

See Note 15

54. **In the last 12 months, how often did your health plan handle your claims correctly?**

H02045

1 ○ Never 3 ○ Usually -5 ○ Don't know
2 ○ Sometimes 4 ○ Always -6 ○ No claims were sent for me in the last 12 months.

See Note 15

55. **In the last 12 months, before you went for care, how often did your health plan make it clear how much you would have to pay?**

H02046

1 ○ Never 3 ○ Usually -5 ○ Don't know
2 ○ Sometimes 4 ○ Always -6 ○ No claims were sent for me in the last 12 months.

See Note 15

56. **In the last 12 months, did you look for any information in written materials from your health plan?**

1 ○ Yes 2 ○ No **Go to Question 58**

H02047
See Note 16

57. **In the last 12 months, how much of a problem, if any, was it to find or understand information in the written materials?**

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't look for information from my health plan in the last 12 months.

H02048
See Note 16

58. **In the last 12 months, did you call your health plan's customer service to get information or help?**

1 ○ Yes 2 ○ No **Go to Question 60**

H02049
See Note 17

59. **In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?**

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't call my health plan's customer service in the last 12 months.

H02050
See Note 17

60. **In the last 12 months, have you called or written your health plan with a complaint or problem?**

1 ○ Yes 2 ○ No **Go to Question 63**

H02051
See Note 18

61. **How long did it take for the health plan to resolve your complaint?**

1 ○ Same day
2 ○ 1 week
3 ○ 2 weeks
4 ○ 3 weeks
5 ○ 4 or more weeks
6 ○ I am still waiting for it to be settled.
-6 ○ I haven't called or written with a complaint or problem in the last 12 months.

H02052
See Note 18

62. **Was your complaint or problem settled to your satisfaction?**

1 ○ Yes
2 ○ No
3 ○ I am still waiting for it to be settled.
-6 ○ I haven't called or written with a complaint or problem in the last 12 months.

H02053
See Note 18

63. **Paperwork means things like having your records changed, processing forms, or other paperwork related to getting care.**

In the last 12 months, did you have any experiences with paperwork for your health plan?

1 ○ Yes 2 ○ No **Go to Question 65**

H02054
See Note 19

64. **In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?**

1 ○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't have any experiences with paperwork for my health plan in the last 12 months.

H02055
See Note 19

65. **We want to know your rating of all your experience with your health plan.**

Use any number from 0 to 10 where 0 is the worst health plan possible, and 10 is the best health plan possible. How would you rate your health plan now?

H02056

- ○ 0 Worst health plan possible
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9
- ○ 10 Best health plan possible

66. **If you are currently enrolled in TRICARE Prime, how likely are you to disenroll from TRICARE Prime for a different type of health plan in the next 12 months?**

H02057

1 ○ Very unlikely
2 ○ Unlikely
3 ○ Neither likely nor unlikely
4 ○ Likely
5 ○ Very likely
-5 ○ Not sure
-6 ○ I am not currently enrolled in TRICARE Prime.

----------PREVENTATIVE CARE----------

Preventative care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or a cholesterol screening are examples of preventative care.

67. **Not counting when you were sick or pregnant, when was the last time you had a general medical or physical examination or checkup?**

H02058

5 ○ Less than 12 months ago
4 ○ 1 to 2 years ago
3 ○ More than 2 but less than 5 years ago
2 ○ 5 or more years ago
1 ○ Never had a general physical or checkup

68. **When did you last have a blood pressure reading?**

H02059

3 ○ Less than 12 months ago
2 ○ 1 to 2 years ago
1 ○ More than 2 years ago

69. **Do you know if your blood pressure is too high?**

H02060

1 ○ Yes, it is too high
2 ○ No, it is not too high
3 ○ Don't know

70. **When did you last have a cholesterol screening, that is, a test to determine the level of cholesterol in your blood?**

5 ○ Less than 12 months ago
4 ○ 1 to 2 years ago
3 ○ More than 2 but less than 5 years ago
2 ○ 5 or more years ago
1 ○ Never had a cholesterol screening

H02061

71. When did you last have a flu shot?

H02062

4 ○ Less than 12 months ago 3 ○ 1 to 2 years ago 2 ○ More than 2 years ago 1 ○ Never had a flu shot

72. Have you ever smoked at least 100 cigarettes in your entire life?

H02063

See Note 24

1 ○ Yes 2 ○ No **Go to Question 76** -5 ○ Don't know **Go to Question 76**

73. Do you now smoke every day, some days or not at all?

H02064

See Note 24

4 ○ Every day **Go to Question 75** 2 ○ Not at all **Go to Question 74**
3 ○ Some days **Go to Question 75** -5 ○ Don't know **Go to Question 76**

74. How long has it been since you quit smoking cigarettes?

H02065

See Note 24

3 ○ Less than 12 months **Go to Question 75** -5 ○ Don't know **Go to Question 76**
2 ○ 12 months or more **Go to Question 76**

75. In the last 12 months, on how many visits were you advised to quit smoking by a doctor or other health provider in your plan?

H02066

See Note 24

1 ○ None 2 ○ 1 visit 3 ○ 2 to 4 visits 4 ○ 5 to 9 visits 5 ○ 10 or more visits

76. Are you male or female?

H02067

See Note 25

1 ○ Male **Go to Question 77** 2 ○ Female **Go to Question 78**

77. When was the last time you had a prostate gland examination or blood test for prostate disease?

H02068

See Note 25

5 ○ Within the last 12 months 3 ○ More than 2 but less than 5 years ago 1 ○ Never had a prostate gland examination
4 ○ 1 to 2 years ago 2 ○ 5 or more years ago

Go to Question 85

78. When did you last have a Pap smear test?

H02069

See Note 25

5 ○ Within the last 12 months 3 ○ More than 3 but less than 5 years ago 1 ○ Never had a Pap smear test
4 ○ 1 to 3 years ago 2 ○ 5 or more years ago

79. Are you under age 40?

H02070

See Note 25 | See Note 26

1 ○ Yes **Go to Question 82** 2 ○ No

80. When was the last time your breasts were checked by mammography?

H02071

See Note 25 | See Note 26

5 ○ Within the last 12 months 3 ○ More than 2 years but less than 5 years ago 1 ○ Never had a mammogram
4 ○ 1 to 2 years ago 2 ○ 5 or more years ago

H02072

See Note 25 | See Note 26

81. When was the last time you had a breast exam by a healthcare professional?

5 ○ Within the last 12 months
4 ○ 1 to 2 years ago
3 ○ More than 2 years but less than 5 years ago
2 ○ 5 or more years ago
1 ○ Never had a breast exam

H02073

See Note 25 | See Note 27

82. Have you been pregnant in the last 12 months or are you pregnant now?

1 ○ Yes, I am currently pregnant **Go to Question 83**
2 ○ No, I am not currently pregnant, but have been in the past 12 months **Go to Question 84**
3 ○ No, I am not currently pregnant, and have not been pregnant in the past 12 months **Go to Question 85**

H02074

See Note 25 | See Note 27

83. In what trimester is your pregnancy?

1 ○ First trimester 2 ○ Second trimester 3 ○ Third trimester

H02075

See Note 25

See Note 27

84. In which trimester did you first receive prenatal care?

4 ○ First trimester 3 ○ Second trimester 2 ○ Third trimester 1 ○ Did not receive prenatal care

ABOUT YOU

H02076

85. In general, how would you rate <u>your overall health</u> now?

5 ○ Excellent 4 ○ Very good 3 ○ Good 2 ○ Fair 1 ○ Poor

S02X01

86. In general, how would you rate <u>your overall mental or emotional health</u> now?

5 ○ Excellent 4 ○ Very good 3 ○ Good 2 ○ Fair 1 ○ Poor

S02X02

87. We want to know how you feel about <u>your life overall</u>.

Use <u>any number from 0 to 10</u> where 0 is the worst life possible, and 10 is the best life possible. How would you rate your life <u>right now</u>?

○ 0 Worst life possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best life possible

88. What is the highest grade or level of school that you have completed?

SREDA

1 ○ 8th grade or less
2 ○ Some high school, but did not graduate
3 ○ High school graduate or GED
4 ○ Some college or 2-year degree
5 ○ 4-year college graduate
6 ○ More than 4-year college degree

89. Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)

H02077

1 ○ No, not Spanish, Hispanic, or Latino
2 ○ Yes, Mexican, Mexican American, Chicano
3 ○ Yes, Puerto Rican
4 ○ Yes, Cuban
5 ○ Yes, other Spanish, Hispanic, or Latino

90. What is your race? (Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRACEA-SRACEF

A ○ White
B ○ Black or African American
C ○ American Indian or Alaska Native
D ○ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ○ Native Hawaiian or other Pacific Islander (e.g., Somoan, Guamanian, or Chamorro)

91. What is your age now?

SRAGE

1 ○ 18 to 24 2 ○ 25 to 34 3 ○ 35 to 44 4 ○ 45 to 54 5 ○ 55 to 64 6 ○ 65 to 74 7 ○ 75 or older

THANK YOU

Please return the completed survey in the postage-paid envelope.

October 2002

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SURVEY INSTRUCTIONS

Answer all the questions by checking the circle to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see a note that tells you what question to answer next, like this:

○ Yes **Go to Question 1**
○ No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If you have misplaced the envelope, our address is:

Office of the Assistant Secretary of Defense (Health Affairs)
c/o Survey Processing Center
PO Box 82660
Lincoln, NE 68501-9462

According to the Privacy Act of 1974 (Public Law 93-579), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C., Chapter 55, Public Law 102-484, E.O. 9397.

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military healthcare system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None

Disclosure: Voluntary. Failure to respond will not result in any penalty to the respondent. However, maximum participation is encouraged so that data will be as complete and representative as possible.

----------SURVEY STARTS HERE----------

This survey is about the health care of the person addressed in the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to the person named in the cover letter.

H02001

1. Are you the person whose name appears on the mailing label of this envelope?

○ Yes **Go to Question 2**
2 ○ No **Please give this questionnaire to the person addressed on the envelope.**

2. By which of the following health plans are you currently covered? MARK ALL THAT APPLY.

a. Military Health Plans

A ○ TRICARE Prime
C ○ TRICARE Extra or Standard (CHAMPUS)
N ○ TRICARE Plus
O ○ TRICARE for Life

H02002A- H02002O

b. Other Health Plans

F ○ Medicare
G ○ Federal Employees Health Benefit Program (FEHBP)
H ○ Medicaid
I ○ A civilian HMO (such as Kaiser)
J ○ Other civilian health insurance (such as Blue Cross)
K ○ Uniformed Services Family Health Plan (USFHP)
M ○ The Veterans Administration (VA)
L ○ Not Sure

3. **Currently, are you covered by Medicare Part A?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part A helps pay for inpatient hospital care.

H02003

○ Yes, I am now covered by Medicare Part A
2 ○ No, I am not covered by Medicare Part A

4. **Currently, are you covered by Medicare Part B?** Medicare is the federal health insurance program for people aged 65 or older and for certain disabled people. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H02004

○ Yes, I am now covered by Medicare Part B
2 ○ No, I am not covered by Medicare Part B

5. **Currently, are you covered by Medicare supplemental insurance?** Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H02005

○ Yes, I am now covered by Medicare supplemental insurance
2 ○ No, I am not covered by Medicare supplemental insurance

6. Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE.

H02006 See Note 1

○ TRICARE Prime
3 ○ TRICARE Extra or Standard (CHAMPUS)
11 ○ TRICARE Plus
4 ○ Medicare
5 ○ Federal Employees Health Benefit Program (FEHBP)
6 ○ Medicaid
7 ○ A civilian HMO (such as Kaiser)
8 ○ Other civilian health insurance (such as Blue Cross)
9 ○ Uniformed Services Family Health Plan (USFHP)
10 ○ The Veterans Administration (VA)
-5 ○ Not sure
-6 ○ Did not use any health plan in the last 12 months **Go to Question 8**

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 6.

7. How many months or years in a row have you been in this health plan?

H02007 | See Note 1

- ○ Less than 6 months
- 2 ○ 6 up to 12 months
- 3 ○ 12 up to 24 months
- 4 ○ 2 up to 5 years
- 5 ○ 5 up to 10 years
- 6 ○ 10 or more years

----------YOUR PERSONAL DOCTOR, OR NURSE----------

The next questions ask about your own healthcare. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

8. A personal doctor or nurse is the health provider who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant.

When you joined your health plan or at any time since then, did you get a new personal doctor or nurse?

H02008 | See Note 2

- ○ Yes
- 2 ○ No **Go to Question 10**

9. With the choices your health plan gave you, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?

H02009 | See Note 2

- ○ A big problem
- 2 ○ A small problem
- 3 ○ Not a problem
- -6 ○ I didn't get a new personal doctor or nurse.

10. Do you have one person you think of as your personal doctor or nurse?

H02010 | See Note 3

- ○ Yes
- 2 ○ No **Go to Question 12**

11. We want to know your rating of your personal doctor or nurse.

Use any number from 0 to 10 where 0 is the worst personal doctor or nurse possible, and 10 is the best personal doctor or nurse possible. How would you rate your personal doctor or nurse now?

H02011 | See Note 3

- ○ 0 Worst personal doctor or nurse possible
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9
- ○ 10 Best personal doctor or nurse possible
- -6 ○ I don't have a personal doctor or nurse.

12. Are you currently enrolled in TRICARE Prime?

H02012 | See Note 4

- ○ Yes
- 2 ○ No **Go to Question 15**

13. As a member of TRICARE Prime, do you have a Primary Care Manager (PCM) based in a <u>military</u> or <u>civilian</u> facility?

(In TRICARE Prime, a PCM is a healthcare provider who is your primary point of contact with the health system. He or she provides routine care, coordinates your total healthcare, arranges for hospital admissions, makes referrals to specialists, maintains health records, and recommends preventive and wellness services.)

H02013 | See Note 4 | See Note 5

○ A primary care manager based at a military facility
2 ○ A primary care manager based at a civilian facility
3 ○ Not sure
-6 ○ Not a member of TRICARE Prime

14. Do you know your PCM's name?

H02014 | See Note 4 | See Note 5

○ Yes 2 ○ No

----------GETTING HEALTHCARE FROM A SPECIALIST----------

When you answer the next questions, do not include dental visits.

15. <u>Specialists</u> are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of healthcare.

H02015 | See Note 6

In the last 12 months, did you or a doctor or nurse think you needed to see a specialist?

○ Yes 2 ○ No **Go to Question 17**

16. In the last 12 months, how much of a problem, if any, was it to get a referral to a specialist that you needed to see?

H02016 | See Note 6

○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't need to see a specialist in the last 12 months.

17. In the last 12 months, did you see a specialist?

H02017 | See Note 7

○ Yes 2 ○ No **Go to Question 20**

18. We want to know your rating of the <u>specialist you saw most often</u> in the last 12 months, including a personal doctor if he or she was a specialist.

Use <u>any number from 0 to 10</u> where 0 is the worst specialist possible, and 10 is the best specialist possible. How would you rate the specialist?

H02018 | See Note 7

○ 0 Worst specialist possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best specialist possible
-6 ○ I didn't see a specialist in the last 12 months.

19. In the last 12 months, was the specialist you saw most often the same doctor as your personal doctor?

○ Yes 2 ○ No ○ I don't have a personal doctor or I didn't see a specialist in the last 12 months.

H02019 | See Note 7

----------CALLING DOCTORS' OFFICES----------

20. In the last 12 months, did you call a doctor's office or clinic during regular office hours to get help or advice for yourself?

○ Yes 2 ○ No **Go to Question 22**

H02020 | See Note 8

21. In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed?

H02021 | See Note 8

○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always
-6 ○ I didn't call for help or advice during regular office hours in the last 12 months.

----------YOUR HEALTHCARE IN THE LAST 12 MONTHS----------

22. A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for healthcare.

In the last 12 months, did you make any appointments with a doctor or other health provider for regular or routine healthcare?

H02022 | See Note 9

○ Yes 2 ○ No **Go to Question 25**

23. In the last 12 months, how often did you get an appointment for regular or routine healthcare as soon as you wanted?

H02023 | See Note 9

○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always
-6 ○ I didn't need an appointment for regular or routine care in the last 12 months.

24. In the last 12 months, how many days did you usually have to wait between making an appointment for regular or routine care and actually seeing a provider?

H02024 | See Note 9

○ Same day
2 ○ 1 day
3 ○ 2-3 days
4 ○ 4-7 days
5 ○ 8-14 days
6 ○ 15-30 days
7 ○ 31 days or longer
8 ○ I tried but could not get an appointment.
-6 ○ I didn't need an appointment for regular or routine care in the last 12 months.

25. In the last 12 months, did you have an illness or injury that needed care right away from a doctor's office, clinic, or emergency room?

H02025 | See Note 10

○ Yes 2 ○ No **Go to Question 28**

26. In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?

H02026 | See Note 10

○ Never 3 ○ Usually -6 ○ I didn't need care right away for an illness or injury in last 12 months.
2 ○ Sometimes 4 ○ Always

27. In the last 12 months, how long did you usually have to wait between trying to get care and actually seeing a provider for an illness or injury?

H02027 | See Note 10

○ Same day 5 ○ 4-7 days
2 ○ 1 day 6 ○ 8-14 days
3 ○ 2 days 7 ○ 15 days or longer
4 ○ 3 days -6 ○ I didn't need care right away for an illness or injury in the last 12 months.

28. In the last 12 months, how many times did you go to an emergency room to get care for yourself?

○ None 2 ○ 1 3 ○ 2-3 4 ○ 4-6 5 ○ More than 6

H02028

29. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get care for yourself?

H02029 | See Note 11

○ None **Go to Question 40** 2 ○ 1 3 ○ 2 4 ○ 3 5 ○ 4 6 ○ 5 to 9 7 ○ 10 or more

30. In the last 12 months, how much of a problem, if any, was it to get the care you or a doctor believed necessary?

○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

H02030 | See Note 11

31. In the last 12 months, how much of a problem, if any, were delays in healthcare while you waited for approval from your health plan?

H02031 | See Note 11

○ A big problem 2 ○ A small problem 3 ○ Not a problem -6 ○ I had no visits in the last 12 months.

32. In the last 12 months, how often did you wait in the doctor's office or clinic more than 15 minutes past your appointment time to see the person you went to see?

H02032 | See Note 11

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

33. In the last 12 months, how often did office staff at a doctor's office or clinic treat you with courtesy and respect?

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02033 | See Note 11

34. In the last 12 months, how often were office staff at a doctor's office or clinic as helpful as you thought they should be?

H02034 | See Note 11

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

35. In the last 12 months, how often did doctors or other health providers listen carefully to you?

H02035 | See Note 11

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

36. In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?

H02036 | See Note 11

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

37. In the last 12 months, how often did doctors or other health providers show respect for what you had to say?

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02037 | See Note 11

38. In the last 12 months, how often did doctors or other health providers spend enough time with you?

○ Never 2 ○ Sometimes 3 ○ Usually 4 ○ Always -6 ○ I had no visits in the last 12 months.

H02038 | See Note 11

39. We want to know your rating of all your healthcare in the last 12 months from all doctors and other health providers.

Use any number from 0 to 10 where 0 is the worst healthcare possible, and 10 is the best healthcare possible. How would you rate all your healthcare?

H02039 | See Note 11

○ 0 Worst healthcare possible
○ 1
○ 2
○ 3
○ 4
○ 5
○ 6
○ 7
○ 8
○ 9
○ 10 Best healthcare possible
-6 ○ I had no visits in the last 12 months.

40. In the last 12 months, how many prescriptions did you have that were written by a civilian provider but were filled at a military pharmacy? INCLUDE REFILLS.

H02040

○ None 2 ○ 1-5 3 ○ 6-10 4 ○ 11-15 5 ○ More than 15

41. In the last 12 months, where did you go most often for your healthcare? MARK ONLY ONE ANSWER.

H02041

○ A military facility - This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
2 ○ A civilian facility - This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
3 ○ Uniformed Services Family Health Plan facility (USFHP)
4 ○ Veterans Affairs (VA) clinic or hospital
5 ○ I went to none of the listed types of facilities in the last 12 months.

42. What is the <u>single most important reason</u> to you in your decision whether to use a military treatment facility (MTF) for your healthcare? MARK ONLY ONE

H02042

- 1 ○ Cost to you
- 2 ○ Convenience of location
- 3 ○ Quality of healthcare
- 4 ○ Convenience of telephone access
- 5 ○ Timeliness of appointments
- 6 ○ Military courtesy
- 7 ○ Relationship with a personal physician
- 8 ○ Co-location of services in a MTF
- 9 ○ Lack of paperwork/claims
- 10 ○ I am active duty and entitled to MTF care

----------YOUR HEALTH PLAN----------

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 6.

43. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you.

H02043 | See Note 15

In the last 12 months, did you or anyone else <u>send in any claims</u> to your health plan?

○ Yes 2 ○ No **Go to Question 47** -5 ○ Don't know **Go to Question 47**

44. In the last 12 months, how often did your health plan handle your claims <u>in a reasonable time</u>?

H02044 | See Note 15

- 1 ○ Never
- 2 ○ Sometimes
- 3 ○ Usually
- 4 ○ Always
- -5 ○ Don't know
- -6 ○ No claims were sent for me in the last 12 months.

45. In the last 12 months, how often did your health plan handle your claims <u>correctly</u>?

H02045 | See Note 15

- 1 ○ Never
- 2 ○ Sometimes
- 3 ○ Usually
- 4 ○ Always
- -5 ○ Don't know
- -6 ○ No claims were sent for me in the last 12 months.

46. In the last 12 months, before you went for care, how often did your health plan <u>make it clear how much you would have to pay</u>?

H02046 | See Note 15

- 1 ○ Never
- 2 ○ Sometimes
- 3 ○ Usually
- 4 ○ Always
- -5 ○ Don't know
- -6 ○ No claims were sent for me in the last 12 months.

47. In the last 12 months, did you look for any <u>information in written materials</u> from your health plan?

H02047 | See Note 16

○ Yes 2 ○ No **Go to Question 49**

48. In the last 12 months, how much of a problem, if any, was it to find or understand information in the written materials?

H02048 | See Note 16

- 1 ○ A big problem
- 2 ○ A small problem
- 3 ○ Not a problem
- -6 ○ I didn't look for information from my health plan in the last 12 months.

49. In the last 12 months, did you call your health plan's customer service to get information or help?

H02049 | See Note 17

○ Yes 2 ○ No **Go to Question 51**

50. In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?

H02050 | See Note 17

○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't call my health plan's customer service in the last 12 months.

51. In the last 12 months, have you called or written your health plan with a complaint or problem?

H02051 | See Note 18

○ Yes 2 ○ No **Go to Question 54**

52. How long did it take for the health plan to resolve your complaint?

H02052 | See Note 18

○ Same day
2 ○ 1 week
3 ○ 2 weeks
4 ○ 3 weeks
5 ○ 4 or more weeks
6 ○ I am still waiting for it to be settled.
-6 ○ I haven't called or written with a complaint or problem in the last 12 months.

53. Was your complaint or problem settled to your satisfaction?

H02053 | See Note 18

○ Yes 3 ○ I am still waiting for it to be settled.
2 ○ No -6 ○ I haven't called or written with a complaint or problem in the last 12 months.

54. Paperwork means things like having your records changed, processing forms, or other paperwork related to getting care.

H02054 | See Note 19

In the last 12 months, did you have any experiences with paperwork for your health plan?

○ Yes 2 ○ No **Go to Question 56**

55. In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?

H02055 | See Note 19

○ A big problem
2 ○ A small problem
3 ○ Not a problem
-6 ○ I didn't have any experiences with paperwork for my health plan in the last 12 months.

56. We want to know your rating of all your experience with <u>your health plan</u>.

Use <u>any number from 0 to 10</u> where 0 is the worst health plan possible, and 10 is the best health plan possible. How would you rate your health plan <u>now</u>?

- ○ 0 Worst health plan possible
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9
- ○ 10 Best health plan possible

H02056

57. If you are <u>currently enrolled</u> in TRICARE Prime, how likely are you to <u>disenroll</u> from TRICARE Prime for a different type of health plan in the next 12 months?

- ○ Very unlikely
- 2 ○ Unlikely
- 3 ○ Neither likely nor unlikely
- 4 ○ Likely
- 5 ○ Very likely
- -5 ○ Not sure
- -6 ○ I am not currently enrolled in TRICARE Prime.

H02057

----------PREVENTATIVE CARE----------

Preventative care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or a cholesterol screening are examples of preventative care.

58. Not counting when you were sick or pregnant, when was the last time you had a general medical or physical examination or checkup?

- 5 ○ Less than 12 months ago
- 4 ○ 1 to 2 years ago
- 3 ○ More than 2 but less than 5 years ago
- 2 ○ 5 or more years ago
- ○ Never had a general physical or checkup

H02058

59. When did you last have a blood pressure reading?

- 3 ○ Less than 12 months ago
- 2 ○ 1 to 2 years ago
- ○ More than 2 years ago

H02059

60. Do you know if your blood pressure is too high?

- ○ Yes, it is too high
- 2 ○ No, it is not too high
- 3 ○ Don't know

H02060

61. When did you last have a cholesterol screening, that is, a test to determine the level of cholesterol in your blood?

- 5 ○ Less than 12 months ago
- 4 ○ 1 to 2 years ago
- 3 ○ More than 2 but less than 5 years ago
- 2 ○ 5 or more years ago
- ○ Never had a cholesterol screening

H02061

62. When did you last have a flu shot?

H02062

4 ○ Less than 12 months ago
3 ○ 1 to 2 years ago
2 ○ More than 2 years ago
○ Never had a flu shot

63. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

H02063 | See Note 24

○ Yes 2 ○ No **Go to Question 67** -5 ○ Don't know **Go to Question 67**

64. Do you now smoke every day, some days or not at all?

H02064 | See Note 24

4 ○ Every day **Go to Question 66**
3 ○ Some days **Go to Question 66**
2 ○ Not at all **Go to Question 65**
-5 ○ Don't know **Go to Question 67**

65. How long has it been since you <u>quit smoking</u> cigarettes?

H02065 | See Note 24

3 ○ Less than 12 months **Go to Question 66**
2 ○ 12 months or more **Go to Question 67**
-5 ○ Don't know **Go to Question 67**

66. In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?

H02066 | See Note 24

○ None 2 ○ 1 visit 3 ○ 2 to 4 visits 4 ○ 5 to 9 visits 5 ○ 10 or more visits

67. Are you male or female?

H02067 | See Note 25 (Part A)

○ Male **Go to Question 68** 2 ○ Female **Go to Question 69**

68. When was the last time you had a prostate gland examination or blood test for prostate disease?

H02068 | See Note 25 (Part A, B)

5 ○ Within the last 12 months
4 ○ 1 to 2 years ago
3 ○ More than 2 but less than 5 years ago
2 ○ 5 or more years ago
○ Never had a prostate gland examination

Go to Question 76

69. When did you last have a Pap smear test?

H02069 | See Note 25 (Part A, C)

5 ○ Within the last 12 months
4 ○ 1 to 3 years ago
3 ○ More than 3 but less than 5 years ago
2 ○ 5 or more years ago
○ Never had a Pap smear test

70. Are you under age 40?

H02070 | See Note 25 (Part A, C) | See Note 26

○ Yes **Go to Question 73** 2 ○ No

71. When was the last time your breasts were checked by mammography?

H02071 | See Note 25 (Part A, C) | See Note 26

5 ○ Within the last 12 months
4 ○ 1 to 2 years ago
3 ○ More than 2 years but less than 5 years ago
2 ○ 5 or more years ago
○ Never had a mammogram

72. When was the last time you had a breast exam by a healthcare professional?

H02072 | See Note 25 (Part A, C) | See Note 26

5 ○ Within the last 12 months
4 ○ 1 to 2 years ago
3 ○ More than 2 years but less than 5 years ago
2 ○ 5 or more years ago
○ Never had a breast exam

73. Have you been pregnant in the last 12 months or are you pregnant now?

H02073 | See Note 25 (Part A, C) | See Note 27

○ Yes, I am currently pregnant **Go to Question 74**
2 ○ No, I am not currently pregnant, but have been in the past 12 months **Go to Question 75**
3 ○ No, I am not currently pregnant, and have not been pregnant in the past 12 months **Go to Question 76**

74. In what trimester is your pregnancy?

H02074 | See Note 25 (Part A, C) | See Note 27

○ First trimester 2 ○ Second trimester 3 ○ Third trimester

75. In which trimester did you first receive prenatal care?

H02075 | See Note 25 (Part A, C) | See Note 27

4 ○ First trimester 3 ○ Second trimester 2 ○ Third trimester ○ Did not receive prenatal care

----------ABOUT YOU----------

76. In general, how would you rate <u>your overall health</u> now?

H02076

5 ○ Excellent 4 ○ Very Good 3 ○ Good 2 ○ Fair ○ Poor

77. What is the highest grade or level of school that you have completed?

SREDA

○ 8th grade or less
2 ○ Some high school, but did not graduate
3 ○ High school graduate or GED
4 ○ Some college or 2-year degree
5 ○ 4-year college graduate
6 ○ More than 4-year college degree

78. Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)

H02077

○ No, not Spanish, Hispanic, or Latino
2 ○ Yes, Mexican, Mexican American, Chicano
3 ○ Yes, Puerto Rican
4 ○ Yes, Cuban
5 ○ Yes, other Spanish, Hispanic, or Latino

79. What is your race? (Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRACEA - SRACEF

A ○ White
B ○ Black or African American
C ○ American Indian or Alaska Native
D ○ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ○ Native Hawaiian or other Pacific Islander (e.g., Somoan, Guamanian, or Chamorro)

80. What is your age now?

SRAGE | See Note 28

- 1 ○ 18 to 24 **Go to the end of the questionnaire**
- 2 ○ 25 to 34 **Go to the end of the questionnaire**
- 3 ○ 35 to 44 **Go to the end of the questionnaire**
- 4 ○ 45 to 54 **Go to the end of the questionnaire**
- 5 ○ 55 to 64 **Go to the end of the questionnaire**
- 6 ○ 65 to 74
- 7 ○ 75 or older

Congress has authorized new benefits for Medicare-eligible military retirees, known as TRICARE for Life, effective October 1, 2001. TRICARE for Life supplements Medicare coverage for military retirees who are enrolled in Medicare Part B. If medical services are covered by Medicare, TRICARE for Life pays deductibles and coinsurance. For services that are not covered by Medicare, TRICARE for Life offers the same coverage that TRICARE provides for it's other beneficiaries.

The following questions ask about how well you understand your health benefits and how your use of health care has changed since TRICARE for Life became available.

81. How much do you feel you know about what medical services TRICARE for Life covers or does not cover?

S02T01 | See Note 28

- 1 ○ Just about everything I need to know
- 2 ○ Most of what I need to know
- 3 ○ Some of what I need to know
- 4 ○ Little of what I need to know
- 5 ○ Almost nothing of what I need to know

82. How much do you feel you know about how much you have to pay for medical services?

S02T02 | See Note 28

- 1 ○ Just about everything I need to know
- 2 ○ Most of what I need to know
- 3 ○ Some of what I need to know
- 4 ○ Little of what I need to know
- 5 ○ Almost nothing of what I need to know

83. How much do you feel you know about supplemental coverage (also known as Medigap coverage) such as what it covers or how it works with TRICARE for Life to pay medical claims?

S02T03 | See Note 28

- 1 ○ Just about everything I need to know
- 2 ○ Most of what I need to know
- 3 ○ Some of what I need to know
- 4 ○ Little of what I need to know
- 5 ○ Almost nothing of what I need to know

84. How much do you feel you know about getting medical services at a MTF?

S02T04 | See Note 28

- 1 ○ Just about everything I need to know
- 2 ○ Most of what I need to know
- 3 ○ Some of what I need to know
- 4 ○ Little of what I need to know
- 5 ○ Almost nothing of what I need to know

85. How much do you feel you know about choosing or finding a doctor or other health care provider?

S02T05 | See Note 28

- 1 ○ Just about everything I need to know
- 2 ○ Most of what I need to know
- 3 ○ Some of what I need to know
- 4 ○ Little of what I need to know
- 5 ○ Almost nothing of what I need to know

86. In the past 12 months, how much of your healthcare, other than prescription drugs, did you get from MTFs?

S02T06 | See Note 28

- ○ None of my healthcare
- 2 ○ Some, but not most of my healthcare
- 3 ○ Most, but not all of my healthcare
- 4 ○ All of my healthcare
- 5 ○ I did not receive any healthcare in the past 12 months

87. In the past 12 months, how many times did you visit a doctor's office, clinic or emergency room at a MTF?

○ None 2 ○ 1 3 ○ 2 4 ○ 3 5 ○ 4 6 ○ 5 to 9 7 ○ 10 or more

S02T07 | See Note 28

88. In the past 12 months, how many nights did you stay overnight as a patient at a MTF?

○ None 2 ○ 1 3 ○ 2 to 4 4 ○ 5 to 7 5 ○ 8 to 9 6 ○ 10 or more

S02T08 | See Note 28

89. In the past 12 months, did you use a MTF for any of the following? MARK ALL THAT APPLY.

S02T09A- S02T09H | See Note 28

- A ○ Emergency care from an emergency room
- B ○ Urgent care from someplace other than an emergency room
- C ○ Preventive care, such as a prostate exam or a breast exam
- D ○ Routine care, such as a physical check-up
- E ○ Hospital care in which you stayed overnight at a MTF
- F ○ Labs and x-rays
- G ○ Surgery or diagnostic procedures that did not require an overnight stay
- H ○ Care from a specialist

90. In the past 12 months, where did you get most of your prescriptions filled?

S02T10 | See Note 28

- ○ At military pharmacies
- 2 ○ At civilian pharmacies in the TRICARE network
- 3 ○ At civilian pharmacies outside the TRICARE network
- 4 ○ At the National Mail Order Pharmacy (NMOP)
- -6 ○ I have not filled any prescriptions in the past 12 months

91. In the 12 months <u>before</u> TRICARE for Life became available (October 2000 through September 2001), how much of your healthcare, other than prescription drugs, did you get from MTFs?

S02T11 | See Note 28

- ○ None of my healthcare
- 2 ○ Some, but not most of my healthcare
- 3 ○ Most, but not all of my healthcare
- 4 ○ All of my healthcare
- -6 ○ I did not receive any healthcare in the 12 months prior to October 1, 2001

92. <u>Since</u> October 1, 2001 how much of a problem was it to get as much healthcare as you wanted from MTFs?

○ A big problem 2 ○ A small problem 3 ○ Not a problem

S02T12 | See Note 28

THANK YOU

Please return the completed survey in the postage-paid envelope.

002AMDGK 0107077

APPENDIX B

SURVEY FIELDING LETTERS

Sample Notification Letter

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
HEALTH AFFAIRS
SKYLINE FIVE, SUITE 810, 5111 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041-3206

TRICARE
MANAGEMENT
ACTIVITY

September 3, 2002

DIRECT PRODUCT TYPE
** 0060421-A12345 **
RADIOLOGY JONATHON WILKENSONS I
1245 Q ST STE 400
LINCOLN, NE 68508-1430

Dear Radiology Jonathon Wilkensons I:

We need your help! The Department of Defense is very interested in what you think about your healthcare. In a few weeks, you will get the ***2002 Health Care Survey of DoD Beneficiaries Questionnaire*** that asks about your healthcare. By answering the survey questions, you will provide important information to help us improve the healthcare services for our entire military community. Your feedback will make a difference.

You are among only a few military beneficiaries who are being sent this survey. I hope you will take the time to fill it out and send it back in the enclosed envelope. Your responses are important to us even if you do not receive your healthcare through the military healthcare system. Of course, what you have to say is private.

If your address above is incorrect, please telephone the Survey Operations Center at 1-800-866-1821 (within the U.S.) or call collect at 1-402-475-5003 (outside the U.S.) between the hours of 9:00 AM and 7:00 PM EST to give your correct address. You also can send this letter via facsimile with your correct address to 1-800-733-5751. All calls to these numbers are toll free.

Thank you in advance for your help!

Sincerely,

Thomas F. Carrato
Executive Director

Sample First Survey Cover Letter

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
HEALTH AFFAIRS
SKYLINE FIVE, SUITE 810, 5111 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041-3206

TRICARE
MANAGEMENT
ACTIVITY

October 3, 2002

DIRECT PRODUCT TYPE
** 0107077-A12345 **
RADIOLOGY JONATHON WILKENSONS I
1245 Q ST STE 400
LINCOLN, NE 68508-1430

Dear Radiology Jonathon Wilkensons I:

We need your help! I am very interested in your opinions about your healthcare. Enclosed is the ***2002 Health Care Survey of DoD Beneficiaries Questionnaire.*** This is your opportunity to tell the Department of Defense how well your health needs are being met. Your answers will provide important information to help us improve the healthcare services for our entire military community. Your feedback will make a difference.

You are among only a few military beneficiaries who are being sent this survey. To get accurate results. we need to get survey responses from you and others who were selected to complete this this voluntary survey. Your responses are important to us even if you do not receive your healthcare through the military healthcare system. Of course, what you have to say is private.

We hope you will take this chance to tell us about your healthcare. Please return the completed survey in the enclosed postage-paid envelope within the next 7 days. If your address above is incorrect, please telephone the Survey Operations Center at 1-800-866-1821 (within the U.S.) or call collect at 1-402-475-5003 (outside the U.S.) between the hours of 9:00 AM and 7:00 PM EST to give your correct address. You also can send this letter via facsimile with your correct address at 1-800-733-5751. All calls to these numbers are toll free.

Thank you in advance for your help!

Sincerely,

Thomas F. Carrato
Executive Director

Sample Reminder/Thank You Postcard

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
HEALTH AFFAIRS/TRICARE MANAGEMENT ACTIVITY
SURVEY PROCESSING CENTER
C/O NATIONAL RESEARCH CORPORATION
PO BOX 82660
LINCOLN, NE 68501-9465

PRESORTED
1ST CLASS
U.S. POSTAGE
PAID
LINCOLN, NE
PERMIT #1116

#BWNHNMP
** 0153733-A12345 **
PVT JONATHON WILKENSONS I
1245 Q ST STE 400
LINCOLN, NE 68508-1430

MILITARY HEALTHCARE SURVEY

TRICARE

The Department of Defense recently sent you a copy of the ***2002 Health Care Survey of DoD Beneficiaries Questionnaire***. Your reactions, attitudes and concerns about your health care are very important to us. This survey is part of an effort to identify where improvements may be needed in the health care system.

If you have already returned your questionnaire, thank you very much for your help. If you have not yet had a chance to respond, we are anxious to hear from you. It would be greatly appreciated if you would take a few minutes to complete the questionnaire and return it in the postage-paid envelope at your earliest possible convenience.

If you did not receive the survey or if you need another copy, please call the Project Officer at 1-800-866-1821 (within the U.S.) or call collect at 1-402-475-5003 (outside the U.S.). All calls to this number are toll free.

Thank you for taking the time to complete this important survey.

Thomas F. Carrato
Executive Director
TRICARE Management Activity

Sample Second Survey Cover Letter

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
HEALTH AFFAIRS
SKYLINE FIVE, SUITE 810, 5111 LEESBURG PIKE
FALLS CHURCH, VIRGINIA 22041-3206

TRICARE
MANAGEMENT
ACTIVITY

November 7, 2002

DIRECT PRODUCT TYPE
** 0200389-A12345 **
RADIOLOGY JONATHON WILKENSONS I
1245 Q ST STE 400
LINCOLN, NE 68508-1430

Dear Radiology Jonathon Wilkensons I:

We need your help! The Department of Defense recently sent you the ***2002 Health Care Survey of DoD Beneficiaries Questionnaire.*** Your answers will provide important information to help us improve the healthcare services for our entire military community. If you have sent back a completed survey, thank you! Your answers will help us serve you better.

Please fill out the enclosed survey that asks about your healthcare in the last 12 months. To get accurate results, we need to get answers from you and others who were asked to take part in this voluntary survey. Your responses are important to us even if you do not receive your healthcare from the military healthcare system. Your responses will remain private.

If the address above is incorrect, please telephone the Survey Operations Center at 1-800-866-1821 (within the U.S.) or call collect at 1-402-475-5003 (outside the U.S.) between the hours of 9:00 AM and 7:00 PM EST to have it corrected. You also can send this letter via facsimile with your correct address to 1-800-733-5751. All calls to these numbers are toll free.

We hope you will take this chance to give us your feedback. Thank you in advance for your help to improve healthcare for everyone.

Sincerely,

Thomas F. Carrato
Executive Director

APPENDIX C

CODING SCHEME AND CODING TABLES – QUARTERS I-IV

2002 HEALTH CARE SURVEY OF DOD BENEFICIARIES (HCSDB)
CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.A	-8	Multiple response error
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of “Don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values ‘.’, multiple responses ‘.A’, and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H02006, H02007

N1	H02006 is:	H02007 is:	H02006 is coded as:	H02007 is coded as:	*
1	1-10, health plan, -5, not sure	Marked, missing, or multiple response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked or multiple response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked, missing, or multiple response	Stands as original value	Stands as original value	
5	Multiple response	Marked or multiple response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	-6: Did not use any health plan in the last 12 months	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H02008, H02009

N2	H02008 is:	H02009 is:	H02008 is coded as:	H02009 is coded as:	*
1	1: yes	1-3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't get a new doctor	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1- 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't get a new doctor	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3:
H02010, H02011

N3	H02010 is:	H02011 is:	H02010 is coded as:	H02011 is coded as:	*
1	1: yes	0-10, missing, or multiple response	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	-6, I don't have a personal doctor or nurse	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	0-10 or multiple response	1: yes	Stands as original value	B
4	2: no	-6, I don't have a personal doctor or nurse, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	2: no	.N, valid skip	B
7	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4:
H02012, H02013, H02014

N4	H02012 is:	H02013 & H02014 are:	H02012 is coded as:	H02013 & H02014 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H02013 an H02014 are both missing.

Definition of "blank or NA" in Coding Table for Note 4:
Response to H02013 is not applicable (-6), and H02014 is missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 5:
H02015, H02016

N5	H02015 is:	H02016 is:	H02015 is coded as:	H02016 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need to see a specialist	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H02017, H02018, H02019

N6	H02017 is:	H02018 & H02019 Are:	H02017 is coded as:	H02018 & H02019 Are coded as:	*
1	1: yes	"All are blank" or at least one is "marked"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2:no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, missing, or multiple response	At leas one is "marked"	1: yes	Stand as original value	B
4	2: no	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 6:
H02018 and H0219 are both missing.

Definition of "blank or NA" in Coding Table for Note 6:
H02018 and H02019 are either both not applicable (-6), or a combination of not applicable (-6) and missing.

Definition of "marked" in Coding Table for Note 6:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 7:
H02020, H02021

N7	H02020 is:	H02021 is:	H02020 is coded as:	H02021 is coded as:	*
1	1: yes	1-4: how often, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: no calls	2: no	.C, question should be skipped	B F
3	2: no, missing or multiple response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: no calls, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 8:
H02022, H02023, H02024

N8	H02022 is:	H02023 & H02024 are:	H02022 is coded as:	H02023 & H02024 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 8:
Responses to H02023 an H02024 are both missing.

Definition of "blank or NA" in Coding Table for Note 8:
Responses to H02023 and H02024 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 8:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 9:
H02025, H02026, H02027

N9	H02025 is:	H02026 & H02027 are:	H02025 is coded as:	H02026 & H02027 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H02026 and H02027 are both missing.

Definition of "blank or NA" in Coding Table for Note 9:
Responses to H02026 and H02027 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 10:
H02029, H02030-H02039

N10	H02029 is:	H02030- H02039 are:	H02029 is coded as:	H02030- H02039 are coded as:	*
1	1: None	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
2	1: none, missing, or multiple response	At least one is "marked"	Stands as original value	Stand as original value	
3	2-7, missing, or multiple response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B
4	2-7	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	1: None	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).
Definition of "all are blank" in Coding Table for Note 10:
Responses to H02030-H02039 are all missing.

Definition of "Blank or No or NA" in Coding Table for Note 10:
Responses to H02030-H02039, are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 10:
Any pattern of marks outside the definitions "all are blank" and "Blank or No or NA."

Coding Table for Note 11:
H02043, H02044-H02046

N11	H02043 is:	H02044-H02046 are:	H02043 is coded as:	H02044-H02046 are coded as:	*
1	1: yes	At least one is "marked" "all are blank" or "blank or don't know"	Stands as original value	Stand as original value	
2	1: yes, -5: don't know, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	-5: don't know	At least one is "marked"	1:yes	Stand as original value	B
4	-5: don't know	"Blank or don't know"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	2: no, missing, or multiple response	At least one is "marked" or "blank or don't know"	1: yes	Stand as original value	B
6	2: no, -5: don't know	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
7	Missing response	"All are blank"	Stands as original value	Stand as original value	
8	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 11:
Responses to H02044-H02046 are all missing.

Definition of "blank or NA" in Coding Table for Note 11:
Responses to H02044-H02046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 11:
Responses to H02044-H02046 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "marked" in Coding Table for Note 11:
Any pattern of marks outside the definitions "all are blank," "blank or NA," or "blank or don't know."

Table for Note 12:
H02047, H02048

N12	H02047 is:	H02048 is:	H02047 is coded as:	H02048 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: yes but never got information, 3: no, missing, or multiple response	1-3: categorize problem or multiple response	1: yes	Stands as original value	B
4	2: yes but never got information, 3: no	-6: not applicable or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H02049, H02050

N13	H02049 is:	H02050 is:	H02049 is coded as:	H02050 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H02051, H02052, H02053

N14	H02051 is:	H02052 & H02053 are:	H02051 is coded as:	H02052 & H02053 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 14:
Responses to H02052 an H02053 are both missing.

Definition of "blank or NA" in Coding Table for Note 14:
Responses to H02052 and H02053 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 14:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 15:
H02054, H02055

N15	H02054 is:	H02055 is:	H02054 is coded as:	H02055 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem, or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
5	Missing response	Missing response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 22:
SRAGE, S02L01--S02L17

N22	SRAGE is:	S02L01--S02L17 are:	SRAGE is coded as:	S02L01--S02L17 are coded as:	*
1	1-5	At least one is "marked" or "all are blank"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
2	Missing, or multiple response	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
3	6 or 7	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 22:
All variables S02L01--S02L17 are missing.

Definition of "marked" in Coding Table for Note 22:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 24:
H02063--H02066

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
1	1: ever smoked	3 or 4: still smoke	Marked or multiple response	Any value	Stands as original value	Stands as original value	.C, question should be skipped	Stands as original value	F
2	1: ever smoked	3 or 4: still smoke	Missing response	Any value	Stands as original value	Stands as original value	.N, valid skip	Stands as original value	
3	1: ever smoked	2: quit	2: quit >1 year ago or –5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
4	1: ever smoked	2: quit	2: quit >1 year ago or -5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
5	1: ever smoked	2: quit	3: quit <1 year ago, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
6	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	Stands as original value	2: quit	Stands as original value	.C, question should be skipped	F B
7	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Missing response	Stands as original value	2: quit	Stands as original value	.N, valid skip	F B
8	1: ever smoked	-5: don't know, missing, or multiple response	3: quit <1 year ago	Any value	Stands as original value	2: quit	Stands as original value	Stands as original value	B
9	1: ever smoked	-5:don't know, missing, or multiple response	-5: don't know, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
10	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Marked or multiple response	Any value	1: ever smoked	Stands as original value	.C, question should be skipped	Stands as original value	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
11	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Missing response	Any value	1: ever smoked	Stands as original value	.N, valid skip	Stands as original value	B
12	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Marked or multiple response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.C, question should be skipped	F
13	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Missing response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.N, valid skip	F
14	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Marked or multiple response	Stands as original value	.C, question should be skipped	.N, valid skip	.C, question should be skipped	F
15	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Missing response	Stands as original value	.C, question should be skipped	.N, valid skip	.N, valid skip	F
16	2: never or -5: don't know	Missing response	Marked or multiple response	Marked or multiple response	Stands as original value	.N, valid skip	.C, question should be skipped	.C, question should be skipped	F
17	2: never or -5: don't know	Missing response	Marked or multiple response	Missing response	Stands as original value	.N, valid skip	.C, question should be skipped	.N, valid skip	F
18	2: never or -5: don't know	Missing response	Missing response	Marked or multiple response	Stands as original value	.N, valid skip	.N, valid skip	.C, question should be skipped	F
19	2: never or -5: don't know	Missing response	Missing response	Missing response	Stands as original value	.N, valid skip	.N, valid skip	.N, valid skip	
20	Missing or multiple response	2: quit, missing, or multiple response	3: quit <1 year ago	Any value	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
21	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	1: ever smoked	Stands as original value	Stands as original value	.C, question should be skipped	B F
22	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Missing response	1: ever smoked	Stands as original value	Stands as original value	.N, valid skip	B
23	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
24	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
25	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	2-5: some visits	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B
26	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	1: none, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
27	Missing or multiple response	-5: don't know	Marked or multiple response	Marked or multiple response	Stands as original value	Stands as original value	.C, question should be skipped	.C, question should be skipped	F
28	Missing or multiple response	-5: don't know	Marked or multiple response	Missing response	Stands as original value	Stands as original value	.C, question should be skipped	.N, valid skip	F
29	Missing or multiple response	-5: don't know	Missing response	Missing response	Stands as original value	Stands as original value	.N, valid skip	.N, valid skip	
30	Missing or multiple response	-5: don't know	Missing response	Marked or multiple response	Stands as original value	Stands as original value	.N, valid skip	.C, question should be skipped	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:

Note 25(Part A):
H02067, SEX, XSEXA, H02068-H02075

N25A	H02067:	SEX is:	H02068 is:	H02069--H02075 are:	XSEXA is coded as:
1	Missing or multiple response	F	Marked	Any marked	2, female
2	Missing or multiple response	F	Missing or multiple response	All missing or multiple response	2, female
3	Missing or multiple response	M	Marked	Any marked	1, male
4	Missing or multiple response	M	Missing or multiple response	All missing or multiple response	1, male
5	Missing or multiple response	Any value	Marked	All missing or multiple response	1, male
6	Missing or multiple response	Any value	Missing or multiple response	Any marked	2, female
7	Missing or multiple response	Z	Marked	Any marked	., missing value
8	Missing or multiple response	Z	Missing or multiple response	All missing or multiple response	., missing value
9	1, male	Any value	Marked	All missing or multiple response	1, male
10	1, male	F	Missing or multiple response	Any marked	2, female
11	1, male	M or Z	Missing or multiple response	Any marked	1, male
12	1, male	Any value	Marked	Any marked	1, male
13	1, male	Any value	Missing or multiple response	All missing or multiple response	1, male
14	2, female	Any value	Missing or multiple response	Any marked	2, female
15	2, female	M	Marked	All missing or multiple response	1, male
16	2, female	F or Z	Marked	All missing or multiple response	2, female
17	2, female	Any value	Marked	Any marked	2, female
18	2, female	Any value	Missing or multiple response	All missing or multiple response	2, female

SEX is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H02067), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 25 (Part B):
XSEXA, H02068

N25B	XSEXA is:	H02068 is:	H02068 is coded as:	*
1	1: Male	Marked, missing, or multiple response	Stands as original value	
2	2: Female	Marked or multiple response	.C, question should be skipped	F
3	2: Female	Missing response	.N, valid skip	F
4	Missing	Any response	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Note 25 (Part C):
XSEXA, H02069 - H02075

N25C	XSEXA is:	H02069--H02075 are:	H02069 --H02075 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stands as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 25c:
All variables H02069--H02075 are missing.

Definition of "marked" in Coding Table for Note 25c:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 26
XSEXA, AGE, H02070, H02071, H02072

N26	XSEXA is:	AGE is:	H02070 is:	H02071 & H02072 are:	H02070 is coded as:	H02071 & H02072 are coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Marked, missing, or multiple response	Stands as original value	Stand as original value	
3	2: Female	Any value	1: under 40	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Multiple response	Marked or multiple response	2: > 40	Stand as original value	
5	2: Female	Any value	Multiple response	Missing	1: < 40	.N, valid skip	B F
6	2: Female	Any value	Missing	Marked or multiple response	2: > 40	Stand as original value	B
7	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F
8	2: Female	>=40	Missing	Missing	1: < 40	.N, valid skip	B
9	2: Female	Missing	Missing	Missing	Stands as original value	Stand as original value	
10	Missing	Any value	Missing	Missing	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 27:
XSEXA, H02073, H02074, H02075

N27	XSEXA is:	H02073 is:	H02074 is:	H02075 is:	H02073 is coded as:	H02074 is coded as:	H02075 is coded as:	*
1	1: Male	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	
3	2: female	2: pregnant in last 12 months	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
4	2: Female	3: not pregnant in past 12 months	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
5	2: Female	Missing or multiple response	Marked, or multiple response	Marked, missing or multiple response	1: pregnant now	Stands as original value	Stands as original value	B
6	2: Female	Missing response	Missing response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	
7	2: Female	Multiple response	Missing response	Marked, missing or multiple response	3:not pregnant in past 12 months	.N, valid skip	.N, valid skip if missing; .C, question should be skipped if marked	B F
8	Missing	Missing or multiple response	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 28:
S02L01, S02L02-S02L14

N28	S02L01 is:	S02L02--S02L14 is:	S02L01 is coded as:	S02L02--S02L14 is coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stands as original value	
3	2:no, missing, or multiple response	At least one is "marked"	1: yes	Stands as original value	B
4	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N valid skip if missing	F
5	Missing response	"All are blank"	Stands as original value	Stands as original value	
6	Multiple response	"All are blank" or "blank or NA"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 28:
Variables S02L02 S02L04A--S02L04I S02L05 S02L06 S02L07 S02L08 S02L09 S02L10 S02L11 S02L12 S02L14 are missing and S02L03A--S02L03I S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note28:
Variables S02L02 S02L04A--S02L04I S02L05 S02L06 S02L07 S02L08 S02L09 S02L10 S02L11 S02L12 S02L14 are either missing or not applicable (-6) and S02L03A--S02L03I S02L13A--S02L13E are not marked (2).

Coding Table for Note 29:
S02L06, S02L07-S02L14

N29	S02L06 is:	S02L07-S02L14 are:	S02L06 is coded as:	S02L07-S02L14 are coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-3	At least one is "marked" or "all are blank"	Stands as original value	Stands as original value	
3	4: no, -6: Not eligible TRICARE for Life, missing, or multiple response	At least one is "marked"	Stands as original value	Stands as original value	
4	4: no, -6: Not eligible TRICARE for Life	"All are blank" or "Blank or NA"	Stands as original value	.N Should be skipped	F
5	Missing or multiple response	"All are blank"	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L07 S02L08 S02L09 S02L10 S02L11 S02L12 S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L07 S02L08 S02L09 S02L10 S02L11 S02L12 S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 30:
S02L07, S02L08-S02L14

N30	S02L07 is:	S02L08-S02L14 are:	S02L07 is coded as:	S02L08-S02L14 are coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-4	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
3	-6: not eligible, missing, or multiple response	At least one is "marked"	Stands as original value	Stands as original value	
4	-6: not eligible	"Blank or don't know"	Stands as original value	.N, valid skip if missing	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	-6: Not Eligible	.N, valid skip if missing	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L08 S02L09 S02L10 S02L11 S02L12 S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L08 S02L09 S02L10 S02L11 S02L12 S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 31:
S02L08, S02L09-S02L14

N31	S02L08 is:	S02L09-S02L14 are:	S02L08 is coded as:	S02L09-S02L14 are coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-2	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
3	-6: not eligible, missing, or multiple response	At least one is "marked"	Stands as original value	Stands as original value	
4	-6: not eligible	"Blank or don't know"	Stands as original value	.N, valid skip if missing	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	-6: Not Eligible	.N, valid skip if missing	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L09 S02L10 S02L11 S02L12 S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L09 S02L10 S02L11 S02L12 S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 32:
S02L09, S02L10-S02L14

N32	S02L09 is:	S02L10-S02L14 are:	S02L09 is coded as:	S02L10-S02L14 are coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-3	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
3	-6: Not eligible, missing, or multiple response	At least one is "marked"	Stands as original value	Stands as original value	
4	-6: not eligible	"Blank or don't know"	Stands as original value	.N, valid skip if missing	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	-6: Not eligible	.N, valid skip if missing	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L10 S02L11 S02L12 S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L10 S02L11 S02L12 S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 33:
S02L10, S02L11-S02L14

N33	S02L10 is:	S02L11--S02L14 is:	S02L10 is coded as:	S02L11--S02L14 is coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stands as original value	
3	2:no, missing, or multiple response	At least one is "marked"	1: yes	Stands as original value	F
4	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N valid skip if missing	B
5	Missing response	"All are blank"	Stands as original value	Stands as original value	
6	Multiple response	"All are blank" or "blank or NA"	2: no	.N, valid skip	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L11 S02L12 S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L11 S02L12 S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 34:
S02L11, S02L12-S02L16

N34	S02L11 is:	S02L12-S02L16 are:	S02L11 is coded as:	S02L12-S02L16 are coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-2	At least one is "marked" or "all are blank"	Stands as original value	Stands as original value	
3	-6: Have not received medical care, or multiple response	At least one is "marked"	Stands as original value	Stands as original value	B
4	-6: not eligible, Multiple Response	"All are blank" or "Blank or NA"	Stands as original value	.N Should be skipped	F
5	Missing response	"All are blank"	Stands as original value	Stands as original value	
6	Multiple response	"All are blank"	-6: Have not received medical care	.N, valid skip if missing	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L12 S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L12 S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 35:
S02L12, S02L13-S02L16

N35	S02L12 is:	S02L13-S02L16 are:	S02L12 is coded as:	S02L13-S02L16 are coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	Stands as original value	
3	4: no, -6: Have not received a bill, missing, or multiple response	At least one is "marked"	Stands as original value	Stands as original value	
4	4: no, -6: Have not received a bill	"All are blank" or "Blank or NA"	Stands as original value	.N Should be skipped	F
5	Missing or multiple response	"All are blank"	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Variables S02L14 are missing and S02L13A--S02L13E are not marked (2).

Definition of "blank or NA" in Coding Table for Note29:
Variables S02L14 are either missing or not applicable (-6) and S02L13A--S02L13E are not marked (2).

Coding Table for Note 36:
S02L14, S02L15-S02L16

N36	S02L14 is:	S02L15-S02L16 are:	S02L14 is coded as:	S02L15-S02L16 are coded as:	*
1	1: yes	At least one is “marked” “all are blank” or “blank or don’t know”	Stands as original value	Stand as original value	
2	1: yes, -6: not eligible, missing, or multiple response	“Blank or NA”	-6: Not Eligible	.N, valid skip if missing; .C, question should be skipped if marked	B
3	-6: not eligible	At least one is “marked”	1:yes	Stand as original value	B
4	-6: not eligible	“Blank or don’t know”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	2,: no, missing, or multiple response	At least one is “marked” or “blank or don’t know”	1: yes	Stand as original value	B
6	2,: no, -6: not eligible	“Blank or NA” or “all are blank”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
7	Missing response	“All are blank”	Stands as original value	Stand as original value	
8	Multiple response	“All are blank”	-6: Not Eligible	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

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CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS Numeric	ASCII/EBCDIC Numeric	Description
.	-9	No response
.A	-8	Multiple response error
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of “Don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values ‘.’, multiple responses ‘.A’, and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H02006, H02007

N1	H02006 is:	H02007 is:	H02006 is coded as:	H02007 is coded as:	*
1	1-12, health plan, -5, not sure	Marked, missing, or multiple response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked or multiple response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked, missing, or multiple response	Stands as original value	Stands as original value	
5	Multiple response	Marked or multiple response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	-6: Did not use any health plan in the last 12 months	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H02008, H02009

N2	H02008 is:	H02009 is:	H02008 is coded as:	H02009 is coded as:	*
1	1: yes	1-3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't get a new doctor	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1- 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't get a new doctor	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3:
H02010, S02C01-S02C04, H02011

N3	H02010 is:	S02C01-S02C04, H02011 is:	H02010 is coded as:	S02C01-S02C04, H02011 is coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or no or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stands as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to S02C01-S02C04 and H02011 are all missing.

Definition of "blank or no or NA" in Coding Table for Note 3:
All of the following are true: S00C03 is either '2' or missing, S00C01, S00C02, S00C04, and H02011 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 4:
S02C03, S02C04

N4	S02C03 is:	S02C04 is:	S02C03 is coded as:	S02C04 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	1, 2, missing, or multiple response	Stands as original value	Stands as original value	
3	1: yes, missing, or multiple response	-6: don't have health problems or don't have personal doctor or nurse	2: No	.C, question should be skipped	B
4	2: no, missing, or multiple response	1, 2	1: yes	Stands as original value	B
5	2: no	Missing, multiple response, or –6: don't have health problems or don't have personal doctor or nurse	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
6	Missing response	Multiple response	1: yes	Stands as original value	B
7	Missing response	Missing response	Stands as original value	Stands as original value	
8	Multiple response	Multiple response	Stands as original value	Stands as original value	
9	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 5:
H02012, H02013, H02014

N5	H02012 is:	H02013 & H02014 are:	H02012 is coded as:	H02013 & H02014 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 5:
Responses to H02013 an H02014 are both missing.

Definition of "blank or NA" in Coding Table for Note 5:
Response to H02013 is not applicable (-6), and H02014 is missing.

Definition of "marked" in Coding Table for Note 5:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 6:
H02015, H02016

N6	H02015 is:	H02016 is:	H02015 is coded as:	H02016 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need to see a specialist	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 7:
H02017, S02C05, H02018, H02019

N7	H02017 is:	S02C05, H02018, H02019 Are:	H02017 is coded as:	S02C05, H02018, H02019 Are coded as:	*
1	1: yes	"All are blank" or at least one is "marked"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2:no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
S02C05, H02018 and H0219 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
S02C05, H02018 and H02019 are either not applicable (-6), or a combination of not applicable (-6) and missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 8:
S02C05, H02018 & H02019

N8	S02C05 is:	H02018 & H02019 are:	S02C05 is coded as:	H02018 & H02019 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or, .C, question should be skipped	Stands as original value	Stand as original value	
2	-6: None	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
3	-6: None, missing, or multiple response	At least one is "marked"	Stands as original value	Stand as original value	
4	1-6, missing, or multiple response	"Blank or NA"	-6: None	.N, valid skip if missing, .C, question should be skipped if marked	B
5	1-6	At least one is "marked" or "All are blank"	Stands as original value	Stand as original value	
6	Missing response	"All are blank"	Stands as original value	Stand as original value	
7	Multiple response	"All are blank"	-6:None	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 8:
Both H02018 and H02019 are missing.

Definition of "blank or NA" in Coding Table for Note 8:
Responses to questions H02018 and H02019 are either both not applicable (-6), or a combination of not applicable (-6) and missing.

Definition of "marked" in Coding Table for Note 8:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 9:
H02020, H02021

N9	H02020 is:	H02021 is:	H02020 is coded as:	H02021 is coded as:	*
1	1: yes	1-4: how often, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: no calls	2: no	.C, question should be skipped	B F
3	2: no, missing or multiple response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: no calls, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10:
H02022, H02023, H02024

N10	H02022 is:	H02023 & H02024 are:	H02022 is coded as:	H02023 & H02024 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10:
Responses to H02023 an H02024 are both missing.

Definition of "blank or NA" in Coding Table for Note 10:
Responses to H02023 and H02024 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 10:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 11:
H02025, H02026, H02027

N11	H02025 is:	H02026 & H02027 are:	H02025 is coded as:	H02026 & H02027 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 11:
Responses to H02026 and H02027 are both missing.

Definition of "blank or NA" in Coding Table for Note 11:
Responses to H02026 and H02027 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 11:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 12:
H02029, H02030-H02039, S02C06-S02C08

N12	H02029 is:	H02030- H02039, S02C06-S02C08 are:	H02029 is coded as:	H02030- H02039, S02C06-S02C08 are coded as:	*
1	1: None	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
2	1: none, missing, or multiple response	At least one is "marked"	Stands as original value	Stand as original value	
3	2-7, missing, or multiple response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B
4	2-7	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	1: None	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 12:
Responses to H02030-H02039 and S02C06-S02C08 are all missing.

Definition of "Blank or No or NA" in Coding Table for Note 12:
Responses to H02030-H02039, and S02C07, and S02C08 are either all not applicable (-6) or a combination of missing response and not applicable (-6), and S02C06 is either No (2) or missing.

Definition of "marked" in Coding Table for Note 12:
Any pattern of marks outside the definitions "all are blank" and "Blank or No or NA."

Coding Table for Note 13:
S02C06, S02C07, S02C08

N13	S02C06 is:	S02C07 & S02C08 are:	S02C06 is coded as:	S02C07 & S02C08 are coded as:	*
1	.N, valid skip .C, question should be skipped	.N, valid skip .C, question should be skipped	Stands as original value	Stand as original value	
2	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
3	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
4	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
5	2: no	"Blank or NA" or "All are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"All are blank"	Stands as original value	Stand as original value	
7	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 13:
Responses to S02C07 and S02C08 are both missing.

Definition of "Blank or NA" in Coding Table for Note 13:
Responses to S02C07 and S02C08 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 13:
Any pattern of marks outside the definitions "all are blank" and "Blank or No or NA."

Coding Table for Note 14:
S02C09, S02C10

N14	S02C09 is:	S02C10 is:	S02C09 is coded as:	S02C10 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need special medical equipment	2: No	.C, question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need special medical equipment	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	B
8	Multiple response	Missing response	2: no	.N, valid skip	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15:
S02C11, S02C12

N15	S02C11 is:	S02C12 is:	S02C11 is coded as:	S02C12 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need special therapy	2: No	.C, question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need special therapy	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	B
8	Multiple response	Missing response	2: no	.N, valid skip	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 16:
S02C13, S02C14

N16	S02C13 is:	S02C14 is:	S02C13 is coded as:	S02C14 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need home healthcare	2: No	.C, question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need home healthcare	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17:
H02043, H02044-H02046

N17	H02043 is:	H02044-H02046 are:	H02043 is coded as:	H02044-H02046 are coded as:	*
1	1: yes	At least one is “marked”, “all are blank” or “blank or don’t know”	Stands as original value	Stand as original value	
2	1: yes, -5: don’t know, missing, or multiple response	“Blank or NA”	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	-5: don’t know	At least one is “marked”	1:yes	Stand as original value	B
4	-5: don’t know	“Blank or don’t know”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	2: no, missing, or multiple response	At least one is “marked” or “blank or don’t know”	1: yes	Stand as original value	B
6	2: no, -5: don’t know	“Blank or NA” or “all are blank”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
7	Missing response	“All are blank”	Stands as original value	Stand as original value	
8	Multiple response	“All are blank”	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of “all are blank” in Coding Table for Note 17:
Responses to H02044-H02046 are all missing.

Definition of “blank or NA” in Coding Table for Note 17:
Responses to H02044-H02046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of “blank or don’t know” in Coding Table for Note 17:
Responses to H02044-H02046 are either all don’t know (-5) or a combination of missing and don’t know (-5).

Definition of “marked” in Coding Table for Note 17:
Any pattern of marks outside the definitions “all are blank,” “blank or NA,” or “blank or don’t know.”

Table for Note 18:
H02047, H02048

N18	H02047 is:	H02048 is:	H02047 is coded as:	H02048 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 19:
H02049, H02050

N19	H02049 is:	H02050 is:	H02049 is coded as:	H02050 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 20:
H02051, H02052, H02053

N20	H02051 is:	H02052 & H02053 are:	H02051 is coded as:	H02052 & H02053 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 20:
Responses to H02052 an H02053 are both missing.

Definition of "blank or NA" in Coding Table for Note 20:
Responses to H02052 and H02053 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 20:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 21:
H02054, H02055

N21	H02054 is:	H02055 is:	H02054 is coded as:	H02055 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem, or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H02063--H02066

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
1	1: ever smoked	3 or 4: still smoke	Marked or multiple response	Any value	Stands as original value	Stands as original value	.C, question should be skipped	Stands as original value	F
2	1: ever smoked	3 or 4: still smoke	Missing response	Any value	Stands as original value	Stands as original value	.N, valid skip	Stands as original value	
3	1: ever smoked	2: quit	2: quit >1 year ago or –5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
4	1: ever smoked	2: quit	2: quit >1 year ago or -5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
5	1: ever smoked	2: quit	3: quit <1 year ago, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
6	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	Stands as original value	2: quit	Stands as original value	.C, question should be skipped	F B
7	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Missing response	Stands as original value	2: quit	Stands as original value	.N, valid skip	F B
8	1: ever smoked	-5: don't know, missing, or multiple response	3: quit <1 year ago	Any value	Stands as original value	2: quit	Stands as original value	Stands as original value	B
9	1: ever smoked	-5:don't know, missing, or multiple response	-5: don't know, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
10	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Marked or multiple response	Any value	1: ever smoked	Stands as original value	.C, question should be skipped	Stands as original value	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
11	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Missing response	Any value	1: ever smoked	Stands as original value	.N, valid skip	Stands as original value	B
12	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Marked or multiple response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.C, question should be skipped	F
13	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Missing response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.N, valid skip	F
14	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Marked or multiple response	Stands as original value	.C, question should be skipped	.N, valid skip	.C, question should be skipped	F
15	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Missing response	Stands as original value	.C, question should be skipped	.N, valid skip	.N, valid skip	F
16	2: never or -5: don't know	Missing response	Marked or multiple response	Marked or multiple response	Stands as original value	.N, valid skip	.C, question should be skipped	.C, question should be skipped	F
17	2: never or -5: don't know	Missing response	Marked or multiple response	Missing response	Stands as original value	.N, valid skip	.C, question should be skipped	.N, valid skip	F
18	2: never or -5: don't know	Missing response	Missing response	Marked or multiple response	Stands as original value	.N, valid skip	.N, valid skip	.C, question should be skipped	F
19	2: never or -5: don't know	Missing response	Missing response	Missing response	Stands as original value	.N, valid skip	.N, valid skip	.N, valid skip	
20	Missing or multiple response	2: quit, missing, or multiple response	3: quit <1 year ago	Any value	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
21	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	1: ever smoked	Stands as original value	Stands as original value	.C, question should be skipped	B F
22	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Missing response	1: ever smoked	Stands as original value	Stands as original value	.N, valid skip	B
23	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
24	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
25	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	2-5: some visits	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B
26	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	1: none, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
27	Missing or multiple response	-5: don't know	Marked or multiple response	Marked or multiple response	Stands as original value	Stands as original value	.C, question should be skipped	.C, question should be skipped	F
28	Missing or multiple response	-5: don't know	Marked or multiple response	Missing response	Stands as original value	Stands as original value	.C, question should be skipped	.N, valid skip	F
29	Missing or multiple response	-5: don't know	Missing response	Missing response	Stands as original value	Stands as original value	.N, valid skip	.N, valid skip	
30	Missing or multiple response	-5: don't know	Missing response	Marked or multiple response	Stands as original value	Stands as original value	.N, valid skip	.C, question should be skipped	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:

Note 25(Part A):
H02067, SEX, XSEXA, H02068-H02075

N25A	H02067:	SEX is:	H02068 is:	H02069--H02075 are:	XSEXA is coded as:
1	Missing or multiple response	F	Marked	Any marked	2, female
2	Missing or multiple response	F	Missing or multiple response	All missing or multiple response	2, female
3	Missing or multiple response	M	Marked	Any marked	1, male
4	Missing or multiple response	M	Missing or multiple response	All missing or multiple response	1, male
5	Missing or multiple response	Any value	Marked	All missing or multiple response	1, male
6	Missing or multiple response	Any value	Missing or multiple response	Any marked	2, female
7	Missing or multiple response	Z	Marked	Any marked	., missing value
8	Missing or multiple response	Z	Missing or multiple response	All missing or multiple response	., missing value
9	1, male	Any value	Marked	All missing or multiple response	1, male
10	1, male	F	Missing or multiple response	Any marked	2, female
11	1, male	M or Z	Missing or multiple response	Any marked	1, male
12	1, male	Any value	Marked	Any marked	1, male
13	1, male	Any value	Missing or multiple response	All missing or multiple response	1, male
14	2, female	Any value	Missing or multiple response	Any marked	2, female
15	2, female	M	Marked	All missing or multiple response	1, male
16	2, female	F or Z	Marked	All missing or multiple response	2, female
17	2, female	Any value	Marked	Any marked	2, female
18	2, female	Any value	Missing or multiple response	All missing or multiple response	2, female

SEX is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H02067), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 25 (Part B):
XSEXA, H02068

N25B	XSEXA is:	H02068 is:	H02068 is coded as:	*
1	1: Male	Marked, missing, or multiple response	Stands as original value	
2	2: Female	Marked or multiple response	.C, question should be skipped	F
3	2: Female	Missing response	.N, valid skip	F
4	Missing	Any response	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Note 25 (Part C):
XSEXA, H02069 - H02075

N25C	XSEXA is:	H02069--H02075 are:	H02069 --H02075 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stands as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 25c:
All variables H02069--H02075 are missing.

Definition of "marked" in Coding Table for Note 25c:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 26
XSEXA, AGE, H02070, H02071, H02072

N26	XSEXA is:	AGE is:	H02070 is:	H02071 & H02072 are:	H02070 is coded as:	H02071 & H02072 are coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Marked, missing, or multiple response	Stands as original value	Stand as original value	
3	2: Female	Any value	1: under 40	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Multiple response	Marked or multiple response	2: > 40	Stand as original value	
5	2: Female	Any value	Multiple response	Missing	1: < 40	.N, valid skip	B F
6	2: Female	Any value	Missing	Marked or multiple response	2: > 40	Stand as original value	B
7	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F
8	2: Female	>=40	Missing	Missing	1: < 40	.N, valid skip	B
9	2: Female	Missing	Missing	Missing	Stands as original value	Stand as original value	
10	Missing	Any value	Missing	Missing	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 27:
XSEXA, H02073, H02074, H02075

N27	XSEXA is:	H02073 is:	H02074 is:	H02075 is:	H02073 is coded as:	H02074 is coded as:	H02075 is coded as:	*
1	1: Male	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	
3	2: female	2: pregnant in last 12 months	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
4	2: Female	3: not pregnant in past 12 months	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
5	2: Female	Missing or multiple response	Marked, or multiple response	Marked, missing or multiple response	1: pregnant now	Stands as original value	Stands as original value	B
6	2: Female	Missing response	Missing response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	
7	2: Female	Multiple response	Missing response	Marked, missing or multiple response	3:not pregnant in past 12 months	.N, valid skip	.N, valid skip if missing; .C, question should be skipped if marked	B F
8	Missing	Missing or multiple response	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 28:
S02C20, S02C21, S02C22

N28	S02C020 is:	S02C21 & S02C22 are:	S02C20 is coded as:	S02C21 & S02C22 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "All are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 28:
Responses to S02C21 and S02C22 are both missing.

Definition of "Blank or NA" in Coding Table for Note 28:
Responses to S02C21 and S02C22 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 28:
Any pattern of marks outside the definitions "all are blank" and "Blank or No or NA."

Coding Table for Note 29:
S02E01, S02E02-S02E09

N29	S02E01 is:	S02E02-S02E09 are:	S02E01 is coded as:	S02E02-S02E09 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 29:
Responses to S02E02-S02E09 are all missing.

Definition of "blank or NA" in Coding Table for Note 29:
Responses to S02E02-S02E09 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "marked" in Coding Table for Note 29:
Any pattern of marks outside the definitions "all are blank," "blank or NA," or "blank or don't know."

Coding Table for Note 30:
S02E06, S02E07

N30	S02E06 is:	S02E07 is:	S02E06 is coded as:	S02E07 is coded as:	*
1	.N, valid skip .C, question should be skipped	.N, valid skip .C, question should be skipped	Stands as original value	Stand as original value	
2	1: yes, Missing or Multiple Response	1-2, missing, or multiple response	Stands as original value	Stands as original value	
3	2: no or –6: I am not active duty	1-2, Missing, or multiple response	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
4	Missing response	Multiple response	1: yes	Stands as original value	B
5	Missing response	Missing response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	Stands as original value	.N, valid skip	B
7	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of forward coding (F).

2000 HEALTH CARE SURVEY OF DOD BENEFICIARIES (HCSDB)
CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS Numeric	ASCII/EBCDIC Numeric	Description
.	-9	No response
.A	-8	Multiple response error
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of “Don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values ‘.’, multiple responses ‘.A’, and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H02006, H02007

N1	H02006 is:	H02007 is:	H02006 is coded as:	H02007 is coded as:	*
1	1-12, health plan, -5, not sure	Marked, missing, or multiple response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked or multiple response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked, missing, or multiple response	Stands as original value	Stands as original value	
5	Multiple response	Marked or multiple response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	-6: Did not use any health plan in the last 12 months	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H02008, H02009

N2	H02008 is:	H02009 is:	H02008 is coded as:	H02009 is coded as:	*
1	1: yes	1-3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't get a new doctor	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1- 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't get a new doctor	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3:
H02010, H02011

N3	H02010 is:	H02011 is:	H02010 is coded as:	H02011 is coded as:	*
1	1: yes	0-10, missing, or multiple response	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	-6, I don't have a personal doctor or nurse	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	0-10 or multiple response	1: yes	Stands as original value	B
4	2: no	-6, I don't have a personal doctor or nurse, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	
6	Missing response	Multiple response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4:
H02012, H02013, H02014

N4	H02012 is:	H02013 & H02014 are:	H02012 is coded as:	H02013 & H02014 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H02013 an H02014 are both missing.

Definition of "blank or NA" in Coding Table for Note 4:
Response to H02013 is not applicable (-6), and H02014 is missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 5:
H02013, H02014

N5	H02013 is:	H02014 is:	H02013 is coded as:	H02014 is coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-2, missing or multiple response	1,2, missing or multiple response	Stands as original value	Stands as original value	
3	3: not sure, -6: Not a member of TRICARE Prime, missing, or multiple response	1,2, missing or multiple response	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H02015, H02016

N6	H02015 is:	H02016 is:	H02015 is coded as:	H02016 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need to see a specialist	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 7:
H02017, H02018, H02019

N7	H02017 is:	H02018, H02019 Are:	H02017 is coded as:	H02018, H02019 Are coded as:	*
1	1: yes	"All are blank" or at least one is "marked"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2:no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
H02018 and H0219 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
H02018 and H02019 are either not applicable (-6), or a combination of not applicable (-6) and missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 8:
H02020, H02021

N8	H02020 is:	H02021 is:	H02020 is coded as:	H02021 is coded as:	*
1	1: yes	1-4: how often, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: no calls	2: no	.C, question should be skipped	B F
3	2: no, missing or multiple response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: no calls, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H02022, H02023, H02024

N9	H02022 is:	H02023 & H02024 are:	H02022 is coded as:	H02023 & H02024 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H02023 an H02024 are both missing.

Definition of "blank or NA" in Coding Table for Note 9:
Responses to H02023 and H02024 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 10:
H02025, H02026, H02027

N10	H02025 is:	H02026 & H02027 are:	H02025 is coded as:	H02026 & H02027 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10:
Responses to H02026 and H02027 are both missing.

Definition of "blank or NA" in Coding Table for Note 10:
Responses to H02026 and H02027 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 10:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 11:
H02029, H02030-H02039

N12	H02029 is:	H02030- H02039 are:	H02029 is coded as:	H02030- H02039 are coded as:	*
1	1: None	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
2	1: none, missing, or multiple response	At least one is "marked"	Stands as original value	Stand as original value	
3	2-7, missing, or multiple response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B
4	2-7	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	1: None	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).
Definition of "all are blank" in Coding Table for Note 11:
Responses to H02030-H02039 are all missing.

Definition of "Blank or No or NA" in Coding Table for Note 11:
Responses to H02030-H02039 are either all not applicable (-6) or a combination of missing response and not applicable (-6)

Definition of "marked" in Coding Table for Note 11:
Any pattern of marks outside the definitions "all are blank" and "Blank or No or NA."

Coding Table for Note 12:
S02D01, S02D02-S02D03

N12	S02D01 is:	S02D02 is:	S02D03 is:	S02D01 is coded as:	S02D02 & S02D03 are coded as:	*
1	1:yes	Any value	0-10 or multiple response	Stands as original value	Stands as original value	
2	1: Yes	1:none or missing	Missing or –6: didn't have any dental care	2:No	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: Yes	2-7 or multiple response	Any value	Stands as original value	Stands as original value	
4	2: No	1: none or missing	–6: didn't have any dental care, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	2: No, missing, or multiple response	Any value	0-10 or multiple response	1:Yes	Stands as original value	B
6	2: No, missing, or multiple response	2-7 or multiple response	Any value	1:Yes	Stands as original value	B
7	Missing	1:none or missing	–6: didn't have any dental care, or missing	Stands as original value	Stands as original value	
8	Multiple response	1:none or missing	–6: didn't have any dental care, or missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
S02M01, S02M02-S02M03

N13	S02M01 is:	S02M02 & S02M03 are:	S02M01 is coded as:	S02M02 & S02M03 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 13:
Responses to S02M02 and S02M03 are both missing.

Definition of "blank or NA" in Coding Table for Note 13:
Responses to S02M02 and S02M03 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 13:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 14:
S02P01, S02P02-S02P03

N14	S02P01 is:	S02P02 & S02P03 are:	S02P01 is coded as:	S02P02 & S02P03 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 14:
Responses to S02P02 and S02P03 are both missing.

Definition of "blank or NA" in Coding Table for Note 14:
Responses to S02P02 and S02P03 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 14:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 15:
H02043, H02044-H02046

N15	H02043 is:	H02044-H02046 are:	H02043 is coded as:	H02044-H02046 are coded as:	*
1	1: yes	At least one is “marked”, “all are blank” or “blank or don’t know”	Stands as original value	Stand as original value	
2	1: yes, -5: don’t know, missing, or multiple response	“Blank or NA”	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	-5: don’t know	At least one is “marked”	1:yes	Stand as original value	B
4	-5: don’t know	“Blank or don’t know”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	2: no, missing, or multiple response	At least one is “marked” or “blank or don’t know”	1: yes	Stand as original value	B
6	2: no, -5: don’t know	“Blank or NA” or “all are blank”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
7	Missing response	“All are blank”	Stands as original value	Stand as original value	
8	Multiple response	“All are blank”	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of “all are blank” in Coding Table for Note 15:
Responses to H02044-H02046 are all missing.

Definition of “blank or NA” in Coding Table for Note 15:
Responses to H02044-H02046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of “blank or don’t know” in Coding Table for Note 15:
Responses to H02044-H02046 are either all don’t know (-5) or a combination of missing and don’t know (-5).

Definition of “marked” in Coding Table for Note 15:
Any pattern of marks outside the definitions “all are blank,” “blank or NA,” or “blank or don’t know.”

Table for Note 16:
H02047, H02048

N16	H02047 is:	H02048 is:	H02047 is coded as:	H02048 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17:
H02049, H02050

N17	H02049 is:	H02050 is:	H02049 is coded as:	H02050 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18:
H02051, H02052, H02053

N18	H02051 is:	H02052 & H02053 are:	H02051 is coded as:	H02052 & H02053 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 18:
Responses to H02052 an H02053 are both missing.

Definition of "blank or NA" in Coding Table for Note 18:
Responses to H02052 and H02053 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 18:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 19:
H02054, H02055

N19	H02054 is:	H02055 is:	H02054 is coded as:	H02055 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem, or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H02063--H02066

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
1	1: ever smoked	3 or 4: still smoke	Marked or multiple response	Any value	Stands as original value	Stands as original value	.C, question should be skipped	Stands as original value	F
2	1: ever smoked	3 or 4: still smoke	Missing response	Any value	Stands as original value	Stands as original value	.N, valid skip	Stands as original value	
3	1: ever smoked	2: quit	2: quit >1 year ago or –5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
4	1: ever smoked	2: quit	2: quit >1 year ago or -5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
5	1: ever smoked	2: quit	3: quit <1 year ago, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
6	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	Stands as original value	2: quit	Stands as original value	.C, question should be skipped	F B
7	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Missing response	Stands as original value	2: quit	Stands as original value	.N, valid skip	F B
8	1: ever smoked	-5: don't know, missing, or multiple response	3: quit <1 year ago	Any value	Stands as original value	2: quit	Stands as original value	Stands as original value	B
9	1: ever smoked	-5:don't know, missing, or multiple response	-5: don't know, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
10	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Marked or multiple response	Any value	1: ever smoked	Stands as original value	.C, question should be skipped	Stands as original value	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
11	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Missing response	Any value	1: ever smoked	Stands as original value	.N, valid skip	Stands as original value	B
12	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Marked or multiple response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.C, question should be skipped	F
13	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Missing response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.N, valid skip	F
14	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Marked or multiple response	Stands as original value	.C, question should be skipped	.N, valid skip	.C, question should be skipped	F
15	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Missing response	Stands as original value	.C, question should be skipped	.N, valid skip	.N, valid skip	F
16	2: never or -5: don't know	Missing response	Marked or multiple response	Marked or multiple response	Stands as original value	.N, valid skip	.C, question should be skipped	.C, question should be skipped	F
17	2: never or -5: don't know	Missing response	Marked or multiple response	Missing response	Stands as original value	.N, valid skip	.C, question should be skipped	.N, valid skip	F
18	2: never or -5: don't know	Missing response	Missing response	Marked or multiple response	Stands as original value	.N, valid skip	.N, valid skip	.C, question should be skipped	F
19	2: never or -5: don't know	Missing response	Missing response	Missing response	Stands as original value	.N, valid skip	.N, valid skip	.N, valid skip	
20	Missing or multiple response	2: quit, missing, or multiple response	3: quit <1 year ago	Any value	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
21	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	1: ever smoked	Stands as original value	Stands as original value	.C, question should be skipped	B F
22	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Missing response	1: ever smoked	Stands as original value	Stands as original value	.N, valid skip	B
23	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
24	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
25	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	2-5: some visits	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B
26	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	1: none, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
27	Missing or multiple response	-5: don't know	Marked or multiple response	Marked or multiple response	Stands as original value	Stands as original value	.C, question should be skipped	.C, question should be skipped	F
28	Missing or multiple response	-5: don't know	Marked or multiple response	Missing response	Stands as original value	Stands as original value	.C, question should be skipped	.N, valid skip	F
29	Missing or multiple response	-5: don't know	Missing response	Missing response	Stands as original value	Stands as original value	.N, valid skip	.N, valid skip	
30	Missing or multiple response	-5: don't know	Missing response	Marked or multiple response	Stands as original value	Stands as original value	.N, valid skip	.C, question should be skipped	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:

Note 25(Part A):

H02067, SEX, XSEXA, H02068-H02075

N25A	H02067:	SEX is:	H02068 is:	H02069--H02075 are:	XSEXA is coded as:
1	Missing or multiple response	F	Marked	Any marked	2, female
2	Missing or multiple response	F	Missing or multiple response	All missing or multiple response	2, female
3	Missing or multiple response	M	Marked	Any marked	1, male
4	Missing or multiple response	M	Missing or multiple response	All missing or multiple response	1, male
5	Missing or multiple response	Any value	Marked	All missing or multiple response	1, male
6	Missing or multiple response	Any value	Missing or multiple response	Any marked	2, female
7	Missing or multiple response	Z	Marked	Any marked	., missing value
8	Missing or multiple response	Z	Missing or multiple response	All missing or multiple response	., missing value
9	1, male	Any value	Marked	All missing or multiple response	1, male
10	1, male	F	Missing or multiple response	Any marked	2, female
11	1, male	M or Z	Missing or multiple response	Any marked	1, male
12	1, male	Any value	Marked	Any marked	1, male
13	1, male	Any value	Missing or multiple response	All missing or multiple response	1, male
14	2, female	Any value	Missing or multiple response	Any marked	2, female
15	2, female	M	Marked	All missing or multiple response	1, male
16	2, female	F or Z	Marked	All missing or multiple response	2, female
17	2, female	Any value	Marked	Any marked	2, female
18	2, female	Any value	Missing or multiple response	All missing or multiple response	2, female

SEX is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H02067), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 25 (Part B):
XSEXA, H02068

N25B	XSEXA is:	H02068 is:	H02068 is coded as:	*
1	1: Male	Marked, missing, or multiple response	Stands as original value	
2	2: Female	Marked or multiple response	.C, question should be skipped	F
3	2: Female	Missing response	.N, valid skip	F
4	Missing	Any response	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Note 25 (Part C):
XSEXA, H02069 - H02075

N25C	XSEXA is:	H02069--H02075 are:	H02069 --H02075 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stands as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 25c:
All variables H02069--H02075 are missing.

Definition of "marked" in Coding Table for Note 25c:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 26
XSEXA, AGE, H02070, H02071, H02072

N26	XSEXA is:	AGE is:	H02070 is:	H02071 & H02072 are:	H02070 is coded as:	H02071 & H02072 are coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Marked, missing, or multiple response	Stands as original value	Stand as original value	
3	2: Female	Any value	1: under 40	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Multiple response	Marked or multiple response	2: > 40	Stand as original value	
5	2: Female	Any value	Multiple response	Missing	1: < 40	.N, valid skip	B F
6	2: Female	Any value	Missing	Marked or multiple response	2: > 40	Stand as original value	B
7	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F
8	2: Female	>=40	Missing	Missing	1: < 40	.N, valid skip	B
9	2: Female	Missing	Missing	Missing	Stands as original value	Stand as original value	
10	Missing	Any value	Missing	Missing	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 27:
XSEXA, H02073, H02074, H02075

N27	XSEXA is:	H02073 is:	H02074 is:	H02075 is:	H02073 is coded as:	H02074 is coded as:	H02075 is coded as:	*
1	1: Male	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	
3	2: female	2: pregnant in last 12 months	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
4	2: Female	3: not pregnant in past 12 months	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
5	2: Female	Missing or multiple response	Marked, or multiple response	Marked, missing or multiple response	1: pregnant now	Stands as original value	Stands as original value	B
6	2: Female	Missing response	Missing response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	
7	2: Female	Multiple response	Missing response	Marked, missing or multiple response	3:not pregnant in past 12 months	.N, valid skip	.N, valid skip if missing; .C, question should be skipped if marked	B F
8	Missing	Missing or multiple response	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.A	-8	Multiple response error
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of “Don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values ‘.’, multiple responses ‘.A’, and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H02006, H02007

N1	H02006 is:	H02007 is:	H02006 is coded as:	H02007 is coded as:	*
1	1-11, health plan, -5, not sure	Marked, missing, or multiple response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked or multiple response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked, missing, or multiple response	Stands as original value	Stands as original value	
5	Multiple response	Marked or multiple response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	-6: Did not use any health plan in the last 12 months	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H02008, H02009

N2	H02008 is:	H02009 is:	H02008 is coded as:	H02009 is coded as:	*
1	1: yes	1-3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't get a new doctor	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1- 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't get a new doctor	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3:
H02010, H02011

N3	H02010 is:	H02011 is:	H02010 is coded as:	H02011 is coded as:	*
1	1: yes	0-10, missing, or multiple response	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	-6, I don't have a personal doctor or nurse	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	0-10 or multiple response	1: yes	Stands as original value	B
4	2: no	-6, I don't have a personal doctor or nurse, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	
6	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4:
H02012, H02013, H02014

N4	H02012 is:	H02013 & H02014 are:	H02012 is coded as:	H02013 & H02014 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H02013 and H02014 are both missing.

Definition of "blank or NA" in Coding Table for Note 4:
Response to H02013 is not applicable (-6), and H02014 is missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 5:
H02013, H02014

N5	H02013 is:	H02014 is:	H02013 is coded as:	H02014 is coded as:	*
1	.N valid skip or .C question should be skipped	.N valid skip or .C question should be skipped	Stands as original value	Stands as original value	
2	1-2, missing or multiple response	1,2, missing or multiple response	Stands as original value	Stands as original value	
3	3: not sure, -6: Not a member of TRICARE Prime	1,2, missing or multiple response	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H02015, H02016

N6	H02015 is:	H02016 is:	H02015 is coded as:	H02016 is coded as:	*
1	1: yes	1, 2, 3, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: didn't need to see a specialist	2: No	.C question should be skipped	B
3	2: no, missing, or multiple response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, multiple response, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 7:
H02017, H02018, H02019

N7	H02017 is:	H02018, H02019 Are:	H02017 is coded as:	H02018, H02019 Are coded as:	*
1	1: yes	"All are blank" or at least one is "marked"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2:no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
H02018 and H0219 are both missing.

Definition of "blank or NA" in Coding Table for Note 7:
H02018 and H02019 are either not applicable (-6), or a combination of not applicable (-6) and missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 8:
H02020, H02021

N8	H02020 is:	H02021 is:	H02020 is coded as:	H02021 is coded as:	*
1	1: yes	1-4: how often, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: no calls	2: no	.C, question should be skipped	B F
3	2: no, missing or multiple response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: no calls, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H02022, H02023, H02024

N9	H02022 is:	H02023 & H02024 are:	H02022 is coded as:	H02023 & H02024 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H02023 and H02024 are both missing.

Definition of "blank or NA" in Coding Table for Note 9:
Responses to H02023 and H02024 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 10:
H02025, H02026, H02027

N10	H02025 is:	H02026 & H02027 are:	H02025 is coded as:	H02026 & H02027 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10:
Responses to H02026 and H02027 are both missing.

Definition of "blank or NA" in Coding Table for Note 10:
Responses to H02026 and H02027 are either both not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 10:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 11:
H02029, H02030-H02039

N12	H02029 is:	H02030- H02039 are:	H02029 is coded as:	H02030- H02039 are coded as:	*
1	1: None	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
2	1: none	At least one is "marked"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
3	2-7, missing, or multiple response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B
4	2-7	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	1: None	.N, valid skip	B
7	Missing or Multiple response	At least one is "marked"	Stands as original value	Stands as original value	B

* Indication of backward coding (B) or forward coding (F).
Definition of "all are blank" in Coding Table for Note 11:
Responses to H02030-H02039 are all missing.

Definition of "Blank or NA" in Coding Table for Note 11:
Responses to H02030-H02039 are either all not applicable (-6) or a combination of missing response and not applicable (-6)

Definition of "marked" in Coding Table for Note 11:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 15:
H02043, H02044-H02046

N15	H02043 is:	H02044-H02046 are:	H02043 is coded as:	H02044-H02046 are coded as:	*
1	1: yes	At least one is “marked”, “all are blank” or “blank or don’t know”	Stands as original value	Stand as original value	
2	1: yes, -5: don’t know, missing, or multiple response	“Blank or NA”	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	-5: don’t know	At least one is “marked”	1:yes	Stand as original value	B
4	-5: don’t know	“Blank or don’t know”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	2: no, missing, or multiple response	At least one is “marked” or “blank or don’t know”	1: yes	Stand as original value	B
6	2: no, -5: don’t know	“Blank or NA” or “all are blank”	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
7	Missing response	“All are blank”	Stands as original value	Stand as original value	
8	Multiple response	“All are blank”	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of “all are blank” in Coding Table for Note 15:
Responses to H02044-H02046 are all missing.

Definition of “blank or NA” in Coding Table for Note 15:
Responses to H02044-H02046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of “blank or don’t know” in Coding Table for Note 15:
Responses to H02044-H02046 are either all don’t know (-5) or a combination of missing and don’t know (-5).

Definition of “marked” in Coding Table for Note 15:
Any pattern of marks outside the definitions “all are blank,” “blank or NA,” or “blank or don’t know.”

Table for Note 16:
H02047, H02048

N16	H02047 is:	H02048 is:	H02047 is coded as:	H02048 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17:
H02049, H02050

N17	H02049 is:	H02050 is:	H02049 is coded as:	H02050 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem	1: yes	Stands as original value	B
4	2: no	-6: not applicable, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Multiple response	Stands as original value	Stands as original value	
8	Multiple response	Missing response	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18:
H02051, H02052, H02053

N18	H02051 is:	H02052 & H02053 are:	H02051 is coded as:	H02052 & H02053 are coded as:	*
1	1: yes	At least one is "marked" or "all are blank"	Stands as original value	Stand as original value	
2	1: yes, missing, or multiple response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B
3	2: no, missing, or multiple response	At least one is "marked"	1: yes	Stand as original value	B
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	
6	Multiple response	"All are blank"	2: no	.N, valid skip	B

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 18:
Responses to H02052 an H02053 are both missing.

Definition of "blank or NA" in Coding Table for Note 18:
Responses to H02052 and H02053 are either all not applicable (-6) or a combination of missing response and not applicable (-6).

Definition of "marked" in Coding Table for Note 18:
Any pattern of marks outside the definitions "all are blank" and "blank or NA"

Coding Table for Note 19:
H02054, H02055

N19	H02054 is:	H02055 is:	H02054 is coded as:	H02055 is coded as:	*
1	1: yes	1-3: categorize problem, missing, or multiple response	Stands as original value	Stands as original value	
2	1: yes, missing, or multiple response	-6: not applicable	2: no	.C, question should be skipped	B F
3	2: no, missing, or multiple response	1-3: categorize problem, or multiple response	1: yes	Stands as original value	B
4	2: no	-6: not applicable or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	
5	Missing response	Multiple response	1: yes	Stands as original value	B
6	Missing response	Missing response	Stands as original value	Stands as original value	
7	Multiple response	Missing response	2: no	.N, valid skip	B
8	Multiple response	Multiple response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H02063--H02066

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
1	1: ever smoked	3 or 4: still smoke	Marked or multiple response	Any value	Stands as original value	Stands as original value	.C, question should be skipped	Stands as original value	F
2	1: ever smoked	3 or 4: still smoke	Missing response	Any value	Stands as original value	Stands as original value	.N, valid skip	Stands as original value	
3	1: ever smoked	2: quit	2: quit >1 year ago or –5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
4	1: ever smoked	2: quit	2: quit >1 year ago or -5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
5	1: ever smoked	2: quit	3: quit <1 year ago, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
6	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	Stands as original value	2: quit	Stands as original value	.C, question should be skipped	F B
7	1: ever smoked	-5: don't know, missing, or multiple response	2: quit >1 year ago	Missing response	Stands as original value	2: quit	Stands as original value	.N, valid skip	F B
8	1: ever smoked	-5: don't know, missing, or multiple response	3: quit <1 year ago	Any value	Stands as original value	2: quit	Stands as original value	Stands as original value	B
9	1: ever smoked	-5:don't know, missing, or multiple response	-5: don't know, missing, or multiple response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
10	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Marked or multiple response	Any value	1: ever smoked	Stands as original value	.C, question should be skipped	Stands as original value	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
11	2: never, -5: don't know, missing, or multiple response	3 or 4: still smoke	Missing response	Any value	1: ever smoked	Stands as original value	.N, valid skip	Stands as original value	B
12	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Marked or multiple response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.C, question should be skipped	F
13	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Marked or multiple response	Missing response	Stands as original value	.C, question should be skipped	.C, question should be skipped	.N, valid skip	F
14	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Marked or multiple response	Stands as original value	.C, question should be skipped	.N, valid skip	.C, question should be skipped	F
15	2: never or -5: don't know	2: quit, -5: don't know, or multiple response	Missing response	Missing response	Stands as original value	.C, question should be skipped	.N, valid skip	.N, valid skip	F
16	2: never or -5: don't know	Missing response	Marked or multiple response	Marked or multiple response	Stands as original value	.N, valid skip	.C, question should be skipped	.C, question should be skipped	F
17	2: never or -5: don't know	Missing response	Marked or multiple response	Missing response	Stands as original value	.N, valid skip	.C, question should be skipped	.N, valid skip	F
18	2: never or -5: don't know	Missing response	Missing response	Marked or multiple response	Stands as original value	.N, valid skip	.N, valid skip	.C, question should be skipped	F
19	2: never or -5: don't know	Missing response	Missing response	Missing response	Stands as original value	.N, valid skip	.N, valid skip	.N, valid skip	
20	Missing or multiple response	2: quit, missing, or multiple response	3: quit <1 year ago	Any value	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24 continued:

N24	H02063 Is:	H02064 is:	H02065 is:	H02066 is:	H02063 is coded as:	H02064 is coded as:	H02065 is coded as:	H02066 is coded as:	*
21	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Marked or multiple response	1: ever smoked	Stands as original value	Stands as original value	.C, question should be skipped	B F
22	Missing or multiple response	2: quit, missing, or multiple response	2: quit >1 year ago	Missing response	1: ever smoked	Stands as original value	Stands as original value	.N, valid skip	B
23	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	
24	Missing or multiple response	2: quit, missing, or multiple response	-5: don't know	Marked or multiple response	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
25	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	2-5: some visits	1: ever smoked	Stands as original value	Stands as original value	Stands as original value	B
26	Missing or multiple response	2: quit, missing, or multiple response	Missing or multiple response	1: none, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
27	Missing or multiple response	-5: don't know	Marked or multiple response	Marked or multiple response	Stands as original value	Stands as original value	.C, question should be skipped	.C, question should be skipped	F
28	Missing or multiple response	-5: don't know	Marked or multiple response	Missing response	Stands as original value	Stands as original value	.C, question should be skipped	.N, valid skip	F
29	Missing or multiple response	-5: don't know	Missing response	Missing response	Stands as original value	Stands as original value	.N, valid skip	.N, valid skip	
30	Missing or multiple response	-5: don't know	Missing response	Marked or multiple response	Stands as original value	Stands as original value	.N, valid skip	.C, question should be skipped	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:

Note 25(Part A):
H02067, SEX, XSEXA, H02068-H02075

N25A	H02067:	SEX is:	H02068 is:	H02069--H02075 are:	XSEXA is coded as:
1	Missing or multiple response	F	Marked	Any marked	2, female
2	Missing or multiple response	F	Missing or multiple response	All missing or multiple response	2, female
3	Missing or multiple response	M	Marked	Any marked	1, male
4	Missing or multiple response	M	Missing or multiple response	All missing or multiple response	1, male
5	Missing or multiple response	Any value	Marked	All missing or multiple response	1, male
6	Missing or multiple response	Any value	Missing or multiple response	Any marked	2, female
7	Missing or multiple response	Z	Marked	Any marked	., missing value
8	Missing or multiple response	Z	Missing or multiple response	All missing or multiple response	., missing value
9	1, male	Any value	Marked	All missing or multiple response	1, male
10	1, male	F	Missing or multiple response	Any marked	2, female
11	1, male	M or Z	Missing or multiple response	Any marked	1, male
12	1, male	Any value	Marked	Any marked	1, male
13	1, male	Any value	Missing or multiple response	All missing or multiple response	1, male
14	2, female	Any value	Missing or multiple response	Any marked	2, female
15	2, female	M	Marked	All missing or multiple response	1, male
16	2, female	F or Z	Marked	All missing or multiple response	2, female
17	2, female	Any value	Marked	Any marked	2, female
18	2, female	Any value	Missing or multiple response	All missing or multiple response	2, female

SEX is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H02067), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 25 (Part B):
XSEXA, H02068

N25B	XSEXA is:	H02068 is:	H02068 is coded as:	*
1	1: Male	Marked, missing, or multiple response	Stands as original value	
2	2: Female	Marked or multiple response	.C, question should be skipped	F
3	2: Female	Missing response	.N, valid skip	F
4	Missing	Any response	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Note 25 (Part C):
XSEXA, H02069 - H02075

N25C	XSEXA is:	H02069--H02075 are:	H02069 --H02075 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stands as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 25c:
All variables H02069--H02075 are missing.

Definition of "marked" in Coding Table for Note 25c:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 26
XSEXA, AGE, H02070, H02071, H02072

N26	XSEXA is:	AGE is:	H02070 is:	H02071 & H02072 are:	H02070 is coded as:	H02071 & H02072 are coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Marked, missing, or multiple response	Stands as original value	Stand as original value	
3	2: Female	Any value	1: under 40	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Multiple response	Marked or multiple response	2: > 40	Stand as original value	
5	2: Female	Any value	Multiple response	Missing	1: < 40	.N, valid skip	B F
6	2: Female	Any value	Missing	Marked or multiple response	2: > 40	Stand as original value	B
7	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F
8	2: Female	>=40	Missing	Missing	1: < 40	.N, valid skip	B
9	2: Female	Missing	Missing	Missing	Stands as original value	Stand as original value	
10	Missing	Any value	Missing	Missing	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 27:
XSEXA, H02073, H02074, H02075

N27	XSEXA is:	H02073 is:	H02074 is:	H02075 is:	H02073 is coded as:	H02074 is coded as:	H02075 is coded as:	*
1	1: Male	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	.C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	Stands as original value	Stands as original value	
3	2: female	2: pregnant in last 12 months	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
4	2: Female	3: not pregnant in past 12 months	Marked, missing, or multiple response	Marked, missing, or multiple response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
5	2: Female	Missing or multiple response	Marked, or multiple response	Marked, missing or multiple response	1: pregnant now	Stands as original value	Stands as original value	B
6	2: Female	Missing response	Missing response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	
7	2: Female	Multiple response	Missing response	Marked, missing or multiple response	3:not pregnant in past 12 months	.N, valid skip	.N, valid skip if missing; .C, question should be skipped if marked	B F
8	Missing	Missing or multiple response	Marked, missing or multiple response	Marked, missing or multiple response	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 28:
SRAGE, S02T01--S02T12

N28	SRAGE is:	S02T01--S02T12 are:	SRAGE is coded as:	S02T01--S02T12 are coded as:	*
1	1-5	Any Value	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
2	Missing, or multiple response	Any Value	Stands as original value	Stand as original value	
3	6 or 7	Any Value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

APPENDIX D

MAPPING THE MILITARY TREATMENT FACILITY (MTF) TO THE CATCHMENT AREA AND REGION

APPENDIX D

MAPPING THE MILITARY TREATMENT FACILITY (MTF)
TO THE CATCHMENT AREA AND REGION

Catchment Area (CACSMPL)	Facility Name	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
		RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
0001	Redstone Ars/Ft McClellan	39.8	50.5	35.3	44.0	38.9	47.2	33.0	40.8	36.8	45.6
0003	Ft. Rucker	38.3	45.2	39.2	48.2	41.2	51.3	35.0	44.4	38.4	47.3
0004	Maxwell AFB	40.9	44.8	41.6	45.2	39.0	42.5	38.6	43.9	40.0	44.1
0005	Ft. Wainwright	25.5	25.8	27.6	27.6	24.2	24.0	21.3	21.9	24.7	24.8
0006	Elmendorf AFB/Ft Wainwright	37.4	40.7	37.5	41.7	36.2	39.8	31.9	36.0	35.6	39.6
0008	Ft. Huachuca	33.2	39.7	28.2	30.3	34.8	41.4	29.7	35.1	31.5	36.6
0009	Luke AFB	40.9	59.7	40.8	56.9	41.1	58.7	35.7	53.8	39.6	57.3
0010	Davis-Monthan AFB	33.0	37.3	34.9	39.2	37.9	46.7	33.1	41.6	34.7	41.3
0013	Little Rock AFB	32.9	36.3	31.0	36.2	34.7	39.8	30.6	32.8	32.3	36.3
0014	Travis AFB	38.8	50.4	39.4	50.9	35.8	47.8	36.6	50.6	37.5	49.9
0019	Edwards AFB	31.0	33.7	32.7	38.8	32.2	37.3	34.8	38.5	32.7	37.1
0024	NH Camp Pendleton/Ft Irwin	18.4	38.3	18.2	36.3	26.6	37.6	22.5	33.3	20.9	36.4
0028	NH LeMoore	34.3	39.3	34.6	38.7	37.4	43.1	32.8	37.7	34.8	39.7
0029	NMC San Diego	26.1	36.6	27.4	35.4	27.5	37.7	25.2	34.8	26.6	36.2
0030	NH 29-Palms	26.0	26.5	24.5	24.6	30.2	29.9	19.3	20.0	25.0	25.3
0032	Evans ACH-Ft. Carson	20.0	39.7	28.1	37.9	28.5	37.5	23.8	35.6	24.2	37.7
0033	USAF Acad. Hospital	39.3	45.1	40.3	48.3	39.4	46.6	39.6	49.2	39.6	47.3
0035	NACC Groton	30.6	33.6	32.6	35.8	26.5	31.4	23.8	27.8	28.4	32.1
0036	Dover AFB	34.1	39.9	35.8	43.9	38.5	42.4	31.1	35.9	34.9	40.4
0037	Walter Reed AMC	38.6	52.6	38.3	48.1	35.8	44.2	35.9	43.4	37.0	47.1
0038	NH Pensacola	32.8	47.0	32.5	44.8	34.9	49.3	29.9	44.3	32.5	46.3
0039	NH Jacksonville/Key West	36.5	44.9	33.9	45.7	31.9	40.7	26.6	37.9	31.9	42.3
0042	Eglin AFB	41.1	55.5	37.6	49.9	37.6	48.3	36.5	49.6	38.1	50.8
0043	Tyndall AFB	40.3	45.7	34.5	39.7	38.0	44.4	30.5	37.4	35.8	41.8
0045	MacDill AFB	44.4	63.8	46.9	62.6	45.5	59.0	39.7	54.6	44.1	60.0
0046	Patrick AFB	38.8	45.3	47.5	55.1	45.9	55.8	40.9	52.4	43.2	52.5
0047	Ft. Gordon	42.5	48.1	34.9	40.3	37.6	45.7	34.5	42.4	36.9	44.1
0048	Ft. Benning	29.1	37.8	22.3	31.9	22.6	34.9	25.1	37.0	24.5	35.4
0049	Ft. Stewart	24.7	27.9	25.4	30.2	23.1	25.9	21.8	26.9	23.7	27.7
0051	Robins AFB	42.1	47.5	35.2	39.6	36.9	40.3	29.0	33.2	35.8	40.0
0052	Tripler AMC	20.8	32.5	30.3	37.3	25.7	32.7	24.8	33.5	24.9	34.0
0053	Mountain Home AFB	32.6	37.8	36.2	41.0	32.6	38.0	29.7	33.6	32.8	37.6
0055	Scott AFB	42.1	56.4	36.7	49.1	38.7	49.4	39.1	50.4	39.1	51.3
0056	NH Great Lakes	28.8	31.3	20.2	25.5	22.7	29.6	23.2	31.1	23.4	29.3
0057	Ft. Riley	34.3	35.8	32.5	34.0	30.5	32.0	30.6	33.7	31.9	33.9
0058	Ft. Leavenworth	44.1	49.0	31.4	36.6	37.8	41.9	32.0	35.3	36.3	40.6
0059	McConnell AFB	30.0	32.9	30.9	34.6	30.2	35.8	27.7	33.3	29.7	34.1
0060	Ft. Campbell	26.8	30.0	25.3	29.9	26.4	34.6	22.2	28.4	25.1	30.7
0061	Ft. Knox	36.6	46.8	32.8	45.0	32.5	46.3	29.5	41.6	32.7	44.9

Catchment Area (CACSMPL)	Facility Name	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
		RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
0062	Barksdale AFB	33.6	39.0	29.3	34.0	27.9	33.8	25.7	30.5	29.1	34.3
0064	Ft. Polk	30.1	31.9	31.9	34.4	27.5	29.4	29.1	30.7	29.6	31.6
0066	Andrews AFB	37.2	47.5	34.3	41.2	37.3	45.8	35.2	41.3	36.0	44.0
0067	NNMC Bethesda	39.7	46.1	35.9	44.6	39.6	48.3	35.9	46.8	37.7	46.5
0069	Ft. Meade	29.8	33.4	28.1	32.0	31.0	38.3	31.3	36.3	30.0	35.1
0073	Keesler AFB	33.3	39.0	33.3	44.4	32.8	43.5	29.4	39.2	32.2	41.5
0075	Ft. Leonard Wood	37.9	41.7	30.7	35.9	29.0	34.5	30.4	34.0	31.8	36.5
0078	Offutt AFB	44.4	50.3	41.7	48.9	43.6	51.2	43.0	49.2	43.1	49.9
0079	Nellis AFB	39.4	52.7	39.5	49.5	40.3	50.6	39.9	50.8	39.8	50.9
0083	Kirtland AFB	34.2	40.7	33.3	36.8	37.0	40.6	30.6	38.0	33.8	39.0
0086	West Point	33.7	44.4	35.4	45.6	32.1	43.5	30.4	39.3	32.9	43.2
0089	Ft. Bragg	24.7	29.5	25.8	34.4	27.6	35.0	24.0	31.4	25.4	32.6
0090	Seymour Johnson AFB	30.3	34.7	34.0	40.3	30.7	37.6	27.4	31.5	30.6	36.0
0091	NH Camp Lejeune	30.5	31.4	24.2	28.0	22.7	26.4	22.3	26.6	24.5	28.1
0092	NH Cherry Point	31.8	34.6	32.3	35.4	32.3	36.4	33.6	37.4	32.5	35.9
0095	Wright Patterson AFB	42.5	54.0	45.9	52.9	43.3	52.1	41.4	49.1	43.3	52.0
0096	Tinker AFB	28.3	33.8	29.1	32.7	31.9	36.2	28.8	33.7	29.6	34.1
0098	Ft. Sill	35.1	38.8	29.3	35.2	28.2	33.0	27.8	36.1	29.9	35.8
0101	Shaw AFB	38.6	45.1	39.8	47.0	36.4	40.6	34.2	41.4	37.2	43.5
0103	NH Charleston	30.8	46.2	37.0	48.9	34.5	44.0	31.7	42.3	33.0	45.3
0104	NH Beaufort	27.5	29.1	28.6	31.3	33.2	36.5	23.4	26.1	28.2	30.8
0105	Ft. Jackson	34.8	48.1	27.5	40.3	33.1	41.8	27.4	36.8	30.5	41.7
0108	Ft. Bliss	33.0	46.8	26.7	37.5	30.4	42.5	27.5	36.7	29.3	40.8
0109	Brooke AMC-Ft. Sam Houston	39.3	54.4	42.8	58.6	40.9	54.1	35.0	51.8	39.5	54.7
0110	Ft. Hood	22.9	32.7	24.3	31.7	24.3	30.6	19.8	27.6	22.8	30.6
0112	Dyess AFB	31.0	35.9	25.9	29.2	33.0	37.9	30.8	34.5	30.2	34.4
0113	Laughlin AFB/Sheppard AFB	34.9	38.9	38.1	46.1	36.8	41.9	29.5	33.3	34.7	39.7
0117	Lackland AFB	34.3	46.1	32.0	41.5	33.0	43.9	29.9	39.9	32.3	42.8
0118	NH Corpus Christi	28.4	36.0	34.4	39.0	31.7	35.8	30.3	36.4	31.2	36.8
0119	Hill AFB	27.8	30.2	29.5	33.9	35.5	39.3	30.0	34.6	30.7	34.6
0120	Langley AFB	42.1	48.8	33.0	40.8	38.4	45.0	28.7	37.1	35.3	42.8
0121	Ft. Eustis	32.1	45.2	31.9	42.6	33.7	43.9	31.2	43.3	32.2	43.7
0123	Ft. Belvoir	47.6	53.5	45.7	53.5	47.6	56.5	43.5	54.1	46.2	54.4
0124	NMC Portsmouth	30.5	36.7	30.2	36.1	29.7	35.1	30.4	39.0	30.3	36.7
0125	Madigan AMC-Ft. Lewis	34.7	50.0	32.3	43.5	32.5	44.8	30.7	43.2	32.4	45.3
0126	NH Bremerton	34.5	38.3	35.8	41.7	34.5	42.1	32.1	37.9	34.2	40.0
0127	NH Oak Harbor	37.8	40.6	37.7	41.4	32.8	35.3	32.6	36.2	35.2	38.3
0128	Fairchild AFB	40.8	49.3	30.5	36.9	35.1	44.3	32.5	40.9	34.7	42.8
0129	F.E. Warren AFB	36.3	41.0	34.5	39.9	29.2	34.3	31.6	36.8	32.9	37.9
0131	Ft. Irwin	27.8	31.1	23.7	27.0	22.0	24.3	21.4	26.6	23.7	27.3
0280	Pearl Harbor	30.9	32.7	35.3	36.9	31.2	32.7	25.1	27.2	30.7	32.3
0287	NMCL Pearl Harbor/Hickam	33.7	34.9	34.3	35.3	38.1	39.2	27.8	29.5	33.5	34.7
0321	NACC Portsmouth New Hamp.	30.3	31.5	34.8	36.4	32.8	34.2	26.4	27.8	31.1	32.4

Catchment Area (CACSMPL)	Facility Name	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
		RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
0326	McGuire AFB/Ft. Dix	31.4	33.3	27.9	29.1	28.2	29.9	27.6	29.1	28.8	30.3
0330	Ft. Drum	21.0	21.9	16.2	17.5	18.6	20.0	19.3	21.3	18.8	20.2
0366	Randolph AFB	46.2	50.7	37.5	43.0	48.2	54.5	36.7	42.3	42.1	47.6
0385	NMCL Quantico	31.6	37.0	27.5	30.6	27.5	33.5	27.0	32.2	28.4	33.3
0606	Landstuhl AMC/other German	16.4	18.1	17.8	20.3	14.6	16.9	11.9	14.3	15.1	17.3
0607	Landstuhl	22.5	23.2	22.3	22.7	21.0	22.0	17.3	18.9	20.7	21.7
0609	Wuerzburg	14.5	15.1	17.9	18.2	18.2	21.5	12.0	12.2	15.7	16.7
0612	Seoul	16.3	15.6	14.5	14.0	15.8	15.6	9.8	9.9	14.0	13.7
0616	NH Guantanamo/Roosevelt Rds	22.8	25.7	20.9	22.8	21.0	25.1	18.7	21.9	20.9	23.9
0617	Naples	14.1	13.7	21.5	21.2	15.2	15.5	12.0	11.6	15.7	15.5
0620	Agana	23.9	26.6	26.8	28.5	22.5	23.4	18.8	21.9	23.0	25.1
0621	Okinawa	14.1	14.6	12.5	12.3	14.8	15.0	10.8	11.0	13.1	13.2
0622	NH Yokosuka/other Asian	12.6	11.5	14.3	13.2	13.7	13.7	9.4	9.0	12.5	11.8
0633	RAF Lakenheath/other Europe	21.0	21.2	22.3	23.5	20.6	21.0	14.6	14.7	19.7	20.1
0638	Kunsan AB/Osan AB	15.3	15.6	17.6	18.5	17.6	17.8	13.0	13.4	15.9	16.3
0640	Yokota AB	24.9	24.9	19.6	19.3	19.0	18.8	18.3	18.1	20.4	20.2
0804	Kadena AFB	21.8	21.7	17.7	18.4	20.7	21.3	15.0	15.5	18.8	19.2
0805	Spangdahlem AB	25.8	26.8	19.6	20.5	22.7	23.1	17.1	17.2	21.3	21.8
0806	Spangdahlem/Ramstein AFB	30.8	31.1	23.5	23.6	18.4	18.6	14.2	14.9	21.7	22.0
7139	Hurlburt Field	30.2	32.0	26.1	27.7	26.7	28.9	24.7	26.1	26.9	28.6
9901	Out/Area-Reg 1	37.5	57.2	44.0	56.7	42.6	52.9	42.4	56.0	42.1	55.7
9902	Out/Area-Reg 2	34.2	58.1	51.1	61.6	53.0	63.3	52.3	62.0	45.0	61.3
9903	Out/Area-Reg 3	37.8	67.7	52.4	65.2	51.2	61.9	45.1	58.5	46.8	63.2
9904	Out/Area-Reg 4	36.8	62.7	49.8	60.4	44.9	53.9	44.4	55.0	43.6	57.9
9905	Out/Area-Reg 5	38.8	53.1	49.1	58.9	45.6	56.2	42.2	53.6	44.1	55.5
9906	Out/Area-Reg 6	32.9	60.0	45.7	56.0	45.6	57.0	48.1	58.6	44.1	57.8
9907	Out/Area-Reg 7	39.5	59.5	51.6	63.0	55.4	69.7	46.4	54.1	48.8	61.2
9908	Out/Area-Reg 8	42.9	62.3	54.5	65.2	43.8	55.7	48.2	60.4	47.6	60.8
9909	Out/Area-Reg 9	38.5	58.2	41.7	51.5	42.2	51.8	47.3	59.2	41.8	55.4
9910	Out/Area-Reg 10	38.6	63.1	55.8	66.6	55.5	65.8	46.6	56.1	46.4	62.9
9911	Out/Area-Reg 11	35.9	60.5	48.3	56.4	51.2	60.1	44.2	56.9	43.3	58.6
9912	Out/Area-Reg 12	45.5	57.7	42.9	46.6	45.5	57.4	28.6	44.0	42.9	52.0
9913	Out/Area-Europe	13.3	19.3	16.7	18.1	26.5	37.9	12.2	11.5	17.3	21.0
9914	Out/Area-Pacific	28.6	36.5	32.4	58.3	16.0	5.0	12.5	7.8	22.3	27.9
9915	Out/Area-Latin America & Can	13.6	13.9	24.1	49.3	22.3	21.5	14.6	23.4	19.0	26.8
9999	Missing	6.0	2.6	5.4	3.4	4.5	4.5	4.5	5.3	5.1	3.7

APPENDIX E

RESPONSE RATE TABLES

TABLE E.1

RESPONSE RATE BY REGION

	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W
Northeast	34.9	51.1	34.4	49.9	34.6	49.0	32.5	49.1	34.1	49.8
Mid-Atlantic	30.5	40.6	30.6	41.5	31.1	41.8	28.8	41.3	30.3	41.3
Southeast	35.0	54.1	35.4	52.4	35.2	50.4	31.1	47.3	34.1	51.0
Gulfsouth	36.7	55.0	36.0	52.8	36.5	50.4	33.2	49.5	35.6	51.9
Heartland	35.2	47.9	33.1	49.8	33.3	49.3	31.8	47.0	33.3	48.5
Southwest	31.3	49.7	33.2	47.7	33.8	47.7	30.8	46.9	32.3	48.0
Central 7	35.9	54.1	35.0	51.7	37.7	55.4	33.4	48.4	35.5	52.4
Central 8	33.7	51.7	35.5	54.2	34.6	48.8	33.3	50.4	34.2	51.3
Southern California	26.1	41.9	24.8	38.7	28.7	41.0	26.2	40.7	26.4	40.6
Golden Gate	37.5	56.1	40.7	58.3	39.1	56.2	37.1	52.2	38.6	55.7
Northwest	36.6	51.7	35.2	47.8	35.2	49.7	32.9	46.6	34.9	49.0
Hawaii	26.9	35.2	33.1	38.1	31.1	35.9	25.8	32.8	29.1	35.5
Europe	20.3	19.5	20.4	20.8	18.5	20.5	13.9	14.3	18.2	18.8
Western Pacific Command	18.1	18.1	17.2	18.4	17.3	16.6	13.0	12.3	16.4	16.3
TRICARE Latin America	21.2	18.1	21.6	41.0	21.3	22.4	17.8	23.0	20.4	26.0
Alaska	30.6	34.5	32.3	35.8	29.9	33.1	26.4	30.0	29.8	33.3

TABLE E.2

RESPONSE RATES BY SEX

	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W
Male	27.3	43.7	27.4	43.4	27.4	42.4	25.0	41.6	26.8	42.7
Female	35.7	50.8	36.3	50.3	36.9	49.8	33.0	47.4	35.5	49.6

TABLE E.3

RESPONSE RATES BY CONUS/OCONUS INDICATOR

	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W
Not in Conus	19.3	18.8	19.0	21.4	18.2	19.2	13.7	14.3	17.5	18.4
In Conus	33.1	49.6	33.6	48.8	34.0	48.0	31.3	46.6	33.0	48.2

TABLE E.4

RESPONSE RATES BY COMBINED GEOGRAPHIC AREA

			Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
Region	CACSMPL	Catchment Area	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Northeast	0035	NACC Groton	30.6	33.6	32.6	35.8	26.5	31.4	23.8	27.8	28.4	32.1
Region 1	0036	Dover AFB	34.1	39.9	35.8	43.9	38.5	42.4	31.1	35.9	34.9	40.4
	0037	Walter Reed AMC	38.6	52.6	38.3	48.1	35.8	44.2	35.9	43.4	37.0	47.1
	0066	Andrews AFB	37.2	47.5	34.3	41.2	37.3	45.8	35.2	41.3	36.0	44.0
	0067	NNMC Bethesda	39.7	46.1	35.9	44.6	39.6	48.3	35.9	46.8	37.7	46.5
	0069	Ft. Meade	29.8	33.4	28.1	32.0	31.0	38.3	31.3	36.3	30.0	35.1
	0086	West Point	33.7	44.4	35.4	45.6	32.1	43.5	30.4	39.3	32.9	43.2
	0123	Ft. Belvoir	47.6	53.5	45.7	53.5	47.6	56.5	43.5	54.1	46.2	54.4
	0321	NACC Portsmouth New Hamp.	30.3	31.5	34.8	36.4	32.8	34.2	26.4	27.8	31.1	32.4
	0326	McGuire AFB/Ft. Dix	31.4	33.3	27.9	29.1	28.2	29.9	27.6	29.1	28.8	30.3
	0330	Ft. Drum	21.0	21.9	16.2	17.5	18.6	20.0	19.3	21.3	18.8	20.2
	0385	NMCL Quantico	31.6	37.0	27.5	30.6	27.5	33.5	27.0	32.2	28.4	33.3
	9901	Out/Area-Reg 1	37.5	57.2	44.0	56.7	42.6	52.9	42.4	56.0	42.1	55.7
Mid-Atlantic	0089	Ft. Bragg	24.7	29.5	25.8	34.4	27.6	35.0	24.0	31.4	25.4	32.6
Region 2	0090	Seymour Johnson AFB	30.3	34.7	34.0	40.3	30.7	37.6	27.4	31.5	30.6	36.0
	0091	NH Camp Lejeune	30.5	31.4	24.2	28.0	22.7	26.4	22.3	26.6	24.5	28.1
	0092	NH Cherry Point	31.8	34.6	32.3	35.4	32.3	36.4	33.6	37.4	32.5	35.9
	0120	Langley AFB	42.1	48.8	33.0	40.8	38.4	45.0	28.7	37.1	35.3	42.8
	0121	Ft. Eustis	32.1	45.2	31.9	42.6	33.7	43.9	31.2	43.3	32.2	43.7
	0124	NMC Portsmouth	30.5	36.7	30.2	36.1	29.7	35.1	30.4	39.0	30.3	36.7
	9902	Out/Area-Reg 2	34.2	58.1	51.1	61.6	53.0	63.3	52.3	62.0	45.0	61.3
Southeast	0039	NH Jacksonville/Key West	36.5	44.9	33.9	45.7	31.9	40.7	26.6	37.9	31.9	42.3
Region 3	0045	MacDill AFB	44.4	63.8	46.9	62.6	45.5	59.0	39.7	54.6	44.1	60.0
	0046	Patrick AFB	38.8	45.3	47.5	55.1	45.9	55.8	40.9	52.4	43.2	52.5
	0047	Ft. Gordon	42.5	48.1	34.9	40.3	37.6	45.7	34.5	42.4	36.9	44.1
	0048	Ft. Benning	29.1	37.8	22.3	31.9	22.6	34.9	25.1	37.0	24.5	35.4
	0049	Ft. Stewart	24.7	27.9	25.4	30.2	23.1	25.9	21.8	26.9	23.7	27.7
	0051	Robins AFB	42.1	47.5	35.2	39.6	36.9	40.3	29.0	33.2	35.8	40.0
	0101	Shaw AFB	38.6	45.1	39.8	47.0	36.4	40.6	34.2	41.4	37.2	43.5
	0103	NH Charleston	30.8	46.2	37.0	48.9	34.5	44.0	31.7	42.3	33.0	45.3
	0104	NH Beaufort	27.5	29.1	28.6	31.3	33.2	36.5	23.4	26.1	28.2	30.8
	0105	Ft. Jackson	34.8	48.1	27.5	40.3	33.1	41.8	27.4	36.8	30.5	41.7
	9903	Out/Area-Reg 3	37.8	67.7	52.4	65.2	51.2	61.9	45.1	58.5	46.8	63.2

TABLE E.4 (continued)

Region	CACSMPL	Catchment Area	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
			RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Gulfsouth	0001	Redstone Ars/Ft McClellan	39.8	50.5	35.3	44.0	38.9	47.2	33.0	40.8	36.8	45.6
Region 4	0003	Ft. Rucker	38.3	45.2	39.2	48.2	41.2	51.3	35.0	44.4	38.4	47.3
	0004	Maxwell AFB	40.9	44.8	41.6	45.2	39.0	42.5	38.6	43.9	40.0	44.1
	0038	NH Pensacola	32.8	47.0	32.5	44.8	34.9	49.3	29.9	44.3	32.5	46.3
	0042	Eglin AFB	41.1	55.5	37.6	49.9	37.6	48.3	36.5	49.6	38.1	50.8
	0043	Tyndall AFB	40.3	45.7	34.5	39.7	38.0	44.4	30.5	37.4	35.8	41.8
	0073	Keesler AFB	33.3	39.0	33.3	44.4	32.8	43.5	29.4	39.2	32.2	41.5
	7139	Hurlburt Field	30.2	32.0	26.1	27.7	26.7	28.9	24.7	26.1	26.9	28.6
	9904	Out/Area-Reg 4	36.8	62.7	49.8	60.4	44.9	53.9	44.4	55.0	43.6	57.9
Heartland	0055	Scott AFB	42.1	56.4	36.7	49.1	38.7	49.4	39.1	50.4	39.1	51.3
Region 5	0056	NH Great Lakes	28.8	31.3	20.2	25.5	22.7	29.6	23.2	31.1	23.4	29.3
	0060	Ft. Campbell	26.8	30.0	25.3	29.9	26.4	34.6	22.2	28.4	25.1	30.7
	0061	Ft. Knox	36.6	46.8	32.8	45.0	32.5	46.3	29.5	41.6	32.7	44.9
	0095	Wright Patterson AFB	42.5	54.0	45.9	52.9	43.3	52.1	41.4	49.1	43.3	52.0
	9905	Out/Area-Reg 5	38.8	53.1	49.1	58.9	45.6	56.2	42.2	53.6	44.1	55.5
Southwest	0013	Little Rock AFB	32.9	36.3	31.0	36.2	34.7	39.8	30.6	32.8	32.3	36.3
Region 6	0062	Barksdale AFB	33.6	39.0	29.3	34.0	27.9	33.8	25.7	30.5	29.1	34.3
	0064	Ft. Polk	30.1	31.9	31.9	34.4	27.5	29.4	29.1	30.7	29.6	31.6
	0096	Tinker AFB	28.3	33.8	29.1	32.7	31.9	36.2	28.8	33.7	29.6	34.1
	0098	Ft. Sill	35.1	38.8	29.3	35.2	28.2	33.0	27.8	36.1	29.9	35.8
	0109	Brooke AMC-Ft. Sam Houston	39.3	54.4	42.8	58.6	40.9	54.1	35.0	51.8	39.5	54.7
	0110	Ft. Hood	22.9	32.7	24.3	31.7	24.3	30.6	19.8	27.6	22.8	30.6
	0112	Dyess AFB	31.0	35.9	25.9	29.2	33.0	37.9	30.8	34.5	30.2	34.4
	0113	Laughlin AFB/Sheppard AFB	34.9	38.9	38.1	46.1	36.8	41.9	29.5	33.3	34.7	39.7
	0117	Lackland AFB	34.3	46.1	32.0	41.5	33.0	43.9	29.9	39.9	32.3	42.8
	0118	NH Corpus Christi	28.4	36.0	34.4	39.0	31.7	35.8	30.3	36.4	31.2	36.8
	0366	Randolph AFB	46.2	50.7	37.5	43.0	48.2	54.5	36.7	42.3	42.1	47.6
	9906	Out/Area-Reg 6	32.9	60.0	45.7	56.0	45.6	57.0	48.1	58.6	44.1	57.8
Central	0008	Ft. Huachuca	33.2	39.7	28.2	30.3	34.8	41.4	29.7	35.1	31.5	36.6
Region 7	0009	Luke AFB	40.9	59.7	40.8	56.9	41.1	58.7	35.7	53.8	39.6	57.3
	0010	Davis-Monthan AFB	33.0	37.3	34.9	39.2	37.9	46.7	33.1	41.6	34.7	41.3
	0079	Nellis AFB	39.4	52.7	39.5	49.5	40.3	50.6	39.9	50.8	39.8	50.9
	0083	Kirtland AFB	34.2	40.7	33.3	36.8	37.0	40.6	30.6	38.0	33.8	39.0
	0108	Ft. Bliss	33.0	46.8	26.7	37.5	30.4	42.5	27.5	36.7	29.3	40.8
	9907	Out/Area-Reg 7	39.5	59.5	51.6	63.0	55.4	69.7	46.4	54.1	48.8	61.2

TABLE E.4 (continued)

			Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
Region	CACSMPL	Catchment Area	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Central	0032	Evans ACH-Ft. Carson	20.0	39.7	28.1	37.9	28.5	37.5	23.8	35.6	24.2	37.7
Region 8	0033	USAF Acad. Hospital	39.3	45.1	40.3	48.3	39.4	46.6	39.6	49.2	39.6	47.3
	0053	Mountain Home AFB	32.6	37.8	36.2	41.0	32.6	38.0	29.7	33.6	32.8	37.6
	0057	Ft. Riley	34.3	35.8	32.5	34.0	30.5	32.0	30.6	33.7	31.9	33.9
	0058	Ft. Leavenworth	44.1	49.0	31.4	36.6	37.8	41.9	32.0	35.3	36.3	40.6
	0059	McConnell AFB	30.0	32.9	30.9	34.6	30.2	35.8	27.7	33.3	29.7	34.1
	0075	Ft. Leonard Wood	37.9	41.7	30.7	35.9	29.0	34.5	30.4	34.0	31.8	36.5
	0078	Offutt AFB	44.4	50.3	41.7	48.9	43.6	51.2	43.0	49.2	43.1	49.9
	0119	Hill AFB	27.8	30.2	29.5	33.9	35.5	39.3	30.0	34.6	30.7	34.6
	0129	F.E. Warren AFB	36.3	41.0	34.5	39.9	29.2	34.3	31.6	36.8	32.9	37.9
	9908	Out/Area-Reg 8	42.9	62.3	54.5	65.2	43.8	55.7	48.2	60.4	47.6	60.8
Southern California	0019	Edwards AFB	31.0	33.7	32.7	38.8	32.2	37.3	34.8	38.5	32.7	37.1
Region 9	0024	NH Camp Pendleton/Ft Irwin	18.4	38.3	18.2	36.3	26.6	37.6	22.5	33.3	20.9	36.4
	0029	NMC San Diego	26.1	36.6	27.4	35.4	27.5	37.7	25.2	34.8	26.6	36.2
	0030	NH 29-Palms	26.0	26.5	24.5	24.6	30.2	29.9	19.3	20.0	25.0	25.3
	0131	Ft. Irwin	27.8	31.1	23.7	27.0	22.0	24.3	21.4	26.6	23.7	27.3
	9909	Out/Area-Reg 9	38.5	58.2	41.7	51.5	42.2	51.8	47.3	59.2	41.8	55.4
Golden Gate	0014	Travis AFB	38.8	50.4	39.4	50.9	35.8	47.8	36.6	50.6	37.5	49.9
Region 10	0028	NH LeMoore	34.3	39.3	34.6	38.7	37.4	43.1	32.8	37.7	34.8	39.7
	9910	Out/Area-Reg 10	38.6	63.1	55.8	66.6	55.5	65.8	46.6	56.1	46.4	62.9
Northwest	0125	Madigan AMC-Ft. Lewis	34.7	50.0	32.3	43.5	32.5	44.8	30.7	43.2	32.4	45.3
Region 11	0126	NH Bremerton	34.5	38.3	35.8	41.7	34.5	42.1	32.1	37.9	34.2	40.0
	0127	NH Oak Harbor	37.8	40.6	37.7	41.4	32.8	35.3	32.6	36.2	35.2	38.3
	0128	Fairchild AFB	40.8	49.3	30.5	36.9	35.1	44.3	32.5	40.9	34.7	42.8
	9911	Out/Area-Reg 11	35.9	60.5	48.3	56.4	51.2	60.1	44.2	56.9	43.3	58.6
Hawaii	0052	Tripler AMC	20.8	32.5	30.3	37.3	25.7	32.7	24.8	33.5	24.9	34.0
Region 12	0280	Pearl Harbor	30.9	32.7	35.3	36.9	31.2	32.7	25.1	27.2	30.7	32.3
	0287	NMCL Pearl Harbor/Hickam	33.7	34.9	34.3	35.3	38.1	39.2	27.8	29.5	33.5	34.7
	9912	Out/Area-Reg 12	45.5	57.7	42.9	46.6	45.5	57.4	28.6	44.0	42.9	52.0
Europe	0606	Landstuhl AMC/other German	16.4	18.1	17.8	20.3	14.6	16.9	11.9	14.3	15.1	17.3
	0607	Landstuhl	22.5	23.2	22.3	22.7	21.0	22.0	17.3	18.9	20.7	21.7
	0609	Wuerzburg	14.5	15.1	17.9	18.2	18.2	21.5	12.0	12.2	15.7	16.7
	0617	Naples	14.1	13.7	21.5	21.2	15.2	15.5	12.0	11.6	15.7	15.5
	0633	RAF Lakenheath/other Europe	21.0	21.2	22.3	23.5	20.6	21.0	14.6	14.7	19.7	20.1
	0805	Spangdahlem AB	25.8	26.8	19.6	20.5	22.7	23.1	17.1	17.2	21.3	21.8
	0806	Spangdahlem/Ramstein AFB	30.8	31.1	23.5	23.6	18.4	18.6	14.2	14.9	21.7	22.0
	9913	Out/Area-Europe	13.3	19.3	16.7	18.1	26.5	37.9	12.2	11.5	17.3	21.0

TABLE E.4 (continued)

Region	CACSMPL	Catchment Area	Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
			RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Western Pacific Command	0612	Seoul	16.3	15.6	14.5	14.0	15.8	15.6	9.8	9.9	14.0	13.7
	0620	Agana	23.9	26.6	26.8	28.5	22.5	23.4	18.8	21.9	23.0	25.1
	0621	Okinawa	14.1	14.6	12.5	12.3	14.8	15.0	10.8	11.0	13.1	13.2
	0622	NH Yokosuka/other Asian	12.6	11.5	14.3	13.2	13.7	13.7	9.4	9.0	12.5	11.8
	0638	Kunsan AB/Osan AB	15.3	15.6	17.6	18.5	17.6	17.8	13.0	13.4	15.9	16.3
	0640	Yokota AB	24.9	24.9	19.6	19.3	19.0	18.8	18.3	18.1	20.4	20.2
	0804	Kadena AFB	21.8	21.7	17.7	18.4	20.7	21.3	15.0	15.5	18.8	19.2
	9914	Out/Area-Pacific	28.6	36.5	32.4	58.3	16.0	5.0	12.5	7.8	22.3	27.9
TRICARE Latin America	0616	NH Guantanamo/Roosevelt Rds	22.8	25.7	20.9	22.8	21.0	25.1	18.7	21.9	20.9	23.9
	9915	Out/Area-Latin America & Can	13.6	13.9	24.1	49.3	22.3	21.5	14.6	23.4	19.0	26.8
Alaska	0005	Ft. Wainwright	25.5	25.8	27.6	27.6	24.2	24.0	21.3	21.9	24.7	24.8
	0006	Elmendorf AFB/Ft Wainwright	37.4	40.7	37.5	41.7	36.2	39.8	31.9	36.0	35.6	39.6

TABLE E.5

RESPONSE RATES BY BENEFICIARY CATEGORY AND SEX

		Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
		RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W
Active Duty and Guard/Reserve	Male	20.6	18.9	19.3	18.1	19.1	18.0	16.6	15.4	18.9	17.6
	Female	24.0	22.8	22.4	21.4	24.0	23.5	19.2	19.6	22.4	21.8
Dependent of Active Duty & Guard/Reserve	Male	17.5	20.7	16.7	17.1	17.3	17.8	14.7	16.5	16.6	18.0
	Female	30.2	32.1	29.7	32.2	30.1	32.4	25.3	27.1	28.9	30.9
Retiree/Depend of Retir/Surviv/Other <65	Male	53.3	51.8	50.7	51.9	53.0	54.7	49.6	52.9	51.6	52.8
	Female	52.0	54.2	50.9	54.8	50.7	52.1	48.6	50.7	50.5	52.9
Retiree/Depend of Retir/Surviv/Other 65+	Male	75.7	73.9	75.6	75.7	74.1	71.7	74.6	75.1	74.9	74.1
	Female	71.1	74.0	70.3	70.9	69.6	71.4	70.2	71.1	70.3	71.8

TABLE E.6

RESPONSE RATES BY BENEFICIARY CATEGORY AND SERVICE

		Q1 2002		Q2 2002		Q3 2002		Q4 2002		COMBINED	
Beneficiary Category	Service	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W	RR	RR_W
Active Duty and Guard/Reserve	Army	19.0	18.9	18.5	18.3	18.3	18.1	16.1	15.6	18.0	17.7
	Navy	19.6	18.6	19.7	19.0	18.3	17.8	14.4	14.6	18.0	17.5
	Marine Corps	12.0	11.1	11.3	10.5	12.0	10.9	9.8	9.4	11.3	10.5
	Air Force	25.6	24.4	22.9	21.6	23.6	24.3	20.3	20.5	23.1	22.7
	Coast Guard	28.7	26.4	25.1	20.4	21.1	16.5	18.1	15.6	23.2	19.6
Dependent of Active Duty & Guard/Reserve	Army	24.8	27.0	24.8	27.1	24.8	28.2	21.0	23.4	23.9	26.4
	Navy	30.0	33.5	29.3	34.1	28.5	32.8	24.2	26.9	28.1	31.8
	Marine Corps	26.4	29.6	26.0	30.6	28.4	29.0	22.8	24.6	25.9	28.4
	Air Force	31.8	32.9	31.1	31.5	32.1	32.7	26.9	28.0	30.5	31.2
	Coast Guard	39.9	42.8	33.0	33.0	32.4	31.2	31.5	35.6	34.5	35.7
Retiree/Depend of Retir/Surviv/Other <65	Army	51.7	51.5	48.3	51.1	48.8	50.7	47.4	50.8	49.0	51.0
	Navy	53.0	53.9	52.2	53.8	54.7	55.9	48.8	50.4	52.2	53.5
	Marine Corps	49.4	49.9	46.6	49.2	48.0	47.7	45.8	49.6	47.4	49.1
	Air Force	54.2	54.7	53.3	56.2	53.4	54.7	51.0	53.3	52.9	54.7
	Coast Guard	50.5	59.4	50.4	56.1	54.0	58.4	55.0	61.0	52.8	58.9
Retiree/Depend of Retir/Surviv/Other 65+	Army	73.3	70.6	71.4	71.3	69.5	68.7	70.6	71.1	71.0	70.4
	Navy	73.0	73.7	72.6	72.0	71.9	73.4	73.8	74.3	72.8	73.4
	Marine Corps	75.2	86.3	68.4	68.0	68.2	67.3	73.4	70.2	70.9	72.0
	Air Force	73.3	76.0	76.0	77.3	74.3	73.7	72.4	73.6	74.0	75.1
	Coast Guard	77.3	69.9	69.2	72.7	82.1	79.4	90.3	91.3	79.1	80.4

APPENDIX F

TECHNICAL DESCRIPTION OF THE 2002 TRICARE CONSUMER REPORTS

The consumer reports will present 12 scores for each region and catchment area in the MHS and for the MHS overall. Scores will enable users to compare providers to national benchmarks in these areas: getting needed care, getting care quickly, courteous and helpful office staff, how well doctors communicate, customer service, claims processing, rating of the health plan, health care, personal doctor, and specialist, and preventive care standards. A combined score will enable the user to rank providers based on a weighted combination of 11 scores. These 11 scores are made up of three different types, described in TABLE F.1: CAHPS composites, ratings, and TMA standard composites. A trend page will compare composites and ratings with values from previous quarters, calculate a quarterly trend, and test the trend for statistical significance.

TABLE F.1

CONTENT OF THE 2002 TRICARE CONSUMER REPORTS

CAHPS COMPOSITES
The CAHPS composites group together survey responses to a set of related HCSDB questions taken from CAHPS. Scores expressed as CAHPS composites profile TRICARE beneficiaries' satisfaction with their ability to get needed care, the speed with which they receive care, interactions with their doctor, their experience with doctors' offices, their experience with customer service representatives, and their experience with claims processing. Scores will be presented in relation to national benchmarks.
SATISFACTION RATINGS
Scores expressed as ratings reflect beneficiaries' self-rated satisfaction with their health plan, health care, and personal providers. The scores, adjusted for patient age and health status, will be presented relative to national benchmarks.
TMA STANDARD COMPOSITES
Only one TMA standard composite score is reported. The score is based on how the preventive care that beneficiaries received compares with Healthy People 2010 standards. Preventive care indicators to be combined are prenatal care, hypertension screening, mammography, and Pap smears.

TABLE F.2 lists the questions and response choices for the CAHPS composites in the consumer reports. Question numbers refer to the CAHPS 2.0H Adult Questionnaire (Commercial). Response choices for each question within a composite are collapsed into three-item scales so that all composites have the same range. Along with the composites, mean responses to each question will be presented and compared to national civilian benchmarks.

Four scores are based on respondents' ratings of health care and health care providers: health plan, health care, PCM, and specialist. These ratings are measures of overall beneficiary satisfaction. Questions about these aspects of care ask beneficiaries to rate their health plan, health care, and physicians on a scale of 0 to 10, with 0 being the worst and 10 being the best. The rating score will be the mean. For the purpose of presentation, the mean will be multiplied by 100 so that the score will be presented on a scale of 0 to 100.

TABLE F.2

CAHPS 2.0 H QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT QUESTIONNAIRE CAHPS 2.0H	GETTING NEEDED CARE	RESPONSE CHOICE
Q6	With the choices your health plan gave you, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?	A big problem A small problem Not a problem
Q10	In the last 12 months, how much of a problem, if any, was it to get a referral to a specialist that you needed to see?	A big problem A small problem Not a problem
Q24	In the last 12 months, how much of a problem, if any, was it to get the care you or a doctor believed necessary?	A big problem A small problem Not a problem
Q25	In the last 12 months, how much of a problem, if any, were delays in health care while you waited for approval from your health plan?	A big problem A small problem Not a problem
	GETTING CARE QUICKLY	
Q15	In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed?	Never Sometimes Usually Always
Q17	In the last 12 months, how often did you get an appointment for regular or routine care as soon as you wanted?	Never Sometimes Usually Always
Q20	In the last 12 months, when you needed care right away for an illness or injury, how often did you get care as soon as you wanted?	Never Sometimes Usually Always
Q26	In the last 12 months, how often did you wait in the doctor's office or clinic more than 15 minutes past your appointment time to see the person you went to see?	Never Sometimes Usually Always

ADULT QUESTIONNAIRE CAHPS 2.0H	HOW WELL DOCTORS COMMUNICATE	RESPONSE CHOICE
Q29	In the last 12 months, how often did doctors or other health providers listen carefully to you?	Never Sometimes Usually Always
Q30	In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?	Never Sometimes Usually Always
Q31	In the last 12 months, how often did doctors or other health providers show respect for what you had to say?	Never Sometimes Usually Always
Q32	In the last 12 months, how often did doctors or other health providers spend enough time with you?	Never Sometimes Usually Always
	COURTEOUS AND HELPFUL OFFICE STAFF	
Q27	In the last 12 months, how often did office staff at a doctor's office or clinic treat you with courtesy and respect?	Never Sometimes Usually Always
Q28	In the last 12 months, how often were office staff at a doctor's office or clinic as helpful as you thought they should be?	Never Sometimes Usually Always
	CUSTOMER SERVICE	
Q39	In the last 12 months, how much of a problem, if any, was it to find or understand information in the written materials?	A big problem A small problem Not a problem
Q41	In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?	A big problem A small problem Not a problem
Q46	In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?	A big problem A small problem Not a problem

ADULT QUESTIONNAIRE CAHPS 2.0H	CLAIMS PROCESSING	RESPONSE CHOICE
Q35	In the last 12 months, how often did your health plan handle your claims in a reasonable time?	Never Sometimes Usually Always
Q36	In the last 12 months, how often did your health plan handle your claims correctly?	Never Sometimes Usually Always
	RATING OF ALL HEALTH CARE	
Q33	We want to know your rating of all your health care in the last 12 months from all doctors and other health providers. Use any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible. How would you rate all your health care?	0 Worst health care possible 1 2 3 4 5 6 7 8 9 10 Best health care possible
	RATING OF HEALTH PLAN	
Q47	We want to know your rating of all your experience with your health plan. Use any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible. How would you rate your health plan now?	0 Worst health plan possible 1 2 3 4 5 6 7 8 9 10 Best health plan possible

ADULT QUESTIONNAIRE CAHPS 2.0H	RATING OF PERSONAL DOCTOR	RESPONSE CHOICE
Q8	We want to know your rating of your personal doctor or nurse. Use any number from 0 to 10, where 0 is the worst possible doctor or nurse possible and 10 is the best personal doctor or nurse possible. How would you rate your personal doctor or nurse now?	0 Worst personal doctor or nurse possible 1 2 3 4 5 6 7 8 9 10 Best personal doctor or nurse possible
	RATING OF SPECIALIST	
Q12	We want to know your rating of the specialist you saw most often in the last 12 months, including a personal doctor, if he or she was a specialist. Use any number from 0 to 10, where 0 is the worst possible specialist possible and 10 is the best specialist possible. How would you rate your specialist?	0 Worst specialist possible 1 2 3 4 5 6 7 8 9 10 Best specialist possible

The preventive care composite in the consumer reports will measure MHS performance in terms of meeting TMA's goals for the provision of preventive services. The composite will be calculated by combining the responses to individual questions pertaining to these goals. Questions and responses from the present version of the 2002 HCSDB that will be incorporated into the preventive care composite are presented in TABLE F.3. The denominator of an individual's composite score will consist of the number of questions to which that individual responded. The numerator will consist of the number of questions for which the response falls into a "desirable" category, where the desirable categories are as indicated. When individual scores are combined, the resulting composite will be weighted by the number of questions to which that individual has responded. Therefore, the weight a particular question receives in the composite score will be based on the number of responses it "receives". A respondent's weight will reflect the number of questions to which he/she responds. The resulting proportion will be presented as a percentage.

TABLE F.3

QUESTIONS AND RESPONSE CHOICES ON PREVENTIVE CARE
EXPRESSED AS A STANDARD TMA COMPOSITE

2002 ADULT HCSDB QUESTION	COMPOSITE PREVENTIVE CARE	RESPONSE CHOICES
Q59	When did you last have a blood pressure reading?	Less than 12 months ago 1 to 2 years ago More than 2 years ago
Q60	Do you know if your blood pressure is too high?	Yes, it is too high No, it is not too high Don't know
Q69	When did you last have a Pap smear test?	Within the last 12 months 1 to 3 years ago More than 3 but less than 5 years ago 5 or more years ago Never had a Pap smear
Q71	When was the last time your breasts were checked by mammography?	Within the last 12 months 1 to 2 years ago More than 2 but less than 5 years ago 5 or more years ago Never had a mammogram
Q75	In which trimester did you first receive prenatal care?	First trimester Second trimester Third trimester Did not receive prenatal care

APPENDIX G

SAS CODE FOR FILE DEVELOPMENT

1. IMPLEMENT CODING SCHEME AND CODING TABLES

A. Q1 CSCHM02Q.SAS

```
*************************************************************************;
*  Program:  Cschm02q.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGENRC.SD2 - Merged MPR Sampling, DEERS, and NRC Response Data
*   Output:  CSCHM00Q.SD2 - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*           10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschm00q.fmt
*
*************************************************************************;

OPTIONS PS=67 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY "...\DATA\AFINAL\FMTLIB";
LIBNAME IN      "...\DATA\AFINAL";
LIBNAME OUT     "...\DATA\AFINAL";



%LET INDATA=MERGENRC;
%LET OUTDATA=CSCHM02Q;
%LET PERIOD=January, 2001 to December, 2001;



/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H02001   H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
 H02002K  H02002L  H02002M  H02002N  H02002O  H02003   H02004   H02005
 H02006   H02007   H02008   H02009   H02010   H02011   H02012   H02013
 H02014   H02015   H02016   H02017   H02018   H02019   H02020   H02021
 H02022   H02023   H02024   H02025   H02026   H02027   H02028   H02029
 H02030   H02031   H02032   H02033   H02034   H02035   H02036   H02037
 H02038   H02039   H02040   H02041   H02042   H02043   H02044   H02045
 H02046   H02047   H02048   H02049   H02050   H02051   H02052   H02053
 H02054   H02055   H02056   H02057   H02058   H02059   H02060   H02061
 H02062   H02063   H02064   H02065   H02066   H02067   H02068   H02069
 H02070   H02071   H02072   H02073   H02074   H02075   H02077   SREDA
 SRRACEA  SRRACEB  SRRACEC  SRRACED  SRRACEE  SRAGE    S02S01   S02S02
 S02S03   S02S04   S02S05   S02S06   S02S07   S02S08   S02S09   S02L01
 S02L02   S02L03A  S02L03B  S02L03C  S02L03D  S02L03E  S02L03F  S02L03G
 S02L03H  S02L03I  S02L04A  S02L04B  S02L04C  S02L04D  S02L04E  S02L04F
 S02L04G  S02L04H  S02L04I  S02L05   S02L06   S02L07   S02L08   S02L09
 S02L10   S02L11   S02L12   S02L13A  S02L13B  S02L13C  S02L13D  S02L13E
 S02L14   S02L15   S02L16   S02L17;
/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H02001_O  H02002AO  H02002CO  H02002FO  H02002GO  H02002HO  H02002IO  H02002JO
 H02002KO  H02002LO  H02002MO  H02002NO  H02002OO  H02003_O  H02004_O  H02005_O
 H02006_O  H02007_O  H02008_O  H02009_O  H02010_O  H02011_O  H02012_O  H02013_O
 H02014_O  H02015_O  H02016_O  H02017_O  H02018_O  H02019_O  H02020_O  H02021_O
 H02022_O  H02023_O  H02024_O  H02025_O  H02026_O  H02027_O  H02028_O  H02029_O
 H02030_O  H02031_O  H02032_O  H02033_O  H02034_O  H02035_O  H02036_O  H02037_O
 H02038_O  H02039_O  H02040_O  H02041_O  H02042_O  H02043_O  H02044_O  H02045_O
 H02046_O  H02047_O  H02048_O  H02049_O  H02050_O  H02051_O  H02052_O  H02053_O
 H02054_O  H02055_O  H02056_O  H02057_O  H02058_O  H02059_O  H02060_O  H02061_O
```

```
 H02062_O  H02063_O  H02064_O  H02065_O  H02066_O  H02067_O  H02068_O  H02069_O
 H02070_O  H02071_O  H02072_O  H02073_O  H02074_O  H02075_O  H02077_O  SREDA_O
 SRRACEAO  SRRACEBO  SRRACECO  SRRACEDO  SRRACEEO  SRAGE_O   S02S01_O  S02S02_O
 S02S03_O  S02S04_O  S02S05_O  S02S06_O  S02S07_O  S02S08_O  S02S09_O  S02L01_O
 S02L02_O  S02L03AO  S02L03BO  S02L03CO  S02L03DO  S02L03EO  S02L03FO  S02L03GO
 S02L03HO  S02L03IO  S02L04AO  S02L04BO  S02L04CO  S02L04DO  S02L04EO  S02L04FO
 S02L04GO  S02L04HO  S02L04IO  S02L05_O  S02L06_O  S02L07_O  S02L08_O  S02L09_O
 S02L10_O  S02L11_O  S02L12_O  S02L13AO  S02L13BO  S02L13CO  S02L13DO  S02L13EO
 S02L14_O  S02L15_O  S02L16_O  S02L17_O;


TITLE  "DoD 2000 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";


****THE FOLLOWING DATASTEP ONLY NEEDS TO BE RUN IF VARIABLE NAMES FROM NRC ARE
INCORRECT****;
DATA OUT.CSCHM02Q;

****THE FOLLOWING CODE WAS ADDED TO CONVERT CHAR VARIABLES TO NUMERIC FOR Q1 2002*****;
  SET IN.MERGENRC (RENAME=(S01L04A=X01L04A S01L04B=X01L04B S01L04C=X01L04C S01L04D=X01L04D
                           S01L04E=X01L04E S01L04F=X01L04F S01L04G=X01L04G S01L04H=X01L04H
                           S01L04I=X01L04I)) ;
  LENGTH S01L04A S01L04B S01L04C S01L04D S01L04E S01L04F S01L04G S01L04H S01L04I 8.;
  ARRAY NUMS  S01L04A S01L04B S01L04C S01L04D S01L04E S01L04F S01L04G S01L04H S01L04I;
  ARRAY CHARS X01L04A X01L04B X01L04C X01L04D X01L04E X01L04F X01L04G X01L04H X01L04I;
  DO I=1 to DIM(NUMS); DROP I;
     NUMS(I)=CHARS(I);
  END;

  DROP X01L04A X01L04B X01L04C X01L04D X01L04E X01L04F X01L04G X01L04H X01L04I;

  %INCLUDE "RENAME.SAS";

run;


DATA OUT.CSCHM02Q;

  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM02Q.FMT";

/* label and format statements for original variables */

/*IF YOU DID NOT NEED TO CHANGE THE VARIABLE NAMES IN ABOVE DATASTEP,
  THIS FILE SHOULD BE IN.MERGENRC INSTEAD OF OUT.CSCHM02Q*/

  SET OUT.CSCHM02Q;



*************************************************************;
**** Recodes for invalid responses: C. Rankin 10/23/2001 ******;
*************************************************************;

  IF SREDA=0  THEN SREDA=.;


*********************************************************************;


/* This is a version of the coding scheme and coding tables for the
   2002 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

  SEX=PNSEXCD;
```

```
  AGE=DAGEQY;
  DROP SEX AGE;

  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
         ELSE RECODE(I)=RECODE(I);
      END;
  END;
  DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*) H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
                    H02002K  H02002L  H02002M  H02002N  H02002O  SRRACEA  SRRACEB
                    SRRACEC  SRRACED  SRRACEE  S02L03A  S02L03B  S02L03C  S02L03D
                    S02L03E  S02L03F  S02L03G  S02L03H  S02L03I  S02L13A  S02L13B
                    S02L13C  S02L13D  S02L13E;

  ARRAY INFORMAT(*) H02002AO  H02002CO  H02002FO  H02002GO  H02002HO  H02002IO  H02002JO
                    H02002KO  H02002LO  H02002MO  H02002NO  H02002OO  SRRACEAO  SRRACEBO
                    SRRACECO  SRRACEDO  SRRACEEO  S02L03AO  S02L03BO  S02L03CO  S02L03DO
                    S02L03EO  S02L03FO  S02L03GO  S02L03HO  S02L03IO  S02L13AO  S02L13BO
                    S02L13CO  S02L13DO  S02L13EO;

  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
         H02002K  H02002L  H02002M  H02002N  H02002O  SRRACEA  SRRACEB
         SRRACEC  SRRACED  SRRACEE  S02L03A  S02L03B  S02L03C  S02L03D
         S02L03E  S02L03F  S02L03G  S02L03H  S02L03I  S02L13A  S02L13B
         S02L13C  S02L13D  S02L13E
         MARKED.;


*********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

  IF FLAG_FIN NE '1' THEN GOTO NOSURVEY;

/** Note 1 -- health plan usage  **/

  IF H02006 > 0 OR H02006 =.D THEN N1=1;
  ELSE IF H02006=.N  THEN DO;
     IF H02007 NOT=. THEN DO;
        N1=2;
        H02007=.C;
     END;
     ELSE DO;
        N1=3;
        H02007=.N;
     END;
  END;
  ELSE IF H02006=.   THEN N1=4;
  ELSE IF H02006=.A  THEN DO;
     IF H02007 NOT=. THEN N1=5;
```

```
     ELSE DO;
         H02006=.N;
         H02007=.N;
         N1=6;
     END;
  END;


/** Note2  -- H02008, H02009: Personal doctor or nurse **/

  IF H02008=1 AND H02009 IN (1,2,3,.,.A) THEN N2=1;
  ELSE IF H02008 IN (1,.,.A) AND H02009=.N THEN DO;
     H02008=2;
     H02009=.C;
     N2=2;
  END;
  ELSE IF H02008 IN (2,.,.A) AND H02009>0 THEN DO;
     H02008=1;
     N2=3;
  END;
  ELSE IF H02008=2 AND H02009 IN (.N,.,.A) THEN DO;
     IF H02009=. THEN H02009=.N;
     ELSE H02009=.C;
     N2=4;
  END;
  ELSE IF H02008=. AND H02009=.A THEN DO;
     H02008=1;
     N2=5;
  END;
  ELSE IF H02008=. AND H02009=. THEN N2=6;
  ELSE IF H02008=.A AND H02009=. THEN DO;
     H02008=2;
     H02009=.N;
     N2=7;
  END;
  ELSE IF H02008=.A AND H02009=.A THEN N2=8;

/** Note 3 -- H02010, H02011:  Personal doctor or nurse **/

  IF H02010 = 1 AND (H02011 GE 0 OR H02011 IN (.,.A)) THEN N3=1;
  ELSE IF H02010 IN (1,.,.A) AND H02011=.N THEN DO;
     N3=2;
     H02010=2;
     H02011=.C;
  END;
  ELSE IF H02010 IN (2,.,.A) AND (H02011 GE 0 OR H02011=.A) THEN DO;
     H02010=1;
     N3=3;
  END;
  ELSE IF H02010=2 AND H02011 IN (.N,.)  THEN DO;
     N3=4;
     IF H02011=. THEN H02011=.N;
     ELSE H02011=.C;
  END;
  ELSE IF H02010=. AND  H02011=. THEN N3=5;
  ELSE IF H02010=.A AND H02011=. THEN DO;
     H02010=2;
     N3=6;
     H02011=.N;
  END;
  ELSE IF H02010=.A AND H02011=.A THEN N3=7;

/** Note 4 -- H02012-H02014:  currently enrolled in Tricare Prime  **/

  ARRAY NOTE4 H02013 H02014;
  N4NMISS=0;
  N4MARK=0;
  DO OVER NOTE4;
     IF NOTE4 NE . THEN N4NMISS+1;          /* check for all missing */
     IF NOTE4 NOT IN (.,.N) THEN N4MARK+1; /* not missing or NA */
  END;
```

```
  IF H02012=1 AND (N4NMISS=0 OR N4MARK>0) THEN N4=1;
  ELSE IF H02012 IN (1,.,.A) AND H02013=.N AND H02014=. THEN DO;
     H02012=2;
     N4=2;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H02012 IN (2,.,.A) AND N4MARK>0 THEN DO;
     H02012=1;
     N4=3;
  END;
  ELSE IF H02012=2 AND ((N4NMISS=0) OR (H02013=.N AND H02014=.))THEN DO;
     N4=4;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H02012=. AND N4NMISS=0 THEN N4=5;
  ELSE IF H02012=.A AND N4NMISS=0 THEN DO;
     H02012=2;
     N4=6;
     DO OVER NOTE4;
        NOTE4=.N;
     END;
  END;

  DROP N4MARK N4NMISS;

/** Note 5 -- H02015, H02016:  needed to see a specialist in last 12 months **/

  IF H02015=1 AND H02016 IN (1,2,3,.,.A) THEN N5=1;
  ELSE IF H02015 IN (1,.,.A) AND H02016=.N THEN DO;
     H02015=2;
     H02016=.C;
     N5=2;
  END;
  ELSE IF H02015 IN (2,.,.A) AND H02016 IN (1,2,3) THEN DO;
     H02015=1;
     N5=3;
  END;
  ELSE IF H02015=2 AND H02016 IN (.,.A,.N) THEN DO;
     IF H02016=. THEN H02016=.N;
     ELSE H02016=.C;
     N5=4;
  END;
  ELSE IF H02015=. AND H02016=.A THEN DO;
     H02015=1;
     N5=5;
  END;
  ELSE IF H02015=.  AND H02016=.  THEN N5=6;
  ELSE IF H02015=.A AND H02016=.A THEN N5=7;
  ELSE IF H02015=.A AND H02016=.  THEN DO;
     H02015=2;
     H02016=.N;
     N5=8;
  END;

/** Note 6 -- H02017,H02018,H02019: saw a specialist in last 12 months **/

  ARRAY NOTE6 H02018 H02019;
  N6MARK=0;
  N6NMISS=0;

  DO OVER NOTE6;
     IF NOTE6 NE . THEN N6NMISS+1;
  END;

  DO OVER NOTE6;
     IF NOTE6 NOT IN (.N,.) THEN N6MARK+1;
  END;
```

```
  IF H02017=1 AND (N6NMISS=0 OR N6MARK>0) THEN N6=1;
  ELSE IF H02017 IN (1,.,.A) AND N6NMISS>0 AND N6MARK=0 THEN DO;
     H02017=2;
     N6=2;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
  END;
  ELSE IF H02017 IN (2,.,.A) AND N6MARK>0 THEN DO;
     H02017=1;
     N6=3;
  END;
  ELSE IF H02017=2 AND N6NMISS=0 OR (N6NMISS>0 AND N6MARK=0) THEN DO;
     N6=4;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
  END;
  ELSE IF H02017=. AND  N6NMISS=0 THEN N6=5;
  ELSE IF H02017=.A AND N6NMISS=0 THEN DO;
     H02017=2;
     N6=6;
     DO OVER NOTE6;
        NOTE6=.N;
     END;
  END;

  DROP N6NMISS N6MARK;

/** Note 7 -- called a doctor's office:  H02020, H02021 **/

  IF H02020=1 AND H02021 IN (1,2,3,4,.,.A) THEN N7=1;
  ELSE IF H02020 IN (1,.,.A) AND H02021=.N THEN DO;
     H02020=2;
     H02021=.C;
     N7=2;
  END;
  ELSE IF H02020 IN (2,.,.A) AND H02021 IN (1,2,3,4) THEN DO;
     H02020=1;
     N7=3;
  END;

  ELSE IF H02020=2 AND H02021 IN (.,.A,.N) THEN DO;
     IF H02021=. THEN H02021=.N;
     ELSE H02021=.C;
     N7=4;
  END;
  ELSE IF H02020=.  AND H02021=.A THEN DO;
     H02020=1;
     N7=5;
  END;
  ELSE IF H02020=.  AND H02021=.  THEN N7=6;
  ELSE IF H02020=.A AND H02021=.A THEN N7=7;
  ELSE IF H02020=.A AND H02021=.  THEN DO;
     H02020=2;
     N7=8;
     H02021=.N;
  END;

/** Note 8 -- H02022,H02023,H02024:  regular or routine healthcare **/

  ARRAY NOTE8 H02023 H02024;
  N8MARK=0;
  N8NMISS=0;

  DO OVER NOTE8;
     IF NOTE8 NE . THEN N8NMISS+1;
  END;

  DO OVER NOTE8;
```

```
      IF NOTE8 NOT IN (.N,.) THEN N8MARK+1;
   END;
   IF H02022=1 AND (N8NMISS=0 OR N8MARK>0) THEN N8=1;
   ELSE IF H02022 IN (1,.,.A) AND N8NMISS>0 AND N8MARK=0 THEN DO;
      H02022=2;
      N8=2;
      DO OVER NOTE8;
         IF NOTE8=. THEN NOTE8=.N;
         ELSE NOTE8=.C;
      END;
   END;
   ELSE IF H02022 IN (2,.,.A) AND N8MARK>0 THEN DO;
      H02022=1;
      N8=3;
   END;
   ELSE IF H02022=2 AND (N8NMISS=0 OR (N8NMISS>0 AND N8MARK=0)) THEN DO;
      N8=4;
      DO OVER NOTE8;
         IF NOTE8=. THEN NOTE8=.N;
         ELSE NOTE8=.C;
      END;
   END;
   ELSE IF H02022=.  AND  N8NMISS=0 THEN N8=5;
   ELSE IF H02022=.A AND N8NMISS=0 THEN DO;
      H02022=2;
      N8=6;
      DO OVER NOTE8;
         NOTE8=.N;
      END;
   END;

   DROP N8NMISS N8MARK;

/** Note 9 -- H02025,H02026,H02027:  illness or injury **/

   ARRAY NOTE9 H02026 H02027;
   N9MARK=0;
   N9NMISS=0;

   DO OVER NOTE9;
      IF NOTE9 NE . THEN N9NMISS+1;
      IF NOTE9 NOT IN (.N,.) THEN N9MARK+1;
   END;

   IF H02025=1 AND (N9NMISS=0 OR N9MARK>0) THEN N9=1;
   ELSE IF H02025 IN (1,.,.A) AND N9NMISS>0 AND N9MARK=0 THEN DO;
      H02025=2;
      N9=2;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
   END;
   ELSE IF H02025 IN (2,.,.A) AND N9MARK>0 THEN DO;
      H02025=1;
      N9=3;
   END;
   ELSE IF H02025=2 AND (N9NMISS=0 OR (N9NMISS>0 AND N9MARK=0)) THEN DO;
      N9=4;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
   END;
   ELSE IF H02025=.  AND N9NMISS=0 THEN N9=5;
   ELSE IF H02025=.A AND N9NMISS=0 THEN DO;
      H02025=2;
      N9=6;
      DO OVER NOTE9;
         NOTE9=.N;
      END;
   END;
```

```
  DROP N9NMISS N9MARK;

/** Note 10 -- H02029, H02030-H02039: doctor's office or clinic **/

  ARRAY NOTE10  H02030-H02039;
  N10MARK=0;
  N10NMISS=0;

  DO OVER NOTE10;
     IF NOTE10 NE . THEN N10NMISS+1;
     IF NOTE10 NOT IN (.N,.) THEN N10MARK+1;
  END;

  IF H02029=1 AND (N10NMISS=0 OR (N10NMISS>0 AND N10MARK=0)) THEN DO;
     N10=1;
     DO OVER NOTE10;
        IF NOTE10=. THEN NOTE10=.N;
        ELSE NOTE10=.C;
     END;
  END;
  ELSE IF H02029 IN (1,.,.A) AND N10MARK>0 THEN N10=2;
  ELSE IF H02029 IN (2,3,4,5,6,7,.,.A) AND (N10NMISS>0 AND N10MARK=0) THEN DO;
     H02029=1;
     N10=3;
     DO OVER NOTE10;
        IF NOTE10=. THEN NOTE10=.N;
        ELSE NOTE10=.C;
     END;
  END;
  ELSE IF H02029 IN (2,3,4,5,6,7) AND (N10NMISS=0 OR N10MARK>0) THEN N10=4;
  ELSE IF H02029=.  AND N10NMISS=0 THEN N10=5;
  ELSE IF H02029=.A AND N10NMISS=0 THEN DO;
     H02029=1;
     N10=6;
     DO OVER NOTE10;
        NOTE10=.N;
     END;
  END;

  DROP N10NMISS N10MARK;

/** Note 11 -- H02043, H02044-H02046: claims to health plan **/

  ARRAY NOTE11 H02044-H02046;
  N11MARK=0;
  N11NMISS=0;
  N11NDK=0;

  DO OVER NOTE11;
     IF NOTE11 NE . THEN N11NMISS+1;
     IF NOTE11 NOT IN (.N,.) THEN N11MARK+1;
     IF NOTE11 NOT IN (.,.D) THEN N11NDK+1;
  END;

  IF H02043=1 AND (N11NMISS=0 OR N11MARK>0) THEN N11=1;
  ELSE IF H02043 IN (1,.D,.,.A) AND N11NMISS>0 AND N11MARK=0 THEN DO;
     N11=2;
     H02043=2;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  ELSE IF H02043=.D AND N11MARK>0 AND N11NDK>0 THEN DO;
     N11=3;
     H02043=1;
  END;
  ELSE IF H02043=.D AND N11NMISS=0 OR N11NDK=0 THEN DO;
     N11=4;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
```

```
  END;
  ELSE IF H02043 IN (2,.,.A) AND N11MARK>0 THEN DO;
     H02043=1;
     N11=5;
  END;
  ELSE IF H02043=2 AND (N11NMISS=0 OR (N11NMISS>0 AND N11MARK=0)) THEN DO;
     N11=6;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  ELSE IF H02043=.  AND N11NMISS=0 THEN N11=7;
  ELSE IF H02043=.A AND N11NMISS=0 THEN DO;
     H02043=2;
     N11=8;
     DO OVER NOTE11;
        NOTE11=.N;
     END;
  END;

  DROP N11NMISS N11MARK N11NDK;

/** Note12  -- H02047, H02048: **/

  IF H02047=1 AND H02048 IN (1,2,3,.,.A) THEN N12=1;
  ELSE IF H02047 IN (1,.,.A) AND H02048=.N THEN DO;
     H02047=2;
     H02048=.C;
     N12=2;
  END;
  ELSE IF H02047 IN (2,.,.A) AND H02048 IN (1,2,3,.A) THEN DO;
     H02047=1;
     N12=3;
  END;
  ELSE IF H02047 IN (2) AND H02048 IN (.N,.,.A) THEN DO;
     IF H02048=. THEN H02048=.N;
     ELSE H02048=.C;
     N12=4;
  END;
  ELSE IF H02047=. AND H02048=. THEN N12=5;
  ELSE IF H02047=.A AND H02048=. THEN DO;
     H02047=2;
     H02048=.N;
     N12=6;
  END;

/** Note13 -- H02049, H02050: health plan's customer service **/

  IF H02049=1 AND H02050 IN (1,2,3,.,.A) THEN N13=1;
  ELSE IF H02049 IN (1,.,.A) AND H02050=.N THEN DO;
     H02049=2;
     H02050=.C;
     N13=2;
  END;
  ELSE IF H02049 IN (2,.,.A) AND H02050 IN (1,2,3) THEN DO;
     H02049=1;
     N13=3;
  END;
  ELSE IF H02049=2 AND H02050 IN (.N,.,.A) THEN DO;
     IF H02050=. THEN H02050=.N;
     ELSE H02050=.C;
     N13=4;
  END;
  ELSE IF H02049=. AND H02050=.A THEN DO;
     H02049=1;
     N13=5;
  END;
  ELSE IF H02049=. AND H02050=. THEN N13=6;
  ELSE IF H02049=.A AND H02050=. THEN DO;
     H02049=2;
     H02050=.N;
     N13=7;
```

```
  END;

/** Note 14 -- H02051, H02052, H02053:  complaint or problem  **/

  ARRAY note14 H02052 H02053;
  N14MARK=0;
  N14NMISS=0;

  DO OVER note14;
     IF note14 NE . THEN N14NMISS+1;
     IF note14 NOT IN (.N,.) THEN N14MARK+1;
  END;

  IF H02051=1 AND (N14NMISS=0 OR N14MARK>0) THEN N14=1;
  ELSE IF H02051 IN (1,.,.A) AND N14NMISS>0 AND N14MARK=0 THEN DO;
     H02051=2;
     N14=2;
     DO OVER note14;
        IF note14=. THEN note14=.N;
        ELSE note14=.C;
     END;
  END;
  ELSE IF H02051 IN (2,.,.A) AND N14MARK>0 THEN DO;
     H02051=1;
     N14=3;
  END;
  ELSE IF H02051=2 AND (N14NMISS=0 OR (N14NMISS>0 AND N14MARK=0)) THEN DO;
     N14=4;
     DO OVER note14;
        IF note14=. THEN note14=.N;
        ELSE note14=.C;
     END;
  END;
  ELSE IF H02051=.  AND N14NMISS=0 THEN N14=5;
  ELSE IF H02051=.A AND N14NMISS=0 THEN DO;
     H02051=2;
     N14=6;
     DO OVER note14;
        note14=.N;
     END;
  END;

  DROP N14NMISS N14MARK;

/** Note15  -- H02054, H02055: paperwork  **/

  IF H02054=1 AND H02055 IN (1,2,3,.,.A) THEN N15=1;
  ELSE IF H02054 IN (1,.,.A) AND H02055=.N THEN DO;
     H02054=2;
     H02055=.C;
     N15=2;
  END;
  ELSE IF H02054 IN (2,.,.A) AND H02055 IN (1,2,3,.A) THEN DO;
     H02054=1;
     N15=3;
  END;
  ELSE IF H02054=2 AND H02055 IN (.N,.)THEN DO;
     IF H02055=. THEN  H02055=.N;
     ELSE H02055=.C;
     N15=4;
  END;
  ELSE IF H02054=.  AND H02055=. THEN N15=5;
  ELSE IF H02054=.A AND H02055=. THEN DO;
     H02054=2;
     H02055=.N;
     N15=6;
  END;



/** Note 22 -- SRAGE,S02L01-S02L17  **/

  ARRAY NOTE22 S02L01 S02L02 S02L03A--S02L03I S02L04A--S02L04I S02L05 S02L06 S02L07
```

```
              S02L08 S02L09 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14 S02L15 S02L16
              S02L17;
  N22MARK=0;

  DO OVER NOTE22;
     IF NOTE22 NE . THEN N22MARK+1;
  END;

  IF 1 LE SRAGE LE 5 THEN DO;
     N22=1;
     DO OVER NOTE22;
       IF NOTE22=. THEN NOTE22=-999;
       ELSE NOTE22=.C;
     END;
  END;
  IF SRAGE IN (.A,.) THEN N22=2;
  IF SRAGE IN (6,7) THEN N22=3;

  DROP N22MARK;



/** Note 24 -- smoking:  H02063 - H02066  **/

  IF H02063=1 and H02064 IN (3,4) THEN DO;  /* still smoke */
     IF H02065 NE . THEN DO;
        H02065=.C;
        N24=1;
     END;
     ELSE IF H02065=. THEN DO;
        H02065=.N;
        N24=2;
     END;
  END;
  ELSE IF H02063=1 AND H02064=2 THEN DO;         /* quit */
     IF H02065 IN (2,.D) AND H02066 NE . THEN DO;   /* > 1 year ago */
        H02066 =.C;
        N24=3;
     END;
     ELSE IF H02065 IN (2,.D) AND H02066=. THEN DO;
        H02066 =.N;
        N24=4;
     END;
     ELSE IF H02065 IN (3,.,.A) THEN N24=5;      /* < 1 year ago */
  END;
  ELSE IF H02063=1 AND H02064 IN (.D,.,.A) THEN DO;  /* don't know */
     IF H02065=2 AND H02066 NE . THEN DO;        /* > 1 year ago */
        H02064=2;
        H02066=.C;
        N24=6;
     END;
     ELSE IF H02065=2 AND H02066 = . THEN DO;
        H02064=2;
        H02066=.N;
        N24=7;
     END;
     ELSE IF H02065=3 THEN DO;            /* < 1 year ago */
        H02064=2;
        N24=8;
     END;
     ELSE IF H02065 IN (.D,.,.A) THEN N24=9;  /* don't know */
  END;
  ELSE IF H02063 IN (2,.D,.,.A) AND H02064 IN (3,4) THEN DO; /*never smoke*/
     IF H02065 NE . THEN DO;
        H02063=1;
        H02065=.C;
        N24=10;
     END;
     ELSE IF H02065=. THEN DO;
        H02063=1;
        H02065=.N;
        N24=11;
```

```
   END;
END;
ELSE IF H02063 IN (2,.D) AND H02064 IN (2,.D,.A) THEN DO; /*never smoke*/
   IF H02065 NE . AND H02066 NE . THEN DO;
      H02064 =.C;
      H02065 =.C;
      H02066 =.C;
      N24=12;
   END;
   ELSE IF H02065 NE . AND H02066=. THEN DO;
      H02064=.C;
      H02065=.C;
      H02066=.N;
      N24=13;
   END;
   ELSE IF H02065=. AND H02066 NE . THEN DO;
      H02064=.C;
      H02065=.N;
      H02066=.C;
      N24=14;
   END;
   ELSE IF H02065=. AND H02066=. THEN DO;
      H02064=.C;
      H02065=.N;
      H02066=.N;
      N24=15;
   END;
END;
ELSE IF H02063 IN (2,.D) AND H02064= . THEN DO; /*never smoke*/
   IF H02065 NE . AND H02066 NE . THEN DO;
      H02064=.N;
      H02065=.C;
      H02066=.C;
      N24=16;
   END;
   ELSE IF H02065 NE . AND H02066=. THEN DO;
      H02064=.N;
      H02065=.C;
      H02066=.N;
      N24=17;
   END;
   ELSE IF H02065=. AND H02066 NE . THEN DO;
      H02064=.N;
      H02065=.N;
      H02066=.C;
      N24=18;
   END;
   ELSE IF H02065=. AND H02066=. THEN DO;
      H02064=.N;
      H02065=.N;
      H02066=.N;
      N24=19;
   END;
END;
ELSE IF H02063 IN (.A, .) AND H02064 IN (2,.,.A) THEN DO; /*MRE/blank*/
   IF H02065=3 THEN DO;
      H02063=1;
      N24=20;
   END;
   ELSE IF H02065=2 AND H02066 NE . THEN DO;
      H02063 =1;
      H02066 =.C;
      N24=21;
   END;
   ELSE IF H02065=2 AND H02066=. THEN DO;
      H02063=1;
      H02066=.N;
      N24=22;
   END;
   ELSE IF H02065=.D AND H02066=. THEN DO;
      H02066=.N;
      N24=23;
   END;
```

```
    ELSE IF H02065=.D AND H02066 NE . THEN DO;
       H02066=.C;
       N24=24;
    END;
    ELSE IF H02065 IN (.,.A) AND H02066 IN (2,3,4,5) THEN DO;
       H02063=1;
       N24=25;
    END;
    ELSE IF H02065 IN (.,.A) AND H02066 IN (1,.,.A) THEN N24=26;
  END;
  ELSE IF H02063 IN (.A,.) AND H02064=.D THEN DO; /*MRE/blank*/
    IF H02065 NE . AND H02066 NE .  THEN DO;
       H02065=.C;
       H02066=.C;
       N24=27;
    END;
    ELSE IF H02065 NE . AND H02066=.  THEN DO;
       H02065=.C;
       H02066=.N;
       N24=28;
    END;
    IF H02065=. AND H02066=.  THEN DO;
       H02065=.N;
       H02066=.N;
       N24=29;
    END;
    ELSE IF H02065=. AND H02066 NE .  THEN DO;
       H02065=.N;
       H02066=.C;
       N24=30;
    END;
  END;

/** Note 25 - gender H02067, SEX, H02068, H02069--H02075, XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed MALE, FMALE based on gender specific questions */


  IF H02068 > 0 THEN MALE=1;     /* prostate */
  ELSE MALE = 0;
  IF H02069>0 OR H02070>0 OR H02071>0 OR H02072>0 OR H02073>0
     OR H02074>0 OR H02075>0  THEN FMALE=1; /* mammogram/pap smear/PREGNANT*/
  ELSE FMALE = 0;
  IF H02067=. OR H02067=.A THEN DO;
     IF (SEX='F' AND MALE AND FMALE) THEN DO;
        N25A=1;
        XSEXA=2;
     END;
     ELSE IF (SEX='F' AND MALE=0 AND FMALE=0) THEN DO;
        N25A=2;
        XSEXA=2;
     END;
     ELSE IF (SEX='M' AND MALE AND FMALE) THEN DO;
        N25A=3;
        XSEXA=1;
     END;
     ELSE IF (SEX='M' AND MALE=0 AND FMALE=0) THEN DO;
        N25A=4;
        XSEXA=1;
     END;
     ELSE IF MALE AND NOT FMALE THEN DO;
        N25A=5;
        XSEXA=1;
     END;
     ELSE IF FMALE AND NOT MALE THEN DO;
        N25A=6;
        XSEXA=2;
     END;
     ELSE IF (SEX='Z' AND MALE AND FMALE) THEN DO;
        N25A=7;
        XSEXA=.;
```

```
      END;
      ELSE IF (SEX='Z' AND MALE=0 AND FMALE=0) THEN DO;
         N25A=8;
         XSEXA=.;
      END;
   END;
   ELSE IF (H02067=1) THEN DO;
      IF MALE AND NOT FMALE THEN DO;
         N25A=9;
         XSEXA=1;
      END;
      ELSE IF NOT MALE AND FMALE THEN DO;
         IF SEX='F' THEN DO;
            N25A=10;
            XSEXA=2;
         END;
         ELSE DO;
            N25A=11;
            XSEXA=1;
         END;
      END;
      ELSE IF MALE AND FMALE THEN DO;
         N25A=12;
         XSEXA=1;
      END;
      ELSE IF MALE=0 AND FMALE=0 THEN DO;
         N25A=13;
         XSEXA=1;
      END;
   END;
   ELSE IF (H02067=2) THEN DO;
      IF NOT MALE AND FMALE THEN DO;
        N25A=14;
        XSEXA=2;
      END;
      ELSE IF MALE AND NOT FMALE THEN DO;
         IF SEX='M' THEN DO;
           N25A=15;
           XSEXA=1;
         END;
         ELSE DO;
            N25A=16;
            XSEXA=2;
         END;
      END;
      ELSE IF MALE AND FMALE THEN DO;
         N25A=17;
         XSEXA=2;
      END;
      ELSE IF MALE=0 AND FMALE=0 THEN DO;
         N25A=18;
         XSEXA=2;
      END;
   END;

/* Note 25b - gender vs prostate */

   IF XSEXA=1 THEN N25B=1;    /* male    */
   ELSE IF XSEXA=2 THEN DO;   /* female  */
      IF H02068 NE . THEN DO;
         N25B=2;
         H02068=.C;
      END;                    /*inconsistent resp */
      ELSE DO;
         N25B=3;
         H02068=.N;
      END;                    /* valid skip   */
   END;
   ELSE IF XSEXA=. THEN DO;   /*  missing sex */
      N25B=4;
      H02068=.;
   END;
```

```
/* Note 25c - gender vs mammogram/paps */
/*   REDEFINE FMALE TO LOOK ONLY AT MAMMOGRAM OR PAP SMEAR ENTRIES  */

  ARRAY NOTE25C H02069 H02070 H02071 H02072 H02073 H02074 H02075;

  IF H02069 NE . OR H02070 NE . OR H02071 NE . OR H02072 NE . OR
     H02073 NE . OR H02074 NE . OR H02075 NE . THEN FMALE=1; /* mammogram or pap smear */
  ELSE FMALE = 0;
  IF XSEXA=1 THEN DO;   /* male */
     IF FMALE=0 THEN DO;
        N25C=1;
        DO OVER NOTE25C;
           NOTE25C=.N;
        END;
     END; /* inconsistent response */
     ELSE IF FMALE=1 THEN DO;
        N25C=2;
        DO OVER NOTE25C;
           IF NOTE25C=. THEN NOTE25C = .N;
           ELSE NOTE25C=.C;
        END;
     END;   /* valid skip */
  END;
  ELSE IF XSEXA=2 THEN  N25C=3; /* female */
  ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
     N25C=4;
     DO OVER NOTE25C;
        NOTE25C=.;
     END;
  END;

  DROP MALE FMALE;

/* Note 26 - breast exam for female 40 or over  */
/* Note 1999 -- no self reported age variable  */
/* Note no dob variable  -- macro not used     */

  IF XSEXA=1 THEN DO;  /* male */
     IF  (H02070=.C OR H02070=.N) AND (H02071=.C OR H02071=.N)
     AND (H02072=.C OR H02072=.N)  THEN N26 = 1;
  END;
  ELSE IF XSEXA=2 THEN DO;
     IF H02070=2 THEN N26=2;         /* female 40 or over */
     ELSE IF H02070=1 THEN DO;   /* female < 40 */
        IF H02071 NE . THEN H02071=.C;
        ELSE H02071=.N;
        IF H02072 NE . THEN H02072=.C;
        ELSE H02072=.N;
        N26=3;
     END;
     ELSE IF H02070=.A THEN DO;
        IF H02071 NE . OR H02072 NE . THEN DO;
           H02070=2;
           N26=4;
        END;
        ELSE IF H02071=. AND H02072=. THEN DO;
           H02070=1;
           IF H02071 NE . THEN H02071=.C;
           ELSE H02072=.N;
           IF H02072 NE . THEN H02072=.C;
           ELSE H02072=.N;
           N26=5;
        END;
     END;
     ELSE IF H02070=. THEN DO;
        IF H02071 NE . OR H02072 NE . THEN DO;
           H02070=2;
           N26=6;
        END;
        ELSE IF H02071=. AND H02072=. THEN DO;
           IF AGE<40 THEN DO;
              H02070 = 1;
              H02071=.N;
```

```
            H02072=.N;
            N26=7;
         END;
         ELSE IF AGE >= 40 THEN DO;
            H02070=1;
            H02071=.N;
            H02072=.N;
            N26=8;
         END;
         ELSE IF AGE=. THEN N27=9;
      END;
   END;
  END;
  ELSE IF XSEXA=. THEN N27=10;

/* Note 27 - gender vs Pregnancy */

  IF XSEXA=1 THEN N27=1;          /* male     */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H02073=1 THEN N27=2;      /* pregnant */
     ELSE IF H02073=2 THEN DO;
        IF H02074=. THEN H02074 = .N;
        ELSE H02074=.C;
        N27=3;
     END;
     ELSE IF H02073=3 THEN DO;
        IF H02074=. THEN H02074 = .N;
        ELSE H02074=.C;
        IF H02075=. THEN H02075=.N;
        ELSE H02075=.C;
        N27=4;
     END;
     ELSE IF H02073 IN (., .A) THEN DO;
        IF H02074 NE . THEN DO;
           H02073=1;
           N27=5;
        END;
        ELSE IF H02074=. THEN DO;
           IF H02073=. THEN N27=6;
           ELSE IF H02073=.A THEN DO;
              H02073=3;
              H02074=.N;
              IF H02075=. THEN H02075=.N;
              ELSE H02075=.C;
              N27=7;
           END;
        END;

     END;
  END;
  ELSE IF XSEXA=. AND H02073 IN (.,.A) THEN N27=8;



/* NOTE 28 - Not Aware TRICARE for LIFE */



ARRAY NOTE28 S02L02 S02L03A--S02L03I S02L04A--S02L04I S02L05 S02L06 S02L07
             S02L08 S02L09 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE28A S02L02 S02L06 S02L07 S02L08 S02L09 S02L11 S02L12 S02L14;

ARRAY NOTE28B S02L03A--S02L03I  S02L13A--S02L13E;

ARRAY NOTE28C S02L05 S02L10 S02L04A--S02L04I;

N28NOTNA=0;
N28AMISS=0;
N28CMISS=0;
N28NMISS=0;
N28MISSA=0;
N28MISSB=0;
```

```
N28MISSC=0;
N28MISS=0;

DO OVER NOTE28A;
   IF NOTE28A NOT IN (.N,.,-999,.C) THEN N28AMISS+1;
   IF NOTE28A NE . THEN N28MISSA+1;
END;

DO OVER NOTE28C;
   IF NOTE28C NOT IN (.,-999,.C) THEN N28CMISS+1;
   IF NOTE28C NE . THEN N28MISSC+1;
END;

N28NMISS=N28AMISS+N28CMISS;


DO OVER NOTE28B;
   IF NOTE28B NOT IN (2,.N,.,-999) THEN N28NOTNA+1;
   IF NOTE28B NE . THEN N28MISSB+1;
END;

N28MISS=N28MISSA+N28MISSB+N28MISSC;


IF S02L01 in (-999,.C) THEN N28=1;
ELSE IF S02L01=1       THEN N28=2;
ELSE IF S02L01 IN (2,.,.A) AND (N28NMISS+N28NOTNA>0) THEN DO;
   S02L01=1;
   N28=3;
END;
ELSE IF S02L01=2 AND (N28NMISS+N28NOTNA)=0 THEN DO;
   N28=4;
   DO OVER NOTE28;
      IF NOTE28=. THEN NOTE28=-999;
   END;
END;

ELSE IF S02L01=. AND (N28NMISS+N28NOTNA)=0 THEN DO;
   N28=4;
   DO OVER NOTE28;
      IF NOTE28=. THEN NOTE28=-999;
   END;
END;
ELSE IF S02L01=.  AND N28MISS=0 THEN N28=5;
ELSE IF S02L01=.A AND (N28NMISS+N28NOTNA)=0 THEN DO;
     S02L01=2;
     N28=6;
     DO OVER NOTE28;
        IF   NOTE28=.  THEN NOTE28=-999;
     END;
  END;


DROP N28NOTNA N28AMISS N28CMISS N28NMISS N28MISSA N28MISSB N28MISSC N28MISS;

/*NOTE 29 - S02L06 NO INTENTION TO ENROLL IN MEDICARE PARTB OR NOTE ELIGIBLE TRICARE FOR
LIFE */

ARRAY NOTE29 S02L07 S02L08 S02L09 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE29A S02L07 S02L08 S02L09 S02L11 S02L12 S02L14;

ARRAY NOTE29B S02L13A--S02L13E;

ARRAY NOTE29C S02L10;

N29NOTNA=0;
N29AMISS=0;
N29CMISS=0;
N29NMISS=0;
N29MISSA=0;
N29MISSB=0;
N29MISSC=0;
```

```
N29MISS=0;

DO OVER NOTE29A;
   IF NOTE29A NOT IN (.N,.,-999,.C) THEN N29AMISS+1;
   IF NOTE29A NE . THEN N29MISSA+1;
END;

DO OVER NOTE29C;
   IF NOTE29C NOT IN (.,-999,.C) THEN N29CMISS+1;
   IF NOTE29C NE . THEN N29MISSC+1;
END;

N29NMISS=N29AMISS+N29CMISS;

DO OVER NOTE29B;
   IF NOTE29B NOT IN (2,.N,.,-999) THEN N29NOTNA+1;
   IF NOTE29B NE 2 THEN N29MISSB+1;
END;

N29MISS=N29MISSA+N29MISSB+N29MISSC;

IF S02L06 in (.N,-999,.C) THEN N29=1;
ELSE IF S02L06 IN (1,2,3) THEN N29=2;
ELSE IF S02L06 IN (4,.N,.,.A) AND (N29NMISS+N29NOTNA>0) THEN N29=3;
ELSE IF S02L06 IN (4,.N) AND (N29NMISS+N29NOTNA)=0 THEN DO;
   N29=4;
   DO OVER NOTE29;
      IF NOTE29=. THEN NOTE29=-999;
   END;
END;
ELSE IF S02L06 in (.,.A)  AND N29MISS=0 THEN N29=5;


  DROP N29NOTNA N29AMISS N29CMISS N29NMISS N29MISSA N29MISSB N29MISSC N29MISS;

/* NOTE 30 - S02L07 - Not ELIGIBLE TRICARE for LIFE */

ARRAY NOTE30 S02L08 S02L09 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE30A S02L08 S02L09 S02L11 S02L12 S02L14;

ARRAY NOTE30B S02L13A--S02L13E;

ARRAY NOTE30C S02L10;

N30NOTNA=0;
N30AMISS=0;
N30CMISS=0;
N30NMISS=0;
N30MISSA=0;
N30MISSB=0;
N30MISSC=0;
N30MISS=0;

DO OVER NOTE30A;
   IF NOTE30A NOT IN (.N,.,-999,.C) THEN N30AMISS+1;
   IF NOTE30A NE . THEN N30MISSA+1;
END;

DO OVER NOTE30C;
   IF NOTE30C NOT IN (.,-999,.C) THEN N30CMISS+1;
   IF NOTE30C NE . THEN N30MISSC+1;
END;

N30NMISS=N30AMISS+N30CMISS;

DO OVER NOTE30B;
   IF NOTE30B NOT IN (2,.N,.,-999) THEN N30NOTNA+1;
   IF NOTE30B NE 2 THEN N30MISSB+1;
END;

N30MISS=N30MISSA+N30MISSB+N30MISSC;
```

```
IF S02L07 in (.N,-999,.C) THEN N30=1;
ELSE IF S02L07 in (1,2,3,4) THEN N30=2;
ELSE IF S02L07 IN (.N,.,.A) AND (N30NMISS+N30NOTNA>0) THEN N30=3;
ELSE IF S02L07=.N AND (N30NMISS+N30NOTNA)=0 THEN DO;
   N30=4;
   DO OVER NOTE30;
      IF NOTE30=. THEN NOTE30=-999;
   END;
END;
ELSE IF S02L07=. AND N30MISS=0 THEN N30=5;
ELSE IF S02L07=.A AND N30MISS=0 THEN DO;
   N30=6;
   S02L07=.N;
   DO OVER NOTE30;
      IF NOTE30=. THEN NOTE30=-999;
   END;
END;

DROP N30NOTNA N30AMISS N30CMISS N30NMISS N30MISSA N30MISSB N30MISSC N30MISS;



/* NOTE 31 - S02L08 - Not ELIGIBLE TRICARE for LIFE */

ARRAY NOTE31 S02L09 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE31A S02L09 S02L11 S02L12 S02L14;

ARRAY NOTE31B S02L13A--S02L13E;

ARRAY NOTE31C S02L10;

N31NOTNA=0;
N31AMISS=0;
N31CMISS=0;
N31NMISS=0;
N31MISSA=0;
N31MISSB=0;
N31MISSC=0;
N31MISS=0;

DO OVER NOTE31A;
   IF NOTE31A NOT IN (.N,.,-999,.C) THEN N31AMISS+1;
   IF NOTE31A NE . THEN N31MISSA+1;
END;

DO OVER NOTE31C;
   IF NOTE31C NOT IN (.,-999,.C) THEN N31CMISS+1;
   IF NOTE31C NE . THEN N31MISSC+1;
END;

N31NMISS=N31AMISS+N31CMISS;

DO OVER NOTE31B;
   IF NOTE31B NOT IN (2,.N,.,-999) THEN N31NOTNA+1;
   IF NOTE31B NE 2 THEN N31MISSB+1;
END;

N31MISS=N31MISSA+N31MISSB+N31MISSC;

IF S02L08 in (.N,-999,.C) THEN N31=1;
ELSE IF S02L08 in (1,2) THEN N31=2;
ELSE IF S02L08 IN (.N,.,.A) AND (N31NMISS+N31NOTNA>0) THEN N31=3;
ELSE IF S02L08=.N AND (N31NMISS+N31NOTNA)=0 THEN DO;
   N31=4;
   DO OVER NOTE31;
      IF NOTE31=. THEN NOTE31=-999;
   END;
END;
ELSE IF S02L08=. AND N31MISS=0 THEN N31=5;
ELSE IF S02L08=.A AND N31MISS=0 THEN DO;
   N31=6;
   S02L08=.N;
```

```
   DO OVER NOTE31;
      IF NOTE31=. THEN NOTE31=-999;
   END;
END;

DROP N31NOTNA N31AMISS N31CMISS N31NMISS N31MISSA N31MISSB N31MISSC N31MISS;


/* NOTE 32 - S02L09 - Not ELIGIBLE TRICARE for LIFE */

ARRAY NOTE32 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE32A S02L11 S02L12 S02L14;

ARRAY NOTE32B S02L13A--S02L13E;

ARRAY NOTE32C S02L10;

N32NOTNA=0;
N32AMISS=0;
N32CMISS=0;
N32NMISS=0;
N32MISSA=0;
N32MISSB=0;
N32MISSC=0;
N32MISS=0;

DO OVER NOTE32A;
   IF NOTE32A NOT IN (.N,.,-999,.C) THEN N32AMISS+1;
   IF NOTE32A NE . THEN N32MISSA+1;
END;

DO OVER NOTE32C;
   IF NOTE32C NOT IN (.,-999,.C) THEN N32CMISS+1;
   IF NOTE32C NE . THEN N32MISSC+1;
END;

N32NMISS=N32AMISS+N32CMISS;


DO OVER NOTE32B;
   IF NOTE32B NOT IN (2,.N,.,-999) THEN N32NOTNA+1;
   IF NOTE32B NE 2 THEN N32MISSB+1;
END;

IF S02L09 in (.N,-999,.C) THEN N32=1;
ELSE IF S02L09 in (1,2,3) THEN N32=2;
ELSE IF S02L09 IN (.N,.,.A) AND (N32NMISS+N32NOTNA>0) THEN N32=3;
ELSE IF S02L09=.N AND (N32NMISS+N32NOTNA)=0 THEN DO;
   N32=4;
   DO OVER NOTE32;
      IF NOTE32=. THEN NOTE32=-999;
   END;
END;
ELSE IF S02L09=. AND N32MISS=0 THEN N32=5;
ELSE IF S02L09=.A AND N32MISS=0 THEN DO;
   N32=6;
   S02L09=.N;
   DO OVER NOTE32;
      IF NOTE32=. THEN NOTE32=-999;
   END;
END;

DROP N32NOTNA N32AMISS N32CMISS N32NMISS N32MISSA N32MISSB N32MISSC N32MISS;


/* NOTE 33 - S02L10 No MEDICAL CARE FROM CIVILIAN SOURCES SINCE 10-1-2001 */

ARRAY NOTE33 S02L11 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE33A S02L11 S02L12 S02L14;

ARRAY NOTE33B S02L13A--S02L13E;
```

```
N33NOTNA=0;
N33NMISS=0;
N33MISSA=0;
N33MISSB=0;
N33MISS=0;

DO OVER NOTE33A;
   IF NOTE33A NOT IN (.N,.,-999,.C) THEN N33NMISS+1;
   IF NOTE33A NE . THEN N33MISSA+1;
END;

DO OVER NOTE33B;
   IF NOTE33B NOT IN (2,.N,.,-999) THEN N33NOTNA+1;
   IF NOTE33B NE 2 THEN N33MISSB+1;
END;

N33MISS=N33MISSA+N33MISSB;

IF S02L10 in (-999,.C) THEN N33=1;
ELSE IF S02L10=1       THEN N33=2;
ELSE IF S02L10 IN (2,.,.A) AND (N33NMISS+N33NOTNA>0) THEN DO;
   S02L10=1;
   N33=3;
END;
ELSE IF S02L10=2 AND (N33NMISS+N33NOTNA)=0 THEN DO;
   N33=4;
   DO OVER NOTE33;
      IF NOTE33=. THEN NOTE33=-999;
   END;
END;
ELSE IF S02L10=.  AND N33MISS=0 THEN N33=5;
ELSE IF S02L10=.A AND (N33NMISS+N33NOTNA)=0 THEN DO;
     S02L10=2;
     N33=6;
     DO OVER NOTE33;
        IF   NOTE33=.  THEN NOTE33=-999;
     END;
  END;



DROP N33NOTNA N33NMISS N33MISSA N33MISSB N33MISS;

/* NOTE 34 - S02L11 - No MEDICAL CARE SINCE 10-1-2001 */

ARRAY NOTE34 S02L12 S02L13A--S02L13E S02L14;

ARRAY NOTE34A S02L12 S02L14;

ARRAY NOTE34B S02L13A--S02L13E;

N34NOTNA=0;
N34NMISS=0;
N34MISSA=0;
N34MISSB=0;
N34MISS=0;


DO OVER NOTE34A;
   IF NOTE34A NOT IN (.N,.,-999,.C) THEN N34NMISS+1;
   IF NOTE34A NE . THEN N34MISSA+1;
END;

DO OVER NOTE34B;
   IF NOTE34B NOT IN (2,.N,.,-999) THEN N34NOTNA+1;
   IF NOTE34B NE 2 THEN N34MISSB+1;
END;

N34MISS=N34MISSA+N34MISSB;

IF S02L11 in (.N,-999,.C) THEN N34=1;
ELSE IF S02L11 in (1,2) THEN N34=2;
```

```
ELSE IF S02L11 IN (.N,.,.A) AND (N34NMISS+N34NOTNA>0) THEN N34=3;
ELSE IF S02L11 in (.N,.A) AND (N34NMISS+N34NOTNA)=0 THEN DO;
   N34=4;
   DO OVER NOTE34;
      IF NOTE34=. THEN NOTE34=-999;
   END;
END;
ELSE IF S02L11 =. AND N34MISS=0 THEN N34=5;
ELSE IF S02L11=.A AND N34MISS=0 THEN DO;
   N34=6;
   S02L11=.N;
   DO OVER NOTE34;
      IF NOTE34=. THEN NOTE34=-999;
   END;
END;

DROP N34NOTNA N34NMISS N34MISSA N34MISSB N34MISS;


/* NOTE 35 - S02L12 - NO BILLS THAT WERE NOT COVERED OR No MEDICAL CARE SINCE 10-1-2001 */

ARRAY NOTE35 S02L13A--S02L13E S02L14;

ARRAY NOTE35A S02L14;

ARRAY NOTE35B S02L13A--S02L13E;


N35NOTNA=0;
N35NMISS=0;
N35MISSA=0;
N35MISSB=0;
N35MISS=0;

DO OVER NOTE35A;
   IF NOTE35A NOT IN (.N,.,-999,.C) THEN N35NMISS+1;
   IF NOTE35A NE . THEN N35MISSA+1;
END;


DO OVER NOTE35B;
   IF NOTE35B NOT IN (2,.N,.,-999) THEN N35NOTNA+1;
   IF NOTE35B NE 2 THEN N35MISSB+1;
END;

IF S02L12 in (.N,-999,.C) THEN N35=1;
ELSE IF S02L12 IN (1,2,3) THEN N35=2;
ELSE IF S02L12 IN (1,.,.A) AND (N35NMISS+N35NOTNA>0) THEN N35=3;
ELSE IF S02L12 IN (2,.N) AND (N35NMISS+N35NOTNA)=0 THEN DO;
   N35=4;
   DO OVER NOTE35;
      IF NOTE35=. THEN NOTE35=-999;
   END;
END;
ELSE IF S02L12 in (.,.A) AND N35MISS=0 THEN N35=5;

  DROP N35NMISS N35NOTNA N35MISSA N35MISSB N35MISS;



/* SET -999 to .N */

ARRAY NOTE999 S02L01 S02L02 S02L03A--S02L03I S02L04A--S02L04I S02L05 S02L06 S02L07
              S02L08 S02L09 S02L10 S02L11 S02L12 S02L13A--S02L13E S02L14
              S02L15 S02L16 S02L17;

DO OVER NOTE999;
   IF NOTE999=-999 THEN NOTE999=.N;
END;
```

```
NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

****************************************;

 OUTPUT;

RUN;


PROC FORMAT;
   VALUE GRID
     0='0'
     1-9999='>=1' ;
   VALUE $GRIDB
     1-5 = '1-5' ;
   VALUE $AGE
     018-039='<40'
     040-120='>=40';
   VALUE SCALE
     0-10='0-10';
   VALUE MARK
     1-6='Marked' ;
   VALUE MARKB
     2-7='Marked';

   VALUE MARKC
    1='1'
   2-HIGH='>1';

RUN;

ENDSAS;

PROC FREQ DATA=OUT.&OUTDATA;
  where flag_fin="1";
  TABLES &VARLIST1./missing list;
RUN;

PROC CONTENTS DATA=OUT.&OUTDATA;
RUN;

** first, examine initial recodes ;

PROC FREQ DATA=OUT.&OUTDATA;
   TABLES H02004_O*H02004
          H02013_O*H02013
          H02019_O*H02019
          H02058_O*H02058
          H02061_O*H02061
          H02068_O*H02067
          H02069_O*H02069
```

```
          H02071_O*H02071
          H02072_O*H02072
          H02059_O*H02059
          H02062_O*H02062
          H02075_O*H02075
          H02064_O*H02064
          H02065_O*H02065/MISSING LIST;
   FORMAT _ALL_ ;
RUN;


/*
PROC FREQ DATA=OUT.&OUTDATA;
   where flag_fin="1";
   TABLES N1-N24 N25A N25B N25C N26 N27/MISSING LIST;
RUN;

*/

PROC MEANS DATA=OUT.&OUTDATA N NMISS MIN MAX SUM MEAN;
   TITLE3 'Frequency Checks - Missing Value Totals';
   VAR MISS_TOT MISS_1 MISS_4 MISS_5 MISS_6-MISS_9;
RUN;

%MACRO GETFREQS (NOTE,TABLES,FORMAT);

  PROC FREQ DATA=OUT.&OUTDATA;
      where flag_fin="1";
      TITLE3 "Freqency Checks - Note &NOTE.";
      TABLES &TABLES./MISSING LIST;
      FORMAT _ALL_;
      FORMAT &FORMAT.;
  RUN;

%MEND GETFREQS;

%GETFREQS(1,N1*H02006_O*H02007_O*H02006*H02007,H02006_O H02006 GRID.);

%GETFREQS(2,N2*H02008_O*H02009_O*H02008*H02009,H02009_O H02009 MARK.);

%GETFREQS(3,N3*H02010_O*H02010*H02011_O*H02011,
               H02011_O H02011 MARK.);

%GETFREQS(4,N4*H02012_O*H02013_O*H02014_O*H02012*H02013*H02014,
               H02013_O H02014_O H02013 H02014 MARK.);
%GETFREQS(5,N5*H02015_O*H02016_O*H02015*H02016,H02016_O H02016 MARK.);

%GETFREQS(6,N6*H02017_O*H02018_O*H02019_O*H02017*H02018*H02019,
               H02018_O H02019_O H02018 H02019 MARK.);
%GETFREQS(7,N7*H02020_O*H02021_O*H02020*H02021,H02021_O H02021 MARK.);

%GETFREQS(8,N8*H02022_O*H02023_O*H02024_O*H02022*H02023*H02024,
               H02023_O H02024_O H02023 H02024 MARK.);

%GETFREQS(9,N9*H02025_O*H02026_O*H02027_O*H02025*H02026*H02027,
               H02026_O H02027_O H02026 H02027  MARK.);

%GETFREQS(10,N10*H02029_O*H02030_O*H02031_O*H02032_O*H02033_O*H02034_O*H02035_O,
                 H02030_O H02031_O H02032_O H02033_O H02034_O H02035_O MARK.
                 H02029_O MARKB.);

%GETFREQS(11,N11*H02043_O*H02044_O*H02045_O*H02046_O*H02043*H02044*H02045*H02046,
                 H02044_O H02045_O H02046_O H02044 H02045 H02046 MARK.);

%GETFREQS(12,N12*H02047_O*H02048_O*H02047*H02048,H02048_O H02048 MARK.);

%GETFREQS(13,N13*H02049_O*H02050_O*H02049*H02050,H02050_O H02050 MARK.);

%GETFREQS(14,N14*H02051_O*H02052_O*H02053_O*H02051*H02052*H02053,
                 H02052_O H02053_O H02052 H02053 MARK.);

%GETFREQS(15,N15*H02054_O*H02055_O*H02054*H02055,H02055_O H02055 MARK.);
```

```
%GETFREQS(24,N24*H02063_O*H02064_O*H02065_O*H02066_O*H02063*H02064*H02065*H02066,
                _all_ );

%GETFREQS(25A,N25A*H02067_O*H02067*PNSEXCD*XSEXA*H02069_O*H02070_O*H02071_O*H02072_O*
                  H02073_O*H02074_O*H02075_O,H02069_O H02070_O H02071_O H02072_O
                  H02073_O H02074_O H02075_O MARK. );

%GETFREQS(25B,N25B*H02068_O*H02068*XSEXA,H02068 H02068_O MARK.);

%GETFREQS(25C,N25C*XSEXA*H02069_O*H02070_O*H02071_O*H02072_O*H02073_O*H02074_O*
                  H02075_O,H02069_O H02070_O H02071_O H02072_O H02073_O H02074_O
                  H02075_O MARK.);

%GETFREQS(26,N26*XSEXA*DAGEQY*H02070_O*H02071_O*H02072_O*H02070*H02071*H02072,
                H02071_O H02072_O H02071 H02072 MARK.);

%GETFREQS(27,N27*XSEXA*H02073_O*H02074_O*H02075_O*H02073*H02074*H02075,
                H02074_O H02075_O H02074 H02075 MARK.);
```

B. Q2 CSCHM02Q.SAS

```
*************************************************************************;
*  Program:  Cschm02q.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGENRC.SD2 - Merged MPR Sampling, DEERS, and NRC Response Data
*   Output:  CSCHM00Q.SD2 - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*           10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*            5/09/2002 - Change to logic in TFL supplement
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschm02q.fmt
*
*************************************************************************;

OPTIONS PS=67 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY "...\DATA\AFINAL\FMTLIB";
LIBNAME IN      "...\DATA\AFINAL";
LIBNAME OUT     "...\DATA\AFINAL";

%LET INDATA=MERGENRC;
%LET OUTDATA=CSCHM02Q;
%LET PERIOD=April, 2001 to March, 2002;



/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H02001   H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
 H02002K  H02002L  H02002M  H02002N  H02002O  H02003   H02004   H02005
 H02006   H02007   H02008   H02009   H02010   H02011   H02012   H02013
 H02014   H02015   H02016   H02017   H02018   H02019   H02020   H02021
 H02022   H02023   H02024   H02025   H02026   H02027   H02028   H02029
 H02030   H02031   H02032   H02033   H02034   H02035   H02036   H02037
 H02038   H02039   H02041   H02043   H02044   H02045
 H02046   H02047   H02048   H02049   H02050   H02051   H02052   H02053
 H02054   H02055   H02056   H02057   H02058   H02059   H02060   H02061
 H02062   H02063   H02064   H02065   H02066   H02067   H02068   H02069
 H02070   H02071   H02072   H02073   H02074   H02075   H02076   H02077
 SREDA    SRRACEA  SRRACEB  SRRACEC  SRRACED  SRRACEE  SRAGE    S02C01
 S02C02   S02C03   S02C04   S02C05   S02C06   S02C07   S02C08   S02C09
 S02C10   S02C11   S02C12   S02C13   S02C14   S02C15   S02C16   S02C17
 S02C18   S02C19   S02C20   S02C21   S02C22   S02E01   S02E02   S02E03
 S02E04   S02E05   S02E06   S02E07   S02E08   S02E09;
/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H02001_O  H02002AO  H02002CO  H02002FO  H02002GO  H02002HO  H02002IO  H02002JO
 H02002KO  H02002LO  H02002MO  H02002NO  H02002OO  H02003_O  H02004_O  H02005_O
 H02006_O  H02007_O  H02008_O  H02009_O  H02010_O  H02011_O  H02012_O  H02013_O
 H02014_O  H02015_O  H02016_O  H02017_O  H02018_O  H02019_O  H02020_O  H02021_O
 H02022_O  H02023_O  H02024_O  H02025_O  H02026_O  H02027_O  H02028_O  H02029_O
 H02030_O  H02031_O  H02032_O  H02033_O  H02034_O  H02035_O  H02036_O  H02037_O
 H02038_O  H02039_O  H02041_O  H02043_O  H02044_O  H02045_O
 H02046_O  H02047_O  H02048_O  H02049_O  H02050_O  H02051_O  H02052_O  H02053_O
 H02054_O  H02055_O  H02056_O  H02057_O  H02058_O  H02059_O  H02060_O  H02061_O
 H02062_O  H02063_O  H02064_O  H02065_O  H02066_O  H02067_O  H02068_O  H02069_O
 H02070_O  H02071_O  H02072_O  H02073_O  H02074_O  H02075_O  H02076_O  H02077_O
 SREDA_O   SRRACEAO  SRRACEBO  SRRACECO  SRRACEDO  SRRACEEO  SRAGE_O   S02C01_O
 S02C02_O  S02C03_O  S02C04_O  S02C05_O  S02C06_O  S02C07_O  S02C08_O  S02C09_O
```

```
 S02C10_O  S02C11_O  S02C12_O  S02C13_O  S02C14_O  S02C15_O  S02C16_O  S02C17_O
 S02C18_O  S02C19_O  S02C20_O  S02C21_O  S02C22_O  S02E01_O  S02E02_O  S02E03_O
 S02E04_O  S02E05_O  S02E06_O  S02E07_O  S02E08_O  S02E09_O;


TITLE  "DoD 2002 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";

DATA OUT.CSCHM02Q;

  SET IN.MERGENRC;

  %INCLUDE "RENAME.SAS";
RUN;


DATA OUT.CSCHM02Q;

  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM02Q.FMT";


/* label and format statements for original variables */

/*IF YOU DID NOT NEED TO CHANGE THE VARIABLE NAMES IN ABOVE DATASTEP,
  THIS FILE SHOULD BE IN.MERGENRC INSTEAD OF OUT.CSCHM02Q*/

   SET OUT.CSCHM02Q;



*************************************************************;
**** Recodes for invalid responses:**************************;
*************************************************************;

*****THE FOLLOWING RECODE IS FOR Q2 2002 ONLY******************;
*****D. Beahm confirmed this recode with Julian Vermaas of NRC*;
****************on June 20, 2002*****************************;

  IF S02C04=3 THEN S02C04=-6;


*********************************************************************;


/* This is a version of the coding scheme and coding tables for the
   2002 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

  SEX=PNSEXCD;
  AGE=INPUT(DAGEQY,8.);
  DROP SEX AGE;

  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
```

```
        ELSE RECODE(I)=RECODE(I);
     END;
  END;
  DROP I;


/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*) H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
                    H02002K  H02002L  H02002M  H02002N  H02002O  SRRACEA   SRRACEB
                    SRRACEC  SRRACED  SRRACEE;

  ARRAY INFORMAT(*) H02002AO  H02002CO  H02002FO  H02002GO  H02002HO  H02002IO  H02002JO
                    H02002KO  H02002LO  H02002MO  H02002NO  H02002OO  SRRACEAO   SRRACEBO
                    SRRACECO  SRRACEDO  SRRACEEO;

  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
         H02002K  H02002L  H02002M  H02002N  H02002O  SRRACEA  SRRACEB
         SRRACEC  SRRACED  SRRACEE  MARKED.;


*********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

  IF FLAG_FIN NE '1' THEN GOTO NOSURVEY;

/** Note 1 -- health plan usage  **/

  IF H02006 > 0 OR H02006 =.D THEN N1=1;
  ELSE IF H02006=.N  THEN DO;
     IF H02007 NOT=. THEN DO;
        N1=2;
        H02007=.C;
     END;
     ELSE DO;
        N1=3;
        H02007=.N;
     END;
  END;
  ELSE IF H02006=.   THEN N1=4;
  ELSE IF H02006=.A  THEN DO;
     IF H02007 NOT=. THEN N1=5;
     ELSE DO;
         H02006=.N;
         H02007=.N;
         N1=6;
     END;
  END;



/** Note2  -- H02008, H02009: Personal doctor or nurse **/

  IF H02008=1 AND H02009 IN (1,2,3,.,.A) THEN N2=1;
  ELSE IF H02008 IN (1,.,.A) AND H02009=.N THEN DO;
     H02008=2;
     H02009=.C;
     N2=2;
  END;
  ELSE IF H02008 IN (2,.,.A) AND H02009>0 THEN DO;
     H02008=1;
     N2=3;
  END;
  ELSE IF H02008=2 AND H02009 IN (.N,.,.A) THEN DO;
     IF H02009=. THEN H02009=.N;
```

```
     ELSE H02009=.C;
     N2=4;
  END;
  ELSE IF H02008=. AND H02009=.A THEN DO;
     H02008=1;
     N2=5;
  END;
  ELSE IF H02008=. AND H02009=. THEN N2=6;
  ELSE IF H02008=.A AND H02009=. THEN DO;
     H02008=2;
     H02009=.N;
     N2=7;
  END;
  ELSE IF H02008=.A AND H02009=.A THEN N2=8;

/** Note 3 -- H02010, S02C01-S02C04, H02011:  Personal doctor or nurse **/

  ARRAY NOTE3  H02011 S02C01-S02C04;
  ARRAY NOTE3B H02011 S02C01 S02C02 S02C04;
  N3NMISS=0;
  N3MARK=0;

  DO OVER NOTE3;
     IF NOTE3 NOT=. THEN N3NMISS+1 ;
  END;
  DO OVER NOTE3B;
     IF NOTE3B NOT IN (.,.N) THEN N3MARK+1;
  END;

  IF S02C03 NOT IN (2, .) THEN N3MARK+1;
  IF H02010 = 1 AND (N3NMISS=0 OR N3MARK>0) THEN N3=1;
  ELSE IF H02010 IN (1,.,.A) AND N3NMISS>0 AND N3MARK=0 THEN DO;
     H02010=2;
     N3=2;
     DO OVER NOTE3;
        IF NOTE3=. THEN NOTE3=.N;
        ELSE NOTE3=.C;
     END;
  END;
  ELSE IF H02010 IN (2,.,.A) AND N3MARK>0 THEN DO;
     H02010=1;
     N3=3;
  END;
  ELSE IF H02010=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
     N3=4;
     DO OVER NOTE3;
        IF NOTE3=. THEN NOTE3=.N;
        ELSE NOTE3=.C;
     END;
  END;
  ELSE IF H02010=. AND  N3NMISS=0 THEN N3=5;
  ELSE IF H02010=.A AND N3NMISS=0 THEN DO;
     H02010=2;
     N3=6;
     DO OVER NOTE3;
        NOTE3=.N;
     END;
  END;

  DROP N3NMISS N3MARK;

/** Note 4 -- S02C03,S02C04: ability to work **/

  IF S02C03 IN (.N, .C) AND S02C04 IN (.N,.C) THEN N4=1;
  ELSE IF S02C03=1 AND S02C04 IN (1,2,.,.A) THEN N4=2;
  ELSE IF S02C03 IN (1,.,.A) AND S02C04=.N THEN DO;
     S02C03=2;
     S02C04=.C;
     N4=3;
  END;
  ELSE IF S02C03 in (2,.,.A) AND S02C04 IN (1,2) THEN DO;
     S02C03=1;
     N4=4;
```

```
  END;
  ELSE IF S02C03 =2 AND S02C04 IN (.,.A,.N) THEN DO;
     IF S02C04=. THEN S02C04=.N;
     ELSE S02C04=.C;
     N4=5;
  END;
  ELSE IF S02C03=. AND S02C04=.A THEN DO;
     S02C03=1;
     N4=6;
  END;
  ELSE IF S02C03=. AND S02C04=. THEN N4=7;
  ELSE IF S02C03=.A AND S02C04=.A THEN  N4=8;
  ELSE IF S02C03=.A AND S02C04=. THEN DO;
     S02C03=2;
     S02C04=.N;
     N4=9;
  END;


/** Note 5 -- H02012-H02014:  currently enrolled in Tricare Prime  **/

  ARRAY NOTE5 H02013 H02014;
  N5NMISS=0;
  N5MARK=0;
  DO OVER NOTE5;
     IF NOTE5 NE . THEN N5NMISS+1;          /* check for all missing */
     IF NOTE5 NOT IN (.,.N) THEN N5MARK+1; /* not missing or NA */
  END;

  IF H02012=1 AND (N5NMISS=0 OR N5MARK>0) THEN N5=1;
  ELSE IF H02012 IN (1,.,.A) AND H02013=.N AND H02014=. THEN DO;
     H02012=2;
     N5=2;
     DO OVER NOTE5;
        IF NOTE5=. THEN NOTE5=.N;
        ELSE NOTE5=.C;
     END;
  END;
  ELSE IF H02012 IN (2,.,.A) AND N5MARK>0 THEN DO;
     H02012=1;
     N5=3;
  END;
  ELSE IF H02012=2 AND ((N5NMISS=0) OR (H02013=.N AND H02014=.))THEN DO;
     N5=4;
     DO OVER NOTE5;
        IF NOTE5=. THEN NOTE5=.N;
        ELSE NOTE5=.C;
     END;
  END;
  ELSE IF H02012=. AND N5NMISS=0 THEN N5=5;
  ELSE IF H02012=.A AND N5NMISS=0 THEN DO;
     H02012=2;
     N5=6;
     DO OVER NOTE5;
        NOTE5=.N;
     END;
  END;

  DROP N5MARK N5NMISS;

/** Note 6 -- H02015, H02016:  needed to see a specialist in last 12 months **/

  IF H02015=1 AND H02016 IN (1,2,3,.,.A) THEN N6=1;
  ELSE IF H02015 IN (1,.,.A) AND H02016=.N THEN DO;
     H02015=2;
     H02016=.C;
     N6=2;
  END;
  ELSE IF H02015 IN (2,.,.A) AND H02016 IN (1,2,3) THEN DO;
     H02015=1;
     N6=3;
  END;
  ELSE IF H02015=2 AND H02016 IN (.,.A,.N) THEN DO;
```

```
      IF H02016=. THEN H02016=.N;
      ELSE H02016=.C;
      N6=4;
   END;
   ELSE IF H02015=. AND H02016=.A THEN DO;
      H02015=1;
      N6=5;
   END;
   ELSE IF H02015=.  AND H02016=.  THEN N6=6;
   ELSE IF H02015=.A AND H02016=.A THEN N6=7;
   ELSE IF H02015=.A AND H02016=.  THEN DO;
      H02015=2;
      H02016=.N;
      N6=8;
   END;

/** Note 7 -- H02017,S02C05, H02018,H02019: saw a specialist in last 12 months **/

   ARRAY NOTE7 S02C05 H02018 H02019;
   N7MARK=0;
   N7NMISS=0;

   DO OVER NOTE7;
      IF NOTE7 NE . THEN N7NMISS+1;
   END;

   DO OVER NOTE7;
      IF NOTE7 NOT IN (.N,.) THEN N7MARK+1;
   END;

   IF H02017=1 AND (N7NMISS=0 OR N7MARK>0) THEN N7=1;
   ELSE IF H02017 IN (1,.,.A) AND N7NMISS>0 AND N7MARK=0 THEN DO;
      H02017=2;
      N7=2;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
      END;
   END;
   ELSE IF H02017 IN (2,.,.A) AND N7MARK>0 THEN DO;
      H02017=1;
      N7=3;
   END;
   ELSE IF H02017=2 AND N7NMISS=0 OR (N7NMISS>0 AND N7MARK=0) THEN DO;
      N7=4;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
      END;
   END;
   ELSE IF H02017=. AND  N7NMISS=0 THEN N7=5;
   ELSE IF H02017=.A AND N7NMISS=0 THEN DO;
      H02017=2;
      N7=6;
      DO OVER NOTE7;
         NOTE7=.N;
      END;
   END;

   DROP N7NMISS N7MARK;

/** Note 8 -- S02C05,H02018,H02019:  saw a specialist in last 12 months **/

   ARRAY NOTE8 H02018 H02019;
   N8MARK=0;
   N8NMISS=0;

   DO OVER NOTE8;
      IF NOTE8 NE . THEN N8NMISS+1;
   END;

   DO OVER NOTE8;
      IF NOTE8 NOT IN (.N,.) THEN N8MARK+1;
```

```
  END;
  IF S02C05 IN (.N,.C) AND H02018 IN (.N,.C) AND H02019 IN (.N,.C) THEN N8=1;
  ELSE IF S02C05=.N AND (N8NMISS=0 OR (N8NMISS>0 AND N8MARK=0)) THEN DO;
     N8=2;
     DO OVER NOTE8;
        IF NOTE8=. THEN NOTE8=.N;
        ELSE NOTE8=.C;
     END;
  END;
  ELSE IF S02C05 IN (.N,.,.A) AND N8MARK>0 THEN N8=3;
  ELSE IF S02C05 IN (1,2,3,4,5,6,.,.A) AND (N8NMISS>0 AND N8MARK=0) THEN DO;
     S02C05=.N;
     N8=4;
     DO OVER NOTE8;
        IF NOTE8=. THEN NOTE8=.N;
        ELSE NOTE8=.C;
     END;
  END;
  ELSE IF S02C05 IN (1,2,3,4,5,6) AND (N8NMISS=0 OR N8MARK>0) THEN N8=5;
  ELSE IF S02C05=.  AND N8NMISS=0 THEN N8=6;
  ELSE IF S02C05=.A AND N8NMISS=0 THEN DO;
     S02C05=.N;
     N8=7;
     DO OVER NOTE8;
        NOTE8=.N;
     END;
  END;

  DROP N8NMISS N8MARK;


/** Note 9 -- called a doctor's office:  H02020, H02021 **/

  IF H02020=1 AND H02021 IN (1,2,3,4,.,.A) THEN N9=1;
  ELSE IF H02020 IN (1,.,.A) AND H02021=.N THEN DO;
     H02020=2;
     H02021=.C;
     N9=2;
  END;
  ELSE IF H02020 IN (2,.,.A) AND H02021 IN (1,2,3,4) THEN DO;
     H02020=1;
     N9=3;
  END;

  ELSE IF H02020=2 AND H02021 IN (.,.A,.N) THEN DO;
     IF H02021=. THEN H02021=.N;
     ELSE H02021=.C;
     N9=4;
  END;
  ELSE IF H02020=.  AND H02021=.A THEN DO;
     H02020=1;
     N9=5;
  END;
  ELSE IF H02020=.  AND H02021=.  THEN N9=6;
  ELSE IF H02020=.A AND H02021=.A THEN N9=7;
  ELSE IF H02020=.A AND H02021=.  THEN DO;
     H02020=2;
     N9=8;
     H02021=.N;
  END;

/** Note 10 -- H02022,H02023,H02024:  regular or routine healthcare **/

  ARRAY NOTE10 H02023 H02024;
  N10MARK=0;
  N10NMISS=0;

  DO OVER NOTE10;
     IF NOTE10 NE . THEN N10NMISS+1;
  END;

  DO OVER NOTE10;
     IF NOTE10 NOT IN (.N,.) THEN N10MARK+1;
```

```
  END;
  IF H02022=1 AND (N10NMISS=0 OR N10MARK>0) THEN N10=1;
  ELSE IF H02022 IN (1,.,.A) AND N10NMISS>0 AND N10MARK=0 THEN DO;
     H02022=2;
     N10=2;
     DO OVER NOTE10;
        IF NOTE10=. THEN NOTE10=.N;
        ELSE NOTE10=.C;
     END;
  END;
  ELSE IF H02022 IN (2,.,.A) AND N10MARK>0 THEN DO;
     H02022=1;
     N10=3;
  END;
  ELSE IF H02022=2 AND (N10NMISS=0 OR (N10NMISS>0 AND N10MARK=0)) THEN DO;
     N10=4;
     DO OVER NOTE10;
        IF NOTE10=. THEN NOTE10=.N;
        ELSE NOTE10=.C;
     END;
  END;
  ELSE IF H02022=.  AND  N10NMISS=0 THEN N10=5;
  ELSE IF H02022=.A AND N10NMISS=0 THEN DO;
     H02022=2;
     N10=6;
     DO OVER NOTE10;
        NOTE10=.N;
     END;
  END;

  DROP N10NMISS N10MARK;

/** Note 11 -- H02025,H02026,H02027:  illness or injury **/

  ARRAY NOTE11 H02026 H02027;
  N11MARK=0;
  N11NMISS=0;

  DO OVER NOTE11;
     IF NOTE11 NE . THEN N11NMISS+1;
     IF NOTE11 NOT IN (.N,.) THEN N11MARK+1;
  END;

  IF H02025=1 AND (N11NMISS=0 OR N11MARK>0) THEN N11=1;
  ELSE IF H02025 IN (1,.,.A) AND N11NMISS>0 AND N11MARK=0 THEN DO;
     H02025=2;
     N11=2;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  ELSE IF H02025 IN (2,.,.A) AND N11MARK>0 THEN DO;
     H02025=1;
     N11=3;
  END;
  ELSE IF H02025=2 AND (N11NMISS=0 OR (N11NMISS>0 AND N11MARK=0)) THEN DO;
     N11=4;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  ELSE IF H02025=.  AND N11NMISS=0 THEN N11=5;
  ELSE IF H02025=.A AND N11NMISS=0 THEN DO;
     H02025=2;
     N11=6;
     DO OVER NOTE11;
        NOTE11=.N;
     END;
  END;

  DROP N11NMISS N11MARK;
```

```
/** Note 12 -- H02029, H02030-H02039 S02C06-S02C08: doctor's office or clinic **/

  ARRAY NOTE12   H02030-H02039 S02C06-S02C08;
  ARRAY NOTE12B  H02030-H02039 S02C07 S02C08;
  N12MARK=0;
  N12NMISS=0;

  DO OVER NOTE12;
     IF NOTE12 NE . THEN N12NMISS+1;
  END;

  DO OVER NOTE12B;
     IF NOTE12B NOT IN (.N,.) THEN N12MARK+1;
  END;

  IF S02C06 NOT IN (2, .) THEN N12MARK+1;
  IF H02029=1 AND (N12NMISS=0 OR (N12NMISS>0 AND N12MARK=0)) THEN DO;
     N12=1;
     DO OVER NOTE12;
        IF NOTE12=. THEN NOTE12=.N;
        ELSE NOTE12=.C;
     END;
  END;
  ELSE IF H02029 IN (1,.,.A) AND N12MARK>0 THEN N12=2;
  ELSE IF H02029 IN (2,3,4,5,6,7,.,.A) AND (N12NMISS>0 AND N12MARK=0) THEN DO;
     H02029=1;
     N12=3;
     DO OVER NOTE12;
        IF NOTE12=. THEN NOTE12=.N;
        ELSE NOTE12=.C;
     END;
  END;
  ELSE IF H02029 IN (2,3,4,5,6,7) AND (N12NMISS=0 OR N12MARK>0) THEN N12=4;
  ELSE IF H02029=.  AND N12NMISS=0 THEN N12=5;
  ELSE IF H02029=.A AND N12NMISS=0 THEN DO;
     H02029=1;
     N12=6;
     DO OVER NOTE12;
        NOTE12=.N;
     END;
  END;

  DROP N12NMISS N12MARK;


/** Note 13 -- S02C06,S02C07,S02C08: decisions about healthcare **/

  ARRAY NOTE13 S02C07 S02C08;
  N13MARK=0;
  N13NMISS=0;

  DO OVER NOTE13;
     IF NOTE13 NE . THEN N13NMISS+1;
  END;

  DO OVER NOTE13;
     IF NOTE13 NOT IN (.N,.) THEN N13MARK+1;
  END;

  IF S02C06 IN (.N,.C) THEN N13=1;
  ELSE IF S02C06=1 AND (N13NMISS=0 OR N13MARK>0) THEN N13=2;
  ELSE IF S02C06 IN (1,.,.A) AND N13NMISS>0 AND N13MARK=0 THEN DO;
     S02C06=2;
     N13=3;
     DO OVER NOTE13;
        IF NOTE13=. THEN NOTE13=.N;
        ELSE NOTE13=.C;
     END;
  END;
  ELSE IF S02C06 IN (2,.,.A) AND N13MARK>0 THEN DO;
     S02C06=1;
     N13=4;
```

```
  END;
  ELSE IF S02C06=2 AND (N13NMISS=0 OR (N13NMISS>0 AND N13MARK=0)) THEN DO;
     N13=5;
     DO OVER NOTE13;
        IF NOTE13=. THEN NOTE13=.N;
        ELSE NOTE13=.C;
     END;
  END;
  ELSE IF S02C06=.  AND N13NMISS=0 THEN N13=6;
  ELSE IF S02C06=.A AND N13NMISS=0 THEN DO;
     S02C06=2;
     N13=7;
     DO OVER NOTE13;
        NOTE13=.N;
     END;
  END;

  DROP N13NMISS N13MARK;


/** Note14  -- S02C09, S02C10: special medical equipment **/

  IF S02C09=1 AND S02C10 IN (1,2,3,.,.A) THEN N14=1;
  ELSE IF S02C09 IN (1,.,.A) AND S02C10=.N THEN DO;
     S02C09=2;
     S02C10=.C;
     N14=2;
  END;
  ELSE IF S02C09 IN (2,.,.A) AND S02C10>0 THEN DO;
     S02C09=1;
     N14=3;
  END;
  ELSE IF S02C09=2 AND S02C10 IN (.N,.,.A) THEN DO;
     IF S02C10=. THEN S02C10=.N;
     ELSE S02C10=.C;
     N14=4;
  END;
  ELSE IF S02C09=. AND S02C10=.A THEN DO;
     S02C09=1;
     N14=5;
  END;
  ELSE IF S02C09=. AND S02C10=. THEN N14=6;
  ELSE IF S02C09=.A AND S02C10=.A THEN N14=7;
  ELSE IF S02C09=.A AND S02C10=. THEN DO;
     S02C09=2;
     S02C10=.N;
     N14=8;
  END;


/** Note15  -- S02C11, S02C12: special therapy **/

  IF S02C11=1 AND S02C12 IN (1,2,3,.,.A) THEN N15=1;
  ELSE IF S02C11 IN (1,.,.A) AND S02C12=.N THEN DO;
     S02C11=2;
     S02C12=.C;
     N15=2;
  END;
  ELSE IF S02C11 IN (2,.,.A) AND S02C12>0 THEN DO;
     S02C11=1;
     N15=3;
  END;
  ELSE IF S02C11=2 AND S02C12 IN (.N,.,.A) THEN DO;
     IF S02C12=. THEN S02C12=.N;
     ELSE S02C12=.C;
     N15=4;
  END;
  ELSE IF S02C11=. AND S02C12=.A THEN DO;
     S02C11=1;
     N15=5;
  END;
  ELSE IF S02C11=. AND S02C12=. THEN N15=6;
  ELSE IF S02C11=.A AND S02C12=.A THEN N15=7;
```

```
  ELSE IF S02C11=.A AND S02C12=. THEN DO;
     S02C11=2;
     S02C12=.N;
     N15=8;
  END;



/** Note16  -- S02C13, S02C14: home health care or assistance **/

  IF S02C13=1 AND S02C14 IN (1,2,3,.,.A) THEN N16=1;
  ELSE IF S02C13 IN (1,.,.A) AND S02C14=.N THEN DO;
     S02C13=2;
     S02C14=.C;
     N16=2;
  END;
  ELSE IF S02C13 in (2,.,.A) AND S02C14 IN (1,2,3) THEN DO;
     S02C13=1;
     N16=3;
  END;
  ELSE IF S02C13=2 AND S02C14 IN (.,.A,.N) THEN DO;
     IF S02C14=. THEN S02C14=.N;
     ELSE S02C14=.C;
     N16=4;
  END;
  ELSE IF S02C13=. AND S02C14=.A THEN DO;
     S02C13=1;
     N16=5;
  END;
  ELSE IF S02C13=.  AND S02C14=. THEN N16=6;
  ELSE IF S02C13=.A  AND S02C14=.A THEN N16=7;
  ELSE IF S02C13=.A AND S02C14=.         THEN DO;
     S02C13=2;
     S02C14=.N;
     N16=8;
  END;



/** Note 17 -- H02043, H02044-H02046: claims to health plan **/

  ARRAY NOTE17 H02044-H02046;
  N17MARK=0;
  N17NMISS=0;
  N17NDK=0;

  DO OVER NOTE17;
     IF NOTE17 NE . THEN N17NMISS+1;
     IF NOTE17 NOT IN (.N,.) THEN N17MARK+1;
     IF NOTE17 NOT IN (.,.D) THEN N17NDK+1;
  END;

  IF H02043=1 AND (N17NMISS=0 OR (N17MARK>0 and N17NDK>0) or N17NDK=0) THEN N17=1;
  ELSE IF H02043 IN (1,.D,.,.A) AND N17NMISS>0 AND N17MARK=0 THEN DO;
     N17=2;
     H02043=2;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H02043=.D AND N17MARK>0 AND N17NDK>0 THEN DO;
     N17=3;
     H02043=1;
  END;
  ELSE IF H02043=.D AND (N17NMISS=0 OR N17NDK=0) THEN DO;
     N17=4;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
```

```
  ELSE IF H02043 IN (2,.,.A) AND ((N17MARK>0 AND N17NDK>0) OR N17NMISS=0 OR N17NDK=0) THEN
DO;
     H02043=1;
     N17=5;
  END;
  ELSE IF H02043 IN (2,.D) AND (N17NMISS=0 OR (N17NMISS>0 AND N17MARK=0)) THEN DO;
     N17=6;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H02043=.  AND N17NMISS=0 THEN N17=7;
  ELSE IF H02043=.A AND N17NMISS=0 THEN DO;
     H02043=2;
     N17=8;
     DO OVER NOTE17;
        NOTE17=.N;
     END;
  END;

  DROP N17NMISS N17MARK N17NDK;


/** Note18  -- H02047, H02048: **/

  IF H02047=1 AND H02048 IN (1,2,3,.,.A) THEN N18=1;
  ELSE IF H02047 IN (1,.,.A) AND H02048=.N THEN DO;
     H02047=2;
     H02048=.C;
     N18=2;
  END;
  ELSE IF H02047 IN (2,.,.A) AND H02048 IN (1,2,3,.A) THEN DO;
     H02047=1;
     N18=3;
  END;
  ELSE IF H02047=2 AND H02048 IN (.N,.,.A) THEN DO;
     IF H02048=. THEN H02048=.N;
     ELSE H02048=.C;
     N18=4;
  END;
  ELSE IF H02047=. AND H02048=.A THEN DO;
     H02047=1;
     N18=5;
  END;
  ELSE IF H02047=. AND H02048=. THEN N18=6;
  ELSE IF H02047=.A AND H02048=.A THEN N18=7;
  ELSE IF H02047=.A AND H02048=. THEN DO;
     H02047=2;
     H02048=.N;
     N18=8;
  END;


/** Note19 -- H02049, H02050: health plan's customer service **/

  IF H02049=1 AND H02050 IN (1,2,3,.,.A) THEN N19=1;
  ELSE IF H02049 IN (1,.,.A) AND H02050=.N THEN DO;
     H02049=2;
     H02050=.C;
     N19=2;
  END;
  ELSE IF H02049 IN (2,.,.A) AND H02050 IN (1,2,3,.A) THEN DO;
     H02049=1;
     N19=3;
  END;
  ELSE IF H02049=2 AND H02050 IN (.N,.,.A) THEN DO;
     IF H02050=. THEN H02050=.N;
     ELSE H02050=.C;
     N19=4;
  END;
  ELSE IF H02049=. AND H02050=.A THEN DO;
     H02049=1;
```

```
     N19=5;
  END;
  ELSE IF H02049=. AND H02050=. THEN N19=6;
  ELSE IF H02049=.A AND H02050=.A THEN N19=7;
  ELSE IF H02049=.A AND H02050=. THEN DO;
     H02049=2;
     H02050=.N;
     N19=8;
  END;


/** Note 20 -- H02051, H02052, H02053:  complaint or problem  **/

  ARRAY NOTE20 H02052 H02053;
  N20MARK=0;
  N20NMISS=0;

  DO OVER NOTE20;
     IF NOTE20 NE . THEN N20NMISS+1;
     IF NOTE20 NOT IN (.N,.) THEN N20MARK+1;
  END;

  IF H02051=1 AND (N20NMISS=0 OR N20MARK>0) THEN N20=1;
  ELSE IF H02051 IN (1,.,.A) AND N20NMISS>0 AND N20MARK=0 THEN DO;
     H02051=2;
     N20=2;
     DO OVER NOTE20;
        IF NOTE20=. THEN NOTE20=.N;
        ELSE NOTE20=.C;
     END;
  END;
  ELSE IF H02051 IN (2,.,.A) AND N20MARK>0 THEN DO;
     H02051=1;
     N20=3;
  END;
  ELSE IF H02051=2 AND (N20NMISS=0 OR (N20NMISS>0 AND N20MARK=0)) THEN DO;
     N20=4;
     DO OVER NOTE20;
        IF NOTE20=. THEN NOTE20=.N;
        ELSE NOTE20=.C;
     END;
  END;
  ELSE IF H02051=.  AND N20NMISS=0 THEN N20=5;
  ELSE IF H02051=.A AND N20NMISS=0 THEN DO;
     H02051=2;
     N20=6;
     DO OVER NOTE20;
        NOTE20=.N;
     END;
  END;

  DROP N20NMISS N20MARK;

/** Note21  -- H02054, H02055: paperwork  **/

  IF H02054=1 AND H02055 IN (1,2,3,.,.A) THEN N21=1;
  ELSE IF H02054 IN (1,.,.A) AND H02055=.N THEN DO;
     H02054=2;
     H02055=.C;
     N21=2;
  END;
  ELSE IF H02054 IN (2,.,.A) AND H02055 IN (1,2,3,.A) THEN DO;
     H02054=1;
     N21=3;
  END;
  ELSE IF H02054=2 AND H02055 IN (.N,.)THEN DO;
     IF H02055=. THEN  H02055=.N;
     ELSE H02055=.C;
     N21=4;
  END;
  ELSE IF H02054=. AND H02055=.A THEN DO;
     H02054=1;
     N21=5;
```

```
  END;
  ELSE IF H02054=.  AND H02055=. THEN N21=6;
  ELSE IF H02054=.A AND H02055=. THEN DO;
     H02054=2;
     H02055=.N;
     N21=7;
  END;
  ELSE IF H02054=.A  AND H02055=.A THEN N21=8;

/** Note 24 -- smoking:  H02063 - H02066  **/

  IF H02063=1 and H02064 IN (3,4) THEN DO;  /* still smoke */
     IF H02065 NE . THEN DO;
        H02065=.C;
        N24=1;
     END;
     ELSE IF H02065=. THEN DO;
        H02065=.N;
        N24=2;
     END;
  END;
  ELSE IF H02063=1 AND H02064=2 THEN DO;         /* quit */
     IF H02065 IN (2,.D) AND H02066 NE . THEN DO;   /* > 1 year ago */
        H02066 =.C;
        N24=3;
     END;
     ELSE IF H02065 IN (2,.D) AND H02066=. THEN DO;
        H02066 =.N;
        N24=4;
     END;
     ELSE IF H02065 IN (3,.,.A) THEN N24=5;      /* < 1 year ago */
  END;
  ELSE IF H02063=1 AND H02064 IN (.D,.,.A) THEN DO;  /* don't know */
     IF H02065=2 AND H02066 NE . THEN DO;        /* > 1 year ago */
        H02064=2;
        H02066=.C;
        N24=6;
     END;
     ELSE IF H02065=2 AND H02066 = . THEN DO;
        H02064=2;
        H02066=.N;
        N24=7;
     END;
     ELSE IF H02065=3 THEN DO;            /* < 1 year ago */
        H02064=2;
        N24=8;
     END;
     ELSE IF H02065 IN (.D,.,.A) THEN N24=9;  /* don't know */
  END;
  ELSE IF H02063 IN (2,.D,.,.A) AND H02064 IN (3,4) THEN DO; /*never smoke*/
     IF H02065 NE . THEN DO;
        H02063=1;
        H02065=.C;
        N24=10;
     END;
     ELSE IF H02065=. THEN DO;
        H02063=1;
        H02065=.N;
        N24=11;
     END;
  END;
  ELSE IF H02063 IN (2,.D) AND H02064 IN (2,.D,.A) THEN DO; /*never smoke*/
     IF H02065 NE . AND H02066 NE . THEN DO;
        H02064 =.C;
        H02065 =.C;
        H02066 =.C;
        N24=12;
     END;
     ELSE IF H02065 NE . AND H02066=. THEN DO;
        H02064=.C;
        H02065=.C;
        H02066=.N;
        N24=13;
```

```
   END;
   ELSE IF H02065=. AND H02066 NE . THEN DO;
      H02064=.C;
      H02065=.N;
      H02066=.C;
      N24=14;
   END;
   ELSE IF H02065=. AND H02066=. THEN DO;
      H02064=.C;
      H02065=.N;
      H02066=.N;
      N24=15;
   END;
END;
ELSE IF H02063 IN (2,.D) AND H02064= . THEN DO; /*never smoke*/
   IF H02065 NE . AND H02066 NE . THEN DO;
      H02064=.N;
      H02065=.C;
      H02066=.C;
      N24=16;
   END;
   ELSE IF H02065 NE . AND H02066=. THEN DO;
      H02064=.N;
      H02065=.C;
      H02066=.N;
      N24=17;
   END;
   ELSE IF H02065=. AND H02066 NE . THEN DO;
      H02064=.N;
      H02065=.N;
      H02066=.C;
      N24=18;
   END;
   ELSE IF H02065=. AND H02066=. THEN DO;
      H02064=.N;
      H02065=.N;
      H02066=.N;
      N24=19;
   END;
END;
ELSE IF H02063 IN (.A, .) AND H02064 IN (2,.,.A) THEN DO; /*MRE/blank*/
   IF H02065=3 THEN DO;
      H02063=1;
      N24=20;
   END;
   ELSE IF H02065=2 AND H02066 NE . THEN DO;
      H02063 =1;
      H02066 =.C;
      N24=21;
   END;
   ELSE IF H02065=2 AND H02066=. THEN DO;
      H02063=1;
      H02066=.N;
      N24=22;
   END;
   ELSE IF H02065=.D AND H02066=. THEN DO;
      H02066=.N;
      N24=23;
   END;
   ELSE IF H02065=.D AND H02066 NE . THEN DO;
      H02066=.C;
      N24=24;
   END;
   ELSE IF H02065 IN (.,.A) AND H02066 IN (2,3,4,5) THEN DO;
      H02063=1;
      N24=25;
   END;
   ELSE IF H02065 IN (.,.A) AND H02066 IN (1,.,.A) THEN N24=26;
END;
ELSE IF H02063 IN (.A,.) AND H02064=.D THEN DO; /*MRE/blank*/
   IF H02065 NE . AND H02066 NE .  THEN DO;
      H02065=.C;
      H02066=.C;
```

```
      N24=27;
    END;
    ELSE IF H02065 NE . AND H02066=.  THEN DO;
      H02065=.C;
      H02066=.N;
      N24=28;
    END;
    IF H02065=. AND H02066=.  THEN DO;
      H02065=.N;
      H02066=.N;
      N24=29;
    END;
    ELSE IF H02065=. AND H02066 NE .  THEN DO;
      H02065=.N;
      H02066=.C;
      N24=30;
    END;
  END;

/** Note 25 - gender H02067, SEX, H02068, H02069--H02075, XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed MALE, FMALE based on gender specific questions */


  IF H02068 > 0 THEN MALE=1;     /* prostate */
  ELSE MALE = 0;
  IF H02069>0 OR H02070>0 OR H02071>0 OR H02072>0 OR H02073>0
    OR H02074>0 OR H02075>0  THEN FMALE=1; /* mammogram/pap smear/PREGNANT*/
  ELSE FMALE = 0;
  IF H02067=. OR H02067=.A THEN DO;
    IF (SEX='F' AND MALE AND FMALE) THEN DO;
      N25A=1;
      XSEXA=2;
    END;
    ELSE IF (SEX='F' AND MALE=0 AND FMALE=0) THEN DO;
      N25A=2;
      XSEXA=2;
    END;
    ELSE IF (SEX='M' AND MALE AND FMALE) THEN DO;
      N25A=3;
      XSEXA=1;
    END;
    ELSE IF (SEX='M' AND MALE=0 AND FMALE=0) THEN DO;
      N25A=4;
      XSEXA=1;
    END;
    ELSE IF MALE AND NOT FMALE THEN DO;
      N25A=5;
      XSEXA=1;
    END;
    ELSE IF FMALE AND NOT MALE THEN DO;
      N25A=6;
      XSEXA=2;
    END;
    ELSE IF (SEX='Z' AND MALE AND FMALE) THEN DO;
      N25A=7;
      XSEXA=.;
    END;
    ELSE IF (SEX='Z' AND MALE=0 AND FMALE=0) THEN DO;
      N25A=8;
      XSEXA=.;
    END;
  END;
  ELSE IF (H02067=1) THEN DO;
    IF MALE AND NOT FMALE THEN DO;
      N25A=9;
      XSEXA=1;
    END;
    ELSE IF NOT MALE AND FMALE THEN DO;
      IF SEX='F' THEN DO;
        N25A=10;
```

```
            XSEXA=2;
         END;
         ELSE DO;
            N25A=11;
            XSEXA=1;
         END;
      END;
      ELSE IF MALE AND FMALE THEN DO;
         N25A=12;
         XSEXA=1;
      END;
      ELSE IF MALE=0 AND FMALE=0 THEN DO;
         N25A=13;
         XSEXA=1;
      END;
   END;
   ELSE IF (H02067=2) THEN DO;
      IF NOT MALE AND FMALE THEN DO;
        N25A=14;
        XSEXA=2;
      END;
      ELSE IF MALE AND NOT FMALE THEN DO;
         IF SEX='M' THEN DO;
           N25A=15;
           XSEXA=1;
         END;
         ELSE DO;
            N25A=16;
            XSEXA=2;
         END;
      END;
      ELSE IF MALE AND FMALE THEN DO;
         N25A=17;
         XSEXA=2;
      END;
      ELSE IF MALE=0 AND FMALE=0 THEN DO;
         N25A=18;
         XSEXA=2;
      END;
   END;

/* Note 25b - gender vs prostate */

   IF XSEXA=1 THEN N25B=1;    /* male    */
   ELSE IF XSEXA=2 THEN DO;   /* female  */
      IF H02068 NE . THEN DO;
         N25B=2;
         H02068=.C;
      END;                    /*inconsistent resp */
      ELSE DO;
         N25B=3;
         H02068=.N;
      END;                    /* valid skip   */
   END;
   ELSE IF XSEXA=. THEN DO;   /*  missing sex */
      N25B=4;
      H02068=.;
   END;

/* Note 25c - gender vs mammogram/paps */
/*   REDEFINE FMALE TO LOOK ONLY AT MAMMOGRAM OR PAP SMEAR ENTRIES  */

   ARRAY NOTE25C H02069 H02070 H02071 H02072 H02073 H02074 H02075;

   IF H02069 NE . OR H02070 NE . OR H02071 NE . OR H02072 NE . OR
      H02073 NE . OR H02074 NE . OR H02075 NE . THEN FMALE=1; /* mammogram or pap smear */
   ELSE FMALE = 0;
   IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
         N25C=1;
         DO OVER NOTE25C;
            NOTE25C=.N;
         END;
```

```
      END; /* inconsistent response */
      ELSE IF FMALE=1 THEN DO;
         N25C=2;
         DO OVER NOTE25C;
            IF NOTE25C=. THEN NOTE25C = .N;
            ELSE NOTE25C=.C;
         END;
      END;   /* valid skip */
   END;
   ELSE IF XSEXA=2 THEN  N25C=3; /* female */
   ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
      N25C=4;
      DO OVER NOTE25C;
         NOTE25C=.;
      END;
   END;

   DROP MALE FMALE;

/* Note 26 - breast exam for female 40 or over  */
/* Note 1999 -- no self reported age variable  */
/* Note no dob variable  -- macro not used     */

   IF XSEXA=1 THEN DO;  /* male */
      IF  (H02070=.C OR H02070=.N) AND (H02071=.C OR H02071=.N)
      AND (H02072=.C OR H02072=.N)  THEN N26 = 1;
   END;
   ELSE IF XSEXA=2 THEN DO;
      IF H02070=2 THEN N26=2;         /* female 40 or over */
      ELSE IF H02070=1 THEN DO;   /* female < 40 */
         IF H02071 NE . THEN H02071=.C;
         ELSE H02071=.N;
         IF H02072 NE . THEN H02072=.C;
         ELSE H02072=.N;
         N26=3;
      END;
      ELSE IF H02070=.A THEN DO;
         IF H02071 NE . OR H02072 NE . THEN DO;
            H02070=2;
            N26=4;
         END;
         ELSE IF H02071=. AND H02072=. THEN DO;
            H02070=1;
            H02071=.N;
            H02072=.N;
            N26=5;
         END;
      END;
      ELSE IF H02070=. THEN DO;
         IF H02071 NE . OR H02072 NE . THEN DO;
            H02070=2;
            N26=6;
         END;
         ELSE IF H02071=. AND H02072=. THEN DO;
            IF AGE<40 THEN DO;
               H02070 = 1;
               H02071=.N;
               H02072=.N;
               N26=7;
            END;
            ELSE IF AGE >= 40 THEN DO;
               H02070=1;
               H02071=.N;
               H02072=.N;
               N26=8;
            END;
            ELSE IF AGE=. THEN N26=9;
         END;
      END;
   END;
   ELSE IF XSEXA=. THEN N26=10;

/* Note 27 - gender vs Pregnancy */
```

```
  IF XSEXA=1 THEN N27=1;          /* male     */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H02073=1 THEN N27=2;      /* pregnant */
     ELSE IF H02073=2 THEN DO;
        IF H02074=. THEN H02074 = .N;
        ELSE H02074=.C;
        N27=3;
     END;
     ELSE IF H02073=3 THEN DO;
        IF H02074=. THEN H02074 = .N;
        ELSE H02074=.C;
        IF H02075=. THEN H02075=.N;
        ELSE H02075=.C;
        N27=4;
     END;
     ELSE IF H02073 IN (., .A) THEN DO;
        IF H02074 NE . THEN DO;
           H02073=1;
           N27=5;
        END;
        ELSE IF H02074=. THEN DO;
           IF H02073=. THEN N27=6;
           ELSE IF H02073=.A THEN DO;
              H02073=3;
              H02074=.N;
              IF H02075=. THEN H02075=.N;
              ELSE H02075=.C;
              N27=7;
           END;
        END;

     END;
  END;
  ELSE IF XSEXA=. AND H02073 IN (.,.A) THEN N27=8;


/** Note 28 -- S02C20,S02C21,S02C22: Physical/Mental Conditions **/

  ARRAY NOTE28 S02C21 S02C22;
  N28MARK=0;
  N28NMISS=0;

  DO OVER NOTE28;
     IF NOTE28 NE . THEN N28NMISS+1;
  END;

  DO OVER NOTE28;
     IF NOTE28 NOT IN (.N,.) THEN N28MARK+1;
  END;

  IF S02C20=1 AND (N28NMISS=0 OR N28MARK>0) THEN N28=1;
  ELSE IF S02C20 IN (1,.,.A) AND N28NMISS>0 AND N28MARK=0 THEN DO;
     S02C20=2;
     N28=2;
     DO OVER NOTE28;
        IF NOTE28=. THEN NOTE28=.N;
        ELSE NOTE28=.C;
     END;
  END;
  ELSE IF S02C20 IN (2,.,.A) AND N28MARK>0 THEN DO;
     S02C20=1;
     N28=3;
  END;
  ELSE IF S02C20=2 AND (N28NMISS=0 OR (N28NMISS>0 AND N28MARK=0)) THEN DO;
     N28=4;
     DO OVER NOTE28;
        IF NOTE28=. THEN NOTE28=.N;
        ELSE NOTE28=.C;
     END;
  END;
  ELSE IF S02C20=.  AND N28NMISS=0 THEN N28=5;
  ELSE IF S02C20=.A AND N28NMISS=0 THEN DO;
```

```
     S02C20=2;
     N28=6;
     DO OVER NOTE28;
        NOTE28=.N;
     END;
  END;

 DROP N28NMISS N28MARK;


/** Note 29 -- S02E01, S02E02-S02E09: Eyewear Supplement **/

  ARRAY NOTE29 S02E02-S02E09;
  N29MARK=0;
  N29NMISS=0;


  DO OVER NOTE29;
     IF NOTE29 NE . THEN N29NMISS+1;
     IF NOTE29 NOT IN (.N,.) THEN N29MARK+1;
  END;

  IF S02E01=1 AND (N29NMISS=0 OR N29MARK>0) THEN N29=1;
  ELSE IF S02E01 IN (1,.,.A) AND N29NMISS>0 AND N29MARK=0 THEN DO;
     N29=2;
     S02E01=2;
     DO OVER NOTE29;
        IF NOTE29=. THEN NOTE29=.N;
        ELSE NOTE29=.C;
     END;
  END;
  ELSE IF S02E01 IN (2,.,.A) AND N29MARK>0 THEN DO;
     S02E01=1;
     N29=3;
  END;
  ELSE IF S02E01=2 AND (N29NMISS=0 OR (N29NMISS>0 AND N29MARK=0)) THEN DO;
     N29=4;
     DO OVER NOTE29;
        IF NOTE29=. THEN NOTE29=.N;
        ELSE NOTE29=.C;
     END;
  END;
  ELSE IF S02E01=.  AND N29NMISS=0 THEN N29=5;
  ELSE IF S02E01=.A AND N29NMISS=0 THEN DO;
     S02E01=2;
     N29=6;
     DO OVER NOTE29;
        NOTE29=.N;
     END;
  END;

  DROP N29NMISS N29MARK;


/** Note30  -- S02E06, S02E07: Personal doctor or nurse **/

  IF S02E06 in (.N, .C) and S02E07 in (.N, .C) then N30=1;
  ELSE IF S02E06 in (1, ., .A) AND S02E07 IN (1,2,.,.A) THEN N30=2;
  ELSE IF S02E06 in (2,.N,.,.A) THEN DO;
     IF S02E07=. THEN S02E07=.N;
     ELSE S02E07=.C;
     N30=3;
  END;
  ELSE IF S02E06=.  AND S02E07=.A THEN DO;
     S02E06=1;
     N30=4;
  END;
  ELSE IF S02E06=.  AND S02E07=.  THEN N30=5;
  ELSE IF S02E06=.A AND S02E07=.A THEN N30=6;
  ELSE IF S02E06=.A AND S02E07=.  THEN DO;
     S02E06=2;
     N30=7;
```

```
     S02E07=.N;
  END;


NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

****************************************;

 OUTPUT;

RUN;


PROC FORMAT;
   VALUE GRID
     0='0'
     1-9999='>=1' ;
   VALUE $GRIDB
     1-5 = '1-5' ;
   VALUE $AGE
     018-039='<40'
     040-120='>=40';
   VALUE SCALE
     0-10='0-10';
   VALUE MARK
     1-6='Marked' ;
   VALUE MARKB
     2-7='Marked';

   VALUE MARKC
    1='1'
   2-HIGH='>1';

RUN;

proc contents data=out.cschm02q;
run;
```

C. Q3 CSCHM02Q.SAS

```
*****************************************************************
*
*  PROGRAM:  CSCHM02C.SAS
*  PURPOSE:  APPLY CODING SCHEME TO DATA.
*  WRITTEN:  09/04/01 Rankin
* MODIFIED:  10/23/2001 C.Rankin recoded select variables
*                       to 1=marked, 2=missing
* PREVIOUS PROGRAM: MERGNRCC.SAS
*
*    INPUT: MERGNRCC.SD2
*   OUTPUT: CSCHM02C.SD2
*
*****************************************************************;

OPTIONS /*OBS=100*/ PS=79 LS=132 PAGENO=1;

LIBNAME LIBRARY V612 '..\..\DATA\CFINAL\FMTLIB';
LIBNAME IN      V612 '..\..\DATA\CFINAL';
LIBNAME OUT     V612 '..\..\DATA\CFINAL';
LIBNAME OLD     V612 '..\..\DATA\CFINAL\OLD';


%LET INDATA=MERGNRCC;
%LET OUTDATA=CSCHM02C;


/* Vairable names in survey -- become recoded varibles               */
/* Note: Includes questions from both versions of the questionnaire  */

%Let varlist1 =

C02001  C02002  C02003  C02004A C02004B C02004C C02004D C02004E C02004F
C02004G C02005  C02006  C02007  C02008  C02009
C02010  C02011  C02012  C02013  C02014  C02015  C02016  C02017  C02018
C02019  C02020  C02021  C02022  C02023  C02024  C02025  C02026  C02027
C02028  C02029  C02030  C02031  C02032  C02033  C02034  C02035  C02036
C02037  C02038  C02039  C02040  C02041  C02042  C02043  C02044  C02045
C02046  C02047  C02048  C02049  C02050  C02051  C02052  C02053  C02054
C02055  C02056  C02057  C02058  C02059  C02060  C02061  C02062  C02063
C02064  C02065  C02066  C02067  C02068  C02069  C02070  C02071  C02072
C02073  C02074  C02075  C02076  C02077  C02078  C02079  C02080  C02081A
C02081B C02081C C02081D C02081E C02082  C02083  C02084  C02085;

/*  _O variables are the original values from the survey response */

%Let varlist2 =

C02001_O C02002_O C02003_O C02004AO C02004BO C02004CO C02004DO C02004EO C02004FO
C02004GO C02005_O C02006_O C02007_O C02008_O C02009_O
C02010_O C02011_O C02012_O C02013_O C02014_O C02015_O C02016_O C02017_O C02018_O
C02019_O C02020_O C02021_O C02022_O C02023_O C02024_O C02025_O C02026_O C02027_O
C02028_O C02029_O C02030_O C02031_O C02032_O C02033_O C02034_O C02035_O C02036_O
C02037_O C02038_O C02039_O C02040_O C02041_O C02042_O C02043_O C02044_O C02045_O
C02046_O C02047_O C02048_O C02049_O C02050_O C02051_O C02052_O C02053_O C02054_O
C02055_O C02056_O C02057_O C02058_O C02059_O C02060_O C02061_O C02062_O C02063_O
C02064_O C02065_O C02066_O C02067_O C02068_O C02069_O C02070_O C02071_O C02072_O
C02073_O C02074_O C02075_O C02076_O C02077_O C02078_O C02079_O C02080_O C02081AO
C02081BO C02081CO C02081DO C02081EO C02082_O C02083_O C02084_O C02085_O;

TITLE 'DoD 2002 Child Survey';
TITLE2 'Apply Coding Scheme';

DATA OUT.&OUTDATA;

  %INCLUDE "CSCHM02C.FMT"; /* label and format statements */

  SET IN.&INDATA;


  ARRAY RECODE &VARLIST1;
  ARRAY ORIG &VARLIST2;
```

```
  DO I = 1 to DIM(ORIG);
     ORIG(I) = RECODE(I);
     IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
          ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
          ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
          ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
          ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
          ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
          ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
          ELSE RECODE(I)=RECODE(I);
     END;
  END;
  DROP I;

  /* create C02004H and C02004I from C02004HI */
  /* because NRC did not provide C02004H and C02004I */
  /** First set up new variables that capture the original values */


  IF C02004HI = -5 THEN C02004H=1;
  ELSE C02004H=2;

  IF C02004HI = -6 THEN C02004I=1;
  ELSE C02004I=2;

  DROP C02004HI;


  /* recode selected responses to be 1=marked, 2=unmarked */
  /* Added C. Rankin 10/23/2001                           */

  ARRAY   MARKED(*) C02004A  C02004B  C02004C  C02004D C02004E C02004F
                    C02004G
                    C02081A  C02081B  C02081C  C02081D C02081E;
  ARRAY INFORMAT(*) C02004AO C02004BO C02004CO C02004DO C02004EO C02004FO
                    C02004GO
                    C02081AO C02081BO C02081CO  C02081DO C02081EO;

  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  /*  skip coding scheme for all surveys not returned  **/

  IF FLAG_FIN NE '1' THEN GOTO NOSURVEY;


/* NOTE 2: C02005, C02006--C02008: Personal doctor or nurse*/

  ARRAY NOTE2 C02006 C02007 C02008;
  N2NMISS=0;
  N2MARK=0;
  DO OVER NOTE2;
     IF NOTE2 NE . THEN N2NMISS+1;
     IF NOTE2 NOT IN (.,.N) THEN N2MARK+1;
  END;

       IF C02005=1 AND (N2MARK >0 OR N2NMISS=0) THEN N2=1;
  ELSE IF C02005 IN (1,.,.A) AND (N2NMISS>0 AND N2MARK=0) THEN DO;
     N2=2;
     C02005=2;
     DO OVER NOTE2;
        IF NOTE2=. THEN NOTE2=.N;
        ELSE NOTE2=.C;
     END;
  END;
  ELSE IF C02005 IN (2,.,.A) AND N2MARK>0 THEN DO;
     N2=3;
     C02005=1;
  END;
```

```
  ELSE IF C02005=2 AND (N2NMISS=0 OR N2MARK=0) THEN DO;
     N2=4;
     DO OVER NOTE2;
        IF NOTE2=. THEN NOTE2=.N;
        ELSE NOTE2=.C;
     END;
  END;
  ELSE IF C02005=.  AND N2NMISS=0 THEN N2=5;
  ELSE IF C02005=.A AND N2NMISS=0 THEN DO;
     N2=6;
     C02005=2;
     DO OVER NOTE2;
        NOTE2=.N;
     END;
  END;
  DROP N2MARK N2NMISS;


/* NOTE 3: C02009, C02010-C02012: Primary Care Manager */
  ARRAY NOTE3 C02010-C02012;
  N3MARK=0;
  N3NMISS=0;

  DO OVER NOTE3;
     IF NOTE3 NE . THEN N3NMISS+1 ;
     IF NOTE3 NOT IN (.N, .) THEN N3MARK+1;
  END;

       IF C02009=1 AND N3NMISS=0 THEN N3=1;
  ELSE IF C02009 IN (1,.A,.) AND N3MARK > 0 THEN DO;
     C02009=1;
     N3=2;
  END;
  ELSE IF C02009 IN (1,.A,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
     C02009=2;
     N3=3;
     DO OVER NOTE3;
        IF NOTE3= . THEN NOTE3 = .N;
        ELSE NOTE3= .C;
     END;
  END;
  ELSE IF C02009 IN (2,.D,.N) AND N3NMISS=0 THEN DO;
     N3=4;
     DO OVER NOTE3;
        NOTE3 = .N;
     END;
  END;
  ELSE IF C02009 IN (2,.D,.N) AND N3MARK>0 THEN DO;
     N3=5;
     C02009=1;
  END;
  ELSE IF C02009 IN (2,.D,.N) AND N3NMISS>0 AND N3MARK=0 THEN DO;
     N3=6;
     C02009=2;
     DO OVER NOTE3;
        IF NOTE3=. THEN NOTE3=.N;
        ELSE NOTE3=.C;
     END;
  END;
  ELSE IF C02009=.A AND N3NMISS=0 THEN DO;
     N3=7;
     C02009=.D;
     DO OVER NOTE3;
        IF NOTE3=. THEN NOTE3=.N;
        ELSE NOTE3=.C;
     END;
  END;
  ELSE IF C02009=. AND N3NMISS=0 THEN N3=8;

  DROP N3MARK N3NMISS;

/*NOTE 4 C02013, C02014-C02017: Specialist */
```

```
ARRAY Note4 C02014-C02017;
N4MARK=0;
N4NMISS=0;

DO OVER Note4;
   IF Note4 NE . THEN N4NMISS+1 ;
   IF Note4 NOT  IN (.N,.) THEN N4MARK+1;
END;

IF C02015 IN (2, .) AND N4MARK> 0 THEN
N4MARK=N4MARK-1;

     IF C02013=1 AND (N4MARK>0 OR N4NMISS=0) THEN N4=1;
ELSE IF C02013 IN (1,.,.A) AND (N4NMISS> 0 AND N4MARK=0 AND
C02015 IN (2, .)) THEN DO;
   N4=2;
   C02013=2;
   DO OVER Note4;
      IF   Note4=.  THEN Note4=.N;
      ELSE Note4=.C;
   END;
END;
ELSE IF C02013 IN (2,.,.A) AND N4MARK>0 THEN DO;
   C02013=1;
   N4=3;
END;
ELSE IF C02013=2 AND (N4NMISS=0 OR (N4NMISS> 0 AND N4MARK=0 AND
C02015 IN (2, .))) THEN DO;
   N4=4;
   DO OVER Note4;
      IF Note4=. THEN Note4=.N;
      ELSE Note4=.C;
   END;
END;
ELSE IF C02013=.  AND N4NMISS=0 THEN N4=5;
ELSE IF C02013=.A AND N4NMISS=0 THEN DO;
   N4=6;
   C02013=2;
   DO OVER Note4;
      Note4=.N;
   END;
END;

DROP N4MARK N4NMISS;

/** Note 5 -- call during regular office hours:  C02018, C02019 **/

IF C02018 = 1 AND (C02019 GE 1 OR C02019 IN (., .A)) THEN N5=1;
ELSE IF C02018 IN (1,.,.A) AND C02019=.N THEN DO;
   N5=2;
   C02018=2;
   C02019=.C;
END;
ELSE IF C02018 IN (2,.,.A) AND (C02019 GE 1 OR C02019=.A) THEN DO;
   N5=3;
   C02018=1;
END;
ELSE IF C02018=2 AND C02019 IN (.N,.) THEN DO;
   N5=4;
   IF C02019=. THEN C02019=.N;
END;
ELSE IF C02018=.  AND C02019=. THEN N5=5;
ELSE IF C02018=.A AND C02019=. THEN DO;
   N5=6;
   C02018=2;
   C02019=.N;
END;

/** Note 6 -- regular or routine health care: C02020 - C02022 **/

ARRAY NOTE6 C02021 C02022;

N6NMISS=0;
```

```
N6MARK=0;

DO OVER NOTE6;
   IF NOTE6 NE . THEN N6NMISS+1;
   IF NOTE6 NOT IN (., .N) THEN N6MARK+1;
END;

IF C02020=1 AND (N6NMISS=0 OR N6MARK>0) THEN N6=1;
ELSE IF C02020 IN (1,.,.A) AND N6NMISS> 0 AND N6MARK=0 THEN DO;
   N6=2;
   C02020=2;
   DO OVER NOTE6;
      IF NOTE6=. THEN NOTE6=.N;
      ELSE NOTE6=.C;
   END;
END;
ELSE IF C02020 IN (2,.,.A) AND N6MARK>0 THEN DO;
   N6=3;
   C02020=1;
END;
ELSE IF C02020=2 AND (N6NMISS=0 OR (N6NMISS>0 AND N6MARK=0)) THEN DO;
   N6=4;
   DO OVER NOTE6;
      IF NOTE6 =.  THEN NOTE6=.N;
      ELSE NOTE6=.C;
   END;
END;
ELSE IF C02020=.  AND N6NMISS= 0 THEN N6=5;
ELSE IF C02020=.A AND N6NMISS= 0 THEN DO;
   N6=6;
   C02020 = 2;
   DO OVER NOTE6;
      NOTE6=.N;
   END;
END;

DROP N6NMISS N6MARK;

/** Note 7 - immediate care: C02023 -- C02025         **/

ARRAY NOTE7 C02024 C02025;

N7NMISS=0;
N7MARK=0;

DO OVER NOTE7;
   IF NOTE7 NE . THEN N7NMISS+1;
   IF NOTE7 NOT IN (., .N) THEN N7MARK+1;
END;

     IF C02023=1  AND (N7NMISS=0 OR N7MARK>0) THEN N7=1;
ELSE IF C02023 IN (1,.,.A) AND N7MARK=0 AND N7NMISS>0 THEN DO;
   N7=2;
   C02023=2;
   DO OVER NOTE7;
      IF NOTE7=. THEN NOTE7=.N;
      ELSE NOTE7=.C;
   END;
END;
ELSE IF C02023 IN (2,.,.A) AND N7MARK>0 THEN DO;
   N7=3;
   C02023=1;
END;
ELSE IF C02023=2 AND (N7NMISS=0 OR (N7NMISS>0 AND N7MARK=0))THEN DO;
   N7=4;
   DO OVER NOTE7;
      IF NOTE7=. THEN NOTE7=.N;
      ELSE NOTE7=.C;
   END;
END;
ELSE IF C02023=.  AND N7NMISS= 0 THEN N7=5;
ELSE IF C02023=.A AND N7NMISS= 0 THEN DO;
   N7=6;
```

```
   C02023=2;
   DO OVER NOTE7;
      NOTE7=.N;
   END;
END;

DROP N7NMISS N7MARK;

/**  Note 8 - well-patient care:  C02026 - C02028      **/

ARRAY NOTE8 C02027 C02028;

N8NMISS=0;
N8MARK=0;

DO OVER NOTE8;
   IF NOTE8 NE . THEN N8NMISS+1;
   IF NOTE8 NOT IN (.,.N) THEN N8MARK+1;
END;

IF C02026=1 AND (N8NMISS=0 OR N8MARK>0) THEN N8=1;
ELSE IF C02026 IN (1,.,.A) AND N8MARK=0 AND N8NMISS>0 THEN DO;
   N8=2;
   C02026=2;
   DO OVER NOTE8;
      IF NOTE8=. THEN NOTE8=.N;
      ELSE NOTE8=.C;
   END;
END;
ELSE IF C02026 IN (2,.,.A) AND N8MARK>0 THEN DO;
   N8=3;
   C02026=1;
END;
ELSE IF C02026=2 AND (N8NMISS=0 OR (N8NMISS>0 AND N8MARK=0)) THEN DO;
   N8=4;
   DO OVER NOTE8;
      IF NOTE8=. THEN NOTE8=.N;
      ELSE NOTE8=.C;
   END;
END;
ELSE IF C02026=.  AND N8NMISS=0 THEN N8=5;
ELSE IF C02026=.A AND N8NMISS=0 THEN DO;
   C02026=2;
   N8=6;
   DO OVER NOTE8;
      NOTE8=.N;
   END;
END;

DROP N8NMISS N8MARK;

/** Note 9 - doctor's office or clinic:  C02030 -- C02042 **/

ARRAY N0TE9  C02031-C02042;
ARRAY N0TE9A C02031-C02038 C02040-C02042;

N9NMISS=0;
N9MARK=0;

DO OVER N0TE9;
   IF  N0TE9 NE . THEN N9NMISS+1;
END;

DO OVER N0TE9A;
   IF N0TE9A NOT IN (., .N) THEN N9MARK+1;
END;

IF C02030=1 AND (N9NMISS=0 OR (N9NMISS>0 AND N9MARK=0)) THEN DO;
   N9=1;
   DO OVER N0TE9;
      IF N0TE9=. THEN N0TE9=.N;
      ELSE N0TE9=.C;
   END;
```

```
END;
ELSE IF C02030 IN (1,.,.A) AND N9MARK>0 THEN N9=2;
ELSE IF C02030 GE 2 AND (N9NMISS=0 OR (N9MARK>0)) THEN N9=3;
ELSE IF (C02030 GE 2 OR C02030 IN (.,.A)) AND (N9NMISS>0 AND N9MARK=0)
THEN DO;
   N9=4;
   C02030 = 1;
   DO OVER N0TE9;
      IF N0TE9=. THEN N0TE9=.N;
      ELSE N0TE9=.C;
   END;
END;
ELSE IF C02030=.  AND N9NMISS=0 THEN N9=5;
ELSE IF C02030=.A AND N9NMISS=0 THEN DO;
   N9=6;
   C02030=1;
   DO OVER N0TE9;
      N0TE9 = .N;
   END;
END;

DROP N9NMISS N9MARK;

/** NOTE10 - old enough to talk with doctors: C02039, C02040  **/
IF C02039 IN (.C,.N) AND C02040 IN (.C,.N) THEN N10=1;
ELSE IF C02039=1 AND C02040=.  THEN N10=2;
ELSE IF C02039=1 AND C02040=.N THEN DO;
   C02039=.C;
   C02040=.C;
   N10=3;
END;
ELSE IF C02039 IN (1,.,.A) AND (C02040 GE 1 OR C02040 IN (.A,.D))
THEN DO;
   N10=4;
   C02039=1;
END;
ELSE IF C02039 IN (.,.A) AND C02040=.N THEN DO;
   N10=5;
   C02039=2;
   C02040=.C;
END;
ELSE IF C02039=2 AND (C02040 GE 1 OR C02040 IN (.A, .D)) THEN DO;
   N10=6;
   C02039=1;
END;
ELSE IF C02039=2 AND (C02040=.N OR C02040=.) THEN DO;
   N10=7;
   IF C02040=. THEN C02040=.N;
   ELSE C02040=.C;
END;
ELSE IF C02039=.  AND C02040=. THEN N10=8;
ELSE IF C02039=.A AND C02040=. THEN DO;
   N10=9;
   C02039=2;
   C02040=.N;
END;


/** Note 11 - send in any claims:  C02044 - C02047    **/

ARRAY NOTE11 C02045 - C02047;

N11NMISS=0;
N11NOTNA=0;
N11MARK=0;

DO OVER NOTE11;
   IF NOTE11 NE . THEN N11NMISS+1;
   IF NOTE11 NE .N THEN N11NOTNA+1;
   IF NOTE11 NOT IN (., .N) THEN N11MARK+1;
END;

IF C02044=1 AND (N11NMISS=0 OR N11MARK >0) THEN N11 =1;
```

```
ELSE IF C02044 IN (1,.N,.,.A) AND (N11NOTNA=0 or (N11MARK=0 AND N11NMISS>0)) THEN DO;
   N11=2;
   C02044=2;
   DO OVER NOTE11;
      IF NOTE11=. THEN NOTE11=.N;
      ELSE NOTE11=.C;
   END;
END;
ELSE IF C02044 IN (2,.N,.A,.) AND N11MARK>0 THEN DO;
   C02044=1;
   N11=3;
END;
ELSE IF C02044=2 AND (N11NMISS=0 OR (N11MARK=0 AND N11NMISS>0))
THEN DO;
   N11=4;
   DO OVER NOTE11;
      IF NOTE11=. THEN NOTE11=.N;
      ELSE NOTE11=.C;
   END;
END;
ELSE IF C02044=2 AND N11NOTNA=0 THEN DO;
   N11=5;
   DO OVER NOTE11;
      NOTE11=.C;
   END;
END;
ELSE IF C02044=.  AND N11NMISS=0 THEN N11=6;
ELSE IF C02044=.A AND N11NMISS=0 THEN DO;
   N11=7;
   C02044=2;
   DO OVER NOTE11;
      NOTE11=.N;
   END;
END;
ELSE IF C02044=.N and N11NMISS=0 THEN DO;
   N11=8;
   DO OVER NOTE11;
      NOTE11=.N;
   END;
END;

DROP N11NMISS N11NOTNA N11MARK;

/** Note 12 - written materials: C02048, C02049       **/

IF C02048=1 AND C02049 IN (1,2,3,.,.A) THEN N12=1;
ELSE IF C02048 IN (1,.,.A) AND C02049=.N THEN DO;
   N12=2;
   C02048=2;
   C02049=.C;
END;
ELSE IF C02048 IN (2,.,.A) AND C02049 IN (1,2,3,.A) THEN DO;
   C02048=1;
   N12=3;
END;
ELSE IF C02048=2 AND C02049 IN (., .N) THEN DO;
   N12=4;
   IF C02049=. THEN C02049=.N;
   ELSE C02049=.C;
END;
ELSE IF C02048=.  AND C02049= . THEN N12=5;
ELSE IF C02048=.A AND C02049= . THEN DO;
   N12=6;
   C02048=2;
   C02049=.N;
END;

/** Note 13 - customer service:  C02050, C02051    **/

IF C02050=1 AND C02051 IN (1,2,3,.,.A) THEN N13=1;
ELSE IF C02050 IN (1,.,.A) AND C02051=.N THEN DO;
   N13=2;
   C02050=2;
```

```
      C02051=.C;
   END;
   ELSE IF C02050 IN (2,.,.A) AND C02051 IN (1,2,3,.A) THEN DO;
      N13=3;
      C02050=1;
   END;
   ELSE IF C02050=2 AND C02051 IN (.,.N) THEN DO;
      N13=4;
      IF C02051=. THEN C02051=.N;
      ELSE C02051 =.C;
   END;
   ELSE IF C02050=.  AND C02051=. THEN N13=5;
   ELSE IF C02050=.A AND C02051=. THEN DO;
      N13=6;
      C02050=2;
      C02051=.N;
   END;

/* NOTE 14 C02052, C02053-C02054: Complaint or Problem*/

   ARRAY NOTE14 C02053 C02054;

   N14NMISS=0;
   N14MARK=0;

   DO OVER NOTE14;
      IF NOTE14 NE . THEN N14NMISS+1;
      IF NOTE14 NOT IN (., .N) THEN N14MARK+1;
   END;

   IF C02052=1 AND (N14NMISS=0 OR N14MARK>0) THEN N14=1;
   ELSE IF C02052 IN (1, ., .A) AND (N14NMISS>0 AND N14MARK=0) THEN DO;
      N14=2;
      C02052=2;
      DO OVER NOTE14;
         IF NOTE14=. THEN NOTE14=.N;
         ELSE NOTE14=.C;
      END;
   END;
   ELSE IF C02052 IN (2,.,.A) AND N14MARK>0 THEN DO;
      N14=3;
      C02052=1;
   END;
   ELSE IF C02052=2 AND (N14NMISS=0 OR (N14NMISS>0 AND N14MARK=0)) THEN DO;
      N14=4;
      DO OVER NOTE14;
         IF NOTE14=. THEN NOTE14=.N;
         ELSE NOTE14=.C;
      END;
   END;
   ELSE IF C02052=. AND N14NMISS=0 THEN N14=5;
   ELSE IF C02052=.A AND N14NMISS=0 THEN DO;
      N14=6;
      C02052=2;
      DO OVER NOTE14;
         NOTE14=.N;
      END;
   END;

   DROP N14NMISS N14MARK;
;


   /** Note 15 - paperwork:  C02055, C02056     **/

   IF C02055=1 AND C02056 IN (1,2,3,.,.A) THEN N15=1;
   ELSE IF C02055 IN (1,.,.A) AND C02056=.N THEN DO;
      N15=2;
      C02055=2;
      C02056=.C;
   END;
   ELSE IF C02055 IN (2,.,.A) AND C02056 IN (1,2,3,.A) THEN DO;
      N15=3;
```

```
   C02055=1;
  END;
  ELSE IF C02055=2 AND C02056 IN (.N,.) THEN DO;
     N15=4;
     IF C02056=. THEN C02056=.N;
     ELSE C02056=.C;
  END;
  ELSE IF C02055=.  AND C02056=. THEN N15=5;
  ELSE IF C02055=.A AND C02056=. THEN DO;
     N15=6;
     C02055=2;
     C02056=.N;
  END;

/* NOTE 16 C02063, C02064-C02065: Medicine prescribed by doctor*/

  ARRAY NOTE16 C02064 C02065;

  N16NMISS=0;
  N16YES=0;

  DO OVER NOTE16;
     IF NOTE16 NE . THEN N16NMISS+1;
     IF NOTE16=1 THEN N16YES+1;
  END;

  IF C02063=1 AND N16NMISS=0 THEN N16=1;
  ELSE IF C02063 IN (1,.,.A) AND (N16NMISS>0 or N16YES=0) THEN DO;
     N16=2;
     C02063=1;
  END;
  ELSE IF C02063=2 AND N16YES>0 THEN DO;
     N16=3;
     C02063=1;
  END;
  ELSE IF C02063=2 AND (N16NMISS>0 or N16YES=0) THEN DO;
     N16=4;
     DO OVER NOTE16;
        IF NOTE16=. THEN NOTE16=.N;
        ELSE NOTE16=.C;
     END;
  END;
  ELSE IF C02063=.  AND N16NMISS=0 THEN N16=5;
  ELSE IF C02063=.A AND N16NMISS=0 THEN DO;
     N16=6;
     C02063=2;
     DO OVER NOTE16;
        NOTE16=.N;
     END;
  END;

  DROP N16NMISS N16YES;


/* NOTE 17 C02066, C02067-C02068: Medical, health, education service*/

  ARRAY NOTE17 C02067 C02068;

  N17NMISS=0;
  N17YES=0;

  DO OVER NOTE17;
     IF NOTE17 NE . THEN N17NMISS+1;
     IF NOTE17=1 THEN N17YES+1;
  END;

  IF C02066=1 AND N17NMISS=0 THEN N17=1;
  ELSE IF C02066 IN (1,.,.A) AND (N17NMISS>0 or N17YES=0) THEN DO;
     N17=2;
     C02066=1;
  END;
  ELSE IF C02066=2 AND N17YES>0 THEN DO;
     N17=3;
```

```
     C02066=1;
  END;
  ELSE IF C02066=2 AND (N17NMISS>0 or N17YES=0) THEN DO;
     N17=4;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF C02066=.  AND N17NMISS=0 THEN N17=5;
  ELSE IF C02066=.A AND N17NMISS=0 THEN DO;
     N17=6;
     C02066=2;
     DO OVER NOTE17;
        NOTE17=.N;
     END;
  END;

  DROP N17NMISS N17YES;


/* NOTE 18 C02069, C02070-C02071: Child limited or prevented*/

  ARRAY NOTE18 C02070 C02071;

  N18NMISS=0;
  N18YES=0;

  DO OVER NOTE18;
     IF NOTE18 NE . THEN N18NMISS+1;
     IF NOTE18=1 THEN N18YES+1;
  END;

  IF C02069=1 AND N18NMISS=0 THEN N18=1;
  ELSE IF C02069 IN (1,.,.A) AND (N18NMISS>0 OR N18YES=0) THEN DO;
     N18=2;
     C02069=1;
  END;
  ELSE IF C02069=2 AND N18YES>0 THEN DO;
     N18=3;
     C02069=1;
  END;
  ELSE IF C02069=2 AND (N18NMISS>0 OR N18YES=0) THEN DO;
     N18=4;
     DO OVER NOTE18;
        IF NOTE18=. THEN NOTE18=.N;
        ELSE NOTE18=.C;
     END;
  END;
  ELSE IF C02069=.  AND N18NMISS=0 THEN N18=5;
  ELSE IF C02069=.A AND N18NMISS=0 THEN DO;
     N18=6;
     C02069=2;
     DO OVER NOTE18;
        NOTE18=.N;
     END;
  END;
  DROP N18NMISS N18YES;


/* NOTE 19 C02072, C02073-C02074: Special Therapy*/

  ARRAY NOTE19 C02073 C02074;

  N19NMISS=0;
  N19YES=0;

  DO OVER NOTE19;
     IF NOTE19 NE . THEN N19NMISS+1;
     IF NOTE19=1 THEN N19YES+1;
  END;

  IF C02072=1 AND N19NMISS=0 THEN N19=1;
```

```
  ELSE IF C02072 IN (1,.,.A) AND (N19NMISS>0 OR N19YES=0) THEN DO;
     N19=2;
     C02072=1;
  END;
  ELSE IF C02072=2 AND N19YES>0 THEN DO;
     N19=3;
     C02072=1;
  END;
  ELSE IF C02072=2 AND (N19NMISS>0 OR N19YES=0) THEN DO;
     N19=4;
     DO OVER NOTE19;
        IF NOTE19=. THEN NOTE19=.N;
        ELSE NOTE19=.C;
     END;
  END;
  ELSE IF C02072=.  AND N19NMISS=0 THEN N19=5;
  ELSE IF C02072=.A AND N19NMISS=0 THEN DO;
     N19=6;
     C02072=2;
     DO OVER NOTE19;
        NOTE19=.N;
     END;
  END;

  DROP N19NMISS N19YES;


  /** Note 20:  C02075, C02076:  Need treatment or counseling **/

  IF C02075=1 THEN N20=1;
  ELSE IF C02075=2 AND C02076=. THEN DO;
     N20=2;
     C02076=.N;
  END;
  ELSE IF C02075 IN (2,.,.A) AND C02076 IN (1,2,.A) THEN DO;
     N20=3;
     C02075=1;
  END;
  ELSE IF C02075=.  AND C02076=. THEN N20=4;
  ELSE IF C02075=.A AND C02076=. THEN DO;
     N20=5;
     C02075=2;
     C02076=.N;
  END;

NOSURVEY:

  /* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS=0;
  END;
  ARRAY MISSARAY &VARLIST2;


  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9=MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8=MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7=MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6=MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5=MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4=MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1=MISS_1 + 1;
  END;

  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

  OUTPUT;
```

```
RUN;


PROC CONTENTS DATA=OUT.&OUTDATA;
RUN;

PROC MEANS DATA=OUT.&OUTDATA N NMISS MIN MAX SUM MEAN;
   WHERE FLAG_FIN='1';
   VAR MISS_TOT MISS_1 MISS_4 MISS_5 MISS_6-MISS_9;
   TITLE3 'Frequency Checks - Missing Value Totals';
RUN;


PROC FREQ DATA=OUT.&OUTDATA;
   WHERE FLAG_FIN='1';
   TABLES &VARLIST1./MISSING LIST;
   TITLE3 'Frequency Checks - Formatted Response Variables'
RUN;

PROC FREQ DATA=OUT.&OUTDATA;
   WHERE FLAG_FIN='1';
   TABLES N2-N20/MISSING;
   TITLE3 'Frequency Checks - Coding Scheme Notes';
RUN;

Data old;
   set old.cschm02c;
RUN;

DATA TEST;
   set in.cschm02c;
run;

proc sort data=old;
   by mprid;
run;

proc sort data=test;
   by mprid;
run;

proc compare base=old compare=test MAXPRINT=(100,10000);
   id mprid;
   var mprid C02005 C02006 C02007 C02008 C02009 C02010 C02011 C02012 C02013 C02014 C02015
C02016
   C02017 C02030 C02031 C02032 C02033 C02034 C02035 C02036 C02037 C02038 C02039 C02040
C02041
   C02042 C02052 C02053 C02054 C02063 C02064 C02065 C02066 C02067 C02068 C02069 C02070
C02071
   C02072 C02073 C02074;
   title 'compare old to test file for note 2';
run;

%MACRO GETFREQS (TABLES, NOTE);

 PROC FREQ DATA=OUT.&OUTDATA;
    WHERE FLAG_FIN='1';
    TABLES &TABLES/MISSING LIST;
    FORMAT _ALL_ ;
    TITLE3 "CODING SCHEME FOR NOTE &NOTE";
 RUN;

%MEND GETFREQS;

%GETFREQS(N2*C02005_O*C02006_O*C02007_O*C02008_O,2);
%GETFREQS(N2*C02005*C02006*C02007*C02008,2);
%GETFREQS(N3*C02009_O*C02010_O*C02009*C02010,3);
%GETFREQS(N3*C02011_O*C02012_O*C02011*C02012,3);
%GETFREQS(N4*C02013_O*C02014_O*C02013*C02014,4);
%GETFREQS(N4*C02015_O*C02016_O*C02017_O*C02015*C02016*C02017,4);
%GETFREQS(N5*C02018_O*C02019_O*C02018*C02019,5);
%GETFREQS(N6*C02020_O*C02021_O*C02022_O*C02020*C02021*C02022,6);
%GETFREQS(N7*C02023_O*C02024_O*C02025_O*C02023*C02024*C02025,7);
```

```
%GETFREQS(N8*C02026_O*C02027_O*C02028_O*C02026*C02027*C02028,8);
%GETFREQS(N9*C02030_O*C02031_O*C02032_O*C02030*C02031*C02032,9);
%GETFREQS(N9*C02033_O*C02034_O*C02035_O*C02033*C02034*C02035,9);
%GETFREQS(N9*C02036_O*C02037_O*C02038_O*C02036*C02037*C02038,9);
%GETFREQS(N9*C02039_O*C02040_O*C02039*C02040,9);
%GETFREQS(N9*C02041_O*C02042_O*C02041*C02042,9);
%GETFREQS(N10*C02030_O*C02039_O*C02040_O*C02030*C02039*C02040,10);
%GETFREQS(N11*C02044_O*C02045_O*C02044*C02045,11);
%GETFREQS(N11*C02046_O*C02047_O*C02046*C02047,11);
%GETFREQS(N12*C02048_O*C02049_O*C02048*C02049,12);
%GETFREQS(N13*C02050_O*C02051_O*C02050*C02051,13);
%GETFREQS(N14*C02052_O*C02053_O*C02054_O*C02052*C02053*C02054,14);
%GETFREQS(N15*C02055_O*C02056_O*C02055*C02056,15);
%GETFREQS(N16*C02063_O*C02064_O*C02065_O*C02063*C02064*C02065,16);
%GETFREQS(N17*C02066_O*C02067_O*C02068_O*C02066*C02067*C02068,17);
%GETFREQS(N18*C02069_O*C02070_O*C02071_O*C02069*C02070*C02071,18);
%GETFREQS(N19*C02072_O*C02073_O*C02074_O*C02072*C02073*C02074,19);
%GETFREQS(N20*C02075_O*C02076_O*C02075*C02076,20);


/*
Data old;
   set old.cschm02c;
RUN;

DATA TEST;
   set in.cschm02c;
run;

proc sort data=old;
   by mprid;
run;

proc sort data=test;
   by mprid;
run;

proc compare base=old compare=test; *MAXPRINT=10000;
   id mprid;
   var mprid C02005 C02006 C02007 C02008 C02009 C02010 C02011 C02012 C02013 C02014 C02015
C02016
   C02017 C02030 C02031 C02032 C02033 C02034 C02035 C02036 C02037 C02038 C02039 C02040
C02041
   C02042 C02052 C02053 C02054 C02063 C02064 C02065 C02066 C02067 C02068 C02069 C02070
C02071
   C02072 C02073 C02074;
   title 'compare old to test file for note 2';
run;
*/
```

D. Q4 CSCHM02Q.SAS

```
*************************************************************************;
*  Program:  Cschm02q.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGENRC.SD2 - Merged MPR Sampling, DEERS, and NRC Response Data
*   Output:  CSCHM00Q.SD2 - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*           10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*            5/09/2002 - Change to logic in TFL supplement
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschm02q.fmt
*
*************************************************************************;

OPTIONS PS=67 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY v612 "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN      v612 "..\..\DATA\AFINAL";
LIBNAME OUT     v612 "..\..\DATA\AFINAL";

%LET INDATA=MERGENRC;
%LET OUTDATA=CSCHM02Q;
%LET PERIOD=October, 2001 to September, 2002;


/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H02001   H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
 H02002K  H02002L  H02002M  H02002N  H02002O  H02003   H02004   H02005
 H02006   H02007   H02008   H02009   H02010   H02011   H02012   H02013
 H02014   H02015   H02016   H02017   H02018   H02019   H02020   H02021
 H02022   H02023   H02024   H02025   H02026   H02027   H02028   H02029
 H02030   H02031   H02032   H02033   H02034   H02035   H02036   H02037
 H02038   H02039   H02040   H02041   H02042   H02043   H02044   H02045
 H02046   H02047   H02048   H02049   H02050   H02051   H02052   H02053
 H02054   H02055   H02056   H02057   H02058   H02059   H02060   H02061
 H02062   H02063   H02064   H02065   H02066   H02067   H02068   H02069
 H02070   H02071   H02072   H02073   H02074   H02075   H02076   H02077
 SREDA    SRRACEA  SRRACEB  SRRACEC  SRRACED  SRRACEE  SRAGE
 S02T01   S02T02   S02T03   S02T04   S02T05   S02T06   S02T07   S02T08
 S02T10   S02T11   S02T12   S02T09A  S02T09B  S02T09C  S02T09D  S02T09E
 S02T09F  S02T09G  S02T09H
 ;

/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H02001_O  H02002AO  H02002CO  H02002FO  H02002GO  H02002HO  H02002IO  H02002JO
 H02002KO  H02002LO  H02002MO  H02002NO  H02002OO  H02003_O  H02004_O  H02005_O
 H02006_O  H02007_O  H02008_O  H02009_O  H02010_O  H02011_O  H02012_O  H02013_O
 H02014_O  H02015_O  H02016_O  H02017_O  H02018_O  H02019_O  H02020_O  H02021_O
 H02022_O  H02023_O  H02024_O  H02025_O  H02026_O  H02027_O  H02028_O  H02029_O
 H02030_O  H02031_O  H02032_O  H02033_O  H02034_O  H02035_O  H02036_O  H02037_O
 H02038_O  H02039_O  H02040_O  H02041_O  H02042_O  H02043_O  H02044_O  H02045_O
 H02046_O  H02047_O  H02048_O  H02049_O  H02050_O  H02051_O  H02052_O  H02053_O
 H02054_O  H02055_O  H02056_O  H02057_O  H02058_O  H02059_O  H02060_O  H02061_O
 H02062_O  H02063_O  H02064_O  H02065_O  H02066_O  H02067_O  H02068_O  H02069_O
 H02070_O  H02071_O  H02072_O  H02073_O  H02074_O  H02075_O  H02076_O  H02077_O
 SREDA_O   SRRACEAO  SRRACEBO  SRRACECO  SRRACEDO  SRRACEEO  SRAGE_O
 S02T01_O  S02T02_O  S02T03_O  S02T04_O  S02T05_O  S02T06_O  S02T07_O  S02T08_O
```

```
 S02T10_O  S02T11_O  S02T12_O  S02T09AO  S02T09BO  S02T09CO  S02T09DO  S02T09EO
 S02T09FO  S02T09GO  S02T09HO
 ;

TITLE  "DoD 2002 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";

DATA OUT.CSCHM02Q;

  SET IN.MERGENRC;

RUN;


DATA OUT.CSCHM02Q;

  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM02Q.FMT";


/* label and format statements for original variables */

/*IF YOU DID NOT NEED TO CHANGE THE VARIABLE NAMES IN ABOVE DATASTEP,
  THIS FILE SHOULD BE IN.MERGENRC INSTEAD OF OUT.CSCHM02Q*/

   SET OUT.CSCHM02Q;



*****************************************************************;
**** Recodes for invalid responses:*************************;
*****************************************************************;







*********************************************************************;


/* This is a version of the coding scheme and coding tables for the
   2002 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

  SEX=PNSEXCD;
  AGE=INPUT(DAGEQY,8.);
  DROP SEX AGE;

  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
         ELSE RECODE(I)=RECODE(I);
      END;
  END;
  DROP I;
```

```
/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*) H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
                    H02002K  H02002L  H02002M  H02002N  H02002O  SRRACEA  SRRACEB
                    SRRACEC  SRRACED  SRRACEE
                    S02T09A  S02T09B  S02T09C  S02T09D  S02T09E  S02T09F  S02T09G
                    S02T09H
                     ;

  ARRAY INFORMAT(*) H02002AO  H02002CO  H02002FO  H02002GO  H02002HO  H02002IO  H02002JO
                    H02002KO  H02002LO  H02002MO  H02002NO  H02002OO  SRRACEAO  SRRACEBO
                    SRRACECO  SRRACEDO  SRRACEEO
                    S02T09AO  S02T09BO  S02T09CO  S02T09DO  S02T09EO  S02T09FO  S02T09GO
                    S02T09HO
                    ;


  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT H02002A  H02002C  H02002F  H02002G  H02002H  H02002I  H02002J
         H02002K  H02002L  H02002M  H02002N  H02002O  SRRACEA  SRRACEB
         SRRACEC  SRRACED  SRRACEE
         S02T09A  S02T09B  S02T09C  S02T09D  S02T09E  S02T09F  S02T09G
         S02T09H
         MARKED.;


*********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

  IF FLAG_FIN NE '1' THEN GOTO NOSURVEY;

/** Note 1 -- health plan usage  **/

  IF H02006 > 0 OR H02006 =.D THEN N1=1;
  ELSE IF H02006=.N  THEN DO;
     IF H02007 NOT=. THEN DO;
        N1=2;
        H02007=.C;
     END;
     ELSE DO;
        N1=3;
        H02007=.N;
     END;
  END;
  ELSE IF H02006=.   THEN N1=4;
  ELSE IF H02006=.A  THEN DO;
     IF H02007 NOT=. THEN N1=5;
     ELSE DO;
         H02006=.N;
         H02007=.N;
         N1=6;
     END;
  END;



/** Note2  -- H02008, H02009: Personal doctor or nurse **/

  IF H02008=1 AND H02009 IN (1,2,3,.,.A) THEN N2=1;
  ELSE IF H02008 IN (1,.,.A) AND H02009=.N THEN DO;
     H02008=2;
     H02009=.C;
     N2=2;
  END;
```

```
  ELSE IF H02008 IN (2,.,.A) AND H02009>0 THEN DO;
     H02008=1;
     N2=3;
  END;
  ELSE IF H02008=2 AND H02009 IN (.N,.,.A) THEN DO;
     IF H02009=. THEN H02009=.N;
     ELSE H02009=.C;
     N2=4;
  END;
  ELSE IF H02008=. AND H02009=.A THEN DO;
     H02008=1;
     N2=5;
  END;
  ELSE IF H02008=. AND H02009=. THEN N2=6;
  ELSE IF H02008=.A AND H02009=. THEN DO;
     H02008=2;
     H02009=.N;
     N2=7;
  END;
  ELSE IF H02008=.A AND H02009=.A THEN N2=8;

/** Note 3 -- H02010, H02011:  Personal doctor or nurse **/

  IF H02010 = 1 AND (H02011 GE 0 OR H02011 IN (.,.A)) THEN N3=1;
  ELSE IF H02010 IN (1,.,.A) AND H02011=.N THEN DO;
     N3=2;
     H02010=2;
     H02011=.C;
  END;
  ELSE IF H02010 IN (2,.,.A) AND (H02011 GE 0 OR H02011=.A) THEN DO;
     H02010=1;
     N3=3;
  END;
  ELSE IF H02010=2 AND H02011 IN (.N,.)  THEN DO;
     N3=4;
     IF H02011=. THEN H02011=.N;
     ELSE H02011=.C;
  END;
  ELSE IF H02010=. AND  H02011=. THEN N3=5;
  /*ELSE IF H02010=. AND  H02011=.A THEN N3=6;*/   /*DWE 9/17/02*/
  ELSE IF H02010=.A AND H02011=. THEN DO;
     H02010=2;
     N3=6;   /* DWE 9/17/02  */
     H02011=.N;
  END;
  /*ELSE IF H02010=.A AND H02011=.A THEN N3=8;*/    /* DWE 9/17/02  */



/** Note 4 -- H02012-H02014:  currently enrolled in Tricare Prime  **/

  ARRAY NOTE4 H02013 H02014;
  N4NMISS=0;
  N4MARK=0;
  DO OVER NOTE4;
     IF NOTE4 NE . THEN N4NMISS+1;          /* check for all missing */
     IF NOTE4 NOT IN (.,.N) THEN N4MARK+1; /* not missing or NA */
  END;

  IF H02012=1 AND (N4NMISS=0 OR N4MARK>0) THEN N4=1;
  ELSE IF H02012 IN (1,.,.A) AND H02013=.N AND H02014=. THEN DO;
     H02012=2;
     N4=2;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H02012 IN (2,.,.A) AND N4MARK>0 THEN DO;
     H02012=1;
     N4=3;
  END;
  ELSE IF H02012=2 AND ((N4NMISS=0) OR (H02013=.N AND H02014=.))THEN DO;
```

```
    N4=4;
    DO OVER NOTE4;
       IF NOTE4=. THEN NOTE4=.N;
       ELSE NOTE4=.C;
    END;
  END;
  ELSE IF H02012=. AND N4NMISS=0 THEN N4=5;
  ELSE IF H02012=.A AND N4NMISS=0 THEN DO;
     H02012=2;
     N4=6;
     DO OVER NOTE4;
        NOTE4=.N;
     END;
  END;

  DROP N4MARK N4NMISS;



/** Note 5 -- H02013, H02014 **/

  /*IF H02013 in (.N,.C) or H02014 in (.N,.C) THEN N5=1;*/ /* DWE 9/17/02  */
  IF H02013 in (.N,.C) AND H02014 in (.N,.C) THEN N5=1;
  ELSE IF H02013 in (1,2,.,.A) and H02014 in (1,2,.,.A) THEN N5=2;
  ELSE IF H02013 in (3,.N) THEN DO;
     IF H02014 = . THEN H02014 =.N;
     ELSE H02014=.C;
     N5=3;
  END;


/** Note 6 -- H02015, H02016:  needed to see a specialist in last 12 months **/

  IF H02015=1 AND H02016 IN (1,2,3,.,.A) THEN N6=1;
  ELSE IF H02015 IN (1,.,.A) AND H02016=.N THEN DO;
     H02015=2;
     H02016=.C;
     N6=2;
  END;
  ELSE IF H02015 IN (2,.,.A) AND H02016 IN (1,2,3) THEN DO;
     H02015=1;
     N6=3;
  END;
  ELSE IF H02015=2 AND H02016 IN (.,.A,.N) THEN DO;
     IF H02016=. THEN H02016=.N;
     ELSE H02016=.C;
     N6=4;
  END;
  ELSE IF H02015=. AND H02016=.A THEN DO;
     H02015=1;
     N6=5;
  END;
  ELSE IF H02015=.  AND H02016=.  THEN N6=6;
  ELSE IF H02015=.A AND H02016=.A THEN N6=7;
  ELSE IF H02015=.A AND H02016=.  THEN DO;
     H02015=2;
     H02016=.N;
     N6=8;
  END;

/** Note 7 -- H02017,H02018,H02019: saw a specialist in last 12 months **/

  ARRAY NOTE7 H02018 H02019;
  N7MARK=0;
  N7NMISS=0;

  DO OVER NOTE7;
     IF NOTE7 NE . THEN N7NMISS+1;
     IF NOTE7 NOT IN (.N,.) THEN N7MARK+1;
  END;

  IF H02017=1 AND (N7NMISS=0 OR N7MARK>0) THEN N7=1;
  ELSE IF H02017 IN (1,.,.A) AND N7NMISS>0 AND N7MARK=0 THEN DO;
```

```
     H02017=2;
     N7=2;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
  END;
  ELSE IF H02017 IN (2,.,.A) AND N7MARK>0 THEN DO;
     H02017=1;
      N7=3;
  END;
  ELSE IF H02017=2 AND N7NMISS=0 OR (N7NMISS>0 AND N7MARK=0) THEN DO;
     N7=4;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
  END;
  ELSE IF H02017=. AND  N7NMISS=0 THEN N7=5;
  ELSE IF H02017=.A AND N7NMISS=0 THEN DO;
     H02017=2;
     N7=6;
     DO OVER NOTE7;
        NOTE7=.N;
     END;
  END;

  DROP N7NMISS N7MARK;



/** Note 8 -- called a doctor's office:  H02020, H02021 **/

  IF H02020=1 AND H02021 IN (1,2,3,4,.,.A) THEN N8=1;
  ELSE IF H02020 IN (1,.,.A) AND H02021=.N THEN DO;
     H02020=2;
     H02021=.C;
     N8=2;
  END;
  ELSE IF H02020 IN (2,.,.A) AND H02021 IN (1,2,3,4) THEN DO;
     H02020=1;
     N8=3;
  END;

  ELSE IF H02020=2 AND H02021 IN (.,.A,.N) THEN DO;
     IF H02021=. THEN H02021=.N;
     ELSE H02021=.C;
     N8=4;
  END;
  ELSE IF H02020=.  AND H02021=.A THEN DO;
     H02020=1;
     N8=5;
  END;
  ELSE IF H02020=.  AND H02021=.  THEN N8=6;
  ELSE IF H02020=.A AND H02021=.A THEN N8=7;
  ELSE IF H02020=.A AND H02021=.  THEN DO;
     H02020=2;
     N8=8;
     H02021=.N;
  END;

/** Note 9 -- H02022,H02023,H02024:  regular or routine healthcare **/

  ARRAY NOTE9 H02023 H02024;
  N9MARK=0;
  N9NMISS=0;

  DO OVER NOTE9;
     IF NOTE9 NE . THEN N9NMISS+1;
     IF NOTE9 NOT IN (.N,.) THEN N9MARK+1;
  END;
  IF H02022=1 AND (N9NMISS=0 OR N9MARK>0) THEN N9=1;
```

```
  ELSE IF H02022 IN (1,.,.A) AND N9NMISS>0 AND N9MARK=0 THEN DO;
     H02022=2;
     N9=2;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
  END;
  ELSE IF H02022 IN (2,.,.A) AND N9MARK>0 THEN DO;
     H02022=1;
     N9=3;
  END;
  ELSE IF H02022=2 AND (N9NMISS=0 OR (N9NMISS>0 AND N9MARK=0)) THEN DO;
     N9=4;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
  END;
  ELSE IF H02022=.  AND  N9NMISS=0 THEN N9=5;
  ELSE IF H02022=.A AND N9NMISS=0 THEN DO;
     H02022=2;
     N9=6;
     DO OVER NOTE9;
        NOTE9=.N;
     END;
  END;

  DROP N9NMISS N9MARK;

/** Note 10 -- H02025,H02026,H02027:  illness or injury **/

  ARRAY NOTE10 H02026 H02027;
  N10MARK=0;
  N10NMISS=0;

  DO OVER NOTE10;
     IF NOTE10 NE . THEN N10NMISS+1;
     IF NOTE10 NOT IN (.N,.) THEN N10MARK+1;
  END;

  IF H02025=1 AND (N10NMISS=0 OR N10MARK>0) THEN N10=1;
  ELSE IF H02025 IN (1,.,.A) AND N10NMISS>0 AND N10MARK=0 THEN DO;
     H02025=2;
     N10=2;
     DO OVER NOTE10;
        IF NOTE10=. THEN NOTE10=.N;
        ELSE NOTE10=.C;
     END;
  END;
  ELSE IF H02025 IN (2,.,.A) AND N10MARK>0 THEN DO;
     H02025=1;
     N10=3;
  END;
  ELSE IF H02025=2 AND (N10NMISS=0 OR (N10NMISS>0 AND N10MARK=0)) THEN DO;
     N10=4;
     DO OVER NOTE10;
        IF NOTE10=. THEN NOTE10=.N;
        ELSE NOTE10=.C;
     END;
  END;
  ELSE IF H02025=.  AND N10NMISS=0 THEN N10=5;
  ELSE IF H02025=.A AND N10NMISS=0 THEN DO;
     H02025=2;
     N10=6;
     DO OVER NOTE10;
        NOTE10=.N;
     END;
  END;

  DROP N10NMISS N10MARK;

/** Note 11 -- H02029, H02030-H02039: doctor's office or clinic **/
```

```
  ARRAY NOTE11   H02030-H02039;
  N11MARK=0;
  N11NMISS=0;

  DO OVER NOTE11;
     IF NOTE11 NE . THEN N11NMISS+1;
     IF NOTE11 NOT IN (.N,.) THEN N11MARK+1;
  END;

  IF H02029=1 AND (N11NMISS=0 OR (N11NMISS>0 AND N11MARK=0)) THEN DO;
     N11=1;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  /* DWE 9/17/02  */
  /*ELSE IF H02029 IN (1,.,.A) AND N11MARK>0 THEN N11=2;     */
  ELSE IF H02029 = 1 AND N11MARK>0 THEN DO;
     N11=2;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  ELSE IF H02029 IN (2,3,4,5,6,7,.,.A) AND (N11NMISS>0 AND N11MARK=0) THEN DO;
     H02029=1;
     N11=3;
     DO OVER NOTE11;
        IF NOTE11=. THEN NOTE11=.N;
        ELSE NOTE11=.C;
     END;
  END;
  ELSE IF H02029 IN (2,3,4,5,6,7) AND (N11NMISS=0 OR N11MARK>0) THEN N11=4;
  ELSE IF H02029=.  AND N11NMISS=0 THEN N11=5;
  ELSE IF H02029=.A AND N11NMISS=0 THEN DO;
     H02029=1;
     N11=6;
     DO OVER NOTE11;
        NOTE11=.N;
     END;
  END;
  /* DWE 9/17/02  */
  ELSE IF H02029 IN (.,.A) AND N11MARK>0 THEN N11=7;

  DROP N11NMISS N11MARK;


/** Note 15 -- H02043, H02044-H02046: claims to health plan **/

  ARRAY NOTE15 H02044-H02046;
  N15MARK=0;
  N15NMISS=0;
  N15NDK=0;

  DO OVER NOTE15;
     IF NOTE15 NE . THEN N15NMISS+1;
     IF NOTE15 NOT IN (.N,.) THEN N15MARK+1;
     IF NOTE15 NOT IN (.,.D) THEN N15NDK+1;
  END;

  IF H02043=1 AND (N15NMISS=0 OR (N15MARK>0 and N15NDK>0) or N15NDK=0) THEN N15=1;
  ELSE IF H02043 IN (1,.D,.,.A) AND N15NMISS>0 AND N15MARK=0 THEN DO;
     N15=2;
     H02043=2;
     DO OVER NOTE15;
        IF NOTE15=. THEN NOTE15=.N;
        ELSE NOTE15=.C;
     END;
  END;
  ELSE IF H02043=.D AND N15MARK>0 AND N15NDK>0 THEN DO;
     N15=3;
```

```
     H02043=1;
  END;
  ELSE IF H02043=.D AND (N15NMISS=0 OR N15NDK=0) THEN DO;
     N15=4;
     DO OVER NOTE15;
        IF NOTE15=. THEN NOTE15=.N;
        ELSE NOTE15=.C;
     END;
  END;
  ELSE IF H02043 IN (2,.,.A) AND ((N15MARK>0 AND N15NDK>0) OR N15NMISS=0 OR N15NDK=0) THEN
DO;
     H02043=1;
     N15=5;
  END;
  ELSE IF H02043 IN (2,.D) AND (N15NMISS=0 OR (N15NMISS>0 AND N15MARK=0)) THEN DO;
     N15=6;
     DO OVER NOTE15;
        IF NOTE15=. THEN NOTE15=.N;
        ELSE NOTE15=.C;
     END;
  END;
  ELSE IF H02043=.  AND N15NMISS=0 THEN N15=7;
  ELSE IF H02043=.A AND N15NMISS=0 THEN DO;
     H02043=2;
     N15=8;
     DO OVER NOTE15;
        NOTE15=.N;
     END;
  END;

  DROP N15NMISS N15MARK N15NDK;


/** Note16  -- H02047, H02048: **/

  IF H02047=1 AND H02048 IN (1,2,3,.,.A) THEN N16=1;
  ELSE IF H02047 IN (1,.,.A) AND H02048=.N THEN DO;
     H02047=2;
     H02048=.C;
     N16=2;
  END;
  /*ELSE IF H02047 IN (2,.,.A) AND H02048 IN (1,2,3,.A) THEN DO;*/
  ELSE IF H02047 IN (2,.,.A) AND H02048 IN (1,2,3) THEN DO;   /* DWE 9/16/02  */
     H02047=1;
     N16=3;
  END;
  ELSE IF H02047=2 AND H02048 IN (.N,.,.A) THEN DO;
     IF H02048=. THEN H02048=.N;
     ELSE H02048=.C;
     N16=4;
  END;
  ELSE IF H02047=. AND H02048=.A THEN DO;
     H02047=1;
     N16=5;
  END;
  ELSE IF H02047=. AND H02048=. THEN N16=6;
  ELSE IF H02047=.A AND H02048=.A THEN N16=7;
  ELSE IF H02047=.A AND H02048=. THEN DO;
     H02047=2;
     H02048=.N;
     N16=8;
  END;


/** Note17 -- H02049, H02050: health plan's customer service **/

  IF H02049=1 AND H02050 IN (1,2,3,.,.A) THEN N17=1;
  ELSE IF H02049 IN (1,.,.A) AND H02050=.N THEN DO;
     H02049=2;
     H02050=.C;
     N17=2;
  END;
  /*ELSE IF H02049 IN (2,.,.A) AND H02050 IN (1,2,3,.A) THEN DO;*/
```

```
  ELSE IF H02049 IN (2,.,.A) AND H02050 IN (1,2,3) THEN DO;   /* DWE 9/17/02  */
     H02049=1;
     N17=3;
  END;
  ELSE IF H02049=2 AND H02050 IN (.N,.,.A) THEN DO;
     IF H02050=. THEN H02050=.N;
     ELSE H02050=.C;
     N17=4;
  END;
  ELSE IF H02049=. AND H02050=.A THEN DO;
     H02049=1;
     N17=5;
  END;
  ELSE IF H02049=. AND H02050=. THEN N17=6;
  ELSE IF H02049=.A AND H02050=.A THEN N17=7;
  ELSE IF H02049=.A AND H02050=. THEN DO;
     H02049=2;
     H02050=.N;
     N17=8;
  END;


/** Note 18 -- H02051, H02052, H02053:  complaint or problem  **/

  ARRAY NOTE18 H02052 H02053;
  N18MARK=0;
  N18NMISS=0;

  DO OVER NOTE18;
     IF NOTE18 NE . THEN N18NMISS+1;
     IF NOTE18 NOT IN (.N,.) THEN N18MARK+1;
  END;

  IF H02051=1 AND (N18NMISS=0 OR N18MARK>0) THEN N18=1;
  ELSE IF H02051 IN (1,.,.A) AND N18NMISS>0 AND N18MARK=0 THEN DO;
     H02051=2;
     N18=2;
     DO OVER NOTE18;
        IF NOTE18=. THEN NOTE18=.N;
        ELSE NOTE18=.C;
     END;
  END;
  ELSE IF H02051 IN (2,.,.A) AND N18MARK>0 THEN DO;
     H02051=1;
     N18=3;
  END;
  ELSE IF H02051=2 AND (N18NMISS=0 OR (N18NMISS>0 AND N18MARK=0)) THEN DO;
     N18=4;
     DO OVER NOTE18;
        IF NOTE18=. THEN NOTE18=.N;
        ELSE NOTE18=.C;
     END;
  END;
  ELSE IF H02051=.  AND N18NMISS=0 THEN N18=5;
  ELSE IF H02051=.A AND N18NMISS=0 THEN DO;
     H02051=2;
     N18=6;
     DO OVER NOTE18;
        NOTE18=.N;
     END;
  END;

  DROP N18NMISS N18MARK;

/** Note19  -- H02054, H02055: paperwork  **/

  IF H02054=1 AND H02055 IN (1,2,3,.,.A) THEN N19=1;
  ELSE IF H02054 IN (1,.,.A) AND H02055=.N THEN DO;
     H02054=2;
     H02055=.C;
     N19=2;
  END;
  ELSE IF H02054 IN (2,.,.A) AND H02055 IN (1,2,3,.A) THEN DO;
```

```
     H02054=1;
     N19=3;
  END;
  ELSE IF H02054=2 AND H02055 IN (.N,.)THEN DO;
     IF H02055=. THEN  H02055=.N;
     ELSE H02055=.C;
     N19=4;
  END;
  ELSE IF H02054=. AND H02055=.A THEN DO;
     H02054=1;
     N19=5;
  END;
  ELSE IF H02054=.  AND H02055=. THEN N19=6;
  ELSE IF H02054=.A AND H02055=. THEN DO;
     H02054=2;
     H02055=.N;
     N19=7;
  END;
  ELSE IF H02054=.A  AND H02055=.A THEN N19=8;

/** Note 24 -- smoking:  H02063 - H02066  **/

  IF H02063=1 and H02064 IN (3,4) THEN DO;  /* still smoke */
     IF H02065 NE . THEN DO;
        H02065=.C;
        N24=1;
     END;
     ELSE IF H02065=. THEN DO;
        H02065=.N;
        N24=2;
     END;
  END;
  ELSE IF H02063=1 AND H02064=2 THEN DO;         /* quit */
     IF H02065 IN (2,.D) AND H02066 NE . THEN DO;   /* > 1 year ago */
        H02066 =.C;
        N24=3;
     END;
     ELSE IF H02065 IN (2,.D) AND H02066=. THEN DO;
        H02066 =.N;
        N24=4;
     END;
     ELSE IF H02065 IN (3,.,.A) THEN N24=5;      /* < 1 year ago */
  END;
  ELSE IF H02063=1 AND H02064 IN (.D,.,.A) THEN DO;  /* don't know */
     IF H02065=2 AND H02066 NE . THEN DO;        /* > 1 year ago */
        H02064=2;
        H02066=.C;
        N24=6;
     END;
     ELSE IF H02065=2 AND H02066 = . THEN DO;
        H02064=2;
        H02066=.N;
        N24=7;
     END;
     ELSE IF H02065=3 THEN DO;            /* < 1 year ago */
        H02064=2;
        N24=8;
     END;
     ELSE IF H02065 IN (.D,.,.A) THEN N24=9;  /* don't know */
  END;
  ELSE IF H02063 IN (2,.D,.,.A) AND H02064 IN (3,4) THEN DO; /*never smoke*/
     IF H02065 NE . THEN DO;
        H02063=1;
        H02065=.C;
        N24=10;
     END;
     ELSE IF H02065=. THEN DO;
        H02063=1;
        H02065=.N;
        N24=11;
     END;
  END;
  ELSE IF H02063 IN (2,.D) AND H02064 IN (2,.D,.A) THEN DO; /*never smoke*/
```

```
   IF H02065 NE . AND H02066 NE . THEN DO;
      H02064 =.C;
      H02065 =.C;
      H02066 =.C;
      N24=12;
   END;
   ELSE IF H02065 NE . AND H02066=. THEN DO;
      H02064=.C;
      H02065=.C;
      H02066=.N;
      N24=13;
   END;
   ELSE IF H02065=. AND H02066 NE . THEN DO;
      H02064=.C;
      H02065=.N;
      H02066=.C;
      N24=14;
   END;
   ELSE IF H02065=. AND H02066=. THEN DO;
      H02064=.C;
      H02065=.N;
      H02066=.N;
      N24=15;
   END;
END;
ELSE IF H02063 IN (2,.D) AND H02064= . THEN DO; /*never smoke*/
   IF H02065 NE . AND H02066 NE . THEN DO;
      H02064=.N;
      H02065=.C;
      H02066=.C;
      N24=16;
   END;
   ELSE IF H02065 NE . AND H02066=. THEN DO;
      H02064=.N;
      H02065=.C;
      H02066=.N;
      N24=17;
   END;
   ELSE IF H02065=. AND H02066 NE . THEN DO;
      H02064=.N;
      H02065=.N;
      H02066=.C;
      N24=18;
   END;
   ELSE IF H02065=. AND H02066=. THEN DO;
      H02064=.N;
      H02065=.N;
      H02066=.N;
      N24=19;
   END;
END;
ELSE IF H02063 IN (.A, .) AND H02064 IN (2,.,.A) THEN DO; /*MRE/blank*/
   IF H02065=3 THEN DO;
      H02063=1;
      N24=20;
   END;
   ELSE IF H02065=2 AND H02066 NE . THEN DO;
      H02063 =1;
      H02066 =.C;
      N24=21;
   END;
   ELSE IF H02065=2 AND H02066=. THEN DO;
      H02063=1;
      H02066=.N;
      N24=22;
   END;
   ELSE IF H02065=.D AND H02066=. THEN DO;
      H02066=.N;
      N24=23;
   END;
   ELSE IF H02065=.D AND H02066 NE . THEN DO;
      H02066=.C;
      N24=24;
```

```
    END;
    ELSE IF H02065 IN (.,.A) AND H02066 IN (2,3,4,5) THEN DO;
       H02063=1;
       N24=25;
    END;
    ELSE IF H02065 IN (.,.A) AND H02066 IN (1,.,.A) THEN N24=26;
  END;
  ELSE IF H02063 IN (.A,.) AND H02064=.D THEN DO; /*MRE/blank*/
    IF H02065 NE . AND H02066 NE .  THEN DO;
       H02065=.C;
       H02066=.C;
       N24=27;
    END;
    ELSE IF H02065 NE . AND H02066=.  THEN DO;
       H02065=.C;
       H02066=.N;
       N24=28;
    END;
    IF H02065=. AND H02066=.  THEN DO;
       H02065=.N;
       H02066=.N;
       N24=29;
    END;
    ELSE IF H02065=. AND H02066 NE .  THEN DO;
       H02065=.N;
       H02066=.C;
       N24=30;
    END;
  END;

/** Note 25 - gender H02067, SEX, H02068, H02069--H02075, XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed MALE, FMALE based on gender specific questions */


  IF H02068 > 0 THEN MALE=1;     /* prostate */
  ELSE MALE = 0;
  IF H02069>0 OR H02070>0 OR H02071>0 OR H02072>0 OR H02073>0
     OR H02074>0 OR H02075>0  THEN FMALE=1; /* mammogram/pap smear/PREGNANT*/
  ELSE FMALE = 0;
  IF H02067=. OR H02067=.A THEN DO;
    IF (SEX='F' AND MALE AND FMALE) THEN DO;
       N25A=1;
       XSEXA=2;
    END;
    ELSE IF (SEX='F' AND MALE=0 AND FMALE=0) THEN DO;
       N25A=2;
       XSEXA=2;
    END;
    ELSE IF (SEX='M' AND MALE AND FMALE) THEN DO;
       N25A=3;
       XSEXA=1;
    END;
    ELSE IF (SEX='M' AND MALE=0 AND FMALE=0) THEN DO;
       N25A=4;
       XSEXA=1;
    END;
    ELSE IF MALE AND NOT FMALE THEN DO;
       N25A=5;
       XSEXA=1;
    END;
    ELSE IF FMALE AND NOT MALE THEN DO;
       N25A=6;
       XSEXA=2;
    END;
    ELSE IF (SEX='Z' AND MALE AND FMALE) THEN DO;
       N25A=7;
       XSEXA=.;
    END;
    ELSE IF (SEX='Z' AND MALE=0 AND FMALE=0) THEN DO;
       N25A=8;
```

```
      XSEXA=.;
    END;
  END;
  ELSE IF (H02067=1) THEN DO;
    IF MALE AND NOT FMALE THEN DO;
      N25A=9;
      XSEXA=1;
    END;
    ELSE IF NOT MALE AND FMALE THEN DO;
      IF SEX='F' THEN DO;
        N25A=10;
        XSEXA=2;
      END;
      ELSE DO;
        N25A=11;
        XSEXA=1;
      END;
    END;
    ELSE IF MALE AND FMALE THEN DO;
      N25A=12;
      XSEXA=1;
    END;
    ELSE IF MALE=0 AND FMALE=0 THEN DO;
      N25A=13;
      XSEXA=1;
    END;
  END;
  ELSE IF (H02067=2) THEN DO;
    IF NOT MALE AND FMALE THEN DO;
      N25A=14;
      XSEXA=2;
    END;
    ELSE IF MALE AND NOT FMALE THEN DO;
      IF SEX='M' THEN DO;
        N25A=15;
        XSEXA=1;
      END;
      ELSE DO;
        N25A=16;
        XSEXA=2;
      END;
    END;
    ELSE IF MALE AND FMALE THEN DO;
      N25A=17;
      XSEXA=2;
    END;
    ELSE IF MALE=0 AND FMALE=0 THEN DO;
      N25A=18;
      XSEXA=2;
    END;
  END;

/* Note 25b - gender vs prostate */

  IF XSEXA=1 THEN N25B=1;    /* male    */
  ELSE IF XSEXA=2 THEN DO;   /* female  */
    IF H02068 NE . THEN DO;
      N25B=2;
      H02068=.C;
    END;                     /*inconsistent resp */
    ELSE DO;
      N25B=3;
      H02068=.N;
    END;                     /* valid skip   */
  END;
  ELSE IF XSEXA=. THEN DO;   /*  missing sex */
    N25B=4;
    H02068=.;
  END;

/* Note 25c - gender vs mammogram/paps */
/*   REDEFINE FMALE TO LOOK ONLY AT MAMMOGRAM OR PAP SMEAR ENTRIES  */
```

```
  ARRAY NOTE25C H02069 H02070 H02071 H02072 H02073 H02074 H02075;

  IF H02069 NE . OR H02070 NE . OR H02071 NE . OR H02072 NE . OR
     H02073 NE . OR H02074 NE . OR H02075 NE . THEN FMALE=1; /* mammogram or pap smear */
  ELSE FMALE = 0;
  IF XSEXA=1 THEN DO;   /* male */
     IF FMALE=0 THEN DO;
        N25C=1;
        DO OVER NOTE25C;
           NOTE25C=.N;
        END;
     END; /* inconsistent response */
     ELSE IF FMALE=1 THEN DO;
        N25C=2;
        DO OVER NOTE25C;
           IF NOTE25C=. THEN NOTE25C = .N;
           ELSE NOTE25C=.C;
        END;
     END;   /* valid skip */
  END;
  ELSE IF XSEXA=2 THEN  N25C=3; /* female */
  ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
     N25C=4;
     DO OVER NOTE25C;
        NOTE25C=.;
     END;
  END;

  DROP MALE FMALE;

/* Note 26 - breast exam for female 40 or over  */
/* Note 1999 -- no self reported age variable  */
/* Note no dob variable  -- macro not used     */

  IF XSEXA=1 THEN DO;  /* male */
     IF  (H02070=.C OR H02070=.N) AND (H02071=.C OR H02071=.N)
     AND (H02072=.C OR H02072=.N)  THEN N26 = 1;
  END;
  ELSE IF XSEXA=2 THEN DO;
     IF H02070=2 THEN N26=2;         /* female 40 or over */
     ELSE IF H02070=1 THEN DO;   /* female < 40 */
        IF H02071 NE . THEN H02071=.C;
        ELSE H02071=.N;
        IF H02072 NE . THEN H02072=.C;
        ELSE H02072=.N;
        N26=3;
     END;
     ELSE IF H02070=.A THEN DO;
        IF H02071 NE . OR H02072 NE . THEN DO;
           H02070=2;
           N26=4;
        END;
        ELSE IF H02071=. AND H02072=. THEN DO;
           H02070=1;
           H02071=.N;
           H02072=.N;
           N26=5;
        END;
     END;
     ELSE IF H02070=. THEN DO;
        IF H02071 NE . OR H02072 NE . THEN DO;
           H02070=2;
           N26=6;
        END;
        ELSE IF H02071=. AND H02072=. THEN DO;
           IF AGE<40 THEN DO;
              H02070 = 1;
              H02071=.N;
              H02072=.N;
              N26=7;
           END;
           ELSE IF AGE >= 40 THEN DO;
              H02070=1;
```

```
            H02071=.N;
            H02072=.N;
            N26=8;
         END;
         ELSE IF AGE=. THEN N26=9;
      END;
   END;
  END;
  ELSE IF XSEXA=. THEN N26=10;

/* Note 27 - gender vs Pregnancy */

  IF XSEXA=1 THEN N27=1;          /* male     */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H02073=1 THEN N27=2;      /* pregnant */
     ELSE IF H02073=2 THEN DO;
        IF H02074=. THEN H02074 = .N;
        ELSE H02074=.C;
        N27=3;
     END;
     ELSE IF H02073=3 THEN DO;
        IF H02074=. THEN H02074 = .N;
        ELSE H02074=.C;
        IF H02075=. THEN H02075=.N;
        ELSE H02075=.C;
        N27=4;
     END;
     ELSE IF H02073 IN (., .A) THEN DO;
        IF H02074 NE . THEN DO;
           H02073=1;
           N27=5;
        END;
        ELSE IF H02074=. THEN DO;
           IF H02073=. THEN N27=6;
           ELSE IF H02073=.A THEN DO;
              H02073=3;
              H02074=.N;
              IF H02075=. THEN H02075=.N;
              ELSE H02075=.C;
              N27=7;
           END;
        END;

     END;
  END;
  ELSE IF XSEXA=. AND H02073 IN (.,.A) THEN N27=8;


/** Note 28 -- SRAGE, S02T01-S02T08 S02T09A-S02T09H S02T10-SO2T12:
    claims to health plan for 65 and older**/

  ARRAY NOTE28 S02T01 S02T02 S02T03 S02T04 S02T05 S02T06 S02T07 S02T08
               S02T09A--S02T09H S02T10 S02T11 S02T12
               ;
  N28MARK=0;

  DO OVER NOTE28;
     IF NOTE28 NOT IN (.) THEN N28MARK+1;
  END;

  IF 1 LE SRAGE LE 5 THEN DO;
     N28=1;
     DO OVER NOTE28;
       IF NOTE28=. THEN NOTE28=.N;
       ELSE NOTE28=.C;
     END;
  END;
  ELSE IF SRAGE IN (.A,.) THEN N28=2;
  ELSE IF SRAGE IN (6,7) THEN N28=3;

  DROP N28MARK;
```

```
NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

****************************************;

 OUTPUT;

RUN;


PROC FORMAT;
   VALUE GRID
     0='0'
     1-9999='>=1' ;
   VALUE $GRIDB
     1-5 = '1-5' ;
   VALUE $AGE
     018-039='<40'
     040-120='>=40';
   VALUE SCALE
     0-10='0-10';
   VALUE MARK
     1-6='Marked' ;
   VALUE MARKB
     2-7='Marked';

   VALUE MARKC
    1='1'
   2-HIGH='>1';

RUN;

proc contents data=out.cschm02q;
run;
```

2. CREATE STATUS FLAG FOR RECORD SELECTION

```
*************************************************************************
*
* PROGRAM:  SELECTQ.SAS
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (8860-300)
* PURPOSE:  ASSIGN FINAL STATUS FOR RECORD SELECTION PURPOSES.
* WRITTEN:  12/14/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 03/21/2002 BY KEITH RATHBUN, Updated for the 2002 survey.
*              Added FLAG_FIN = 23,24 for FNSTATUS = 20.
*
* INPUTS:   1) CSCHM02Q.SD2 - 2002 Quarterly DOD Health Survey Data
*
* OUTPUTS:  1) SELECTQ.SD2 - 2002 Quarterly DOD Health Survey Data w/FNSTATUS
*
*************************************************************************
*;
LIBNAME IN      V612 "..\..\DATA\AFINAL";
LIBNAME OUT     V612 "..\..\DATA\AFINAL";
LIBNAME LIBRARY V612 "..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

PROC SORT DATA=IN.CSCHM02Q OUT=TEMPA1; BY MPRID; RUN;

DATA TEMPA2 OUT.DUPSA;
   SET TEMPA1;
   BY MPRID;
   /*************************************************************************/
   /** KEY VARIABLES (Total=29)                                            **/
   /*************************************************************************/
   ARRAY KEYVAR H02006 H02008 H02009 H02010 H02011 H02012 H02013 H02015
                H02017 H02018 H02020 H02021 H02022 H02025 H02026 H02028
                H02029 H02030 H02032 H02039 H02041 H02047 H02049 H02054
                H02056 H02076 H02077 SREDA
                 ;
   ARRAY RACE(5) SRRACEA SRRACEB SRRACEC SRRACED SRRACEE;

   FLAGRACE = 0; DROP FLAGRACE;
   DO I = 1 TO DIM(RACE);
      IF RACE(I) EQ 1 THEN FLAGRACE = 1;
   END;

   KEYCOUNT = 0;
   DO I = 1 TO DIM(KEYVAR); DROP I;
      IF KEYVAR(I) NOT IN (.,.A,.O,.I,.B) THEN KEYCOUNT = KEYCOUNT + 1;
   END;
   KEYCOUNT = KEYCOUNT + FLAGRACE;

   /*************************************************************************/
   /** SET FLAG FOR DUPLICATES                                             **/
   /*************************************************************************/
   LENGTH DUPFLAG $3;
   DUPFLAG = 'NO';
   IF NOT (FIRST.MPRID AND LAST.MPRID) THEN DUPFLAG = 'YES';

   /*************************************************************************/
   /** DETERMINE FNSTATUS                                                  **/
   /*************************************************************************/
   FNSTATUS = 0;
   IF FLAG_FIN = "1" THEN DO;
      ************************************************************
      **** APPLY THE COMPLETE QUESTIONNAIRE RULE (50% OF KEY   ****
      **** VARIABLES).                                         ****
      ************************************************************;
      IF KEYCOUNT GT 14 THEN FNSTATUS = 11;
      ELSE FNSTATUS = 12;
   END;
   ELSE IF FLAG_FIN IN("3","6","8","10","11","14","16","21","23","24") THEN DO;
      FNSTATUS = 20;
   END;
   ELSE IF FLAG_FIN IN("2","4","5","7","12","13","15") THEN DO;
      FNSTATUS = 30;
```

```
   END;
   ELSE IF FLAG_FIN IN("9","17","18","19","20","22") THEN DO;
      IF FLAG_FIN IN ("18","19","20") THEN DO;
         FNSTATUS = 42;
      END;
      ELSE DO;
         FNSTATUS = 41;
      END;
   END;

   IF DUPFLAG = 'YES' THEN OUTPUT OUT.DUPSA;
   ELSE OUTPUT TEMPA2;

RUN;

*************************************************************************
* Select the "most complete" questionaire from duplicates and
* SET it back into the non-duplicates file. For now assume the lowest
* FNSTATUS Value is the "most complete".
*************************************************************************
;
PROC SORT DATA=OUT.DUPSA;
BY MPRID FNSTATUS;
RUN;

DATA DEDUPED;
   SET OUT.DUPSA;
   BY MPRID FNSTATUS;
   IF FIRST.MPRID; *KEEP only the first - most complete questionaire;
RUN;

DATA OUT.SELECTQ;
   SET TEMPA2 DEDUPED;
   LABEL FNSTATUS = "Final Status"
         DUPFLAG  = "Multiple Response Indicator"
         STRATUM  = "Sampling STRATUM"
         KEYCOUNT = "# Key Questions Answered (Out of 29)"
        ;
RUN;

TITLE1 "Quarterly DOD Health Survey FNSTATUS assignment (8860-300)";
TITLE2 "Program Name: SELECTQ.SAS By Keith Rathbun";
TITLE3 "Program Output: SELECTQ.SD2";

PROC CONTENTS DATA=OUT.SELECTQ; RUN;

PROC FREQ DATA=OUT.SELECTQ;
TABLES FNSTATUS KEYCOUNT FLAG_FIN
       FNSTATUS*KEYCOUNT*FLAG_FIN
   /MISSING LIST;
RUN;
```

3. CONSTRUCTED VARIABLES FOR ANALYSIS

```
*******************************************************************************
* PROGRAM:   CONVARQ.SAS
* WRITTEN:   2/3/99 BY KELLY WHITE
* UPDATED:   2/29/2000 BY NATALIE JUSTH
* UPDATED:   11/16/2000 BY JOAN JAMES
* UPDATED FOR QUARTERLY 2001:  1/22/2001 BY NATALIE JUSTH
* UPDATED FOR QUARTER 2 2001:  6/5/2001 BY NATALIE JUSTH
*                              UPDATES NOTED WITH NJ_Q2
* UPDATED FOR QUARTER 3 2001:  8/20/2001 BY NATALIE JUSTH
* UPDATED FOR QUARTER 4 2001: 12/11/2001 BY NATALIE JUSTH, REMOVED KENRINTN
*            AND CHANGE DAGEQY TO FIELDAGE.
* UPDATED FOR QUARTER 1 2002:  4/01/2002 BY JACLYN WONG, REMOVED KMEDIGAP, KCOST_2
* UPDATED FOR QUARTER 2 2002:  6/19/2002 BY JACLYN WONG, REMOVED KPRSCPTN
* UPDATED FOR QUARTER 3 2002:  9/25/2002 BY JACLYN WONG
*
* PURPOSE:   TO CREATE 5 INDEPENDENT VARIABLES: XENRLLMT, XENR_PCM, XINS_COV
*            XQENROLL,  XBNFGRP
*            TO CREATE DEPENDENT VARIABLES: KDISENRL, KBGPRB1,
*            KBGPRB2, KMILOFFC, KCIVOFFC, KMILOPQY, KCIVOPQY, HP_PRNTL, HP_MAMOG, HP_MAM50
*            HP_PAP, HP_BP, HP_FLU, HP_PROS, KCIVINS, KPRSCPTN, HP_GP, HP_CHOL, HP_BRST,
HP_SMOKE, KBRSTCR
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.SD2
* OUTPUT:    ..\..\DATA\AFINAL\CONVARQ.SD2
*******************************************************************************
*;

LIBNAME IN V612 '..\..\DATA\AFINAL';
LIBNAME LIBRARY V612 '..\..\DATA\AFINAL\FMTLIB';
OPTIONS PS=78 LS=124 ERRORS=2 CENTER ;
TITLE1 '2002 Quarter 4 Health Care Survey of DoD Beneficiaries Study - Adult Form A';
TITLE2 'CREATE CONSTRUCTED & OUTCOME MEASURE VARIABLES';


DATA IN.CONVARQ(KEEP=XENRLLMT XENR_PCM XINS_COV XQENROLL XREGION ENBGSMPL XBNFGRP
                     KDISENRL KMILOFFC KCIVOFFC KBGPRB1 KBGPRB2
                     KMILOPQY KCIVOPQY HP_PRNTL HP_MAMOG HP_MAM50 HP_PAP HP_BP HP_FLU
HP_PROS
                     MPRID KCIVINS HP_GP HP_CHOL HP_BRST HP_SMOKE /*KPRSCPTN*/ KBRSTCR
                     OUTCATCH LEGDDSCD)
     CONVARQ;
   SET IN.SELECTQ;



LABEL
   XENRLLMT    =  "Enrollment in TRICARE Prime"
   XENR_PCM    =  "Enrollment by PCM type"
   XINS_COV    =  "Insurance Coverage"
   XQENROLL    =  "Enrllmnt accordng to questionre rspnse"
   XBNFGRP     =  "Constructed Beneficiary Group"
   KDISENRL    =  "Intention to disenroll      "
   KMILOFFC    =  "Office wait of more than 15 min-Mil"
   KCIVOFFC    =  "Office wait of more than 15 min-Civ"
   KBGPRB1     =  "Big problem getting referrals to spclst"
   KBGPRB2     =  "Big problem getting necessary care"
   KMILOPQY    =  "Outpatient visits to Military facility"
   KCIVOPQY    =  "Outpatient visits to Civilian facility"
   /*KPRSCPTN    =  "7 or > civ prscrptns filled by mil phmcy"*/
   HP_PRNTL    =  "Prgnt in last yr, receivd cre 1st trimstr"
   HP_MAMOG    =  "Women 40>=, mammography in pst 2 yrs"
   HP_MAM50    =  "Women 50>=, mammography in pst 2 yrs"
   HP_PAP      =  "All women, Pap smear in last 3 yrs"
   HP_BP       =  "Bld prsre chck in last 2 yrs,know rslts"
   HP_FLU      =  "65 and older, flu shot in last 12 mnths"
   HP_PROS     =  "Men 50>=, prostrate exam in last 12 mnths"
   HP_GP       =  "General physical exam in last 12 mnths"
   HP_CHOL     =  "Cholesterol screening in last 5 yrs"
   HP_SMOKE    =  "Advised to quit smoking in last 12 mnths"
   HP_BRST     =  "Women >=40, breast exam in last 12 mnths"
   KCIVINS     =  "Beneficiary coverd by civilian insurance"
   KBRSTCR     =  "Women 40>= ever had mammogram & brst exm"
   OUTCATCH    =  "Out of catchment area indicator"
```

```
   ;


FORMAT
   XENRLLMT       ENROLL.
   XENR_PCM       PCM.
   XINS_COV       INSURE.
   XQENROLL       PCM.
   XBNFGRP        XBGC_S.
   KDISENRL       HAYNN.
   KMILOFFC       HAYNN.
   KCIVOFFC       HAYNN.
   KBGPRB1        HAYNN.
   KBGPRB2        HAYNN.
   KMILOPQY       HAGRID.
   KCIVOPQY       HAGRID.
   /*KPRSCPTN       HAYNN.   */
   HP_PRNTL       PRNTL.
   HP_MAMOG       HAYNN.
   HP_MAM50       HAYNN.
   HP_PAP         HAYNN.
   HP_BP          HAYNN2_.
   HP_FLU         HAYNN.
   HP_PROS        HAYNN.
   HP_GP          HAYNN.
   HP_CHOL        HAYNN.
   HP_SMOKE       HAYNN.
   HP_BRST        HAYNN.
   KCIVINS        HAYNN2_.
   KBRSTCR        HAYNN.
   OUTCATCH       OCATCH.
   LEGDDSCD       $DDSFMT.
   ;


/* CREATE INDEPENDENT VARIABLES */



/* XENRLLMT--ENROLLMENT STATUS */
IF 18 <= FIELDAGE < 65 THEN DO;
   IF ENBGSMPL = 1 THEN XENRLLMT = 1;                     /*   Active duty (<65) */
   ELSE IF ENBGSMPL IN (2, 3, 5, 6) THEN XENRLLMT = 2;   /*   Non-active duty enrolled
(<65)*/
   ELSE IF ENBGSMPL IN (4, 7) THEN XENRLLMT = 3;         /*   Not Enrolled (<65)*/
END;
ELSE IF FIELDAGE  > = 65 THEN DO;
   IF ENBGSMPL = 10 THEN XENRLLMT = 4;                   /*   Not Enrolled (65+)*/
   IF ENBGSMPL IN (8, 9) THEN XENRLLMT = 5;              /*   Enrolled (65+)    */
END;

/* XENR_PCM--ENROLLMENT BY PCM TYPE */
IF 18 <= FIELDAGE < 65 THEN DO;
   IF ENBGSMPL = 1 THEN XENR_PCM = 1;              /*   Active duty (<65)        */
   ELSE IF ENBGSMPL IN (3, 6) THEN XENR_PCM = 2;   /*   Enrolled (<65) - mil PCM */
   ELSE IF ENBGSMPL IN (2, 5) THEN XENR_PCM = 3;   /*   Enrolled (<65) - civ PCM */
   ELSE IF ENBGSMPL IN (4, 7) THEN XENR_PCM = 4;   /*   Not Enrolled (<65)       */
END;
 ELSE IF FIELDAGE > = 65 THEN DO;
    IF ENBGSMPL = 10 THEN XENR_PCM = 5;            /*  Not Enrolled (65+)       */
    IF ENBGSMPL = 9 THEN XENR_PCM = 6;             /*  Enrolled (65+)-mil PCM   */
    IF ENBGSMPL = 8 THEN XENR_PCM = 7;             /*  Enrolled (65+)-civ PCM   */
/*NJ_Q2*/
 END;

/* XINS_COV--INSURANCE COVERAGE */
IF XENRLLMT = 1 THEN XINS_COV =1;                                    /* Prime <65-Active Duty
*/
  ELSE IF 18 <= FIELDAGE  < 65 AND H02006 IN (1) THEN XINS_COV = 2; /* Prime <65-Non-active
Duty */
  ELSE IF H02006 = 3 THEN XINS_COV = 3;                               /* Standard/Extra */
```

```
  ELSE IF H02006 = 11 THEN XINS_COV = 7;                              /* Plus and Medicare
*/
  ELSE IF H02006 IN (4, 12) THEN XINS_COV = 4;                        /* Medicare and TFL*/
  ELSE IF H02006 IN (5,6, 7, 8, 9) THEN XINS_COV = 5;              /* Other civilian health
insurance*/
  ELSE IF H02006 = 10 THEN XINS_COV = 8;                            /* Veterans
Administration (VA) */
  ELSE IF (FIELDAGE>= 65 AND XENRLLMT = 5 and H02006 = 1) THEN XINS_COV = 6;   /* Prime, >=
65 */
  ELSE IF H02003=1 AND H02004=1 AND H02006 NE .N THEN XINS_COV = 4;                  /* NEW
Q2 Medicare/Medicaid */


/* XQENROLL--ENROLLMENT ACCORDING TO QUESTIONNAIRE RESPONSES AND */
/* USING DEERS SAMPLING VALUES  */
IF ENBGSMPL = 1 AND 18 <= FIELDAGE < 65 THEN XQENROLL = 1;   /* Active Duty (<65)*/

   ELSE IF 18 <= FIELDAGE < 65 AND H02012 = 1 THEN DO;
      IF H02013 = 1 THEN XQENROLL = 2;                    /*  Enrolled (<65) - mil PCM */
      ELSE IF H02013 = 2 THEN XQENROLL = 3;               /*  Enrolled (<65) - civ PCM */

      ELSE IF H02013 = 3 THEN DO;
         IF ENBGSMPL IN (3, 6) THEN XQENROLL = 2;         /* Enrolled (<65) - Mil PCM */
         ELSE IF ENBGSMPL IN (2, 5) THEN XQENROLL = 3;    /* Enrolled (<65) - Civ PCM */
      END;
   END;
   ELSE IF H02012 NE 1 THEN DO;
      IF 18 <= FIELDAGE < 65 THEN XQENROLL = 4;           /* Not enrolled (<65)   */
      ELSE IF FIELDAGE >= 65 THEN XQENROLL = 5;             /* Not enrolled (>=65) */
   END;


/* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty
          and Family Members of Active Duty */
IF FIELDAGE  >= 65 AND ENBGSMPL IN (1, 2, 3, 4) THEN XBNFGRP = .;
   ELSE IF ENBGSMPL = 1 THEN XBNFGRP = 1;
   ELSE IF ENBGSMPL IN (2, 3, 4) THEN XBNFGRP = 2;
   ELSE IF ENBGSMPL IN (5, 6, 7) THEN XBNFGRP = 3;
   ELSE IF ENBGSMPL IN (8, 9, 10) THEN XBNFGRP = 4;

/* CREATE DEPENDENT VARIABLES */

/* KENRINTN--INTENTION TO ENROLL */
/*IF H00058  IN (4, 5) THEN KENRINTN = 1;
   ELSE IF H00058  IN (1, 2, 3, -5) THEN KENRINTN = 2;  */

/* KDISENRL--INTENTION TO DISNEROLL */
IF H02057  IN (4, 5) THEN KDISENRL = 1;                    /* Yes */
   ELSE IF H02057  IN (1, 2, 3, .D) THEN KDISENRL = 2;    /* No  */

/* KMILOFFC--OFFICE WAIT OF MORE THAN 15 MINUTES AT MILITARY FACILITES
   KCIVOFFC--OFFICE WAIT OF MORE THAN 15 MINUTES AT CIVILIAN FACILITES */
IF H02041  = 1 THEN DO;                                   /* Military */
   IF H02032  IN (3,4) THEN KMILOFFC = 1;                 /* Yes */
   ELSE IF H02032  IN (1,2) THEN KMILOFFC = 2;            /* No  */
END;
   ELSE IF H02041 IN (2, 3, 4) THEN DO;                   /* Civilian */
      IF H02032 IN (3,4) THEN KCIVOFFC = 1;               /* Yes */
      ELSE IF H02032  IN (1,2) THEN KCIVOFFC = 2;         /* No */
   END;

/* KBGPRB1--BIG PROBLEM GETTING REFERRALS TO SPECIALISTS */
IF H02016 = 1 THEN KBGPRB1 = 1;                             /* YES */
   ELSE IF H02016 IN (2,3) THEN KBGPRB1 = 2;                /* NO  */

/* KBGPRB2--BIG PROBLEM GETTING NECESSARY CARE */
IF H02030 = 1 THEN KBGPRB2 = 1;                            /* YES */
    ELSE IF H02030 IN (2,3) THEN KBGPRB2 = 2;              /* NO  */

/* KMILOPQY--OUTPATIENT VISITS TO MILITARY FACILITY
   KCIVOPQY--OUTPATIENT VISITS TO CIVILIAN FACILITY */
IF H02041 = 1 THEN DO;
   KMILOPQY=H02029;
```

```
   KCIVOPQY=1;
END;
ELSE IF H02041 IN  (2, 3, 4) THEN DO;
   KCIVOPQY=H02029;
   KMILOPQY=1;
END;
ELSE IF H02041 = 5 THEN DO;
   KMILOPQY=1;
   KCIVOPQY=1;
END;

/* KPRSCPTN--6 OR MORE CIVILIAN PRESCRIPTIONS FILLED BY MILITARY PHARMACY */
/*IF H02040 IN (3,4,5) THEN KPRSCPTN = 1;
   IF H02040 IN (1,2) THEN KPRSCPTN = 2;  */

/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER */
IF H02073 IN (1,2) THEN DO;                                    /*   Pregnant in last 12
months   */
   IF H02075 = 4 THEN HP_PRNTL = 1;                            /*   Yes   */
      ELSE IF (H02074 = 1 AND H02075 = 1) THEN HP_PRNTL = .;    /* <3 months pregnant now */
      ELSE IF H02075 IN (1,2,3) THEN HP_PRNTL = 2;              /*   No */
END;

/* HP_MAMOG--FOR WOMEN AGE 40 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
IF XSEXA = 2 AND FIELDAGE  >= 40 THEN DO;
   IF H02071 IN (5, 4) THEN HP_MAMOG = 1;            /* Yes */
   ELSE IF H02071 IN (1, 2, 3) THEN HP_MAMOG = 2;    /* No */
END;

/* HP_MAM50--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
IF XSEXA = 2 AND FIELDAGE  >= 50 THEN DO;
   IF H02071 IN (5, 4) THEN HP_MAM50 = 1;            /* Yes */
   ELSE IF H02071 IN (1, 2, 3) THEN HP_MAM50 = 2;    /* No */
END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
IF XSEXA = 2 THEN DO;
   IF H02069 IN (4, 5) THEN HP_PAP = 1;              /* Yes */
   ELSE IF H02069 IN (1, 2, 3) THEN HP_PAP = 2;      /* No  */
END;

/* HP_BP--HAD BLOOD PRESSURE SCREENING IN LAST 2 YEARS AND KNOW RESULT */
IF H02059 IN (2,3) AND H02060 IN (1,2) THEN HP_BP = 1;   /* Yes     */
   ELSE IF H02059 = 1 THEN HP_BP = 2;                    /* No      */
   ELSE IF H02059 < 0 OR H02060 < 0 THEN HP_BP = .;      /* Unknown */
   ELSE HP_BP = 2;                                       /* No      */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
IF FIELDAGE >= 65 THEN DO;
   IF H02062 = 4 THEN HP_FLU = 1;                    /*   Yes */
   ELSE IF H02062 IN (1, 2, 3) THEN HP_FLU = 2;      /*   No  */
END;

/* HP_PROS--FOR MEN AGE 50 AND OVER, HAD PROSTRATE EXAM W/IN PAST 12 MONTHS */
IF XSEXA = 1 AND FIELDAGE  >= 50 THEN DO;
   IF H02068 = 5 THEN HP_PROS = 1;                   /*   Yes */
   ELSE IF H02068 IN (1, 2, 3, 4) THEN HP_PROS = 2;  /*   No   */
END;

/* HP_GP--EXCEPT WHEN SICK OR PREGNANT, GENERAL PHYSICAL EXAM W/IN PAST 12 MONTHS */
IF H02058 = 5 THEN HP_GP = 1;                        /*   Yes    */
   ELSE IF H02058 IN (1, 2, 3, 4) THEN HP_GP = 2;    /*   No     */

/* HP_CHOL--HAD CHOLESTEROL SCREENING IN PAST 5 YEARS */
IF H02061 IN (3, 4, 5) THEN HP_CHOL = 1;             /*    Yes   */
   ELSE IF H02061 IN (1, 2) THEN HP_CHOL = 2;        /*    No    */

/* HP_SMOKE--ADVISED TO QUIT SMOKING IN PAST 12 MONTHS */
IF H02066 IN (2, 3, 4, 5) THEN HP_SMOKE = 1;         /*   Yes   */
   ELSE IF H02066 = 1 THEN HP_SMOKE = 2;             /*   No    */

/* HP_BRST--BREAST EXAM IN PAST 12 MONTHS */
IF XSEXA=2 AND FIELDAGE >= 40 THEN DO;
```

```
   IF H02072 = 5 THEN HP_BRST = 1;                  /*   Yes   */
   ELSE IF H02072 IN (1, 2, 3, 4) THEN HP_BRST = 2;  /*   No    */
END;

/* KCIVINS--IS BENEFICIARY COVERED BY CIVILIAN INSURANCE */
IF H02002G=1 OR H02002I=1 OR H02002J=1 THEN KCIVINS=1;          /* YES  */  /*NJ_Q2*/
   ELSE KCIVINS=2;                                              /* NO   */

/* KMEDIGAP--IS BENEFICIARY COVERED BY MEDIGAP */     /* Medigap not a response in current
survey */
/*IF H02002F=1 THEN KMEDIGAP=1;
   ELSE KMEDIGAP=2;
*/
/* KCOST_2--OUT OF POCKET COSTS FOR OFFICE VISITS GREATER THAN $500 */
/*IF H00059 IN (3, 4, 5) THEN KCOST_2 = 1;
   ELSE IF H00059 IN (1, 2) THEN KCOST_2=2;*/

/* KBRSTCR--WOMEN 40>=, EVER HAD MAMMOGRAM & EVER HAD BREAST EXAM */
IF XSEXA = 2 AND FIELDAGE  >= 40 THEN DO;
   IF (H02071 IN (5, 4, 3, 2) AND H02072 IN (5, 4, 3, 2)) THEN KBRSTCR = 1;   /* Yes */
   ELSE IF (H02071 = 1 OR H02072=1)  THEN KBRSTCR = 2;                        /* No */
END;

/* OUTCATCH -- OUT OF CATCHMENT AREA */
IF CACSMPL > 9900 THEN OUTCATCH=1;     /* Out of catchment area */
   ELSE OUTCATCH=0;                    /* Catchment area        */

*******************************************************************************
* Collapse/Recode the DEERS dependent suffix for each possible range of values
*******************************************************************************;
IF      "01" LE LEGDDSCD LE "19" THEN LEGDDSCD = "01"; * 01-19 = 'Dependent Child';
ELSE IF "30" LE LEGDDSCD LE "39" THEN LEGDDSCD = "30"; * 30-39 = 'Spouse of Sponsor';
ELSE IF "40" LE LEGDDSCD LE "44" THEN LEGDDSCD = "40"; * 40-44 = 'Mother of Sponsor';
ELSE IF "45" LE LEGDDSCD LE "49" THEN LEGDDSCD = "45"; * 45-49 = 'Father of Sponsor';
ELSE IF "50" LE LEGDDSCD LE "54" THEN LEGDDSCD = "50"; * 50-54 = 'Mother in law of Sponsor';
ELSE IF "55" LE LEGDDSCD LE "59" THEN LEGDDSCD = "55"; * 55-59 = 'Father in law of Sponsor';
ELSE IF "60" LE LEGDDSCD LE "69" THEN LEGDDSCD = "60"; * 60-69 = 'Chidren where # > 19';


DATA CONVARQ2;
   SET CONVARQ;
   WHERE FNSTATUS=11;
RUN;

/* CHECK RECONSTRUCTED 2002 VARIABLES */
PROC FREQ DATA=CONVARQ2;
 TABLES XENRLLMT XENR_PCM XINS_COV XQENROLL XREGION ENBGSMPL XBNFGRP
        KDISENRL KMILOFFC KCIVOFFC KBGPRB1 KBGPRB2
        KMILOPQY KCIVOPQY HP_PRNTL HP_MAMOG HP_MAM50 HP_PAP HP_BP HP_FLU KBRSTCR
        HP_PROS HP_GP HP_CHOL HP_SMOKE HP_BRST KCIVINS /*KPRSCPTN*/ OUTCATCH LEGDDSCD
        / MISSING LIST;
 TITLE3 'ONE WAY FREQUENCIES ON 2002 RECONSTRUCTED VARIABLES';
 RUN;

/* CROSSTABS TO CHECK RECONSTRUCTION OF 2002 VARIABLES */
/* COLLAPSE AGE FOR CROSSTABS */
   PROC FORMAT;
     VALUE $AGE
             "018" -< "065" = "LESS THAN 65"
             "065" -< "120" = "65 OR OLDER"
             "O"      = "Out of range err"
             " "      = "Missing/unknown" ;
             RUN ;


   PROC FREQ DATA=CONVARQ2;
    TABLES FIELDAGE*ENBGSMPL*XENRLLMT
           FIELDAGE*ENBGSMPL*XENR_PCM
           FIELDAGE*XENRLLMT*H02006*XINS_COV
           FIELDAGE*H02012*H02013*ENBGSMPL*XQENROLL
           XENR_PCM*XQENROLL             /* compare enrollment by pcm & questionnaire */
           XREGION*CACSMPL
           FIELDAGE*ENBGSMPL*XBNFGRP
```

```
          H02057*KDISENRL
          H02041*H02032*KMILOFFC*KCIVOFFC
          H02016*KBGPRB1
          H02030*KBGPRB2
          H02041*H02029*KMILOPQY
          H02041*H02029*KCIVOPQY
          /*H02040*KPRSCPTN*/
          H02073*H02074*H02075*HP_PRNTL
          XSEXA*FIELDAGE*H02071*HP_MAMOG
          XSEXA*FIELDAGE*H02071*HP_MAM50
          XSEXA*FIELDAGE*H02071*H02072*KBRSTCR
          XSEXA*H02069*HP_PAP
          H02059*H02060*HP_BP
          FIELDAGE*H02062*HP_FLU
          XSEXA*FIELDAGE*H02068*HP_PROS
          H02058*HP_GP
          H02061*HP_CHOL
          H02066*HP_SMOKE
          FIELDAGE*XSEXA*H02072*HP_BRST
          H02002I*H02002J*H02002G*KCIVINS
          OUTCATCH*CACSMPL
          / MISSING LIST;
          FORMAT FIELDAGE $AGE.;
    TITLE3 'CROSSTABS ON ALL NEW VARIABLES';
           RUN;

  PROC FREQ DATA=CONVARQ2;
     tables XREGION*CACSMPL
          / MISSING LIST;
     format _all_;
  run;

/* COLLAPSE FOR MAMMOGRAPHY AND PROSTRATE XTAB*/
/*     PROC FORMAT ;
       VALUE AGE2_
            18 - 49 = "LESS THAN 50"
            50-HIGH = "50 OR OLDER"
            .O      = "Out of range err"
            .       = "Missing/unknown" ;
            RUN ;

        PROC FREQ DATA=CONVARQ2;
            TABLES XSEXA*FIELDAGE*H02071*HP_MAMOG
                   XSEXA*FIELDAGE*H02071*HP_MAM50
                   XSEXA*FIELDAGE*H02071*H02072*KBRSTCR
                   XSEXA*FIELDAGE*H02068*HP_PROS
                   /MISSING LIST;
                   FORMAT FIELDAGE  AGE2_.;
        RUN;   */

  PROC CONTENTS DATA=IN.CONVARQ;
  RUN;
```

4. MERGE CONSTRUCTED VARIABLES ONTO DATA FILE

```
*******************************************************************************
* PROGRAM:   MERGE.SAS
* WRITTEN:   1/28/00 BY KELLY WHITE
* MODIFIED:  3/1/00 BY NATALIE JUSTH
* MODIFIED:  11/16/00 BY JOAN JAMES
* MODIFIED:  1/30/01 BY NATALIE JUSTH
* MODIFIED:  6/6/01 BY NATALIE JUSTH FOR Q2 UPDATES
* MODIFIED:  8/20/01 BY NATALIE JUSTH FOR Q3 UPDATES
* MODIFIED: 12/13/01 BY NATALIE JUSTH FOR Q4 UPDATES
* MODIFIED: 2/11/02 By Daniele Beahm to delete H00077 variable and reassign format for
*           S00S01 variable
* MODIFIED: 4/11/02 By JACLYN WONG FOR Q1 UPDATES
* MODIFIED: 6/21/02 by JACLYN WONG FOR Q2 UPDATES
* MODIFIED: 7/1/2002 By Daniele Beahm to delete SF8 variables not used for Q2 2002
* MODIFIED: 10/16/2002 By Daniele Beahm to delete Q2 2002 Supplemental vars that were on the
*           Q3 2002 data file from NRC.
* MODIFIED: 01/02/2003 By Keith Rathbun: Added ONTIME variable to support the annual
*           version of the database (trickle indicator).  This ONTIME variable is
*           only applicable to the annual file and thus should be deleted for the
*           quarterly version of this program.
*
* PURPOSE:   TO MERGE FINAL FILES TOGETHER AND REORDER BY VARIABLE TYPE
*            To reorder variables within the record use a
*             LENGTH statement before the SET statement.
*             Make sure that MPRID is the first variable in the
*             record followed by:
*                           1)  other sampling variables
*                           2)  DEERS variables
*                           3)  Post-stratification vars
*                           4)  questionnaire responses
*                           5)  DRC variables
*                           6)  recoded questionnaire responses
*                           3)  coding scheme flags
*                           8)  constructed variables
*                           9)  weights  (NOT AVAILABLE FOR PRELIMINARY DATA)
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.SD2
* INPUT:     ..\..\DATA\AFINAL\CONVARQ.SD2
* INPUT:     ..\..\DATA\AFINAL\CONVARSF.SD2
* OUTPUT:    ..\..\DATA\AFINAL\MERGEQ.SD2
* INCLUDE:   SERVAFF.SAS
             TO MERGE ON VARIABLE SERVAFF
*******************************************************************************
*;
LIBNAME IN      V612 '..\..\DATA\AFINAL';
LIBNAME OUT     V612 '..\..\DATA\AFINAL';
LIBNAME LIBRARY V612 '..\..\DATA\AFINAL\FMTLIB';

OPTIONS PS=78 LS=124 ERRORS=2 COMPRESS=YES ; *MPRINT;

%INCLUDE SERVAFF;

PROC SORT DATA=IN.SELECTQ OUT=SELECTQ;
   BY MPRID;
RUN;

PROC SORT DATA=IN.CONVARQ OUT=CONVARQ;
   BY MPRID;
RUN;

/*
PROC SORT DATA=IN.CONVARSF OUT=CONVARSF;
   BY MPRID;
RUN;
*/

PROC SORT DATA=IN.SERVAFF OUT=SERVAFF;
   BY MPRID;
RUN;

PROC FREQ DATA=SERVAFF;
   TABLES SERVAFF;
RUN;
```

```
DATA MERGEQ (DROP = H02001_O H02009_O H02028_O H02047_O H02066_O SRAGE_O
                    H02002AO H02010_O H02029_O H02048_O H02067_O
                    H02002CO H02011_O H02030_O H02049_O H02068_O
                    H02002FO H02012_O H02031_O H02050_O H02069_O
                    H02002GO H02013_O H02032_O H02051_O H02070_O
                    H02002HO H02014_O H02033_O H02052_O H02071_O
                    H02002IO H02015_O H02034_O H02053_O H02072_O
                    H02002JO H02016_O H02035_O H02054_O H02073_O
                    H02002KO H02017_O H02036_O H02055_O H02074_O
                    H02002LO H02018_O H02037_O H02056_O H02075_O
                    H02002MO H02019_O H02038_O H02057_O H02076_O
                    H02002NO H02020_O H02039_O H02058_O H02077_O
                    H02002OO H02021_O H02040_O H02059_O
                    H02003_O H02022_O H02041_O H02060_O SREDA_O
                    H02004_O H02023_O H02042_O H02061_O SRRACEAO
                    H02005_O H02024_O H02043_O H02062_O SRRACEBO
                    H02006_O H02025_O H02044_O H02063_O SRRACECO
                    H02007_O H02026_O H02045_O H02064_O SRRACEDO
                    H02008_O H02027_O H02046_O H02065_O SRRACEEO
                    S02T01_O S02T02_O S02T03_O S02T04_O S02T05_O
                    S02T06_O S02T07_O S02T08_O S02T09AO S02T09BO
                    S02T09CO S02T09DO S02T09EO S02T09FO S02T09GO
                    S02T09HO S02T10_O S02T11_O S02T12_O);

   MERGE SELECTQ(in=hcsdb) CONVARQ SERVAFF; *CONVARSF;  *NO SF8 Variables in Q2 2002;
   BY MPRID;
   if hcsdb;

FORMAT
   SERVAFF  $SERVAFF.
   ENBGSMPL $ENBGS.
   XREGION  CREG.
   CONUS    CONUSMHS.
   CACSMPL  $CAC.
   DBENCAT  $BENCAT.
   DMEDELG  $MEDELG.
   DSPONSVC $SPONSVC.
   FLAG_FIN $FINAL.
   FNSTATUS FNSTATS.
   MBRRELCD $MBRREL.
   MEDTYPE  $MEDTYP.
   MRTLSTAT $MSTATUS.
   PATCAT   $AGGBCAT.
   MISS_1   HAMISS.
   MISS_4   HAMISS.
   MISS_5   HAMISS.
   MISS_6   HAMISS.
   MISS_7   HAMISS.
   MISS_8   HAMISS.
   MISS_9   HAMISS.
   MISS_TOT HAMISS.
   PCM      $PCM.
   PNLCATCD $PNLCAT.
   PNSEXCD  $SEXCD.
   RACEETHN $RACECD.
   SEXSMPL  SEX.
/*   SUBDEMO  $SUBDEMO. */
   SVCSMPL  SVCSMPL.
/*   TSPSITE  $TSPSITE. */
   XSEXA    HASEX.
   SERVAREA $SRVAREA.
   MPCSMPL  MPCSMPL.
   MPRID    $8.         /*Remove extra format space ($43) provided by NRC*/
   ;
LABEL
   ENBGSMPL = "Enrollment by beneficiary category"
   SERVAFF  = "Service Affiliation"
   MPCSMPL  = "MPCSMPL - Military Personnel Category"
   ;

RUN;
```

```
PROC CONTENTS DATA=MERGEQ;
RUN;

/*PROC FREQ DATA=MERGEQ;
   TABLES SERVAFF MPCSMPL;
RUN;

PROC FREQ DATA=MERGEQ;
   TABLES XREGION*CACSMPL
   / LIST MISSING;
RUN;   */

DATA OUT.MERGEQ;

     LENGTH

       MPRID       $ 8         /* ID                */
       SVCSMPL       8         /* sampling variable */
       SEXSMPL       8         /* sampling variable */
       STRATUM     $ 7         /* sampling variable */
       CACSMPL     $ 4         /* sampling variable */
       ENBGSMPL    $ 2         /* sampling variable */
       MPCSMPL       8         /* sampling variable */
       NHFF          8         /* sampling variable */
       SERVAREA    $ 2         /* sampling variable */
       QUARTER     $ 7         /* sampling variable */
       ONTIME      $ 3         /* sampling variable */
       PRN           8         /* sampling variable */
       DCATCH      $ 4         /* sampling variable */
       DMIS_ID     $ 9         /* sampling variable */
       E1          $ 1         /* sampling variable */
       E2          $ 1         /* sampling variable */
       E3          $ 1         /* sampling variable */
       E4          $ 1         /* sampling variable */
       E5          $ 1         /* sampling variable */
       E6          $ 1         /* sampling variable */
       E7          $ 1         /* sampling variable */
       E8          $ 1         /* sampling variable */
       SERVAFF     $ 1         /* sampling variable */


       MRTLSTAT    $ 1         /* DEERS variable    */
       RACEETHN    $ 1         /* DEERS variable    */
       PNSEXCD     $ 1         /* DEERS variable    */
       LEGDDSCD    $ 2         /* DEERS variable    */
       DAGEQY      $ 3         /* DEERS variable    */
       FIELDAGE    $ 3         /* DEERS variable    */
       PCM         $ 3         /* DEERS variable    */
     /*TSPSITE    $ 10 */      /* DEERS variable    */
       DBENCAT     $ 3         /* DEERS variable    */
       DMEDELG     $ 1         /* DEERS variable    */
       DSPONSVC    $ 1         /* DEERS variable    */
       MBRRELCD    $ 1         /* DEERS variable    */
       MEDTYPE     $ 1         /* DEERS variable    */
       PATCAT      $ 7         /* DEERS variable    */
       PNLCATCD    $ 1         /* DEERS variable    */


       H02001        4         /* questionnaire     */
       H02002A       4         /* questionnaire     */
       H02002C       4         /* questionnaire     */
       H02002F       4         /* questionnaire     */
       H02002G       4         /* questionnaire     */
       H02002H       4         /* questionnaire     */
       H02002I       4         /* questionnaire     */
       H02002J       4         /* questionnaire     */
       H02002K       4         /* questionnaire     */
       H02002L       4         /* questionnaire     */
       H02002M       4         /* questionnaire     */
       H02002N       4         /* questionnaire     */
       H02002O       4         /* questionnaire     */
       H02003        4         /* questionnaire     */
       H02004        4         /* questionnaire     */
```

```
H02005        4         /* questionnaire     */
H02006        4         /* questionnaire     */
H02007        4         /* questionnaire     */
H02008        4         /* questionnaire     */
H02009        4         /* questionnaire     */
H02010        4         /* questionnaire     */
H02011        4         /* questionnaire     */
H02012        4         /* questionnaire     */
H02013        4         /* questionnaire     */
H02014        4         /* questionnaire     */
H02015        4         /* questionnaire     */
H02016        4         /* questionnaire     */
H02017        4         /* questionnaire     */
H02018        4         /* questionnaire     */
H02019        4         /* questionnaire     */
H02020        4         /* questionnaire     */
H02021        4         /* questionnaire     */
H02022        4         /* questionnaire     */
H02023        4         /* questionnaire     */
H02024        4         /* questionnaire     */
H02025        4         /* questionnaire     */
H02026        4         /* questionnaire     */
H02027        4         /* questionnaire     */
H02028        4         /* questionnaire     */
H02029        4         /* questionnaire     */
H02030        4         /* questionnaire     */
H02031        4         /* questionnaire     */
H02032        4         /* questionnaire     */
H02033        4         /* questionnaire     */
H02034        4         /* questionnaire     */
H02035        4         /* questionnaire     */
H02036        4         /* questionnaire     */
H02037        4         /* questionnaire     */
H02038        4         /* questionnaire     */
H02039        4         /* questionnaire     */
H02040        4         /* questionnaire     */
H02041        4         /* questionnaire     */
H02042        4         /* questionnaire     */
H02043        4         /* questionnaire     */
H02044        4         /* questionnaire     */
H02045        4         /* questionnaire     */
H02046        4         /* questionnaire     */
H02047        4         /* questionnaire     */
H02048        4         /* questionnaire     */
H02049        4         /* questionnaire     */
H02050        4         /* questionnaire     */
H02051        4         /* questionnaire     */
H02052        4         /* questionnaire     */
H02053        4         /* questionnaire     */
H02054        4         /* questionnaire     */
H02055        4         /* questionnaire     */
H02056        4         /* questionnaire     */
H02057        4         /* questionnaire     */
H02058        4         /* questionnaire     */
H02059        4         /* questionnaire     */
H02060        4         /* questionnaire     */
H02061        4         /* questionnaire     */
H02062        4         /* questionnaire     */
H02063        4         /* questionnaire     */
H02064        4         /* questionnaire     */
H02065        4         /* questionnaire     */
H02066        4         /* questionnaire     */
H02067        4         /* questionnaire     */
H02068        4         /* questionnaire     */
H02069        4         /* questionnaire     */
H02070        4         /* questionnaire     */
H02071        4         /* questionnaire     */
H02072        4         /* questionnaire     */
H02073        4         /* questionnaire     */
H02074        4         /* questionnaire     */
H02075        4         /* questionnaire     */
H02076        4         /* questionnaire     */
H02077        4         /* questionnaire     */
```

```
        SREDA          4         /* questionnaire     */
        SRRACEA        4         /* questionnaire     */
        SRRACEB        4         /* questionnaire     */
        SRRACEC        4         /* questionnaire     */
        SRRACED        4         /* questionnaire     */
        SRRACEE        4         /* questionnaire     */
        SRAGE          4         /* questionnaire     */


        S02T01         4         /* supplemental      */
        S02T02         4         /* supplemental      */
        S02T03         4         /* supplemental      */
        S02T04         4         /* supplemental      */
        S02T05         4         /* supplemental      */
        S02T06         4         /* supplemental      */
        S02T07         4         /* supplemental      */
        S02T08         4         /* supplemental      */
        S02T09A        4         /* supplemental      */
        S02T09B        4         /* supplemental      */
        S02T09C        4         /* supplemental      */
        S02T09D        4         /* supplemental      */
        S02T09E        4         /* supplemental      */
        S02T09F        4         /* supplemental      */
        S02T09G        4         /* supplemental      */
        S02T09H        4         /* supplemental      */
        S02T10         4         /* supplemental      */
        S02T11         4         /* supplemental      */
        S02T12         4         /* supplemental      */


        FLAG_FIN     $ 5         /* NRC variable      */
        DUPFLAG      $ 3         /* NRC variable      */
        FNSTATUS       8         /* NRC variable      */
        KEYCOUNT       8         /* NRC variable      */


        N1             8         /* CS flag variable     */
        N2             8         /* CS flag variable     */
        N3             8         /* CS flag variable     */
        N4             8         /* CS flag variable     */
        N5             8         /* CS flag variable     */
        N6             8         /* CS flag variable     */
        N7             8         /* CS flag variable     */
        N8             8         /* CS flag variable     */
        N9             8         /* CS flag variable     */
        N10            8         /* CS flag variable     */
        N11            8         /* CS flag variable     */
/*      N12            8 */      /* CS flag variable     */
/*      N13            8 */      /* CS flag variable     */
/*      N14            8 */      /* CS flag variable     */
        N15            8         /* CS flag variable     */
        N16            8         /* CS flag variable     */
        N17            8         /* CS flag variable     */
        N18            8         /* CS flag variable     */
        N19            8         /* CS flag variable     */
/*      N20            8  */     /* CS flag variable     */
/*      N21            8  */     /* CS flag variable     */
/*      N22            8  */     /* CS flag variable     */
        N24            8         /* CS flag variable     */
        N25A           8         /* CS flag variable     */
        N25B           8         /* CS flag variable     */
        N25C           8         /* CS flag variable     */
        N26            8         /* CS flag variable     */
        N27            8         /* CS flag variable     */
        N28            8         /* CS flag variable     */
/*      N29            8  */     /* CS flag variable     */
/*      N30            8  */     /* CS flag variable     */
/*      N31            8  */     /* CS flag variable     */
/*      N32            8  */     /* CS flag variable     */
/*      N33            8  */     /* CS flag variable     */
/*      N34            8  */     /* CS flag variable     */
/*      N35            8  */     /* CS flag variable     */
```

```
       MISS_1        8         /* CS Count             */
       MISS_4        8         /* CS Count             */
       MISS_5        8         /* CS Count             */
       MISS_6        8         /* CS Count             */
       MISS_7        8         /* CS Count             */
       MISS_8        8         /* CS Count             */
       MISS_9        8         /* CS Count             */
       MISS_TOT      8         /* CS Count             */

       XENRLLMT      8         /* constructed       */
       XENR_PCM      8         /* constructed       */
       XINS_COV      8         /* constructed       */
       XQENROLL      8         /* constructed       */
       XREGION       3         /* constructed       */
       CONUS         3         /* constructed       */
       OUTCATCH      8         /* constructed       */
       XSEXA         8         /* constructed       */
       XBNFGRP       8         /* constructed       */
/*     KENRINTN      8 */      /* constructed       */
       KDISENRL      8         /* constructed       */
       KMILOFFC      8         /* constructed       */
       KCIVOFFC      8         /* constructed       */
       KBGPRB1       8         /* constructed       */
       KBGPRB2       8         /* constructed       */
       KMILOPQY      8         /* constructed       */
       KCIVOPQY      8         /* constructed       */
       KCIVINS       8         /* constructed       */
/*     KPRSCPTN      8 */      /* constructed       */
       KBRSTCR       8         /* constructed       */
       HP_PRNTL      8         /* constructed       */
       HP_MAMOG      8         /* constructed       */
       HP_MAM50      8         /* constructed       */
       HP_PAP        8         /* constructed       */
       HP_BP         8         /* constructed       */
       HP_FLU        8         /* constructed       */
       HP_PROS       8         /* constructed       */
       HP_GP         8         /* constructed       */
       HP_BRST       8         /* constructed       */
       HP_CHOL       8         /* constructed       */
       HP_SMOKE      8         /* constructed       */
/*     SF8PF         8  */     /* constructed       */
/*     SF8RP         8  */     /* constructed       */
/*     SF8BP         8  */     /* constructed       */
/*     SF8GH         8  */     /* constructed       */
/*     SF8VT         8  */     /* constructed       */
/*     SF8SF         8  */     /* constructed       */
/*     SF8RE         8  */     /* constructed       */
/*     SF8MH         8  */     /* constructed       */
/*     PCS_8         8  */     /* constructed       */
/*     MCS_8         8  */     /* constructed       */
/*     KMID_H        8  */     /* constructed       */
/*     KMID_MH       8  */     /* constructed       */

       BWT           8         /* Basic Sampling Weight */

      ;

     SET MERGEQ;

     RUN;

PROC CONTENTS DATA=OUT.MERGEQ POSITION;
   title  "HCSDB for Q4 2002, ordered by variable type";
   RUN;
```

5. TABLE02.SAS CALCULATES RESPONSE RATES

```
*************************************************************************
*
* PROGRAM: TABLE02.SAS
* TASK:    2002 DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: BUILD TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          Quarterly DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 11/09/1999 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 12/14/2000, Keith Rathbun - Added printing of weighted (WN) and
*    unweighted (SN) population sizes.  Also, Update for quarterly survey
*    to use BWT instead of BWT99 (generalized variable name for ease of
*    maintenance).
* 2) 02/01/2001, Keith Rathbun - Added the PERIOD parameter.
* 3) 01/30/2002, Esther Friedman - added nested macro so it would run for all 4 quarters
trickle files
* INCLUDES: 1) TABLE02.IN1
*           2) TABLE02.IN2
*************************************************************************;

LIBNAME IN4 v6 "D:\projects\8687-610\y2002q4\sampling\data";
LIBNAME DODIN4 "F:\DOD\Q4_2002\Data\Afinal";


OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOCENTER

%let period= dod\q4_2002;

%macro doit;
  %do qtr=4 %to 4;

************************************************************************
* Merge repwt and selectq files to add ebg_com
************************************************************************;

 data selectq;
 set DODIN&qtr..selectq;
 format _all_;
 run;

 proc sort data=selectq;
 by mprid;
 run;

 proc sort data=IN&qtr..sampla01 (keep=mprid ebg_com);
 by mprid;
 run;

 data IN&qtr..newmerge;
 merge IN&qtr..sampla01 selectq;
 by mprid;
 run;

 proc contents data=IN&qtr..newmerge;
 run;


%MACRO PROCESS(INPT,FORM,LIB);


************************************************************************
* Process OVERALL Summary of response rates
************************************************************************
;

DATA _NULL_;
   SET IN&qtr..&INPT END=FINISHED;
   format _all_;
   IF _N_ = 1 THEN DO;
      SN    = 0;
      SN1   = 0;
```

```
      SN11  = 0;
      SN12  = 0;
      SN2   = 0;
      SN3   = 0;
      SN4   = 0;
      SN41  = 0;
      SN42  = 0;
      WN   = 0;
      WN1  = 0;
      WN11 = 0;
      WN12 = 0;
      WN2  = 0;
      WN3  = 0;
      WN4  = 0;
      WN41 = 0;
      WN42 = 0;
   END;
*****************************************************
* Accumulate group 1 weighted and unweighted counts
*****************************************************
;
SN + 1;
WN + BWT;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
   WN1 + BWT;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT;
   END;
END;
*****************************************************
* Accumulate group 2 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT;
END;
*****************************************************
* Accumulate group 3 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 30 THEN DO;
   SN3 + 1;
   WN3 + BWT;
END;
*****************************************************
* Accumulate group 4 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT;
   END;
END;

DROP I;
RETAIN
   SN
   SN1
   SN11
```

```
   SN12
   SN2
   SN3
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
   WN3
   WN4
   WN41
   WN42
  ;

   IF FINISHED THEN GO TO FINISHED;

   RETURN;

FINISHED:
   FILE "D:\esther\Q&qtr._2002\res_rate\TABLE02&FORM..OUT" LRECL=132;
   PUT; PUT;
   PUT @001 "TABLE 2: OVERALL RESPONSE RATES SUMMARY";
   PUT @001 "09-18-2002, TASK: 8860-210";
   PUT;
   PUT "SUMMARY OF GROUP COUNTS: FORM &FORM";
   PUT;
   PUT @050 "UNWEIGHTED COUNT"
       @100 "WEIGHTED COUNT"
      ;
   PUT @040 'FLR'
       @050 'FCR'
       @060 'FRR'
       @070 'POP'
       @090 'FLR'
       @100 'FCR'
       @110 'FRR'
       @120 'POP'
      ;
   %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN2";
RUN;
%MEND PROCESS;

************************************************************************
* Process Single Domain where domain1 is the variable of interest
************************************************************************;

%MACRO PROCESS1(DOMAIN1,INPT,FORM,LIB);

*LIBNAME LIBRARY &LIB;

PROC SORT DATA=IN&qtr..&INPT OUT=&INPT ; BY &DOMAIN1; RUN;


DATA _NULL_;
   SET &INPT;
   format _all_;
   BY &DOMAIN1;
   FILE "D:\esther\q&qtr._2002\res_rate\&DOMAIN1..OUT" LRECL=132;
   LENGTH VARNAME1 $8;
   LENGTH VARIABLE $30;
   CALL VNAME(&DOMAIN1,VARNAME1);
   VARIABLE = VARNAME1;
   %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN1";
   IF LAST.&DOMAIN1 THEN DO;
      PUT @001 &DOMAIN1 @;
      %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN2";
   END; * DOMAIN;
RUN;
%MEND PROCESS1;
```

```
*************************************************************************
* Process Double Domain where domain1/domain2 are the variables of interest
*************************************************************************
;
%MACRO PROCESS2(DOMAIN1,DOMAIN2,INPT,FORM,LIB);

*LIBNAME LIBRARY &LIB;

PROC SORT DATA=IN&qtr..&INPT OUT=&INPT ; BY &DOMAIN1 &DOMAIN2; RUN;

DATA _NULL_;
   format _all_;
   SET &INPT;
   BY &DOMAIN1 &DOMAIN2;
   FILE "D:\esther\q&qtr._2002\res_rate\&DOMAIN1&DOMAIN2..OUT" LRECL=132;
   LENGTH VARNAME1 $8;
   LENGTH VARNAME2 $8;
   LENGTH VARIABLE $30;
   CALL VNAME(&DOMAIN1,VARNAME1);
   CALL VNAME(&DOMAIN2,VARNAME2);
   VARIABLE = VARNAME1 || " " || VARNAME2;
   %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN1";
   IF LAST.&DOMAIN2 THEN DO;
      PUT @001 &DOMAIN1 @;
      PUT @025 &DOMAIN2 @;
      %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN2";
      SN    = 0;
      SN1   = 0;
      SN11  = 0;
      SN12  = 0;
      SN2   = 0;
      SN3   = 0;
      SN4   = 0;
      SN41  = 0;
      SN42  = 0;
      WN   = 0;
      WN1  = 0;
      WN11 = 0;
      WN12 = 0;
      WN2  = 0;
      WN3  = 0;
      WN4  = 0;
      WN41 = 0;
      WN42 = 0;
   END; * DOMAIN;
RUN;
%MEND PROCESS2;

*************************************************************************
* Process Triple Domain where domain1-3 are the variables of interest
*************************************************************************
;
%MACRO PROCESS3(DOMAIN1,DOMAIN2,DOMAIN3,INPT,FORM,LIB);

*LIBNAME LIBRARY &LIB;

PROC SORT DATA=IN&qtr..&INPT OUT=&INPT ; BY &DOMAIN1 &DOMAIN2 &DOMAIN3; RUN;

DATA _NULL_;
  format _all_;
   SET &INPT;
   BY &DOMAIN1 &DOMAIN2 &DOMAIN3;
   FILE "D:\esther\q&qtr._2002\res_rate\&DOMAIN1&DOMAIN2&DOMAIN3..OUT" LRECL=132;
   LENGTH VARNAME1 $8;
   LENGTH VARNAME2 $8;
   LENGTH VARNAME3 $8;
   LENGTH VARIABLE $30;
   CALL VNAME(&DOMAIN1,VARNAME1);
   CALL VNAME(&DOMAIN2,VARNAME2);
   CALL VNAME(&DOMAIN3,VARNAME3);
   VARIABLE = VARNAME1 || " " || VARNAME2 || " " || VARNAME3;
   %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN1";
   IF LAST.&DOMAIN3 THEN DO;
```

```
      PUT @001 &DOMAIN1 @;
      PUT @015 &DOMAIN2 @;
      PUT @035 &DOMAIN3 @;
      %INCLUDE "D:\esther\q&qtr._2002\WEIGHTING\TABLE02.IN2";
      SN    = 0;
      SN1   = 0;
      SN11  = 0;
      SN12  = 0;
      SN2   = 0;
      SN3   = 0;
      SN4   = 0;
      SN41  = 0;
      SN42  = 0;
      WN   = 0;
      WN1  = 0;
      WN11 = 0;
      WN12 = 0;
      WN2  = 0;
      WN3  = 0;
      WN4  = 0;
      WN41 = 0;
      WN42 = 0;
   END; * DOMAIN;
RUN;

%MEND PROCESS3;


*********************************************************
* PROCESS OVERALL RESPONSE RATE TABULATION - FORM A
*********************************************************
;
%PROCESS(newmerge, A, "J:\&PERIOD\DATA\AFINAL\FMTLIB");

*********************************************************
* PROCESS SINGLE DOMAIN RESPONSE RATE TABULATION - FORM A
*********************************************************
;
%PROCESS1(xregion, newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(conus, newmerge, "FORM A",
        "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(sexsmpl,  newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(raceethn,  newmerge, "FORM A",
        "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(ebg_com,  newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(enbgsmpl, newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(cacsmpl, newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS1(patcat, newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");

*********************************************************
* PROCESS DOUBLE DOMAIN RESPONSE RATE TABULATION - FORM A
*********************************************************
;
%PROCESS2(patcat, svcsmpl, newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS2(patcat, sexsmpl, newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS2(patcat, raceethn,newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
%PROCESS2(xregion, cacsmpl,newmerge, "FORM A",
         "J:\&PERIOD\DATA\AFINAL\FMTLIB");
*********************************************************
* PROCESS TRIPLE DOMAIN RESPONSE RATE TABULATION - FORM A
*********************************************************
;
*%PROCESS3(XXXXXXXX, XXXXXXXX, XXXXXXXX, XXXXXXXX, "FORM A",
         *"D:\KEITH\&PERIOD\DATA\FMTLIB");
```

```
                %end; *end of do for each quarter;
                %mend doit;
                %doit;
run;
```

TABLE02.INI

```
*************************************************************************
*
* PROGRAM: TABLE02.IN1
* TASK:    2002 DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          2002 DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/1999, Keith Rathbun - Added back printing of FLR
* 3) 12/14/2000, Keith Rathbun - Update for quarterly survey to use BWT
*    instead of BWT99 (generalized variable name for ease of maintenance).
*
*************************************************************************
*;
IF _N_ = 1 THEN DO;
   PUT; PUT;
   PUT @001 "TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY";
   PUT @001 "12-30-2002, TASK: 8860-210";
   PUT;
   PUT "SUMMARY OF GROUP COUNTS: " &FORM;
   PUT "VARIABLE = " VARIABLE;
   PUT;
   PUT @050 "UNWEIGHTED COUNT"
       @100 "WEIGHTED COUNT"
      ;
   PUT @040 'FLR'
       @050 'FCR'
       @060 'FRR'
       @070 'POP'
       @090 'FLR'
       @100 'FCR'
       @110 'FRR'
       @120 'POP'
      ;
END;
IF FIRST.&DOMAIN1 THEN DO;
   SN    = 0;
   SN1   = 0;
   SN11  = 0;
   SN12  = 0;
   SN2   = 0;
   SN3   = 0;
   SN4   = 0;
   SN41  = 0;
   SN42  = 0;
   WN   = 0;
   WN1  = 0;
   WN11 = 0;
   WN12 = 0;
   WN2  = 0;
   WN3  = 0;
   WN4  = 0;
   WN41 = 0;
   WN42 = 0;
END;
*************************************************
* Accumulate group 1 weighted and unweighted counts
*************************************************
;
SN + 1;
```

```
WN + BWT;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
   WN1 + BWT;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT;
   END;
END;
*****************************************************
* Accumulate group 2 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT;
END;
*****************************************************
* Accumulate group 3 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 30 THEN DO;
   SN3 + 1;
   WN3 + BWT;
END;
*****************************************************
* Accumulate group 4 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT;
   END;
END;

DROP I;
RETAIN
   SN
   SN1
   SN11
   SN12
   SN2
   SN3
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
   WN3
   WN4
   WN41
   WN42
  ;
```

TABLE02.IN2

```
*************************************************************************
*
* PROGRAM: TABLE02.IN2
```

```
* TASK:    QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          QUARTERLY DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/1999, Keith Rathbun - Added back printing of FLR
* 3) 12/14/2000, Keith Rathbun - Added printing of weighted (WN) and
*    unweighted (SN) population sizes.
*
*************************************************************************
*;
   *Interim Response Rate;
   IRR1 = ((SN1 + SN2 + SN3)/SN)*(SN1/(SN1 + SN2));
   IRR2 = ((WN1 + WN2 + WN3)/WN)*(WN1/(WN1 + WN2));

   *Final Response Rate;
   FRR1 = ((SN1 + SN2 + SN3)/SN)*(SN1/(SN1+SN2))*(SN11/SN1);
   FRR2 = ((WN1 + WN2 + WN3)/WN)*(WN1/(WN1+WN2))*(WN11/WN1);

   *Final Location Rate;
   L = ((SN1 + SN2)/(SN1 + SN2 + SN3))*SN41;
   WL = ((WN1 + WN2)/(WN1 + WN2 + WN3))*WN41;
   FLR1 = (SN1 + SN2 + L)/(SN1 + SN2 + SN4*((SN1 + SN2)/(SN1 + SN2 + SN3)));
   FLR2 = (WN1 + WN2 + WL)/(WN1 + WN2 + WN4*((WN1 + WN2)/(WN1 + WN2 + WN3)));

   *Final Completion Rate;
   FCR1 = SN11/(SN1 + SN2 + L);
   FCR2 = WN11/(WN1 + WN2 + WL);
   PUT @040 FLR1  4.3
       @050 FCR1  4.3
       @060 FRR1  4.3
       @066 SN      7.0
       @090 FLR2  4.3
       @100 FCR2  4.3
       @110 FRR2  4.3
       @116 WN    7.0
      ;
```

6. DEVELOPMENT OF WEIGHTS

A. BWT.SAS CALCULATES THE SAMPLING WEIGHT FOR THE QUARTERLY DATASETS

```
*************************************************************************
* PROGRAM: BWT.SAS                                                      * TASK:
2002 DoD Health Care Survey, Quarterly Sampling
*
* PURPOSE: Construct Sampling Weight for 2001 Quarterly DoD Survey Form A       *
* WRITTEN: 12/26/2000 by Darryl V. Creel
* UPDATED: 02/21/2002 by Esther Friedman
*
* INPUTS:  FRAMEA.SD2 - Frame for 2001 Quarterly DoD Survey
*          SAMPLA.SD2 - Internal Sample file for 2001 Quarterly DoD Survey      *
* OUTPUTS: BWT.SD2 - Sampling Weight for 2001 Quarterly DOD Survey Form A       *
*************************************************************************;
options ls=132 ps=79 nocenter compress=yes;


title1 'Construct the Sampling Weight, BWT.SD2';
title2 'from the 2002 Quarterly DoD Files, FRAMEA.SD2 and SAMPLA.SD2';
title3 'Program: BWT.SAS by Esther Friedman';


***** Set up the input and output paths. *****;

libname in v6 'D:\projects\8687-610\y2002q4\sampling\data';
libname out v6 'D:\projects\8687-610\y2002q4\sampling\data';
libname inv8 v8 'D:\projects\8687-610\y2002q4\sampling\data';

*** include the design effects macro.;

%include "D:\projects\8687-
610\y2002q3\sampling\programs\design_effects_unequal_weights.sas";


***** Create the numerator and denominator for the sampling weight. *****;

title5 'Information from the Frame';
proc freq data=in.framea noprint;
table stratum / list missing out=frame;
run;

data frame (rename = (count = numer));
set frame (keep = stratum count);
run;

title5 'Information from the Sample';
proc freq data=in.sampla noprint;
table stratum / list missing out=sample;
run;

data sample (rename = (count = denom));
set sample (keep = stratum count);
run;

***** Merge the data sets and construct the sampling weight. *****;

proc sort data=frame;
by stratum;
run;

proc sort data=sample;
by stratum;
run;

data weight;
merge frame sample;
by stratum;
bwt = numer / denom;
run;

title5 'Information for the Sampling Weight';
proc print data=weight;
```

```
var stratum numer denom bwt;
sum numer denom;
run;

***** Append the sampling weight to the SAMPLA.SD2 file. *****;

data wt;
set weight (keep = stratum bwt);
run;

proc sort data=wt out=wt;
by stratum;
run;

proc sort data=in.sampla out=sample;
by stratum;
run;

data bwt wonly sonly problem;
merge wt (in=inw) sample (in=ins);
by stratum;

if pnsexcd = "M" then
   sexsmpl = 1;
else if pnsexcd = "F" then
   sexsmpl = 2;
else if pnsexcd in ("Z"," ") then
   sexsmpl = 1;
else sexsmpl = 3;

if svccd = "A" then
   svcsmpl = 1;
else if svccd = "N" then
   svcsmpl = 2;
else if svccd = "M" then
   svcsmpl = 3;
else if svccd = "F" then
   svcsmpl = 4;
else if svccd = "C" then
   svcsmpl = 5;
else
   svcsmpl = 6;

if inw = 1 and ins = 1 then
   output bwt;
else if inw = 1 and ins = 0 then
   output wonly;
else if inw = 0 and ins = 1 then
   output sonly;
else
   output problem;

run;

title5 'Check the Constructed Variables';
proc freq data=bwt;
tables pnsexcd*sexsmpl svccd*svcsmpl / list missing;
run;

title5 'Information for the Sampling Weight';
proc univariate data=bwt normal plot;
var bwt;
run;

data inv8.bwt;
set bwt;
label bwt = 'Sampling Weight';
run;

title5 'Checks for BWT Data Set';

proc means data=inv8.bwt n sum;
var bwt;
```

```
run;

proc means data=inv8.bwt n sum noprint;
class stratum;
var bwt;
output out=bwtchk  n = sampcnt sum = bwtsum;
run;

title5 'Information for the Sampling Weight Data Set';
proc contents data=inv8.bwt;
run;

data bwtchk;
set bwtchk;
where _type_ = 1;
run;

proc sort data=bwtchk;
by stratum;
run;

proc sort data=frame;
by stratum;
run;

data finalchk;
merge bwtchk frame(rename = (numer = pop));
by stratum;
diff = pop - bwtsum;
run;

title 'Final Checks for the Sampling Weight';
proc print data=finalchk;
var stratum sampcnt bwtsum pop diff;
sum sampcnt bwtsum pop diff;
run;

**********************************;
*** Calculate the Design Effects ***;
*** added 04/15/02               ***;
**********************************;

%design_effects_unequal_weights ( inv8.bwt, cacsmpl, bwt, deff_overall, deff_cac );
%design_effects_unequal_weights ( inv8.bwt, enbgsmpl, bwt, deff_overall, deff_enbg );
%design_effects_unequal_weights ( inv8.bwt, ebg_com, bwt, deff_overall, deff_ebg );

proc print data = deff_overall;
title5 "design effect overall";
run;

proc print data= deff_cac;
title5 "design effect by cacsmpl";
run;

proc print data= deff_enbg;
title5 "design effect by enbgsmpl";
run;

proc print data= deff_ebg;
title5 "design effect by ebg_com";
run;
```

B. MACROS

DESIGN_EFFECTS_UNEQUAL_WEIGHTS.SAS Is a Macro used in Several of the Programs Above and Computes Design Effects Due to Unequal Weights

```
************************************************************************
Name:
design_effects_unequal_weights


Purpose:
Calculate the design effects due to unequal weights.  Creates two data sets.
One data set contains the overall design effect and the information used to
calculate the design effect.  The other data set contains the design effects
for each category of the analysis variable and the information used to
calculate these design effects.  In the two data sets, the additional
information refers to the number of observations, the sum of the squared
weights, and the sum of the weights squared.


Programmer:
Darryl V. Creel


Parameters:
There are five:

   (1) in_data_set - The input data set.

   (2) analysis_variable - The analysis variable contains the categories
                           by which the design effects are calculated.

   (3) weight_variable - The weight variable.

   (4) out_overall_data_set - Name of the data set that contains the
                              overall design effect.

   (5) out_data_set - Name of the output data set that contains the
                      design effects for each category of the analysis
                      variable.


Output:
There are two data sets:

   (1) A data set that contains the overall design effect and the
       information used to calculte the overall design effect.  It
       includes observations that have a missing value for the analysis
       variable.  This data set is named by the out_overall_data_set
       parameter.

   (2) A data set that contains the design effects for each category
       of the analysis variable and the information used to calculate
       these design effects.  There is one observation for each category
       of the analysis variable, including a missing category, if there
       are missing values for the analysis variable. This data set is
       named by the out_data_set parameter.


Side Effects:
None


Notes:

   (1) Use with SAS V8.

   (2) Do NOT use the following variable names as parameters:
       (a) _weight_variables
       (b) _overall_design_effect
       (c) _design_effect.
************************************************************************;
```

```
%macro design_effects_unequal_weights
   ( in_data_set,
     analysis_variable,
     weight_variable,
     out_overall_data_set,
     out_data_set );

   data _weight_variables;
      set &in_data_set. ( keep = &analysis_variable. &weight_variable. );
      &weight_variable._sq = &weight_variable. * &weight_variable.;
   run;

   proc means data = _weight_variables missing noprint;
      var &weight_variable. &weight_variable._sq;
      output out = _overall_design_effect
             sum ( &weight_variable. &weight_variable._sq ) =
             sum_&weight_variable. sum_&weight_variable._sq;
   run;

   data &out_overall_data_set.;
      set _overall_design_effect ( drop = _type_ );
      design_effect = ( _freq_ * sum_&weight_variable._sq ) / ( sum_&weight_variable. *
sum_&weight_variable. );
   run;

   proc sort data = _weight_variables;
      by &analysis_variable.;
   run;

   proc means data = _weight_variables missing noprint;
      var &weight_variable. &weight_variable._sq;
      by &analysis_variable;
      output out = _design_effect
             sum ( &weight_variable. &weight_variable._sq ) =
             sum_&weight_variable. sum_&weight_variable._sq;
   run;

   data &out_data_set.;
      set _design_effect ( drop = _type_ );
      design_effect = ( _freq_ * sum_&weight_variable._sq ) / ( sum_&weight_variable. *
sum_&weight_variable. );
   run;

   proc datasets;
      delete _weight_variables _overall_design_effect _design_effect;
   run;

%mend design_effects_unequal_weights;
```

C. REPWT.SAS CALCULATES THE REPLICATE WEIGHTS

```
*************************************************************************
* PROGRAM: repwt.SAS
* TASK:    2002 DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: CALCULATE REPLICATE WEIGHTS FOR DOD SURVEY.
* WRITTEN: 12/30/1999 BY KEITH RATHBUN
* Updated: 12/20/2002 by Esther M Friedman
*
* INPUTS:  adjwt.SD2 - Final Weights file
* OUTPUTS: repwt.SD2 - Replicate Weights File
*
*************************************************************************
*;
LIBNAME IN   "D:\projects\8687-610\y2002q4\weighting\data";
LIBNAME OUT v6 "D:\projects\8687-610\y2002q4\weighting\data";

OPTIONS PS=79 LS=132 COMPRESS=YES errors=0;

%MACRO PROCESS(DOMAIN1,DOMAIN2,CAC, reps);

************************************************************************
* Sort the final weights file by user-specified domains
************************************************************************;

PROC SORT DATA=IN.adjwt(KEEP=FNSTATUS MPRID BWT &DOMAIN1. &DOMAIN2. stratum) OUT=adjwt;
     BY stratum &DOMAIN2.;
RUN;


************************************************************************
* Append SUBSET index (I) to each observation
************************************************************************;
DATA SUBSETS;
   SET adjwt;
   BY stratum &DOMAIN2.;

   IF _N_ = 1 OR MOD(_N_-1,&reps.) = 0 THEN SUBSET = 1;
   ELSE SUBSET + 1;

   RETAIN SUBSET;
   BBWT = BWT * (&reps. / (&reps. - 1));
RUN;

************************************************************************
************************************************************************
* Generate JackKnife/replicated weights adjwt01-adjwt60
************************************************************************
************************************************************************;
%DO I = 1 %TO &reps.;

DATA SUBSET;
   SET SUBSETS;
   IF &I. = SUBSET THEN DELETE; *Remove the current subset;
RUN;

************************************************************************
* Calculate adjustment factor A1 for each cell
************************************************************************;

proc sort data=subset;
by &domain1.;
run;


************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
************************************************************************;
DATA CELLSA1  (KEEP=SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 &domain1.)
     MPRIDSA1 (KEEP=MPRID FNSTATUS BBWT &DOMAIN1.)
    ;
   SET subset;
```

```
   BY &DOMAIN1.;

   IF FIRST.&DOMAIN1. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ***************************************************
   * Accumulate total weight sum
   ***************************************************;

   SUMBBWT + BBWT;

   ***************************************************
   * Accumulate group 1 weight sum
   ***************************************************;

   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BBWT;
         cntg1 + 1;
      end;

   ***************************************************
   * Accumulate group 2 weight sum
   ***************************************************;

   ELSE IF FNSTATUS in (20,30) THEN
      do;
         SUMG2 + BBWT;
         cntg2 + 1;
      end;

   ***************************************************
   * Accumulate group 3 weight sum
   ***************************************************;

   ELSE IF FNSTATUS in (41,42) THEN
      do;
         SUMG3 + BBWT;
         cntg3 + 1;
      end;

   RETAIN SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

   IF LAST.&DOMAIN1. THEN DO;
      A1 = SUMBBWT/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;

   OUTPUT MPRIDSA1;

RUN;

proc sort data=mpridsa1;
by &domain1.;
run;

proc sort data=cellsa1;
by &domain1.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain1.;
```

```
if fnstatus in (11,12,20,30) then adj1 = a1;
   else adj1 = 0;
adj_wt1 = adj1 * bbwt;
run;


*************************************************************************
* Calculate adjustment factor A2 for each cell.
* This is the Nonresponse adjustment and creates the final weight (adjwt).
*************************************************************************;

proc sort data=adj_one;
by &domain1.;
run;

DATA CELLSA2 (KEEP= &domain1. NUMER DENOM numercnt denomcnt A2);
   set adj_one;
   BY &domain1.;

   IF FIRST.&domain1. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
         NUMER + BBWT*A1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + BBWT*A1;
         denomcnt + 1;
      end;

   IF LAST.&domain1. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;

RUN;

proc sort data=adj_one;
by &domain1.;
run;

proc sort data=cellsa2;
by &domain1.;
run;

data subset&i.;
merge adj_one cellsa2;
by &domain1.;
if fnstatus = 11 then adj2 = a2;
   else if fnstatus = 30 then adj2 = 1;
   else adj2 = 0;
jkweight = adj2 * adj_wt1;
subset = &i.;
KEEP MPRID subset jkweight;
run;

proc sort data=subset&i.;
by mprid;
run;

*************************************************************************
```

```
*************************************************************************
* End of JackKnife/replicated weights WRWT01-WRWT60 assignments
*************************************************************************
*************************************************************************;
%END;


*************************************************************************
* Combine all of the JackKnife weight subsets by MPRID
*************************************************************************;
DATA ALLSETS;
   SET SUBSET1   SUBSET2   SUBSET3   SUBSET4   SUBSET5
       SUBSET6   SUBSET7   SUBSET8   SUBSET9   SUBSET10
       SUBSET11  SUBSET12  SUBSET13  SUBSET14  SUBSET15
       SUBSET16  SUBSET17  SUBSET18  SUBSET19  SUBSET20
       SUBSET21  SUBSET22  SUBSET23  SUBSET24  SUBSET25
       SUBSET26  SUBSET27  SUBSET28  SUBSET29  SUBSET30
       SUBSET31  SUBSET32  SUBSET33  SUBSET34  SUBSET35
       SUBSET36  SUBSET37  SUBSET38  SUBSET39  SUBSET40
       SUBSET41  SUBSET42  SUBSET43  SUBSET44  SUBSET45
       SUBSET46  SUBSET47  SUBSET48  SUBSET49  SUBSET50
       SUBSET51  SUBSET52  SUBSET53  SUBSET54  SUBSET55
       SUBSET56  SUBSET57  SUBSET58  SUBSET59  SUBSET60
   ;
       BY MPRID;
   ARRAY JKWT(&reps.) wrwt1-wrwt&reps.; RETAIN wrwt1-wrwt&reps.;
       IF FIRST.MPRID THEN DO;
       DO I = 1 TO &reps.; DROP I;
          JKWT(I) = . ;
      END;
 END;
   JKWT(SUBSET) = JKWEIGHT;
   IF LAST.MPRID THEN OUTPUT;
   KEEP MPRID wrwt1-wrwt&reps.;
RUN;

*************************************************************************
* Sort the original data, get the final weight (WRWT), append the
* JackKnife/Replicated weights (WRWT1-WRWT60), and label variables.
*************************************************************************;
PROC SORT DATA=IN.adjwt
          OUT=adjwt;
     BY MPRID;
RUN;

proc sort data=allsets;
by mprid;
run;

DATA OUT.repwt ;
   MERGE adjwt ALLSETS;
   BY MPRID;

   LABEL
      MPRID  = 'MPR ID Number'
      WRWT1  = 'Replicated/JackKnife Weight 1'
      WRWT2  = 'Replicated/JackKnife Weight 2'
      WRWT3  = 'Replicated/JackKnife Weight 3'
      WRWT4  = 'Replicated/JackKnife Weight 4'
      WRWT5  = 'Replicated/JackKnife Weight 5'
      WRWT6  = 'Replicated/JackKnife Weight 6'
      WRWT7  = 'Replicated/JackKnife Weight 7'
      WRWT8  = 'Replicated/JackKnife Weight 8'
      WRWT9  = 'Replicated/JackKnife Weight 9'
      WRWT10 = 'Replicated/JackKnife Weight 10'
      WRWT11 = 'Replicated/JackKnife Weight 11'
      WRWT12 = 'Replicated/JackKnife Weight 12'
      WRWT13 = 'Replicated/JackKnife Weight 13'
      WRWT14 = 'Replicated/JackKnife Weight 14'
      WRWT15 = 'Replicated/JackKnife Weight 15'
      WRWT16 = 'Replicated/JackKnife Weight 16'
      WRWT17 = 'Replicated/JackKnife Weight 17'
      WRWT18 = 'Replicated/JackKnife Weight 18'
```

```
      WRWT19 = 'Replicated/JackKnife Weight 19'
      WRWT20 = 'Replicated/JackKnife Weight 20'
      WRWT21 = 'Replicated/JackKnife Weight 21'
      WRWT22 = 'Replicated/JackKnife Weight 22'
      WRWT23 = 'Replicated/JackKnife Weight 23'
      WRWT24 = 'Replicated/JackKnife Weight 24'
      WRWT25 = 'Replicated/JackKnife Weight 25'
      WRWT26 = 'Replicated/JackKnife Weight 26'
      WRWT27 = 'Replicated/JackKnife Weight 27'
      WRWT28 = 'Replicated/JackKnife Weight 28'
      WRWT29 = 'Replicated/JackKnife Weight 29'
      WRWT30 = 'Replicated/JackKnife Weight 30'
      WRWT31 = 'Replicated/JackKnife Weight 31'
      WRWT32 = 'Replicated/JackKnife Weight 32'
      WRWT33 = 'Replicated/JackKnife Weight 33'
      WRWT34 = 'Replicated/JackKnife Weight 34'
      WRWT35 = 'Replicated/JackKnife Weight 35'
      WRWT36 = 'Replicated/JackKnife Weight 36'
      WRWT37 = 'Replicated/JackKnife Weight 37'
      WRWT38 = 'Replicated/JackKnife Weight 38'
      WRWT39 = 'Replicated/JackKnife Weight 39'
      WRWT40 = 'Replicated/JackKnife Weight 40'
      WRWT41 = 'Replicated/JackKnife Weight 41'
      WRWT42 = 'Replicated/JackKnife Weight 42'
      WRWT43 = 'Replicated/JackKnife Weight 43'
      WRWT44 = 'Replicated/JackKnife Weight 44'
      WRWT45 = 'Replicated/JackKnife Weight 45'
      WRWT46 = 'Replicated/JackKnife Weight 46'
      WRWT47 = 'Replicated/JackKnife Weight 47'
      WRWT48 = 'Replicated/JackKnife Weight 48'
      WRWT49 = 'Replicated/JackKnife Weight 49'
      WRWT50 = 'Replicated/JackKnife Weight 50'
      WRWT51 = 'Replicated/JackKnife Weight 51'
      WRWT52 = 'Replicated/JackKnife Weight 52'
      WRWT53 = 'Replicated/JackKnife Weight 53'
      WRWT54 = 'Replicated/JackKnife Weight 54'
      WRWT55 = 'Replicated/JackKnife Weight 55'
      WRWT56 = 'Replicated/JackKnife Weight 56'
      WRWT57 = 'Replicated/JackKnife Weight 57'
      WRWT58 = 'Replicated/JackKnife Weight 58'
      WRWT59 = 'Replicated/JackKnife Weight 59'
      WRWT60 = 'Replicated/JackKnife Weight 60'
   ;
RUN;

TITLE1 "2002 DoD Quarterly Health Survey Final/Replicated Weights";
title2 "Checks for the Replicate Weights";
TITLE3 "Program Name: repwt.SAS";

PROC CONTENTS DATA=OUT.repwt;
run;

PROC MEANS DATA=OUT.repwt n sum;
VAR  adjwt WRWT1-WRWT&reps.;
RUN;

PROC SORT DATA=OUT.repwt;
BY MPRID;
RUN;

DATA OUT.repwt;
   SET OUT.repwt;
   BY MPRID;

   ARRAY WGTS(&reps.) WRWT1-WRWT&reps.;
   DO I = 1 TO &reps.; DROP I;
      IF WGTS(I) EQ . THEN WGTS(I) = 0;
   END;

   KEEP MPRID BWT adjwt WRWT1-WRWT&reps. fnstatus &domain1. &cac. cacsmpl adj_cell;
RUN;

PROC MEANS DATA=OUT.repwt n sum;
```

```
VAR  adjwt wrwt1-wrwt&reps.;
output out=sums sum(adjwt wrwt1-wrwt&reps.) = adjwt wrwt1-wrwt&reps.;
RUN;

proc transpose data=sums out=t_sums;
var adjwt wrwt1-wrwt&reps.;
run;

proc univariate data=t_sums normal ;
var col1;
run;


**added q4 2002;
data repwt2;
  set out.repwt;
  where fnstatus = 11;
  array subset2(60) wrwt1-wrwt60;
  do m=1 to 60;
     if subset2(m)=0 then
       subset=m;
  end;
run;

proc sort data = repwt2;
by subset;
run;

proc means data = repwt2 noprint;
by subset;
var wrwt1-wrwt60;
output out = amang sum= / autoname;
run;

proc print data = amang;
run;

proc univariate data=out.repwt normal;
var wrwt1-wrwt60;
where fnstatus=11;
run;

*****************************************************************************
* Rename adjwt to wrwt
*****************************************************************************;

data out.repwt (drop = adjwt);
set in.repwt;
wrwt = adjwt;
label &domain1. = 'final adjusted cell';
label wrwt = 'Final Weight';
run;

PROC CONTENTS DATA=OUT.repwt;
run;
%MEND process;

%PROCESS(adj_cell, mprid, cacsmpl, 60);
```

D. ADJWT.SAS CALCULATES ELIGIBILITY AND NONRESPONSE ADJUSTMENTS FOR THE QUARTERLY DATA

```
*****************************************************************
*** Project:    DoD Quarterly Sampling - Nonresponse adjustments
***
*** Program: D:\projects\8687-610\y2002q4\weighting\adjwt.sas,
***
*** TASK:    2002 QUARTERLY DOD HEALTH CARE SURVEY
*** PURPOSE: CALCULATE THE FINAL WEIGHT
***
*** WRITTEN: 11/09/1999 BY KEITH RATHBUN
*** Updated: 12/19/2002 by Esther M. Friedman
***
*** INPUTS:  selectq.SD2
*** OUTPUTS: adjwt.SD2
*******************************************************************************
*;
LIBNAME IN_f v6     "D:\projects\8687-610\y2002q4\sampling\data";
LIBNAME IN          "F:\DOD\Q4_2002\Data\Afinal";
LIBNAME OUT  v6     "D:\projects\8687-610\y2002q4\weighting\data";

OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOCENTER mprint mlogic symbolgen ;

%include "C:\MyFiles\macros\design_effects_unequal_weights.sas";

title1 'DoD Quarterly Survey of Health Beneficiaries';
title2 'Calculate the Final Weights';
title3 'Program: adjwt.SAS ';

*****************************************************************************
* Calculate final weight based on user-specified domains.
*****************************************************************************;
*** merge ebg_com back into selectq. ***;

  data selectq;
  set in.selectq;
  format _all_;
  run;

  data sampla01 (keep= mprid ebg_com);
  set in_f.sampla01;
  format _all_;
  run;

  proc sort data=selectq;
  by mprid;
  run;

  proc sort data=sampla01;
  by mprid;
  run;

  data out.merged;
  merge selectq sampla01;
  by mprid;
  format _all_;
  run;

%MACRO PROCESS(DOMAIN,CAC, FORM,INPT);

  *** Initial Information. ***;

   title5 'FRAMEA.SD2 Count';

   proc freq data=in_f.framea;
   table enbgsmpl / list missing;
   run;

   title5 'mergeq.SD2 Counts Using BWT as the Weight';

   proc freq data=out.&inpt.;
   table enbgsmpl fnstatus / list missing;
   weight bwt;
```

```
   run;

   title5 'mergeq.SD2 Counts';

   proc freq data=out.&inpt.;
   table enbgsmpl fnstatus / list missing;
   run;

   *** Create the adjustment cells for nonresponse. ***;

   data &inpt. ;
   set out.&inpt.( keep = MPRID FNSTATUS BWT ebg_com enbgsmpl xregion stratum &cac.
cacsmpl);

  %include "D:\projects\8687-610\y2002q4\weighting\cac_coll.inc";
   run;


PROC SORT DATA=&inpt. OUT=&INPT.;
BY &DOMAIN.;
RUN;

*************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
*************************************************************************;
Data  cellsa1 (keep=sumbwt sumg1-sumg3 a1 cellcnt cntg1-cntg3 &domain.)
      mpridsa1 (keep=mprid fnstatus bwt &domain. ebg_com &cac. )
    ;
   SET &INPT.;
   BY &DOMAIN;

   IF FIRST.&DOMAIN. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ************************************************
   * Accumulate total weight sum
   ************************************************;

   SUMBWT + BWT;

   ************************************************
   * Accumulate group 1 weight sum
   ************************************************;

   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BWT;
         cntg1 + 1;
      end;

   ************************************************
   * Accumulate group 2 weight sum
   ************************************************;

   ELSE IF FNSTATUS in (20,30) THEN
      do;
         SUMG2 + BWT;
         cntg2 + 1;
      end;

   ************************************************
   * Accumulate group 3 weight sum
```

```
   ************************************************;

   ELSE IF FNSTATUS in (41,42) THEN
      do;
         SUMG3 + BWT;
         cntg3 + 1;
      end;

   RETAIN SUMBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

   IF LAST.&DOMAIN. THEN DO;
      A1 = SUMBWT/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;

   OUTPUT MPRIDSA1;

RUN;


title5 'Check for CELLSA1 Data Set';

proc print data=cellsa1;
var &domain. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

proc print data=cellsa1;
where ( a1 > 7 ) or ( cntg1 + cntg2 < 10 );
var &domain. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

proc univariate data=cellsa1 normal ;
var a1;
run;

proc sort data=mpridsa1;
by &domain.;
run;

proc sort data=cellsa1;
by &domain.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain.;
if fnstatus in (11,12,20,30) then adj1 = a1;
   else adj1 = 0;
adj_wt1 = adj1 * bwt;
run;

title5 'Checks for ADJ_ONE Data Set';

proc freq data=adj_one;
table &domain.*fnstatus*adj1 / list missing;
run;

proc means data=adj_one n sum NOPRINT;
class fnstatus;
var adj_wt1;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

proc means data=adj_one n sum NOPRINT;
class ebg_com;
var adj_wt1;
```

```
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

*******************************************************************************
* Calculate adjustment factor A2 for each cell.
* This is the Nonresponse adjustment and creates the final weight (wrwt).
*******************************************************************************;

proc sort data=adj_one;
by &domain.;
run;

DATA CELLSA2 (KEEP= &domain. NUMER DENOM numercnt denomcnt A2);
   set adj_one ;
   BY &domain.;

   IF FIRST.&domain. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
         NUMER + BWT*A1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + BWT*A1;
         denomcnt + 1;
      end;

   IF LAST.&domain. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;

RUN;

title5 'Check for CELLSA2 Data Set';

proc print data=cellsa2;
var &domain. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

proc print data=cellsa2;
where ( a2 > 7 ) or ( denomcnt < 10 );
var &domain. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

proc univariate data=cellsa2 normal ;
var a2;
run;

proc sort data=adj_one;
by &domain.;
run;

proc sort data=cellsa2;
```

```
by &domain.;
run;

data adj_two;
merge adj_one cellsa2;
by &domain.;
if fnstatus = 11 then adj2 = a2;
   else if fnstatus = 30 then adj2 = 1;
   else adj2 = 0;
adjwt = adj2 * adj_wt1;
label adjwt = 'Adjusted Weight';
KEEP MPRID fnstatus adj1 adj2 adjwt &domain. ebg_com ;
run;

title5 'Check for ADJ_TWO Data Set';

proc freq data=adj_two;
table &domain.*fnstatus*adj2 / list missing;
run;

proc means data=adj_two n sum NOPRINT;
class fnstatus;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

proc means data=adj_two n sum NOPRINT;
class ebg_com;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

data adj_two;
set adj_two(drop=fnstatus ebg_com );
run;

*************************************************************************
* Sort the original data
*************************************************************************;

PROC SORT DATA=&INPT. OUT=&INPT.;
BY MPRID;
RUN;

*************************************************************************
* Sort the ADJ_TWO data set
*************************************************************************;

PROC SORT DATA=adj_two;
BY MPRID;
RUN;

*************************************************************************
* Append final weight variable (adjwt)
*************************************************************************;
DATA out.adjwt;
   MERGE adj_two &INPT.;
   BY MPRID;
RUN;

title5 'Checks for adjwt Data Set';

proc means data=out.adjwt n sum NOPRINT;
```

```
class fnstatus;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;


proc means data=out.adjwt n sum NOPRINT;
class &domain.;
var bwt adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;


proc sort data=out.adjwt out=chk;
by &domain. fnstatus;
run;

data sub_chk;
set chk(keep = &cac. stratum &domain. fnstatus bwt adj1 adj2 adjwt);
by &domain. fnstatus;
prodadjs = adj1 * adj2;
retain cellcnt sumadjwt;
if first.fnstatus then
   do;
      cellcnt = 1;
      sumadjwt = adjwt;
   end;
   else
      do;
         cellcnt = cellcnt +1;
         sumadjwt = sumadjwt + adjwt;
      end;
if last.fnstatus then output sub_chk;
run;

proc print data=sub_chk;
var &domain. fnstatus bwt adj1 adj2 prodadjs adjwt cellcnt sumadjwt;
sum cellcnt sumadjwt;
run;

proc univariate data=sub_chk normal ;
where fnstatus=11;
var prodadjs;
run;

proc univariate data=sub_chk normal ;
where fnstatus=11;
var adjwt;
run;

title5 "individual level adjwt";
proc univariate data=out.adjwt normal ;
where fnstatus=11;
var adjwt;
run;

proc sort data=out.adjwt;
by xregion;
run;

title5 "Distribution of weights by region";
proc univariate data=out.adjwt normal ;
where fnstatus=11;
```

```
var adjwt;
by xregion;
run;

title5 "Characteristics of region 15";
*generate sample size and population size;
data adjwt;
set out.adjwt;
run;

proc freq data = adjwt noprint;
tables stratum
/out = sampsize;
run;

data sampsize (keep=count stratum);
set sampsize;
run;

proc print data=sampsize;
run;

proc sort data=adjwt;
by stratum;
run;

proc sort data=sampsize;
by stratum;
run;

data adjwt;
merge adjwt sampsize;
by stratum;
run;

proc means data = adjwt noprint;
var bwt;
by stratum;
output out = sumbwt sum (bwt) = sumbwt;
run;

data sumbwt (keep=sumbwt stratum);
set sumbwt;
run;

proc print data=sumbwt;
run;

proc sort data=sumbwt;
by stratum;
run;

data adjwt;
merge adjwt sumbwt;
by stratum;
run;

proc sort data=cellsa1 (keep=&domain. a1);
by &domain.;
run;

proc sort data=adjwt;
by &domain.;
run;

data adjwt;
merge adjwt cellsa1;
by &domain.;
run;

proc sort data=cellsa2 (keep=&domain. a2);
by &domain.;
run;
```

```
proc sort data=adjwt;
by &domain.;
run;

data adjwt;
merge adjwt cellsa2;
by &domain.;
run;

proc print data=adjwt;
var &domain. stratum count sumbwt BWT a1 a2 adjwt &cac. enbgsmpl;
where adjwt~=0 and xregion=15;
run;

***********************************;
*** Calculate the Design Effects ***;
***********************************;

*create dataset of completes only;
data adjwt_fnl;
set out.adjwt;
where fnstatus=11;
run;

*Remove xregions of missing from design effects;
data adjwt_reg;
set adjwt_fnl;
where xregion~=.;
run;

%design_effects_unequal_weights ( adjwt_fnl, &cac.,  adjwt, deff_overall, deff_cac );
%design_effects_unequal_weights ( adjwt_fnl, ebg_com,  adjwt, deff_overall, deff_ebg );
%design_effects_unequal_weights ( adjwt_fnl, enbgsmpl, adjwt, deff_overall, deff_enb );
%design_effects_unequal_weights ( adjwt_reg, xregion,  adjwt, deff_overall, deff_reg );

title5 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For Catchment Area ***;

title5 "Design Effects for &cac.";
proc print data= deff_cac;
run;

*** For Enrollee/Beneficiary Groups ***;

title5 'Design Effects for ebg_com';
proc print data= deff_ebg;
run;

*** For ENBGSMPL Groups ***;

title5 'Design Effects for ENBGSMPL';
proc print data= deff_enb;
run;

*** For XREGION Groups ***;

title5 'Design Effects for XREGION';
proc print data= deff_reg;
run;

%MEND PROCESS;

*************************************************************************
* Calculate final weight based on user-specified parameters.
*************************************************************************;

%PROCESS(adj_cell,cacsmpl,A,merged);
RUN;
```

E. CAC_COLL.INC IS RUN AS PART OF THE ADJWT.SAS PROGRAM ABOVE AND COLLAPSES SMALL ADJUSTMENT CELLS

```
*************************************************************************
*** Project:        DoD trickle cell collapsment for annual weighting
*** Date:       December 20, 2002
*** Programmer: Esther M Friedman
***
*** Inputs:  selectq
*** Outputs: none
***
*************************************************************************;

adj_cell=stratum;


*********************************************************************;
******************COLLAPSE ACROSS CACSMPL**************************;

  if substr(adj_cell,2,4)='0252' then substr(adj_cell,2,4)= '0033';
  if substr(adj_cell,2,4)='0378' then substr(adj_cell,2,4)= '0124';
  if substr(adj_cell,2,4)='0387' then substr(adj_cell,2,4)= '0124';
  if substr(adj_cell,2,4)='0508' then substr(adj_cell,2,4)= '0124';
  if substr(adj_cell,2,4)='0511' then substr(adj_cell,2,4)= '0103';
  if substr(adj_cell,2,4)='0534' then substr(adj_cell,2,4)= '0052';
  if substr(adj_cell,2,4)='1587' then substr(adj_cell,2,4)= '0109';
  if substr(adj_cell,2,4)='1592' then substr(adj_cell,2,4)= '0110';
  if substr(adj_cell,2,4)='1646' then substr(adj_cell,2,4)= '0125';
  if substr(adj_cell,2,4)='6201' then substr(adj_cell,2,4)= '0123';
  if substr(adj_cell,2,4)='7143' then substr(adj_cell,2,4)= '0089';
  if substr(adj_cell,2,4)='7236' then substr(adj_cell,2,4)= '0110';
  if substr(adj_cell,2,4)='7286' then substr(adj_cell,2,4)= '0089';
  if substr(adj_cell,2,4)='7293' then substr(adj_cell,2,4)= '0032';
  if substr(adj_cell,2,4)='7294' then substr(adj_cell,2,4)= '0089';

*********************************************************************;
*********Collapsing out of catchment areas into super regions**********;
*********************************************************************;

if substr(adj_cell,2,4)='9901' or substr(adj_cell,2,4)='9902' or substr(adj_cell,2,4)='9905'
then do;
        c = adj_cell;
        substr(c,2,4)='9991';
        put c;
        adj_cell = c;
end;

else if substr(adj_cell,2,4)='9906' or substr(adj_cell,2,4)='9909' or
substr(adj_cell,2,4)='9910' or
        substr(adj_cell,2,4)='9911' or substr(adj_cell,2,4)='9912' or
substr(adj_cell,2,4)='9916' then do;
        d = adj_cell;
        substr(d,2,4)= '9992';
        put d;
        adj_cell = d;
end;

else if substr(adj_cell,2,4)='9903' or substr(adj_cell,2,4)='9904' or
substr(adj_cell,2,4)='9907' or
        substr(adj_cell,2,4)='9908' then do;
        e = adj_cell;
        substr(e,2,4)='9993';
        put e;
        adj_cell = e;
end;

else if substr(adj_cell,2,4)='9913' or substr(adj_cell,2,4)='9914'or
substr(adj_cell,2,4)='9915' or substr(adj_cell,2,4)='9999' then do;
        f = adj_cell;
        substr(f,2,4)='9990';
        put f;
        adj_cell = f;
end;
```

```
*********************************************************************;
***************Additional Collapsement For Small Cells***************;
***********Where FNSTATUS 11+12 <10 in any of the 4 quarters;**********;
*********************************************************************;
*********************************************************************;

If substr(adj_cell,2,4) in
(0003,0005,0006,0009,0014,0024,0028,0030,0032,0033,0037,0038,0039,0042,0045,0047,0048,0049,

0052,0053,0055,0056,0057,0060,0061,0064,0066,0067,0073,0075,0078,0079,0086,0089,0092,0093,00
95,0098,0101,0103,0104,0105,0108,

0109,0110,0112,0113,0117,0120,0121,0125,0126,0127,0131,0606,0607,0609,0612,0616,0617,0620,06
21,0622,0633,0638,0640,0805,9990)
               and substr(adj_cell,6,2) in ('02','03')
then do; x=adj_cell;
         substr(x,6,2)='02';
         put x;
         adj_cell = x;
end;

else If substr(adj_cell,2,4) in
(0001,0005,0006,0008,0010,0015,0019,0026,0029,0035,0036,0037,0046,0049,0053,0057,0058,0059,0
060,0062,0064,0066,0069,

0073,0075,0083,0084,0090,0092,0093,0096,0098,0104,0112,0113,0120,0121,0122,0125,0126,0127,01
28,0131,0306,0356,0606,0607,0609,0612,0616,0617,0620,
        0621,0622,0633,0638,0640,0805,9914,
0280,0032,0109,0117,0004,0118,0321,0326,0117,0118,0129,0287)
       and substr(adj_cell,6,2) in ('06')
then do; y=adj_cell;
         substr(y,6,2)='05';
         put y;
         adj_cell = y;
end;

If substr(adj_cell,2,4) in
(0001,0005,0008,0010,0015,0019,0024,0026,0030,0035,0036,0046,0052,0056,0058,0059,0062,0069,0
083,0084,
0086,0090,0091,0092,0093,0096,0104,0108,0112,0122,0128,0131,0280,0287,0306,0326,0330,0356,06
06,0607,0609,0612,0616,0617,0620,
0621,0622,0633,0638,0640,0805,0806,0713,0991,0999, 0280, 0004,0118,0321,0326,0118,0129,0287)
         and substr(adj_cell,6,2) in ('04','05')
then do; z=adj_cell;
         substr(z,6,2)='04';
         put z;
         adj_cell = z;
end;

If substr(adj_cell,2,4) in
(0330,0607,0609,0621,0622,0638,0640,0806,0713,0014,0612,0617,0622,0805,0806,7139,0612,0617,9
990,0804)
         and substr(adj_cell,6,2) in ('04','02')
then do; z2=adj_cell;
         substr(z2,6,2)='02';
         put z2;
         adj_cell = z2;
end;

*********************************************************************;
***********Additional Collapsements For Small Cells, Cont.*************;
*****************Added Quarter 01, 2002******************************;
*********************************************************************;
*********************************************************************;

If substr(adj_cell,2,4) in (0606,0616,0633)
         and substr(adj_cell,6,2) in ('04','02')
then do; z3=adj_cell;
         substr(z3,6,2)='02';
         put z3;
         adj_cell = z3;
end;
```

```
If substr(adj_cell,2,4) in (9990)
         and substr(adj_cell,6,2) in ('01','02','05','06')
then do; z4=adj_cell;
         substr(z4,6,2)='02';
         put z4;
         adj_cell = z4;
end;

If adj_cell='0003306' then adj_cell='0003305';
If adj_cell='0063801' then adj_cell='0063802';

*************************************************************************;
********************* Added Quarter 4, 2002*****************************;
*************************************************************************;

If adj_cell='0004602' then adj_cell='0004604';
If adj_cell='0009103' then adj_cell='0009102';
If adj_cell='0061201' then adj_cell='0061202 ';
If adj_cell='0061701' then adj_cell='0061702 ';


drop c d e f x y z z2 z3 z4 ;
run;
```

F. Q1-Q3 WEIGHTING PROGRAMS WITH ADDITIONAL TRICKLE RECORDS

ADJWT.SAS Calculates Eligibility and Nonresponse Adjustments For the Quarterly Data

```
*****************************************************************
*** Project: DoD Quarterly Sampling - Nonresponse adjustments
***
*** Program: D:\projects\8687-610\y2002T\y2002_annual\programs\adjwt.sas,
***
*** TASK:    2002 QUARTERLY DOD HEALTH CARE SURVEY
*** PURPOSE: CALCULATE THE FINAL WEIGHT FOR Q1-Q3 with trickles
***
*** 1/07/2003 by Esther M. Friedman
***
*** INPUTS:  selectq.SD2
*** OUTPUTS: adjwt.SD2
*************************************************************************
*;
%macro doit;
  %do qtr=1 %to 3;

LIBNAME IN_f      v6     "D:\projects\8687-610\y2002q&qtr.\sampling\data";
LIBNAME IN        v6     "F:\DOD\Q&qtr._2002t\Data\Afinal";
LIBNAME INKEITH   v6     "F:\DOD\Q&qtr._2002\Data\Afinal";
LIBNAME OUT       v6     "D:\projects\8687-610\y2002T\y2002q&qtr.T\data";
LIBNAME Q4        v6     "D:\projects\8687-610\y2002q4\sampling\data";

OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOCENTER spool mlogic symbolgen mprint;

*program calculates design effects for domains of interest;
%include "C:\MyFiles\macros\design_effects_unequal_weights.sas";

title1 "DoD Quarterly Survey of Health Beneficiaries --- Quarter &qtr. with trickles";
title2 'Calculate the Final Weights With Trickles';
title3 'Program: adjwt.SAS ';

*********************************************************************;
***  Use cacsmpl collapsements from q4 framea.sas to recreate
***  consistent definition of cacsmpl for all four quarters of 2002
*********************************************************************;
* Geocell assignment;
data frame (keep=geocell pcm enrid mprid);
 set in_f.extract;
if pcm='MTF' then do;
   if ( '1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or ('6991' <= enrid <=
'6994') or ('6501' <=enrid <='6512') or ('7166' <= enrid <= '7195')
      then geocell=dcatch; ***Administrative assignment--1976-1980 added q4 2002**;
   else if ('3031' <= enrid <= '3057') then geocell = dcatch; ***On the Ship***;
   else if enrid in ('0002', '5208', '0250', '0449') then geocell = dcatch; ***Inactive***;
   else geocell = enrid;
end;
   else geocell=dcatch;
run;

* Read in fy200207 (TMA spreadsheet from Q4);
data fy200207 (keep = geocell d_par d_fac d_instal d_health);
 set q4.fy200207;
rename facilit1=d_fac installa=d_instal;

length d_par $4.;
d_par = DMIS_PAR;

length geocell $4.;
geocell = DMIS_ID;

length d_health $2.;
d_health = HEALTH_S;
run;

Proc contents data=in_f.framea;
run;

proc sort data=fy200207;
```

```
by geocell;
run;

proc sort data=frame;
by geocell;
run;

data frame2;
merge frame (in=a) fy200207 (in=b);
by geocell;
if a;
run;

* Bring in q4 framea.sas cacsmpl collapsements for small cells;
data frame2;
  set frame2;
%include "D:\projects\8687-610\y2002T\frame.inc";
run;
*******************************************************
********** end of code from framea.sas           ********
*******************************************************;


%MACRO PROCESS(DOMAIN,CAC, FORM,INPT);

************************************************************************
* Calculate final weight based on user-specified domains.
************************************************************************;
*** merge ebg_com back into selectq. ***;
  data selectq;
  set in.selectq;
  format _all_;
  run;

  data sampla01 (keep= mprid ebg_com);
  set in_f.sampla01;
  format _all_;
  run;

  proc sort data=selectq;
  by mprid;
  run;

  proc sort data=sampla01;
  by mprid;
  run;

  data out.merged;
  merge selectq (in=a) sampla01 (in=b);
  by mprid;
  if a and b;
  format _all_;
  run;

* merge back com_geo and ebsmpl created above from framea.sas code;

proc sort data=frame2 out=frame3 (keep=mprid com_geo);
by mprid;
run;

Proc sort data=out.&inpt.;
by mprid;
run;

data &inpt.;
merge frame3 (in=a) out.&inpt. (in=b);
by mprid;
if b;
run;

  *program collapses enrollment beneficiary groups based on q4;
data &inpt. ;
   set  &inpt.;
```

```
%include "D:\projects\8687-610\y2002T\ebg_coll.inc";
   run;

  *** Initial Information. ***;

   title5 'FRAMEA.SD2 Count';

   proc freq data=in_f.framea;
   table enbgsmpl / list missing;
   run;

   title5 'mergeq.SD2 Counts -- before addition of trickles';
   proc freq data=inKeith.selectq;
   table fnstatus / list missing;
   run;

   title5 'mergeq.SD2 Counts -- with trickles';
   proc freq data=&inpt.;
   table enbgsmpl fnstatus / list missing;
   run;

   title5 'mergeq.SD2 Counts with trickles Using BWT as the Weight';
   proc freq data=&inpt.;
   table enbgsmpl fnstatus / list missing;
   weight bwt;
   run;

*program collapses weighting adjustments cells due to small number of responses;
data &inpt. ;
   set  &inpt. ( keep = MPRID FNSTATUS BWT ebg_com enbgsmpl xregion stratum &cac. cacsmpl);
%include "D:\projects\8687-610\y2002T\cac_coll.inc";
   run;

PROC SORT DATA=&inpt. OUT=&INPT.;
BY &DOMAIN.;
RUN;

*************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
*************************************************************************;
Data  cellsa1 (keep=sumbwt sumg1-sumg3 a1 cellcnt cntg1-cntg3 &domain.)
      mpridsa1 (keep=mprid fnstatus bwt &domain. ebg_com &cac. )
    ;
   SET &INPT.;
   BY &DOMAIN;

   IF FIRST.&DOMAIN. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ************************************************
   * Accumulate total weight sum
   ************************************************;

   SUMBWT + BWT;

   ************************************************
   * Accumulate group 1 weight sum
   ************************************************;

   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BWT;
```

```
         cntg1 + 1;
      end;

   ***************************************************
   * Accumulate group 2 weight sum
   ***************************************************;

   ELSE IF FNSTATUS in (20,30) THEN
      do;
         SUMG2 + BWT;
         cntg2 + 1;
      end;

   ***************************************************
   * Accumulate group 3 weight sum
   ***************************************************;

   ELSE IF FNSTATUS in (41,42) THEN
      do;
         SUMG3 + BWT;
         cntg3 + 1;
      end;

   RETAIN SUMBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

   IF LAST.&DOMAIN. THEN DO;
      A1 = SUMBWT/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;

   OUTPUT MPRIDSA1;

RUN;


title5 'Check for CELLSA1 Data Set';

proc print data=cellsa1;
var &domain. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

proc print data=cellsa1;
where ( a1 > 7 ) or ( cntg1 + cntg2 < 10 );
var &domain. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

proc univariate data=cellsa1 normal ;
var a1;
run;

proc sort data=mpridsa1;
by &domain.;
run;

proc sort data=cellsa1;
by &domain.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain.;
if fnstatus in (11,12,20,30) then adj1 = a1;
   else adj1 = 0;
adj_wt1 = adj1 * bwt;
run;

title5 'Checks for ADJ_ONE Data Set';

proc freq data=adj_one;
table &domain.*fnstatus*adj1 / list missing;
run;
```

```
proc means data=adj_one n sum NOPRINT;
class fnstatus;
var adj_wt1;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

proc means data=adj_one n sum NOPRINT;
class ebg_com;
var adj_wt1;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

*************************************************************************
* Calculate adjustment factor A2 for each cell.
* This is the Nonresponse adjustment and creates the final weight (wrwt).
*************************************************************************;

proc sort data=adj_one;
by &domain.;
run;

DATA CELLSA2 (KEEP= &domain. NUMER DENOM numercnt denomcnt A2);
   set adj_one ;
   BY &domain.;

   IF FIRST.&domain. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
         NUMER + BWT*A1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + BWT*A1;
         denomcnt + 1;
      end;

   IF LAST.&domain. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;

RUN;

title5 'Check for CELLSA2 Data Set';

proc print data=cellsa2;
var &domain. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;
```

```
proc print data=cellsa2;
where ( a2 > 7 ) or ( denomcnt < 10 );
var &domain. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

proc univariate data=cellsa2 normal ;
var a2;
run;

proc sort data=adj_one;
by &domain.;
run;

proc sort data=cellsa2;
by &domain.;
run;

data adj_two;
merge adj_one cellsa2;
by &domain.;
if fnstatus = 11 then adj2 = a2;
   else if fnstatus = 30 then adj2 = 1;
   else adj2 = 0;
adjwt = adj2 * adj_wt1;
label adjwt = 'Adjusted Weight';
KEEP MPRID fnstatus adj1 adj2 adjwt &domain. ebg_com ;
run;

title5 'Check for ADJ_TWO Data Set';

proc freq data=adj_two;
table &domain.*fnstatus*adj2 / list missing;
run;

proc means data=adj_two n sum NOPRINT;
class fnstatus;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

proc means data=adj_two n sum NOPRINT;
class ebg_com;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

data adj_two;
set adj_two(drop=fnstatus ebg_com );
run;

*************************************************************************
* Sort the original data
*************************************************************************;

PROC SORT DATA=&INPT. OUT=&INPT.;
BY MPRID;
RUN;

*************************************************************************
* Sort the ADJ_TWO data set
*************************************************************************;
```

```
PROC SORT DATA=adj_two;
BY MPRID;
RUN;

*************************************************************************
* Append final weight variable (adjwt)
*************************************************************************;
DATA out.adjwt;
   MERGE adj_two &INPT.;
   BY MPRID;
RUN;

title5 'Checks for adjwt Data Set';

proc means data=out.adjwt n sum NOPRINT;
class fnstatus;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print;
sum sum;
where _type_=1;
run;

proc sort data=out.adjwt out=chk;
by &domain. fnstatus;
run;

data sub_chk;
set chk(keep = &cac. stratum &domain. fnstatus bwt adj1 adj2 adjwt);
by &domain. fnstatus;
prodadjs = adj1 * adj2;
retain cellcnt sumadjwt;
if first.fnstatus then
   do;
      cellcnt = 1;
      sumadjwt = adjwt;
   end;
   else
      do;
         cellcnt = cellcnt +1;
         sumadjwt = sumadjwt + adjwt;
      end;
if last.fnstatus then output sub_chk;
run;

proc print data=sub_chk;
var &domain. fnstatus bwt adj1 adj2 prodadjs adjwt cellcnt sumadjwt;
sum cellcnt sumadjwt;
run;

proc univariate data=sub_chk normal ;
where fnstatus=11;
var prodadjs;
run;

proc univariate data=sub_chk normal ;
where fnstatus=11;
var adjwt;
run;

title5 "individual level adjwt";
proc univariate data=out.adjwt normal ;
where fnstatus=11;
var adjwt;
run;

proc sort data=out.adjwt;
by xregion;
run;

title5 "Distribution of weights by region";
```

```
proc univariate data=out.adjwt normal ;
where fnstatus=11;
var adjwt;
by xregion;
run;

**********************************;
*** Calculate the Design Effects ***;
**********************************;

*create dataset of completes only;
data adjwt_fnl;
set out.adjwt;
where fnstatus=11;
run;

*Remove xregions of missing from design effects;
data adjwt_reg;
set adjwt_fnl;
where xregion~=.;
run;

%design_effects_unequal_weights ( adjwt_fnl, &cac.,  adjwt, deff_overall, deff_cac );
%design_effects_unequal_weights ( adjwt_fnl, ebg_com,  adjwt, deff_overall, deff_ebg );
%design_effects_unequal_weights ( adjwt_fnl, enbgsmpl, adjwt, deff_overall, deff_enb );
%design_effects_unequal_weights ( adjwt_reg, xregion,  adjwt, deff_overall, deff_reg );

title5 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For Catchment Area ***;

title5 "Design Effects for &cac.";
proc print data= deff_cac;
run;

*** For Enrollee/Beneficiary Groups ***;

title5 'Design Effects for ebg_com';
proc print data= deff_ebg;
run;

*** For ENBGSMPL Groups ***;

title5 'Design Effects for ENBGSMPL';
proc print data= deff_enb;
run;

*** For XREGION Groups ***;

title5 'Design Effects for XREGION';
proc print data= deff_reg;
run;

%MEND PROCESS;

*************************************************************************
* Calculate final weight based on user-specified parameters.
*************************************************************************;

%PROCESS(com_samp,com_geo,A,merged);
RUN;

%end; *end of do for each quarter;
%mend doit;
%doit;
```

G. FRAME.INC IS RUN AS PART OF THE ADJWT.SAS PROGRAM ABOVE AND COLLAPSES SMALL CATCHMENT AREAS

```
*************************************************************************
*** 2002 Health Care Survey of DoD Beneficiaries-Annual Adult Dataset
*** Program:  Inlude file used in D:\projects\8687-10\y2002T\adjwt.sas
*** Purpose:  Geographic collapsements from q4 framea
*** Note:     Com_geo = Cacsmpl
*** Udated:   01/07/2003 by Esther M Friedman
*************************************************************************;

if pcm='MTF' then do;
   if ( '1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or ('6991' <= enrid <=
'6994') or ('6501' <=enrid <='6512') or ('7166' <= enrid <= '7195')
      then com_geo = geocell; ***Administrative assignment--1976-1980 added q4 2002**;
   else if ('3031' <= enrid <= '3057') then com_geo = geocell; ***On board ship***;
   else if enrid in ('0002', '5208', '0250', '0449') then com_geo = geocell; ***Inactive***;
   ***Clinics large enough-stand on their own***;
   else if enrid in ('7293','0252','0534','7286','7294','0511','1592',
                     '7236','6201','0378','0387','0508') then com_geo = geocell;

else com_geo = d_par;
end;

*************************************************************************:
*** All other enrollees with civilian PCMs and nonenrollees will have    ***;
*** GEOCELL for their com_geo values                                     ***;
*************************************************************************;

else com_geo = geocell;

************************************************;
*** Collapsing small areas with nearest facility ***;
************************************************;

   if com_geo in ('0074','0416')             then com_geo='0001';
   else if com_geo in ('0203','0130','0417',
         '7044','7047')                      then com_geo='0005';
         else if com_geo in ('0418','0419','7083',
                      '0015')                then com_geo='0014';
   else if com_geo in ('0018','0248')        then com_geo='0019';
   else if com_geo in ('0034','0100')        then com_geo='0035';
   else if com_geo in ('0420')               then com_geo='0037';
   else if com_geo in ('0422')               then com_geo='0038';
   else if com_geo in ('0421','7048','0050') then com_geo='0039';
   else if com_geo in ('7043')               then com_geo='0052';
   else if com_geo in ('0076')               then com_geo='0058';
   else if com_geo in ('0338')               then com_geo='0059';
   else if com_geo in ('0423')               then com_geo='0064';
   else if com_geo in ('0068','0413')        then com_geo='0066';
   else if com_geo in ('0424')               then com_geo='0067';
   else if com_geo in ('0306')               then com_geo='0069';
   else if com_geo in ('0085')               then com_geo='0083';
   else if com_geo in ('0430','0335')        then com_geo='0089';
   else if com_geo in ('0093','0094')        then com_geo='0096';
   else if com_geo in ('0097')               then com_geo='0098';
   else if com_geo in ('0356')               then com_geo='0103';
   else if com_geo in ('0084')               then com_geo='0108';
   else if com_geo in ('0363', '7082')       then com_geo='0109';
   else if com_geo in ('0364')               then com_geo='0112';
   else if com_geo in ('0114')               then com_geo='0117';
   else if com_geo in ('0077')               then com_geo='0119';
   else if com_geo in ('0432','0433')        then com_geo='0120';
   else if com_geo in ('0122')               then com_geo='0121';
   else if com_geo in ('0431','0434','0395') then com_geo='0125';
   else if com_geo in ('0435')               then com_geo='0126';
   else if com_geo in ('7045')               then com_geo='0128';
   else if com_geo in ('0106','7200') then com_geo='0129';
   else if com_geo in ('0310','0425','0426') then com_geo='0321';
   else if com_geo in ('0428')               then com_geo='0326';
   else if com_geo in ('0808')               then com_geo='0609';
   else if com_geo in ('0615','7042','5197') then com_geo='0616';
   else if com_geo in ('0618','0623','0629',
```

```
         '0624','0635','0825')              then com_geo='0617';
   else if com_geo in ('0802')              then com_geo='0620';
   else if com_geo in ('8931')              then com_geo='0633';
   else if com_geo in ('0637')              then com_geo='0638';
   else if com_geo in ('0610','0639')       then com_geo='0640';

 select (com_geo);
  when ('0252') com_geo= '0033';
  when ('0378') com_geo= '0124';
  when ('0387') com_geo= '0124';
  when ('0508') com_geo= '0124';
  when ('0511') com_geo= '0103';
  when ('0534') com_geo= '0052';
  when ('1587') com_geo= '0109';
  when ('1592') com_geo= '0110';
  when ('1646') com_geo= '0125';
  when ('6201') com_geo= '0123';
  when ('7143') com_geo= '0089';
  when ('7236') com_geo= '0110';
  when ('7286') com_geo= '0089';
  when ('7293') com_geo= '0032';
  when ('7294') com_geo= '0089';
otherwise;
end;

if d_fac='NONCAT' then com_geo='99'||d_health;

*** If the facility is unknown then set com_geo indicates unknown facility ***;
*** '0999' added 03/15 to account for id 6992;
if com_geo in ('9900', '0999') then com_geo='9999';
```

H. EBG_COLL.INC IS RUN AS PART OF THE ADJWT.SAS PROGRAM ABOVE AND COLLAPSES SMALL ENROLLMENT BENEFICIARY GROUPS

```
*************************************************************************
*** 2002 Health Care Survey of DoD Beneficiaries-Annual Adult Dataset
*** Program:    include file used in D:\projects\8687-610\y2002T\adjwt.sas
*** Purpose:    enbgsmpl collapsements from q4
*** Note:       com_geo = com_geo
*** Updated:    01/16/2003 by Esther M Friedman
*************************************************************************
;

*******************************************************
* Assignment of ebsmpl (from q4 ebcoll01.sas program);
*******************************************************;
if com_geo in ('0534','7293','6992') then ebsmpl = '01';

else if com_geo = '0638' then do;
      if ebg_com in ('02','03','04','05','06') then ebsmpl = '05';
      else ebsmpl = ebg_com;
end;

else if com_geo in ('0330','0508','0804','0806','1592','7139','0805') then do;
      if ebg_com in ('02','03','04','05','06') then ebsmpl = '02';
      else ebsmpl = ebg_com;
end;

else if
      com_geo in ('0131','0606','0607','0609','0612','0616','0617',
                  '0620','0621','0624','0633','0640','0808')
                       and ebg_com = '04' then ebsmpl = '05';
else if
      com_geo in ('0003','0005','0006','0028','0030','0033','0047','0053',
                  '0057','0064','0073','0075','0078','0079','0092','0095',
                  '0098','0101','0104','0105','0113','0114','0117','0126','0127',
                  '0131','0607','0612','0616','0617','0620','0621', '0624','0633',
                  '0640','0808') and ebg_com = '03' then ebsmpl = '02';
else if
      com_geo = '0622' and ebg_com in ('04','05') then ebsmpl = '03';
else ebsmpl = ebg_com;

if ebg_com = '06' then do;
   if com_geo in ('0001','0004','0008','0010','0013','0019','0035','0043',
                  '0046','0051','0058','0059','0062','0069',
                  '0083','0090','0096','0112','0118',
                  '0119','0128','0129','0252','0280','0287',
                  '0321','0326','0366','0378','0385',
                  '0387','0511','6201','7236',
                  '7286','7294') then ebsmpl = '04';
   else if
      com_geo in ('0005','0053','0131','0606','0607','0609','0612',
                  '0617','0620','0621','0624','0633',
                  '0640','0808') then ebsmpl = '05';
   else if
      com_geo = '0622' then ebsmpl = '03';
   else if
      com_geo = '0638' then ebsmpl = '05';
   else if
      com_geo in ('0330','0508','0804','0806','1592','7139','0805') then ebsmpl = '02';
   else ebsmpl = ebg_com;
end;

stratum = '0'||com_geo||ebsmpl;
```

I. CAC_COLL.INC IS RUN AS PART OF THE ADJWT.SAS PROGRAM ABOVE AND COLLAPSES SMALL ADJUSTMENT CELLS

```
*************************************************************************
*** 2002 Health Care Survey of DoD Beneficiaries - Annual Adult Dataset
*** Purpose:    Geographic collapsements from q4 weighting
*** Date:       January 07, 2003
*** Programmer: Esther M Friedman
*** Program:    include file used in D:\projects\8687-610\y2002T\adjwt.sas
*** Inputs:     selectq
***
*************************************************************************;

com_samp=stratum;

*********************************************************************;
*********Collapsing out of catchment areas into super regions**********;
*********************************************************************;

if substr(com_samp,2,4)='9901' or substr(com_samp,2,4)='9902' or substr(com_samp,2,4)='9905'
then do;
        c = com_samp;
        substr(c,2,4)='9991';
        put c;
        com_samp = c;
end;

else if substr(com_samp,2,4)='9906' or substr(com_samp,2,4)='9909' or
substr(com_samp,2,4)='9910' or
        substr(com_samp,2,4)='9911' or substr(com_samp,2,4)='9912' or
substr(com_samp,2,4)='9916' then do;
        d = com_samp;
        substr(d,2,4)= '9992';
        put d;
        com_samp = d;
end;

else if substr(com_samp,2,4)='9903' or substr(com_samp,2,4)='9904' or
substr(com_samp,2,4)='9907' or
        substr(com_samp,2,4)='9908' then do;
        e = com_samp;
        substr(e,2,4)='9993';
        put e;
        com_samp = e;
end;

else if substr(com_samp,2,4)='9913' or substr(com_samp,2,4)='9914'or
substr(com_samp,2,4)='9915' or substr(com_samp,2,4)='9999' then do;
        f = com_samp;
        substr(f,2,4)='9990';
        put f;
        com_samp = f;
end;

*********************************************************************;
*********************************************************************;
***************Additional Collapsement For Small Cells***************;
**********Where FNSTATUS 11+12 <10 in any of the 4 quarters;**********;
*********************************************************************;
*********************************************************************;

If substr(com_samp,2,4) in
(0003,0005,0006,0009,0014,0024,0028,0030,0032,0033,0037,0038,0039,0042,0045,0047,0048,0049,

0052,0053,0055,0056,0057,0060,0061,0064,0066,0067,0073,0075,0078,0079,0086,0089,0092,0093,00
95,0098,0101,0103,0104,0105,0108,

0109,0110,0112,0113,0117,0120,0121,0125,0126,0127,0131,0606,0607,0609,0612,0616,0617,0620,06
21,0622,0633,0638,0640,0805,9990)
              and substr(com_samp,6,2) in ('02','03')
then do; x=com_samp;
         substr(x,6,2)='02';
         put x;
```

```
         com_samp = x;
end;

else If substr(com_samp,2,4) in
(0001,0005,0006,0008,0010,0015,0019,0026,0029,0035,0036,0037,0046,0049,0053,0057,0058,0059,0
060,0062,0064,0066,0069,

0073,0075,0083,0084,0090,0092,0093,0096,0098,0104,0112,0113,0120,0121,0122,0125,0126,0127,01
28,0131,0306,0356,0606,0607,0609,0612,0616,0617,0620,
        0621,0622,0633,0638,0640,0805,9914,
0280,0032,0109,0117,0004,0118,0321,0326,0117,0118,0129,0287)
       and substr(com_samp,6,2) in ('06')
then do; y=com_samp;
         substr(y,6,2)='05';
         put y;
         com_samp = y;
end;

If substr(com_samp,2,4) in
(0001,0005,0008,0010,0015,0019,0024,0026,0030,0035,0036,0046,0052,0056,0058,0059,0062,0069,0
083,0084,
0086,0090,0091,0092,0093,0096,0104,0108,0112,0122,0128,0131,0280,0287,0306,0326,0330,0356,06
06,0607,0609,0612,0616,0617,0620,
0621,0622,0633,0638,0640,0805,0806,0713,0991,0999, 0280, 0004,0118,0321,0326,0118,0129,0287)
         and substr(com_samp,6,2) in ('04','05')
then do; z=com_samp;
         substr(z,6,2)='04';
         put z;
         com_samp = z;
end;

If substr(com_samp,2,4) in
(0330,0607,0609,0621,0622,0638,0640,0806,0713,0014,0612,0617,0622,0805,0806,7139,0612,0617,9
990,0804)
         and substr(com_samp,6,2) in ('04','02')
then do; z2=com_samp;
         substr(z2,6,2)='02';
         put z2;
         com_samp = z2;
end;

*********************************************************************;
***********Additional Collapsements For Small Cells, Cont.************;
*****************Added Quarter 01, 2002*****************************;
*********************************************************************;
*********************************************************************;

If substr(com_samp,2,4) in (0606,0616,0633)
         and substr(com_samp,6,2) in ('04','02')
then do; z3=com_samp;
         substr(z3,6,2)='02';
         put z3;
         com_samp = z3;
end;

If substr(com_samp,2,4) in (9990)
         and substr(com_samp,6,2) in ('01','02','05','06')
then do; z4=com_samp;
         substr(z4,6,2)='02';
         put z4;
         com_samp = z4;
end;

If com_samp='0003306' then com_samp='0003305';
If com_samp='0063801' then com_samp='0063802';

*****************************************;
*    ADDED q4 2002 TO COLLAPSE SMALL CELLS    ;
*****************************************;
If com_samp='0004602' then com_samp='0004604';
If com_samp='0009103' then com_samp='0009102';
If com_samp='0061201' then com_samp='0061202';
If com_samp='0061701' then com_samp='0061702';
```

```
drop c d e f x y z z2 z3 z4;
run;
```

J. REPWT.SAS CALCULATES THE 60 QUARTERLY REPLICATE WEIGHTS

```
*************************************************************************
* PROGRAM: repwt.SAS
* TASK:    2002 DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: CALCULATE REPLICATE WEIGHTS FOR DOD SURVEY.
* WRITTEN: 12/30/1999 BY KEITH RATHBUN
* Updated: 12/26/2002 by Esther M Friedman
*
* INPUTS:  adjwt.SD2 - Final Weights file
*
* OUTPUTS: repwt.SD2 - Replicate Weights File
*
*************************************************************************
*;

%macro doit;
  %do qtr=1 %to 3;

LIBNAME IN  v6 "D:\projects\8687-610\y2002T\y2002q&qtr.T\data";
LIBNAME OUT v6 "D:\projects\8687-610\y2002T\y2002q&qtr.T\data";

OPTIONS PS=79 LS=132 COMPRESS=YES errors=0 NOCENTER

TITLE1 "Q&qtr. 2002 DoD Final/Replicated Weights with Trickles";

%MACRO PROCESS(DOMAIN1,DOMAIN2,CAC, reps);

*************************************************************************
* Sort the final weights file by user-specified domains
*************************************************************************;

PROC SORT DATA=IN.adjwt(KEEP=FNSTATUS MPRID BWT &DOMAIN1. &DOMAIN2. stratum) OUT=adjwt;
     BY stratum &DOMAIN2.;
RUN;


*************************************************************************
* Append SUBSET index (I) to each observation
*************************************************************************;
DATA SUBSETS;
   SET adjwt;
   BY stratum &DOMAIN2.;

   IF _N_ = 1 OR MOD(_N_-1,&reps.) = 0 THEN SUBSET = 1;
   ELSE SUBSET + 1;

   RETAIN SUBSET;
   BBWT = BWT * (&reps. / (&reps. - 1));
RUN;

*************************************************************************
*************************************************************************
* Generate JackKnife/replicated weights adjwt01-adjwt60
*************************************************************************
*************************************************************************;
%DO I = 1 %TO &reps.;

DATA SUBSET;
   SET SUBSETS;
   IF &I. = SUBSET THEN DELETE; *Remove the current subset;
RUN;

*************************************************************************
* Calculate adjustment factor A1 for each cell
*************************************************************************;

proc sort data=subset;
by &domain1.;
run;


*************************************************************************
```

```
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
*************************************************************************;
DATA CELLSA1  (KEEP=SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 &domain1.)
     MPRIDSA1 (KEEP=MPRID FNSTATUS BBWT &DOMAIN1.)
     ;
   SET subset;
   BY &DOMAIN1.;

   IF FIRST.&DOMAIN1. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ************************************************
   * Accumulate total weight sum
   ************************************************;

   SUMBBWT + BBWT;

   ************************************************
   * Accumulate group 1 weight sum
   ************************************************;

   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BBWT;
         cntg1 + 1;
      end;

   ************************************************
   * Accumulate group 2 weight sum
   ************************************************;

   ELSE IF FNSTATUS in (20,30) THEN
      do;
         SUMG2 + BBWT;
         cntg2 + 1;
      end;

   ************************************************
   * Accumulate group 3 weight sum
   ************************************************;

   ELSE IF FNSTATUS in (41,42) THEN
      do;
         SUMG3 + BBWT;
         cntg3 + 1;
      end;

   RETAIN SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

   IF LAST.&DOMAIN1. THEN DO;
      A1 = SUMBBWT/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;

   OUTPUT MPRIDSA1;

RUN;

proc sort data=mpridsa1;
by &domain1.;
run;
```

```
proc sort data=cellsa1;
by &domain1.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain1.;
if fnstatus in (11,12,20,30) then adj1 = a1;
   else adj1 = 0;
adj_wt1 = adj1 * bbwt;
run;


*************************************************************************
* Calculate adjustment factor A2 for each cell.
* This is the Nonresponse adjustment and creates the final weight (adjwt).
*************************************************************************;

proc sort data=adj_one;
by &domain1.;
run;

DATA CELLSA2 (KEEP= &domain1. NUMER DENOM numercnt denomcnt A2);
   set adj_one;
   BY &domain1.;

   IF FIRST.&domain1. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
         NUMER + BBWT*A1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + BBWT*A1;
         denomcnt + 1;
      end;

   IF LAST.&domain1. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;

RUN;

proc sort data=adj_one;
by &domain1.;
run;

proc sort data=cellsa2;
by &domain1.;
run;

data subset&i.;
merge adj_one cellsa2;
by &domain1.;
if fnstatus = 11 then adj2 = a2;
   else if fnstatus = 30 then adj2 = 1;
   else adj2 = 0;
jkweight = adj2 * adj_wt1;
subset = &i.;
KEEP MPRID subset jkweight;
```

```
run;

proc sort data=subset&i.;
by mprid;
run;

*************************************************************************
*************************************************************************
* End of JackKnife/replicated weights WRWT01-WRWT60 assignments
*************************************************************************
*************************************************************************;
%END;

*************************************************************************
* Combine all of the JackKnife weight subsets by MPRID
*************************************************************************;
DATA ALLSETS;
   SET SUBSET1   SUBSET2   SUBSET3   SUBSET4   SUBSET5
       SUBSET6   SUBSET7   SUBSET8   SUBSET9   SUBSET10
       SUBSET11  SUBSET12  SUBSET13  SUBSET14  SUBSET15
       SUBSET16  SUBSET17  SUBSET18  SUBSET19  SUBSET20
       SUBSET21  SUBSET22  SUBSET23  SUBSET24  SUBSET25
       SUBSET26  SUBSET27  SUBSET28  SUBSET29  SUBSET30
       SUBSET31  SUBSET32  SUBSET33  SUBSET34  SUBSET35
       SUBSET36  SUBSET37  SUBSET38  SUBSET39  SUBSET40
       SUBSET41  SUBSET42  SUBSET43  SUBSET44  SUBSET45
       SUBSET46  SUBSET47  SUBSET48  SUBSET49  SUBSET50
       SUBSET51  SUBSET52  SUBSET53  SUBSET54  SUBSET55
       SUBSET56  SUBSET57  SUBSET58  SUBSET59  SUBSET60
   ;
   BY MPRID;
   ARRAY JKWT(&reps.) wrwt1-wrwt&reps.; RETAIN wrwt1-wrwt&reps.;
   IF FIRST.MPRID THEN DO;
      DO I = 1 TO &reps.; DROP I;
         JKWT(I) = . ;
      END;
   END;
   JKWT(SUBSET) = JKWEIGHT;
   IF LAST.MPRID THEN OUTPUT;
   KEEP MPRID wrwt1-wrwt&reps.;
RUN;

*************************************************************************
* Sort the original data, get the final weight (WRWT), append the
* JackKnife/Replicated weights (WRWT1-WRWT60), and label variables.
*************************************************************************;
PROC SORT DATA=IN.adjwt
          OUT=adjwt;
     BY MPRID;
RUN;

proc sort data=allsets;
by mprid;
run;

DATA OUT.repwt ;
   MERGE adjwt ALLSETS;
   BY MPRID;

   LABEL
      MPRID  = 'MPR ID Number'
      WRWT1  = 'Replicated/JackKnife Weight 1'
      WRWT2  = 'Replicated/JackKnife Weight 2'
      WRWT3  = 'Replicated/JackKnife Weight 3'
      WRWT4  = 'Replicated/JackKnife Weight 4'
      WRWT5  = 'Replicated/JackKnife Weight 5'
      WRWT6  = 'Replicated/JackKnife Weight 6'
      WRWT7  = 'Replicated/JackKnife Weight 7'
      WRWT8  = 'Replicated/JackKnife Weight 8'
      WRWT9  = 'Replicated/JackKnife Weight 9'
      WRWT10 = 'Replicated/JackKnife Weight 10'
      WRWT11 = 'Replicated/JackKnife Weight 11'
      WRWT12 = 'Replicated/JackKnife Weight 12'
```

```
      WRWT13 = 'Replicated/JackKnife Weight 13'
      WRWT14 = 'Replicated/JackKnife Weight 14'
      WRWT15 = 'Replicated/JackKnife Weight 15'
      WRWT16 = 'Replicated/JackKnife Weight 16'
      WRWT17 = 'Replicated/JackKnife Weight 17'
      WRWT18 = 'Replicated/JackKnife Weight 18'
      WRWT19 = 'Replicated/JackKnife Weight 19'
      WRWT20 = 'Replicated/JackKnife Weight 20'
      WRWT21 = 'Replicated/JackKnife Weight 21'
      WRWT22 = 'Replicated/JackKnife Weight 22'
      WRWT23 = 'Replicated/JackKnife Weight 23'
      WRWT24 = 'Replicated/JackKnife Weight 24'
      WRWT25 = 'Replicated/JackKnife Weight 25'
      WRWT26 = 'Replicated/JackKnife Weight 26'
      WRWT27 = 'Replicated/JackKnife Weight 27'
      WRWT28 = 'Replicated/JackKnife Weight 28'
      WRWT29 = 'Replicated/JackKnife Weight 29'
      WRWT30 = 'Replicated/JackKnife Weight 30'
      WRWT31 = 'Replicated/JackKnife Weight 31'
      WRWT32 = 'Replicated/JackKnife Weight 32'
      WRWT33 = 'Replicated/JackKnife Weight 33'
      WRWT34 = 'Replicated/JackKnife Weight 34'
      WRWT35 = 'Replicated/JackKnife Weight 35'
      WRWT36 = 'Replicated/JackKnife Weight 36'
      WRWT37 = 'Replicated/JackKnife Weight 37'
      WRWT38 = 'Replicated/JackKnife Weight 38'
      WRWT39 = 'Replicated/JackKnife Weight 39'
      WRWT40 = 'Replicated/JackKnife Weight 40'
      WRWT41 = 'Replicated/JackKnife Weight 41'
      WRWT42 = 'Replicated/JackKnife Weight 42'
      WRWT43 = 'Replicated/JackKnife Weight 43'
      WRWT44 = 'Replicated/JackKnife Weight 44'
      WRWT45 = 'Replicated/JackKnife Weight 45'
      WRWT46 = 'Replicated/JackKnife Weight 46'
      WRWT47 = 'Replicated/JackKnife Weight 47'
      WRWT48 = 'Replicated/JackKnife Weight 48'
      WRWT49 = 'Replicated/JackKnife Weight 49'
      WRWT50 = 'Replicated/JackKnife Weight 50'
      WRWT51 = 'Replicated/JackKnife Weight 51'
      WRWT52 = 'Replicated/JackKnife Weight 52'
      WRWT53 = 'Replicated/JackKnife Weight 53'
      WRWT54 = 'Replicated/JackKnife Weight 54'
      WRWT55 = 'Replicated/JackKnife Weight 55'
      WRWT56 = 'Replicated/JackKnife Weight 56'
      WRWT57 = 'Replicated/JackKnife Weight 57'
      WRWT58 = 'Replicated/JackKnife Weight 58'
      WRWT59 = 'Replicated/JackKnife Weight 59'
      WRWT60 = 'Replicated/JackKnife Weight 60'
   ;
RUN;

TITLE2 "Checks for the Replicate Weights";

PROC CONTENTS DATA=OUT.repwt;
run;

PROC MEANS DATA=OUT.repwt n sum;
VAR  adjwt WRWT1-WRWT&reps.;
RUN;

PROC SORT DATA=OUT.repwt;
BY MPRID;
RUN;

DATA OUT.repwt;
   SET OUT.repwt;
   BY MPRID;

   ARRAY WGTS(&reps.) WRWT1-WRWT&reps.;
   DO I = 1 TO &reps.; DROP I;
      IF WGTS(I) EQ . THEN WGTS(I) = 0;
   END;
```

```
   KEEP MPRID BWT adjwt WRWT1-WRWT&reps. fnstatus &domain1. &cac. &domain1.;
RUN;

PROC MEANS DATA=OUT.repwt n sum;
VAR  adjwt wrwt1-wrwt&reps.;
output out=sums sum(adjwt wrwt1-wrwt&reps.) = adjwt wrwt1-wrwt&reps.;
RUN;

proc transpose data=sums out=t_sums;
var adjwt wrwt1-wrwt&reps.;
run;

proc univariate data=t_sums normal ;
var col1;
run;

**added for Amang q4 2002;
data repwt2;
  set out.repwt;
  where fnstatus = 11;
  array subset2(60) wrwt1-wrwt60;
  do m=1 to 60;
     if subset2(m)=0 then
       subset=m;
  end;
run;

proc sort data = repwt2;
by subset;
run;

proc means data = repwt2 noprint;
by subset;
var wrwt1-wrwt60;
output out = amang sum= / autoname;
run;

proc print data = amang;
run;

*************************************************************************
* Rename adjwt to wrwt
*************************************************************************;

data out.repwt (drop = adjwt);
set in.repwt;
wrwt = adjwt;
label &domain1. = 'final adjusted cell';
label wrwt = 'Final Weight';
run;

PROC CONTENTS DATA=OUT.repwt;
run;

%MEND process;

%PROCESS(com_samp, mprid, com_geo, 60);


%end; *end of do for each quarter;
%mend doit;
%doit;
```

K. ANNUAL WEIGHTING PROGRAMS:

CREPWT.SAS Combines the Quarterly Datasets and Assigns an Annual Weight

```
************************************************************************
* PROGRAM: CREPWT.SAS
* TASK:    2002 DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: CALCULATE COMBINED ANNUAL WEIGHT FOR DOD SURVEY.
* Updated: 1/03/2003 by Esther M Friedman
* INPUTS:  repwt.SD2 for all quarters - Final Weights file for all quarters
* OUTPUTS: repwt.SD2 - Annual Replicate Weights File
* NOTE:    This program no longer computes the replicate weight.
*          Replicate Weights are computed after trimming in TRIM_DOD.SAS
************************************************************************
*;
LIBNAME IN1   "D:\projects\8687-610\y2002T\y2002q1T\data";
LIBNAME IN2   "D:\projects\8687-610\y2002T\y2002q2T\data";
LIBNAME IN3   "D:\projects\8687-610\y2002T\y2002q3T\data";
LIBNAME IN4   "D:\projects\8687-610\y2002q4\weighting\data";
LIBNAME OUT   "D:\projects\8687-610\y2002T\y2002_annual\data";

OPTIONS PS=79 LS=132 COMPRESS=YES errors=0 NOCENTER mlogic mprint symbolgen;

Title1 "CREPWT.SAS: CREATES ANNUAL COMBINED WEIGHT";

************************************************************************
* MERGE THE 4 NEW (with trickles) QUARTERLY WEIGHT FILES
************************************************************************;
data repwtq1 (keep= fnstatus bwt mprid com_geo com_samp quarter wrwt wrwt1-wrwt60);
set in1.repwt;
quarter=1;
label quarter = 'Dod quarter indicator';
format _all_;
run;

data repwtq2 (keep= fnstatus bwt mprid com_geo com_samp quarter wrwt wrwt1-wrwt60);
set in2.repwt;
quarter=2;
label quarter = 'Dod quarter indicator';
format _all_;
run;

data repwtq3 (keep= fnstatus  bwt mprid com_geo com_samp quarter wrwt wrwt1-wrwt60);
set in3.repwt;
quarter=3;
label quarter = 'Dod quarter indicator';
format _all_;
run;

data repwtq4 (keep= fnstatus bwt mprid com_geo com_samp quarter wrwt wrwt1-wrwt60);
set in4.repwt;
quarter=4;
label quarter = 'Dod quarter indicator';
format _all_;
run;

*sort the new quarterly files;
proc sort data=repwtq1;
by mprid;

proc sort data=repwtq2;
by mprid;

proc sort data=repwtq3;
by mprid;

proc sort data=repwtq4;
by mprid;

*merge the new quarterly files;
data out.repwt;
set repwtq1 repwtq2 repwtq3 repwtq4;
by mprid;
```

```
*check new file;
title3 "Check the new combined file";
proc freq data=out.repwt;
tables quarter/list missing;
run;

proc contents data=out.repwt;
run;

****************************
* CREATE THE ANNUAL WEIGHTS
****************************;

* Use Equal Weighting Method:  Divide each quarterly weight by 4;

data repwt;
  set out.repwt;
  cwrwt=wrwt/4;
  label cwrwt= 'combined annual wt';

*  This program no longer computes the replicate weight;
*  Replicate Weights are computed after trimming in TRIM_DOD.SAS;
***********************
*check new annual weights
***********************;

title3 "weighted using wrwt";
proc freq data=repwt;
tables fnstatus*quarter
/list missing;
weight wrwt;
run;

title3 "weighted using cwrwt";
proc freq data=repwt;
tables fnstatus
/list missing;
weight cwrwt;
run;

title3 "unweighted";
proc freq data=repwt;
tables fnstatus
/list missing;
run;

proc sort data=repwt;
by quarter;
run;


*  These checks are no longer relevant since this program no longer computes;
*  the replicate weight;

title3;

Proc sort data=repwt;
by mprid;
run;

Proc print data=repwt (obs=1000) noobs;
var quarter cwrwt wrwt;
where fnstatus=11;
run;

proc sort data=repwt;
by quarter;
run;

proc univariate data=repwt;
var wrwt;
by quarter;
```

```
where fnstatus=11;
run;

proc univariate data=repwt;
var cwrwt;
where fnstatus=11;
run;

****************
*change com_samp and com_geo to numeric vars
*for use with Sudaan as per Keith
****************;
data out.crepwt;
set repwt;
com_sam2=input(com_samp, 7.);
com_ge2=input(com_geo, 4.);
run;

Proc freq data=out.crepwt (obs=25);
tables com_samp*com_sam2 com_geo*com_ge2/list missing;
title3 "Check new numeric variables, as per Keith";
run;

******************
*rename com_samp and com_geo
******************;
data out.crepwt (drop=com_samp com_geo);
  set out.crepwt;
  rename com_ge2=cacsmpl;
  rename com_sam2=adj_cell;
run;

proc contents data=out.crepwt;
title3 "Final Proc Contents";
run;
```

L. DOD_TRIM.SAS TRIMS THE ANNUAL WEIGHT WITH CUTOFFS SPECIFIED IN LOW.TXT

```
/*****************************************************************
 Program: DOD_TRIM.SAS, based on MACRO_TRIMWGT.SAS
          (edited for trimming CTS 2 weights)
 Tasks  : Computes NAEP values and summary statistics of weights
          before and after trimming;
          Trims weights based on defined cuttoff value of each
          trimming cell.
 Org. Program: WGT_TRM2.SAS, written by Frank Potter  9/23/97
               (saved in E:\p8340\trimwgt)
 Modified (add macro processing statements and other statements
           on line 259-289):  by tv, 7/1998
 To use the macro:
   follow comments starting on column 85 of the lines with comments
   enclosed in  * ^^^^^ comments ^^^^^ *
*****************************************************************/
options MPRINT mlogic symbolgen COMPRESS=YES nocenter;
title1 "DoD 2002 Annual Combined Weight Dataset" ;
/* ^^^^^ CHANGE TITLE ^^^^^ */
title2 "Program: D:\projects\8687-610\y2002T\y2002_annual\programs\Dod_trim.sas";
/* ^^^^^ CHANGE FOOTNOTE or COMMENT OUT ^^^^^ */

/** Define Libraries for permanent data sets  **********************/
libname  data     "D:\projects\8687-610\y2002T\y2002_annual\data";
libname  indod    "F:\DOD\2002\Data";     /* ^^^^^ SPECIFY Directory path ^^^^^ */

/****************** Randomly assign cases with region=. to regions ***/
* Merge back region variable and relevant response variables;
* Region will also serve as the trimming classes;

data crepwt (keep=mprid quarter cwrwt);
  set data.crepwt;
  where fnstatus=11;
run;

Proc sort data=crepwt;
  by mprid;
run;

Proc sort data=indod.comb2002 out=comb2002 (keep= mprid stratum enbgsmpl xregion HP_PROS
HP_MAM50 H02076 KDISENRL);
  by mprid;
run;

data data.trimvars;
  merge crepwt comb2002;
  by mprid;
  format _all_;
run;
data data.trimvars;
  set data.trimvars;
  if xregion=. then trimcls=1;
  else if xregion=13 and substr(stratum,2,4)>9000 then trimcls=2;
  else if xregion=14 and substr(stratum,2,4)>9000 then trimcls=3;
  else if xregion=15 and substr(stratum,2,4)>9000 then trimcls=4;
  else trimcls=5;
  run;

Proc freq data=data.trimvars;
 tables trimcls*xregion*stratum trimcls/list missing;
run;

Proc freq data=data.trimvars;
tables xregion;
where substr(stratum,2,4)>'9000';
run;

Proc freq data=data.trimvars;
tables stratum;
where xregion=.;
run;
```

```
/****************** define format TRIMCLS, if needed ***************/              /* ^^^^^
Change or comment out  ^^^^^ */
proc format ;

value SzTR
          1 = 'Missing Region'
          2 = 'Region 13, Out of Catchment Area'
          3 = 'Region 14, Out of Catchment Area'
            4 = 'Region 15, Out of Catchment Area'
          5 = 'Other';

/*********************End Format TRIMCLS  ************************ */

/* ********************  MACRO TRIMWGT   ***************************/
%MACRO trimwgt(FILEDESC,FOLDER,ORIGFILE, COND  , OUTFILE, ID,
               VARLIST,DUMWGT, LISTLO  , LISTHI, code, newwgt, trmfmt);
/*  FILEDESC =  description of the data or the weight (to be trimmed),
               about 25 characters
    FOLDER   =  drive specification, folder, and complete filename
               for the cutoffs defined (see also line 116-118)
    ORIGFILE =  SAS permanent input data set name
    COND     =  condn to select cases to use from the data, if needed
    OUTFILE  =  name of the output data set (max: 7 characters)
    ID       =  all IDs assc with the weight to trim
    VARLIST  =  list all vars of interest for printing (line 220-226)
    DUMWGT   =  name of the weight variable to trim
    LISTLO   =  number of lowest weights to print
    LISTHI   =  number of highest weights to print
    CODE     =  sequential code (to append to trimmed,newwgt,oldwgt,
                trm_adj) to distinguish weights of one data set from
                weights of other data sets if multiple data sets will
                be called in the macro. This code is also app. to the
                name of the permanent SAS data set w trimmed weights
   newwgt    = name of trim wgt
   TRMFMT    =  format used for TRIMCLS
****************** END MACRO PARAMETER DEFINITIONS *****************/

/* Read data file with the weight to be trimmed */

data oldwgt;
   set data.&origfile;
run;

/*****************************************************************
  Include a section to create TRIMCLS, if needed. This section is the
  continuation of the data step above and it should also contain a
  format for &TRMFMT Otherwise, TRIMCLS should be in the data file
  with the weights to trim and a proc format with value TRIMCLS
  should be defined on line 25  ***********************************/

/* %include "D:\8525_110\trimwgt\trmcls.txt";                              *^^^^^   COMMENT
OUT IF TRIMCLS IS already in DATA SET ^^^^^ */


proc freq;
   tables trimcls;format trimcls &trmfmt;
   title2 "Distribution of Trimming Class (TRIMCLS), before Trimming";

Data wgt1a; set oldwgt;

   variable = trimcls;

   label
         variable ="Trimming Categories";

/***-------- Trimming Code, based on Frank Potter's program-------***/
proc sort data=wgt1a; by trimcls;

proc means data=wgt1a noprint n sum uss max mean; by trimcls;
   var &dumwgt;
   output out=sum1 n=count mean=wgtmn max=wtgmax sum=wgtsum1 uss=wgt2sum;
```

```
data naep1; set sum1;
   c=10;
   naepval1 = sqrt(c * wgt2sum/count);
   deff1    = count * wgt2sum / (wgtsum1*wgtsum1);

proc print data=naep1;
   title2 "Design Effects and NAEP Values for &FILEDESC";
   var trimcls count wgtmn wgtsum1 deff1 wtgmax naepval1 c wgt2sum;
   format trimcls &trmfmt count comma10. wgtmn naepval1 comma14.2
          wgtsum1  wtgmax comma14.2  wgt2sum comma18.2;
data wgt1; merge wgt1a naep1; by trimcls;

proc sort data=wgt1; by variable descending &dumwgt;


data wgt2(drop=Tot_sum Trim trim_sum Trim_adj c NAEPVAL1 NAEPVAL2
               DEFF1 DEFF2 wgt2sum wgt2sum2 trimsum2)

    Trim_val(keep=variable trimcls count cutoff WGTMN Tot_sum Trim
                  trim_sum Trim_adj c naepval1 naepval2
                  deff1 deff2 effn);
     set wgt1;
      by variable descending &dumwgt;

   /* cutoff = naepval1;                                                    /*^^^^^
Default - TRIM based on NAEPVAL1. Should comment out IF NEEDED ^^^^^ */

/*** include a section to specify the CUTOFF LEVELS (IF NEEDED) */
      %include "&FOLDER";                                                   /* ^^^^^
still a part of the data step, define all cutoff values IF NEEDED  ^^^^^ */


      retain tot_sum trim trim_sum trimsum2;


      if first.variable then do;
         trim_sum =0; trim = 0; tot_sum = 0; trimsum2 =0;
      end;

      TRIMMED=2;

      tot_sum = tot_sum + &dumwgt;

      if &dumwgt gt cutoff then do;
         Trimmed =1;
         trim    =trim+1;
         trim_sum=trim_sum + &dumwgt;
         trimsum2=trimsum2 + &dumwgt * &dumwgt;
      end;

LABEL Cutoff  = "Trimming Level"
      Trimmed = "Trimmed Weight(1=Yes,2=No)"
      Trim    = "Number of Wts Trimmed"
      Tot_sum = "Sum of Untrimmed Weights"
      Trim_sum= "Sum of Trimmed Weights"
      Trim_adj= "Value to Adjust Untrimmed"
      variable= "Trimmed category "
      ;

      if last.variable then do;
        if trim gt 0 then
         Trim_adj = (Tot_sum - Trim * Cutoff)/(Tot_sum - trim_sum);
        else Trim_adj=1;
        wgt2sum2 = wgt2sum - trimsum2 + trim * cutoff * cutoff;
        naepval2 = sqrt(c * wgt2sum2 /count);
        deff2    = count * wgt2sum2 / (wgtsum1*wgtsum1);
        effn=count/deff2;
        output trim_val;
      end;

  output wgt2;

data trim_val; set trim_val;
```

```
est_pop =tot_sum - trim_sum;
label  est_pop = "Tot_sum - Trim_sum";
proc print data=trim_val /*label*/ ;
    title2 "Listing of Trimming Levels and Adjustments";
    format trimcls &trmfmt;
    var variable trimcls count cutoff WGTMN Tot_sum Trim trim_sum Est_pop Trim_adj
            naepval1 naepval2 deff1 deff2 effn;
    sum  count trim     tot_sum trim_sum est_pop;
 format trimcls &trmfmt count comma10. wgtmn naepval1
        tot_sum trim_sum est_pop comma12.2  cutoff comma12. ;
title2;

data wgt3;
    merge wgt2 trim_val(drop=cutoff count trimcls); by variable;

/*****************************************************************
 ***************   Computation of New Weight   ******************
 *****************************************************************/

if trimmed = 1 then newwgt = cutoff;
               else newwgt = Trim_adj*&dumwgt;

LABEL newwgt = "Dummy for Trimmed Weight";

proc sort data=wgt3; by variable &dumwgt;

proc univariate plot data=wgt3;
    Title2 "Summary of Original and Trimmed Weights: All";
    id &id;
    var &dumwgt newwgt;

proc univariate plot data=wgt3; by variable;
    format variable &trmfmt;
    Title2 "Summary of Original and Trimmed Weights";
    id &id;
    var &dumwgt newwgt;
    output out=count n=count;
    run;


/*****************************************************************
 ********   Listing of Largest and Smallest **********************
 ********     New weights and old weights   **********************
 ********     Add variables of interest     **********************
 *****************************************************************/
 data list;
    set wgt3;
    by variable;
    retain counter bcounter;

    list_lo=&listlo;
    list_hi=&listhi;


    if first.variable then counter=1;
    else  counter=counter+1;
    bcounter = count + 1 - counter;

    if counter le list_lo or bcounter le list_hi then output list;


proc print data=list; by variable;
    pageby variable;
    format variable &trmfmt &dumwgt newwgt comma14.2;
    Title2 "Listing of &listlo Smallest and &listhi Largest Weights  ";
    var  &ID &VARLIST
         &dumwgt newwgt;

data wgts;
    merge wgt3 count(keep=variable count);
          by variable;
proc freq data=wgts;
    table trimcls * trimmed /list missing;
```

```
    format trimcls &trmfmt;
    Title2 "&FILEDESC:  Number of weights trimmed";

DATA &OUTFILE
    (KEEP=&id TRIMMED &DUMWGT OLDWGT NEWWGT TRIMCLS trim_adj
     RENAME =(trimmed =trimmed&code oldwgt = oldwgt&code newwgt=newwgt&code trim_adj
=trm_adj&code) );
     SET WGTS;
     OLDWGT = &DUMWGT;

label
     TRIMCLS = "Trim Category: 100*SITEID+KIDFLAG"                        /* ^^^^^ SHOULD
CHANGE Label for TRIMCLS ^^^^^ */
     oldwgt  = "Weight, before trimming"
     newwgt  = "Weight, after  trimming";

DATA DATA.&outfile&code (KEEP=&ID trimcls TRIMMED&code OLDWGT&code &dumwgt NEWWGT&code
trm_adj&code
                   Label = "Wgts bef + aft trim from &origfile");
     SET &outfile;



/* compute the approximate overall design effect before and after trimming (added on July
1998) */
proc means data=DATA.&outfile&code n nmiss mean min max sum cv noprint;
     var oldwgt&code newwgt&code;
     output out =temp n= n n2 nmiss=nmiss nmiss2 mean=mean mean2  min=min min2
                         max=max max2 sum=sum sum2 cv= cv cv2;
data temp1 (keep = n nmiss mean min max sum cv)
     temp2 (keep=n2 nmiss2 mean2 min2 max2 sum2 cv2);
     set temp;

data temp1 ;
      length variable $8. label $25.;
      set temp1;
      variable = "Oldwgt&code";
      Label     = "Weight, Before Trimming";

data temp2( rename=(n2 = n nmiss2 = nmiss mean2 =mean min2=min max2 =max
                         sum2 =sum cv2 =cv));
      length variable $8. label $25.;
      set temp2;
      variable = "Newwgt&code";
      Label     = "Weight, After Trimming";

data temp;
     set temp1
         temp2;
     appxdeff = 1 + (cv/100)**2;
proc print data =temp noobs;
     var variable label n nmiss mean min max sum cv appxdeff;
     title2 "Summary Statistics of Weights before and after trimming";

data data.&outfile&code (label ="Trimmed Wgts based on &ORIGFILE..Sd2");
   set DATA.&outfile&code;
   rename  NEWWGT&code = &newwgt; /* Barbara wants this name */

proc contents data=data.&outfile&code;
     Title2 "&FILEDESC: Data after trimming";

proc print data=DATA.&OUTFILE&code (obs=30) uniform;
     Title2 "&FILEDESC  First 30 Observations";
     format trimcls &trmfmt &dumwgt oldwgt&code &newwgt comma14.2;
     var  &ID Trimcls oldwgt&code &newwgt trm_adj&code TRIMMED&code ;


%Mend trimwgt;


/* MACRO Calls: specify all macro parameters for each data set. COMMA (,)
   and AMPERSAND (&) should not be used within each macro parameter spe-
   cification. Each parameter defition shd be ended w a COMMA ^^^^^ */
```

```
/*Second Call */
%TRIMWGT (sitfinlwt: Weights for DoD,                  /* ^^^^^ FILEDESC = Weight
description about 25 characters               ^^^^^ */
      D:\projects\8687-610\y2002T\y2002_annual\programs\low.txt,      /* ^^^^^ FOLDER   =
Directory path and compl file name of CUTOFF levels   ^^^^^ */
          TRIMVARS,                                                    /* ^^^^^ ORIGFILE
= File contains weight to trim                          ^^^^^ */
          ,                                                           /* ^^^^^ COND     =
Condition to select cases to use,blank if not needed  ^^^^^ */
          LOWTRIM,                                                     /* ^^^^^ OUTFILE  =
Name of outp data set for the trim. wghts, max:7 char ^^^^^ */
          MPRID,                                                      /* ^^^^^ ID       =
All IDs associated to the weight to trim              ^^^^^ */
          trimcls xregion enbgsmpl /*HP_PROS HP_MAM50 H02076 KDISENRL*/,   /* ^^^^^ VARLIST
= Variables wanted to print                             ^^^^^ */
          cwrwt,                                                      /* ^^^^^ DUMWGT   =
Weight variable to trim                               ^^^^^ */
          50     ,                                                    /* ^^^^^ LISTLO   = #
of lowest weights to print                          ^^^^^ */
          50      ,                                                    /* ^^^^^ LISTHI   =
# of highest weights to print                         ^^^^^ */
          2       ,                                                   /* ^^^^^ CODE     =
Sequential Code to append to trimmed,newwgt,oldwgt..) ^^^^^ */
          trimwt,                                                     /* ^^^^^ NEWGWT   =
Name of trimmed weights                               ^^^^^ */
          SzTR.)

ENDSAS;
```

LOW.TXT Specifies Cutoff Values for TRIM.SAS

```
if trimcls=1  then cutoff=2543;
if trimcls=2  then cutoff=2329;
if trimcls=3  then cutoff=1758;
if trimcls=4  then cutoff=2543;
if trimcls=5  then cutoff=10000;
```

M. TRIM_REPWT.SAS RECALCULATES WEIGHT AFTER TRIMMING

```
*************************************************************************
* PROGRAM: TRIM_REPWT.SAS
* TASK:    2002 DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: RECALCULATE WEIGHTS AFTER TRIMMMING
* Updated: 1/13/2003 by Esther M Friedman
*************************************************************************;

LIBNAME IN    "D:\projects\8687-610\y2002T\y2002_annual\data";
LIBNAME OUT v6  "D:\projects\8687-610\y2002T\y2002_annual\data";

OPTIONS PS=79 LS=132 COMPRESS=YES errors=0 NOCENTER;

Title1 "TRIM_REPWT.SAS: RECALCULATES WT AFTER TRIMMING";

* Trimmmed weight dataset;
Proc sort data=in.lowtrim2 out=lowtrim (keep=mprid trimwt trimmed2);
 by mprid;
run;

* Original combined weight dataset;
Proc sort data=in.crepwt out=crepwt;
 by mprid;
run;

data repwt;
 merge crepwt lowtrim;
 by mprid;
run;

data repwt;
 set repwt;
 if fnstatus~=11 then trimwt=cwrwt;
 label cwrwt= 'combined annual wt';
run;

************************************************************************;
* Keep internal dataset with trimmed weight/old weight/and trim indicator;
data out.repwt2;
  set repwt;
  label cwrwt="cwrwt: untrimmed_wt";
  label trimwt="trimwt: trimmed_wt";
run;
Proc contents data=out.repwt2;
run;
************************************************************************;

title2 "Records where trimwt~=cwrwt";
Proc freq data=repwt;
 tables trimwt*cwrwt*fnstatus*cacsmpl/ list missing;
 where round(trimwt)~=round(cwrwt);
run;
*********************************
* CREATE THE NEW REPWT DATASET
*********************************;
data out.repwt (drop=cwrwt trimmed2 rename=(trimwt=cwrwt));
  set repwt;
Proc contents data=out.repwt;
run;
```

N. WTS_COMPARE.SAS COMPARES NEW WEIGHTS TO WEIGHTS PRE-TRICKLES, PRE-TRIMMING, AND TO WEIGHTS OF THE PRIOR YEAR

```
*************************************************************************
*** Project:    Compare Dod q1-q3 and annual weights
*** Program:    Wts_compare.sas
*** Purpose:    Compare the old weights to the new weights with new collapsed ***
cells and compares to untrimming and prior year's weights
*** Date:       January 09, 2002
*** Programmer: Esther M. Friedman
*************************************************************************;

*** Setup the titles. ***;
title1 'Dod 2002 Weight Comparisons';

*** Setup the options. ***;
options ls=132 ps=79 nocenter compress=yes;

*** Setup the paths where the files are located. ***;
libname in    'D:\projects\8687-610\y2002T\y2002_annual\data';
libname inDoD 'F:\DOD\2002\Data';
libname in1   'D:\projects\8687-610\y2002q1\sampling\data';
libname in2   'D:\projects\8687-610\y2002q2\weighting\data';
libname in3   'D:\projects\8687-610\y2002q3\weighting\data';
libname in01  'D:\projects\DOD\trickle\y2000\rep_wt';
libname out   'D:\projects\8687-610\y2002T\y2002_annual\data';

%include "C:\MyFiles\macros\design_effects_unequal_weights.sas";

* annual dataset before trimmming;
data repwt_yr (keep= trickle mprid quarter wrwt cwrwt adj_cell);
  set in.crepwt;
  where fnstatus=11 & quarter<4;
      trickle=1;
run;

proc sort data=repwt_yr;
  by mprid;
run;

*q1 dataset;
data repwt_q1 (keep= trickle mprid wrwt_old adj_old);
   set in1.repwt;
   where fnstatus=11;
   wrwt_old=wrwt;
   adj_old=adj_cell;
   trickle=0;
run;

proc sort data=repwt_q1;
  by mprid;
run;

*q2 dataset;
data repwt_q2 (keep= trickle mprid wrwt_old adj_old);
  set in2.repwt;
  where fnstatus=11;
  wrwt_old=wrwt;
  adj_old=adj_cell;
  trickle=0;
run;

proc sort data=repwt_q2;
  by mprid;
run;

*q3 dataset;
data repwt_q3 (keep= trickle mprid wrwt_old adj_old);
   set in3.repwt;
   where fnstatus=11;
   wrwt_old=wrwt;
   adj_old=adj_cell;
   trickle=0;
run;
```

```
proc sort data=repwt_q3;
  by mprid;
run;

* merge annual and q1-q3 with trickles;
* To create dataset with old weight for non-trickle records before reweight
* and new weight for trickle records after reweight;

data out.combo_wt;
  merge repwt_yr repwt_q1 repwt_q2 repwt_q3;
  by mprid;
run;

title2 "Quarter indicator by trickle indicator";
proc freq data=out.combo_wt ;
  tables quarter*trickle
  /list missing;
run;

* drop additional trickle records for comparisons;
data out.combo_wt;
  set out.combo_wt;
  where trickle=0;
run;

* Calculate the difference between the old weight and new weight for non-trickle records;
data out.combo_wt (drop=trickle);
  set out.combo_wt;
  diff_wt=wrwt_old-wrwt;
run;

title2 "Difference between the old weight and new weight for non-trickle records";
Proc univariate data=out.combo_wt;
  var diff_wt;
run;

*****************************************************************************
* Merge with combined response file and compare freqs for key variables for ALL quarters
*****************************************************************************;

* DoD 2002 response variables;
data comb2002 (keep= fnstatus HP_BP HP_BRST HP_CHOL HP_FLU HP_GP HP_MAM50
HP_MAMOG HP_PAP HP_PRNTL HP_SMOKE HP_PROS HP_MAM50 KDISENRL xregion enbgsmpl cacsmpl mprid);
  set inDoD.comb2002;
  where fnstatus=11;
  format _all_;
run;

proc sort data=comb2002;
  by mprid;
run;

* Annual dataset for q1-q4 2002 (with trickles) Untrimmed;
data untrimmed_wt (keep= mprid untrimmed_wt);
  set in.crepwt;
  where fnstatus=11;
  rename cwrwt=untrimmed_wt;
run;

proc sort data=untrimmed_wt;
  by mprid;
run;

* Annual dataset for q1-q4 2002 (with trickles) TRIMMED;
data trimmed_wt (keep= mprid trimmed_wt);
  set in.repwt;
  where fnstatus=11;
  rename cwrwt=trimmed_wt;
run;

proc sort data=trimmed_wt;
  by mprid;
```

```
run;

* Annual dataset 2002 with and without trickles q1-q3 only;
data q1q3_wt  (keep=mprid before_trickles_wt after_trickles_wt q1q3_wt);
 set out.combo_wt;
rename  wrwt_old=before_trickles_wt wrwt=after_trickles_wt cwrwt=q1q3_wt;
run;

proc sort data=q1q3_wt;
  by mprid;
run;

* Merge datasets;
data comb2_wt;
  merge comb2002 q1q3_wt trimmed_wt untrimmed_wt;
  by mprid;
  format _all_;
run;

* Annual dataset for 2001;
proc sort data=in01.comb2_wt out=comb22_wt (keep= cwrwt mprid);
  by mprid;
  format _all_;
run;

proc sort data=in01.comb2000 out=comb2000 (keep= fnstatus HP_BP HP_BRST HP_CHOL HP_FLU HP_GP
HP_MAM50
HP_MAMOG HP_PAP HP_PRNTL HP_SMOKE HP_PROS HP_MAM50 KDISENRL xregion mprid); by mprid;
 format _all_;
run;

data comb2000;
  set comb2000;
  where fnstatus=11;
run;

data comb2001;
 merge comb2000 comb22_wt;
 by mprid;
 run;

Proc format;
   value class 1="Region=13" 2="Region=14" 3="Region=15" 4="Region not in ('13','14','15')"
;
run;

* Rename key response vars and create region class variable;
data comb2_wt;
  set comb2_wt;
  array vars(13) Var1 - Var13;
  array orig(13)HP_BP HP_BRST HP_CHOL HP_FLU HP_GP HP_MAM50
HP_MAMOG HP_PAP HP_PRNTL HP_SMOKE HP_PROS HP_MAM50 KDISENRL ;
  Do i=1 to 13;
    vars(i)=orig(i);
  end;
  if xregion=13 then class=1;
  else if xregion=14  then class=2;
  else if xregion=15 then class=3;
  else class=4;
format class class.;
run;

Proc freq;
tables class*xregion/list missing;
run;

data comb2001;
  set comb2001;
array vars(13) Var1 - Var13;
  array orig(13)HP_BP HP_BRST HP_CHOL HP_FLU HP_GP HP_MAM50
HP_MAMOG HP_PAP HP_PRNTL HP_SMOKE HP_PROS HP_MAM50 KDISENRL ;
Do i=1 to 13;
    vars(i)=orig(i);
```

```
  end;
  if xregion=13 then class=1;
  else if xregion=14  then class=2;
  else if xregion=15 then class=3;
  else class=4;
format class class.;
run;

*****************************************************************************
*  COMPARE ESTIMATES ON OVERALL LEVEL
*****************************************************************************;
%macro doit;
  %do i=1 %to 13;

title2 "Frequencies for key vars before addition of trickles q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_before_trickles (rename= (count=c_before_trickles));
   where var&i.~=. and before_trickles_wt~=.;
   run;

title2 "Frequencies for key vars weighted wrwt (with trickles) q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_after_trickles (rename= (count=c_after_trickles));
   where var&i.~=. and after_trickles_wt~=.;
   run;

title2 "Frequencies for key vars weighted untrimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_no_trim (rename= (count=c_no_trim));
   where var&i.~=.;
    run;

title2 "Frequencies for key vars weighted trimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_trim (rename= (count=c_trim));
    where var&i.~=.;
    run;

title2 "Frequencies for 2001";
proc freq data=comb2001 noprint;
   tables Var&i./out=c_2001 (rename= (count=c_2001));
   where var&i.~=.;
       run;

title2 "Frequencies for key vars before addition of trickles q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_before_trickles (rename= (percent=p_before_trickles ));
   weight before_trickles_wt;
   where var&i.~=.;
   run;

title2 "Frequencies for key vars weighted wrwt (with trickles) q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_after_trickles (rename= (percent=p_after_trickles));
   weight after_trickles_wt;
   where var&i.~=.;
   run;

title2 "Frequencies for key vars weighted untrimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_no_trim (rename= (percent=p_no_trim));
   weight untrimmed_wt;
   where var&i.~=.;
    run;

title2 "Frequencies for key vars weighted trimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_trim (rename= (percent=p_trim ));
   weight trimmed_wt;
   where var&i.~=.;
    run;

title2 "Frequencies for 2001";
```

```
proc freq data=comb2001 noprint;
   tables Var&i./out=p_2001 (rename= (percent=p_2001));
   weight cwrwt;
   where var&i.~=.;
       run;

title2;
data freqs&i. ;
  merge c_before_trickles p_before_trickles c_after_trickles p_after_trickles c_no_trim
p_no_trim c_trim p_trim c_2001 p_2001;;
  where var&i.=1;
  variable=&i.;
  run;

 %end;
 %mend doit;
 %doit;

data freqs;
 set freqs1 freqs2 freqs3 freqs4 freqs5 freqs6 freqs7 freqs8 freqs9 freqs10 freqs11 freqs12
freqs13;
run;

Proc format;
   value variable 1="HP_BP" 2="HP_BRST" 3="HP_CHOL" 4="HP_FLU" 5="HP_GP" 6="HP_MAM50"
7="HP_MAMOG" 8="HP_PAP" 9="HP_PRNTL" 10="HP_SMOKE" 11="HP_PROS" 12="HP_MAM50" 13="KDISENRL";
run;

Title2 "Estimates for Key response variable where indicator=1";
Title3 "OVERALL";
Proc print data=freqs noobs;
  var variable c_before_trickles p_before_trickles c_after_trickles p_after_trickles
c_no_trim p_no_trim c_trim p_trim c_2001 p_2001;
  format variable variable.;
run;

*************************************************************************
*  COMPARE ESTIMATES BY REGION
*************************************************************************;
%macro doit2;
  %do reg=1 %to 4;

%macro doit;
  %do i=1 %to 13;

title2 "Frequencies for key vars before addition of trickles q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_before_trickles (rename= (count=c_before_trickles));
   where class=&reg. and var&i.~=.;
run;

title2 "Frequencies for key vars weighted wrwt (with trickles) q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_after_trickles (rename= (count=c_after_trickles));
   where class=&reg. and var&i.~=.;;
run;

title2 "Frequencies for key vars weighted untrimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_no_trim (rename= (count=c_no_trim));
   where class=&reg. and var&i.~=.;;
run;

title2 "Frequencies for key vars weighted trimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=c_trim (rename= (count=c_trim));
   where class=&reg. and var&i.~=.;;
run;

title2 "Frequencies for 2001";
proc freq data=comb2001 noprint;
   tables Var&i./out=c_2001 (rename= (count=c_2001));
   where class=&reg. and var&i.~=.;;
```

```
   run;

title2 "Frequencies for key vars before addition of trickles q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_before_trickles (rename= (percent=p_before_trickles));
   weight before_trickles_wt;
   where class=&reg. and var&i.~=.;
run;

title2 "Frequencies for key vars weighted wrwt (with trickles) q1-q3 only";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_after_trickles (rename= (percent=p_after_trickles));
   weight before_trickles_wt;
   where class=&reg. and var&i.~=.;;
run;

title2 "Frequencies for key vars weighted untrimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_no_trim (rename= (percent=p_no_trim));
   weight untrimmed_wt;
    where class=&reg. and var&i.~=.;;
run;

title2 "Frequencies for key vars weighted trimmed weight";
proc freq data=comb2_wt noprint;
   tables Var&i./out=p_trim (rename= (percent=p_trim));
   weight trimmed_wt;
    where class=&reg. and var&i.~=.;;
run;

title2 "Frequencies for 2001";
proc freq data=comb2001 noprint;
   tables Var&i./out=p_2001 (rename= (percent=p_2001));
   weight cwrwt;
    where class=&reg. and var&i.~=.;;
   run;

title2;
data freqs&i.;
  merge c_before_trickles p_before_trickles c_after_trickles p_after_trickles c_no_trim
p_no_trim c_trim p_trim c_2001 p_2001;;
  where var&i.=1;
  variable=&i.;
run;

 %end;
 %mend doit;
 %doit;

data freqs;
 set freqs1 freqs2 freqs3 freqs4 freqs5 freqs6 freqs7 freqs8 freqs9 freqs10 freqs11 freqs12
freqs13;
run;

Proc format;
   value variable 1="HP_BP" 2="HP_BRST" 3="HP_CHOL" 4="HP_FLU" 5="HP_GP" 6="HP_MAM50"
7="HP_MAMOG" 8="HP_PAP" 9="HP_PRNTL" 10="HP_SMOKE" 11="HP_PROS" 12="HP_MAM50" 13="KDISENRL";
run;

Title2 "Estimates for Key response variable where indicator=1";
Title3 "For class = &reg., where  1 =Reg 13 2 =Reg 14 3=Reg 15 4= Other";
Proc print data=freqs noobs;
  var variable c_before_trickles p_before_trickles c_after_trickles p_after_trickles
c_no_trim p_no_trim c_trim p_trim c_2001 p_2001;
  format variable variable.;
run;

 %end;
 %mend doit2;
 %doit2;

**********************************;
*** Calculate the Design Effects ***;
```

```
**********************************;
data adjwt_fnl;
  set comb2_wt;
run;

*Remove xregions of missing from design effects;
data adjwt_reg;
   set comb2_wt;
   where xregion~=.;
run;

%design_effects_unequal_weights ( adjwt_fnl, cacsmpl,  untrimmed_wt, deff_overall, deff_cac
);
%design_effects_unequal_weights ( adjwt_fnl, enbgsmpl, untrimmed_wt, deff_overall, deff_enb
);
%design_effects_unequal_weights ( adjwt_reg, xregion,  untrimmed_wt, deff_overall, deff_reg
);

title2 'Design Effects Overall';
title3 "UNTRIMMED";
proc print data = deff_overall;
run;

*** For Catchment Area ***;

title2 "Design Effects for cacsmpl";
title3 "UNTRIMMED";
proc print data= deff_cac;
run;

*** For ENBGSMPL Groups ***;

title2 'Design Effects for ENBGSMPL';
title3 "UNTRIMMED";
proc print data= deff_enb;
run;

*** For XREGION Groups ***;

title2 'Design Effects for XREGION';
title3 "UNTRIMMED";
proc print data= deff_reg;
run;

%design_effects_unequal_weights ( adjwt_fnl, cacsmpl,  trimmed_wt, deff_overall, deff_cac );
%design_effects_unequal_weights ( adjwt_fnl, enbgsmpl, trimmed_wt, deff_overall, deff_enb );
%design_effects_unequal_weights ( adjwt_reg, xregion,  trimmed_wt, deff_overall, deff_reg );

title2 'Design Effects Overall';
title3 "TRIMMED";
proc print data = deff_overall;
run;

*** For Catchment Area ***;

title2 "Design Effects for cacsmpl";
title3 "TRIMMED";
proc print data= deff_cac;
run;

*** For ENBGSMPL Groups ***;

title2 'Design Effects for ENBGSMPL';
title3 "TRIMMED";
proc print data= deff_enb;
run;

*** For XREGION Groups ***;

title2 'Design Effects for XREGION';
title3 "TRIMMED";
proc print data= deff_reg;
run;
```

O. ANNUALREPLICATEWEIGHTS.SAS GENERATES ANNUAL REPLICATE WEIGHTS

```
*********************************************************
* Dod 2002
* Program to create the 240 annual replicate weights for DoD.
* Programmer: Darryl Creel 01/21/03
* Revised:  Esther M. Friedman 01/21/03
*********************************************************;
options ls = 132 ps = 79 nocenter compress = yes;

title1 "Create Annual Replicate Weights for DoD";
title2 "Program: D:\projects\8687-
610\y2002T\y2002_annual\programs\AnnualReplicateWeights.sas";

libname in_data "D:\projects\8687-610\y2002T\y2002_annual\data";
libname out     "D:\projects\8687-610\y2002T\y2002_annual\data";

data repwt;
set in_data.repwt;
run;

data arepwt ( drop = rep );
set repwt;
array repwt[60] wrwt1 - wrwt60;
array annual_repwt[240] cwrwt1 - cwrwt240;
do rep = 1 to 240;
if 1 <= rep <= 60 then
   do;
   if quarter in ( 2, 3, 4 ) then
      annual_repwt[rep] = wrwt;
   else
      annual_repwt[rep] = repwt[rep];
   end;
else if 61 <= rep <= 120 then
   do;
   if quarter in ( 1, 3, 4 ) then
      annual_repwt[rep] = wrwt;
   else
      annual_repwt[rep] = repwt[rep - 60];
   end;
else if 121 <= rep <= 180 then
   do;
   if quarter in ( 1, 2, 4 ) then
      annual_repwt[rep] = wrwt;
   else
      annual_repwt[rep] = repwt[rep - 120];
   end;
else if 181 <= rep <= 240 then
   do;
   if quarter in ( 1, 2, 3 ) then
      annual_repwt[rep] = wrwt;
   else
      annual_repwt[rep] = repwt[rep - 180];
   end;
     annual_repwt[rep] = annual_repwt[rep]/4;
end;*replicate loop;
run;

* Label final cwrwt1-cwrwt240;
%MACRO LABWT;
   %DO I = 1 %TO 240; /*DROP I*/;
         LABEL CWRWT&I  = "Combined Replicated Weight &I";
   %END;
%MEND LABWT;
run;

data out.arepwt;
  set arepwt;
  IF _N_ =1 THEN %LABWT; *For efficiency only label once;
run;

* Check the new cwrwts;
proc contents data = out.arepwt;
```

```
run;

PROC MEANS DATA=OUT.arepwt n sum;
VAR  cwrwt cwrwt1-cwrwt240;
output out=sums sum(cwrwt cwrwt1-cwrwt240) = cwrwt cwrwt1-cwrwt240;
RUN;

proc transpose data=sums out=t_sums;
var cwrwt cwrwt1-cwrwt240;
run;

proc univariate data=t_sums normal ;
var col1;
run;
```

P. ANNUALREPLICATETRIM.SAS TRIMS THE ANNUAL REPLICATE WEIGHTS USING THE CUTOFF VALUES IN LOW.TXT

```
*********************************************************
* Dod 2002
* Program to trim the 240 annual replicate weights for DoD.
* Programmer: Darryl Creel 01/21/03
* Revised:  Esther M. Friedman 01/21/03
*********************************************************;
options ls = 132 ps = 79 nocenter compress = yes;

title1 "Create Annual Replicate Weights for DoD";
title2 "Program: D:\projects\8687-610\y2002T\y2002_annual\programs\TrimAnnualWeights.sas";

libname  data  v8   "D:\projects\8687-610\y2002T\y2002_annual\data";

* Merge cwrwt1-cwrwt240 to trimvars dataset;
data arepwt (keep=mprid cwrwt1-cwrwt240);
  set data.arepwt;
  where fnstatus=11;
run;

Proc sort data=arepwt;
  by mprid;
run;

Proc sort data=data.trimvars out=trimvars (keep=mprid trimcls);
  by mprid;
run;

data data.Ctrimvars;
  merge arepwt trimvars;
  by mprid;
  format _all_;
run;

proc format ;

value SzTR
          1 = 'Missing Region'
          2 = 'Region 13, Out of Catchment Area'
          3 = 'Region 14, Out of Catchment Area'
             4 = 'Region 15, Out of Catchment Area'
          5 = 'Other';

data data.clowtrim (keep=mprid);
  set data.ctrimvars;
run;

%macro wt;
%DO I = 1 %TO 240;

* The program below is identical to the program used for trimming the annual cwrwt in
dod_trim.sas;
* We are looping through 240 times for each of the replicate weights;

%MACRO trimwgt(FILEDESC,FOLDER,ORIGFILE, COND  , OUTFILE, ID,
               VARLIST,DUMWGT, LISTLO  , LISTHI, code, newwgt, trmfmt);

data oldwgt;
   set data.&origfile;
run;

Data wgt1a; set oldwgt;

   variable = trimcls;

   label
         variable ="Trimming Categories";
   run;

/***-------- Trimming Code, based on Frank Potter's program-------***/
proc sort data=wgt1a; by trimcls;
```

```
proc means data=wgt1a noprint n sum uss max mean; by trimcls;
   var &dumwgt;
   output out=sum1 n=count mean=wgtmn max=wtgmax sum=wgtsum1 uss=wgt2sum;

data naep1; set sum1;
   c=10;
   naepval1 = sqrt(c * wgt2sum/count);
   deff1    = count * wgt2sum / (wgtsum1*wgtsum1);

data wgt1; merge wgt1a naep1; by trimcls;

proc sort data=wgt1; by variable descending &dumwgt;


data wgt2(drop=Tot_sum Trim trim_sum Trim_adj c NAEPVAL1 NAEPVAL2
               DEFF1 DEFF2 wgt2sum wgt2sum2 trimsum2)

    Trim_val(keep=variable trimcls count cutoff WGTMN Tot_sum Trim
                  trim_sum Trim_adj c naepval1 naepval2
                  deff1 deff2 effn);
     set wgt1;
      by variable descending &dumwgt;


/*** include a section to specify the CUTOFF LEVELS (IF NEEDED) */
      %include "&FOLDER";                                                    /* ^^^^^
still a part of the data step, define all cutoff values IF NEEDED  ^^^^^ */


      retain tot_sum trim trim_sum trimsum2;


      if first.variable then do;
         trim_sum =0; trim = 0; tot_sum = 0; trimsum2 =0;
      end;

      TRIMMED=2;

      tot_sum = tot_sum + &dumwgt;

      if &dumwgt gt cutoff then do;
         Trimmed =1;
         trim    =trim+1;
         trim_sum=trim_sum + &dumwgt;
         trimsum2=trimsum2 + &dumwgt * &dumwgt;
      end;

LABEL Cutoff  = "Trimming Level"
      Trimmed = "Trimmed Weight(1=Yes,2=No)"
      Trim    = "Number of Wts Trimmed"
      Tot_sum = "Sum of Untrimmed Weights"
      Trim_sum= "Sum of Trimmed Weights"
      Trim_adj= "Value to Adjust Untrimmed"
      variable= "Trimmed category "
      ;

      if last.variable then do;
        if trim gt 0 then
         Trim_adj = (Tot_sum - Trim * Cutoff)/(Tot_sum - trim_sum);
        else Trim_adj=1;
        wgt2sum2 = wgt2sum - trimsum2 + trim * cutoff * cutoff;
        naepval2 = sqrt(c * wgt2sum2 /count);
        deff2    = count * wgt2sum2 / (wgtsum1*wgtsum1);
        effn=count/deff2;
        output trim_val;
      end;

  output wgt2;

data trim_val; set trim_val;
est_pop =tot_sum - trim_sum;
label  est_pop = "Tot_sum - Trim_sum";
```

```
title2;

data wgt3;
    merge wgt2 trim_val(drop=cutoff count trimcls); by variable;

/*****************************************************************
 *****************************************************************
 ***************   Computation of New Weight   *******************
 *****************************************************************
 *****************************************************************/

if trimmed = 1 then newwgt = cutoff;
               else newwgt = Trim_adj*&dumwgt;

LABEL newwgt = "Dummy for Trimmed Weight";

proc sort data=wgt3; by variable &dumwgt;

proc univariate plot data=wgt3 noprint; by variable;
    format variable &trmfmt;
    Title2 "Summary of Original and Trimmed Weights";
    id &id;
    var &dumwgt newwgt;
    output out=count n=count;
    run;

data wgts;
    merge wgt3 count(keep=variable count);
          by variable;

proc freq data=wgts;
    table trimcls * trimmed /list missing;
    format trimcls &trmfmt;
    Title2 "&FILEDESC:  Number of weights trimmed for cwrwt&i.";

DATA &OUTFILE
    (KEEP=&id TRIMMED &DUMWGT OLDWGT NEWWGT TRIMCLS trim_adj
     RENAME =(trimmed =trimmed&code oldwgt = oldwgt&code newwgt=newwgt&i. trim_adj
=trm_adj&code) );
     SET WGTS;
     OLDWGT = &DUMWGT;

label
     TRIMCLS = "Trim Category: 100*SITEID+KIDFLAG"                        /* ^^^^^ SHOULD
CHANGE Label for TRIMCLS ^^^^^ */
     oldwgt  = "Weight, before trimming"
     newwgt  = "Weight, after  trimming";

Proc sort DATA=&outfile out=&outfile&i. (KEEP=&ID NEWWGT&i.);
   by &id;
run;

Proc sort data=data.clowtrim;
by mprid;
run;

data data.clowtrim;
  merge data.clowtrim &outfile&i.;
  by mprid;
run;


%Mend trimwgt;

%TRIMWGT (Annual replicate Weights for DoD,                  /* ^^^^^ FILEDESC = Weight
description about 25 characters               ^^^^^ */
          D:\projects\8687-610\y2002T\y2002_annual\programs\low.txt,      /* ^^^^^ FOLDER
= Directory path and compl file name of CUTOFF levels   ^^^^^ */
          CTRIMVARS,                                                      /* ^^^^^ ORIGFILE
= File contains weight to trim                          ^^^^^ */
          ,                                                          /* ^^^^^ COND     =
Condition to select cases to use,blank if not needed  ^^^^^ */
```

```
          CLOWTRIM,                                                    /* ^^^^^ OUTFILE
= Name of outp data set for the trim. wghts, max:7 char ^^^^^ */
          MPRID,                                                      /* ^^^^^ ID       =
All IDs associated to the weight to trim              ^^^^^ */
          trimcls,                                                    /* ^^^^^ VARLIST  =
Variables wanted to print                             ^^^^^ */
          cwrwt&i.,                                                   /* ^^^^^ DUMWGT
= Weight variable to trim                               ^^^^^ */
                ,                                                   /* ^^^^^ LISTLO   = #
of lowest weights to print                           ^^^^^ */
                ,                                                   /* ^^^^^ LISTHI   = #
of highest weights to print                          ^^^^^ */
          2       ,                                                   /* ^^^^^ CODE     =
Sequential Code to append to trimmed,newwgt,oldwgt..) ^^^^^ */
          trimwt&i.,                                                  /* ^^^^^ NEWGWT
= Name of trimmed weights                               ^^^^^ */
          SzTR.)

%END;
%MEND WT;
%wt;

* final proc contents;
Proc contents data=data.clowtrim;
run;
```

LOW.TXT Specifies Cutoff Values for ANNUAL REPLICATETRIM.SAS

```
*cut-offs for replicate weights;
* original cutoff*(60/59);
if trimcls=1  then cutoff=2587;
if trimcls=2  then cutoff=2369;
if trimcls=3  then cutoff=1788;
if trimcls=4  then cutoff=2587;
if trimcls=5  then cutoff=10000;
```

Q. FINAL_REPWT.SAS GENERATES THE FINAL ANNUAL REPWT.SD2 DATASET

```
*************************************************************************
* PROGRAM: FINAL_REPWT.SAS
* TASK:    2002 DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: Create Final Repwt.sd2 dataset for Keith with replicate weights and labels
* Updated: 1/2003 by Esther M Friedman
*************************************************************************
*;
LIBNAME IN      "D:\projects\8687-610\y2002T\y2002_annual\data";
LIBNAME OUT v6  "D:\projects\8687-610\y2002T\y2002_annual\data";

OPTIONS PS=79 LS=132 COMPRESS=YES errors=0 NOCENTER;

Title1 "FINAL_REPWT.SAS: CREATES AND LABELS FINAL DATASET";

* Trimmmed weight dataset;
Proc sort data=in.clowtrim out=clowtrim;
 by mprid;
run;

* Original combined weight dataset;
Proc sort data=in.arepwt out=arepwt;
 by mprid;
run;

data repwt;
 merge arepwt clowtrim;
 by mprid;
run;

data repwt;
 set repwt;
 array newwgtrep(240)newwgt1-newwgt240;
 array cwrwtrep(240) cwrwt1-cwrwt240;
   do i=1 to 240;
      if fnstatus~=11 then
      newwgtrep(i)=cwrwtrep(i);
   end;
run;

data repwt;
set repwt;
drop cwrwt1-cwrwt240;
run;

Proc contents data=repwt;
run;

***********************************
* CREATE THE NEW REPWT DATASET
***********************************;
data repwt;
  set repwt;
     %macro doit;
     %do i=1 %to 240;
        rename newwgt&i.=cwrwt&i.;
    %end;
   %mend;
   %doit;
run;

* Label final cwrwt1-cwrwt240;
%MACRO LABWT;
   %DO I = 1 %TO 240; /*DROP I*/;
         LABEL CWRWT&I  = "Combined Replicated Weight &I";
   %END;
%MEND LABWT;
run;

data out.repwt (drop=i);
  set repwt;
  IF _N_ =1 THEN do;
```

```
    label cwrwt    = 'combined annual wt';
    label cacsmpl  = 'CACSMPL - Catchment Area';
    label adj_cell = 'final adjusted cell';
    %LABWT; *For efficiency only label once;
end;
run;

* Final Checks;
proc contents data =out.repwt;
run;

PROC MEANS DATA=out.repwt n sum;
VAR  cwrwt cwrwt1-cwrwt240;
output out=sums sum(cwrwt cwrwt1-cwrwt240) = cwrwt cwrwt1-cwrwt240;
RUN;

proc transpose data=sums out=t_sums;
var cwrwt cwrwt1-cwrwt240;
run;

proc univariate data=t_sums normal ;
var col1;
run;
```

7. FINAL MERGE

A. QUARTERLY COMBINED DATASET

```
*************************************************************************
*
*  PROGRAM:  COMB2002.SAS
*  TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS (8860-300)
*  PURPOSE:  Combine quarterly datasets into one annual file.
*
*  WRITTEN:  12/23/2002 BY KEITH RATHBUN.
*
*   INPUTS:  1) MERGEQ.SD2 - Q1-Q4 DOD HCS Analysis files (No Weights Added)
*
*   OUTPUT:  1) COMB2002.SD2 - Combined quarterly datasets in one annual file
*
*    NOTES:  1) The output dataset produced by this program contains all
*               of the original quarterly responses plus additional
*               responses that "trickled" in after the end of the
*               fielding period. The variable called QUARTER can be used
*               to identify which version of the quarterly survey is
*               applicable to the respondent.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME INQ1    V612 "..\..\..\Q1_2002T\DATA\AFINAL";
LIBNAME INQ2    V612 "..\..\..\Q2_2002T\DATA\AFINAL";
LIBNAME INQ3    V612 "..\..\..\Q3_2002T\DATA\AFINAL";
LIBNAME INQ4    V612 "..\..\..\Q4_2002\DATA\AFINAL";
LIBNAME OUT     V612 "..\..\DATA";
LIBNAME LIBRARY V612 "..\..\..\Q4_2002\DATA\AFINAL\FMTLIB";
OPTIONS COMPRESS=YES LS=132 PS=79 NOCENTER NOFMTERR;

*************************************************************************
* Combine quartely datasets with all of the "trickle" data into one file.
*************************************************************************;
DATA COMB2002;
   SET INQ1.HCS021_1(RENAME=(CACSMPL=XCACSMPL))
       INQ2.HCS022_1(RENAME=(CACSMPL=XCACSMPL))
       INQ3.HCS023_1(RENAME=(CACSMPL=XCACSMPL))
       INQ4.HCS024_1(RENAME=(CACSMPL=XCACSMPL))
      ;
   BY MPRID;
   LENGTH CACSMPL 8;
   CACSMPL = XCACSMPL; *Convert Catchment Area to numeric value;
   LABEL CACSMPL = "CACSMPL - Catchment Area ";
   DROP XCACSMPL;
   LABEL FIELDAGE = "Age at start of fielding period"
         DAGEQY   = "Age at time of data collection"
        ;
RUN;

*************************************************************************
* Sort by MPRID and check for duplicates.  There should not be duplicates.
*************************************************************************;
PROC SORT DATA=COMB2002 OUT=OUT.COMB2002 NODUPKEY; BY MPRID; RUN;

TITLE1 "Annual DOD Health Care Survey Database (8860-300)";
TITLE2 "Program Name: COMB2002.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MERGEQ.SD2 - Q1-Q4 DOD HCS Sample and Analysis files";
TITLE4 "Program Output: COMB2002.SD2 - Combined quarterly datasets in one annual file";

PROC CONTENTS; RUN;
```

B. ADDWGTS.SAS

```
*************************************************************************
*
* PROGRAM:  ADDWGTS.SAS
* TASK:     2002 DOD HEALTH CARE SURVEY ANALYSIS (8860-300)
* PURPOSE:  MERGE THE FINAL WEIGHTS FILE WITH THE FINAL
*           QUESTIONNAIRE/SAMPLE FILE
*
* WRITTEN:  02/02/2001 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/15/2002 BY KEITH RATHBUN: Updated to combine all quarterly
*           datasets including trickles with the annual weights file.
*           2) 12/30/2002 BY KEITH RATHBUN: Updated for 2002 survey.
*
* INPUTS:   1) REPWT.SD2  - Final/Replicated Weights file - FORM A
*           2) COMB2002.SD2 - Combined Q1-Q4 FORM A Questionnaire/Sample File
*
* OUTPUTS:  1) HCSyyA_n.SD2 - Final FORM A Questionnaire/Sample File
*              combined with Final/Replicated Weights file - FORM A
*              where  yy = Year
*                      A = Form A - Annual
*                      n = Final Dataset Suffix/Version Number
*
* NOTES:    1) This program combines all of the quarterly input datasets
*              including trickles with the annual weights file.
*
*************************************************************************;
LIBNAME IN      V612 "..\..\DATA";
LIBNAME OUT     V612 "..\..\DATA";
LIBNAME LIBRARY V612 "..\..\DATA\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

%MACRO PROCESS(DSNI_1=,DSNI_2=,DSNO=);
************************************************************************
* Merge the final weights file with the final Questionnaire/Sample file
************************************************************************;
PROC SORT DATA=IN.&DSNI_1 OUT=&DSNI_1; BY MPRID; RUN;
PROC SORT DATA=IN.&DSNI_2 OUT=&DSNI_2; BY MPRID; RUN;

DATA &DSNO;
   MERGE &DSNI_2(IN=IN2)
         &DSNI_1(IN=IN1 DROP=QUARTER RENAME=(CACSMPL=XCACSMPL));
   BY MPRID;
   IF FNSTATUS = 11;
   IF IN1 AND IN2;
   IF NOT (IN1 AND IN2) THEN PUT "ERROR: NO MATCHING MPRID WITH &DSNI_1..SD2 AND
&DSNI_2..SD2";
   LABEL KEYCOUNT = "# of Key Questions Answered";
   LABEL ADJ_CELL = "ADJ_CELL - Adjusted STRATUM cell";
   LABEL CWRWT    = "Combined Annual Weight";
   ***********************************************************************
   * Change CACSMPL to be numeric datatype for future use with SUDAAN.
   ***********************************************************************;
   LABEL CACSMPL = "CACSMPL - Catchment Area";
   LENGTH CACSMPL 8;
   CACSMPL = XCACSMPL; DROP XCACSMPL;
   FORMAT CACSMPL CAC.;
   DROP COM_GEO COM_SAMP; *These are redundant.. same as CACSMPL and ADJ_CELL;
RUN;

DATA OUT.&DSNO;
   ***********************************************************************
   * Reorder file for documentation purposes.
   ***********************************************************************;
   LENGTH
       MPRID       $ 8         /* ID                */
       SVCSMPL       8         /* sampling variable */
       SEXSMPL       8         /* sampling variable */
       STRATUM     $ 7         /* sampling variable */
       CACSMPL       8         /* sampling variable */
       ENBGSMPL    $ 2         /* sampling variable */
       MPCSMPL       8         /* sampling variable */
```

```
NHFF          8        /* sampling variable */
SERVAREA    $ 2        /* sampling variable */
DCATCH      $ 4        /* sampling variable */
DMIS_ID     $ 9        /* sampling variable */
E1          $ 1        /* sampling variable */
E2          $ 1        /* sampling variable */
E3          $ 1        /* sampling variable */
E4          $ 1        /* sampling variable */
E5          $ 1        /* sampling variable */
E6          $ 1        /* sampling variable */
E7          $ 1        /* sampling variable */
E8          $ 1        /* sampling variable */
ONTIME      $ 3        /* sampling variable */

SERVAFF     $ 1        /* DEERS variable    */
MRTLSTAT    $ 1        /* DEERS variable    */
RACEETHN    $ 1        /* DEERS variable    */
PNSEXCD     $ 1        /* DEERS variable    */
LEGDDSCD    $ 2        /* DEERS variable    */
DAGEQY      $ 3        /* DEERS variable    */
PCM         $ 3        /* DEERS variable    */
TSPSITE    $ 10        /* DEERS variable    */
DBENCAT     $ 3        /* DEERS variable    */
DMEDELG     $ 1        /* DEERS variable    */
DSPONSVC    $ 1        /* DEERS variable    */
MBRRELCD    $ 1        /* DEERS variable    */
MEDTYPE     $ 1        /* DEERS variable    */
PATCAT      $ 7        /* DEERS variable    */
PNLCATCD    $ 1        /* DEERS variable    */
FIELDAGE    $ 3        /* DEERS variable    */

FNSTATUS      8        /* Updated DEERS variable    */
KEYCOUNT      8        /* Updated DEERS variable    */

H02001        4        /* Questionaire variable     */
H02002A       4        /* Questionaire variable     */
H02002C       4        /* Questionaire variable     */
H02002F       4        /* Questionaire variable     */
H02002G       4        /* Questionaire variable     */
H02002H       4        /* Questionaire variable     */
H02002I       4        /* Questionaire variable     */
H02002J       4        /* Questionaire variable     */
H02002K       4        /* Questionaire variable     */
H02002L       4        /* Questionaire variable     */
H02002M       4        /* Questionaire variable     */
H02002N       4        /* Questionaire variable     */
H02002O       4        /* Questionaire variable     */
H02003        4        /* Questionaire variable     */
H02004        4        /* Questionaire variable     */
H02005        4        /* Questionaire variable     */
H02006        4        /* Questionaire variable     */
H02007        4        /* Questionaire variable     */
H02008        4        /* Questionaire variable     */
H02009        4        /* Questionaire variable     */
H02010        4        /* Questionaire variable     */
H02011        4        /* Questionaire variable     */
H02012        4        /* Questionaire variable     */
H02013        4        /* Questionaire variable     */
H02014        4        /* Questionaire variable     */
H02015        4        /* Questionaire variable     */
H02016        4        /* Questionaire variable     */
H02017        4        /* Questionaire variable     */
H02018        4        /* Questionaire variable     */
H02019        4        /* Questionaire variable     */
H02020        4        /* Questionaire variable     */
H02021        4        /* Questionaire variable     */
H02022        4        /* Questionaire variable     */
H02023        4        /* Questionaire variable     */
H02024        4        /* Questionaire variable     */
H02025        4        /* Questionaire variable     */
H02026        4        /* Questionaire variable     */
H02027        4        /* Questionaire variable     */
H02028        4        /* Questionaire variable     */
```

```
H02029        4         /* Questionaire variable     */
H02030        4         /* Questionaire variable     */
H02031        4         /* Questionaire variable     */
H02032        4         /* Questionaire variable     */
H02033        4         /* Questionaire variable     */
H02034        4         /* Questionaire variable     */
H02035        4         /* Questionaire variable     */
H02036        4         /* Questionaire variable     */
H02037        4         /* Questionaire variable     */
H02038        4         /* Questionaire variable     */
H02039        4         /* Questionaire variable     */
H02040        4         /* Questionaire variable     */
H02041        4         /* Questionaire variable     */
H02042        4         /* Questionaire variable     */
H02043        4         /* Questionaire variable     */
H02044        4         /* Questionaire variable     */
H02045        4         /* Questionaire variable     */
H02046        4         /* Questionaire variable     */
H02047        4         /* Questionaire variable     */
H02048        4         /* Questionaire variable     */
H02049        4         /* Questionaire variable     */
H02050        4         /* Questionaire variable     */
H02051        4         /* Questionaire variable     */
H02052        4         /* Questionaire variable     */
H02053        4         /* Questionaire variable     */
H02054        4         /* Questionaire variable     */
H02055        4         /* Questionaire variable     */
H02056        4         /* Questionaire variable     */
H02057        4         /* Questionaire variable     */
H02058        4         /* Questionaire variable     */
H02059        4         /* Questionaire variable     */
H02060        4         /* Questionaire variable     */
H02061        4         /* Questionaire variable     */
H02062        4         /* Questionaire variable     */
H02063        4         /* Questionaire variable     */
H02064        4         /* Questionaire variable     */
H02065        4         /* Questionaire variable     */
H02066        4         /* Questionaire variable     */
H02067        4         /* Questionaire variable     */
H02068        4         /* Questionaire variable     */
H02069        4         /* Questionaire variable     */
H02070        4         /* Questionaire variable     */
H02071        4         /* Questionaire variable     */
H02072        4         /* Questionaire variable     */
H02073        4         /* Questionaire variable     */
H02074        4         /* Questionaire variable     */
H02075        4         /* Questionaire variable     */
H02076        4         /* Questionaire variable     */
H02077        4         /* Questionaire variable     */
SREDA         4         /* Questionaire variable     */
SRRACEA       4         /* Questionaire variable     */
SRRACEB       4         /* Questionaire variable     */
SRRACEC       4         /* Questionaire variable     */
SRRACED       4         /* Questionaire variable     */
SRRACEE       4         /* Questionaire variable     */
SRAGE         4         /* Questionaire variable     */

S02L01        4         /* Q1 Supplement             */
S02L02        4         /* Q1 Supplement             */
S02L03A       4         /* Q1 Supplement             */
S02L03B       4         /* Q1 Supplement             */
S02L03C       4         /* Q1 Supplement             */
S02L03D       4         /* Q1 Supplement             */
S02L03E       4         /* Q1 Supplement             */
S02L03F       4         /* Q1 Supplement             */
S02L03G       4         /* Q1 Supplement             */
S02L03H       4         /* Q1 Supplement             */
S02L03I       4         /* Q1 Supplement             */
S02L04A       4         /* Q1 Supplement             */
S02L04B       4         /* Q1 Supplement             */
S02L04C       4         /* Q1 Supplement             */
S02L04D       4         /* Q1 Supplement             */
S02L04E       4         /* Q1 Supplement             */
```

```
S02L04F       4         /* Q1 Supplement            */
S02L04G       4         /* Q1 Supplement            */
S02L04H       4         /* Q1 Supplement            */
S02L04I       4         /* Q1 Supplement            */
S02L05        4         /* Q1 Supplement            */
S02L06        4         /* Q1 Supplement            */
S02L07        4         /* Q1 Supplement            */
S02L08        4         /* Q1 Supplement            */
S02L09        4         /* Q1 Supplement            */
S02L10        4         /* Q1 Supplement            */
S02L11        4         /* Q1 Supplement            */
S02L12        4         /* Q1 Supplement            */
S02L13A       4         /* Q1 Supplement            */
S02L13B       4         /* Q1 Supplement            */
S02L13C       4         /* Q1 Supplement            */
S02L13D       4         /* Q1 Supplement            */
S02L13E       4         /* Q1 Supplement            */
S02L14        4         /* Q1 Supplement            */
S02L15        4         /* Q1 Supplement            */
S02L16        4         /* Q1 Supplement            */
S02L17        4         /* Q1 Supplement            */

S02S01        4         /* Q1 Supplement            */
S02S02        4         /* Q1 Supplement            */
S02S03        4         /* Q1 Supplement            */
S02S04        4         /* Q1 Supplement            */
S02S05        4         /* Q1 Supplement            */
S02S06        4         /* Q1 Supplement            */
S02S07        4         /* Q1 Supplement            */
S02S08        4         /* Q1 Supplement            */
S02S09        4         /* Q1 Supplement            */

S02C01        4         /* Q2 Supplement            */
S02C02        4         /* Q2 Supplement            */
S02C03        4         /* Q2 Supplement            */
S02C04        4         /* Q2 Supplement            */
S02C05        4         /* Q2 Supplement            */
S02C06        4         /* Q2 Supplement            */
S02C07        4         /* Q2 Supplement            */
S02C08        4         /* Q2 Supplement            */
S02C09        4         /* Q2 Supplement            */
S02C10        4         /* Q2 Supplement            */
S02C11        4         /* Q2 Supplement            */
S02C12        4         /* Q2 Supplement            */
S02C13        4         /* Q2 Supplement            */
S02C14        4         /* Q2 Supplement            */
S02C15        4         /* Q2 Supplement            */
S02C16        4         /* Q2 Supplement            */
S02C17        4         /* Q2 Supplement            */
S02C18        4         /* Q2 Supplement            */
S02C19        4         /* Q2 Supplement            */
S02C20        4         /* Q2 Supplement            */
S02C21        4         /* Q2 Supplement            */
S02C22        4         /* Q2 Supplement            */
S02E01        4         /* Q2 Supplement            */
S02E02        4         /* Q2 Supplement            */
S02E03        4         /* Q2 Supplement            */
S02E04        4         /* Q2 Supplement            */
S02E05        4         /* Q2 Supplement            */
S02E06        4         /* Q2 Supplement            */
S02E07        4         /* Q2 Supplement            */
S02E08        4         /* Q2 Supplement            */
S02E09        4         /* Q2 Supplement            */

S02D01        4         /* Q3 Supplement            */
S02D02        4         /* Q3 Supplement            */
S02D03        4         /* Q3 Supplement            */
S02M01        4         /* Q3 Supplement            */
S02M02        4         /* Q3 Supplement            */
S02M03        4         /* Q3 Supplement            */
S02P01        4         /* Q3 Supplement            */
S02P02        4         /* Q3 Supplement            */
S02P03        4         /* Q3 Supplement            */
```

```
S02X01        4         /* Q3 Supplement             */
S02X02        4         /* Q3 Supplement             */

S02T01        4         /* Q4 Supplement             */
S02T02        4         /* Q4 Supplement             */
S02T03        4         /* Q4 Supplement             */
S02T04        4         /* Q4 Supplement             */
S02T05        4         /* Q4 Supplement             */
S02T06        4         /* Q4 Supplement             */
S02T07        4         /* Q4 Supplement             */
S02T08        4         /* Q4 Supplement             */
S02T09A       4         /* Q4 Supplement             */
S02T09B       4         /* Q4 Supplement             */
S02T09C       4         /* Q4 Supplement             */
S02T09D       4         /* Q4 Supplement             */
S02T09E       4         /* Q4 Supplement             */
S02T09F       4         /* Q4 Supplement             */
S02T09G       4         /* Q4 Supplement             */
S02T09H       4         /* Q4 Supplement             */
S02T10        4         /* Q4 Supplement             */
S02T11        4         /* Q4 Supplement             */
S02T12        4         /* Q4 Supplement             */

FLAG_FIN    $ 5         /* NRC variable      */
DUPFLAG     $ 3         /* NRC variable      */

N1            8         /* CS flag variable     */
N2            8         /* CS flag variable     */
N3            8         /* CS flag variable     */
N4            8         /* CS flag variable     */
N5            8         /* CS flag variable     */
N6            8         /* CS flag variable     */
N7            8         /* CS flag variable     */
N8            8         /* CS flag variable     */
N9            8         /* CS flag variable     */
N10           8         /* CS flag variable     */
N11           8         /* CS flag variable     */
N12           8         /* CS flag variable     */
N13           8         /* CS flag variable     */
N14           8         /* CS flag variable     */
N15           8         /* CS flag variable     */
N16           8         /* CS flag variable     */
N17           8         /* CS flag variable     */
N18           8         /* CS flag variable     */
N19           8         /* CS flag variable     */
N20           8         /* CS flag variable     */
N21           8         /* CS flag variable     */
N22           8         /* CS flag variable     */
N24           8         /* CS flag variable     */
N25A          8         /* CS flag variable     */
N25B          8         /* CS flag variable     */
N25C          8         /* CS flag variable     */
N26           8         /* CS flag variable     */
N27           8         /* CS flag variable     */
N28           8         /* CS flag variable     */
N29           8         /* CS flag variable     */
N30           8         /* CS flag variable     */
N31           8         /* CS flag variable     */
N32           8         /* CS flag variable     */
N33           8         /* CS flag variable     */
N34           8         /* CS flag variable     */
N35           8         /* CS flag variable     */

MISS_1        8         /* CS Count             */
MISS_4        8         /* CS Count             */
MISS_5        8         /* CS Count             */
MISS_6        8         /* CS Count             */
MISS_7        8         /* CS Count             */
MISS_8        8         /* CS Count             */
MISS_9        8         /* CS Count             */
MISS_TOT      8         /* CS Count             */

QUARTER     $ 7         /* constructed       */
```

```
XENRLLMT      8         /* constructed       */
XENR_PCM      8         /* constructed       */
XINS_COV      8         /* constructed       */
XQENROLL      8         /* constructed       */
XREGION       3         /* constructed       */
CONUS         3         /* constructed       */
OUTCATCH      8         /* constructed       */
XSEXA         8         /* constructed       */
XBNFGRP       8         /* constructed       */
KDISENRL      8         /* constructed       */
KMILOFFC      8         /* constructed       */
KCIVOFFC      8         /* constructed       */
KBGPRB1       8         /* constructed       */
KBGPRB2       8         /* constructed       */
KMILOPQY      8         /* constructed       */
KCIVOPQY      8         /* constructed       */
KCIVINS       8         /* constructed       */
KPRSCPTN      8         /* constructed       */
KBRSTCR       8         /* constructed       */
HP_PRNTL      8         /* constructed       */
HP_MAMOG      8         /* constructed       */
HP_MAM50      8         /* constructed       */
HP_PAP        8         /* constructed       */
HP_BP         8         /* constructed       */
HP_FLU        8         /* constructed       */
HP_PROS       8         /* constructed       */
HP_GP         8         /* constructed       */
HP_BRST       8         /* constructed       */
HP_CHOL       8         /* constructed       */
HP_SMOKE      8         /* constructed       */
HP_SMOKH      8         /* constructed       */
HP_CESS       8         /* constructed       */
SF8PF         3         /* constructed       */
SF8RP         3         /* constructed       */
SF8BP         3         /* constructed       */
SF8GH         3         /* constructed       */
SF8VT         3         /* constructed       */
SF8SF         3         /* constructed       */
SF8RE         3         /* constructed       */
SF8MH         3         /* constructed       */
PCS_8         4         /* constructed       */
MCS_8         4         /* constructed       */
KMID_H        3         /* constructed       */
KMID_MH       3         /* constructed       */

BWT           8         /* weights           */
ADJ_CELL      8         /* weights           */
WRWT          8         /* weights           */
WRWT1         8         /* weights           */
WRWT2         8         /* weights           */
WRWT3         8         /* weights           */
WRWT4         8         /* weights           */
WRWT5         8         /* weights           */
WRWT6         8         /* weights           */
WRWT7         8         /* weights           */
WRWT8         8         /* weights           */
WRWT9         8         /* weights           */
WRWT10        8         /* weights           */
WRWT11        8         /* weights           */
WRWT12        8         /* weights           */
WRWT13        8         /* weights           */
WRWT14        8         /* weights           */
WRWT15        8         /* weights           */
WRWT16        8         /* weights           */
WRWT17        8         /* weights           */
WRWT18        8         /* weights           */
WRWT19        8         /* weights           */
WRWT20        8         /* weights           */
WRWT21        8         /* weights           */
WRWT22        8         /* weights           */
WRWT23        8         /* weights           */
WRWT24        8         /* weights           */
WRWT25        8         /* weights           */
```

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WRWT26       8        /* weights          */
WRWT27       8        /* weights          */
WRWT28       8        /* weights          */
WRWT29       8        /* weights          */
WRWT30       8        /* weights          */
WRWT31       8        /* weights          */
WRWT32       8        /* weights          */
WRWT33       8        /* weights          */
WRWT34       8        /* weights          */
WRWT35       8        /* weights          */
WRWT36       8        /* weights          */
WRWT37       8        /* weights          */
WRWT38       8        /* weights          */
WRWT39       8        /* weights          */
WRWT40       8        /* weights          */
WRWT41       8        /* weights          */
WRWT42       8        /* weights          */
WRWT43       8        /* weights          */
WRWT44       8        /* weights          */
WRWT45       8        /* weights          */
WRWT46       8        /* weights          */
WRWT47       8        /* weights          */
WRWT48       8        /* weights          */
WRWT49       8        /* weights          */
WRWT50       8        /* weights          */
WRWT51       8        /* weights          */
WRWT52       8        /* weights          */
WRWT53       8        /* weights          */
WRWT54       8        /* weights          */
WRWT55       8        /* weights          */
WRWT56       8        /* weights          */
WRWT57       8        /* weights          */
WRWT58       8        /* weights          */
WRWT59       8        /* weights          */
WRWT60       8        /* weights          */
CWRWT        8        /* weights          */
CWRWT1       8        /* weights          */
CWRWT2       8        /* weights          */
CWRWT3       8        /* weights          */
CWRWT4       8        /* weights          */
CWRWT5       8        /* weights          */
CWRWT6       8        /* weights          */
CWRWT7       8        /* weights          */
CWRWT8       8        /* weights          */
CWRWT9       8        /* weights          */
CWRWT10      8        /* weights          */
CWRWT11      8        /* weights          */
CWRWT12      8        /* weights          */
CWRWT13      8        /* weights          */
CWRWT14      8        /* weights          */
CWRWT15      8        /* weights          */
CWRWT16      8        /* weights          */
CWRWT17      8        /* weights          */
CWRWT18      8        /* weights          */
CWRWT19      8        /* weights          */
CWRWT20      8        /* weights          */
CWRWT21      8        /* weights          */
CWRWT22      8        /* weights          */
CWRWT23      8        /* weights          */
CWRWT24      8        /* weights          */
CWRWT25      8        /* weights          */
CWRWT26      8        /* weights          */
CWRWT27      8        /* weights          */
CWRWT28      8        /* weights          */
CWRWT29      8        /* weights          */
CWRWT30      8        /* weights          */
CWRWT31      8        /* weights          */
CWRWT32      8        /* weights          */
CWRWT33      8        /* weights          */
CWRWT34      8        /* weights          */
CWRWT35      8        /* weights          */
CWRWT36      8        /* weights          */
CWRWT37      8        /* weights          */
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CWRWT38      8        /* weights          */
CWRWT39      8        /* weights          */
CWRWT40      8        /* weights          */
CWRWT41      8        /* weights          */
CWRWT42      8        /* weights          */
CWRWT43      8        /* weights          */
CWRWT44      8        /* weights          */
CWRWT45      8        /* weights          */
CWRWT46      8        /* weights          */
CWRWT47      8        /* weights          */
CWRWT48      8        /* weights          */
CWRWT49      8        /* weights          */
CWRWT50      8        /* weights          */
CWRWT51      8        /* weights          */
CWRWT52      8        /* weights          */
CWRWT53      8        /* weights          */
CWRWT54      8        /* weights          */
CWRWT55      8        /* weights          */
CWRWT56      8        /* weights          */
CWRWT57      8        /* weights          */
CWRWT58      8        /* weights          */
CWRWT59      8        /* weights          */
CWRWT60      8        /* weights          */
CWRWT61      8        /* weights          */
CWRWT62      8        /* weights          */
CWRWT63      8        /* weights          */
CWRWT64      8        /* weights          */
CWRWT65      8        /* weights          */
CWRWT66      8        /* weights          */
CWRWT67      8        /* weights          */
CWRWT68      8        /* weights          */
CWRWT69      8        /* weights          */
CWRWT70      8        /* weights          */
CWRWT71      8        /* weights          */
CWRWT72      8        /* weights          */
CWRWT73      8        /* weights          */
CWRWT74      8        /* weights          */
CWRWT75      8        /* weights          */
CWRWT76      8        /* weights          */
CWRWT77      8        /* weights          */
CWRWT78      8        /* weights          */
CWRWT79      8        /* weights          */
CWRWT80      8        /* weights          */
CWRWT81      8        /* weights          */
CWRWT82      8        /* weights          */
CWRWT83      8        /* weights          */
CWRWT84      8        /* weights          */
CWRWT85      8        /* weights          */
CWRWT86      8        /* weights          */
CWRWT87      8        /* weights          */
CWRWT88      8        /* weights          */
CWRWT89      8        /* weights          */
CWRWT90      8        /* weights          */
CWRWT91      8        /* weights          */
CWRWT92      8        /* weights          */
CWRWT93      8        /* weights          */
CWRWT94      8        /* weights          */
CWRWT95      8        /* weights          */
CWRWT96      8        /* weights          */
CWRWT97      8        /* weights          */
CWRWT98      8        /* weights          */
CWRWT99      8        /* weights          */
CWRWT100     8        /* weights          */
CWRWT101     8        /* weights          */
CWRWT102     8        /* weights          */
CWRWT103     8        /* weights          */
CWRWT104     8        /* weights          */
CWRWT105     8        /* weights          */
CWRWT106     8        /* weights          */
CWRWT107     8        /* weights          */
CWRWT108     8        /* weights          */
CWRWT109     8        /* weights          */
CWRWT110     8        /* weights          */
```

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CWRWT111      8         /* weights          */
CWRWT112      8         /* weights          */
CWRWT113      8         /* weights          */
CWRWT114      8         /* weights          */
CWRWT115      8         /* weights          */
CWRWT116      8         /* weights          */
CWRWT117      8         /* weights          */
CWRWT118      8         /* weights          */
CWRWT119      8         /* weights          */
CWRWT120      8         /* weights          */
CWRWT121      8         /* weights          */
CWRWT122      8         /* weights          */
CWRWT123      8         /* weights          */
CWRWT124      8         /* weights          */
CWRWT125      8         /* weights          */
CWRWT126      8         /* weights          */
CWRWT127      8         /* weights          */
CWRWT128      8         /* weights          */
CWRWT129      8         /* weights          */
CWRWT130      8         /* weights          */
CWRWT131      8         /* weights          */
CWRWT132      8         /* weights          */
CWRWT133      8         /* weights          */
CWRWT134      8         /* weights          */
CWRWT135      8         /* weights          */
CWRWT136      8         /* weights          */
CWRWT137      8         /* weights          */
CWRWT138      8         /* weights          */
CWRWT139      8         /* weights          */
CWRWT140      8         /* weights          */
CWRWT141      8         /* weights          */
CWRWT142      8         /* weights          */
CWRWT143      8         /* weights          */
CWRWT144      8         /* weights          */
CWRWT145      8         /* weights          */
CWRWT146      8         /* weights          */
CWRWT147      8         /* weights          */
CWRWT148      8         /* weights          */
CWRWT149      8         /* weights          */
CWRWT150      8         /* weights          */
CWRWT151      8         /* weights          */
CWRWT152      8         /* weights          */
CWRWT153      8         /* weights          */
CWRWT154      8         /* weights          */
CWRWT155      8         /* weights          */
CWRWT156      8         /* weights          */
CWRWT157      8         /* weights          */
CWRWT158      8         /* weights          */
CWRWT159      8         /* weights          */
CWRWT160      8         /* weights          */
CWRWT161      8         /* weights          */
CWRWT162      8         /* weights          */
CWRWT163      8         /* weights          */
CWRWT164      8         /* weights          */
CWRWT165      8         /* weights          */
CWRWT166      8         /* weights          */
CWRWT167      8         /* weights          */
CWRWT168      8         /* weights          */
CWRWT169      8         /* weights          */
CWRWT170      8         /* weights          */
CWRWT171      8         /* weights          */
CWRWT172      8         /* weights          */
CWRWT173      8         /* weights          */
CWRWT174      8         /* weights          */
CWRWT175      8         /* weights          */
CWRWT176      8         /* weights          */
CWRWT177      8         /* weights          */
CWRWT178      8         /* weights          */
CWRWT179      8         /* weights          */
CWRWT180      8         /* weights          */
CWRWT181      8         /* weights          */
CWRWT182      8         /* weights          */
CWRWT183      8         /* weights          */
```

```
      CWRWT184      8         /* weights          */
      CWRWT185      8         /* weights          */
      CWRWT186      8         /* weights          */
      CWRWT187      8         /* weights          */
      CWRWT188      8         /* weights          */
      CWRWT189      8         /* weights          */
      CWRWT190      8         /* weights          */
      CWRWT191      8         /* weights          */
      CWRWT192      8         /* weights          */
      CWRWT193      8         /* weights          */
      CWRWT194      8         /* weights          */
      CWRWT195      8         /* weights          */
      CWRWT196      8         /* weights          */
      CWRWT197      8         /* weights          */
      CWRWT198      8         /* weights          */
      CWRWT199      8         /* weights          */
      CWRWT200      8         /* weights          */
      CWRWT201      8         /* weights          */
      CWRWT202      8         /* weights          */
      CWRWT203      8         /* weights          */
      CWRWT204      8         /* weights          */
      CWRWT205      8         /* weights          */
      CWRWT206      8         /* weights          */
      CWRWT207      8         /* weights          */
      CWRWT208      8         /* weights          */
      CWRWT209      8         /* weights          */
      CWRWT210      8         /* weights          */
      CWRWT211      8         /* weights          */
      CWRWT212      8         /* weights          */
      CWRWT213      8         /* weights          */
      CWRWT214      8         /* weights          */
      CWRWT215      8         /* weights          */
      CWRWT216      8         /* weights          */
      CWRWT217      8         /* weights          */
      CWRWT218      8         /* weights          */
      CWRWT219      8         /* weights          */
      CWRWT220      8         /* weights          */
      CWRWT221      8         /* weights          */
      CWRWT222      8         /* weights          */
      CWRWT223      8         /* weights          */
      CWRWT224      8         /* weights          */
      CWRWT225      8         /* weights          */
      CWRWT226      8         /* weights          */
      CWRWT227      8         /* weights          */
      CWRWT228      8         /* weights          */
      CWRWT229      8         /* weights          */
      CWRWT230      8         /* weights          */
      CWRWT231      8         /* weights          */
      CWRWT232      8         /* weights          */
      CWRWT233      8         /* weights          */
      CWRWT234      8         /* weights          */
      CWRWT235      8         /* weights          */
      CWRWT236      8         /* weights          */
      CWRWT237      8         /* weights          */
      CWRWT238      8         /* weights          */
      CWRWT239      8         /* weights          */
      CWRWT240      8         /* weights          */
    ;
  SET &DSNO;

/* Add labels to unlabeled variables */
  LABEL
     N22 = "Coding Scheme Note 22"
     N31 = "Coding Scheme Note 31"
     N32 = "Coding Scheme Note 32"
     N33 = "Coding Scheme Note 33"
     N34 = "Coding Scheme Note 34"
     N35 = "Coding Scheme Note 35"
     S02X01 = "Rate overall mental/emotional health"
     S02X02 = "Rate life overall"
  ;

/* Add code for KPRSCPTN - H02040 not available in Q2, and KPRSCPTN not   */
```

```
/* constructed in Q3 and Q4.  This code will create KPRSCPTN for Q3 and   */
/* Q4.                                                                     */
/* KPRSCPTN--6 OR MORE CIVILIAN PRESCRIPTIONS FILLED BY MILITARY PHARMACY */
IF KPRSCPTN = . THEN DO;
   IF H02040 IN (3,4,5) THEN KPRSCPTN = 1;        /* YES */
   ELSE IF H02040 IN (1,2) THEN KPRSCPTN = 2;     /* NO  */
END;

/* Add code for XINS_COV to make Q1 consistent with Q2-Q4 for the coding  */
/* of Medicare/Medicaid.                                                   */
IF QUARTER = "Q1 2002" AND XINS_COV = . THEN DO;
   IF (H02003 = 1 AND H02004 = 1 AND H02006 NE .N) THEN XINS_COV = 4;
END;

/* Add code for smoking and smoking cessation counseling according to the HEDIS */
/* definition.  Smoking variable is HP_SMOKH and smoking cessation counseling   */
/* is HP_CESS.  Code added for annual 2002 data set, and will be in regular     */
/* constructed variables (CONVARQ) program beginning Q1 2003.                   */
IF H02063 IN (1,2) THEN DO;
   IF H02063=1 AND (H02064=3 OR H02064=4 OR (H02064=2 AND H02065=3)) THEN HP_SMOKH=1;
/* Yes */
   ELSE HP_SMOKH=2;
/* No  */
END;
IF HP_SMOKH=1 AND H02029>1 AND H02066>0 THEN DO;
   IF H02066>1 THEN HP_CESS=1;
/* Yes */
   ELSE HP_CESS=2;
/* No  */
END;
FORMAT HP_SMOKH SMOKE.;
FORMAT HP_CESS SMOKE.;
LABEL HP_SMOKH = "Smoker under HEDIS definition";
LABEL HP_CESS = "Had smoking cessation counseling";

RUN;

TITLE1 "2002 DOD Quarterly Health Care Survey (8860-300)";
TITLE2 "Program Name: ADDWGTS.SAS By Keith Rathbun";
TITLE3 "Program Inputs: &DSNI_1..SD2 -- &DSNI_2..SD2";
TITLE4 "Program Outputs: &DSNO..SD2";
PROC CONTENTS POSITION; RUN;
PROC FREQ; TABLES HP_SMOKH HP_CESS / LIST MISSING; RUN;

%MEND PROCESS;

%PROCESS(DSNI_1=REPWT, DSNI_2=COMB2002, DSNO=HCS02A_1);
```

C. CREATE TRANSPORT FILE FOR DELIVERY

```
*******************************************************************************
*
* PROGRAM: PROCCOPA.SAS
* PURPOSE: Create XPORT file from SD2
* WRITTEN  April 26, 2000 BY Keith Rathbun
* TASK:    2002 Quarterly DoD Database Development (8860-300)
*
* INPUTS:  1) HCSyyq_v.SD2 - DoD Quarterly HCSDB for Adults dataset
*
* OUTPUTS: 1) HCSyyq_v.XPT - DoD Quarterly HCSDB for Adults dataset (XPORT)
*             where yy = 2-digit year
*                    q = Quarter Number
*                    v = Version Number
*
* NOTES:   1) Be sure to update the global parameters for the current
*             quarter (QTR) with the appropriate dataset name (DSN)
*             prior to running this program.
*
*******************************************************************************
* Define global parameters
*******************************************************************************;
%LET DSN = HCS02A_1;
%LET QTR = ..\..\;
*******************************************************************************
* Define SAS libraries and options
*******************************************************************************;
LIBNAME IN V612 "&QTR.DATA";
*******************************************************************************
* Define SAS Transport file
*******************************************************************************;
LIBNAME OUT XPORT "&QTR.DATA\&DSN..XPT";
*******************************************************************************
* Generate SAS Transport file
*******************************************************************************;
PROC COPY IN=IN  OUT=OUT ; * Converts input file to transport file;
          SELECT &DSN;     * Selects SD2 file to copy;
RUN;
```

D. REFORMAT CATCHMENT DEFINITION FOR PRIOR YEARS

```
*************************************************************************
*
* PROJECT: HCSDB Database and Sampling (8860-300/210)
* PROGRAM: CACSMPL.SAS
* TASK:    2002 QUARTERLY DOD HEALTH CARE SURVEY
* PURPOSE: Recalculate CACSMPL to be consistent with the 2002 definition
*          used for weighting purposes.
*
* WRITTEN: 1/07/2003 by Esther M. Friedman
*
* MODIFIED: 1) 1/09/2003 by C. Rankin to collapse cacsmpl for the 2000,
*              and 2001 Q1-Q4 datasets to be consistent with the 2002
*              data.
*           2) 1/14/2003 by K. Rathbun.  Added special handling for the
*              2000 data because the variables needed were different.
*
* INPUTS:  1) SAMPLA02.SD2 - Sample file for each time period
*          2) FY200207.SD2 - Catchment Definition file from TMA
*          3) HCS99A_5.SD2 - Original 2000 HCSDB
*          4) HCS00A_1.SD2 - Original 2001 HCSDB
*          5) HCS02A_1.SD2 - Final 2002 HCSDB (used for comparison only)
*
* OUTPUTS: 1) CAC00REV.SD2 - 2000 HCSDB with CACSMPL Redefinition
*          2) CAC01REV.SD2 - 2001 HCSDB with CACSMPL Redefinition
*          3) Cross-Year Comparison Summary Listing
*
* NOTES:
*
* 1) File and folder names used in this program refer to the survey
*    administration year.
* 2) For 2000 the CELLP variable is the same as GEOCELL.  So, for 2000
*    CACSMPL recalculations, the CELLP variable is passed directly into
*    the final collapsing as its alias GEOCELL.
*
*************************************************************************;
OPTIONS PS=79 LS=132 ERRORS=1 NOCENTER NOFMTERR;
LIBNAME F2000   V612 "..\..\..\..\8687\DATA1999\AFINAL";
LIBNAME F2001   V612 "..\..\..\..\DOD\2000\data";
LIBNAME SRC1    V612 ".";
LIBNAME IN_00   V612 ".\2000Data";
LIBNAME IN_01Q1 V612 ".\2001_Q1Data";
LIBNAME IN_01Q2 V612 ".\2001_Q2Data";
LIBNAME IN_01Q3 V612 ".\2001_Q3Data";
LIBNAME IN_01Q4 V612 ".\2001_Q4Data";
LIBNAME ROLLUP  V612 "..\..\DATA";

*************************************************************************
* Get MPRIDs and post-stratification variable (CELLP) of Respondents
* for 2000 survey.
*************************************************************************;
DATA ID2000;
   SET F2000.HCS99A_5(KEEP=MPRID CELLP ENGROUPP ZCATCHID RENAME=(ZCATCHID=DCATCH));
RUN;
PROC SORT; BY MPRID; RUN;

*************************************************************************
* Get MPRIDs of Respondents for 2001 survey.
*************************************************************************;
DATA ID2001;
   SET F2001.HCS00A_1(KEEP=MPRID);
RUN;
PROC SORT; BY MPRID; RUN;

*************************************************************************
* Read the catchment definition file (fy200207) (TMA spreadsheet from Q4)
*************************************************************************;
data fy200207 (keep = geocell d_par d_fac d_instal d_health);
   set SRC1.fy200207;
   rename facilit1=d_fac installa=d_instal;
   length d_par $4.;
   d_par = DMIS_PAR;
   length geocell $4.;
```

```
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_S;
run;

proc sort nodupkey data=fy200207;
   by geocell;
run;

*********************************************************************
* Create consistent CACSMPL definition according to the Q4 2002
* definition for the 2000 and 2001 data.
*********************************************************************;
%MACRO COLLAPSE(INLIB=,OUTDATA=,FDATA=,CNT=,IDFILE=);

   %IF "&INLIB" = "IN_00" %THEN %DO;
      * Assign Geocell for 2000 data;
      data frame;
         set &idfile;
         length geocell $4;
         geocell = put(cellp,z4.);
         drop cellp;
         enrid = geocell;
         length pcm $3;
         if engroupp = 1 then pcm = "MTF";
      run;
   %END;
   %ELSE %DO;
      * Assign Geocell for 2001 data;
      data frame (keep=enrid dcatch pcm mprid);
         set &INLIB..SAMPLA02;
      run;
   %END;

   %INCLUDE "FRAME.INC";

   TITLE1 "Annual DOD Health Survey Database (8860-300)";
   TITLE2 "Program Name: CACSMPL.SAS By Keith Rathbun";
   TITLE3 "Program Inputs: SAMPLA02.SD2 and FY200207.SD2";
   TITLE4 "Program Output: &OUTDATA..SD2";

   proc freq;
      tables cacsmpl /missing list;
   run;

   proc freq noprint; *Output temporary file for comparison purposes;
      tables cacsmpl
        /missing list out=&fdata(keep=cacsmpl count rename=(count=&CNT));
   run;

   proc sort data=&fdata;
      by cacsmpl;
   run;

%MEND COLLAPSE;

%COLLAPSE(INLIB=IN_00,  OUTDATA=C2000,   FDATA=F2000,   CNT=C2000, IDFILE=ID2000);
%COLLAPSE(INLIB=IN_01Q1,OUTDATA=C2001_Q1,FDATA=F2001_Q1,CNT=C2001X,IDFILE=ID2001);
%COLLAPSE(INLIB=IN_01Q2,OUTDATA=C2001_Q2,FDATA=F2001_Q2,CNT=C2001X,IDFILE=ID2001);
%COLLAPSE(INLIB=IN_01Q3,OUTDATA=C2001_Q3,FDATA=F2001_Q3,CNT=C2001X,IDFILE=ID2001);
%COLLAPSE(INLIB=IN_01Q4,OUTDATA=C2001_Q4,FDATA=F2001_Q4,CNT=C2001X,IDFILE=ID2001);

*********************************************************************
* Get CACSMPL counts from the 2002 Annual rollup file.
*********************************************************************;
TITLE3 "Input File: HCS02A_1.SD2";
TITLE4;

data hcs02a_1;
   set rollup.hcs02a_1(keep=cacsmpl rename=(cacsmpl=cacsmplx));
   length cacsmpl $4;
   cacsmpl = put(cacsmplx,z4.);
run;
```

```
proc freq data=hcs02a_1;
   tables cacsmpl /missing list;
run;

proc freq data=hcs02a_1 noprint; *Output temporary file for comparison purposes;
   tables cacsmpl
     /missing list out=f2002(keep=cacsmpl count rename=(count=c2002));
run;

proc sort data=f2002;
   by cacsmpl;
run;

************************************************************************
* Compare CACSMPL counts across years.
************************************************************************;
DATA F2001;
   SET F2001_Q1 F2001_Q2 F2001_Q3 F2001_Q4;
   BY CACSMPL;
   IF FIRST.CACSMPL THEN C2001 = 0;
   C2001 + C2001X; RETAIN C2001;
   DROP C2001X;
   IF LAST.CACSMPL;
RUN;

DATA COMPARE;
   MERGE F2000(IN=IN2000) F2001(IN=IN2001) F2002(IN=IN2002);
   BY CACSMPL;
   SV2000 = IN2000;
   SV2001 = IN2001;
   SV2002 = IN2002;
RUN;

TITLE3 "Cross-Year comparison";
TITLE4;
PROC FREQ;
   TABLES SV2000 SV2001 SV2002 SV2000*SV2001*SV2002 /MISSING LIST;
RUN;

PROC PRINT;
   SUM C2000 C2001 C2002 SV2000 SV2001 SV2002;
RUN;

************************************************************************
* Create final 2000 revised CACSMPL ID-Level permanent datasets
* from temporary dataset.
************************************************************************;
PROC SORT DATA=C2000; BY MPRID; RUN;

DATA ROLLUP.CAC00REV;
   MERGE C2000(IN=IN1) F2000.HCS99A_5(IN=IN2 DROP=CACSMPL);
   BY MPRID;
   IF NOT (IN1 AND IN2) THEN
      PUT "ERROR: 2000 MPRID MERGE MISS-MATCH: " MPRID;
RUN;
TITLE3 "Program Input: HCS99A_5.SD2";
TITLE4 "Program Output: CAC00REV.SD2";
PROC CONTENTS; RUN;

************************************************************************
* Create final 2001 revised CACSMPL ID-Level permanent datasets
* from temporary dataset.
************************************************************************;
PROC SORT DATA=C2001_Q1; BY MPRID; RUN;
PROC SORT DATA=C2001_Q2; BY MPRID; RUN;
PROC SORT DATA=C2001_Q3; BY MPRID; RUN;
PROC SORT DATA=C2001_Q4; BY MPRID; RUN;

DATA C2001;
   SET C2001_Q1
       C2001_Q2
```

```
       C2001_Q3
       C2001_Q4;
   BY MPRID;
RUN;

DATA ROLLUP.CAC01REV;
   MERGE C2001(IN=IN1) F2001.HCS00A_1(IN=IN2 DROP=CACSMPL);
   BY MPRID;
   IF NOT (IN1 AND IN2) THEN
      PUT "ERROR: 2001 MPRID MERGE MISS-MATCH: " MPRID;
RUN;
TITLE3 "Program Input: HCS00A_1.SD2";
TITLE4 "Program Output: CAC01REV.SD2";
PROC CONTENTS; RUN;
```

E. FRAME INCLUDE FILE

```
*******************************************************************************************
**********
*** Project:         2002 Health Care Survey of DoD Beneficiaries - Annual Adult Dataset
*** Program:         Frame.inc -- include file used in adjwt.sas and cacsmpl.sas
*** Purpose:         Geographic collapsements from q4 framea to be run on all quarters
***
*** Modified:        1) 01/07/2003 by Esther M Friedman
***                  2) 01/15/2003 by Keith Rathbun:  Moved collapsement parts of the
***                     CACSMPL.SAS program into this include file.
*** Notes:
*** 1) Com_geo = Cacsmpl
*** 2) This include file was originally used in adjwt.sas.  It was addapted with macro
***    to accomodate the reprocessing of the 2000.
***
*******************************************************************************************
************;

DATA FRAME;
   SET FRAME;
   if pcm='MTF' then do;
      if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195')
         then geocell=dcatch; *Administrative assignment--1976-1980 added q4 2002*;
      else if ('3031' <= enrid <= '3057')
         then geocell = dcatch; ***On the Ship***;
      else if enrid in ('0002', '5208', '0250', '0449')
         then geocell = dcatch; ***Inactive***;
      ****************************************************************;
      else if ('0190' <= enrid <='0199') then geocell = dcatch;**BYDON;
      ****************************************************************;
      else geocell = enrid;
   end;
   else geocell=dcatch;
RUN;

proc sort data=frame;
   by mprid;
run;

data frame;
   merge frame(in=in1) &idfile(in=in2);
   by mprid;
   if in1 and in2; *Keep only eligible respondents;
run;

proc sort data=frame;
   by geocell;
run;

data frame2;
   merge frame (in=a) fy200207 (in=b);
   by geocell;
   if a;
run;

data &outdata(keep=mprid cacsmpl);
   set frame2;
   **************************;
   com_geo=geocell; **BY DON**;
   **************************;
   if pcm='MTF' then do;
      if ( '1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or ('6991' <= enrid
<= '6994') or ('6501' <=enrid <='6512') or ('7166' <= enrid <= '7195')
         then com_geo = geocell; ***Administrative assignment--1976-1980 added q4 2002***;
      else if ('3031' <= enrid <= '3057')
         then com_geo = geocell; ***On board ship***;
      else if enrid in ('0002', '5208', '0250', '0449')
         then com_geo = geocell; ***Inactive***;
      ***Clinics large enough-stand on their own***;
      ***else if enrid in ('7293','0252','0534','7286','7294','0511','1592',
                          '7236','6201','0378','0387','0508')
```

```
      then com_geo = geocell;  ***By Don;
   else com_geo = d_par;
end;


************************************************;
*** Collapsing small areas with nearest facility ***;
************************************************;
if      com_geo in ('0074','0416')        then com_geo='0001';
else if com_geo in ('0203','0130','0417',
                    '7044','7047')        then com_geo='0005';
else if com_geo in ('0418','0419','7083',
                    '0015')               then com_geo='0014';
else if com_geo in ('0018','0248')        then com_geo='0019';
else if com_geo in ('0034','0100')        then com_geo='0035';
else if com_geo in ('0420')               then com_geo='0037';
else if com_geo in ('0422')               then com_geo='0038';
else if com_geo in ('0421','7048','0050') then com_geo='0039';
else if com_geo in ('7043')               then com_geo='0052';
else if com_geo in ('0076')               then com_geo='0058';
else if com_geo in ('0338')               then com_geo='0059';
else if com_geo in ('0423')               then com_geo='0064';
else if com_geo in ('0068','0413')        then com_geo='0066';
else if com_geo in ('0424')               then com_geo='0067';
else if com_geo in ('0306')               then com_geo='0069';
else if com_geo in ('0085')               then com_geo='0083';
else if com_geo in ('0430','0335')        then com_geo='0089';
else if com_geo in ('0093','0094')        then com_geo='0096';
else if com_geo in ('0097')               then com_geo='0098';
else if com_geo in ('0356')               then com_geo='0103';
else if com_geo in ('0084')               then com_geo='0108';
else if com_geo in ('0363', '7082')       then com_geo='0109';
else if com_geo in ('0364')               then com_geo='0112';
else if com_geo in ('0114')               then com_geo='0117';
else if com_geo in ('0077')               then com_geo='0119';
else if com_geo in ('0432','0433')        then com_geo='0120';
else if com_geo in ('0122')               then com_geo='0121';
else if com_geo in ('0431','0434','0395') then com_geo='0125';
else if com_geo in ('0435')               then com_geo='0126';
else if com_geo in ('7045')               then com_geo='0128';
else if com_geo in ('0106','7200')        then com_geo='0129';
else if com_geo in ('0310','0425','0426') then com_geo='0321';
else if com_geo in ('0428')               then com_geo='0326';
else if com_geo in ('0808')               then com_geo='0609';
else if com_geo in ('0615','7042','5197') then com_geo='0616';
else if com_geo in ('0618','0623','0629',
      '0624','0635','0825')               then com_geo='0617';
else if com_geo in ('0802')               then com_geo='0620';
else if com_geo in ('8931')               then com_geo='0633';
else if com_geo in ('0637')               then com_geo='0638';
else if com_geo in ('0610','0639')        then com_geo='0640';
*****************************************************;
*BY DON; else if com_geo = '0041' then com_geo='0045';
*BY DON; else if com_geo = '0213' then com_geo='0019';
*BY DON; else if com_geo = '0235' then com_geo='0014';
*****************************************************;
select (com_geo);
   **when ('0252') com_geo= '0033'; *By Don;
   **when ('0378') com_geo= '0124'; *By Don;
   **when ('0387') com_geo= '0124'; *By Don;
   **when ('0508') com_geo= '0124'; *By Don;
   **when ('0511') com_geo= '0103'; *By Don;
   **when ('0534') com_geo= '0052'; *By Don;
   when ('1587') com_geo= '0109';
   **when ('1592') com_geo= '0110'; *By Don;
   when ('1646') com_geo= '0125';
   **when ('6201') com_geo= '0123'; *By Don;
   when ('7143') com_geo= '0089';
   **when ('7236') com_geo= '0110'; *By Don;
   **when ('7286') com_geo= '0089'; *By Don;
   **when ('7293') com_geo= '0032'; *By Don;
   **when ('7294') com_geo= '0089'; *By Don;
   otherwise;
```

```
   end;

   if d_fac='NONCAT' then com_geo='99'||d_health;

   *** If the facility is unknown then set com_geo indicates unknown facility ***;
   *** '0999' added 03/15 to account for id 6992;
   if com_geo in ('9900', '0999', '0998',' ') then com_geo='9999';
   rename com_geo = cacsmpl;
RUN;
```

APPENDIX H

SAS CODE FOR STATISTICAL AND WEB SPECIFICATION FOR 2002 TRICARE CONSUMER REPORTS

A. QUARTERLY PROGRAMMING STEPS

1. CALCULATE CAHPS ADJUSTED SCORE (QUARTERLY)
   - 1A. CREATE AND RECODE VARIABLES USED IN ADULT CONSUMER REPORTS (QUARTERLY)
   - 1B. CALCULATE CAHPS ADJUSTED SCORES (QUARTERLY)
   - 1C. CALCULATE CAHPS COMPOSITE SCORES (QUARTERLY)
2. CONVERT CAHPS SCORES INTO WEB LAYOUT (QUARTERLY)
3. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB (QUARTERLY)
   - 3A. EXTRACT 2001 ADULT CAHPS QUESTIONS FROM NCBD
   - 3B. RECODE 2001 ADULT CAHPS QUESTIONS FROM NCBD TO BE CONSISTENT WITH THE 2002 HCSDB (QUARTERLY)
   - 3C. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB (QUARTERLY)
   - 3D. CONVERT THE BENCHMARK SCORES DATABASE INTO THE WEB LAYOUT (QUARTERLY)
4. CALCULATE PREVENTIVE CARE COMPOSITE SCORES AND LOAD INTO WEB LAYOUT (QUARTERLY)
5. MERGE THE FINAL QUARTERLY CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT (QUARTERLY)
   - 5A. GENERATE WEB LAYOUT FOR THE 2002 TRICARE CONSUMER REPORTS (QUARTERLY)
   - 5B. MERGE THE FINAL QUARTERLY CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT (QUARTERLY)
6. GENERATE CAHPS CONUS SCORES AND PERFORM SIGNIFICANCE TESTS (QUARTERLY)
7. CALCULATE CAHPS TOTAL SCORES AND CONDUCT SIGNIFICANCE TEST (QUARTERLY)
8. GENERATE HTML FILE FOR THE 2002 TRICARE CONSUMER REPORTS (QUARTERLY)
9. QUALITY ASSURANCE FOR CONSUMER REPORTS (QUARTERLY)

B. ANNUAL PROGRAMMING STEPS

10. CALCULATE CAHPS ADJUSTED SCORE (ANNUAL)
    - 11A. CREATE AND RECODE VARIABLES USED IN ADULT CONSUMER REPORTS (ANNUAL)
    - 11B. CALCULATE CAHPS ADJUSTED SCORES (ANNUAL)
    - 11C. CALCULATE CAHPS COMPOSITE SCORES (ANNUAL)
11. CONVERT CAHPS SCORES INTO WEB LAYOUT (ANNUAL)
12. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB (ANNUAL)
    - 12A. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB (ANNUAL)
    - 12B. CONVERT THE BENCHMARK SCORES DATABASE INTO THE WEB LAYOUT (ANNUAL)
13. CALCULATE PREVENTIVE CARE COMPOSITE SCORES AND LOAD INTO WEB LAYOUT (ANNUAL)
14. CALCULATE TREND & PERFORM SIGNIFICANCE TESTS ON MPR SCORES (ANNUAL ONLY)
15. MERGE THE FINAL 2000-2002 CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT (ANNUAL)
    - 15A. GENERATE WEB LAYOUT FOR THE 2002 TRICARE CONSUMER REPORTS (ANNUAL)
    - 15B. MERGE THE FINAL 2000-2002 CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT (ANNUAL)
16. GENERATE CAHPS CONUS SCORES AND PERFORM SIGNIFICANCE TESTS (ANNUAL)
17. CALCULATE CAHPS TOTAL SCORES AND CONDUCT SIGNIFICANCE TEST (ANNUAL)
18. CALCULATE TRENDS FOR CAHPS SCORES (ANNUAL ONLY)
19. GENERATE HTML FILE FOR THE 2002 TRICARE CONSUMER REPORTS (ANNUAL)
20. QUALITY ASSURANCE FOR CONSUMER REPORTS (ANNUAL)

1. CALCULATE CAHPS ADJUSTED SCORES – QUARTERLY
1A. CREATE AND RECODE VARIABLES USED IN ADULT CONSUMER REPORTS - QUARTERLY

```
*************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                  Create a Female dummy variable
*                  Create an Education dummy variable
*                  Create 15 region dummies combining regions.
*                         7 & 8 into region 8. That is, there
*                         isn't a region 7 dummy.
*                  Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                  1 - the least desirable value
*                  2 - the 2nd least desirable value
*                  3 - the most desirable value
*                  . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                 IF (XINS_COV IN (1,2,6) AND H02007>=2) THEN GROUP1 = 1
*                 IF (XENR_PCM IN (1,2,6) AND H02007>=2) THEN GROUP2 = 1
*                 IF (XENR_PCM = 3,7      AND H02007>=2) THEN GROUP3 = 1
*                 IF XINS_COV IN (3,4,5)                 THEN GROUP4 = 1
*                 IF XBNFGRP = 1                         THEN GROUP5 = 1
*                 IF XBNFGRP = 2                         THEN GROUP6 = 1
*                 IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                 GROUP8 is output for all beneficiaries
*
*  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
*               adult report cards.  Removed permanent dataset ENTIRE.SD2.
*            2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
*               for 3rd quarter adult report cards.
*            3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
*               stratification done in Q3, changed all references of the
*               POSTSTR variable to ADJ_CELL
*            4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
*               XENR_PCM
*            5) April 2002 By Mike Scott, Updated variable names for 2002
*               survey.
*            6) July 2002 By Mike Scott: See Note #2.  Replaced variable
*               S02S01 with H02076 (new health status variable), deleted
*               code to recode S02S01 to H00077, and changed H00077/R00077
*               rename/recode to H02076/R02076 rename/recode.  The Hispanic/
*               Latino variable is not present.
*            7) January 2003 By Mike Scott, Changed ADJ_CELL to COM_SAMP.
*
*
*  INPUTS:   1) HCS024_1 - DoD Quarterly HCS Database   /* Q4_2002 */
*
*  OUTPUTS:  1) GROUP1-8.SD2 - DoD Quarterly GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                             values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*            2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*               status variable for 2000).  H02077 was the Hispanic/Latino
*               variable.  In Q2_2002, H02077 is health status, and H02079
*               is the Hispanic/Latino variable.  To make the Quarter 2 data
*               file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*               the health status variable which was H02077 is now H02076,
*               and the Hispanic/Latino variable which was H02079 is now
*               H02077.
*
*************************************************************************;
OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT V612 "DATA";                  /* Q4_2002 */
LIBNAME IN1 V612 "..\..\..\DATA\AFINAL";  /* Q4_2002 */
```

```
TITLE1    'Program Saved as: STEP1Q.SAS';

PROC CONTENTS DATA=IN1.HCS024_1;   /* Q4_2002 */
RUN;

DATA ENTIRE;
   SET IN1.HCS024_1(KEEP=   /* Q4_2002 */
                MPRID
                DAGEQY
                XREGION
                CONUS
                ENBGSMPL
                SREDA
                XSEXA
                XBNFGRP
                COM_SAMP   /* Q4_2002 */
                XINS_COV
                XENR_PCM
                WRWT
                /* Getting Needed Care */
                H02009
                H02016
                H02030
                H02031
                /* Getting Care Quickly */
                H02021
                H02023
                H02026
                H02032
                /* How Well Doctors Communicate */
                H02035
                H02036
                H02037
                H02038
                /* Courteous and Helpful Office Staff */
                H02033
                H02034
                /* Customer Service */
                H02048
                H02050
                H02055
                /* Claims Processing */
                H02044
                H02045 /*****************************/
                H02076 /* Health Status             */
                H02039 /* Health Care Rating        */
                H02056 /* Health Plan Rating        */
                H02011 /* Personal Doctor Rating    */
                H02018 /* Specialist Rating         */
                H02007 /* How Long in Health Plan   */
                       /*****************************/
               );
    FORMAT _ALL_;
    IF XREGION = .    THEN DELETE;
    IF XINS_COV NOT IN(1,2,3,6) THEN DELETE;
                      /* Note:  use tmp_cell in step2q.sas */
    LENGTH TMP_CELL 8;
    TMP_CELL = COM_SAMP;   /* Q4_2002 */
RUN;

*************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF DAGEQY NE "  " THEN DO;
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
```

```
   AGE75UP=0;
   IF      ( '018' <= DAGEQY <= '024' ) THEN AGE1824=1;
   ELSE IF ( '025' <= DAGEQY <= '034' ) THEN AGE2534=1;
   ELSE IF ( '035' <= DAGEQY <= '044' ) THEN AGE3544=1;
   ELSE IF ( '045' <= DAGEQY <= '054' ) THEN AGE4554=1;
   ELSE IF ( '055' <= DAGEQY <= '064' ) THEN AGE5564=1;
   ELSE IF ( '065' <= DAGEQY <= '074' ) THEN AGE6574=1;
   ELSE IF (          DAGEQY  > '074' ) THEN AGE75UP=1;
END;

* IF H02047=2 THEN H02048=1;
*************************************************************************
* Create the FEMALE dummy variable.
*************************************************************************;
IF XSEXA = 2 THEN
   FEMALE = 1;
ELSE
   FEMALE = 0;

*************************************************************************
* Create the beneficiary group/enrollment group subsets.
*************************************************************************;
GROUP1 = 0;
GROUP2 = 0;
GROUP3 = 0;
GROUP4 = 0;
GROUP5 = 0;
GROUP6 = 0;
GROUP7 = 0;
GROUP8 = 1;     * EVERYONE;

IF (XINS_COV IN (1,2,6)  AND H02007>=2) THEN GROUP1 = 1;
IF (XENR_PCM IN (1,2,6)  AND H02007>=2) THEN GROUP2 = 1;
IF (XENR_PCM IN (3,7)    AND H02007>=2) THEN GROUP3 = 1;
IF XINS_COV IN (3,4,5)   THEN GROUP4 = 1;
IF XBNFGRP = 1           THEN GROUP5 = 1;
IF XBNFGRP = 2           THEN GROUP6 = 1;
IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

*************************************************************************
* Reorder the codes for H02032.  H02032 is in reverse order.
*************************************************************************;
IF H02032 = 1      THEN R02032 = 4;
ELSE IF H02032 = 2 THEN R02032 = 3;
ELSE IF H02032 = 3 THEN R02032 = 2;
ELSE IF H02032 = 4 THEN R02032 = 1;
ELSE IF H02032 < 0 THEN R02032 = .;
   IF R02032 > 1   THEN R02032 = R02032 - 1;

*************************************************************************
* Recode variables with Never, Sometimes, Usually and Always:
*    Recode Never & Sometimes (1 & 2) to 1.
*    Recode Usually (3) to 2.
*    Recode Always (4) to 3.
*************************************************************************;
IF H02021 = 1      THEN R02021 = 1;
ELSE IF H02021 = 2 THEN R02021 = 1;
ELSE IF H02021 = 3 THEN R02021 = 2;
ELSE IF H02021 = 4 THEN R02021 = 3;
ELSE IF H02021 < 0 THEN R02021 = .;

IF H02023 = 1      THEN R02023 = 1;
ELSE IF H02023 = 2 THEN R02023 = 1;
ELSE IF H02023 = 3 THEN R02023 = 2;
ELSE IF H02023 = 4 THEN R02023 = 3;
ELSE IF H02023 < 0 THEN R02023 = .;

IF H02026 = 1      THEN R02026 = 1;
ELSE IF H02026 = 2 THEN R02026 = 1;
ELSE IF H02026 = 3 THEN R02026 = 2;
ELSE IF H02026 = 4 THEN R02026 = 3;
ELSE IF H02026 < 0 THEN R02026 = .;

IF H02033 = 1      THEN R02033 = 1;
```

```
ELSE IF H02033 = 2 THEN R02033 = 1;
ELSE IF H02033 = 3 THEN R02033 = 2;
ELSE IF H02033 = 4 THEN R02033 = 3;
ELSE IF H02033 < 0 THEN R02033 = .;

IF H02034 = 1      THEN R02034 = 1;
ELSE IF H02034 = 2 THEN R02034 = 1;
ELSE IF H02034 = 3 THEN R02034 = 2;
ELSE IF H02034 = 4 THEN R02034 = 3;
ELSE IF H02034 < 0 THEN R02034 = .;

IF H02035 = 1      THEN R02035 = 1;
ELSE IF H02035 = 2 THEN R02035 = 1;
ELSE IF H02035 = 3 THEN R02035 = 2;
ELSE IF H02035 = 4 THEN R02035 = 3;
ELSE IF H02035 < 0 THEN R02035 = .;

IF H02036 = 1      THEN R02036 = 1;
ELSE IF H02036 = 2 THEN R02036 = 1;
ELSE IF H02036 = 3 THEN R02036 = 2;
ELSE IF H02036 = 4 THEN R02036 = 3;
ELSE IF H02036 < 0 THEN R02036 = .;

IF H02037 = 1      THEN R02037 = 1;
ELSE IF H02037 = 2 THEN R02037 = 1;
ELSE IF H02037 = 3 THEN R02037 = 2;
ELSE IF H02037 = 4 THEN R02037 = 3;
ELSE IF H02037 < 0 THEN R02037 = .;

IF H02038 = 1      THEN R02038 = 1;
ELSE IF H02038 = 2 THEN R02038 = 1;
ELSE IF H02038 = 3 THEN R02038 = 2;
ELSE IF H02038 = 4 THEN R02038 = 3;
ELSE IF H02038 < 0 THEN R02038 = .;

IF H02044 = 1      THEN R02044 = 1;
ELSE IF H02044 = 2 THEN R02044 = 1;
ELSE IF H02044 = 3 THEN R02044 = 2;
ELSE IF H02044 = 4 THEN R02044 = 3;
ELSE IF H02044 < 0 THEN R02044 = .;

IF H02045 = 1      THEN R02045 = 1;
ELSE IF H02045 = 2 THEN R02045 = 1;
ELSE IF H02045 = 3 THEN R02045 = 2;
ELSE IF H02045 = 4 THEN R02045 = 3;
ELSE IF H02045 < 0 THEN R02045 = .;

*************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
*************************************************************************;
R02009 = H02009;  IF R02009 < 0 THEN R02009 = .;
R02011 = H02011;  IF R02011 < 0 THEN R02011 = .;
R02016 = H02016;  IF R02016 < 0 THEN R02016 = .;
R02018 = H02018;  IF R02018 < 0 THEN R02018 = .;
R02030 = H02030;  IF R02030 < 0 THEN R02030 = .;
R02031 = H02031;  IF R02031 < 0 THEN R02031 = .;
R02039 = H02039;  IF R02039 < 0 THEN R02039 = .;
R02048 = H02048;  IF R02048 < 0 THEN R02048 = .;
R02050 = H02050;  IF R02050 < 0 THEN R02050 = .;
R02055 = H02055;  IF R02055 < 0 THEN R02055 = .;
R02056 = H02056;  IF R02056 < 0 THEN R02056 = .;
R02076 = H02076;  IF R02076 < 0 THEN R02076 = .;

*************************************************************************
* Create region dummies.
*************************************************************************;
IF XREGION NE . THEN DO;
   ARRAY REGDUMS (15) REG01 REG02 REG03 REG04 REG05 REG06 REG08
                      REG09 REG10 REG11 REG12 REG13 REG14 REG15 REG16;
   DO I = 1 TO 15;
      REGDUMS(I)=0;
   END;
   IF XREGION= 7  THEN XREGION = 8;  * Recode Region 7 into Region 8;
```

```
      IF       XREGION= 1  THEN REG01  =1;
      ELSE IF  XREGION= 2  THEN REG02  =1;
      ELSE IF  XREGION= 3  THEN REG03  =1;
      ELSE IF  XREGION= 4  THEN REG04  =1;
      ELSE IF  XREGION= 5  THEN REG05  =1;
      ELSE IF  XREGION= 6  THEN REG06  =1;
      ELSE IF  XREGION= 8  THEN REG08  =1;
      ELSE IF  XREGION= 9  THEN REG09  =1;
      ELSE IF  XREGION=10  THEN REG10  =1;
      ELSE IF  XREGION=11  THEN REG11  =1;
      ELSE IF  XREGION=12  THEN REG12  =1;
      ELSE IF  XREGION=13  THEN REG13  =1;
      ELSE IF  XREGION=14  THEN REG14  =1;
      ELSE IF  XREGION=15  THEN REG15  =1;
      ELSE IF  XREGION=16  THEN REG16  =1;
   END;

RUN;

*************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
*************************************************************************;
%INCLUDE "..\..\..\..\..\8687\PROGRAMS\REPORTCARDS\CONVERT.SAS";

%CONT1(DSN=ENTIRE, NUM=7,  Y=R02009 R02016 R02030 R02031
                           R02048 R02050 R02055);
%CONT2(DSN=ENTIRE, NUM=4,  Y=R02039 R02056 R02011 R02018);
%CONT3(DSN=ENTIRE, NUM=12, Y=R02021 R02023 R02026 R02032
                           R02035 R02036 R02037 R02038
                           R02033 R02034 R02044 R02045);

*************************************************************************
* Sort the main file to reorder it by MPRID.
*************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*************************************************************************
* Print the contents of ENTIRE dataset.
*************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       DAGEQY
       XREGION
       CONUS
       ENBGSMPL
       XSEXA
       COM_SAMP   /* Q4_2002 */
       XINS_COV
       XENR_PCM
       WRWT
      ;
RUN;

*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR DAGEQY
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
```

```
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
       GROUP6
       GROUP7
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H02009  R02009
       H02011  R02011
       H02016  R02016
       H02018  R02018
       H02021  R02021
       H02023  R02023
       H02026  R02026
       H02030  R02030
       H02031  R02031
       H02032  R02032
       H02033  R02033
       H02034  R02034
       H02035  R02035
       H02036  R02036
      ;
RUN;


PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H02037  R02037
       H02038  R02038
       H02039  R02039
       H02044  R02044
       H02045  R02045
       H02048  R02048
       H02050  R02050
       H02055  R02055
       H02056  R02056
       H02076  R02076
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XREGION
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
      ;
RUN;
```

```
*************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
*************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;

     SET ENTIRE;

     DROP
        H02009
        H02011
        H02016
        H02018
        H02021
        H02023
        H02026
        H02030
        H02031
        H02032
        H02033
        H02034
        H02035
        H02036
        H02037
        H02038
        H02039
        H02044
        H02045
        H02048
        H02050
        H02055
        H02056
        H02076
        ;
      IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
      IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
      IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
      IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
      IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
      IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
      IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
      OUTPUT OUT.GROUP8;
RUN;
```

1B. CALCULATE CAHPS ADJUSTED SCORES – QUARTERLY

```
*************************************************************************
*
*  Project:  DoD - Quarterly Adult Report Cards
*  Program:  STEP2Q.SAS
*  Purpose:  Generate risk-adjusted CAHPS Scores for Adult Report Card.
*
*  Requires: Program STEP1Q.SAS must be run prior to running this program.
*
*  The adult report card contains a large number of risk-adjusted scores.
*  Some scores are calculated from responses to individual survey questions.
*  Composite scores are calculated by combining scores from individual
*  questions.  The scores then are compared with external civilian
*  benchmarks.  The programming tasks involved in building the report
*  card are:
*
*       1) Preparing data for analyses
*       2) Estimating risk adjustment models
*       3) Calculating risk-adjusted values and variances
*       4) Calculating benchmarks
*       5) Comparing risk-adjusted values to benchmarks
*          and hypothesis testing
*
*  Subgroup Definitions:
*  ____________________________________________________________
*     Seven Subgroups          Definitions
*  ____________________________________________________________
*  1. Prime enrollees          XINS_COV IN (1,2,6) AND H02007>=2
*  2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H02007>=2
*  3. Enrollees w/civ PCM      XENR_PCM = 3        AND H02007>=2
*  4. Nonenrollees             XINS_COV IN (3,4,5)
*  5. Active duty              XBNFGRP = 1
*  6. Active duty dependents   XBNFGRP = 2
*  7. Retirees and dependents  XBNFGRP IN (3,4)
*
*  Previous Program:  STEP1Q.SAS
*
*  Modified: 1) 04/10/02 By Mike Scott, Updated variable names for 2002
*               survey.
*            2) 07/11/02 By Mike Scott, Changed R00077 to R02076, since
*               H02077 (health status) is back and was recoded to R02076
*               in STEP1Q.
*************************************************************************;
OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;
LIBNAME IN1  V612 "DATA";
LIBNAME IN2  V612 "..\..\..\DATA\AFINAL";
LIBNAME OUT  V612 "DATA";
LIBNAME OUT2 V612 "DATA\ADULTHATFILES";

*************************************************************************
*************************************************************************
* Set GLOBAL parameters here.
*************************************************************************
*************************************************************************;

*************************************************************************
* Set the number of Dependent variables to process.
* One does not need to start at 1, but the max must be >= min.
*************************************************************************;
%LET MIN_VAR =  1;
%LET MAX_VAR = 23;

*************************************************************************
* Set the number of subgroups to process.
*************************************************************************;
%LET MIN_GRP = 1;
%LET MAX_GRP = 8;

*************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
*************************************************************************;
%LET WGT      = WRWT;
```

```
%LET IND_VAR1 = R02076;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;


%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;


*************************************************************************
* GETTING NEEDED CARE.
*************************************************************************;
%LET DEPVAR1 = R02009;
%LET DEPVAR2 = R02016;
%LET DEPVAR3 = R02030;
%LET DEPVAR4 = R02031;

*************************************************************************
* GETTING NEEDED CARE QUICKLY.
*************************************************************************;
%LET DEPVAR5 = R02021;
%LET DEPVAR6 = R02023;
%LET DEPVAR7 = R02026;
%LET DEPVAR8 = R02032;

*************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%LET DEPVAR9  = R02035;
%LET DEPVAR10 = R02036;
%LET DEPVAR11 = R02037;
%LET DEPVAR12 = R02038;

*************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%LET DEPVAR13 = R02033;
%LET DEPVAR14 = R02034;

*************************************************************************
* CUSTOMER SERVICE.
*************************************************************************;
%LET DEPVAR15 = R02048;
%LET DEPVAR16 = R02050;
%LET DEPVAR17 = R02055;

*************************************************************************
* CLAIMS PROCESSING.
*************************************************************************;
%LET DEPVAR18 = R02044;
%LET DEPVAR19 = R02045;

*************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR20 = R02039;

*************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%LET DEPVAR21 = R02056;

*************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
*************************************************************************;
%LET DEPVAR22 = R02011;
```

```
*************************************************************************
* SPECIALITY CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR23 = R02018;

%MACRO SCORE;
************************************;
* use this macro for all groups;
* super region variables are to be used     ;
************************************;
%PUT ****************************************;
%PUT STARTING MACRO SCORE;
%PUT "GROUP    = " GROUP&IGRP;
%PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
%PUT "DEP_VAR  = " &&DEPVAR&IVAR;
%PUT "IND_VAR1 = " &IND_VAR1;
%PUT "IND_VAR2 = " &IND_VAR2;
%PUT "IND_VAR3 = " &IND_VAR3;
%PUT "WGT      = " &WGT;
%PUT ****************************************;

*-------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*-------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = IN2.SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                      PRED&IGRP RESID&IGRP XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XREGION &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*-----------------------------------------;
*----- get the standard err/variance ----;
*-----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
```

```
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XREGION NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XREGION=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XREGION REGCNT&IGRP REGWGT&IGRP);
      BY XREGION;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;
```

```
* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT&IGRP;
  CLASS  XREGION;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XREGION)
           REGFILE1(KEEP = ADJ&IGRP XREGION);
     BY XREGION;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          REG_WGTS
          REGFILE1;
    BY XREGION;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of XREGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

%MEND SCORE;

%MACRO MAKE_INC;
************************************;
* creates include files for later Procs;
* Needs to be run each time.  Called   ;
* in the outer (beneficiary loop).     ;
* I chose this method because it was   ;
* clearer(to me at least).             ;
* This macro needs to be run once per  ;
* Dep var per subgroup.                ;
************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;
  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;
  RUN;

 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
```

```
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY REGCNT(16)  8 REGCNT01 - REGCNT16;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;

      * create a name array for the parent age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824  = 1 THEN AGECNT(1) + 1;
      IF AGE2534  = 1 THEN AGECNT(2) + 1;
      IF AGE3544  = 1 THEN AGECNT(3) + 1;
      IF AGE4554  = 1 THEN AGECNT(4) + 1;
      IF AGE5564  = 1 THEN AGECNT(5) + 1;
      IF AGE6574  = 1 THEN AGECNT(6) + 1;
      IF AGE75UP  = 1 THEN AGECNT(7) + 1;

      * count records in each XREGION group;
      * we will only use XREGIONs with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XREGION >= 1 AND XREGION <= 16  THEN DO;
         REGCNT(XREGION) = REGCNT(XREGION) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;

ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 16;
           IF(REGCNT(I) > 0) THEN DO;
              PUT  'REG' I Z2. REGCNT(I) 6.;
           END;
        END;
        PUT ' ';


      %END;    *** of debug test;
```

```
*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last XREGION;
FILE 'REGRSREG.INC';
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 + 1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;
DO I = 1 TO 16;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*-------------------------------------------------------;
* create an ARRAY statement of the desired risk factors;
* called adjusters in the specs and in the code;
```

```
     FILE 'RISKARRY.INC';
     PUT @10  "ARRAY COEFFS(*) $8";
     DO I = 1 TO CNT2;
        PUT @12 AGENAMX(I);
     END;

     CNT3 = 0;
     IF "&IND_VAR1" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR1";
     END;

     IF "&IND_VAR2" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR2";
     END;

     IF "&IND_VAR3" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR3";
     END;
     PUT @11 ';';


     *-----------------------------------------------------------;
     * create an ARRAY of mean names for the output;
     * from a proc MEANS of the Risk Factors in RISKARRY;
     FILE 'RISKMEAN.INC';
     IND_CNT = CNT2 + CNT3;
     PUT @6 "ARRAY MEANS(*) $8";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

*    ---------------------------------------------------;
*    create the equivalent of the following statement;
*    OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
     FILE 'MEANFILE.INC';
     PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

     *-----------------------------------------------------------;
     * create a super region area array;
     * with at least ONE obs;
     FILE 'REGARRAY.INC';
     PUT @10  "ARRAY REGRHS(*) $8";
     DO I = 1 TO 16;
        IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'REG' I Z2.;
        END;
     END;
     PUT @11 ';';
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=GROUP&IGRP;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;



%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
```

```
%END;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
/* PROC MEANS DATA=out.group8;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;*/
%MEND MAKE_INC;

%MACRO R_SUDAAN(INFILE);
*****************************************************
* Use this macro to create standard err (variances)
* for XREGIONs.
*****************************************************;
%PUT ****************************************;
%PUT STARTING MACRO R_SUDAAN (XREGION);
%PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF XREGION > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (XREGION)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for super regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XREGION;
   SUBGROUP XREGION;
   LEVELS 16;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XREGION SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print XREGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
```

```
%MEND  R_SUDAAN;


%*********************************;
%*  call the macros;
%*********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %SCORE;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

1C. CALCULATE CAHPS COMPOSITE SCORES – QUARTERLY

```
*************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified: 1) 02/27/2001 By Keith Rathbun, Small changes to input DSNs to
*              accommodate the move of ALLSCORE.SAS functionality into the
*              STEP2Q.SAS program.
*           2) 01/08/2002 By Daniele Beahm, Changed versions in libname statements
*              so program can be run with SAS v8 and still produce SAS v612 datasets.
*           3) 04/10/2002 By Mike Scott, Updated variable names for 2002
*              survey.
*************************************************************************;
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=YES;
libname in  v612 "data";
libname in2 v612 "data\adulthatfiles";
libname out v612 "data";

 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XREGION');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

 ************************************;
 *   Create a Composite Score       ;
 ************************************;
 DATA _NULL_;
     FILE 'FILES.INC';
     PUT @6 'SET';
     IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
     IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
     IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
     IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
     PUT @8 ';';
 RUN;


 DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE 'FILES.INC';
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
 RUN;

 PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
 RUN;

 PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
 RUN;

 DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
      BY &BYVAR;
   %IF "&TYPE" = "R" %THEN %DO;
       ARRAY N(*) REGCNT1 - REGCNT8;
       ARRAY W(*) REGWGT1 - REGWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       ARRAY N(*) CATCNT1 - CATCNT8;
       ARRAY W(*) CATWGT1 - CATWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
```

```
   %END;
      ARRAY ADJ(*)    ADJ1 - ADJ8;
      ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
      ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
      RETAIN TOTADJ TN TW;
      RETAIN AVGADJ;

      IF FIRST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
         END;
      END; DROP I;

      PUT ' ';
      PUT ' --- STARTING LOOP1: ' &BYVAR=;
      DO I = 1 TO DIM(TOTADJ);
         PUT I= ADJ(I)=;
         IF ADJ(I) NE . THEN DO;
            TOTADJ(I) = TOTADJ(I) + ADJ(I);
            TN(I)=TN(I)+N(I);
            TW(I)=TW(I)+W(I);
         END;
         PUT I= ADJ(I)= TOTADJ(I)=;
      END;


      PUT ' ';
      PUT ' --- STARTING LOOP2: ' &BYVAR=;
      IF LAST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
            AVGADJ(I) = TOTADJ(I)/&QCOUNT;
            adj(i)=avgadj(i);
            N(I)=TN(I)/&QCOUNT;
            W(I)=TW(I)/&QCOUNT;
         END;
         OUTPUT;
      END;

 RUN;

%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
%if &type=R|(&i=1|&i=2|&i>4) %then %do;
%if &var1~= %then %do;
%let n=r_&var1;
%let m=s_&var1;

data s_&var1(rename=(semean&i=s_&var1));
set in.&type._&var1(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var1;
%if &i~=8 %then %do;
set in2.h&i.&var1(rename=(resid&i=r_&var1));
%end;
%else %do;
set in2.h5&var1(rename=(resid5=r_&var1)) in2.h6&var1(rename=(resid6=r_&var1))
in2.h7&var1(rename=(resid7=r_&var1));
%end;
proc sort data=r_&var1; by mprid;
%end;
%if &var2~= %then %do;
%let n=%str(&n r_&var2);
%let m=%str(&m s_&var2);
data s_&var2(rename=(semean&i=s_&var2));
set in.&type._&var2(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var2;
%if &i~=8 %then %do;
set in2.h&i.&var2(rename=(resid&i=r_&var2));
%end;
%else %do;
set in2.h5&var2(rename=(resid5=r_&var2)) in2.h6&var2(rename=(resid6=r_&var2))
in2.h7&var2(rename=(resid7=r_&var2));
```

```
%end;
proc sort data=r_&var2; by mprid;
%end;
%if &var3~= %then %do;
%let n=%str(&n r_&var3);
data s_&var3(rename=(semean&i=s_&var3));
set in.&type._&var3(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var3;
%if &i~=8 %then %do;
set in2.h&i.&var3(rename=(resid&i=r_&var3));
%end;
%else %do;
set in2.h5&var3(rename=(resid5=r_&var3)) in2.h6&var3(rename=(resid6=r_&var3))
in2.h7&var3(rename=(resid7=r_&var3));
%end;
proc sort data=r_&var3; by mprid;
%let m=%str(&m s_&var3); %end;

%if &var4~= %then %do;
%let n=%str(&n r_&var4);
data s_&var4(rename=(semean&i=s_&var4));
set in.&type._&var4(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var4;
%if &i~=8 %then %do;
set in2.h&i.&var4(rename=(resid&i=r_&var4));
%end;
%else %do;
set in2.h5&var4(rename=(resid5=r_&var4)) in2.h6&var4(rename=(resid6=r_&var4))
in2.h7&var4(rename=(resid7=r_&var4));
%end;

%let m=%str(&m s_&var4);
proc sort data=r_&var4; by mprid;
%end;
/* Merge residual files and estimate correlations */
data infile;
merge &n; by mprid;
proc sort; by &byvar;
proc corr  outp=outf noprint;
by &byvar;
var &n;
weight wrwt;
data outf;
set outf; by &byvar;
where _type_='CORR';
/*  sum standard error of a row variable times correlation times standard error of each column
variable, then sum sums and take square root, divide by number of variables */
data final;
merge &m outf; by &byvar;
data final;
set final; by &byvar;
array r_val &n;
array s_val &m;
sde=0;
do i=1 to dim(s_val);
%do j=1 %to &qcount;
if _name_="R_&&var&j" then
sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
%end;
end;
data sefin&compos._&i;
set final; by &byvar;
if first.&byvar then tv=0;
 tv+sde;
if last.&byvar then do;
sde&i=(tv**.5)/&qcount;
output;
end;
%if &i=1 %then %do;
data sefin&compos;
set sefin&compos._1(keep=&byvar sde&i); by &byvar;
rename sde&i=semean&i;
```

```
run;
%end;
%else %do;
data sefin&compos;
merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
rename sde&i=semean&i;
run;
%end;


%end;
%end;

data out.&type.compos&compos;
merge compos&compos sefin&compos; by &byvar;
run;
PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
      TITLE1 COMPTITL;
 RUN;
%MEND COMPOSIT;

*--------------------------------------;
*-       set the parameters here      -;
*--------------------------------------;
**********************************;
*  call the macro for each composite;
**********************************;
%COMPOSIT (type=R,compos=1,var1=R02009,var2=R02016,var3=R02030,var4=R02031,qcount=4);
%COMPOSIT (type=R,compos=2,var1=R02021,var2=R02023,var3=R02026,var4=R02032,qcount=4);
%COMPOSIT (type=R,compos=3,var1=R02035,var2=R02036,var3=R02037,var4=R02038,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R02033,var2=R02034,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R02048,var2=R02050,var3=R02055,qcount=3);
%COMPOSIT (type=R,compos=6,var1=R02044,var2=R02045,qcount=2);
```

2. CONVERT CAHPS SCORES INTO WEB LAYOUT (QUARTERLY)

```
*************************************************************************
*
* PROGRAM:  LOADCAHQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
* PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.SAS.
*
* INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
*
* OUTPUT:   1) LOADCAHQ.SD2 - Combined CAHPS Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS - Recode questions and generate group files
*    - STEP2Q.SAS - Calculate individual adjusted scores for group 1-7
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*
* 2) The output file (LOADCAHQ.SD2) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
* MODIFIED:
*
* 1) 04/10/2002 BY MIKE SCOTT, Updated variable names for 2002 survey.
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN  v612  "..\..\REPORTCARDS\CAHPS_ADULTQ42002\DATA";   /* Q4 2002 */
LIBNAME OUT v612  "DATA";
LIBNAME LIBRARY   "..\..\..\DATA\AFINAL\FMTLIB";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*************************************************************************;
%INCLUDE "..\LOADCAHQ.INC";

*************************************************************************
*************************************************************************
*
* Process Macro Input Parameters:
*
* 1) QUESTION = Variable Question Name (DSN).
*    - For individual Questions it is the variable name
*    - For composite Questions it is called xCOMPOSn
*      where n = a predefined composite # and
*            x = R (Region) or C (Catchment)
* 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
* 3) REGCAT = Region/Catchment Area
*
*************************************************************************
*************************************************************************;
%MACRO PROCESS(QUESTION=,TYPE=);
*************************************************************************
* Assign value for BENTYPE composite year
*************************************************************************;
%LET YEAR = "2002 Q4";   /* Q4 2002 */

*************************************************************************
* Assign prefix for weighted/unweighted count variables.
* Unweighted counts is REGCNTn where n=group number.
* Weighted counts is REGWGTn where n=group number.
*************************************************************************;
%LET PREFIX = REG;

*************************************************************************
*
* Convert the CAHPS individual Scores Record into WEB layout.
```

```
* There are 8 logical records (adjusted scores) per physical record:
*
* ____________________________________________________________
*    Adjusted Score           Definitions
*    Group Number
* ____________________________________________________________
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H02007>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H02007>=2
* 3. Enrollees w/civ PCM      XENR_PCM = 3        AND H02007>=2
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              XBNFGRP = 1
* 6. Active duty dependents   XBNFGRP = 2
* 7. Retirees and dependents  XBNFGRP IN (3,4)
*
*************************************************************************;
DATA &QUESTION;
   SET IN.&QUESTION;

   LENGTH MAJGRP  $30;
   LENGTH REGION  $15;
   LENGTH REGCAT  $26;
   LENGTH BENTYPE $50;
   LENGTH BENEFIT $34;

   ***********************************************************************
   * Assign Region
   ***********************************************************************;
   REGION  = PUT(XREGION,REGIONF.);
   ***********************************************************************
   * Assign benefit and benefit type
   ***********************************************************************;
   IF "&TYPE" = "INDIVIDUAL" THEN DO;
      IF DEPENDNT IN("R02039","R02056","R02011","R02018") THEN
         BENTYPE = PUT(&YEAR,$BENTYPF.);
      ELSE
         BENTYPE = PUT(DEPENDNT,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
   END;
   ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
      BENTYPE = PUT(&YEAR,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
   END;
   ELSE PUT "ERROR: Invalid TYPE = &TYPE";

   ***********************************************************************
   * For now, Initialize Significance test to zero.
   ***********************************************************************;
   SIG = 0;
   ***********************************************************************
   * Assign Region
   ***********************************************************************;
   REGCAT = PUT(XREGION,REGIONF.);

   ***********************************************************************
   * 1 = Prime Enrollees
   ***********************************************************************;
   MAJGRP = PUT(1,MAJGRPF.);
   SCORE = ADJ1;
   SEMEAN = SEMEAN1;
   N_OBS = &PREFIX.CNT1;
   N_WGT = &PREFIX.WGT1;
   OUTPUT;

   ***********************************************************************
   * 2 = Enrollees with Military PCM
   ***********************************************************************;
   MAJGRP = PUT(2,MAJGRPF.);
   SCORE = ADJ2;
   SEMEAN = SEMEAN2;
   N_OBS = &PREFIX.CNT2;
   N_WGT = &PREFIX.WGT2;
   OUTPUT;

   ***********************************************************************
```

```
   * 3 = Enrollees with Civilian PCM
   ************************************************************************;
   MAJGRP = PUT(3,MAJGRPF.);
   SCORE = ADJ3;
   SEMEAN = SEMEAN3;
   N_OBS = &PREFIX.CNT3;
   N_WGT = &PREFIX.WGT3;
   OUTPUT;

   ************************************************************************
   * 4 = Non-enrolled Beneficiaries
   ************************************************************************;
   MAJGRP = PUT(4,MAJGRPF.);
   SCORE = ADJ4;
   SEMEAN = SEMEAN4;
   N_OBS = &PREFIX.CNT4;
   N_WGT = &PREFIX.WGT4;
   OUTPUT;

   ************************************************************************
   * 5 = Active Duty
   ************************************************************************;
   MAJGRP = PUT(5,MAJGRPF.);
   SCORE = ADJ5;
   SEMEAN = SEMEAN5;
   N_OBS = &PREFIX.CNT5;
   N_WGT = &PREFIX.WGT5;
   OUTPUT;

   ************************************************************************
   * 6 = Active Duty Dependents
   ************************************************************************;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;

   ************************************************************************
   * 7 = Retirees and Dependents
   ************************************************************************;
   MAJGRP = PUT(7,MAJGRPF.);
   SCORE = ADJ7;
   SEMEAN = SEMEAN7;
   N_OBS = &PREFIX.CNT7;
   N_WGT = &PREFIX.WGT7;
   OUTPUT;

   ************************************************************************
   * 8 = All Beneficiaries             ALL Beneficiaries                  *
   ************************************************************************;
   MAJGRP = PUT(8,MAJGRPF.);
   SCORE  = ADJ8;
   SEMEAN = SEMEAN8;
   N_OBS = &PREFIX.CNT8;
   N_WGT = &PREFIX.WGT8;
   OUTPUT;

KEEP MAJGRP
     REGION
     REGCAT
     BENTYPE
     BENEFIT
     SCORE
     SEMEAN
     N_OBS
     N_WGT
     SIG
   ;
RUN;

%MEND;
```

```
*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R02009,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02016,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02030,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02031,TYPE=INDIVIDUAL);

*****************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R02021,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02023,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02026,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02032,TYPE=INDIVIDUAL);

*****************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R02035,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02036,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02037,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02038,TYPE=INDIVIDUAL);

*****************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R02033,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02034,TYPE=INDIVIDUAL);

*****************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R02048,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02050,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02055,TYPE=INDIVIDUAL);

*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS6,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R02044,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R02045,TYPE=INDIVIDUAL);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(QUESTION=R_R02039,TYPE=INDIVIDUAL);

*****************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%PROCESS(QUESTION=R_R02056,TYPE=INDIVIDUAL)

*****************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*****************************************************************************;
%PROCESS(QUESTION=R_R02011,TYPE=INDIVIDUAL);

*****************************************************************************
```

```
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(QUESTION=R_R02018,TYPE=INDIVIDUAL);

*****************************************************************************
*****************************************************************************
* STACK up all of the files into one final output dataset.
*****************************************************************************
*****************************************************************************;
DATA OUT.LOADCAHQ;
   SET R_R02009
       R_R02016
       R_R02030
       R_R02031
       R_R02021
       R_R02023
       R_R02026
       R_R02032
       R_R02035
       R_R02036
       R_R02037
       R_R02038
       R_R02033
       R_R02034
       R_R02048
       R_R02050
       R_R02055
       R_R02044
       R_R02045
       R_R02039
       R_R02056
       R_R02011
       R_R02018
       RCOMPOS1
       RCOMPOS2
       RCOMPOS3
       RCOMPOS4
       RCOMPOS5
       RCOMPOS6
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: LOADCAHQ.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHQ.SD2 - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

*****************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accomodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
```

```
* NOTES:    1) Under the new contract (8860), the suvey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*************************************************************************
;
*************************************************************************
* FORMAT Definitions
*************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees           "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
      5 = "Active Duty               "
      6 = "Active Duty Dependents    "
      7 = "Retirees and Dependents   "
      8 = "All Beneficiaries         "
   ;
   VALUE XSERVAFF
      1 = "Army"
      2 = "Air Force"
      3 = "Navy"
      4 = "Other/Unknown"
   ;
   VALUE REGIONF
      0 = "CONUS MHS "
      1 = "Region 1  "
      2 = "Region 2  "
      3 = "Region 3  "
      4 = "Region 4  "
      5 = "Region 5  "
      6 = "Region 6  "
      8 = "Region 7/8"
      9 = "Region 9  "
     10 = "Region 10 "
     11 = "Region 11 "
     12 = "Region 12 "
     13 = "Europe    "
     14 = "Asia      "
     15 = "Latin America "
     16 = "Alaska    "
   ;
   VALUE $BENTYPF
    "1998    " = "1998                                          "
    "1999    " = "1999                                          "
    "2000    " = "2000                                          "
    "2001    " = "2001                                          "
    "2002    " = "2002                                          "
    "2003    " = "2003                                          "
    "2000 Q1 " = "January, 2000 to December, 2000               "
    "2000 Q2 " = "April, 2000 to March, 2001                    "
    "2000 Q3 " = "July, 2000 to June, 2001                      "
    "2000 Q4 " = "October, 2000 to September, 2001              "
    "2002 Q1 " = "January, 2001 to December, 2001               "
    "2002 Q2 " = "April, 2001 to March, 2002                    "
    "2002 Q3 " = "July, 2001 to June, 2002                      "
    "2002 Q4 " = "October, 2001 to September, 2002              "
    /*******************/
    /* Admin. Year Defn. */
    /* 2001        2002  */
    /*******************/
    "R00007  ", "R02009  " = "Problems Getting Personal Doctor/Nurse       "
    "R00014  ", "R02016  " = "Problems Getting Referral to Specialist      "
    "R00028  ", "R02030  " = "Problems Getting Necessary Care              "
    "R00029  ", "R02031  " = "Delays in Care while Awaiting Approval       "
    "R00019  ", "R02021  " = "Advice over Telephone                        "
    "R00021  ", "R02023  " = "Wait for Routine Visit                       "
    "R00024  ", "R02026  " = "Wait for Urgent Care                         "
    "R00030  ", "R02032  " = "Wait More than 15 Minutes Past Appointment   "
```

```
    "R00033  ", "R02035  " = "Listens Carefully                              "
    "R00034  ", "R02036  " = "Explains so You can Understand                 "
    "R00035  ", "R02037  " = "Shows Respect                                  "
    "R00036  ", "R02038  " = "Spends Time with You                           "
    "R00031  ", "R02033  " = "Courteous and Respectful                       "
    "R00032  ", "R02034  " = "Helpful                                        "
    "R00048  ", "R02048  " = "Problem Finding/Understanding Written Material"
    "R00050  ", "R02050  " = "Problem Getting Help from Customer Service    "
    "R00055  ", "R02055  " = "Problem with Paperwork                         "
    "R00044  ", "R02044  " = "Claims Handled in a Reasonable Time            "
    "R00045  ", "R02045  " = "Claims Handled Correctly                       "
    "R00037  ", "R02039  " = "Health Care                                    "
    "R00056  ", "R02056  " = "Health Plan                                    "
    "R00009  ", "R02011  " = "Primary Care Manager                           "
    "R00016  ", "R02018  " = "Specialty Care                                 "
   ;
   VALUE $BENEF
    "RCOMPOS1","CCOMPOS1","R00007","R00014","R00028","R00029",
                          "R02009","R02016","R02030","R02031"
    = "Getting Needed Care  "

    "RCOMPOS2","CCOMPOS2","R00019","R00021","R00024","R00030",
                          "R02021","R02023","R02026","R02032"
    = "Getting Care Quickly "

    "RCOMPOS3","CCOMPOS3","R00033","R00034","R00035","R00036",
                          "R02035","R02036","R02037","R02038"
    = "How Well Doctors Communicate "

    "RCOMPOS4","CCOMPOS4","R00031","R00032",
                          "R02033","R02034"
    = "Courteous and Helpful Office Staff "

    "RCOMPOS5","CCOMPOS5","R00048","R00050","R00055",
                          "R02048","R02050","R02055"
    = "Customer Service          "

    "RCOMPOS6","CCOMPOS6","R00044","R00045",
                          "R02044","R02045"
    = "Claims Processing                 "

    /*********************/
    /* Admin. Year Defn. */
    /* 2001        2002  */
    /*********************/
    "R00037", "R02039" = "Health Care                                    "
    "R00056", "R02056" = "Health Plan                                    "
    "R00009", "R02011" = "Primary Care Manager                           "
    "R00016", "R02018" = "Specialty Care                                 "
RUN;
```

3. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB (QUARTERLY)

3A. EXTRACT 2001 ADULT CAHPS QUESTIONS FROM NCBD (QTR 2 ONLY)

```
*************************************************************************
*
* PROGRAM:  BENCHA01.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
* PURPOSE:  Extract 2000 Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUTS:   1) ADULT.SD2 - 1999 Adult CAHPS Questions
*
* OUTPUT:   1) BENCHA01.SD2 - 1999 Adult CAHPS Questions Renamed to be
*              consistent with the 1999 MPR DOD Survey.
*
* MODIFIED: 1) 12/19/2000 BY KEITH RATHBUN for Q1 2000 Survey.
*           2) 04/11/2002 BY MIKE SCOTT, Updated variable names for 2002
*              Survey.
*           3) 07/30/2002 BY MIKE SCOTT, Updated to use 2001 NCBD.
*
* NOTES:
*
* 1) This program will generate the input for BENCHA02.SAS.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN       "..\..\..\Q1_2002\data\benchmark\adult2002";
LIBNAME OUT V612 "data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA01;
   SET IN.AC_2001M (RENAME=(BIRTHYY=YOB));
   FORMAT _ALL_;
   ****************************************
   * Getting Needed Care
   ****************************************;
   H02009   = AC06_01;
   H02016   = AC10_01;
   H02030   = AC24_01;
   H02031   = AC25_01;
   ****************************************
   * Getting Care Quickly
   ****************************************;
   H02021   = AC15_01;
   H02023   = AC17_01;
   H02026   = AC20_01;
   H02032   = AC26_01;
   ****************************************
   * How Well Doctors Communicate
   ****************************************;
   H02035   = AC29_01;
   H02036   = AC30_01;
   H02037   = AC31_01;
   H02038   = AC32_01;
   ****************************************
   * Courteous and Helpful Office Staff
   ****************************************;
   H02033   = AC27_01;
   H02034   = AC28_01;
   ****************************************
   * Customer Service
   ****************************************;
   H02048   = AC39_01;
   H02050   = AC41_01;
   H02055   = AC46_01;
   ****************************************
   * Claims Processing
   ****************************************;
   H02044   = AC35_01;
   H02045   = AC36_01;
   ****************************************
```

```
  * Health Care Rating
  ****************************************;
  H02039   = AC33_01;
  ****************************************
  * Health Plan Rating
  ****************************************;
  H02056   = AC47_01;
  ****************************************
  * Personal Doctor Rating
  ****************************************;
  H02011   = AC08_01;
  ****************************************
  * Specialist Rating
  ****************************************;
  H02018   = AC12_01;
  ****************************************
  * Health Status
  ****************************************;
  H02076   = AC48_01; *H02076 is the health status variable for Q2_2002.;

  AGEGROUP = AC53_01; *NEED TO USE USE THIS DIRECTLY (already grouped);
  XSEXA    = AC54_01;
  SREDHIGH = AC55_01;
  if product='FFS' then model=4;
  if product='PPO' then model=2;
  if product='HMO' then model=1;
  if product='HMO/POS' then model=6;
  if product='HMO/PCCM' then model=5;
  if product='POS' then model=3;
  product=wesplnid;

LABEL  H02009    = "AC06_01 - CAHPS variable"
       H02016    = "AC10_01 - CAHPS variable"
       H02030    = "AC24_01 - CAHPS variable"
       H02031    = "AC25_01 - CAHPS variable"
       H02021    = "AC15_01 - CAHPS variable"
       H02023    = "AC17_01 - CAHPS variable"
       H02026    = "AC20_01 - CAHPS variable"
       H02032    = "AC26_01 - CAHPS variable"
       H02035    = "AC29_01 - CAHPS variable"
       H02036    = "AC30_01 - CAHPS variable"
       H02037    = "AC31_01 - CAHPS variable"
       H02038    = "AC32_01 - CAHPS variable"
       H02033    = "AC27_01 - CAHPS variable"
       H02034    = "AC28_01 - CAHPS variable"
       H02048    = "AC39_01 - CAHPS variable"
       H02050    = "AC41_01 - CAHPS variable"
       H02055    = "AC46_01 - CAHPS variable"
       H02044    = "AC35_01 - CAHPS variable"
       H02045    = "AC36_01 - CAHPS variable"
       H02039    = "AC33_01 - CAHPS variable"
       H02056    = "AC47_01 - CAHPS variable"
       H02011    = "AC08_01 - CAHPS variable"
       H02018    = "AC12_01 - CAHPS variable"
       H02076    = "AC48_01 - CAHPS variable"
       AGEGROUP  = "AC53_01 - CAHPS variable"
       XSEXA     = "AC54_01 - CAHPS variable"
       SREDHIGH  = "AC55_01 - CAHPS variable"
      ;
KEEP   H02009
       H02016
       H02030
       H02031
       H02021
       H02023
       H02026
       H02032
       H02035
       H02036
       H02037
       H02038
       H02033
       H02034
       H02048
```

```
        H02050
        H02055
        H02044
        H02045
        H02039
        H02056
        H02011
        H02018
        H02076
        AGEGROUP
        XSEXA
        SREDHIGH
        MODEL
        PRODUCT
        AC03_01
        DISP
        YOB
       ;
RUN;

TITLE1 "Extract 2002 Adult CAHPS Questions (DoD)";
TITLE2 "Program Name: BENCHA01.SAS By Keith Rathbun";
TITLE3 "Program Input: AC_2001M.sd2";
TITLE4 "Program Output: BENCHA01.sd2";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES _ALL_ /MISSING LIST;
RUN;
```

3B. RECODE 2001 ADULT CAHPS QUESTIONS FROM NCBD TO BE CONSISTENT WITH THE 2002 HCSDB (QTR 2 ONLY)

```
*************************************************************************
*
* PROGRAM:  BENCHA02.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
* PURPOSE:  Recode 1999 Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUT:    1) BENCHA01.SD2 - 2000 Adult CAHPS Questions Renamed to be
*             consistent with the 2002 MPR DOD Survey.
*
* OUTPUT:   1) BENCHA02.SD2 - Recoded 2000 Adult CAHPS Questions Renamed
*             to be consistent with the 2002 MPR DOD Survey.
*
* MODIFIED: 1) 12/19/2000 BY KEITH RATHBUN for Q1 2000 Survey.
*           2) 04/11/2002 BY MIKE SCOTT, Updated variable names for 2002
*             Survey.
*           3) 07/30/2002 BY MIKE SCOTT, Updated to use 2001 NCBD.
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS.
* 2) This program will generate the input for BENCHA03.SAS.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN      "data";
LIBNAME OUT     "data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA02(rename=(nproduct=product));
   SET IN.BENCHA01;
     nproduct=product+0;
   ************************************************************************
   * Reorder the code for H02032.
   * It is in reverse order.
   ************************************************************************;
   IF H02032 = 1      THEN R02032 = 4;
   ELSE IF H02032 = 2 THEN R02032 = 3;
   ELSE IF H02032 = 3 THEN R02032 = 2;
   ELSE IF H02032 = 4 THEN R02032 = 1;
   ELSE IF H02032 < 0 THEN R02032 = .;
      IF R02032 > 1   THEN R02032 = R02032 - 1;

   ************************************************************************
   * Recode variables with Never, Sometimes, Usually and Always.
   * Recode Never & Sometimes (1 & 2) to 1.
   * Recode Usually (3) to 2.
   * Recode Always (4) to 3.
   ************************************************************************;
   IF H02023 = 1      THEN R02023 = 1;
   ELSE IF H02023 = 2 THEN R02023 = 1;
   ELSE IF H02023 = 3 THEN R02023 = 2;
   ELSE IF H02023 = 4 THEN R02023 = 3;
   ELSE IF H02023 < 0 THEN R02023 = .;

   IF H02021 = 1      THEN R02021 = 1;
   ELSE IF H02021 = 2 THEN R02021 = 1;
   ELSE IF H02021 = 3 THEN R02021 = 2;
   ELSE IF H02021 = 4 THEN R02021 = 3;
   ELSE IF H02021 < 0 THEN R02021 = .;

   IF H02026 = 1      THEN R02026 = 1;
   ELSE IF H02026 = 2 THEN R02026 = 1;
   ELSE IF H02026 = 3 THEN R02026 = 2;
   ELSE IF H02026 = 4 THEN R02026 = 3;
   ELSE IF H02026 < 0 THEN R02026 = .;

   IF H02033 = 1      THEN R02033 = 1;
   ELSE IF H02033 = 2 THEN R02033 = 1;
```

```
ELSE IF H02033 = 3 THEN R02033 = 2;
ELSE IF H02033 = 4 THEN R02033 = 3;
ELSE IF H02033 < 0 THEN R02033 = .;

IF H02034 = 1      THEN R02034 = 1;
ELSE IF H02034 = 2 THEN R02034 = 1;
ELSE IF H02034 = 3 THEN R02034 = 2;
ELSE IF H02034 = 4 THEN R02034 = 3;
ELSE IF H02034 < 0 THEN R02034 = .;

IF H02035 = 1      THEN R02035 = 1;
ELSE IF H02035 = 2 THEN R02035 = 1;
ELSE IF H02035 = 3 THEN R02035 = 2;
ELSE IF H02035 = 4 THEN R02035 = 3;
ELSE IF H02035 < 0 THEN R02035 = .;

IF H02036 = 1      THEN R02036 = 1;
ELSE IF H02036 = 2 THEN R02036 = 1;
ELSE IF H02036 = 3 THEN R02036 = 2;
ELSE IF H02036 = 4 THEN R02036 = 3;
ELSE IF H02036 < 0 THEN R02036 = .;

IF H02037 = 1      THEN R02037 = 1;
ELSE IF H02037 = 2 THEN R02037 = 1;
ELSE IF H02037 = 3 THEN R02037 = 2;
ELSE IF H02037 = 4 THEN R02037 = 3;
ELSE IF H02037 < 0 THEN R02037 = .;

IF H02038 = 1      THEN R02038 = 1;
ELSE IF H02038 = 2 THEN R02038 = 1;
ELSE IF H02038 = 3 THEN R02038 = 2;
ELSE IF H02038 = 4 THEN R02038 = 3;
ELSE IF H02038 < 0 THEN R02038 = .;

IF H02044 = 1      THEN R02044 = 1;
ELSE IF H02044 = 2 THEN R02044 = 1;
ELSE IF H02044 = 3 THEN R02044 = 2;
ELSE IF H02044 = 4 THEN R02044 = 3;
ELSE IF H02044 < 0 THEN R02044 = .;

IF H02045 = 1      THEN R02045 = 1;
ELSE IF H02045 = 2 THEN R02045 = 1;
ELSE IF H02045 = 3 THEN R02045 = 2;
ELSE IF H02045 = 4 THEN R02045 = 3;
ELSE IF H02045 < 0 THEN R02045 = .;

IF H02076 = 1           THEN R02076 = 5;  /* H02076 is the health status */
ELSE IF H02076 = 2      THEN R02076 = 4;  /* variable for Q2_2002.       */
ELSE IF H02076 = 3      THEN R02076 = 3;
ELSE IF H02076 = 4      THEN R02076 = 2;
ELSE IF H02076 = 5      THEN R02076 = 1;
ELSE IF H02076>5|H02076<1 THEN R02076 = .;

*********************************************************************
* Recode variables to one missing condition "."
* This also makes all the "H000xx" to "R000xx".
*********************************************************************;
R02009 = H02009;  IF R02009 < 0 THEN R02009 = .;
R02011 = H02011;  IF R02011 < 0|r02011>10 THEN R02011 = .;
R02016 = H02016;  IF R02016 < 0 THEN R02016 = .;
R02018 = H02018;  IF R02018 < 0|r02018>10 THEN R02018 = .;
R02030 = H02030;  IF R02030 < 0 THEN R02030 = .;
R02031 = H02031;  IF R02031 < 0 THEN R02031 = .;
R02039 = H02039;  IF R02039 < 0|r02039>10 THEN R02039 = .;
R02048 = H02048;  IF R02048 < 0 THEN R02048 = .;
R02050 = H02050;  IF R02050 < 0 THEN R02050 = .;
R02055 = H02055;  IF R02055 < 0 THEN R02055 = .;
R02056 = H02056;  IF R02056 < 0|r02056>10 THEN R02056 = .;

LABEL R02009   = "AC06_01 - Recoded CAHPS variable"
      R02011   = "AC08_01 - Recoded CAHPS variable"
      R02016   = "AC10_01 - Recoded CAHPS variable"
      R02018   = "AC12_01 - Recoded CAHPS variable"
      R02021   = "AC15_01 - Recoded CAHPS variable"
```

```
          R02023   = "AC17_01 - Recoded CAHPS variable"
          R02026   = "AC20_01 - Recoded CAHPS variable"
          R02030   = "AC24_01 - Recoded CAHPS variable"
          R02031   = "AC25_01 - Recoded CAHPS variable"
          R02032   = "AC26_01 - Recoded CAHPS variable"
          R02033   = "AC27_01 - Recoded CAHPS variable"
          R02034   = "AC28_01 - Recoded CAHPS variable"
          R02035   = "AC29_01 - Recoded CAHPS variable"
          R02036   = "AC30_01 - Recoded CAHPS variable"
          R02037   = "AC31_01 - Recoded CAHPS variable"
          R02038   = "AC32_01 - Recoded CAHPS variable"
          R02039   = "AC33_01 - Recoded CAHPS variable"
          R02048   = "AC39_01 - Recoded CAHPS variable"
          R02050   = "AC41_01 - Recoded CAHPS variable"
          R02055   = "AC46_01 - Recoded CAHPS variable"
          R02056   = "AC47_01 - Recoded CAHPS variable"
          R02076   = "AC48_01 - Recoded CAHPS variable"
          R02044   = "AC35_01 - Recoded CAHPS variable"
          R02045   = "AC36_01 - Recoded CAHPS variable"

          nPRODUCT  = "Product ID - CAHPS variable";
        ;
        drop product;
RUN;

TITLE1 "Recode 2002 Adult CAHPS Questions (8860-410)";
TITLE2 "Program Name: BENCHA02.SAS By Keith Rathbun";
TITLE3 "Program Input: BENCHA01.SD2";
TITLE4 "Program Output: BENCHA02.SD2";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES  AGEGROUP
        XSEXA
        SREDHIGH
        MODEL
        R02009 * H02009
        R02011 * H02011
        R02016 * H02016
        R02018 * H02018
        R02021 * H02021
        R02023 * H02023
        R02026 * H02026
        R02030 * H02030
        R02031 * H02031
        R02032 * H02032
        R02033 * H02033
        R02034 * H02034
        R02035 * H02035
        R02036 * H02036
        R02037 * H02037
        R02038 * H02038
        R02039 * H02039
        R02048 * H02048
        R02050 * H02050
        R02055 * H02055
        R02056 * H02056
        R02076 * H02076
        R02044 * H02044
        R02045 * H02045
   /MISSING LIST;
RUN;
```

3C. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB (QUARTERLY)

```
*************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     2000 DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
* PURPOSE:  Adjust 2000 Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:   1) BENCHA02.SD2 - 2000 Adult CAHPS Questions Renamed to be
*              consistent with the 2000 MPR DOD Survey.
*           2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED: 1) Nov 2000 BY ERIC SCHONE - Output permanent datasets with
*              scores and standard errors and process the rest of the
*              composites and ratings.
*           2) Dec 2000 BY KEITH RATHBUN - Update variable names for
*              Q1 2000 Survey.
*           3) Jan 2002 BY KEITH RATHBUN - Updated to run under SAS
*              version 8 (changed INTERCEP to INTERCEPT).
*           4) Apr 2002 BY MIKE SCOTT - Updated variable names for Q1
*              2002 Survey.
*           5) Jul 2002 BY MIKE SCOTT - Changed R00077 to R02076, since
*              H02077 (health status) is back and was renamed to R02076
*              in HSC022_1.sd2.
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
libname in  V612 'data';
libname in2 V612 '..\reportcards\cahps_adultq22002\data';
libname out V612 'data';

%let wgt=wrwt;

OPTIONS MLOGIC MPRINT NOCENTER LS=132 PS=79;


%macro comb(f,t,q,l);

proc summary data=&f;
 var &t;
 where &q~=.;
 weight &wgt;
 output out=temp mean=&t;
run;

data temp;
 set temp;
 array old &t;
 call symput('z',left(dim(old)));
run;

data temp(drop=_type_ &t);
 set temp;
 array old &t;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;

data &q._&l;
 merge temp c_&q;
 array coeffs &t;
 array means var1-var&z;
```

```
  DO I = 1 TO DIM(COEFFS);
   IF COEFFS(I) = . THEN COEFFS(I) = 0;
   IF MEANS(I) = . THEN MEANS(I) = 0;
   ADJUST + ( COEFFS(I) * MEANS(I) );
  END;

 ADJUST = ADJUST + intercept;
 &q._&l=adjust;

run;

%mend comb;

%macro adjust(x,y);



proc summary data=setup;
where &x>.;
 class product;

 output out=count;
run;

data count count2(rename=(_freq_=denom));
 set count;
 if _type_=0 then output count2;
 else output count;
run;

data count(keep=pweight product);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by product;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;
```

```
proc sort data=r_&x; by product;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST product / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;


%mend adjust;

/* adjust all the variables */

%macro comp(compno,a,b,c,d);
 %if &a~= %then %do;
  %let n=r_&a;
  %let m=s_&a;
  %do i=1 %to 8;
   %let p&i=&a._&i;
  %end;
  %let grpnum=1;
   proc sort data=r_&a;
    by mpid;
   run;
 %end;
 %if &b~= %then %do;
  %let n=%str(&n r_&b);
  %let m=%str(&m s_&b);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &b._&i);
  %end;
  %let grpnum=2;
   proc sort data=r_&b;
    by mpid;
   run;
 %end;
 %if &c~= %then %do;
  proc sort data=r_&c;
   by mpid;
  run;
  %let grpnum=3;
  %let n=%str(&n r_&c);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &c._&i);
  %end;
  %let m=%str(&m s_&c); %end;

  %if &d~= %then %do;
   proc sort data=r_&d;
    by mpid;
   run;
   %let grpnum=4;
   %let n=%str(&n r_&d);
    %do i=1 %to 8;
     %let p&i=%str(&&p&i &d._&i);
```

```
    %end;

    %let m=%str(&m s_&d);
  %end;

data infile;
 merge &n;
 by mpid;
run;

proc corr outp=outf noprint;
 var &n;
 weight pweight;
run;

data final;
 if _n_=1 then do;
  %if &a~= %then %do;
   set s_&a;
  %end;
  %if &b~= %then %do;
   set s_&b;
  %end;
  %if &c~= %then %do;
   set s_&c;
  %end;
  %if &d~= %then %do;
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
  %do i=1 %to &grpnum;
   if _name_="r_&&s&i" then
   sde=sde+r_val(i)*s_&&s&i*s_val(i);
  %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
  merge &&p&i;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;
```

```
data out&compno._&i;
 merge output temp;
run;

data out.comp&compno._&i;
   merge out&compno._&i
         sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by product;
run;
data setup;
set setup;
if ^(model in (2,4));
if disp='M10' & ac03_01=1;
data setup;
 set setup; by product;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;

      if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
run;
%INCLUDE "J:\8687\PROGRAMS\REPORTCARDS\CONVERT.SAS";

%CONT1(DSN=SETUP, NUM=7,  Y=R02009 R02016 R02030 R02031
                           R02048 R02050 R02055);
%CONT2(DSN=SETUP, NUM=4,  Y=R02039 R02056 R02011 R02018);
%CONT3(DSN=SETUP, NUM=12, Y=R02021 R02023 R02026 R02032
                           R02035 R02036 R02037 R02038
                           R02033 R02034 R02044 R02045);
/* GETTING NEEDED CARE */
%adjust(r02009,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02016,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02030,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02031,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(1,r02009,r02016,r02030,r02031);

/* GETTING NEEDED CARE QUICKLY */
%adjust(r02021,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02023,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02026,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02032,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(2,r02021,r02023,r02026,r02032);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(r02035,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02036,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02037,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02038,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(3,r02035,r02036,r02037,r02038);

/* COURTEOUS AND HELPFUL OFFICE STAFF */
%adjust(r02033,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02034,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(4,r02033,r02034);

/* CUSTOMER SERVICE */
%adjust(r02048,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02050,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02055,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(5,r02048,r02050,r02055);
```

```
/* CLAIMS PROCESSING */
%adjust(r02044,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02045,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(6,r02044,r02045);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(r02039,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(7,r02039);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(r02056,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(8,r02056);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(r02011,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(9,r02011);

/* SPECIALTY CARE */
%adjust(r02018,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(10,r02018);
```

3D. CONVERT THE BENCHMARK SCORES DATABASE INTO THE WEB LAYOUT (QUARTERLY)

```
*************************************************************************
*
* PROGRAM:  BENCHA04.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
* PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* INPUTS:   1) Benchmark data sets with adjusted scores
*              (COMPn_i.SD2 where n = composite number and i = group number)
*
* OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED: 1) Dec 2000 bY Keith Rathbun: Updated variable names for
*              Q1 2000 Survey.  For the quarterly survey group 8 (all benes)
*              is being used as the benchmark for all groups (1-8).  Thus,
*              this group is copied and output to each of the other 7 groups.
*           2) 01/23/2002 by Mike Scott: Updated variable names to be consistent
*              with 2000 survey.
*           4) 04/15/2002 by Mike Scott - Updated variable names for
*              Q1 2002 Survey.
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - BENCHA01.SAS - Extract Benchmark variables
*    - BENCHA02.SAS - Recode Benchmark variables
*    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
*
* 2) The output file (BENCHA04.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN  "DATA";
LIBNAME OUT "DATA";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

*************************************************************************
*************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* ____________________________________________________________
*    Adjusted Score          Definitions
*    Group Number
* ____________________________________________________________
* 1. Prime enrollees         XINS_COV IN (1,2,6) AND H98043_R>=7
* 2. Enrollees w/mil PCM     XENR_PCM IN (1,2,6) AND H98043_R>=7
* 3. Enrollees w/civ PCM     XENR_PCM = 3        AND H98043_R>=7
* 4. Nonenrollees            XINS_COV IN (3,4,5)
* 5. Active duty             BFGROUPP = 1
* 6. Active duty dependents  BFGROUPP = 2
* 7. Retirees and dependents BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
*************************************************************************;
```

```
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
*************************************************************************
* Assign value for BENTYPE composite year
*************************************************************************;
%LET YEAR = "2002 Q2";

*************************************************************************
* Convert benchmark scores datasets into WEB layout.
*************************************************************************;

   DATA COMP&CNUM._&Gnum;
      SET IN.COMP&CNUM._&GNUM;

      LENGTH MAJGRP  $30;
      LENGTH REGION  $15;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;

      ********************************************************************
      * For now, assign SIG = 0
      ********************************************************************;
      SIG = 0;

      ********************************************************************
      * Assign major group
      ********************************************************************;
      MAJGRP  = PUT(&Gnum,MAJGRPF.);

      ********************************************************************
      * Assign Region and Regcat
      ********************************************************************;
      REGION  = "Benchmark";
      REGCAT  = "Benchmark";

      ********************************************************************
      * Assign benefit and benefit type
      ********************************************************************;
      IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
      ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
      ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
      ELSE IF &CNUM = 4  THEN BENEFIT = "Courteous and Helpful Office Staff";
      ELSE IF &CNUM = 5  THEN BENEFIT = "Customer Service";
      ELSE IF &CNUM = 6  THEN BENEFIT = "Claims Processing";
      ELSE IF &CNUM = 7  THEN BENEFIT = "Health Care";
      ELSE IF &CNUM = 8  THEN BENEFIT = "Health Plan";
      ELSE IF &CNUM = 9  THEN BENEFIT = "Primary Care Manager";
      ELSE IF &CNUM = 10 THEN BENEFIT = "Specialty Care";

      BENTYPE = PUT(&YEAR,$BENTYPF.);

      ********************************************************************
      * Assign composite score and SEMEAN
      ********************************************************************;
      SCORE = TOTADJ;
      SEMEAN = SDE;

      ********************************************************************
      * Output composite score record for each REGION
      ********************************************************************;
      OUTPUT;

      ********************************************************************
      * Now, output the individual score records
      ********************************************************************;
      IF &NVAR GT 1 THEN DO;
         ARRAY ITEMS &VARS;
         ARRAY SE    &SE;
         LENGTH NAME $8;
         DO I = 1 TO DIM(ITEMS); DROP I;
            CALL VNAME(ITEMS(I),NAME);
            NAME = SUBSTR(NAME,1,6);
            SCORE  = ITEMS(I);
            SEMEAN = SE(I);
```

```
            BENTYPE = PUT(NAME,$BENTYPF.);
            OUTPUT;
         END;
      END;

   KEEP MAJGRP
        REGION
        REGCAT
        BENTYPE
        BENEFIT
        SEMEAN
        SCORE
        SIG
      ;
   RUN;


%MEND;

*******************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=1, GNUM=8, NVAR=4, VARS=r02009_8 R02016_8 R02030_8 R02031_8,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*******************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=2, GNUM=8, NVAR=4, VARS=R02021_8 R02023_8 R02026_8 R02032_8,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*******************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*******************************************************************************;
%PROCESS(CNUM=3, GNUM=8, NVAR=4, VARS=R02035_8 R02036_8 R02037_8 R02038_8,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*******************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*******************************************************************************;
%PROCESS(CNUM=4, GNUM=8, NVAR=2, VARS=R02033_8 R02034_8, SE=S_R02033 S_R02034);

*******************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*******************************************************************************;
%PROCESS(CNUM=5, GNUM=8, NVAR=3, VARS=R02048_8 R02050_8 R02055_8,
         SE=S_R02048 S_R02050 S_R02055);

*******************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*******************************************************************************;
%PROCESS(CNUM=6, GNUM=8, NVAR=2, VARS=R02044_8 R02045_8, SE=S_R02044 S_R02045);

*******************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=7, GNUM=8, NVAR=1, VARS=R02039_8, SE=S_R02039);

*******************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=8, GNUM=8, NVAR=1, VARS=R02056_8, SE=S_R02056);

*******************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*******************************************************************************;
```

```
%PROCESS(CNUM=9, GNUM=8, NVAR=1, VARS=R02011_8, SE=S_R02011);

*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=8, NVAR=1, VARS=R02018_8, SE=S_R02018);

*****************************************************************************
*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=1, GNUM=3, NVAR=4, VARS=r02009_3 R02016_3 R02030_3 R02031_3,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*****************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=2, GNUM=3, NVAR=4, VARS=R02021_3 R02023_3 R02026_3 R02032_3,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*****************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(CNUM=3, GNUM=3, NVAR=4, VARS=R02035_3 R02036_3 R02037_3 R02038_3,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*****************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*****************************************************************************;
%PROCESS(CNUM=4, GNUM=3, NVAR=2, VARS=R02033_3 R02034_3, SE=S_R02033 S_R02034);

*****************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*****************************************************************************;
%PROCESS(CNUM=5, GNUM=3, NVAR=3, VARS=R02048_3 R02050_3 R02055_3,
         SE=S_R02048 S_R02050 S_R02055);

*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=3, NVAR=2, VARS=R02044_3 R02045_3, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=7, GNUM=3, NVAR=1, VARS=R02039_3, SE=S_R02039);

*****************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=8, GNUM=3, NVAR=1, VARS=R02056_3, SE=S_R02056);

*****************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=9, GNUM=3, NVAR=1, VARS=R02011_3, SE=S_R02011);

*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=3, NVAR=1, VARS=R02018_3, SE=S_R02018);

*****************************************************************************
* COMPOSITE # 1.
```

```
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=4, NVAR=4, VARS=r02009_4 R02016_4 R02030_4 R02031_4,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(CNUM=2, GNUM=4, NVAR=4, VARS=R02021_4 R02023_4 R02026_4 R02032_4,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(CNUM=3, GNUM=4, NVAR=4, VARS=R02035_4 R02036_4 R02037_4 R02038_4,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=4, NVAR=2, VARS=R02033_4 R02034_4, SE=S_R02033 S_R02034);

*************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=4, NVAR=3, VARS=R02048_4 R02050_4 R02055_4,
         SE=S_R02048 S_R02050 S_R02055);

*************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(CNUM=6, GNUM=4, NVAR=2, VARS=R02044_4 R02045_4, SE=S_R02044 S_R02045);

*************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=7, GNUM=4, NVAR=1, VARS=R02039_4, SE=S_R02039);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=4, NVAR=1, VARS=R02056_4, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=4, NVAR=1, VARS=R02011_4, SE=S_R02011);

*************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=4, NVAR=1, VARS=R02018_4, SE=S_R02018);

*************************************************************************
*************************************************************************;
*************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=5, NVAR=4, VARS=r02009_5 R02016_5 R02030_5 R02031_5,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
```

```
%PROCESS(CNUM=2, GNUM=5, NVAR=4, VARS=R02021_5 R02023_5 R02026_5 R02032_5,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*****************************************************************************
*
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(CNUM=3, GNUM=5, NVAR=4, VARS=R02035_5 R02036_5 R02037_5 R02038_5,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*****************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*****************************************************************************;
%PROCESS(CNUM=4, GNUM=5, NVAR=2, VARS=R02033_5 R02034_5, SE=S_R02033 S_R02034);

*****************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*****************************************************************************;
%PROCESS(CNUM=5, GNUM=5, NVAR=3, VARS=R02048_5 R02050_5 R02055_5,
         SE=S_R02048 S_R02050 S_R02055);

*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=5, NVAR=2, VARS=R02044_5 R02045_5, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=7, GNUM=5, NVAR=1, VARS=R02039_5, SE=S_R02039);

*****************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=8, GNUM=5, NVAR=1, VARS=R02056_5, SE=S_R02056);

*****************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=9, GNUM=5, NVAR=1, VARS=R02011_5, SE=S_R02011);

*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=5, NVAR=1, VARS=R02018_5, SE=S_R02018);

*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=1, GNUM=6, NVAR=4, VARS=r02009_6 R02016_6 R02030_6 R02031_6,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*****************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=2, GNUM=6, NVAR=4, VARS=R02021_6 R02023_6 R02026_6 R02032_6,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*****************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(CNUM=3, GNUM=6, NVAR=4, VARS=R02035_6 R02036_6 R02037_6 R02038_6,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*****************************************************************************
```

```
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=6, NVAR=2, VARS=R02033_6 R02034_6, SE=S_R02033 S_R02034);

*************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=6, NVAR=3, VARS=R02048_6 R02050_6 R02055_6,
         SE=S_R02048 S_R02050 S_R02055);

*************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(CNUM=6, GNUM=6, NVAR=2, VARS=R02044_6 R02045_6, SE=S_R02044 S_R02045);

*************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=7, GNUM=6, NVAR=1, VARS=R02039_6, SE=S_R02039);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=6, NVAR=1, VARS=R02056_6, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=6, NVAR=1, VARS=R02011_6, SE=S_R02011);

*************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=6, NVAR=1, VARS=R02018_6, SE=S_R02018);

*************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=7, NVAR=4, VARS=r02009_7 R02016_7 R02030_7 R02031_7,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(CNUM=2, GNUM=7, NVAR=4, VARS=R02021_7 R02023_7 R02026_7 R02032_7,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(CNUM=3, GNUM=7, NVAR=4, VARS=R02035_7 R02036_7 R02037_7 R02038_7,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=7, NVAR=2, VARS=R02033_7 R02034_7, SE=S_R02033 S_R02034);

*************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=7, NVAR=3, VARS=R02048_7 R02050_7 R02055_7,
         SE=S_R02048 S_R02050 S_R02055);
```

```
*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=7, NVAR=2, VARS=R02044_7 R02045_7, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=7, GNUM=7, NVAR=1, VARS=R02039_7, SE=S_R02039);

*****************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=8, GNUM=7, NVAR=1, VARS=R02056_7, SE=S_R02056);

*****************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=9, GNUM=7, NVAR=1, VARS=R02011_7, SE=S_R02011);

*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=7, NVAR=1, VARS=R02018_7, SE=S_R02018);

*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=1, GNUM=2, NVAR=4, VARS=r02009_2 R02016_2 R02030_2 R02031_2,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*****************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=2, GNUM=2, NVAR=4, VARS=R02021_2 R02023_2 R02026_2 R02032_2,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*****************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(CNUM=3, GNUM=2, NVAR=4, VARS=R02035_2 R02036_2 R02037_2 R02038_2,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*****************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*****************************************************************************;
%PROCESS(CNUM=4, GNUM=2, NVAR=2, VARS=R02033_2 R02034_2, SE=S_R02033 S_R02034);

*****************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*****************************************************************************;
%PROCESS(CNUM=5, GNUM=2, NVAR=3, VARS=R02048_2 R02050_2 R02055_2,
         SE=S_R02048 S_R02050 S_R02055);

*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=2, NVAR=2, VARS=R02044_2 R02045_2, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
```

```
%PROCESS(CNUM=7, GNUM=2, NVAR=1, VARS=R02039_2, SE=S_R02039);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=2, NVAR=1, VARS=R02056_2, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=2, NVAR=1, VARS=R02011_2, SE=S_R02011);

*************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=2, NVAR=1, VARS=R02018_2, SE=S_R02018);

*************************************************************************************************************
*****************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=1, NVAR=4, VARS=r02009_1 R02016_1 R02030_1 R02031_1,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(CNUM=2, GNUM=1, NVAR=4, VARS=R02021_1 R02023_1 R02026_1 R02032_1,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(CNUM=3, GNUM=1, NVAR=4, VARS=R02035_1 R02036_1 R02037_1 R02038_1,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=1, NVAR=2, VARS=R02033_1 R02034_1, SE=S_R02033 S_R02034);

*************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=1, NVAR=3, VARS=R02048_1 R02050_1 R02055_1,
         SE=S_R02048 S_R02050 S_R02055);

*************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(CNUM=6, GNUM=1, NVAR=2, VARS=R02044_1 R02045_1, SE=S_R02044 S_R02045);

*************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=7, GNUM=1, NVAR=1, VARS=R02039_1, SE=S_R02039);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=1, NVAR=1, VARS=R02056_1, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
```

```
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=1, NVAR=1, VARS=R02011_1, SE=S_R02011);

************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=1, NVAR=1, VARS=R02018_1, SE=S_R02018);

************************************************************************
************************************************************************
* STACK up all of the files into one final output dataset.
************************************************************************
************************************************************************;
DATA OUT.BENCHA04;
   SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
       COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
       COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
       COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
       COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
       COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
       COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
       COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
       COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
       COMP10_1 COMP10_2 COMP10_3 COMP10_4 COMP10_5 COMP10_6 COMP10_7 COMP10_8
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

4. CALCULATE PREVENTIVE CARE COMPOSITE SCORES AND LOAD INTO WEB LAYOUT (QUARTERLY)

```
*****************************************************************
*  PROJECT:   DOD REPORTING AND ANALYSIS 8860-410
*  PROGRAM:   PRVCOMPQ.SAS
*  AUTHOR:    CHRIS RANKIN
*  DATE:      12/22/2000
*  MODIFIED:  4/19/2001 BY KEITH RATHBUN: RESTRICT POPULATION TO
*             XINS_COV IN(1,2,3,6).  USE POSTSTR INSTEAD OF
*             ADJ_CELL.
*  MODIFIED:  10/25/01 BY DANIELE BEAHM: BECAUSE NO POSTSTRATIFICATION
*             WAS DONE FOR Q3 2000, CHANGED POSTSTR BACK TO ADJ_CELL
*             04/09/02 MODIFIED MACROS THE FIRST THREE MACROS TO CREATE
*             TEMPORARY DATASETS (INSTEAD OF WRITING PERMANENT DATASETS)
*             07/15/02 BY MIKE SCOTT: CHANGED HCS021 TO HCS022 FOR Q2 2002.
*             01/12/03 BY MIKE SCOTT: CHANGED ADJ_CELL TO COM_SAMP.
*  PURPOSE:   CALCULATE MPR PREVENTIVE CARE COMPOSITES
*  INPUT:     \\DOD\FILES\DOD\Q4_2000\DATA\AFINAL\HCS024_1.SD2
*  OUTPUT:    RFINAL.SD2
*             CFINAL.SD2
*             MFINAL.SD2
*  INCLUDE
*   FILES:    LOADCAHPQ.INC
*    NOTE:    NEXT PROGRAM IS LOADMPRQ.SAS
*****************************************************************;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
        NOFMTERR COMPRESS=YES;

LIBNAME IN  V612 "..\..\..\DATA\AFINAL";
LIBNAME OUT V612 ".";
LIBNAME LIBRARY  "..\..\..\DATA\AFINAL\FMTLIB";

%LET WGT=WRWT;
%LET DEBUG=Y;      /** SET TO Y FOR DEBUG PRINT OF DATASETS **/
%LET INDATA=HCS024_1;   /* Q4 2002 */
%LET YRDATA=HCS024;     /* Q4 2002 */


/***** THE FOLLOWING PARAMETERS ARE USED IN THE VARIANCE ****/
/***** CALCUATION MACRO FOR REGION AND CATCHMENT AREA    ****/

%LET GRPNUM=8;      /** NUMBER OF GROUPS          **/
%LET COMPNUM=8;     /** NUMPER OF VARIABLES       **/
%LET REGNUM=16;     /** NUMBER OF REGIONS         **/
%LET CATCHNUM=9999; /** NUMBER OF CATCHMENT AREAS **/

%LET CMPNUM1=4;    /** NUMBER OF VARIABLES IN FIRST COMPOSTIE  **/
%LET CMPNUM2=4;    /** NUMBER OF VARIABLES IN SECOND COMPOSITE **/

%LET COMPCNT=2;    /** NUMBER OF COMPOSITES                    **/

**** SET UP BENCHMARKS FOR PRENTIVE SERVICES ;
**** NOTE -- THESE ARE THE HP 2000 GOALS     ;

%LET GOALVAR1= .90;    /** HP GOAL FOR PRENATAL CARE        **/
%LET GOALVAR2= .70;    /** HP GOAL FOR MAMMOGRAPHY          **/
%LET GOALVAR3= .90;    /** HP GOAL FOR PAPSMEAR             **/
%LET GOALVAR4= .95;    /** HP GOAL FOR BLOOD PRESSURE CHECK **/
%LET GOALVAR5= .90;    /** HP GOAL FOR FLU SHOT             **/
%LET GOALVAR6= .90;    /** ACCESS GOALS                     **/
%LET GOALVAR7= .90;
%LET GOALVAR8= .98;

%INCLUDE "..\..\..\PROGRAMS\LOADWEB\LOADCAHQ.INC";

*************************************************************;
* BENEFICIARY GROUP NOTE
*    EIGHT GROUPS            DEFINITIONS
* ___________________________________________________________;
* 1. PRIME ENROLLEES         XINS_COV IN (1,2,6) AND H02007>=2
* 2. ENROLLEES W/MIL PCM     XENR_PCM IN (1,2,6) AND H02007>=2
* 3. ENROLLEES W/CIV PCM     XENR_PCM IN (3,7)   AND H02007>=2
* 4. NONENROLLEES            XINS_COV IN (3,4,5)
```

```
* 5. ACTIVE DUTY              XBNFGRP = 1
* 6. ACTIVE DUTY DEPENDENTS   XBNFGRP = 2
* 7. RETIREES                 XBNFGRP IN (3,4)
* 8. ALL BENEFICIARIES        ALL
************************************************************;


/**** NOTE -- OUTPUT ALL DATA TO A SINGLE DATASET FOR MACRO */
/**** CALL                                                  */
/**** MACROS ARE NO LONGER CALLED FOR CATCHMENT AREAS       */


DATA &YRDATA(KEEP=BGROUP MHS CONUS XREGION CACSMPL &WGT TMP_CELL
                  PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                  DENV1-DENV&COMPNUM);

  SET IN.&INDATA(KEEP=XINS_COV HP_FLU   HP_BP   HP_MAMOG HP_PAP HP_PRNTL
                      XREGION  XENR_PCM XBNFGRP ENBGSMPL &WGT   CACSMPL
                      COM_SAMP H02023   H02026  H02032   H02007);   /* Q4_2002 */
*  IF _N_ LE 100;


************************************************************************
* FOR QUARTERLY REPORTS, CATCHMENT LEVEL REPORTING IS NOT DONE
* SO THE VALUE OF CELLP IS SET TO 1.
* FOR ANNUAL REPORTING PURPOSES, CELLP WILL NEED TO BE ASSIGNED
* TO GEOCELL
************************************************************************;

  CELLP=1;
  LENGTH TMP_CELL 8;
  TMP_CELL=COM_SAMP;   /* MAKE COM_SAMP A NUMERIC VARIABLE */   /* Q4_2002 */

  IF XREGION=7 THEN XREGION=8;
  IF XREGION IN (.,0)    THEN DELETE;
  IF CACSMPL IN (.,9999) THEN DELETE;
  IF XINS_COV NOT IN(1,2,3,6) THEN DELETE;

  PRVVAR1=HP_PRNTL;        /** PRENATAL CARE  **/
  PRVVAR2=HP_MAMOG;        /** MAMMOGRAPHY    **/
  PRVVAR3=HP_PAP;          /** PAPSMEAR       **/
  PRVVAR4=HP_BP;           /** BLOOD PRESSURE **/
  PRVVAR5=HP_FLU;          /** FLU SHOT       **/
  PRVVAR6=H02023;          /** ACCESS VAR 1   **/
  PRVVAR7=H02026;          /** ACCESS VAR 2   **/
  PRVVAR8=H02032;          /** ACCESS VAR 3   **/

/**** SET UP NUMERATOR AND DENOMINATOR FOR PROPORTIONS ****/

  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
  ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;

  MHS= 1;   /* SET UP DUMMY FOR MHS-- INCLUDE ALL OBSERVATIONS */

************************************************************************
* ASSIGN INDICATOR OF CONUS BASED ON XREGION.  CONUS STANDS FOR
* CONTENTIAL UNITED STATES IT BUT INCLUDES BOTH ALASKA AND HAWAII.
************************************************************************;
```

```
  IF      XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN CONUS=1;
  ELSE IF XREGION IN (13,14,15)                      THEN CONUS=0;
  ELSE IF XREGION = .                                THEN CONUS=.;

* PRIME ENROLLEES     *;

  IF (XINS_COV IN (1,2,6) AND H02007>=2) THEN DO;
     BGROUP=1;
     OUTPUT;
  END;

* ENROLLEES WITH MILITARY PCMS *;

  IF (XENR_PCM IN (1,2,6) AND H02007>=2) THEN DO;
     BGROUP=2;
     OUTPUT;
  END;

* ENROLLEES WITH CIVILIAN PCMS *;

  IF (XENR_PCM IN (3,7) AND H02007>=2) THEN DO;
     BGROUP=3;
     OUTPUT;
  END;

* NONENROLLEES *;

  IF XINS_COV IN (3,4,5) THEN DO;
     BGROUP=4;
     OUTPUT;
  END;

* ACTIVE DUTY      *;

  IF XBNFGRP = 1 THEN DO;
     BGROUP=5;
     OUTPUT;
  END;

* ACTIVE DUTY DEPENDENTS  *;

  IF XBNFGRP = 2 THEN DO;
     BGROUP=6;
     OUTPUT;
  END;

* RETIREES  *;

  IF XBNFGRP IN (3,4) THEN DO;
     BGROUP=7;
     OUTPUT;
  END;

* ALL BENEFICIARIES *;

  BGROUP=8;
  OUTPUT;

RUN;

**** NEXT, CHECK CATCHMENT AREAS FOR REQUISITE NUMBER OF OBSERVATIONS ;
**** FOR THE MACRO CALLS (EXCLUDE CACSMPL W/ <2 OBS)                 ;
**** ALSO, KEEP LIST OF REGION/CATCHMENT AREA COMBINATIONS           ;


PROC FREQ NOPRINT DATA=&YRDATA;
    TABLE BGROUP*MHS*CONUS*XREGION*CACSMPL/MISSING LIST
    OUT=OBSCNT(DROP=PERCENT);
RUN;

PROC SORT DATA=&YRDATA; BY BGROUP MHS CONUS XREGION CACSMPL;
RUN;

DATA HCSDB FAILED;
```

```
   MERGE &YRDATA(IN=IN_ALL) OBSCNT(IN=IN_OBS);
   BY BGROUP MHS CONUS XREGION CACSMPL;
   IF COUNT < 2 THEN DO;
       PUT "FAILED OBS # CRITERION: XREGION=" XREGION "CACSMPL=" CACSMPL;
       OUTPUT FAILED;
   END;
   ELSE OUTPUT HCSDB;
RUN;

DATA OBSCNT;
   SET OBSCNT;
   RENAME BGROUP=GROUP;
RUN;

PROC SORT NODUPKEY DATA=OBSCNT; BY GROUP CACSMPL;
RUN;

*****************************************************
*** FIRST, CALCULATE STANDARD ERRORS AND CREATE     ***
*** A FILE FOR EACH ANALYTICAL UNIT                 ***
*****************************************************;

PROC SORT DATA=HCSDB; BY TMP_CELL;
RUN;

*****************************************************
***** SUDAAN MACRO TO CALCULATE STANDARD ERRORS   *****
***** THERE ARE THREE OUTPUT DATASETS CREATED     *****
***** (REGION, CACSMPL, MHS)                      *****
***** NOTE:  7/10/2000 USE CONUS FOR MHS          *****
***** NOTE:  THERE ARE 8 VARIABLES AND 8 GROUPS   *****
*****************************************************;

%MACRO A_SUDAAN(TABLEVAR);

*** SET THE NUMBER OF LEVELS IN THE PROC DESCRIPT ***;
*** FOR REGION OR CATCHMENT                       ***;

 %IF %UPCASE(&TABLEVAR)=XREGION %THEN %DO;
     %LET ENDNUM=&REGNUM;
     %LET PREF=R;         /** DATASET PREFIX FOR REGION DATA    **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=CACSMPL %THEN %DO;
     %LET ENDNUM=&CATCHNUM;
     %LET PREF=C;         /** DATASET PREFIX FOR CATCHEMENT AREA DATA **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=CONUS %THEN %LET PREF=M;

 %DO I=1 %TO &GRPNUM;     /** 8 GROUPS    **/

     %DO J=1 %TO &COMPNUM;   /** 8 VARIABLES **/

         DATA INDATA&I.&J(KEEP=&WGT MHS CONUS XREGION CACSMPL
                               NUMV&J DENV&J TMP_CELL);
           SET HCSDB;
           WHERE XREGION > 0 AND BGROUP=&I AND DENV&J > 0;
           %IF %UPCASE(&TABLEVAR)=CONUS %THEN %DO;
               IF CONUS NE 1 THEN DELETE;  /* DON'T INCLUDE ALL MHS */
           %END;
         RUN;

*** CALCULATE VALUES FOR REGIONS, CATCHMENT AREAS ****;

         %IF %UPCASE(&TABLEVAR) NE CONUS %THEN %DO;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUMV&J;
                TABLES &TABLEVAR;
                SUBGROUP &TABLEVAR;
                LEVELS &ENDNUM;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
```

```
               FILENAME=&PREF.GRP&I.V&J;
            RUN;

         %END;
         %ELSE %IF %UPCASE(&TABLEVAR)=CONUS %THEN %DO;

**** NO TABLES, LEVELS, OR SUBGROUPS NEEDED ****;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
               WEIGHT &WGT;
               SETENV DECWIDTH=4;
               NEST TMP_CELL / MISSUNIT;
               VAR NUMV&J;
               OUTPUT SEMEAN/ TABLECELL=DEFAULT
               FILENAME=&PREF.GRP&I.V&J;
            RUN;

         %END;

***** FIRST, PUT ALL VARIABLES INTO ONE DATASET FOR EACH GROUP *****;

         DATA &PREF.GRP&I.V&J;
            SET &PREF.GRP&I.V&J;
            IF SEMEAN NE .;
            MHS=1;
            %IF %UPCASE(&TABLEVAR)=CONUS %THEN %DO;
                CONUS=1;
            %END;
         RUN;

         %IF &J=1 %THEN %DO;
            DATA &PREF.SEGRP&I;
               SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
               GROUP=&I;
               IF SEMEAN NE .;
               RENAME SEMEAN = SERRV&J;
            RUN;
         %END;
         %ELSE %DO;
            DATA &PREF.SEGRP&I;
               MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
               BY &TABLEVAR;
               GROUP=&I;
               RENAME SEMEAN = SERRV&J;
            RUN;
         %END;
     %END;

***** PUT ALL DATA INTO ONE DATASET  *****
***** NOTE:  CHANGED OUTPUT DATASET  *****
***** TO INCLUDE GROUP               *****;

     %IF &I=1 %THEN %DO;

        DATA &PREF.SERR;
           SET &PREF.SEGRP&I;
           KEEP GROUP &TABLEVAR SERRV1-SERRV&COMPNUM;
        RUN;
     %END;
     %ELSE %DO;

        DATA &PREF.SERR;
           SET &PREF.SERR
           &PREF.SEGRP&I;
        RUN;
     %END;

******** DEBUG PRINT   *******;

     %IF &DEBUG=Y %THEN %DO;
        %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
             PROC PRINT DATA=&PREF.SERR;
                VAR &TABLEVAR GROUP SERRV1-SERRV&COMPNUM;
             RUN;
```

```
      %END;
    %END;

%END;

%MEND A_SUDAAN;

%A_SUDAAN (CONUS);
%A_SUDAAN (XREGION);
**%A_SUDAAN (CACSMPL);

*****************************************************
*** NEXT, CALCULATE CORRELATION COEFFICIENTS         ***
*** AND CREATE A FILE FOR EACH ANALYTICAL UNIT       ***
*****************************************************;

%MACRO GETCORR(BYVAR);

%IF %UPCASE(&BYVAR)=XREGION %THEN %LET PREF=R;
%ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=C;
%ELSE %IF %UPCASE(&BYVAR)=CONUS %THEN %LET PREF=M;

PROC SORT DATA=HCSDB; BY &BYVAR;
RUN;

%DO I = 1 %TO &GRPNUM;

   PROC CORR NOPRINT DATA=HCSDB OUTP=&PREF.CORRC&I;
      %IF %UPCASE(&BYVAR)=CONUS %THEN %DO;
         WHERE BGROUP=&I AND CONUS = 1;
      %END;
      %ELSE %DO;
         WHERE BGROUP=&I;
      %END;
      BY &BYVAR;
      VAR PRVVAR1-PRVVAR&COMPNUM;
      WITH PRVVAR1-PRVVAR&COMPNUM;
      WEIGHT &WGT;
   RUN;

   DATA &PREF.CORRC&I;
     SET &PREF.CORRC&I;
     WHERE _TYPE_="CORR";
     GROUP=&I;
     ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
     ARRAY NEW CORV1-CORV&COMPNUM;
     DO J = 1 TO &COMPNUM;
        NEW(J)=OLD(J);
     END;
     DROP J PRVVAR1-PRVVAR&COMPNUM;
   RUN;

   %IF &I=1 %THEN %DO;

      DATA &PREF.CORRC;
        SET &PREF.CORRC&I;
      RUN;

   %END;
   %ELSE %DO;

      DATA &PREF.CORRC;
        SET &PREF.CORRC
        &PREF.CORRC&I;
      RUN;

   %END;
   %IF &DEBUG=Y %THEN %DO;
       %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
          PROC PRINT DATA=&PREF.CORRC;
             WHERE GROUP=1;
          RUN;
       %END;
   %END;
```

```
 %END;

*** FLATTEN DATASET(FOR EACH REGION, CONDENSE MATRIX TO ONE ROW) ***;

 %DO K=1 %TO &COMPNUM;

    DATA &PREF.CORR&K;
      SET &PREF.CORRC;
      WHERE _NAME_ = "PRVVAR&K";
      ARRAY CORR   (&COMPNUM) CORV1-CORV&COMPNUM;
      ARRAY CORR&K (&COMPNUM) CORV&K.1-CORV&K.&COMPNUM;
      DO L=1 TO &COMPNUM;
         CORR&K(L)=CORR(L);
      END;
      KEEP GROUP &BYVAR CORV&K.1-CORV&K.&COMPNUM;
    RUN;
    %IF &K=1 %THEN %DO;
        DATA &PREF.CORR;
          SET &PREF.CORR&K;
        RUN;
    %END;
    %ELSE %DO;
       DATA &PREF.CORR;
         MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
          BY GROUP &BYVAR;
       RUN;
    %END;
    %IF &DEBUG=Y %THEN %DO;
       %IF &PREF=R %THEN %DO;
          PROC PRINT DATA=&PREF.CORR;
             WHERE GROUP=1;
          RUN;
       %END;
     %END;
 %END;

%MEND GETCORR;

%GETCORR(CONUS);
%GETCORR(XREGION);
**%GETCORR(CACSMPL);

*******************************************************
***  MACRO TO DERIVE COMPOSITES FOR EACH         *******
***  BENEFICIARY GROUP, LEVEL                    *******
***  OUTPUT ONE DATASET FOR EACH GROUP           *******
*******************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XREGION %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=CONUS %THEN %LET PREF=M;


 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR NUMV1-NUMV&COMPNUM
        DENV1-DENV&COMPNUM;
    WEIGHT &WGT;
    OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
    SUM =  ;
 RUN;

 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR DENV1-DENV&COMPNUM;
    OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
    SUM= NOBSV1-NOBSV&COMPNUM;
 RUN;

 DATA &PREF.CMPSUM;
```

```
   MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS))
         &PREF.DGFR;
   BY BGROUP &BYVAR;
   %IF &PREF=M %THEN %DO;  /** ADDED 7/10/2000 **/
       WHERE CONUS=1;
   %END;

   **** SET UP GROUP VARIABLE  **;

    RENAME BGROUP=GROUP;;

   **** SET UP PROPORTIONS, AND COMPOSITES **;

   ARRAY PROPORT PROPV1-PROPV&COMPNUM;
   ARRAY NUMER   NUMV1-NUMV&COMPNUM;
   ARRAY DENOM   DENV1-DENV&COMPNUM;

   DO J=1 TO DIM(PROPORT);
      PROPORT(J) = NUMER(J)/DENOM(J);
   END;
   DROP J;

  **** COMPOSITES **;

   %DO Q=1 %TO &COMPCNT;
       %IF &Q=1 %THEN %DO;
           CPNUM&Q.=SUM(OF NUMV1-NUMV&CMPNUM1);
           CPDEN&Q.=SUM(OF DENV1-DENV&CMPNUM1);
           CPOBS&Q.=SUM(OF NOBSV1-NOBSV&CMPNUM1);
       %END;
       %ELSE %DO;
           CPNUM&Q.=SUM(OF NUMV&START-NUMV&COMPNUM);
           CPDEN&Q.=SUM(OF DENV&START-DENV&COMPNUM);
           CPOBS&Q.=SUM(OF NOBSV&START-NOBSV&COMPNUM);
       %END;
       COMP&Q.=CPNUM&Q./CPDEN&Q.;
  %END;

** ADDED GOALVARS TO DATASTEP, 5/30/2000                ;
** TAKEN OUT OF TEMPORARY ARRAY FOR VARIANCE CALCULATIONS;
** AND USED, KEPT AS VARIABLES                          ;

  GOALVAR1=&GOALVAR1;
  GOALVAR2=&GOALVAR2;
  GOALVAR3=&GOALVAR3;
  GOALVAR4=&GOALVAR4;
  GOALVAR5=&GOALVAR5;
  GOALVAR6=&GOALVAR6;
  GOALVAR7=&GOALVAR7;
  GOALVAR8=&GOALVAR8;

** THE WEIGHT FOR PREVENTIVE SERVICE IS DEFINED AS THE        ;
** PROPORTION OF THE DENOMINATOR FOR THAT SERVICE TO THE      ;
;
** COMPOSITE DENOMINATOR                                      ;
** HEALTHY PEOPLE 2000 GOALS -- USED AS BENCHMARKS            ;

  ARRAY   SVCWGT(&COMPNUM) WGTV1-WGTV&COMPNUM;
  ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
  ARRAY WGTBMARK(&COMPNUM) WTDV1-WTDV&COMPNUM;

  DO K = 1 TO &COMPNUM;
      IF K < &START THEN SVCWGT(K)= DENOM(K)/CPDEN1;
      ELSE SVCWGT(K) = DENOM(K)/CPDEN2;
      WGTBMARK(K) = SVCWGT(K)*BMARK(K);
  END;
  DROP K;
  CPBMK1=SUM(OF WTDV1-WTDV&CMPNUM1);
  CPBMK2=SUM(OF WTDV&START-WTDV&COMPNUM);
  DROP WGTV1-WGTV&COMPNUM WTDV1-WTDV&COMPNUM
       NUMV1-NUMV&COMPNUM;
 RUN;

 %IF &DEBUG=Y AND &PREF=R %THEN %DO;
```

```
     PROC PRINT DATA=&PREF.CMPSUM;  /* PRINT OUT FINAL DATASET */
     RUN;                            /* FOR REGION TO CHECK     */
 %END;

%MEND GETPROP;

%GETPROP(CONUS);
%GETPROP(XREGION);
**%GETPROP(CACSMPL);

*****************************************************
** SINCE MHS BENCHMARKS WILL BE DISPLAYED           ****
** SET UP ADJUSTMENT FACTOR TO APPLY TO             ****
** EACH ANALYTICAL UNIT'S COMPOSITE BENCHMARKS      ****
*****************************************************;


DATA ADJUST;
   SET MCMPSUM(KEEP=GROUP CPBMK1 CPBMK2);
   WHERE GROUP=8;           /** USE ALL BENEFICIARIES **/
   RENAME CPBMK1=MHSBM1;
   RENAME CPBMK2=MHSBM2;
   DROP GROUP;
RUN;

**** SIMPLE MACRO ADDED TO GET ADJUSTED COMPOSITE SCORES ****
**** FOR REGION AND CATCHMENT TO BE DISPLAYED IN REPORT  ****
**** CARDS                                               ****;

%MACRO ADJUST(FILE,LEVEL);

  DATA &FILE;
    IF _N_=1 THEN SET  ADJUST;
                  SET  &FILE;
    %DO Z=1 %TO &COMPCNT;
        /*%IF &LEVEL=CONUS %THEN %DO;
            ADJCP&Z.=1;
            CSCOR&Z=COMP&Z.*ADJCP&Z.*100;
        %END;
        %ELSE %DO;*/
            ADJCP&Z.= MHSBM&Z./CPBMK&Z.;
            CSCOR&Z=COMP&Z.*ADJCP&Z.*100;
        /*%END;*/
    %END;
  RUN;

%MEND ADJUST;

%ADJUST(MCMPSUM,CONUS)
%ADJUST(RCMPSUM,REG);
**%ADJUST(CCMPSUM,CAT);

*****************************************************
***  MACRO TO MERGE 3 DATASETS FOR EACH          *******
***  CALLED BY ANALYTICAL UNIT                   *******
***  OUTPUT FINAL DATASET FOR                    *******
***  REGION, CATCHMENT, MHS                      *******
*****************************************************;

%MACRO GETSIG(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);
 %LET NEXT  = %EVAL(&CMPNUM1+2);

 %IF &BYVAR=XREGION %THEN %LET PREF=R;
 %ELSE %IF &BYVAR=CACSMPL %THEN %LET PREF=C;
 %ELSE %IF &BYVAR=CONUS %THEN %LET PREF=M;

 DATA OUT.&PREF.FINAL(KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
               SIGV1-SIGV&COMPNUM SCORV1-SCORV&COMPNUM
               CPSIG1-CPSIG&COMPCNT CP1SE CP2SE
               CSCOR1-CSCOR&COMPCNT CPBMK1-CPBMK&COMPCNT
               SERRV1-SERRV&COMPNUM CP1SE CP2SE
               COMP1 COMP2 PROPV1-PROPV&COMPNUM
```

```
            DFSCR1-DFSCR&COMPNUM DF_CP1 DF_CP2
            NOBSV1-NOBSV&COMPNUM CPOBS1-CPOBS&COMPCNT
            DENV1-DENV&COMPNUM CPDEN1-CPDEN&COMPCNT);

  FORMAT MAJGRP $30. REGION $15. REGCAT $26.;
  %IF &PREF=C %THEN %DO;
      MERGE OBSCNT(IN=IN_OBS) &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
      &PREF.SERR;
      BY GROUP &BYVAR;
      IF IN_OBS;
  %END;
  %ELSE %DO;
      MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
      &PREF.SERR;
      BY GROUP &BYVAR;
      IF IN_PROP;
  %END;

**  MAJGRP -- TEXT FIELD FOR GROUP   **;
  IF      GROUP=1 THEN MAJGRP="PRIME ENROLLEES           ";
  ELSE IF GROUP=2 THEN MAJGRP="ENROLLEES WITH MILITARY PCM";
  ELSE IF GROUP=3 THEN MAJGRP="ENROLLEES WITH CIVILIAN PCM";
  ELSE IF GROUP=4 THEN MAJGRP="NON-ENROLLED BENEFICIARIES ";
  ELSE IF GROUP=5 THEN MAJGRP="ACTIVE DUTY                ";
  ELSE IF GROUP=6 THEN MAJGRP="ACTIVE DUTY DEPENDENTS     ";
  ELSE IF GROUP=7 THEN MAJGRP="RETIREES AND DEPENDENTS    ";
  ELSE IF GROUP=8 THEN MAJGRP="ALL BENEFICIARIES          ";

**** REGION AND REGCAT SETUP          **;
  %IF &PREF=C %THEN %DO;
      REGCAT=PUT(CACSMPL, CATREP.);
      REGION=PUT(XREGION, REGIONF.);
  %END;
  %ELSE %IF &PREF=R %THEN %DO;
      REGION=PUT(XREGION, REGIONF.);
      REGCAT=PUT(XREGION, REGIONF.);
  %END;
  %ELSE %DO;
      REGION="CONUS MHS";
      REGCAT="CONUS MHS";
  %END;

 **** SETUP T STATISTICS, DEGREEES OF FREEDOM    **;
  ARRAY    TSTAT{&COMPNUM} T_V1-T_V&COMPNUM;
  ARRAY    BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
  ARRAY  STNDERR{&COMPNUM} SERRV1-SERRV&COMPNUM;
  ARRAY  SERRSQR{&COMPNUM} SESQV1-SESQV&COMPNUM;
  ARRAY     DEGF{&COMPNUM} DFSCR1-DFSCR&COMPNUM;
  ARRAY    DENOM{&COMPNUM} DENV1-DENV&COMPNUM;
  ARRAY  PROPORT{&COMPNUM} PROPV1-PROPV&COMPNUM;
  ARRAY    SCORE{&COMPNUM} SCORV1-SCORV&COMPNUM;
  ARRAY   PVALUE{&COMPNUM} PVALV1-PVALV&COMPNUM;
  ARRAY      SIG{&COMPNUM} SIGV1-SIGV&COMPNUM;
  ARRAY     NOBS{&COMPNUM} NOBSV1-NOBSV&COMPNUM;

 ** GET THE ITEM VARIANCE, T-STATISTICS, DF, P-VALUES **;
 ** AND WHETHER SIGNIFICANT                          **;
  DO I=1 TO &COMPNUM;
      SERRSQR{I}=STNDERR{I}**2;  /* ITEM VARIANCE */
      SCORE{I}=PROPORT{I}*100;   /* SCORE (PROP. * 100) */
      IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
      ELSE TSTAT{I}=.;
      DEGF{I}=NOBS{I}-1;
      PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
      IF PVALUE{I} GE .05 THEN SIG{I}=0;
      ELSE IF PVALUE{I} < .05 THEN DO;
          IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
          IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
      END;
  END;
  DROP I;

 ** MULTIPLY EACH ITEM PAIR STD. ERRORS AND CORRELATION COEFFICIENTS **;
 ** PREVENTIVE CARE COMPOSITE                                       **;
```

```
  ARRAY SEWC1{&CMPNUM1} SEWV1-SEWV&CMPNUM1;

    ARRAY SERRC1{&CMPNUM1} SERRV1-SERRV&CMPNUM1;
    %DO J = 1 %TO &CMPNUM1;
        ARRAY  SMEAN&J{&CMPNUM1} SEMV&J.1-SEMV&J.&CMPNUM1;
        ARRAY CORVAR&J{&CMPNUM1} CORV&J.1-CORV&J.&CMPNUM1;
        DO K=1 TO &CMPNUM1;
            SMEAN&J{K}=SERRV&J*SERRC1{K}*CORVAR&J{K}*DENOM{K}*DENV&J;
        END;
        SEMV&J.&J=0;
         SEWV&J= (DENV&J**2)*SESQV&J;/** DON'T COUNT IN FINAL STANDARD ERROR CALCULATION **/
    %END;
    DROP K;
   ** MULTIPLY EACH ITEM PAIR STD. ERRORS AND CORRELATION COEFFICIENTS **;
   ** ACCESS TO CARE COMPOSITE                                        **;

    ARRAY SERRC2{&CMPNUM2} SERRV&START-SERRV&COMPNUM;
    %DO L = &START %TO &COMPNUM;
        ARRAY  SMEAN&L{&CMPNUM2} SEMV&L.&START-SEMV&L.&COMPNUM;
        ARRAY CORVAR&L{&CMPNUM2} CORV&L.&START-CORV&L.&COMPNUM;
        DO M=1 TO &CMPNUM2;
            SMEAN&L{M}=SERRV&L*SERRC2{M}*CORVAR&L{M};
        END;
        SEMV&L.&L=0;  /** DON'T COUN'T IN FINAL STANDARD ERROR CALCULATION **/
    %END;
    DROP M;
   ** CALCULATE COMPOSITE T-STATISTIC, PVALUE, AND WHETHER SIGNIFICANT **;
   ** FOR COMPOSITES                                                  **;

    %DO P=1 %TO &COMPCNT;
        %IF &P=1 %THEN %DO;
        ** COMPOSITE STANDARD ERROR COMPRISED OF TWO PARTS **;
            CP&P.SE1=SUM(OF SEWV1-SEWV&CMPNUM1);
            CP&P.SE2=SUM(OF SEMV11-SEMV&CMPNUM1.&CMPNUM1.);
        %END;
        %ELSE %DO;
            CP&P.SE1=SUM(OF SESQV&START-SESQV&COMPNUM);
            CP&P.SE2=SUM(OF SEMV&START.&START.-SEMV&COMPNUM.&COMPNUM.);
        %END;

   ** ADD THE TWO PARTS OF THE COMPOSITE STANDARD ERROR  **;
   ** CALCULATE THE COMPOSITE T STATISTICS AND P-VALUES  **;
   ** DETERMINE WHETHER DIFFERENCES ARE SIGIFICANT       **;

        CP&P.SE=SQRT(CP&P.SE2+CP&P.SE1)/CPDEN&P;
        IF CP&P.SE > 0 THEN CP_T&P.=(COMP&P.-CPBMK&P.)/CP&P.SE;
        ELSE CP_T&P.= .;
        DF_CP&P.=CPOBS&P. - 1;
        CP_P&P.=(1-PROBT(ABS(CP_T&P.),DF_CP&P.))*2;
        IF CP_P&P GE .05 THEN CPSIG&P=0;
        ELSE IF CP_P&P < .05 THEN DO;
            IF COMP&P. > CPBMK&P THEN CPSIG&P= 1;
            ELSE IF COMP&P. < CPBMK&P THEN CPSIG&P=-1;
        END;
    %END;

    OUTPUT OUT.&PREF.FINAL;
 RUN;

%MEND GETSIG;

%GETSIG(CONUS);
%GETSIG(XREGION);
**%GETSIG(CACSMPL);

ENDSAS;

*************************************************************************
*
*  PROJECT:   DOD REPORTING AND ANALYSIS 8860-410
*  PROGRAM:   LOADMPRQ.SAS
*  PURPOSE:   CALCULATE MPR PREVENTIVE CARE COMPOSITES
*  DATE:      4/07/2000
*  AUTHOR:    CHRIS RANKIN
```

```
*
*  MODIFIED:  1) 05-08-2001 BY KEITH RATHBUN, ADDED SEMEAN TO LOADMPRQ.SD2
*                TO ACCOMMODATE THE SHORT REPORTS.  CONDENSED SOME CODE.
*             2) 07-15-2002 BY MIKE SCOTT, CHANGED PERIOD TO = "APRIL, 2001
*                TO MARCH, 2002".
*
*   INPUT:    RFINAL.SD2
*             CFINAL.SD2
*             MFINAL.SD2
*
*   OUTPUT:   LOADMPRQ.SD2
*
*************************************************************************;

OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2;

LIBNAME   INLIB V612 ".";
LIBNAME   OUT   V612 ".";
LIBNAME   LIBRARY    "..\..\..\DATA\AFINAL\FMTLIB";

%LET COMPNUM=8; /*** NUMBER OF QUESTIONS IN BOTH COMPOSITES ***/
%LET CMPNUM1=4; /*** NUMBER OF QUESTIONS IN FIRST COMPOSITE ***/

%LET PERIOD=OCTOBER, 2001 TO SEPTEMBER, 2002;   /* Q4 2002 */
%INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

************************************************************;
*** NOTE -- TAKE OUT ACCESS TO CARE QUESTIONS AND COMPOSITE ***;
************************************************************;

DATA MFINAL(KEEP=CPBMK1);
  SET INLIB.MFINAL(KEEP=MAJGRP CPBMK1);
  WHERE MAJGRP="ALL BENEFICIARIES";
RUN;

DATA MFINAL;
  IF _N_=1 THEN SET MFINAL;
  SET INLIB.MFINAL(DROP=CPBMK1) ;
RUN;

************************;
***** BENCHMARKS       **;
************************;

DATA BENCHMKS(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE SCORE SIG);
     FORMAT   MAJGRP  $30. REGION  $15. REGCAT $26.
              BENEFIT $34. BENTYPE $50.;
  SET MFINAL;

  ARRAY BENCHMK{*} GOALVAR1-GOALVAR&CMPNUM1 CPBMK1;
  DO I = 1 TO 5;
     SCORE   = BENCHMK{I}*100;
     SIG     = .;
     REGION  = "BENCHMARK";
     REGCAT  = "BENCHMARK";
     BENEFIT = "PREVENTIVE CARE";
     IF      I = 1 THEN BENTYPE = "PRENATAL CARE";
     ELSE IF I = 2 THEN BENTYPE = "MAMMOGRAPHY";
     ELSE IF I = 3 THEN BENTYPE = "PAP SMEAR";
     ELSE IF I = 4 THEN BENTYPE = "HYPERTENSION";
     ELSE IF I = 5 THEN BENTYPE /*= "FLU SHOT";
     ELSE IF I = 6 THEN BENTYPE*/ = "&PERIOD";
     OUTPUT;
  END;
  DROP I;
RUN;

DATA BENCHMKS;
  SET BENCHMKS;
  OUTPUT;
  IF MAJGRP = "ALL BENEFICIARIES" THEN DO;
     DO REG = 0 TO 16; DROP REG;
        IF REG NE 7 THEN DO;
           MAJGRP = "BENCHMARK";
```

```
           REGION = PUT(REG,REGIONF.);
           REGCAT = PUT(REG,REGIONF.);
           OUTPUT;
        END;
     END;
  END;
RUN;

PROC FREQ DATA=BENCHMKS;
   TABLES MAJGRP/MISSING LIST;
RUN;

************************;
*****  SCORES          **;
************************;

DATA SCORES(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE SCORE SEMEAN SIG N_OBS N_WGT);
     FORMAT MAJGRP $30.  REGION $15. REGCAT $26.
            BENEFIT $34. BENTYPE $50.;
  SET INLIB.MFINAL
      INLIB.RFINAL;


  ARRAY SEMEANS{*} SERRV1-SERRV&CMPNUM1.  CP1SE ;
  ARRAY  SCORES{*} SCORV1-SCORV&CMPNUM1.  CSCOR1;
  ARRAY  SIGNIF{*} SIGV1-SIGV&CMPNUM1.    CPSIG1;
  ARRAY   NOBS {*} NOBSV1-NOBSV&CMPNUM1.  CPOBS1;
  ARRAY   NWGT {*} DENV1-DENV&CMPNUM1     CPDEN1;

  DO I = 1 TO 5;
     SCORE   = SCORES{I};
     SEMEAN  = SEMEANS{I};
     SIG     = SIGNIF{I};
     N_OBS   = NOBS{I};
     N_WGT   = NWGT{I};
     BENEFIT = "PREVENTIVE CARE";
     IF      I = 1 THEN BENTYPE = "PRENATAL CARE";
     ELSE IF I = 2 THEN BENTYPE = "MAMMOGRAPHY";
     ELSE IF I = 3 THEN BENTYPE = "PAP SMEAR";
     ELSE IF I = 4 THEN BENTYPE = "HYPERTENSION";
     ELSE IF I = 5 THEN BENTYPE/* = "FLU SHOT";
     ELSE IF I = 6 THEN BENTYPE*/ = "&PERIOD";
     OUTPUT;
  END;
RUN;


DATA OUT.LOADMPRQ(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE SCORE SEMEAN SIG
                       N_OBS N_WGT);
  SET BENCHMKS SCORES;
RUN;
```

5. MERGE THE FINAL QUARTERLY CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT (QUARTERLY)

5A. GENERATE WEB LAYOUT FOR THE 2002 TRICARE CONSUMER REPORTS (QUARTERLY)

```
*************************************************************************
* PROJECT:  DOD Quarterly Survey, Consumer Reports (8860-410)
* PROGRAM:  FAKEQ.SAS
* PURPOSE:  Generate Fake Data for Report Cards
* AUTHOR:   Mark A. Brinkley
*
* MODIFIED: 1) July 2000 By Eric Schone to utilize CACRPT and CATREP
*              include files.
*           2) February 2001 By Keith Rathbun - More updates for
*              Quarterly report card format.  Made FAKE datastep into
*              a macro to handle multiple quarters.  Added QTR and
*              PERIOD parameters.
*           3) July 2001 By Mark Brinkley - Updated for
*              Quarterly 2 reports
*           4) April 2002 By Keith Rathbun - Updated DSN and %LET
*              statements for 2002 reports and added TREND records.
*              Removed Flu Shot.
*           5) July 2002 By Mike Scott - Updated DSN and %LET statements
*              for Q2 2002 reports.
*
* INCLUDES: 1) CACRPT.INC - Report Card Catchment Definitions
*           2) CATREP.INC - Report Card Catchment Format Defns
*
*************************************************************************;
%LET NUMQTR = 4;
%LET PERIOD1 = January, 2001 to December, 2001;    /* Q4 2002 */
%LET PERIOD2 = April, 2001 to March, 2002;         /* Q4 2002 */
%LET PERIOD3 = July, 2001 to June, 2002;           /* Q4 2002 */
%LET PERIOD4 = October, 2001 to September, 2002;   /* Q4 2002 */

LIBNAME OUT V612 ".";
LIBNAME IN  V612 "..\..\data\afinal";
OPTIONS COMPRESS=YES NOFMTERR;

************************************************************************
* CREATE TEMPORARY DATASET FOR RECODING CACSMPL TO BE COLLAPSED FOR
* REPORT CARD PURPOSES
* FOR QUARTERLY REPORTS CATCHMENT LEVEL REPORTING IS NOT DONE
* AND THEREFORE THE VALUE OF CELLP IS SET TO 1
* FOR ANNUAL REPORTING PURPOSES
* CELLP WILL NEED TO BE ASSIGNED TO GEOCELL (KEEP GEOCELL ON INPUT)
************************************************************************;

DATA TEMP;
   SET IN.HCS024_1(KEEP=XREGION);   /* Q4 2002 */
   CELLP=1;
   ***********************************************************************
   * CALCULATE CACSMPL FOR REPORT CARD BASED ON CELLP
   ***********************************************************************;
   %INCLUDE "CACRPT.INC";
RUN;

************************************************************************
* CACSMPL FORMAT DEFINITIONS FOR REPORT CARD
************************************************************************;
PROC FORMAT;
%INCLUDE "CATREP.INC";

PROC FORMAT;
   VALUE REG
       1  = 'Region 1'
       2  = 'Region 2'
       3  = 'Region 3'
       4  = 'Region 4'
       5  = 'Region 5'
       6  = 'Region 6'
       7  = 'Region 7/8'
       9  = 'Region 9'
       10 = 'Region 10'
       11 = 'Region 11'
```

```
       12 = 'Region 12'
       13 = 'Europe'
       14 = 'Asia'
       15 = 'Latin America'
       16 = 'Alaska';
RUN;

proc freq;
table xregion*cacsmpl/ noprint out=temp;
data temp;
length cafmt $26;
set temp end=last; by xregion;
caf=0;
where cacsmpl ne 9999;
if first.xregion & xregion ne 8 then do; cafmt=put(xregion,reg.); output; end;
cafmt=put(cacsmpl,catrep.); caf=1; if count>60 & cafmt ne 'INV' then output;
if last then do;
xregion=0; caf=0; cafmt='Benchmark'; output; caf=1; cafmt='CONUS MHS'; output;
end;
proc sort; by xregion caf cafmt;
data temp;
set temp end=last;

start=_n_; label=cafmt; type='N'; fmtname='ROWMAT';
if last then call symput('x',_n_);
proc format cntlin=temp;
proc print data=temp;

PROC FORMAT;



  VALUE BEN
  0 = 'Total'    /*** 12-13 MAB ***/
  1 = 'Getting Needed Care'
  2 = 'Getting Care Quickly'
  3 = 'Courteous and Helpful Office Staff'
  4 = 'How Well Doctors Communicate'
  5 = 'Customer Service'
  6 = 'Claims Processing'
  7 = 'Health Plan'
  8 = 'Health Care'
  9 = 'Primary Care Manager'
 10 = 'Specialty Care'
 11 = 'Preventive Care';

  VALUE MAJOR
  1 = "Prime Enrollees            "
  2 = "Enrollees with Military PCM"
  3 = "Enrollees with Civilian PCM"
  4 = "Non-enrolled Beneficiaries "
  5 = "Active Duty                "
  6 = "Active Duty Dependents     "
  7 = "Retirees and Dependents    "
  8 = "All Beneficiaries          " ;

RUN;



%MACRO FAKE;
DATA FAKE;

  KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE I K;

  LENGTH MAJGRP $  30
         REGION $  15
         REGCAT $  26
         BENTYPE $ 50;



  DO I=1 TO 8;             ** 8 Major groups **;
```

```
MAJGRP=PUT(I,MAJOR.);

DO J=1 TO &x;        ** Region/catchment **;

REGCAT=PUT(J,ROWMAT.);
RETAIN REGION;

IF REGCAT="Benchmark" THEN REGION="Benchmark";
ELSE IF REGCAT="CONUS MHS" THEN REGION="CONUS MHS";
ELSE IF UPCASE(SUBSTR(REGCAT,1,6))="REGION" OR
        REGCAT="Alaska" OR
        REGCAT="Europe" OR
        REGCAT="Asia" OR
        REGCAT="Latin America" THEN REGION=REGCAT;


   DO K=0 TO 11;      ** 12 Benefits **;  /*** 12-13 MAB ***/

     BENEFIT=PUT(K,BEN.);

     IF K=0 THEN DO;               /*** 12-13 MAB ***/
         %DO Q = &NUMQTR %TO &NUMQTR;
             BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
         %END;
     END;
     ELSE IF K=1 THEN DO;
         BENTYPE="Problems Getting Personal Doctor/Nurse"; OUTPUT;
         BENTYPE="Problems Getting Referral to Specialist"; OUTPUT;
         BENTYPE="Problems Getting Necessary Care"; OUTPUT;
         BENTYPE="Delays in Care while Awaiting Approval"; OUTPUT;
         %DO Q = 1 %TO &NUMQTR;
             BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
         %END;
         BENTYPE="Trend"; OUTPUT;
     END;
     ELSE IF K=2 THEN DO;
         BENTYPE="Advice over Telephone"; OUTPUT;
         BENTYPE="Wait for Routine Visit"; OUTPUT;
         BENTYPE="Wait for Urgent Care"; OUTPUT;
         BENTYPE="Wait More than 15 Minutes Past Appointment"; OUTPUT;
         %DO Q = 1 %TO &NUMQTR;
             BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
         %END;
         BENTYPE="Trend"; OUTPUT;
     END;
     ELSE IF K=3 THEN DO;
         BENTYPE="Courteous and Respectful"; OUTPUT;
         BENTYPE="Helpful"; OUTPUT;
         %DO Q = 1 %TO &NUMQTR;
             BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
         %END;
         BENTYPE="Trend"; OUTPUT;
     END;
     ELSE IF K=4 THEN DO;
         BENTYPE="Listens Carefully             "; OUTPUT;
         BENTYPE="Explains so You can Understand"; OUTPUT;
         BENTYPE="Shows Respect                 "; OUTPUT;
         BENTYPE="Spends Time with You          "; OUTPUT;
         %DO Q = 1 %TO &NUMQTR;
             BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
         %END;
         BENTYPE="Trend"; OUTPUT;
     END;
     ELSE IF K=5 THEN DO;
         BENTYPE="Problem Finding/Understanding Written Material"; OUTPUT;
         BENTYPE="Problem Getting Help from Customer Service"; OUTPUT;
         BENTYPE="Problem with Paperwork"; OUTPUT;
         %DO Q = 1 %TO &NUMQTR;
             BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
         %END;
         BENTYPE="Trend"; OUTPUT;
     END;
     ELSE IF K=6 THEN DO;
         BENTYPE="Claims Handled in a Reasonable Time"; OUTPUT;
```

```
            BENTYPE="Claims Handled Correctly"; OUTPUT;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
            %END;
            BENTYPE="Trend"; OUTPUT;
        END;
        ELSE IF K=7 THEN DO;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
            %END;
            BENTYPE="Trend"; OUTPUT;
        END;
        ELSE IF K=8 THEN DO;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
            %END;
            BENTYPE="Trend"; OUTPUT;
        END;
        ELSE IF K=9 THEN DO;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
            %END;
            BENTYPE="Trend"; OUTPUT;
        END;
        ELSE IF K=10 THEN DO;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
            %END;
            BENTYPE="Trend"; OUTPUT;
        END;
        ELSE IF K=11 THEN DO;
            BENTYPE="Mammography  "; OUTPUT;
            BENTYPE="Pap Smear    "; OUTPUT;
            BENTYPE="Hypertension "; OUTPUT;
            BENTYPE="Prenatal Care"; OUTPUT;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
            %END;
            BENTYPE="Trend"; OUTPUT;
        END;
      END;
    END;
  END;
RUN;
%MEND FAKE;
%FAKE;


/*** 12-13 MAB ***/
/*** Since quarterly files won't have catchment level data then delete ***/
DATA FAKE;
  SET FAKE;
  IF REGION=REGCAT;
RUN;

/*** 12-13 MAB ***/
/*** Need to create single benchmarks for ALL major groups ***/
DATA EXTRA;
  SET FAKE;
  IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
  MAJGRP="Benchmark";
RUN;
/*** Combine extra data with fake ***/
DATA FAKE;
  SET EXTRA FAKE;
RUN;



/*** Assign score and sig values ***/
DATA FAKE;
  SET FAKE;

  /*** significance is either -1, 0, or 1 ***/
```

```
  SIG = INT(RANUNI(1)*3)-1;



  /*** These BENEFITs have range 1.00-3.00 ***/
  IF BENEFIT='Getting Needed Care' THEN SCORE = (RANUNI(1)*2)+1;
  IF BENEFIT='Getting Care Quickly' THEN SCORE = (RANUNI(1)*2)+1;
  IF BENEFIT='Courteous and Helpful Office Staff' THEN SCORE = (RANUNI(1)*2)+1;
  IF BENEFIT='How Well Doctors Communicate'   THEN SCORE = (RANUNI(1)*2)+1;
  IF BENEFIT='Customer Service' THEN SCORE = (RANUNI(1)*2)+1;
  IF BENEFIT='Claims Processing' THEN SCORE = (RANUNI(1)*2)+1;

  /*** These BENEFITs have range 0-100 ***/
  IF BENEFIT='Health Plan' THEN SCORE = INT(RANUNI(1)*100);
  IF BENEFIT='Health Care' THEN SCORE = INT(RANUNI(1)*100);
  IF BENEFIT='Primary Care Manager' THEN SCORE = INT(RANUNI(1)*100);
  IF BENEFIT='Specialty Care' THEN SCORE = INT(RANUNI(1)*100);
  IF BENEFIT='Preventive Care'  THEN SCORE = INT(RANUNI(1)*100);

  /*** Trend is always range 0-100 ***/
  IF BENTYPE="Trend" THEN SCORE = INT(RANUNI(1)*100);



  /*** Even though fake data, need to have benchmarks near high end of range ***/
  IF REGCAT="Benchmark" THEN DO;
      /*** These BENEFITs have range 1.00-3.00 ***/
      IF BENEFIT='Getting Needed Care' THEN SCORE = (RANUNI(1)*1)+2;
      IF BENEFIT='Getting Care Quickly' THEN SCORE = (RANUNI(1)*1)+2;
      IF BENEFIT='Courteous and Helpful Office Staff' THEN SCORE = (RANUNI(1)*1)+2;
      IF BENEFIT='How Well Doctors Communicate'   THEN SCORE = (RANUNI(1)*1)+2;
      IF BENEFIT='Customer Service' THEN SCORE = (RANUNI(1)*1)+2;
      IF BENEFIT='Claims Processing' THEN SCORE = (RANUNI(1)*1)+2;

      /*** These BENEFITs have range 0-100 ***/
      IF BENEFIT='Health Plan' THEN SCORE = INT(RANUNI(1)*10)+90;
      IF BENEFIT='Health Care' THEN SCORE = INT(RANUNI(1)*10)+90;
      IF BENEFIT='Primary Care Manager' THEN SCORE = INT(RANUNI(1)*10)+90;
      IF BENEFIT='Specialty Care' THEN SCORE = INT(RANUNI(1)*10)+90;
      IF BENEFIT='Preventive Care'  THEN SCORE = INT(RANUNI(1)*10)+90;

      /*** Trend is always range 0-100 ***/
      IF BENTYPE="Trend" THEN SCORE = INT(RANUNI(1)*10)+90;
  END;
  ELSE SCORE=85;  /*** 12-13 MAB ***/

RUN;



/*** Need to clean up data ***/
DATA OUT.FAKEQ;
  SET FAKE;

  /*** Need to set oddball records to missing ***/
  IF REGION="Benchmark" THEN SIG=.;
  if region=''|compress(regcat)='.' then delete;

  /*** Don't populate catchment areas for 4 major groups ***/
  *IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;         /*** 12-13 MAB ***/

  DROP I K;

RUN;


PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT SIG;
RUN;

PROC MEANS N MIN MAX MEAN;
  VAR SCORE;
RUN;
```

```
ENDSAS;
```

5B. MERGE THE FINAL QUARTERLY CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT (QUARTERLY)

```
*************************************************************************
*
* PROGRAM:  MERGFINQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKEQ.SD2.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from MERGFINL.SAS.
*
* INPUTS:   1) MPR and CAHPS Individual and Composite data sets with adjusted
*              scores, and benchmark data for quarterly DoD HCS.
*              - LOADMPRQ.SD2 - MPR Scores Database
*              - LOADCAHQ.SD2 - CAHPS Scores Database
*              - BENCHA04.SD2 - 2001 CAHPS Benchmark Database
*              - FAKEQ.SD2    - WEB Layout in Column order
*
* OUTPUT:   1) MERGFINQ.SD2 - Combined Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED: 1) 07/15/2002 by Mike Scott: Updated libnames for Q2 2002.
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*  - STEP1Q.SAS      - Recode questions and generate CAHPS group files
*  - STEP2Q.SAS      - Calculate CAHPS individual adjusted scores for groups 1-7
*  - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*  - PRVCOMPQ.SAS    - Calculate MPR individual and composite scores
*  - BENCHA01-04.SAS - Convert 2000 Benchmark Scores into WEB layout
*  - LOADCAHQ.SAS    - Convert Quarterly CAHPS Scores Database into WEB layout
*  - LOADMPRQ.SAS    - Convert Quarterly MPR Scores Database into WEB layout
*
* 2) The output file (MERGFINQ.SD2) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN1 v612 ".";
LIBNAME IN2 v612 "CAHPS_ADULTQ42002\DATA";           /* Q4 2002 */
LIBNAME IN3 v612 "..\REPORTCARDS\MPR_ADULTQ42002";   /* Q4 2002 */
LIBNAME IN4 v612 "..\BENCHMARK\DATA";
LIBNAME OUT v612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

%INCLUDE "LOADCAHQ.INC";

*************************************************************************
* Construct ORDERing variable from WEB layout
*************************************************************************;
DATA ORDER;
   SET IN1.FAKEQ;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   KEEP KEY ORDER;
RUN;

proc print data=order;
run;

PROC SORT DATA=ORDER; BY KEY; RUN;

*************************************************************************
* Merge the Scores Databases
*************************************************************************;
DATA MERGFINQ;
```

```
   SET IN2.LOADCAHQ(IN=INCAHPQ)
       IN3.LOADMPRQ(IN=INMPRQ )
       IN4.BENCHA04(IN=INBENQ );
   SVCAHPQ = INCAHPQ;
   SVMPRQ  = INMPRQ;
   SVBENQ  = INBENQ;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   OUTPUT;
   IF INBENQ THEN DO;
      IF MAJGRP = "All Beneficiaries" THEN DO;
         DO REG = 0 TO 16; DROP REG;
            IF REG NE 7 THEN DO;
               MAJGRP = "Benchmark";
               REGION = PUT(REG,REGIONF.);
               REGCAT = PUT(REG,REGIONF.);
               KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                     UPCASE(TRIM(MAJGRP))  ||
                     UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
               OUTPUT;
            END;
         END;
      END;
   END;
   IF SCORE = . THEN DELETE;

RUN;

PROC SORT DATA=MERGFINQ; BY KEY; RUN;

proc print data=mergfinq;
run;

*************************************************************************
* Append ORDERing variable to the merged Scores database file
*************************************************************************;
DATA MERGFINQ MISSING;
   MERGE MERGFINQ(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHPQ = 1 THEN SOURCE = "CAHPS     ";
   IF SVMPRQ  = 1 THEN SOURCE = "MPR       ";
   IF SVBENQ  = 1 THEN SOURCE = "BENCHMARK ";

   IF IN1 AND NOT IN2 THEN OUTPUT MISSING; *Missing from layout;
   IF IN1 THEN OUTPUT MERGFINQ;
RUN;

*************************************************************************
* Reorder file according to WEB layout
*************************************************************************;
PROC SORT DATA=MERGFINQ OUT=OUT.MERGFINQ; BY ORDER; RUN;

DATA FAKEQ;
   SET IN1.FAKEQ;
   ORDER = _N_;
RUN;

DATA LAYONLY;
   MERGE FAKEQ(IN=IN1) OUT.MERGFINQ(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: MERGFINQ.SAS By Keith Rathbun";
```

```
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINQ.SD2 - Merged Final Scores Database for input to MAKEHTML.SAS";

TITLE5 "MERGFINQ.SD2 Data source counts";
PROC FREQ DATA=OUT.MERGFINQ;
TABLES SOURCE FLAG SVCAHPQ SVMPRQ SVBENQ
                   SVCAHPQ*SVMPRQ*SVBENQ
      /MISSING LIST;
RUN;

TITLE5 "MERGFINQ.SD2 Data attribute counts";
PROC FREQ DATA=OUT.MERGFINQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "LAYONLY.SD2 Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKEQ.SD2)";
PROC PRINT DATA=MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

6. GENERATE CAHPS CONUS SCORES AND PERFORM SIGNIFICANCE TESTS (QUARTERLY)

```
*************************************************************************
*
*  PROGRAM:  CONUS_Q.SAS
*  TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
*  PURPOSE:  GENERATE CAHPS CONUS SCORES AND PERFORM SIGNIFICANCE TESTS.
*
*  WRITTEN:  11/13/2000 BY KEITH RATHBUN, ADAPTED FROM CONUS_A.SAS.
*            MERGED SIGNIF_A.SAS FUNTIONALITY.
*
*  MODIFIED: 1) 04/10/2002 BY KEITH RATHBUN, UPDATE FOR 2002 SURVEY:
*               CHANGED CODE TO PROCESS 4 ROLLING QUARTERS.
*            2) 04/30/2002 BY ERIC SCHONE, TO CALCULATE & TEST TREND.
*            3) 07/17/2002 BY MIKE SCOTT, UPDATED %LET STATEMENTS FOR
*               Q2 2002.
*
*   INPUTS:  1) MERGFINQ.SD2 - SCORES DATABASE IN WEB LAYOUT
*            2) FAKEQ.SD2 - SCORES DATABASE WEB LAYOUT
*            3) CONUS_Q.SD2 - PREVIOUS QUARTERS' COMBINED CAHPS/MPR SCORES DATABASE IN WEB LAYOUT
*
*   OUTPUT:  1) CONUS_Q.SD2 - COMBINED CAHPS/MPR SCORES DATABASE IN WEB LAYOUT
*            2) LT30Q.SD2 - RECORDS WITH <= 30 OBSERVATIONS
*
*    NOTES:
*
* 1) THE FOLLOWING STEPS NEED TO BE RUN PRIOR TO THIS PROGRAM:
*    - STEP1Q.SAS   - RECODE QUESTIONS AND GENERATE GROUP FILES
*    - STEP2Q.SAS   - CALCULATE INDIVIDUAL ADJUSTED SCORES FOR GROUP 1-7
*    - COMPOSIT.SAS - CALCULATE COMPOSITE ADJUSTED SCORES FOR GROUP 1-8
*    - MERGFINQ.SAS - MERGE THE FINAL CAHPS AND MPR SCORES DATABASES
*
*************************************************************************
* ASSIGN DATA LIBRARIES AND OPTIONS
*************************************************************************;
LIBNAME IN1 V612 ".";
LIBNAME OUT V612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************;
* DEFINE GLOBAL PARAMETERS FOR LAST CONUSQ.SD2, ROLLING QUARTERS, AND
* INPUT DATASET NAME.
*
* IMPORTANT: UPDATE THESE GLOBALS EACH QUARTER PRIOR TO RERUNNING PROGRAM.
*************************************************************************;
%LET LSTCONUS = ..\..\..\Q3_2002T\LOADWEB;
%LET PERIOD1  = JANUARY, 2001 TO DECEMBER, 2001;    /* Q4 2002 */
%LET PERIOD2  = APRIL, 2001 TO MARCH, 2002;         /* Q4 2002 */
%LET PERIOD3  = JULY, 2001 TO JUNE, 2002;           /* Q4 2002 */
%LET PERIOD4  = OCTOBER, 2001 TO SEPTEMBER, 2002;   /* Q4 2002 */
%LET DSN      = MERGFINQ;

*************************************************************************;
* SET UP EMPTY TEMPLATE FILE FOR DATA MERGE PURPOSES AND SET FIRST TIME FLAG
*************************************************************************;
DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;
%LET FLAG = 0;
*************************************************************************
*
* PROCESS MACRO INPUT PARAMETERS:
*
* 1) BENTYPE = BENEFIT TYPE
* 2) MAJGRP = MAJOR GROUP
* 3) TYPE = INDIVIDUAL OR COMPOSITE
* 4) BENEFIT = COMPOSITE BENEFIT TYPE
*
*************************************************************************;
%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
   SET IN1.&DSN END=FINISHED;
   %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
```

```
      WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
            REGION NOT IN("BENCHMARK","CONUS MHS") AND
            REGCAT NOT IN("BENCHMARK","CONUS MHS");
   %END;
   %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
      WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
            BENEFIT = "&BENEFIT" AND
            REGION NOT IN("BENCHMARK","CONUS MHS") AND
            REGCAT NOT IN("BENCHMARK","CONUS MHS");
   %END;
   %ELSE %DO;
      PUT "ERROR: INVALID TYPE = &TYPE";
   %END;
RUN;

DATA TEMP;
   SET TEMP END=FINISHED;
      LENGTH KEY $200;
   IF _N_ = 1 THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;
   ************************************************************************
   * SKIP OVER THE NON-CONUS
   ************************************************************************;
   IF REGION NOT IN("ASIA","EUROPE","LATIN AMERICA") THEN DO;
      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;
   END;
   IF FINISHED THEN GOTO FINISHED;
   RETURN;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;

FINISHED:
   SCORE   = SUMSCOR1/SUMWGT1;
   SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
   N_OBS   = N_OBS1;
   N_WGT   = SUMWGT1;
   SOURCE  = "CONUS";
   FLAG    = "CONUS";
   REGION  = "CONUS MHS";
   REGCAT  = "CONUS MHS";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   OUTPUT;
RUN;

%IF &FLAG = 0 %THEN %DO;
   DATA FINAL;
      SET INIT TEMP;
   RUN;
%END;
%ELSE %DO;
   DATA FINAL;
      SET FINAL TEMP;
   RUN;
%END;
%LET FLAG = 1;

%MEND;

************************************************************************
* CREATE CONUS FOR ACTIVE DUTY - INDIVIDUAL
************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                        ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                      ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME           ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                      ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL        ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                       ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                             ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                        ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE               ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE        ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST       ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                 ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                          ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                          ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT    ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                        ,MAJGRP=ACTIVE DUTY,
TYPE=INDIVIDUAL);

*************************************************************************
* CREATE CONUS FOR ACTIVE DUTY DEPENDENTS - INDIVIDUAL
*************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                         ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                      ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME           ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                      ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL        ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                       ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                             ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                        ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE               ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE        ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST       ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                 ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                          ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                          ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT    ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                        ,MAJGRP=ACTIVE DUTY DEPENDENTS,
TYPE=INDIVIDUAL);

*************************************************************************
* CREATE CONUS FOR ENROLLEES WITH CIVILIAN PCM - INDIVIDUAL
*************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                         ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                      ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME           ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                      ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL        ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                       ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                             ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                        ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE               ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE        ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST       ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                 ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                          ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                          ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT    ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                        ,MAJGRP=ENROLLEES WITH CIVILIAN
PCM, TYPE=INDIVIDUAL);

*************************************************************************
* CREATE CONUS FOR ENROLLEES WITH MILITARY PCM - INDIVIDUAL
*************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                         ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                      ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME           ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                      ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL        ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                       ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                             ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                        ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE               ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
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%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE        ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST       ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                 ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                          ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                          ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT    ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                        ,MAJGRP=ENROLLEES WITH MILITARY
PCM, TYPE=INDIVIDUAL);

************************************************************************
* CREATE CONUS FOR NON-ENROLLED BENEFICIARIES - INDIVIDUAL
************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                         ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                      ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME           ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                      ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL        ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                       ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                             ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                        ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE               ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE        ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST       ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                 ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                          ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                          ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT    ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                        ,MAJGRP=NON-ENROLLED
BENEFICIARIES, TYPE=INDIVIDUAL);

************************************************************************
* CREATE CONUS FOR PRIME ENROLLEES - INDIVIDUAL
************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                         ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                      ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME           ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                      ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL        ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                       ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
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```
%PROCESS(BENTYPE=LISTENS CAREFULLY                              ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                         ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE                ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE         ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST        ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                  ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                           ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                           ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT     ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                         ,MAJGRP=PRIME ENROLLEES,
TYPE=INDIVIDUAL);

************************************************************************
* CREATE CONUS FOR RETIREES AND DEPENDENTS - INDIVIDUAL
************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                          ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                       ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME            ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                       ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL         ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND                 ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                        ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                              ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE    ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                         ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE                ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE         ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST        ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                  ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                           ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                           ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT     ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                         ,MAJGRP=RETIREES AND DEPENDENTS,
TYPE=INDIVIDUAL);

************************************************************************
* CREATE CONUS FOR ALL BENEFICIARIES - INDIVIDUAL
************************************************************************;
%PROCESS(BENTYPE=ADVICE OVER TELEPHONE                          ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=CLAIMS HANDLED CORRECTLY                       ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=CLAIMS HANDLED IN A REASONABLE TIME          ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=COURTEOUS AND RESPECTFUL                     ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=DELAYS IN CARE WHILE AWAITING APPROVAL       ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=EXPLAINS SO YOU CAN UNDERSTAND               ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=HELPFUL                                      ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=LISTENS CAREFULLY                            ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM FINDING/UNDERSTANDING WRITTEN MATERIAL,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM GETTING HELP FROM CUSTOMER SERVICE   ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEM WITH PAPERWORK                       ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING NECESSARY CARE              ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING PERSONAL DOCTOR/NURSE       ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=PROBLEMS GETTING REFERRAL TO SPECIALIST      ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SHOWS RESPECT                                ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=SPENDS TIME WITH YOU                         ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR URGENT CARE                         ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT MORE THAN 15 MINUTES PAST APPOINTMENT   ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=WAIT FOR ROUTINE VISIT                       ,MAJGRP=ALL BENEFICIARIES,
TYPE=INDIVIDUAL);

*************************************************************************
* PROCESS QUARTERLY CONUS COMPOSITES
*************************************************************************
*************************************************************************
* CREATE CONUS FOR CLAIMS PROCESSING - QUARTERLY
*************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY               , TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES           , TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS   , TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES         , TYPE=COMPOSITE,BENEFIT=CLAIMS
PROCESSING);

*************************************************************************
* CREATE CONUS FOR COURTEOUS AND HELPFUL OFFICE STAFF - QUARTERLY
*************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY               , TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES           , TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
```

```
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=COURTEOUS
AND HELPFUL OFFICE STAFF);

************************************************************************
* CREATE CONUS FOR CUSTOMER SERVICE - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=CUSTOMER
SERVICE);

************************************************************************
* CREATE CONUS FOR GETTING CARE QUICKLY - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=GETTING
CARE QUICKLY);

************************************************************************
* CREATE CONUS FOR GETTING NEEDED CARE - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=GETTING
NEEDED CARE);

************************************************************************
* CREATE CONUS FOR HEALTH CARE - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
```

```
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=HEALTH
CARE);

************************************************************************
* CREATE CONUS FOR HEALTH PLAN - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=HEALTH
PLAN);

************************************************************************
* CREATE CONUS FOR HOW WELL DOCTORS COMMUNICATE - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=HOW WELL
DOCTORS COMMUNICATE);

************************************************************************
* CREATE CONUS FOR PRIMARY CARE MANAGER - QUARTERLY
************************************************************************;
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY                , TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS     , TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES            , TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES          , TYPE=COMPOSITE,BENEFIT=PRIMARY
CARE MANAGER);

************************************************************************
* CREATE CONUS FOR SPECIALTY CARE - QUARTERLY
************************************************************************;
```

```
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY               , TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ACTIVE DUTY DEPENDENTS    , TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH CIVILIAN PCM, TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ENROLLEES WITH MILITARY PCM, TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=NON-ENROLLED BENEFICIARIES , TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=PRIME ENROLLEES           , TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=RETIREES AND DEPENDENTS   , TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);
%PROCESS(BENTYPE="&PERIOD4", MAJGRP=ALL BENEFICIARIES         , TYPE=COMPOSITE,BENEFIT=SPECIALTY
CARE);

*************************************************************************
* EXTRACT ORDER AND KEY FROM THE WEB LAYOUT FILE.  TEMPQ WILL BE USED
* AS PLACE HOLDERS FOR MISSING RECORDS.  FAKEQ WILL BE USED FOR ADDING
* NEW RECORDS.
*************************************************************************;
DATA FAKEQ;
   SET IN1.FAKEQ;
     LENGTH KEY $200;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));

RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

*************************************************************************
* APPEND BENCHMARK RECORDS TO CAHPS RECORDS AND PERFORM SIGNIFICANCE TESTS
*************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
   SET IN1.&DSN;
   WHERE REGION = "BENCHMARK" AND SVMPRQ = 0;
RUN;
DATA ABNCHMRK(KEEP=BENEFIT BENTYPE ASCORE);
SET BENCHMRK;
WHERE UPCASE(MAJGRP)='ALL BENEFICIARIES';
RENAME SCORE=ASCORE;
PROC SORT; BY BENEFIT BENTYPE;
PROC SORT DATA=BENCHMRK; BY BENEFIT BENTYPE;
DATA BENCHMRK;
MERGE BENCHMRK ABNCHMRK; BY BENEFIT BENTYPE;
PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA CONUS_Q;
   MERGE FINAL(IN=IN1) FAKEQ(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE; RUN;

*************************************************************************
* PERFORM SIGNIFICANCE TESTS FOR CONUS SCORES
*************************************************************************;
DATA SIGTEST1;
   MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   LENGTH KEY $200;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
```

```
   REGION = "CONUS MHS";
   REGCAT = "CONUS MHS";

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   SOURCE = "CONUS_Q";
   FLAG   = "CONUS_Q";
   IF SIN;
   SCORE=SCORE+ASCORE-BSCORE;
RUN;
PROC SORT DATA=SIGTEST1; BY KEY; RUN;

*************************************************************************
* EXTRACT CAHPS SCORES TO PERFORM SIGNIFICANCE TESTS
*************************************************************************;
DATA CAHPS MPR BENCH;
   SET IN1.&DSN;
   ***********************************************************************
   * SIGNIFICANCE TESTS HAVE ALREADY BEEN PERFORMED FOR MPR SCORES,
   * SO REMOVE FROM FILE.
   ***********************************************************************;
   IF SVMPRQ = 1 THEN OUTPUT MPR;
   IF SVMPRQ = 0 THEN DO;
    IF MAJGRP NE 'BENCHMARK' THEN OUTPUT CAHPS;
    ELSE OUTPUT BENCH; END;
RUN;


PROC SORT DATA=CAHPS;
   BY MAJGRP BENEFIT BENTYPE;
RUN;

*************************************************************************
* PERFORM SIGNIFICANCE TESTS FOR CAHPS SCORES
*************************************************************************;
DATA SIGTEST2;
   MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
   SCORE=SCORE+ASCORE-BSCORE;
   RUN;
PROC SORT DATA=BENCH; BY MAJGRP BENEFIT BENTYPE;
DATA SIGTEST2;
SET SIGTEST2 BENCH; BY MAJGRP BENEFIT BENTYPE;
PROC SORT DATA=SIGTEST2; BY KEY; RUN;

*************************************************************************
* WHEN NOT 1ST QUARTER: GET RECORDS FROM PREVIOUS QUARTERS
*************************************************************************;
%MACRO LASTQTR;
   ***********************************************************************
   * INPUT COMPOSITE RECORDS FROM PREVIOUS QUARTERS.
   ***********************************************************************;
   LIBNAME IN2 "&LSTCONUS";
   DATA LASTQTR;
      SET IN2.CONUS_Q;
      IF BENTYPE IN ("&PERIOD1","&PERIOD2","&PERIOD3") AND
        (REGION = REGCAT) AND
         BENEFIT IN ("GETTING NEEDED CARE",
                     "GETTING CARE QUICKLY",
                     "HOW WELL DOCTORS COMMUNICATE",
                     "COURTEOUS AND HELPFUL OFFICE STAFF",
                     "CUSTOMER SERVICE",
                     "CLAIMS PROCESSING",
                     "HEALTH CARE",
                     "HEALTH PLAN",
                     "PRIMARY CARE MANAGER",
                     "SPECIALTY CARE",
```

```
                    "PREVENTIVE CARE") & BENTYPE NOT IN ("TREND","FLU SHOT");

   RUN;
%MEND LASTQTR;
%LASTQTR;
PROC SORT DATA=LASTQTR(DROP=ORDER); BY KEY; RUN;

DATA LASTQTR;
   MERGE TEMPQ(IN=IN1) LASTQTR(IN=IN2);
   BY KEY;
   IF IN1 AND IN2;
RUN;

PROC SORT DATA=MPR; BY KEY; RUN;

*************************************************************************
* COMBINE PREVIOUSLY CREATED RECORDS WITH THE NEW FILE
*************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 LASTQTR MPR;
   BY KEY;
                    IF BENTYPE="&PERIOD1" THEN PERIOD=1;
                    IF BENTYPE="&PERIOD2" THEN PERIOD=2;
                    IF BENTYPE="&PERIOD3" THEN PERIOD=3;
                    IF BENTYPE="&PERIOD4" THEN PERIOD=4;
   ********************************************************************
   * REMOVE N_OBS < 30 OR N_WGT < 200
   ********************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "BENCHMARK") AND
      (REGION NE "BENCHMARK")
      THEN OUTPUT OUT.LT30Q;
                      ELSE OUTPUT COMBINE;
RUN;
DATA TREND;
SET COMBINE;
WHERE PERIOD NE .;
IF PERIOD<4|BENEFIT="PREVENTIVE CARE" THEN SCORE=SCORE/100;

PROC SORT DATA=TREND;
BY MAJGRP REGION REGCAT BENEFIT PERIOD;

DATA AVG(KEEP=MAJGRP REGION REGCAT BENEFIT T_OBS A_PERIOD A_SCORE TWGT) ;
SET TREND;   BY MAJGRP REGION REGCAT BENEFIT PERIOD;
IF MAJGRP="BENCHMARK"|REGION="BENCHMARK" THEN N_WGT=1;
IF FIRST.MAJGRP|FIRST.REGION|FIRST.REGCAT|FIRST.BENEFIT THEN DO;
T_OBS=0;
T_SCORE=0;
TWGT=0;
T_PERIOD=0;
END;
T_OBS+N_OBS;
T_SCORE+N_WGT*SCORE;
TWGT+N_WGT;
T_PERIOD+PERIOD*N_WGT;
 IF LAST.MAJGRP|LAST.REGION|LAST.REGCAT|LAST.BENEFIT THEN DO;
A_SCORE=T_SCORE/TWGT;

A_PERIOD=T_PERIOD/TWGT;
OUTPUT;
END;

DATA TREND(DROP=SCORE) BTREND(KEEP=MAJGRP BENEFIT TREND SERR);
MERGE TREND AVG;  BY MAJGRP REGION REGCAT BENEFIT;
IF MAJGRP="BENCHMARK"|REGION="BENCHMARK" THEN N_WGT=1;
IF FIRST.MAJGRP|FIRST.REGION|FIRST.REGCAT|FIRST.BENEFIT THEN DO;
T_SCORE=0;
T_SE=0;
T_PERIOD=0;
END;
T_SE+((N_WGT**2)*(SEMEAN**2));
T_SCORE+N_WGT*(SCORE-A_SCORE)*(PERIOD-A_PERIOD);
T_PERIOD+N_WGT*(PERIOD-A_PERIOD)**2;
IF LAST.MAJGRP|LAST.REGION|LAST.REGCAT|LAST.BENEFIT THEN DO;
TREND=T_SCORE/T_PERIOD;
```

```
SERR=SQRT(T_SE/(T_PERIOD*TWGT));


IF REGION="BENCHMARK"|MAJGRP="BENCHMARK" THEN OUTPUT BTREND;
OUTPUT TREND;
END;
PROC SORT DATA=TREND; BY MAJGRP BENEFIT;
PROC SORT DATA=BTREND; BY MAJGRP BENEFIT;
DATA TREND(RENAME=(TREND=SCORE));
MERGE TREND BTREND(RENAME=(TREND=BTREND SERR=BSERR));
BY MAJGRP BENEFIT;
   LENGTH KEY $200;
IF ^(REGION="BENCHMARK"|MAJGRP="BENCHMARK") THEN DO;
TTREND=TREND-BTREND;
SERR=SQRT((SERR**2)+(BSERR**2));
SIG=0;
TEST= 2*(1-PROBT(ABS(TTREND/SERR),T_OBS));
IF TEST<.05 THEN SIG=1;
IF SIG=1 & TTREND<0 THEN SIG=-1;
END;
BENTYPE="TREND";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
         IF BENEFIT="PREVENTIVE CARE" THEN DO;
         SIG=0;
         TREND=.A;
 END;
PROC SORT DATA=TREND(DROP=T_OBS TWGT A_SCORE A_PERIOD T_SCORE T_SE T_PERIOD SERR
 BSERR BTREND TTREND ORDER); BY KEY;
 DATA TREND ;
 MERGE TREND(IN=DIN) FAKEQ(IN=CIN); BY KEY;
 IF DIN;

DATA COMBINE;
SET COMBINE TREND;
PROC SORT; BY KEY;
DATA COMBINE DUPE;
SET COMBINE; BY KEY;
IF ^(FIRST.KEY & LAST.KEY) THEN OUTPUT DUPE;
OUTPUT COMBINE;
PROC PRINT DATA=DUPE;




*************************************************************************
* CREATE PLACE HOLDERS FOR MISSING RECORDS
*************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;

RUN;

*************************************************************************
* COMBINE ALL OF THE MISSING RECORDS WITH THE EXISTING RECORDS TO GENERATE
* THE COMPLETE WEB LAYOUT FILE.
*************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE;
   BY KEY;
   ************************************************************************
   * CONVERT CAHPS COMPOSITES AND INDIVIDUAL TO 1-100 SCALE
   ************************************************************************;
   IF BENEFIT NE "PREVENTIVE CARE" AND
      BENTYPE NE "&PERIOD1" AND
      BENTYPE NE "&PERIOD2" AND
      BENTYPE NE "&PERIOD3"
      THEN SCORE = SCORE*100;
RUN;
```

```
PROC SORT DATA=CONUS_Q OUT=OUT.CONUS_Q; BY ORDER; RUN;

TITLE1 "QUARTERLY DOD HEALTH SURVEY SCORES/REPORT CARDS (8860-410)";
TITLE2 "PROGRAM NAME: CONUS_Q.SAS BY KEITH RATHBUN";
TITLE3 "PROGRAM INPUTS: MERGFINQ.SD2 - SCORES DATABASE IN WEB LAYOUT";
TITLE4 "PROGRAM OUTPUTS: CONUS_Q.SD2 - CONUS SCORES DATABASE IN WEB LAYOUT";

PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

7. CALCULATE CAHPS TOTAL SCORES AND CONDUCT SIGNIFICANCE TEST (QUARTERLY)

```
*************************************************************************
*
*  PROGRAM:  TOTAL_Q.SAS
*  TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
*  PURPOSE:  GENERATE TOTAL SCORES AND PERFORM SIGNIFICANCE TESTS.
*
*  WRITTEN:  12/15/2000 BY KEITH RATHBUN
*
*  MODIFIED: 1) MAY 2001 BY ERIC SCHONE, MODIFIED CALCULATIONS FOR
*               TOTAL SCORE.
*            2) JULY 2002 BY MIKE SCOTT, UPDATED PERIOD FOR Q2 2002 SURVEY.
*            3) FEBRUARY 2003 BY MIKE SCOTT, ADDED CODE TO CHANGE "PRIMARY CARE
*               MANAGER" IN BENEFIT TO "PERSONAL DOCTOR".
*
*   INPUTS:  1) CONUS_Q.SD2 - SCORES DATABASE IN WEB LAYOUT
*            2) FAKEQ.SD2 - SCORES DATABASE WEB LAYOUT
*            3) FACTCOMP.SD2 - TOTAL SCORES (PART 1)
*
*   OUTPUT:  1) TOTAL_Q.SD2 - COMBINED CAHPS/MPR/TOTAL SCORES DATABASE IN WEB LAYOUT
*
*    NOTES:
*
* 1) THE FOLLOWING STEPS NEED TO BE RUN PRIOR TO THIS PROGRAM:
*    - STEP1Q.SAS   - RECODE QUESTIONS AND GENERATE GROUP FILES
*    - STEP2Q.SAS   - CALCULATE INDIVIDUAL ADJUSTED SCORES FOR GROUP 1-8
*    - COMPOSIT.SAS - CALCULATE COMPOSITE ADJUSTED SCORES FOR GROUP 1-8
*    - MERGFINQ.SAS - MERGE THE FINAL CAHPS AND MPR SCORES DATABASES
*    - CONUS_Q.SAS  - GENERATE CAHPS CONUS SCORES AND PERFORM SIGNIFICANCE TESTS.
*    - FACTCOMP.SAS - CALCULATE TOTAL SCORES (PART 1)
*
*************************************************************************
* ASSIGN DATA LIBRARIES AND OPTIONS
*************************************************************************;
LIBNAME IN1 V612 ".";
LIBNAME OUT V612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************;
* DEFINE GLOBAL PARAMETERS FOR CURRENT QUARTER REFERENCE PERIOD AND
* INPUT DATASET NAME.
*
* IMPORTANT: UPDATE THE PERIOD PARAMETER EACH QUARTER PRIOR TO RERUNNING
* THIS PROGRAM.
*************************************************************************;
%LET PERIOD = OCTOBER, 2001 TO SEPTEMBER, 2002;   /* Q4 2002 */
%LET DSN = CONUS_Q;

DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;

PROC SORT DATA=IN1.FACTCOMP OUT=FACTCOMP; BY LAB; RUN;

PROC CONTENTS DATA=INIT;
TITLE 'CONUS_Q';
RUN;

PROC CONTENTS DATA=FACTCOMP;
TITLE 'FACTCOMP';
RUN;

*************************************************************************;
* SET FIRST TIME FLAG FOR EMPTY FILE CREATION PURPOSES.
*************************************************************************;
%LET FLAG = 0;

*************************************************************************
*************************************************************************
*
* PROCESS MACRO INPUT PARAMETERS:
*
```

```
* 1) MAJGRP = MAJOR GROUP
* 2) REGION = REGION
*
*************************************************************************;
%MACRO PROCESS(MAJGRP=, REGION=);
DATA TEMP(DROP=SUMSCOR1 SUMWGT1 SUMSE2) TSIG(KEEP=BENEFIT SCORE);
   SET IN1.&DSN;
   WHERE (("&MAJGRP" = MAJGRP OR MAJGRP="ALL BENEFICIARIES") AND
          ("&REGION" = REGION OR REGION = "CONUS MHS") AND
          "&PERIOD" = BENTYPE AND
           BENEFIT NE 'TOTAL');
IF MAJGRP="&MAJGRP" THEN OUTPUT TEMP;
IF REGION="CONUS MHS" & MAJGRP="ALL BENEFICIARIES" THEN OUTPUT TSIG;
RUN;
 DATA TSIG(DROP=SCORE);
 SET TSIG;
   SIGMA=SQRT(SCORE*(100-SCORE));
 PROC SORT; BY BENEFIT;
 PROC SORT DATA=TEMP; BY BENEFIT REGION;
 DATA TEMP;
 MERGE TEMP TSIG; BY BENEFIT;
 RETAIN CSORE SWGT 0;
 IF FIRST.BENEFIT & REGION='CONUS MHS' THEN DO;
 CSORE=SCORE; SWGT=N_WGT; END;
 PROC SORT; BY BENEFIT DESCENDING REGION;
 DATA TEMP(DROP=TSORE);
 SET TEMP; BY BENEFIT;
 RETAIN TSORE TWGT 0;
 IF FIRST.BENEFIT & REGION='CONUS MHS' THEN DO;
 TSORE=SCORE ;
 TWGT=N_WGT;
 END;
  IF REGION="&REGION" THEN DO;
  IF LAST.BENEFIT THEN DO;
   CSORE=TSORE; SWGT=TWGT; END;

  OUTPUT;
  END;

PROC SORT; BY BENEFIT; RUN;

DATA TEMP;
   MERGE TEMP FACTCOMP(RENAME=(LAB=BENEFIT)); BY BENEFIT;
   IF BENEFIT='PREVENTIVE CARE' THEN VAR=1/11;
RUN;

DATA TEMP;
   SET TEMP END=FINISHED;
   IF _N_ = 1 THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
      TSIG=0; RETAIN TSIG;
   END;
   IF SCORE  NE . AND N_WGT NE . AND N_OBS>29 THEN
    SUMSCOR1 = SUMSCOR1 + (VAR/SIGMA)*(SCORE);
    ELSE SUMSCOR1=SUMSCOR1+(VAR/SIGMA)*(CSORE);
    IF N_WGT NE . THEN SUMWGT1  = SUMWGT1  + VAR*N_WGT;
    TSIG=TSIG+SIGMA;
   IF SEMEAN NE . AND N_WGT NE . & N_OBS>29 THEN SUMSE2 = SUMSE2 + (VAR*SEMEAN)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;
   IF FINISHED THEN GOTO FINISHED;
   RETURN;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;

FINISHED:
   SCORE   = TSIG*SUMSCOR1/(11);
   SEMEAN  = SQRT(SUMSE2);
   N_OBS   = N_OBS1;
   N_WGT   = SUMWGT1;
```

```
   SOURCE  = "TOTAL";
   FLAG    = "TOTAL";
   BENEFIT = "TOTAL";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   OUTPUT;
RUN;
*******************************************************************************;
* SET UP EMPTY OR APPEND RECORDS TO TEMPLATE FILE.
*******************************************************************************;
%IF &FLAG = 0 %THEN %DO;
   DATA FINAL;
      SET INIT TEMP;
   RUN;
%END;
%ELSE %DO;
   DATA FINAL;
      SET FINAL TEMP;
   RUN;
%END;

%LET FLAG = 1;

%MEND PROCESS;

*******************************************************************************
* CREATE TOTAL FOR ACTIVE DUTY
*******************************************************************************;
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 1       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 2       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 3       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 4       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 5       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 6       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 7/8     );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 9       );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 10      );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 11      );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=REGION 12      );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=EUROPE         );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=ASIA           );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=LATIN AMERICA  );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=ALASKA         );
%PROCESS(MAJGRP=ACTIVE DUTY, REGION=CONUS MHS      );

*******************************************************************************
* CREATE TOTAL FOR ACTIVE DUTY DEPENDENTS
*******************************************************************************;
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 1           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 2           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 3           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 4           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 5           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 6           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 7/8         );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 9           );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 10          );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 11          );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=REGION 12          );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=EUROPE             );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=ASIA               );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=LATIN AMERICA      );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=ALASKA             );
%PROCESS(MAJGRP=ACTIVE DUTY DEPENDENTS, REGION=CONUS MHS          );

*******************************************************************************
* CREATE TOTAL FOR ENROLLEES WITH CIVILIAN PCM
*******************************************************************************;
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 1      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 2      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 3      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 4      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 5      );
```

```
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 6       );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 7/8     );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 9       );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 10      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 11      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=REGION 12      );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=EUROPE         );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=ASIA           );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=LATIN AMERICA  );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=ALASKA         );
%PROCESS(MAJGRP=ENROLLEES WITH CIVILIAN PCM, REGION=CONUS MHS      );

************************************************************************
* CREATE TOTAL FOR ENROLLEES WITH MILITARY PCM - INDIVIDUAL
************************************************************************;
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 1       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 2       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 3       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 4       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 5       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 6       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 7/8     );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 9       );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 10      );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 11      );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=REGION 12      );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=EUROPE         );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=ASIA           );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=LATIN AMERICA  );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=ALASKA         );
%PROCESS(MAJGRP=ENROLLEES WITH MILITARY PCM, REGION=CONUS MHS      );

************************************************************************
* CREATE TOTAL FOR NON-ENROLLED BENEFICIARIES
************************************************************************;
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 1        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 2        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 3        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 4        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 5        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 6        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 7/8      );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 9        );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 10       );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 11       );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=REGION 12       );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=EUROPE          );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=ASIA            );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=LATIN AMERICA   );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=ALASKA          );
%PROCESS(MAJGRP=NON-ENROLLED BENEFICIARIES, REGION=CONUS MHS       );

************************************************************************
* CREATE TOTAL FOR PRIME ENROLLEES
************************************************************************;
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 1                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 2                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 3                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 4                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 5                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 6                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 7/8                 );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 9                   );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 10                  );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 11                  );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=REGION 12                  );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=EUROPE                     );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=ASIA                       );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=LATIN AMERICA              );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=ALASKA                     );
%PROCESS(MAJGRP=PRIME ENROLLEES, REGION=CONUS MHS                  );

************************************************************************
* CREATE TOTAL FOR RETIREES AND DEPENDENTS
```

```
*************************************************************************;
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 1          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 2          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 3          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 4          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 5          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 6          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 7/8        );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 9          );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 10         );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 11         );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=REGION 12         );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=EUROPE            );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=ASIA              );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=LATIN AMERICA     );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=ALASKA            );
%PROCESS(MAJGRP=RETIREES AND DEPENDENTS, REGION=CONUS MHS         );

************************************************************************
* CREATE TOTAL FOR ALL BENEFICIARIES
*************************************************************************;
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 1                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 2                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 3                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 4                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 5                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 6                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 7/8              );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 9                );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 10               );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 11               );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=REGION 12               );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=EUROPE                  );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=ASIA                    );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=LATIN AMERICA           );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=ALASKA                  );
%PROCESS(MAJGRP=ALL BENEFICIARIES, REGION=CONUS MHS               );

************************************************************************
* EXTRACT ORDER AND KEY FROM THE WEB LAYOUT FILE.  TEMPQ WILL BE USED
* AS PLACE HOLDERS FOR MISSING RECORDS.  FAKEQ WILL BE USED FOR ADDING
* NEW RECORDS.
*************************************************************************;
DATA FAKEQ;
   SET IN1.FAKEQ;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));

RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

************************************************************************
* APPEND BENCHMARK RECORDS TO CAHPS RECORDS AND PERFORM SIGNIFICANCE TESTS
*************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
   SET IN1.&DSN;
   WHERE REGION = "BENCHMARK" AND SVMPRQ = 0;
RUN;
PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA TOTAL_Q;
   MERGE FINAL(IN=IN1) FAKEQ(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=TOTAL_Q; BY MAJGRP BENEFIT BENTYPE; RUN;
```

```
*************************************************************************
* PERFORM SIGNIFICANCE TESTS FOR TOTAL SCORES
*************************************************************************;
DATA SIGTESTS;
   MERGE TOTAL_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;

   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   SOURCE = "TOTAL_Q";
   FLAG   = "TOTAL_Q";
   IF SIN;
RUN;
PROC SORT DATA=SIGTESTS; BY KEY; RUN;

PROC SORT DATA=IN1.&DSN OUT=PREVIOUS; BY KEY; RUN;

*************************************************************************
* COMBINE PREVIOUSLY CREATED RECORDS WITH THE NEW FILE
*************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET PREVIOUS SIGTESTS;
   BY KEY;
   ************************************************************************
   * REMOVE N_OBS < 30 OR N_WGT < 200
   ************************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "BENCHMARK") AND
      (REGION NE "BENCHMARK")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

*************************************************************************
* CREATE PLACE HOLDERS FOR MISSING RECORDS
*************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

*************************************************************************
* COMBINE ALL OF THE MISSING RECORDS WITH THE EXISTING RECORDS TO GENERATE
* THE COMPLETE WEB LAYOUT FILE.
*************************************************************************;
DATA TOTAL_Q;
   SET FAKEONLY COMBINE;
   BY KEY;
   IF BENEFIT = "TOTAL" THEN DO;
      SIG = 0;
      IF REGION = "BENCHMARK" OR MAJGRP = "BENCHMARK" THEN SCORE = .A;
   END;
   IF MAJGRP="ALL BENEFICIARIES" THEN MAJGRP="ALL USERS";
   IF MAJGRP="NON-ENROLLED BENEFICIARIES" THEN MAJGRP="STANDARD/EXTRA USERS";
   IF BENEFIT="PRIMARY CARE MANAGER" THEN BENEFIT="PERSONAL DOCTOR";   /*MJS 02/05/2003*/
RUN;

PROC SORT DATA=TOTAL_Q OUT=OUT.TOTAL_Q; BY ORDER; RUN;

TITLE1 "QUARTERLY DOD HEALTH SURVEY SCORES/REPORT CARDS (8860-410)";
TITLE2 "PROGRAM NAME: TOTAL_Q.SAS BY KEITH RATHBUN";
TITLE3 "PROGRAM INPUTS: FAKEQ.SD2, FACTCOMP.SD2, CONUS_Q.SD2 - CONUS SCORES DATABASE IN WEB
LAYOUT";
TITLE4 "PROGRAM OUTPUTS: TOTAL_Q.SD2 - TOTAL SCORES DATABASE IN WEB LAYOUT";
```

```
PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

8. GENERATE HTML FILE FOR THE 2002 TRICARE CONSUMER REPORTS (QUARTERLY)

```
*===================================================================;
*   Programmer:  Mark A. Brinkley                                   ;
*        Title:  MAKEHTMQ.SAS                                       ;
*       Client:  8687-210                                           ;
*         Date:  06-01-2001                                         ;
*                                                                   ;
*      Purpose:  This program is designed to create                 ;
*                report cards for the 2000 DOD project              ;
*                                                                   ;
*                                                                   ;
*  Input files:  TOTAL_Q.SD2                                        ;
* Output files:  HTML\                                              ;
*                  456*3 F*.HTM Files (Frame version)               ;
*                  456   P*.HTM Files (Printer friendly - no frames);
*                  288   P*.XLS Files (Excel files)                 ;
*                 ------------------                                ;
*                 2112                                              ;
*                                                                   ;
*                                                                   ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!   ;
*                                                                   ;
*     IF YOU MODIFY THIS PROGRAM THEN PLEASE INITIAL AND DOCUMENT   ;
*     YOUR CHANGES.  THOSE FAILING TO DO THIS WILL BE SEVERELY      ;
*     BEATEN.                                                       ;
*                                                                   ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!   ;
*                                                                   ;
*                                                                   ;
*                                                                   ;
* Modifications:                                                    ;
* 11-01-2000 - JSykes added pieces to create Excel Spreadsheets     ;
* 07-01-2001 - MAB modified for qtr 2                               ;
* 10-25-2001 - C.Rankin moved link to printer friendly version      ;
*              from frame, created macro variable to include        ;
*              third row of subbenefit heading                      ;
* 11-01-2001 - D.Beahm changed splitpercent to splitpixel and adjusted;
*              the pixel size of the top frame to prevent scrolling ;
*              she also added a <BR> before the printer icon to make;
*              sure it appears on it's own line                     ;
* 12-21-2001 - D.Beahm changed column widths for frame page a so that;
*              the column headers would line up with the data in frame;
*              page b. Also revised Excel code so benchmarks for the;
*              majorgrp are shaded dark red instead of blue         ;
* 04-18-2002 - Quarterly report cards will now show a rolling 4     ;
*              quarters of data for the trend. DKB updated the period;
*              BENTYPE references to account for this, this will need;
*              to be done each quarter. Also revised footnote       ;
*              to indicate that this is the 2002 Survey of Health Care;
*              Beneficiaries. This reflects a change from previous  ;
*              years, the survey year now refers to the processing  ;
*              year instead of the year for which data was collected.;
*              Also changed image reference from QTR to COL, these  ;
*              new names for the qtr images reflects the column they;
*              are in instead of the quarter they represent         ;
* 06-19-2002 - Mark Brinkley                                        ;
*                 Updated for Q2_2002                               ;
*                 Changed macro var PERIOD to CURRENTPERIOD         ;
*                 Added macro vars PERIOD1-PERIOD3                  ;
* 07-29-2002 - Daniele Beahm                                        ;
*                 Added links to trend pages. Clicking on the fielding;
*                 Period now takes you to the component page for that;
*                 period and clicking on the Trend column header now;
*                 takes you to the Trend section of the help file   ;
* 02-04-2003 - Mike Scott                                           ;
*                 Changed "Primary Care Manager" to "Personal Doctor";
* 02-10-2003 - Mike Scott                                           ;
*                 Inserted LENGTH HREF $ 250 statements before      ;
*                 href = "string" statements so that href wouldn't be;
*                 set by default                                    ;
* 02-14-2003 - Mike Scott                                           ;
*                 Added code to avoid scores > 100                  ;
*===================================================================;
```

```
/*** Change name of macro variable from PERIOD (MAB 6-19-2002) ***/
%LET CURRENTPERIOD = October, 2001 to September, 2002;  /** Current Period of these reports **/
%LET QTRS=4;                                            /** Qtr of these reports    **/


/*** Added macro variables for previous periods (MAB 6-19-2002) ***/
%LET PERIOD1 = January, 2001 to December, 2001;
%LET PERIOD2 = April, 2001 to March, 2002;
%LET PERIOD3 = July, 2001 to June, 2002;


OPTIONS NOXWAIT;        /* 2000/11: added noxwait*/


%LET HTMLSP=%NRSTR( );     /**DANIELE CHANGED %STR( ) TO %NRSTR( )**/
%LET QUOTE=%STR("");
%LET OUTDIR=HTML;                 /** Directory to put HTML files **/
%LET IMGDIR=images;               /** Directory with images **/
%LET TARGET=target='_parent';     /** HTML code for frames targeting **/
%LET OUTXLS=1;                    /** 1=Make XLS file/0=Don't   Added 1-24 MAB **/
%LET fontface=%STR(Arial,Helvetica,Swiss,Geneva);
%LET hdcolr=%STR('white');
%LET BLUE=%STR('#663300');        /** This is really dark red **/
%LET GREEN=%STR('#009933');
%LET RED=%STR('#cc0000');
%LET GRAY=%STR('white');
%LET LOGO=%STR('images\tricare_side_35_new.gif');
%LET HELP_BUT=%STR('images\help75.gif');
%LET HOME_BUT=%STR('images\home75.gif');
%LET BACK_BUT=%STR('images\back75.gif');
%LET NUMBER_HTML_FILES=0;         /** Keep count of HTML files created **/

%LET SUB_HEAD=0;                  /** Macro variable for sub-benfit heading **/
                                  /** 1=headings, 0=no headings             **/

/*******************************************************/
/***** Macro for putting notes at bottom of table   *****/
/*******************************************************/
%MACRO BOTTOM_NOTES();
%if &seppage. ne 2 %then %do;
   %if &var3. =8 %then %do;
      PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002.</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";

     PUT "</td></tr>";
   %end;

   %else %if &var3. =9 %then %do;
      PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002.</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
```

```
     PUT "</td></tr>";
   %end;

   %else %if &var3. =10 %then %do;
      PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002.</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";

     PUT "</td></tr>";
   %end;

   %else %if &var3. =11 %then %do;
      PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002.</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";

     PUT "</td></tr>";
   %end;

   %else %do;
     PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
2002 Health Care Survey of DOD Beneficiaries</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
   %end;
%end;
%else %do;
      PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002.</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";

     PUT "</td></tr>";
%end;
```

```
%MEND BOTTOM_NOTES;



/*******************************************************/
/***** Macro for adding in link row to trends data  *****/
/*******************************************************/

/*** Macro variable with Javascript to go back ***/
%LET GOBACK=%STR(<script>document.write(&quote.<a href='javascript:history.go(-1)'
target='_parent'>&quote.);
document.write(&quote.<img src='images\\back75.gif' border='0' alt='Go to previous
page'>&quote.);document.write(&quote.</a>&quote.);</script>);


LIBNAME SRC1 V612 '.'  ACCESS=READONLY;



OPTIONS LS=132;

/*********************************************************************/
/****   Macro to create html pages                                ****/
/****          var1=major group                                   ****/
/****          var2=region                                        ****/
/****          var3=benefit                                       ****/
/****       seppage=0/no separate pages for qtrly trends          ****/
/****               1/1st separate page                           ****/
/****               2/2nd separate page                           ****/
/*********************************************************************/
%MACRO MKHTML(var1,var2,var3,seppage);


/*** Determine some macro variables ***/
%if &prefix=f %then %do;
  %let width1=640;
  %let width2=640;
  %let border=0;
%end;
%else %do;
  %let width1=90%;
  %let width2=85%;
  %let border=1;
%end;



%let number_html_files=%EVAL(1+&number_html_files.);


/** Load in data **/
DATA SUBSET;
  SET SRC1.TOTAL_Q;
  IF SCORE>100 then SCORE=100;                                    ***MJS ADDED 2/14/2003 to
avoid scores > 100;
  IF (BENTYPE="Trend" and -.5<SCORE<0) THEN SCORE=ABS(SCORE);     ***DKB ADDED 8/13/2002 to
avoid negative zero values;
  IF BENTYPE="Trend" THEN BENTYPE="Est. Quarterly Rate of Change";   ***DKB ADDED 8/12/2002 to
rename Trend column;
RUN;


/** Load in data **/
DATA SUBSET;
  SET SUBSET;


  LENGTH FILEOUT1 $ 40;
  LENGTH FILEOUT2 $ 40;
```

```
  LENGTH FILEOUT3 $ 40;


  /*** VAR1 indicated major group ***/
  %if &var1.=0 %then %let major=%STR();
  %if &var1.=1 %then %let major=%STR(Prime Enrollees);
  %if &var1.=2 %then %let major=%STR(Enrollees with Military PCM);
  %if &var1.=3 %then %let major=%STR(Enrollees with Civilian PCM);
  %if &var1.=4 %then %let major=%STR(Standard/Extra Users);
  %if &var1.=5 %then %let major=%STR(Active Duty);
  %if &var1.=6 %then %let major=%STR(Active Duty Dependents);
  %if &var1.=7 %then %let major=%STR(Retirees and Dependents);
  %if &var1.=8 %then %let major=%STR(All Users);


  %if &var1.=0 %then %do;
     /***IF REGION=REGCAT AND REGION NOT IN("CONUS MHS","Benchmark") ***/
     IF REGION=REGCAT AND REGION NOT IN("Benchmark");  /** Replaced 1-22 MAB **/

      %if &var2.^=99 %then %do; /*** Added 1-30 mab ***/
        IF REGION="CONUS MHS" THEN DELETE;
      %end;

     %let comma=%STR();
     %let grpmsg=%STR();
  %end;
  %else %do;
     IF MAJGRP="&major.";    /*** Subset data by major group ***/
     %let comma=%STR(,);
     %let grpmsg=%STR(Click below to view this table by other groups);
  %end;



   /*** Create macro variables to refer to Component or Trend pages ***/
   %if &seppage.=2 %then %do;
      %let q=q;
      %let unq=;
      %let click_alt=Click for Component data;
      %let click_image=component.gif;
   %end;
   %else %do;
      %let q=;
      %let unq=q;
      %let click_alt=Click for Trend data;
      %let click_image=trend.gif;
   %end;



   FILEOUT1=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.&q..htm");    /** Main html **/
   FILEOUT2=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.&q.a.htm");   /** Header html **/
   FILEOUT3=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.&q.b.htm");   /** Data html **/


    /*** Added 07-12-2001 MAB  If creating Excel then don't create HTML ***/
    %if &outxls.=1 %then %do;
      %let fileout1= NUL;
      %let fileout2= NUL;
      %let fileout3= NUL;
    %end;
    %else %do;
      call symput('fileout1',FILEOUT1);
      call symput('fileout2',FILEOUT2);
      call symput('fileout3',FILEOUT3);
    %end;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  FILEOUTX=COMPRESS("&outdir.\p&var1.-&var2.-&var3..xls");         /* create run-specific xls
file */
```

```
  CALL SYMPUT('fileoutX',FILEOUTX);                                    /* via global macro vars
*/

  TEMPLATE=COMPRESS("Templates\Template&var3..xls");
  CALL SYMPUT('template',TEMPLATE);                                    /* identify which template
xls file */
  /*------------------------*/
  /* 2000/11: end xls code   */
  /*------------------------*/


  /*** VAR3 dictates type of benefit heading ***/
  %if &var3=0 %then %do;
      %let headvar=BENEFIT;
  %end;
  %else %let headvar=BENTYPE;

  /*** clean up headvar variable ***/
  /***IF BENTYPE="Trend" THEN BENTYPE="Trend<BR>% change";***/

  /*** Link to XLS file ***/
  HREFXLS=COMPRESS("p&var1.-&var2.-&var3..xls");
  call symput('hrefxls',HREFXLS);
RUN;



/*** Subset data by region ***/
DATA SUBSET;
  SET SUBSET;

  %if &var2.=0 %then %do;    /** 0 = All regions **/
     IF REGION=REGCAT;       /** Just do All Region table **/
      %let sub_regs=%STR(All Regions);
  %end;
  %else %if &var2.=1 %then %do;
     IF REGION="Region 1" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 1);
  %end;
  %else %if &var2.=2 %then %do;
     IF REGION="Region 2" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 2);
  %end;
  %else %if &var2.=3 %then %do;
     IF REGION="Region 3" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 3);
  %end;
  %else %if &var2.=4 %then %do;
     IF REGION="Region 4" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 4);
  %end;
  %else %if &var2.=5 %then %do;
     IF REGION="Region 5" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 5);
  %end;
  %else %if &var2.=6 %then %do;
     IF REGION="Region 6" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 6);
  %end;
  %else %if &var2.=7 %then %do;
     IF REGION="Region 7/8" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 7/8);
  %end;
  %else %if &var2.=8 %then %do;
     IF REGION="Region 9" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 9);
  %end;
  %else %if &var2.=9 %then %do;
     IF REGION="Region 10" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 10);
  %end;
  %else %if &var2.=10 %then %do;
     IF REGION="Region 11" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 11);
```

```
  %end;
  %else %if &var2.=11 %then %do;
     IF REGION="Region 12" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 12);
  %end;
  %else %if &var2.=12 %then %do;
     IF REGION="Europe" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Europe);
  %end;
  %else %if &var2.=13 %then %do;
     IF REGION="Asia" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Asia);
  %end;
  %else %if &var2.=14 %then %do;
     IF REGION="Latin America" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Latin America);
  %end;
  %else %if &var2.=15 %then %do;
     IF REGION="Alaska" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Alaska);
  %end;
  %else %if &var2.=99 %then %do;
     IF REGION="CONUS MHS" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(CONUS MHS);
  %end;

RUN;



/*** Subset data by Benefit ***/
DATA SUBSET;
  SET SUBSET;

  %if &var3.=0 %then %do;   /** 0=All Benefits **/
     IF BENTYPE="&currentperiod.";
  %end;
  %else %if &var3.=2 %then %do;
     IF BENEFIT="Getting Needed Care";

     /*** # of columns for this benefit table ***/
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=3 %then %do;
     IF BENEFIT="Getting Care Quickly";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=4 %then %do;
     IF BENEFIT="Courteous and Helpful Office Staff";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=5 %then %do;
     IF BENEFIT="How Well Doctors Communicate";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=6 %then %do;
     IF BENEFIT="Customer Service";
     %let columns=%EVAL(4+&qtrs.);
  %end;
  %else %if &var3.=7 %then %do;
     IF BENEFIT="Claims Processing";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=8 %then %do;
     IF BENEFIT="Health Plan";
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=9 %then %do;
     IF BENEFIT="Health Care";
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=10 %then %do;
     IF BENEFIT="Personal Doctor";      ***MJS 02/04/2003;
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
```

```
  %end;
  %else %if &var3.=11 %then %do;
     IF BENEFIT="Specialty Care";
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=12 %then %do;
     IF BENEFIT="Preventive Care";
     %let columns=%EVAL(5+&qtrs.);   ***DKB CHANGED FROM 6+ to 5+ because removed flu shot
5/7/02;
  %end;

  /*** Set macro variable ***/
  %if &var3.=0 %then %do;
      %let sub_ben=%STR(&currentperiod. Composite Scores);
      %let columns=13;
  %end;
  %else %do;
    call symput('sub_ben',BENEFIT);
  %end;


  /*** Determine number of columns for sub-benefits  ***/
  /*** Equals cols - (x for qtrs  - 1 for stub column) ***/
  %let subcols=%EVAL(&columns.-&qtrs.-2);               ***DKB CHANGED FROM -1 to -2 5/3/2002;

  /*** Determine number of columns less 1st (stub) column ***/
  %let columns_less1=%EVAL(&columns.-1);

RUN;



/*** Added 4-3-01 MAB ***/
DATA SUBSET;
  SET SUBSET;

  WIDTH_COL1=120; /** Set width of column 1 **/

  IF BENTYPE IN ("&period1.",
                 "&period2.",
                 "&period3.",
                 "&currentperiod.", "Est. Quarterly Rate of Change") THEN WIDTH3=90;  ***DKB
ADDED TREND and changed width3 from 120 to 90 4/30/2002***;
  ELSE WIDTH3=90;

  /** Deal with some special cases **/
  IF BENEFIT="Preventive Care" THEN DO;
      IF BENTYPE IN ("&period1.",
                     "&period2.",
                     "&period3.",
                     "&currentperiod.", "Est. Quarterly Rate of Change") THEN WIDTH3=.;    ***DKB
ADDED TREND 4/30/2002***;
       ELSE WIDTH3=80;
  END;
  IF BENEFIT="Courteous and Helpful Office Staff" AND
          BENTYPE IN ("&period1.",
                      "&period2.",
                      "&period3.",
                      "&currentperiod.", "Est. Quarterly Rate of Change") THEN WIDTH3=70;
***DKB ADDED TREND 4/30/2002***;



  %if &var3.=0 %then %do;
     WIDTH_COL1=.;
     WIDTH3=40;
  %end;


        /*** Added 5-7-2001 mab ***/
        %if &prefix.=p %then %do;
            WIDTH3=.;
        %end;
```

```
RUN;



OPTIONS LS=152;
PROC PRINT;
 VAR BENEFIT BENTYPE REGION REGCAT MAJGRP;
RUN CANCEL;



/*************************************************************/
/****  Put out Header rows of table                       ****/
/*************************************************************/
DATA HTML;
  SET SUBSET;
  LENGTH HREF $30;

  IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark");

  /** Determine where back button should link to **/
  %if &var1.=0 %then %do;
     HREFBACK=COMPRESS("&prefix.8-0-0.htm");
  %end;
  %else %do;
     HREFBACK=COMPRESS("&prefix.&var1.-0-0.htm");
  %end;

  /*** Create macro variable date with today's date ***/
  DATETIME=DATETIME();
  CALL SYMPUT ('DATETIME',left(put(datetime,datetime20.)));
  DROP DATETIME;

RUN;



/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;

    /*** Make frameset page split frames smaller on all ratings pages ***/

   %if &var3.=0 %then %do;
         %let splitpixel=228;
    %end;
    %else %if &var3.=2 OR &var3.=3 %then %do;
         %let splitpixel=211;
    %end;
    %else %if &var3.=4 OR &var3.=7 %then %do;
         %let splitpixel=181;
    %end;
    %else %if &var3.=5 %then %do;
         %let splitpixel=196;
    %end;
    %else %if &var3.=6 %then %do;
         %let splitpixel=221;
    %end;
    %else %if &var3.=8 OR &var3.=9 OR &var3.=10 OR &var3.=11 %then %do;
         %let splitpixel=158;
    %end;
    %else %if &var3.=12 %then %do;
         %let splitpixel=192;
    %end;

    %if &SEPPAGE.=2 %then %do;
         %let splitpixel=157;
    %end;


   /*** Create frameset page HTML page ***/
   DATA _NULL_;
     FILE "&FILEOUT1.";
     PUT "<html>";
```

```
     PUT "<frameset rows='&splitpixel.,*'>";
      %if &seppage.=2 %then %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.qa.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.qb.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
      %end;
      %else %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.a.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.b.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
      %end;


     PUT "</frameset></html>";
   RUN;

   /*** Since done making frameset page then assign fileout1 = frame 1 ***/
   %let fileout1=&fileout2.;
   %if &seppage.=1 %then %do;
       %let fileout1=&fileout2.;
    %end;
    %else %if &seppage.=2 %then %do;
       %let fileout1=&fileout2.;
    %end;

%end;



/*** Initialize HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1.";

  PUT "<! Created &datetime.>";
  PUT "<html><head><title>";
  PUT "&major. &comma. &sub_ben., &sub_regs.";
  PUT "</title></head>";
  PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066' vlink='#996699'>";

  /*** link to printer friendly version moved, 10/25/2001 C.Rankin ***/


RUN;



/*-------------------------*/
/* 2000/11: begin xls code */
/*-------------------------*/
%if &outxls.=1 %then %do;
  X "COPY &template. &fileoutX.";                                  /* copy template xls to run-
specific xls file */
  X "START &fileoutX.";                                            /* open run-specific xls file
*/
  FILENAME XLSTITLE DDE 'excel|Sheet1!R1C1:R2C20' NOTAB;           /* xls rows 1 & 2 (titles)
*/
  FILENAME XLSDATA DDE 'excel|Sheet1!R6C1:R100C20' NOTAB;          /* xls rows 6+ (body of table)
*/
%end;
/*-------------------------*/
/* 2000/11: end xls code   */
/*-------------------------*/




/*ÛÛÛ
```

```
        /*** put table title ***/
        /**PUT "<h2><center><font face='&fontface.'>&major., &sub_regs. <br> &sub_ben.
</font></center></h2>"**/

        /** MF Changes ROW 1 **/
        PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
colspan=13 width='&width1.'>";
        PUT "<tr bgcolor='white'>";
        PUT "    <td colspan='6' valign='top' bgcolor='#999999'><img border='0' height='25'
width='242' src=&logo.></td>";
        PUT "    <td colspan='7' align='right' valign='bottom' bgcolor='#999999'>";
        PUT "          <div align='right'>";
        PUT "          <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return
to Main Page'></a>&htmlsp. &htmlsp.";

        /*** 4-17 MAB added JS code to go back ***/
        PUT "&goback.";

        PUT "          <noscript><a href="" HREFBACK  +(-1) "" &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
        PUT "          &htmlsp. &htmlsp.";
        PUT "          <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
        PUT "    </td>";
        PUT "</tr>";

        /** MF Changes ROW 2 **/
        /** Modified 2-2 MAB to better align title **/
        PUT "<tr>";
        PUT "        <td valign='center' align='center' colspan='13' bgcolor='#D8D8D8'>";
        PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major. &comma.
&sub_regs.<br>";
        PUT "                 &sub_ben.</b></font>";
        PUT "        </td>";
        PUT "</tr>";


        /*** Print out 3rd row ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/



        %if &prefix=f %then %do;
             PUT "<tr bgcolor= &hdcolr.>";
             PUT "<td width=70>&htmlsp.</td>";
             PUT "<td width=40 colspan=1><IMG SRC='&imgdir.\total_score.gif' ALT='Total Score'
BORDER=0></td>";
             PUT "<td width=80 colspan=2><IMG SRC='&imgdir.\eoa.gif'ALT='Ease of Access'
BORDER=0></td>";
             PUT "<td width=185 colspan=4><IMG SRC='&imgdir.\com&cus_ser.gif' ALT='Communication
and Customer Service' BORDER=0></td>";
             PUT "<td width=160 colspan=4><IMG SRC='&imgdir.\ratings0.gif' ALT='Ratings'
BORDER=0></td>";
             PUT "<td width=50 colspan=1><IMG SRC='&imgdir.\prevention.gif' ALT='Prevention'
BORDER=0></td>";
             PUT "</tr>";
             PUT "<tr bgcolor= &hdcolr.>";
         %end;
         %else %do;
             PUT "<tr bgcolor= &hdcolr.>";
             PUT "<td>&htmlsp.</td>";
             PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Total Score</b></font></td>";
             PUT "<td align='center' valign='bottom' colspan=2><font face='&fontface.'
size='2'><b>Ease of Access</b></font></td>";
             PUT "<td align='center' valign='bottom' colspan=4><font face='&fontface.'
size='2'><b>Communication and Customer Service</b></font></td>";
             PUT "<td align='center' valign='bottom' colspan=4><font face='&fontface.'
size='2'><b>Ratings</b></font></td>";
             PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Prevention</b></font></td>";
             PUT "</tr>";
             PUT "<tr bgcolor= &hdcolr.>";
```

```
          %end;


         /*** Print out 1st column of 4th row ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
             PUT "<td width=55>&htmlsp.</td>";
         %end;
         %else %do;
             PUT "<td width='7%'><font face='&fontface.'>&htmlsp.</font></td>";
         %end;



         bennum=1;  /** index to all 11 benefits **/

         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

   FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */

   /*** Put Benefits across columns (Continuation of 4th row) ***/
   HREF=COMPRESS("&prefix.&var1.-&var2.-"||bennum||".htm");


   /** If TOTAL benefit then don't have HREF **/
   /*** ÛÛ FRAMES SECTION ÛÛ ***/
   %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
     IF BENNUM=1 THEN PUT "<td align='center' valign='bottom'><IMG SRC='&imgdir.\image0_0.gif'
alt='Total' BORDER=0></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENEFIT "' BORDER=0></a></td>";
   %end;
   %else %do;
     IF BENNUM=1 THEN PUT "<td width='7%' align='center' valign='bottom'><font
face='&fontface.'size='1'>" &HEADVAR. "</font></td>";
     ELSE PUT "<td width='7%' align='center' valign='bottom'><font face='&fontface.'size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
   %end;


  bennum+1;


  IF EOF THEN DO;
    PUT "</tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;
%end;



/*ÛÛÛ
```

```
  SET HTML END=EOF;
  LENGTH HREF $ 250;

  COLUMNS=&columns.;
  SPAN1=ROUND(COLUMNS/2,1);
  SPAN2=COLUMNS-SPAN1;


  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */


         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
         PUT "          <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return
to Main Page'></a>&htmlsp. &htmlsp.";

         /*** 4-17 MAB added JS code to go back ***/
         PUT "&goback.";

         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. &htmlsp.";
         PUT "          <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major. &comma.
&sub_regs. <br>";

         /*** If ratings then don't display reference period ***/
         %if &var3.=8 OR &var3.=9 OR &var3.=10 OR &var3.=11 %then %do;
               PUT "                &sub_ben.</b></font>";
         %end;
         %else %do;
               PUT "                &sub_ben.<BR>&currentperiod.</b></font>";
         %end;


         PUT "        </td>";
         PUT "</tr>";


         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /** 3rd Row ***/
            /** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><IMG
SRC='&imgdir.\composite.gif' ALT='Composite' BORDER=0></td></tr>";
                 %end;
                 %else %do;
```

```
                  PUT "<td align='center' valign='bottom' colspan=&qtrs.><IMG
SRC='&imgdir.\border_rating.gif' ALT='Ratings' BORDER=0></td></tr>";
                %end;
             %end;
             %else %do;
                  PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                  /*** If sub-benefits then output sub-benefit columns ***/
                  %if &subcols.^=0 %then %do;
                    PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                    PUT "<td align='center' valign='bottom' colspan=&qtrs.><font
face='&fontface.'><b>Composite</b></font></td></tr>";
                  %end;
                  %else %do;
                    PUT "<td align='center' valign='bottom' colspan=&qtrs.><font
face='&fontface.'><b>Ratings</b></font></td></tr>";
                  %end;
             %end;
          %end;


          /*** 4th Row start (column 1) ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
          %if &prefix=f %then %do;
            PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
            PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
          %end;
          %else %do;
            PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
            PUT "<td width='10%'>&htmlsp.</td>";
          %end;



          /*-------------------------*/
          /* 2000/11: begin xls code */
          /*-------------------------*/
          %if &outxls.=1 %then %do;
            FILE XLSTITLE;
            PUT "&major. &comma. &sub_regs.";
            PUT "%cmpres('&sub_ben.')";
          %end;
          /*-------------------------*/
          /* 2000/11: begin xls code */
          /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/

      HREF=COMPRESS("help.htm#q&var3.");
      HREF1=COMPRESS("help.htm#trend");   /*7-29-2002 DKB ADDED LINK FOR TREND SECTION OF HELP
FILE*/




  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     IF _N_>&subcols. THEN IMAGE=COMPRESS("&imgdir.\col"||_N_-&subcols.||".gif");
*DKB CHANGED IMAGE NAME FROM QTR TO COL;
     ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");

     /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
     IF BENTYPE NE "Est. Quarterly Rate of Change" THEN PUT "<td align='center'
valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='" IMAGE "' alt='" BENTYPE "'
BORDER=0></a></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF1 +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
```

```
     /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
     IF BENTYPE NE "Est. Quarterly Rate of Change" THEN PUT "<td width='10%' align='center'
valign='bottom'><font face='&fontface.' size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR.
"</a></font></td>";
     ELSE PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF1 +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;
%end;




/*ÛÛÛ
```

```
         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. ";
         PUT "          <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "               <font face='&fontface.' color='#3333cc' size='5'><b>&major. &comma.
&sub_regs. <br>";


         PUT "                &sub_ben.<BR>&currentperiod.</b></font>";



         PUT "        </td>";
         PUT "</tr>";

         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /*** 3rd Row ***/
            /*** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
               PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
            %end;
            %else %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
            %end;
         %end;

         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/

  HREF=COMPRESS("help.htm#q&var3.");
```

```
************************************;
  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
     PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;


RUN;
%end;




/*ÛÛÛ
```

```
        /** MF Changes ROW 1 **/
        PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
        PUT "<tr bgcolor='white'>";
        PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
        PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
        PUT "          <div align='right'>";
        PUT "          <a href='&prefix.&var1.-&var2.-&var3.&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
        PUT "          <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return
to Main Page'></a>&htmlsp. &htmlsp.";

        /*** 4-17 MAB added JS code to go back ***/
        PUT "&goback.";

        PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
        PUT "          &htmlsp.";
        PUT "          <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
        PUT "    </td>";
        PUT "</tr>";

        /** MF Changes ROW 2 **/
        /** Modified 2-2 MAB to better align title **/
        PUT "<tr>";
        PUT "       <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
        PUT "               <font face='&fontface.' color='#3333cc' size='5'><b>&major. &comma.
&sub_regs. <br>";

        /*** Since trend data don't display reference period ***/
        PUT "                &sub_ben.</b></font>";


        PUT "       </td>";
        PUT "</tr>";


        /*** 3rd Row ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        /**PUT "<td></td>"**/


        /*** 4th Row start (column 1) ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        %if &prefix=f %then %do;
          PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
          PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
        %end;
        %else %do;
          PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
          PUT "<td width='10%'>&htmlsp.</td>";
        %end;



        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSTITLE;
          PUT "&major. &comma. &sub_regs.";
          PUT "%cmpres('&sub_ben.')";
        %end;
        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */
```

```
  /*** Print out column headings ***/

      LENGTH HREFf1 $250;
      LENGTH HREFf2 $250;
      LENGTH HREFf3 $250;
      LENGTH HREFf4 $250;

      LENGTH HREFp1 $250;
      LENGTH HREFp2 $250;
      LENGTH HREFp3 $250;
      LENGTH HREFp4 $250;

      LENGTH HREF5  $250;

      ****7-29-2002 DKB ADDED LINKS TO COMPONENT PAGES OF PREVIOUS QUARTERS FROM TREND PAGE****;
      **********************THIS WILL NEED TO BE UPDATED EACH QUARTER**********************;
       ***FRAMES***;
       HREFf1=COMPRESS("Period1\f&var1.-&var2.-&var3..htm");
       HREFf2=COMPRESS("Period2\f&var1.-&var2.-&var3..htm");
       HREFf3=COMPRESS("Period3\f&var1.-&var2.-&var3..htm");
       HREFf4=COMPRESS("f&var1.-&var2.-&var3..htm");

       ***NO FRAMES***;
       HREFp1=COMPRESS("Period1\p&var1.-&var2.-&var3..htm");
       HREFp2=COMPRESS("Period2\p&var1.-&var2.-&var3..htm");
       HREFp3=COMPRESS("Period3\p&var1.-&var2.-&var3..htm");
       HREFp4=COMPRESS("p&var1.-&var2.-&var3..htm");

       ****HELP FILE FOR TREND COLUMN***;
       HREF5=COMPRESS("help.htm#trend");    /*7-29-2002 DKB ADDED LINK FOR TREND SECTION OF HELP
FILE*/

    ************************************************;

  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/

       *LENGTH HREF $250;

  %if &prefix=f %then %do;
    IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");         *DKB CHANGED IMAGE NAME FROM QTR TO COL;

    IF _N_=1 THEN HREF=HREFf1;
    ELSE IF _N_=2 THEN HREF=HREFf2;
    ELSE IF _N_=3 THEN HREF=HREFf3;
    ELSE IF _N_=4 THEN HREF=HREFf4;
    ELSE IF _N_=5 THEN HREF=HREF5;

    PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='" IMAGE
"' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
    IF _N_=1 THEN HREF=HREFp1;
    ELSE IF _N_=2 THEN HREF=HREFp2;
    ELSE IF _N_=3 THEN HREF=HREFp3;
    ELSE IF _N_=4 THEN HREF=HREFp4;
    ELSE IF _N_=5 THEN HREF=HREF5;

    /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
    PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;



  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;


RUN;
```

```
%end;




/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;
  /*** Close out header HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT1." MOD;

    PUT "</center></table>";
    PUT "</body></html>";
  RUN;


  /*** Since done making frame 1 page then assign fileout1 = frame 2 ***/
  %let fileout1=&fileout3.;

  /*** Initialize out data HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT3.";

    PUT "<! Created &datetime.>";
    PUT "<html>";
    PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066' vlink='#996699'>";
    PUT "<center><table border='1' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
cols=&columns. width=640>";
  RUN;



%end;




/************************************/
/****  Put out rest of table      ****/
/****  Colored scores and Stub    ****/
/************************************/
%if &seppage.=0 OR &var3.=8 OR &var3.=9 OR &var3.=10 OR &var3.=11 %then %do;
DATA HTML;
  SET SUBSET;
RUN;
%end;
%else %if &seppage.=1 %then %do;
DATA HTML;
  SET SUBSET;
  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/
  IF BENTYPE IN ("&period1.",
                 "&period2.",
                 "&period3.",
                 "&currentperiod.", "Est. Quarterly Rate of Change") THEN DELETE;       ***DKB
ADDED TREND 5/2/2002***;
RUN;
%end;
%else %if &seppage.=2 %then %do;
DATA HTML;
  SET SUBSET;
  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/
  IF BENTYPE IN ("&period1.",
                 "&period2.",
                 "&period3.",
                 "&currentperiod.", "Est. Quarterly Rate of Change");   ***DKB ADDED TREND
5/2/2002***;
RUN;
%end;
```

```
/*ÛÛÛÛ ALL MAJGRPS ÛÛÛÛ*/
%if &var1.=0 %then %do;

DATA HTML;
  SET HTML END=EOF;
  LENGTH HREF $ 250;


  IF MAJGRP="Prime Enrollees" THEN MAJNUM=1;
  IF MAJGRP="Enrollees with Military PCM"  THEN MAJNUM=2;
  IF MAJGRP="Enrollees with Civilian PCM" THEN MAJNUM=3;
  IF MAJGRP="Standard/Extra Users" THEN MAJNUM=4;
  IF MAJGRP="Active Duty" THEN MAJNUM=5;
  IF MAJGRP="Active Duty Dependents" THEN MAJNUM=6;
  IF MAJGRP="Retirees and Dependents" THEN MAJNUM=7;
  IF MAJGRP="All Users" THEN MAJNUM=8;


  /*** HREF link to another page ***/
  HREF=COMPRESS("&prefix."||MAJNUM||"-0-&var3.&q..htm");  /** Link is diff for CONUS MHS region
**/
  /*** MAB 7-12-2001 updated to reference trend page if needed ***/


  %if &var2.^=99 %then %do;
     IF REGION="CONUS MHS" THEN DELETE;
  %end;


  LENGTH HREFQ LMAJGRP $ 30;
  RETAIN LMAJGRP;

  IF _N_=1 THEN DO;
     LMAJGRP=" ";
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";

          %do i=2 %to 12;
             %if &i.^=8 AND &i.^=9 AND &i.^=10 AND &i.^=11 %then %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i.q.htm");  /*** href to 2nd html file
***/
             %end;
             %else %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i..htm");  /*** href to 2nd html file
***/
             %end;

             PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
          %end;
          PUT "</tr>";
    %end;

  END;
```

```
  IF LMAJGRP^=MAJGRP THEN DO;             /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LMAJGRP^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


        /*** Column 1 / Row 1 ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        %if &prefix=f %then %do;
            IF MAJGRP IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" MAJGRP "</font></b></td>";    /*** no HREF links ***/
        %end;
        %else %do;
            IF MAJGRP IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
MAJGRP "</font></b></td>";                          /*** no HREF links ***/
        %end;
        * bmajgrp=majgrp; *DKB COMMENTED OUT ON 4/25/2002;

        *if majgrp='Standard/Extra Users' then majgrp='Standard-Extra Users';  *DKB COMMENTED OUT
TO TEST 4/25/2002;
        /*** Column 1 / Row 2+ ***/

        ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href="""" HREF +(-1) """ &target.> " MAJGRP " </a></font></td>";   /** Shade row **/
        ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href="""" HREF +(-1) """ &target.> "
MAJGRP " </a></font></td>";
        *majgrp=bmajgrp; *DKB COMMENTED OUT ON 4/25/2002;


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSDATA;
           IF LMAJGRP^=" " THEN           PUT " ";
           IF REGION IN("Benchmark") THEN PUT REGION '09'x @@;   /* '09'x ensures text string is
put into one cell */
           ELSE IF MOD(ROW,2)=0 THEN      PUT MAJGRP '09'x @@;   /* rather than spanning across
cells          */
           ELSE                           PUT MAJGRP '09'x @@;
         %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/

        LMAJGRP=MAJGRP;
  END;


  /*** Column 2+ ***/
  /*****************************************/
  /**** Need to output different formats    ****/
  /*****************************************/
  FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */


  IF MAJGRP IN("Benchmark") THEN DO;
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
```

```
       IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'
color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
       ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE 3.0
"<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF MAJGRP IN("Benchmark") THEN DO;   /** Replaced 1-22 mab **/
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE                   PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/

  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                          /* 2000/11: to refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/


    /*-------------------------*/
    /* 2000/11: begin xls code */
    /*-------------------------*/
     %if &outxls.=1 %then %do;
        %if &var3.=0 %then %do;
          FILE XLSDATA;
          PUT; PUT;
          PUT "Source: 2002 Health Care Survey of DOD Beneficiaries ";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
        %end;

        %else %if &var3.ne 0 %then %do;
          FILE XLSDATA;
          PUT; PUT;
          PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
```

```
      %end;
     %end;

    /*-------------------------*/
    /* 2000/11: end xls code   */
    /*-------------------------*/

  END;
RUN;
%end;




/*ÛÛÛÛ All Regions ÛÛÛÛ*/
%if &var2.=0 %then %do;
DATA HTML;
  SET HTML END=EOF;
  LENGTH HREF $ 250;

  LENGTH LREGION $ 26 HREFQ $ 30;
  RETAIN LREGION;

  IF _N_=1 THEN DO;
     LREGION=" ";
     REGNUM=1;
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";

          %do i=2 %to 12;
             %if &i.^=8 AND &i.^=9 AND &i.^=10 AND &i.^=11 %then %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i.q.htm");  /*** href to 2nd html file
***/
             %end;
             %else %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i..htm");  /*** href to 2nd html file
***/
             %end;

             PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
          %end;
          PUT "</tr>";
    %end;


END;


  IF LREGION^=REGION THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LREGION^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGION^=" " THEN PUT " ";          /*** terminate previous row ***/
          FILE "&FILEOUT1." MOD ;                /* 2000/11: to refer back to htm file */
        %end;
```

```
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        IF REGION IN("CONUS MHS") THEN DO;
             ORIGNUM=REGNUM;
             REGNUM=99;
        END;


        /*** Column 1 / Row 1 ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        %if &prefix=f %then %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        %else %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        ELSE DO;   /*** HREF links for each region ***/


          HREF=COMPRESS("&prefix.0-"||REGNUM||"-&var3.&q..htm");
          /*** MAB 7-12-2001 updated to reference trend page if needed ***/



          /*** Certain major groups are not large enough to show ***/
          /*** catchment level detail. so don't add HREF link here  ***/
          /*** Remove since qtrs not going down to catchment level ***/
          /**%if &var1.=3 or &var1.=4 or &var1.=6 or &var1.=7  %then %do;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.' size='2'>
" REGCAT " </font></td>";    Shade row
            ELSE PUT "<tr><td><font  face='&fontface.' size='2'> " REGCAT " </font></td>";
            %end;
            %else %do;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'><a href=""" HREF +(-1) """> " REGCAT " </a></font></td>";   Shade row
            ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """> "
REGCAT " </a></font></td>";
            %end;**/

          /*** Column 1 / Row 2+ ***/
          %if &prefix=f %then %do;
             IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
             ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
          %end;
          %else %do;
             IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
             ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
          %end;


          REGNUM+1;

          IF REGION IN("CONUS MHS") THEN DO;
             REGNUM=ORIGNUM;
          END;

        END;

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF REGION IN("Benchmark") THEN  PUT REGCAT '09'x @@;   /* no logic difference */
          ELSE DO;
```

```
           IF MOD(ROW,2)=0 THEN          PUT REGCAT '09'x @@;   /* just presentation difference
in htm */
           ELSE                          PUT REGCAT '09'x @@;   /* keeping as is to preserve htm
code structure */
         END;
        %end;
        /*------------------------*/
        /* 2000/11: end xls code   */
        /*------------------------*/

        LREGION=REGION;
  END;


  /*** Column 2+ ***/
  /*****************************************/
  /**** Need to output different formats    ****/
  /*****************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'
color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE 3.0
"<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;


  /*------------------------*/
  /* 2000/11: begin xls code */
  /*------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN       PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN PUT "NA"  '09'x @@;
         ELSE                  PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
```

```
     END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/



  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/


     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/
     %if &outxls.=1 %then %do;
        %if &var3.=0 %then %do;
          FILE XLSDATA;
          PUT; PUT;
          PUT "Source: 2002 Health Care Survey of DOD Beneficiaries ";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
        %end;

        %else %if &var3.ne 0 %then %do;
          FILE XLSDATA;
          PUT; PUT;
          PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
        %end;
     %end;
     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;

%end;




/*ÛÛÛÛ Single Regions ÛÛÛÛ*/
/* This code is not applicable for the 2000 report cards */
/*  since not enough data to display sub-region info. */
/*  Will leave in code in case this changes */
%if &var2.^=0 AND &var1.^=0 %then %do;
DATA HTML;
  SET HTML END=EOF;

  LENGTH LREGCAT $ 26 HREF $ 250;;
  RETAIN LREGCAT;

  IF _N_=1 THEN DO;
     LREGCAT=" ";
     ROW=0;
  END;


  IF LREGCAT^=REGCAT THEN DO;             /*** Start new row ***/
```

```
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LREGCAT^=" " THEN PUT "</tr>";  /*** terminate previous row ***/
        IF REGCAT IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>" REGCAT
"</font></b></td>";
        ELSE IF REGCAT IN("CONUS MHS") THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
        ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.' size='2'>"
REGCAT "</font></td>";   /** Shade row **/
        ELSE PUT "<tr><td><font face='&fontface.' size='2'>" REGCAT "</font></td>";

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGCAT^=" " THEN PUT " ";
          IF REGCAT IN("Benchmark") THEN      PUT REGCAT '09'x @@;         /* no logic difference
*/
          ELSE IF REGCAT IN("CONUS MHS") THEN PUT REGCAT '09'x @@;
          ELSE IF MOD(ROW,2)=0 THEN           PUT REGCAT '09'x @@;         /* just presentation
difference in htm */
          ELSE                                PUT REGCAT '09'x @@;         /* keeping as is to
preserve htm code structure */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        LREGCAT=REGCAT;

  END;



  /*****************************************/
  /**** Need to output different formats    ****/
  /*****************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
       IF SCORE=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td align='center' valign='bottom'><b><font face='&fontface.' color=&blue.
size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'
color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE 3.0
"<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;

  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
```

```
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE                   PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/


  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/
         %if &outxls.=1 %then %do;
        %if &var3.=0 %then %do;
          FILE XLSDATA;
          PUT; PUT;
          PUT "Source: 2002 Health Care Survey of DOD Beneficiaries ";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
        %end;

        %else %if &var3.ne 0 %then %do;
          FILE XLSDATA;
          PUT; PUT;
          PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in 2001 and 2002";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
        %end;
     %end;
     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;
%end;



/***********************************/
/****  Print out footer info      ****/
/***********************************/
DATA _NULL_;
```

```
    FILE "&FILEOUT1." MOD ;
    LENGTH HREF $250;


    /** Determine where back button should link to **/
    %if &var1.=0 %then %do;
       HREFBACK=COMPRESS("&prefix.8-0-0.htm");
    %end;
    %else %do;
       HREFBACK=COMPRESS("&prefix.&var1.-0-0.htm");
    %end;


    /** MF Changes **/
    PUT "<tr>";
    PUT "   <td colspan='&columns.'>";
    PUT "      <center>";
    PUT "         <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return to Main
Page'></a>&htmlsp.&htmlsp.";
             /*** 7-17 MAB added JS code to go back ***/
    PUT "&goback.";
    PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";

    PUT "         <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a><br>";
    PUT "         <font face='Arial,Helvetica,Swiss,Geneva' size='2'><b>&grpmsg.<br>";
    PUT "         </b></font>";



    majgrp1=COMPRESS("&prefix.1-&var2.-&var3.&q..htm");
    majgrp2=COMPRESS("&prefix.2-&var2.-&var3.&q..htm");
    majgrp3=COMPRESS("&prefix.3-&var2.-&var3.&q..htm");
    majgrp4=COMPRESS("&prefix.4-&var2.-&var3.&q..htm");
    majgrp5=COMPRESS("&prefix.5-&var2.-&var3.&q..htm");
    majgrp6=COMPRESS("&prefix.6-&var2.-&var3.&q..htm");
    majgrp7=COMPRESS("&prefix.7-&var2.-&var3.&q..htm");
    majgrp8=COMPRESS("&prefix.8-&var2.-&var3.&q..htm");


     /*** Certain major groups are not large enough to show ***/
     /*** catchment level detail. So if we are in html file ***/
     /*** which has this detail then don't link to a html   ***/
     /*** file which doesn't exist                          ***/

    %if &var1.^=0 %then %do;
      %if &var1.^=3 and &var1.^=4 and &var1.^=6 and &var1.^=7 and &var2.^=0 %then %do;

         PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP5 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP8 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

      %end;
      %else %do;

        PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP3 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Civilian PCM</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP4 +(-1) """ &target.><font face='&fontface.'
size='2'>Standard/Extra Users</font></a>&htmlsp.&htmlsp.";
        PUT "<br>";
        PUT "<a href=""" MAJGRP5 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active Duty
Dependents</font></a>&htmlsp.&htmlsp.";
```

```
        PUT "<a href=""" MAJGRP7 +(-1) """ &target.><font face='&fontface.' size='2'>Retirees and
Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP8 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

      %end;
    %end;

   /*** link to printer friendly version moved C.Rankin 10/25/2001 ***/

   /*** 4-17 MAB added  ***/
   /*** If creating frames need link to printer friendly version of file ***/
   /***DANIELE ADDED BR STATEMENT ON 11/1/01 SO PRINTER ICON WOULD SHOW UP ON SEPARATE LINE ***/
   %if &prefix=f %then %do;
      HREFP=COMPRESS("p&var1.-&var2.-&var3.&q..htm");
      PUT "    <BR><font face='Arial,Helvetica,Swiss,Geneva' size='1'><a href='" HREFP "'
&target.><img src='&imgdir.\printer.gif' alt='Printer Friendly Page' border=0>Printer Friendly
Page</a></font>";
   %end;



RUN;


/*** Close HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1." MOD ;

  PUT "</center></td></tr></table>";
  PUT "</body></html>";

RUN;



/*-------------------------------*/
/* 2000/12: begin xls color code */
/*-------------------------------*/
%if &outxls.=1 %then %do;
  FILENAME CMDS DDE 'excel|system';

  /* Align 2 titles */
  DATA _NULL_;
     FILE CMDS;
     CELL=COMPRESS("[SELECT(""R1C1:R1C"||&columns.||""")]"); PUT CELL;
     PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
     CELL=COMPRESS("[SELECT(""R2C1:R2C"||&columns.||""")]"); PUT CELL;
     PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
  RUN;

  DATA _NULL_;
    FILE CMDS;
    SET HTML(DROP=ROW) END=EOF;

    RETAIN ROW COLUMN;


    /*** Need to initialize row and column pointers ***/
    IF _N_=1 THEN DO;
      ROW=6;
      COLUMN=1;
    END;

    /*** Increment Row and Column pointers ***/
    COLUMN=COLUMN+1;
    IF &var3.in (0,8,9,10,11) and COLUMN>&columns. THEN DO;
       ROW=ROW+1;
       COLUMN=2;
    END;
    ELSE IF COLUMN>&columns.+1 THEN DO;
       ROW=ROW+1;
       COLUMN=2;
    END;
```

```
    CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
    PUT CELL;

    /** Before color cell center data **/
    PUT '[ALIGNMENT(3, False, 3,0, False)]';


    IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark") THEN PUT
'[FORMAT.FONT("Arial",10,True,False,False,False,9)]';  /*** BOLD & DARK RED ***/
    ELSE IF SCORE NOT IN(.,.A) THEN DO;
      IF SIG=1 THEN PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /*** BOLD
& GREEN ***/
      ELSE IF SIG=-1 THEN PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED
***/
      ELSE PUT '[FORMAT.FONT("Arial",10,False,False,False,False,5)]';    /*** BLUE ***/
    END;


    /*** If last record then output footer ***/
    IF EOF THEN DO;
       ROW=ROW+3; COLUMN=1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /*** BOLD & GREEN ***/
       ROW=ROW+1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED ***/
    END;
  RUN;
  FILENAME CMDS DDE 'excel|system';
  DATA _NULL_;
    FILE CMDS;
    PUT '[SAVE()]';
    PUT '[CLOSE()]';
  RUN;
%end;
/*------------------------------*/
/* 2000/12: end xls color code   */
/*------------------------------*/



%MEND MKHTML;
/*ÕÕÕ
```

```
/*** Create 88 HTML pages (8 Majgrps / All Regions / 11 Benefits)***/
/*** Create 56 More pages if have sep page for trends ***/
%MACRO DOALL2();
        %DO K=2 %TO 12;      * 11 Sub-benefits ;

             %MKHTML(1,0,&K.,1);
             %MKHTML(2,0,&K.,1);
             %MKHTML(5,0,&K.,1);
             %MKHTML(8,0,&K.,1);
             %MKHTML(3,0,&K.,1);
             %MKHTML(4,0,&K.,1);
             %MKHTML(6,0,&K.,1);
             %MKHTML(7,0,&K.,1);


                /*** Call macro for 2nd page (except for ratings benefits) ***/
                %if &k.^=8 AND &k.^=9 AND &k.^=10 AND &k.^=11 %then %do;
                  %MKHTML(1,0,&K.,2);
                  %MKHTML(2,0,&K.,2);
                  %MKHTML(5,0,&K.,2);
                  %MKHTML(8,0,&K.,2);
                  %MKHTML(3,0,&K.,2);
                  %MKHTML(4,0,&K.,2);
                  %MKHTML(6,0,&K.,2);
                  %MKHTML(7,0,&K.,2);
                %end;

        %END;
%MEND DOALL2;



 /*** Create 15 HTML pages (All Majgrps / 15 Regions / All Benefits) ***/
%MACRO DOALL3();
      %DO J=1 %TO 15;              * 15 Regions ;
          %MKHTML(0,&J.,0,0);
      %END;
%MEND DOALL3;



 /*** Need to populate new table for all majgrps ***/
 /*** Create 165 HTML pages (All Majgrps / 15 Regions / 11 Benefits) ***/
 /*** Create 105 More pages if have sep page for trends ***/
%MACRO DOALL4();
      %DO J=1 %TO 15;
         %DO K=2 %TO 12;

            %MKHTML(0,&J.,&K.,1);

            /*** Call macro for 2nd page (except for ratings benefits) ***/
            %if &k.^=8 AND &k.^=9 AND &k.^=10 AND &k.^=11 %then %do;
              %MKHTML(0,&J.,&K.,2);
            %end;

         %END;
      %END;
%MEND DOALL4;



/*** Create 1 HTML pages (All Majgrps / 1 Region-ConusMHS / All Benefits) ***/
%MACRO DOALL5();
         %DO K=0 %TO 0;
            %MKHTML(0,99,&K.,0);
         %END;
%MEND DOALL5;


/*** Create 11 HTML pages (All Majgrps / 1 Region-ConusMHS / 11 Benefits) ***/
 /*** Create 7 More pages if have sep page for trends ***/
%MACRO DOALL6();
         %DO K=2 %TO 12;
            %MKHTML(0,99,&K.,1);
```

```
            /*** Call macro for 2nd page (except for ratings benefits) ***/
            %if &k.^=8 AND &k.^=9 AND &k.^=10 AND &k.^=11 %then %do;
              %MKHTML(0,99,&K.,2);
            %end;

         %END;
%MEND DOALL6;



/*****************************************/
/**** Create macros to call MKHTML macro  ****/
/**** Need special macros for Excel files ****/
/*****************************************/

/*** Create 8 HTML pages (8 Majgrps / All Regions / All Benefits)***/
%MACRO EXCEL1();
            %MKHTML(1,0,0,0);
            %MKHTML(2,0,0,0);
            %MKHTML(5,0,0,0);
            %MKHTML(8,0,0,0);
            %MKHTML(3,0,0,0);
            %MKHTML(4,0,0,0);
            %MKHTML(6,0,0,0);
            %MKHTML(7,0,0,0);
%MEND EXCEL1;

/*** Create 88 HTML pages (8 Majgrps / All Regions / 11 Benefits)***/
%MACRO EXCEL2();
         %DO K=2 %TO 12;      * 11 Sub-benefits ;
              %MKHTML(1,0,&K.,0);
              %MKHTML(2,0,&K.,0);
              %MKHTML(5,0,&K.,0);
              %MKHTML(8,0,&K.,0);
              %MKHTML(3,0,&K.,0);
              %MKHTML(4,0,&K.,0);
              %MKHTML(6,0,&K.,0);
              %MKHTML(7,0,&K.,0);
         %END;
%MEND EXCEL2;

/*** Create 15 HTML pages (All Majgrps / 15 Regions / All Benefits) ***/
%MACRO EXCEL3();
      %DO J=1 %TO 15;              * 15 Regions ;
          %MKHTML(0,&J.,0,0);
      %END;
%MEND EXCEL3;

/*** Create 165 HTML pages (All Majgrps / 15 Regions / 11 Benefits) ***/
%MACRO EXCEL4();
      %DO J=1 %TO 15;
         %DO K=2 %TO 12;
            %MKHTML(0,&J.,&K.,0);
         %END;
      %END;
%MEND EXCEL4;

/*** Create 1 HTML pages (All Majgrps / 1 Region-ConusMHS / All Benefits) ***/
%MACRO EXCEL5();
         %DO K=0 %TO 0;
            %MKHTML(0,99,&K.,0);
         %END;
%MEND EXCEL5;

/*** Create 11 HTML pages (All Majgrps / 1 Region-ConusMHS / 11 Benefits) ***/
%MACRO EXCEL6();
         %DO K=2 %TO 12;
            %MKHTML(0,99,&K.,0);
         %END;
%MEND EXCEL6;
```

```
/*** Run macro to create Excel files ONLY ***/
%LET PREFIX=p;
%LET OUTXLS=1;
%EXCEL1;
%EXCEL2;
%EXCEL3;
%EXCEL4;
%EXCEL5;
%EXCEL6;


/*** Run macro to create Frame HTML files ***/
%LET PREFIX=f;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;
%DOALL4;
%DOALL5;
%DOALL6;


/*** Run macro to create Printer Friendly HTML files (non-frames) ***/
%LET PREFIX=p;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;
%DOALL4;
%DOALL5;
%DOALL6;



%PUT "&number_html_files. HTML files created.";



ENDSAS;
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
*************************************************************************';
```

# OF HTML FILES CREATED			
Regular Quarterly Files	If have 2nd Trend Page	& If have 2nd Page for All Regions	If have 2nd Page for All Regions but no 2nd Trend page
8	8	16	16
88	144	288	176
15	15	15	15
165	270	270	165
1	1	1	1
11	18	18	11
288	456	608	384

```
OLD CODE
--------



         PUT "<script>";
         PUT "   document.write("<a href='javascript:history.go(-1)' target='_parent'>");
         PUT "   document.write("<img src='images\\back75.gif' border='0' alt='Return to Top
Level'>");
         PUT "   document.write("</a>");
         PUT "</script>";

         PUT "<script>";
         PUT "   document.write("<a href='javascript:history.go(-1)' target='_parent'>");
         PUT "   document.write("<img src='images\\back75.gif' border='0' alt='Return to Top
Level'>");
         PUT "   document.write("</a>");
         PUT "</script>";


%LET GOBACK=%STR(
                 PUT &quote.<script>&quote.;
                 PUT &quote.   document.write(&quote.<a href='javascript:history.go(-1)'
target='_parent'>&quote.);&quote.;
                 PUT &quote.   document.write(&quote.<img src='images\\back75.gif' border='0'
alt='Return to Top Level'>&quote.);&quote.;
                 PUT &quote.   document.write(&quote.</a>&quote.);&quote.;
                 PUT &quote.</script>&quote.;
                );


%LET PREFIX=f;  /** Prefix for HTML files (Frames) **/
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;
%DOALL4;
%DOALL5;
%DOALL6;


%LET PREFIX=f;
%LET OUTXLS=0;
%MKHTML(8,0,0,0);
%MKHTML(8,0,2,1);
%MKHTML(8,0,2,2);

ENDSAS;
```

9. QUALITY ASSURANCE FOR CONSUMER REPORTS (QUARTERLY)

```
*====================================================================;
*                                                                    ;
*   Programmer:  Mark A. Brinkley                                    ;
*        Title:  QC_ADULT.SAS                                        ;
*       Client:  8860-410                                            ;
*         Date:  03-29-2000                                          ;
*                                                                    ;
*      Purpose:  This program is designed to read in ALL adult html  ;
*                files, extract the table data, and then compare     ;
*                this data to the input data which was used to       ;
*                create the html report cards.  If everything is OK, ;
*                then the comparison should yield no differences.    ;
*                                                                    ;
*  Input files:  1) All F*.HTM files                                 ;
*                2) TOTAL_Q.SD2                                      :
*                                                                    ;
*  Modifications:                                                    ;
*  1) 02/14/2001 - Keith Rathbun, Remove outputting of permanent     ;
*     SAS Dataset.  Deleted directory output file.  Removed white    ;
*     space from program.  Removed BY statement from proc compares.  ;
*     Added titles.  Setup to run in LOADWEB directory on Jdrive.    ;
*                                                                    ;
*  2) 04/18/2001 - Chris Rankin -- added Macro to process            ;
*                  frames and non-frames version separately          ;
*                                                                    ;
*  3) 04/10/2002 - Keith Rathbun -- updated Project/Task number.     ;
*                  No code changes required.                         ;
*                                                                    ;
*  4) 08/14/2002 - Mark Brinkley                                     ;
*                    - Added kludge to remove '>' from SCORE         ;
*                    - Added DROP=SCORE since don't need to pull     ;
*                      in SCORE from TESTFILE file. Was causing      ;
*                      a type mismatch error.                        ;
*  5) 08/14/2002 - Keith Rathbun                                     ;
*                    - Added kludge to reset SIG to 0 for trend      ;
*                      records that have no score.                   ;
*                                                                    ;
* Output files: Comparison summary listing                           ;
*                                                                    ;
*====================================================================;
LIBNAME IN  ".";
OPTIONS NOCENTER LS=132 PS=79 COMPRESS=NO;


*********************************************************************;
*****    Run batch command to create dir of all F*.HTM files   *****;
*********************************************************************;
OPTIONS NOXWAIT;

%MACRO COMPARE(INCOND=,TITLE=);

X "DIR Html\&INCOND..HTM /B > Html\QC_ADULT.DAT";
X "CD Html";

*********************************************************************;
*****    Read in QC_ADULT which was just created               *****;
*********************************************************************;

DATA QC_ADULT;
   INFILE "QC_ADULT.DAT" LRECL=15 PAD;
   INPUT HTMLFILE $ 1-15;
RUN;

*********************************************************************;
*******       Read in all F*.HTM files                        *******;
*********************************************************************;

DATA HTMLS;
   SET QC_ADULT;
   INFILE FILEREF FILEVAR=HTMLFILE  LRECL=175 PAD END=DONE;
   DO UNTIL(DONE);
      INPUT TEMPVAR $ 1-175;
```

```
      OUTPUT;
   END;
RUN;

DATA TEMP;
   SET HTMLS;
   LENGTH ORDER 5;
   IF INDEX(TEMPVAR,"CODE")>0;
   PLACEI=INDEX(TEMPVAR,"CODE");
   ORDER=SUBSTR(TEMPVAR,PLACEI+5,5);
RUN;

DATA TESTFILE(DROP=PLACE PLACE2 PLACE3 SRCH PLACEI LNGTH TEMPVAR COLOR); *SCORE);
   SET TEMP;
   LENGTH COLOR $6;
   LENGTH SCORE_ 3;
   LENGTH SCORE $4;
   LENGTH SIG_ 3;
   IF INDEX(TEMPVAR,"color")>0 THEN DO;
      PLACE=INDEX(TEMPVAR,"color");
      COLOR=SUBSTR(TEMPVAR,PLACE+8,6);
      SRCH=SUBSTR(TEMPVAR,PLACE,30);
      IF INDEX(SRCH,">")>0 AND INDEX(SRCH,"<")>0 THEN DO;
         PLACE2=INDEX(SRCH,">");
         PLACE3=INDEX(SRCH,"<");
         LNGTH=PLACE3-PLACE2-1;
         SCORE=SUBSTR(SRCH,PLACE2+1,LNGTH);
      END;
   END;
   ELSE DO;
      PLACE=INDEX(TEMPVAR,"CODE");
      SCORE=SUBSTR(TEMPVAR,PLACE-5,3);
      IF SUBSTR(SCORE,1,1)=">" THEN SCORE=SUBSTR(SCORE,2,2);    /** MAB 8-14-2002 **/
      COLOR='.';
   END;
   IF COLOR='663300' THEN SIG_=.;
   ELSE IF COLOR='cc0000' THEN SIG_=-1;
   ELSE IF COLOR='009933' THEN SIG_=1;
   ELSE IF COLOR='.' THEN SIG_=0;
   IF SCORE='***' THEN SCORE_=.;
   ELSE IF SCORE='NA' THEN SCORE_=.A;
   ELSE SCORE_=SCORE;
RUN;

PROC SORT DATA=TESTFILE;
   BY ORDER;
RUN;

DATA TESTFILE;
   SET TESTFILE;
   BY ORDER;
   IF FIRST.ORDER;
RUN;

DATA MERGED(KEEP=ORDER SIG SIG_ SCORE SCORE_ SCORE1);
   MERGE TESTFILE(IN=IN1 DROP=SCORE)  /** MAB 8-14-2002 Added DROP=SCORE **/
         IN.TOTAL_Q;
   BY ORDER;
   IF IN1;
   LENGTH SCORE1 3;
   SCORE1=ROUND(SCORE);
   IF (SIG=. AND SIG_=0) THEN SIG_=.;
   ELSE IF (SIG=0 AND SIG_=.) THEN SIG_=0;
   IF (BENTYPE = 'Trend' AND SIG=-1 AND SCORE=.) THEN SIG=0; * KRR added 8/14/2002;
   IF (SCORE1=. AND SCORE_=.A) THEN SCORE_=.;
RUN;

TITLE1 "Validate Quarterly DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: QC_ADULT.SAS By Mark Brinkley";
TITLE3 "Program Inputs: TOTAL_Q.SD2 - Scores Database in WEB Layout and report card HTML files";
TITLE4 &TITLE;

PROC COMPARE DATA=MERGED BRIEF;
   VAR SIG;
```

```
   WITH SIG_;
RUN;

/*
PROC PRINT DATA=MERGED;
VAR REGCAT BENTYPE SIG SIG_ SCORE SCORE_;
WHERE SIG NE SIG_;
RUN;
*/

PROC COMPARE DATA=MERGED BRIEF;
   VAR SCORE1;
   WITH SCORE_;
RUN;

X "DEL QC_ADULT.DAT";
X "CD ..";

%MEND COMPARE;

%COMPARE(INCOND=F*-*,TITLE="FRAMES VERSION");
%COMPARE(INCOND=P*-*,TITLE="NON-FRAMES VERSION");

ENDSAS;
```

10. CALCULATE CAHPS ADJUSTED SCORES – ANNUAL

10.A. CREATE AND RECODE VARIABLES USED IN ADULT CONSUMER REPORTS - ANNUAL

```
************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                  Create a Female dummy variable
*                  Create an Education dummy variable
*                  Create 15 region dummies combining regions.
*                         7 & 8 into region 8. That is, there
*                         isn't a region 7 dummy.
*                  Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                  1 - the least desirable value
*                  2 - the 2nd least desirable value
*                  3 - the most desirable value
*                  . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                 IF (XINS_COV IN (1,2,6) AND H02007>=2) THEN GROUP1 = 1
*                 IF (XENR_PCM IN (1,2,6) AND H02007>=2) THEN GROUP2 = 1
*                 IF (XENR_PCM = 3,7      AND H02007>=2) THEN GROUP3 = 1
*                 IF XINS_COV IN (3,4,5)                 THEN GROUP4 = 1
*                 IF XBNFGRP = 1                         THEN GROUP5 = 1
*                 IF XBNFGRP = 2                         THEN GROUP6 = 1
*                 IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                 GROUP8 is output for all beneficiaries
*
*  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
*               adult report cards.  Removed permanent dataset ENTIRE.SD2.
*            2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
*               for 3rd quarter adult report cards.
*            3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
*               stratification done in Q3, changed all references of the
*               POSTSTR variable to ADJ_CELL
*            4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
*               XENR_PCM
*            5) April 2002 By Mike Scott, Updated variable names for 2002
*               survey.
*            6) July 2002 By Mike Scott: See Note #2.  Replaced variable
*               S02S01 with H02076 (new health status variable), deleted
*               code to recode S02S01 to H00077, and changed H00077/R00077
*               rename/recode to H02076/R02076 rename/recode.  The Hispanic/
*               Latino variable is not present.
*
*
*  INPUTS:   1) HCS024_1 - DoD Quarterly HCS Database   /* Q4_2002 */
*
*  OUTPUTS:  1) GROUP1-8.SD2 - DoD Quarterly GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                             values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*            2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*               status variable for 2000).  H02077 was the Hispanic/Latino
*               variable.  In Q2_2002, H02077 is health status, and H02079
*               is the Hispanic/Latino variable.  To make the Quarter 2 data
*               file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*               the health status variable which was H02077 is now H02076,
*               and the Hispanic/Latino variable which was H02079 is now
*               H02077.
*
************************************************************************;
OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT V612 "DATA";
LIBNAME IN1 V612 "..\..\..\DATA";
```

```
TITLE1    'Program Saved as: STEP1Q.SAS';

PROC CONTENTS DATA=IN1.HCS02A_1;   /* Annual Version */
RUN;

DATA ENTIRE;
   SET IN1.HCS02A_1(KEEP=   /* Annual Version */
                MPRID
                DAGEQY
                XREGION
                CACSMPL
                CONUS
                ENBGSMPL
                SREDA
                XSEXA
                XBNFGRP
                ADJ_CELL
                XINS_COV
                XENR_PCM
                CWRWT
                /* Getting Needed Care */
                H02009
                H02016
                H02030
                H02031
                /* Getting Care Quickly */
                H02021
                H02023
                H02026
                H02032
                /* How Well Doctors Communicate */
                H02035
                H02036
                H02037
                H02038
                /* Courteous and Helpful Office Staff */
                H02033
                H02034
                /* Customer Service */
                H02048
                H02050
                H02055
                /* Claims Processing */
                H02044
                H02045 /*****************************/
                H02076 /* Health Status             */
                H02039 /* Health Care Rating        */
                H02056 /* Health Plan Rating        */
                H02011 /* Personal Doctor Rating    */
                H02018 /* Specialist Rating         */
                H02007 /* How Long in Health Plan   */
                       /*****************************/
               );
    FORMAT _ALL_;
    IF XREGION = .    THEN DELETE;
    IF XINS_COV NOT IN(1,2,3,6) THEN DELETE;
                     /* Note:  use tmp_cell in step2q.sas */
    LENGTH TMP_CELL 8;
    TMP_CELL = ADJ_CELL;
    WRWT=CWRWT;
RUN;


 *-------------------------------------------------;
 * create variable names for catchment area dummies ;
 *-------------------------------------------------;

 *  create a file of catchment areas (UNIQUE) using the sort to drop;
 *  all duplicate catchment areas leaving one record per;
 *  unique catctment area code;
 PROC SORT DATA=ENTIRE OUT=UNIQUE(KEEP=CACSMPL) NODUPKEY;
      BY CACSMPL;
 RUN;
```

```
 *  create a file (FILEA) with catchment areas codes and a catchment;
 *  name consisting of "CAT" concatenated with a 4 digit number;
 *  created by ting of "CAT" concatenated with a 4 digit number;
 DATA FILEA (RENAME=(CACSMPL=START SERIAL=LABEL));
      SET UNIQUE;
      SERIAL+1;
      LENGTH FMTNAME $7 DUMNAME $7;
      FMTNAME='CACLOOK';
      DUMNAME= 'CAT' || PUT(CACSMPL, Z4.);
 RUN;


PROC PRINT DATA=FILEA;
     TITLE2 '1 record per catchment area (use this file to create a format)';
RUN;


* create a format statement to be used to create CATINDX;
PROC FORMAT CNTLIN=FILEA;  RUN;


 * create an include file for a complete set of catchment areas.
 * Write out to a file (CDUMFILE.INC) of the catchment dummy variables;
 DATA _NULL_;
      SET FILEA END=EOF;
      FILE 'CDUMFILE.INC';
      IF _N_ = 1 THEN DO;
         PUT @10  "ARRAY CATDUMS(*) 4";
      END;
      PUT    @15   DUMNAME $7.;

      IF EOF  THEN  PUT @10 ";";
 RUN;

*************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF DAGEQY NE "  " THEN DO;
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
      AGE75UP=0;
      IF      ( '018' <= DAGEQY <= '024' ) THEN AGE1824=1;
      ELSE IF ( '025' <= DAGEQY <= '034' ) THEN AGE2534=1;
      ELSE IF ( '035' <= DAGEQY <= '044' ) THEN AGE3544=1;
      ELSE IF ( '045' <= DAGEQY <= '054' ) THEN AGE4554=1;
      ELSE IF ( '055' <= DAGEQY <= '064' ) THEN AGE5564=1;
      ELSE IF ( '065' <= DAGEQY <= '074' ) THEN AGE6574=1;
      ELSE IF (          DAGEQY  > '074' ) THEN AGE75UP=1;
   END;

  * IF H02047=2 THEN H02048=1;
   ************************************************************************
   * Create the FEMALE dummy variable.
   ************************************************************************;
   IF XSEXA = 2 THEN
      FEMALE = 1;
   ELSE
      FEMALE = 0;

   ************************************************************************
   * Create the beneficiary group/enrollment group subsets.
   ************************************************************************;
   GROUP1 = 0;
   GROUP2 = 0;
   GROUP3 = 0;
```

```
GROUP4 = 0;
GROUP5 = 0;
GROUP6 = 0;
GROUP7 = 0;
GROUP8 = 1;     * EVERYONE;

IF (XINS_COV IN (1,2,6)  AND H02007>=2) THEN GROUP1 = 1;
IF (XENR_PCM IN (1,2,6)  AND H02007>=2) THEN GROUP2 = 1;
IF (XENR_PCM IN (3,7)    AND H02007>=2) THEN GROUP3 = 1;
IF XINS_COV IN (3,4,5)   THEN GROUP4 = 1;
IF XBNFGRP = 1           THEN GROUP5 = 1;
IF XBNFGRP = 2           THEN GROUP6 = 1;
IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

*********************************************************************
* Reorder the codes for H02032.  H02032 is in reverse order.
*********************************************************************;
IF H02032 = 1      THEN R02032 = 4;
ELSE IF H02032 = 2 THEN R02032 = 3;
ELSE IF H02032 = 3 THEN R02032 = 2;
ELSE IF H02032 = 4 THEN R02032 = 1;
ELSE IF H02032 < 0 THEN R02032 = .;
   IF R02032 > 1   THEN R02032 = R02032 - 1;

*********************************************************************
* Recode variables with Never, Sometimes, Usually and Always:
*    Recode Never & Sometimes (1 & 2) to 1.
*    Recode Usually (3) to 2.
*    Recode Always (4) to 3.
*********************************************************************;
IF H02021 = 1      THEN R02021 = 1;
ELSE IF H02021 = 2 THEN R02021 = 1;
ELSE IF H02021 = 3 THEN R02021 = 2;
ELSE IF H02021 = 4 THEN R02021 = 3;
ELSE IF H02021 < 0 THEN R02021 = .;

IF H02023 = 1      THEN R02023 = 1;
ELSE IF H02023 = 2 THEN R02023 = 1;
ELSE IF H02023 = 3 THEN R02023 = 2;
ELSE IF H02023 = 4 THEN R02023 = 3;
ELSE IF H02023 < 0 THEN R02023 = .;

IF H02026 = 1      THEN R02026 = 1;
ELSE IF H02026 = 2 THEN R02026 = 1;
ELSE IF H02026 = 3 THEN R02026 = 2;
ELSE IF H02026 = 4 THEN R02026 = 3;
ELSE IF H02026 < 0 THEN R02026 = .;

IF H02033 = 1      THEN R02033 = 1;
ELSE IF H02033 = 2 THEN R02033 = 1;
ELSE IF H02033 = 3 THEN R02033 = 2;
ELSE IF H02033 = 4 THEN R02033 = 3;
ELSE IF H02033 < 0 THEN R02033 = .;

IF H02034 = 1      THEN R02034 = 1;
ELSE IF H02034 = 2 THEN R02034 = 1;
ELSE IF H02034 = 3 THEN R02034 = 2;
ELSE IF H02034 = 4 THEN R02034 = 3;
ELSE IF H02034 < 0 THEN R02034 = .;

IF H02035 = 1      THEN R02035 = 1;
ELSE IF H02035 = 2 THEN R02035 = 1;
ELSE IF H02035 = 3 THEN R02035 = 2;
ELSE IF H02035 = 4 THEN R02035 = 3;
ELSE IF H02035 < 0 THEN R02035 = .;

IF H02036 = 1      THEN R02036 = 1;
ELSE IF H02036 = 2 THEN R02036 = 1;
ELSE IF H02036 = 3 THEN R02036 = 2;
ELSE IF H02036 = 4 THEN R02036 = 3;
ELSE IF H02036 < 0 THEN R02036 = .;

IF H02037 = 1      THEN R02037 = 1;
ELSE IF H02037 = 2 THEN R02037 = 1;
```

```
ELSE IF H02037 = 3 THEN R02037 = 2;
ELSE IF H02037 = 4 THEN R02037 = 3;
ELSE IF H02037 < 0 THEN R02037 = .;

IF H02038 = 1      THEN R02038 = 1;
ELSE IF H02038 = 2 THEN R02038 = 1;
ELSE IF H02038 = 3 THEN R02038 = 2;
ELSE IF H02038 = 4 THEN R02038 = 3;
ELSE IF H02038 < 0 THEN R02038 = .;

IF H02044 = 1      THEN R02044 = 1;
ELSE IF H02044 = 2 THEN R02044 = 1;
ELSE IF H02044 = 3 THEN R02044 = 2;
ELSE IF H02044 = 4 THEN R02044 = 3;
ELSE IF H02044 < 0 THEN R02044 = .;

IF H02045 = 1      THEN R02045 = 1;
ELSE IF H02045 = 2 THEN R02045 = 1;
ELSE IF H02045 = 3 THEN R02045 = 2;
ELSE IF H02045 = 4 THEN R02045 = 3;
ELSE IF H02045 < 0 THEN R02045 = .;
   IF S02S01=6 then H02076=0;
if s02s01=5 then h02076=1;
if s02s01=4 then h02076=2;
if s02s01=3 then h02076=3;
if s02s01=2 then h02076=4;
if s02s01=1 then h02076=5;
**************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
**************************************************************************;
R02009 = H02009;  IF R02009 < 0 THEN R02009 = .;
R02011 = H02011;  IF R02011 < 0 THEN R02011 = .;
R02016 = H02016;  IF R02016 < 0 THEN R02016 = .;
R02018 = H02018;  IF R02018 < 0 THEN R02018 = .;
R02030 = H02030;  IF R02030 < 0 THEN R02030 = .;
R02031 = H02031;  IF R02031 < 0 THEN R02031 = .;
R02039 = H02039;  IF R02039 < 0 THEN R02039 = .;
R02048 = H02048;  IF R02048 < 0 THEN R02048 = .;
R02050 = H02050;  IF R02050 < 0 THEN R02050 = .;
R02055 = H02055;  IF R02055 < 0 THEN R02055 = .;
R02056 = H02056;  IF R02056 < 0 THEN R02056 = .;
R02076 = H02076;  IF R02076 < 0 THEN R02076 = .;

**************************************************************************
* Create region dummies.
**************************************************************************;
IF XREGION NE . THEN DO;
   ARRAY REGDUMS (15) REG01 REG02 REG03 REG04 REG05 REG06 REG08
                      REG09 REG10 REG11 REG12 REG13 REG14 REG15 REG16;
   DO I = 1 TO 15;
      REGDUMS(I)=0;
   END;
   IF XREGION= 7  THEN XREGION = 8;  * Recode Region 7 into Region 8;
   IF       XREGION= 1  THEN REG01  =1;
   ELSE IF  XREGION= 2  THEN REG02  =1;
   ELSE IF  XREGION= 3  THEN REG03  =1;
   ELSE IF  XREGION= 4  THEN REG04  =1;
   ELSE IF  XREGION= 5  THEN REG05  =1;
   ELSE IF  XREGION= 6  THEN REG06  =1;
   ELSE IF  XREGION= 8  THEN REG08  =1;
   ELSE IF  XREGION= 9  THEN REG09  =1;
   ELSE IF  XREGION=10  THEN REG10  =1;
   ELSE IF  XREGION=11  THEN REG11  =1;
   ELSE IF  XREGION=12  THEN REG12  =1;
   ELSE IF  XREGION=13  THEN REG13  =1;
   ELSE IF  XREGION=14  THEN REG14  =1;
   ELSE IF  XREGION=15  THEN REG15  =1;
   ELSE IF  XREGION=16  THEN REG16  =1;
END;
*-------------------------;
* Create catchment dummies;
*-------------------------;
%INCLUDE 'CDUMFILE.INC';   * this is array statement;
```

```
   CATINDX = INPUT(PUT(CACSMPL, CACLOOK.), 3.);
   DO I = 1 TO DIM(CATDUMS);
     CATDUMS(I) = 0;
   END;
   CATDUMS(CATINDX)=1;
RUN;

*************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
*************************************************************************;
%INCLUDE "..\..\..\..\..\8687\PROGRAMS\REPORTCARDS\CONVERT.SAS";

%CONT1(DSN=ENTIRE, NUM=7,  Y=R02009 R02016 R02030 R02031
                           R02048 R02050 R02055);
%CONT2(DSN=ENTIRE, NUM=4,  Y=R02039 R02056 R02011 R02018);
%CONT3(DSN=ENTIRE, NUM=12, Y=R02021 R02023 R02026 R02032
                           R02035 R02036 R02037 R02038
                           R02033 R02034 R02044 R02045);

*************************************************************************
* Sort the main file to reorder it by MPRID.
*************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*************************************************************************
* Print the contents of ENTIRE dataset.
*************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       DAGEQY
       XREGION
       CONUS
       ENBGSMPL
       XSEXA
       ADJ_CELL
       XINS_COV
       XENR_PCM
       WRWT
      ;
RUN;

*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR DAGEQY
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
```

```
       GROUP4
       GROUP5
       GROUP6
       GROUP7
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H02009  R02009
       H02011  R02011
       H02016  R02016
       H02018  R02018
       H02021  R02021
       H02023  R02023
       H02026  R02026
       H02030  R02030
       H02031  R02031
       H02032  R02032
       H02033  R02033
       H02034  R02034
       H02035  R02035
       H02036  R02036
      ;
RUN;


PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H02037  R02037
       H02038  R02038
       H02039  R02039
       H02044  R02044
       H02045  R02045
       H02048  R02048
       H02050  R02050
       H02055  R02055
       H02056  R02056
       H02076  R02076
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XREGION
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
      ;
RUN;

*************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
*************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;
```

```
      SET ENTIRE;

      DROP
         H02009
         H02011
         H02016
         H02018
         H02021
         H02023
         H02026
         H02030
         H02031
         H02032
         H02033
         H02034
         H02035
         H02036
         H02037
         H02038
         H02039
         H02044
         H02045
         H02048
         H02050
         H02055
         H02056
         H02076
         ;
       IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
       IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
       IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
       IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
       IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
       IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
       IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
       OUTPUT OUT.GROUP8;
RUN;
```

10.B. CALCULATE CAHPS ADJUSTED SCORES – ANNUAL

```
/*************************************************************************************
/*  Project:  DoD - 1999 Adult Report Cards
/*  Program:  STEP2.SAS
/*  Purpose:  Draft Adult Report Card
/*  Requires program STEP1.SAS to have been run
/*  Programming specifications for adult report card
/*  The adult report card contains a large number of
/*  risk-adjusted scores.  Some scores are
/*  calculated from responses to individual survey questions.
/*  Composite scores are calculated by
/*  combining scores from individual questions.
/*  The scores then are compared with external civilian
/*  benchmarks.  The programming tasks involved in building
/*  the report card are:
/*       1)   preparing data for analyses
/*       2)   estimating risk adjustment models
/*       3)   calculating risk-adjusted values and variances
/*       4)   calculating benchmarks
/*       5)   comparing risk-adjusted values to benchmarks
/*            and hypothesis testing
/*
/*  Modified: 1) December 2001 By Mike Scott: Updated parameters for 2000 survey,
/*               added V612 to support SUDAAN with Version 8 SAS, changed STRATUM to
/*               TMP_CELL, and changed INTERCEP to INTERCEPT to support Version 8 SAS.
/*            2) January 2003 By Keith Rathbun: Added output files for SKELCAT and
/*               SKELREG (No longer permanent datasets... only needed by this program).
/*
/* SUBGROUPS
/* ____________________________________________________________________________________
/*    Seven subgroups          Definitions                          Reg or Catch   Macro
/* ____________________________________________________________________________________
/* 1. Prime enrollees          XINS_COV IN(1,2,6) AND H00002>=4   Catchment      SCORE1
/* 2. Enrollees w/mil PCM      XENR_PCM IN(1,2,6) AND H00002>=4   Catchment      SCORE1
/* 3. Enrollees w/civ PCM      XENR_PCM = 3       AND H00002>=4   Region         SCORE2
/* 4. Nonenrollees             XINS_COV IN(3,4,5)                 Region         SCORE2
/* 5. Active duty              XBNFGRP=1                          Catchment      SCORE1
/* 6. Active duty dependents   XBNFGRP=2                          Region         SCORE2
/* 7. Retirees and dependents  XBNFGRP IN (3,4)                   Region         SCORE2
/*
/*  PREV PGM:  STEP1.SAS
/*  NEXT PGM:  COMPOSIT.SAS
/*************************************************************************************/
*OPTIONS NOCENTER LS=132 PS=78 SOURCE NOOVP COMPRESS=YES;
OPTIONS NOCENTER NOFMTERR LS=132 PS=78 SOURCE STIMER; *NOOVP MPRINT MLOGIC SYMBOLGEN;
LIBNAME   IN1  V612    "DATA";
LIBNAME   IN2  V612    "..\..\..\DATA";
LIBNAME   OUT  V612    "DATA";
LIBNAME   OUT2 V612    "DATA\ADULTHATFILES";

*--------------------------------------;
*-       set the parameters here      -;
*--------------------------------------;

* set the number of Dependent variables to process;
* One does not need to start at 1, but the max must be >= min;
%LET MIN_VAR =  1;
%LET MAX_VAR =  23;

* set the number of subgroups to process;
%LET MIN_GRP = 1;
%LET MAX_GRP = 8;

************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
************************************************************************;
%LET WGT      = WRWT;
%LET IND_VAR1 = R02076;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;

%LET TITL1 = Prime Enrollees;
```

```
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;

*************************************************************************
* GETTING NEEDED CARE.
*************************************************************************;
%LET DEPVAR1 = R02009;
%LET DEPVAR2 = R02016;
%LET DEPVAR3 = R02030;
%LET DEPVAR4 = R02031;

*************************************************************************
* GETTING NEEDED CARE QUICKLY.
*************************************************************************;
%LET DEPVAR5 = R02021;
%LET DEPVAR6 = R02023;
%LET DEPVAR7 = R02026;
%LET DEPVAR8 = R02032;

*************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%LET DEPVAR9  = R02035;
%LET DEPVAR10 = R02036;
%LET DEPVAR11 = R02037;
%LET DEPVAR12 = R02038;

*************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%LET DEPVAR13 = R02033;
%LET DEPVAR14 = R02034;

*************************************************************************
* CUSTOMER SERVICE.
*************************************************************************;
%LET DEPVAR15 = R02048;
%LET DEPVAR16 = R02050;
%LET DEPVAR17 = R02055;

*************************************************************************
* CLAIMS PROCESSING.
*************************************************************************;
%LET DEPVAR18 = R02044;
%LET DEPVAR19 = R02045;

*************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR20 = R02039;

*************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%LET DEPVAR21 = R02056;

*************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
*************************************************************************;
%LET DEPVAR22 = R02011;

*************************************************************************
* SPECIALITY CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR23 = R02018;

proc freq data=in2.hcs02a_1;
   tables cacsmpl /missing list out=skelcat(keep=cacsmpl);
run;
```

```
data skelcat;
   set skelcat;
   if cacsmpl = " " then delete;
run;

proc freq data=in2.hcs02a_1;
   tables xregion /missing list out=skelreg(keep=xregion);
run;

data skelreg;
   set skelreg;
   if xregion = . then delete;
run;

 %MACRO SCORE1;
 ****************************************;
 *     use this macro for groups 1, 2 & 5    *;
 *     catchment variables are to be used    *;
 ****************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO SCORE1;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ****************************************;

*-------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*-------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;
%LET CMRGFILE = OUT.C_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET CMRGFILE = SKELCAT;


* run regression using the catchment level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model on catchment areas";
     TITLE3 "Beneficiary group&igrp: &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSCAT.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                       PRED&IGRP RESID&IGRP CACSMPL XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;
RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with PRED&IGRP and RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XREGION CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
   RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*---------------------------------;
*-- get the standard err/variance;
*---------------------------------;
```

```
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
DATA ADJUST;
     SET MEANFILE;    * CREATED IN THE MACRO  MAKE_DAT;
     IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = . THEN MEANS(I) = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
     END;
     ADJUST = ADJUST + INTERCEPT;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=ADJUST;
        TITLE2 'Print of ADJUST';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* add the catchment coefficients to the adjusted value from above;
* output one record per catchment area with the catchment;
* level adjusted scores;
DATA COEFFCAC(KEEP=CATAREA NEWADJST);
   SET ADJUST;
   %INCLUDE 'CATARRAY.INC';
   LENGTH NAME $8;
   DO I=1 TO DIM(CATRHS);
     CALL VNAME(CATRHS(I),NAME);
     CATAREA=INPUT(SUBSTR(NAME,4,4),4.);
     IF CATRHS(I) = . THEN CATRHS(I) = 0;
     NEWADJST=ADJUST + CATRHS(I);
     OUTPUT;
   END;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=COEFFCAC;
         TITLE2 'COEFFCAC: Catchment Area Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


 * sum of wgts per catchment areas;
 * attach the region id to the output file so;
 * so we can create wgts for each region later;
 PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
   ID    XREGION ;  * important ;
   CLASS CACSMPL ;
   VAR   &WGT;
   OUTPUT OUT=CAT_WGTS(RENAME=(CACSMPL=CATAREA)) N=CATCNT SUM=CATWGT;
 RUN;


* merge the Coeffcac file with the catchment;
* adjusted scores to the catchment level weight;
* merge by the catchment area. creates a;
* catchment level file with catchment weights;
 DATA COEFFCAC;
   MERGE COEFFCAC(IN=IN1)
         CAT_WGTS(IN=IN2 KEEP=CATAREA XREGION CATWGT CATCNT);
   BY CATAREA;
```

```
   IF IN1;
 RUN;



%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=CAT_WGTS(OBS=70);
         TITLE2 'CAT_WGTS: Catchment Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFCAC(OBS=70);
         TITLE2 'Catchment Area Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

%END;


* merge the previous groups catchment results (if any);
* with the catchment level std err and the catchment;
* level results from the current groups and dependent var;
%PUT "&CMRGFILE: " &CMRGFILE;
DATA OUT.C_&&DEPVAR&IVAR(RENAME=(NEWADJST=ADJ&IGRP));
     MERGE &CMRGFILE(IN=INS)
           C&IGRP&&DEPVAR&IVAR
           COEFFCAC(RENAME=(CATAREA=CACSMPL CATWGT=CATWGT&IGRP CATCNT=CATCNT&IGRP));
     BY CACSMPL;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
     TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;


 * Calculate region level adjusted scores from the;
 * catchment level adjusted scores;
 * this proc calculates the regional avg of the;
 * weighted catchment adjusted scores;
 PROC MEANS DATA=COEFFCAC NWAY NOPRINT;
   WEIGHT CATWGT;
   CLASS  XREGION;
   VAR    NEWADJST;
   OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
 RUN;


* create a region level weight;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=REGFILE1(OBS=70);
         TITLE2 'REGFILE1: Region level Sum of WGTS from Catchment sums';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA = REG_WGTS(OBS=70);
         TITLE2 'REG_WGTS: Region level Sum of WGTS from Group&igrp sums';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
```

```
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XREGION)
           REGFILE1(KEEP = ADJ&IGRP XREGION);
     BY XREGION;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;


PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
     TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of variables in R_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

%MEND SCORE1;



 *
;
 %MACRO SCORE2;
 ************************************;
 * use this macro for groups 3, 4, 6, 7;
 * region variables are to be used     ;
 ************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO SCORE2;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ****************************************;


* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                      PRED&IGRP RESID&IGRP CACSMPL XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XREGION CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;
```

```
*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XREGION NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XREGION=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT SUM=REGWGT;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XREGION REGCNT REGWGT);
      BY XREGION;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
```

```
    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
/*PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT;
  CLASS  XREGION;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;
*/

%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          coeffreg(rename=(newadjst=adj&igrp));
    BY XREGION;
    RENAME REGCNT = REGCNT&IGRP;
    RENAME REGWGT = REGWGT&IGRP;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of REGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;


%IF &IGRP = 6 OR &IGRP = 7 %THEN %DO;
   * For active duty dependents(6) and retirees and dependents (7) calculate;
   * catchment level residuals from the enhanced HCSDB file;
   * here we sum the weights to the catchment level as well;
     PROC MEANS DATA = OUT2.H&IGRP&&DEPVAR&IVAR NOPRINT NWAY;
          ID XREGION;
          CLASS CACSMPL;
          weight &wgt;
          VAR RESID&IGRP;
          OUTPUT OUT=MEANRES MEAN= n=catcnt sumwgt=sumwgt;

     RUN;

     %IF &DEBUGFLG > 0  %THEN %DO;
          PROC PRINT DATA=MEANRES;
              TITLE2 "Print of MEANRES";
              TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
          RUN;
     %END;
```

```
    PROC SORT DATA=MEANRES;
         BY XREGION;
    RUN;


 * Merge the regional adjusted scores with the catchment;
 * level residual means.  Calculate the catchment level;
 * adjusted scores by adding the catchment mean residual;
 * to the region level adjusted score. Set the catchment;
 * level weight to 0.0 if the catchment adjusted score is;
 * missing;
    DATA MERGE&IGRP(KEEP=CACSMPL ADJ&IGRP CATCNT&IGRP CATWGT&IGRP);
         MERGE COEFFREG
               MEANRES(RENAME=(CATCNT=CATCNT&IGRP SUMWGT=CATWGT&IGRP));
          BY XREGION;
          ADJ&IGRP = RESID&IGRP+NEWADJST;
          IF ADJ&IGRP=. THEN CATWGT&IGRP=.;
    RUN;

    PROC SORT DATA=MERGE&IGRP;
         BY CACSMPL;
    RUN;


* merge the previous groups catchment results (if any);
* with the catchment level std and the current catchment;
* level results calculated above;
    DATA OUT.C_&&DEPVAR&IVAR;
          MERGE OUT.C_&&DEPVAR&IVAR(IN=INS)
                C&IGRP&&DEPVAR&IVAR
                MERGE&IGRP;
          BY CACSMPL;
          DEPENDNT = "&&DEPVAR&IVAR";
          IF INS;
    RUN;


    PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
         TITLE2 "Print of variables in C_&&DEPVAR&IVAR";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

 %END;

 %MEND SCORE2;

 %MACRO MAKE_INC;
 ************************************;
 * creates include files for later Procs;
 * Needs to be run each time.  Called   ;
 * in the outer (beneficiary loop).     ;
 * I chose this method because it was   ;
 * clearer(to me at least).             ;
 * This macro needs to be run once per  ;
 * Dep var per subgroup.                ;
 ************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;
  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;

  RUN;

 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
```

```
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY CATCNT(9998) 8 CCNT0001 - CCNT9998;
      ARRAY REGCNT(16)   8 REGCNT01 - REGCNT16;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;

      * create a name array for the age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824 = 1 THEN AGECNT(1) + 1;
      IF AGE2534 = 1 THEN AGECNT(2) + 1;
      IF AGE3544 = 1 THEN AGECNT(3) + 1;
      IF AGE4554 = 1 THEN AGECNT(4) + 1;
      IF AGE5564 = 1 THEN AGECNT(5) + 1;
      IF AGE6574 = 1 THEN AGECNT(6) + 1;
      IF AGE75UP = 1 THEN AGECNT(7) + 1;

      * count records in each catchment group;
      * we will only use catchment areas ;
      * with more than than 2 obs;
      * I am using the catchment area as the subscript;
      * to make the code simpler and more readable;
      IF CACSMPL >= 1 AND CACSMPL <= 9998 THEN DO;
         CATCNT(CACSMPL) = CATCNT(CACSMPL) + 1;
      END;

      * count records in each REGION group;
      * we will only use REGIONS ;
      * with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XREGION >= 1 AND XREGION <=16  THEN DO;
         REGCNT(XREGION) = REGCNT(XREGION) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;


ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 16;
```

```
      IF(REGCNT(I) > 0) THEN DO;
         PUT  'REG' I Z2. REGCNT(I) 6.;
      END;
   END;
   PUT ' ';

   DO I = 1 TO 9998;
      IF(CATCNT(I) > 0) THEN DO;
         PUT  'CAT' I Z4. CATCNT(I) 6.;
      END;
   END;
   PUT ' ';
%END;    *** of debug test;


*-------------------------------------------------------;
* create an include file for the regression model;
* it is inconvient, but SAS requires that the;
* include file start after a complete statement;
* i.e. after a semicolon;
* This include is for the regression using catchment areas;
FILE 'REGRSCAT.INC';
PUT @6  "MODEL &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 +1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;
* drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;


* ditto for the catchment areas with > 0 obs;
* in this case we drop the last non-zero cnt;
* this is not consistent with Portias code which;
* unintentionally omitted several catchment area codes;
LAST_REC = 0;
DO I = 1 TO 9998;
   IF CATCNT(I) > 0 THEN LAST_REC = I;
END;

* skip the last cacsmpl with > 1 obs;
DO I = 1 TO LAST_REC-1;
   IF CATCNT(I) > 0 THEN DO;
      PUT @12 'CAT' I Z4.;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last REGION;
FILE 'REGRSREG.INC';
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
```

```
      CNT2 +1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;
DO I = 1 TO 16;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-----------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*-----------------------------------------------------------;
* create an ARRAY statement of the desired risk factors;
* called adjusters in the specs and in the code;
FILE 'RISKARRY.INC';
PUT @10  "ARRAY COEFFS(*) $8";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
```

```
         CNT3 + 1;
         PUT @12 "&IND_VAR2";
      END;

      IF "&IND_VAR3" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR3";
      END;
      PUT @11 ';';


      *-------------------------------------------------------;
      * create an ARRAY of mean names for the output;
      * from a proc MEANS of the Risk Factors in RISKARRY;
      FILE 'RISKMEAN.INC';
      IND_CNT = CNT2 + CNT3;
      PUT @6 "ARRAY MEANS(*) $8";
      DO I = 1 TO IND_CNT;
         PUT @12 "MEAN" I Z2.;
      END;
      PUT @11 ';';

*     -------------------------------------------------;
*     create the equivalent of the following statement;
*     OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
      FILE 'MEANFILE.INC';
      PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
      DO I = 1 TO IND_CNT;
         PUT @12 "MEAN" I Z2.;
      END;
      PUT @11 ';';

      *-------------------------------------------------------;
      * create a catchment area array for all catchment areas;
      * with 1+ obs.
      * the missing value = 9999 was dropped in STEP1;  ** rlc 4/29/00;
      FILE 'CATARRAY.INC';
      PUT @10  "ARRAY CATRHS(*) $8";
      DO I = 1 TO 9998;            *** rlc 4/29/00 changed "9999" to "9998";
         IF CATCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
            PUT  @16 'CAT' I Z4.;
         END;
      END;
      PUT @11 ';';

      *-------------------------------------------------------;
      * create a region area array;
      * with at least ONE obs;
      FILE 'REGARRAY.INC';
      PUT @10  "ARRAY REGRHS(*) $8";
      DO I = 1 TO 16;
         IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
            PUT  @16 'REG' I Z2.;
         END;
      END;
      PUT @11 ';';
  file print;
  RUN;

  * Create the means of the adjuster variables;
  * They will be used to replace missing adjuster variables;
  * calculate weighted means;
  PROC MEANS DATA=group&igrp;

    WEIGHT &WGT;
    %INCLUDE 'RISKVARS.INC';
    %INCLUDE 'MEANFILE.INC';
     RUN;

DATA GROUP&IGRP;
      SET GROUP&IGRP;
      IF _N_ = 1 THEN SET MEANFILE;
      %INCLUDE 'RISKARRY.INC';
      %INCLUDE 'RISKMEAN.INC';
```

```
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
 PROC MEANS DATA=in1.group8;
*   where &&depvar&ivar ne .;
   WEIGHT &WGT;
  %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
    RUN;

%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


 %MEND MAKE_INC;

 %MACRO R_SUDAAN(INFILE);
 ************************************************;
 * use this macro to create standard err (variances);
 * FOR: REGIONS                                  ;
 ************************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO R_SUDAAN (REGIONS);
 %PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF XREGION > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (REGION)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XREGION;
   SUBGROUP XREGION;
   LEVELS 16;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XREGION SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
```

```
      TITLE2 "Print REGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  R_SUDAAN;


 %MACRO C_SUDAAN(INFILE);
 ************************************************;
 * use this macro to create standard err (variances);
 * FOR: CATCHMENT AREAS                           ;
 ************************************************;
 %PUT ***************************************;
 %PUT STARTING MACRO C_SUDAAN (CATCHMENT);
 %PUT ***************************************;

DATA &INFILE;
   SET &INFILE;
   IF CACSMPL > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN for CATCHMENT';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES CACSMPL;
   SUBGROUP CACSMPL;
   LEVELS 9998;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=CS&DEP;
   RUN;

   DATA C&IGRP&&DEPVAR&IVAR;
        SET CS&DEP;
        IF SEMEAN NE .;
        KEEP CACSMPL SEMEAN;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=C&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print CATCHMENT DESCRIPT DATA=C&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  C_SUDAAN;

%*********************************;
%*  call the macros;
%*********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
    %DO IVAR = &MIN_VAR %TO &MAX_VAR;
        %DO IGRP = &MIN_GRP %TO &MAX_GRP;
            %MAKE_INC;
            %IF &IGRP = 1 OR &IGRP = 2 OR &IGRP = 5 OR &IGRP = 8 %THEN
```

```
              %SCORE1;
            %ELSE
              %SCORE2;
        %END;
    %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
 *
;
 %MACRO SCORE1;
 ****************************************;
 *     use this macro for groups 1, 2 & 5    *;
 *     catchment variables are to be used    *;
 ****************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO SCORE1;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ****************************************;

*-------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*-------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;
%LET CMRGFILE = OUT.C_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET CMRGFILE = SKELCAT;


* run regression using the catchment level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model on catchment areas";
     TITLE3 "Beneficiary group&igrp: &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSCAT.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                      PRED&IGRP RESID&IGRP CACSMPL XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;
RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with PRED&IGRP and RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XREGION CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
   RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*---------------------------------;
*-- get the standard err/variance;
*---------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);
```

```
* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
DATA ADJUST;
     SET MEANFILE;    * CREATED IN THE MACRO  MAKE_DAT;
     IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = . THEN MEANS(I) = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
     END;
     ADJUST = ADJUST + INTERCEPT;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=ADJUST;
        TITLE2 'Print of ADJUST';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* add the catchment coefficients to the adjusted value from above;
* output one record per catchment area with the catchment;
* level adjusted scores;
DATA COEFFCAC(KEEP=CATAREA NEWADJST);
   SET ADJUST;
   %INCLUDE 'CATARRAY.INC';
   LENGTH NAME $8;
   DO I=1 TO DIM(CATRHS);
     CALL VNAME(CATRHS(I),NAME);
     CATAREA=INPUT(SUBSTR(NAME,4,4),4.);
     IF CATRHS(I) = . THEN CATRHS(I) = 0;
     NEWADJST=ADJUST + CATRHS(I);
     OUTPUT;
   END;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=COEFFCAC;
         TITLE2 'COEFFCAC: Catchment Area Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


 * sum of wgts per catchment areas;
 * attach the region id to the output file so;
 * so we can create wgts for each region later;
 PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
   ID    XREGION ;  * important ;
   CLASS CACSMPL ;
   VAR   &WGT;
   OUTPUT OUT=CAT_WGTS(RENAME=(CACSMPL=CATAREA)) N=CATCNT SUM=CATWGT;
 RUN;


* merge the Coeffcac file with the catchment;
* adjusted scores to the catchment level weight;
* merge by the catchment area. creates a;
* catchment level file with catchment weights;
 DATA COEFFCAC;
   MERGE COEFFCAC(IN=IN1)
         CAT_WGTS(IN=IN2 KEEP=CATAREA XREGION CATWGT CATCNT);
   BY CATAREA;
   IF IN1;
 RUN;
```

```
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=CAT_WGTS(OBS=70);
         TITLE2 'CAT_WGTS: Catchment Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFCAC(OBS=70);
         TITLE2 'Catchment Area Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

%END;


* merge the previous groups catchment results (if any);
* with the catchment level std err and the catchment;
* level results from the current groups and dependent var;
%PUT "&CMRGFILE: " &CMRGFILE;
DATA OUT.C_&&DEPVAR&IVAR(RENAME=(NEWADJST=ADJ&IGRP));
     MERGE &CMRGFILE(IN=INS)
           C&IGRP&&DEPVAR&IVAR
           COEFFCAC(RENAME=(CATAREA=CACSMPL CATWGT=CATWGT&IGRP CATCNT=CATCNT&IGRP));
     BY CACSMPL;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
     TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;


 * Calculate region level adjusted scores from the;
 * catchment level adjusted scores;
 * this proc calculates the regional avg of the;
 * weighted catchment adjusted scores;
 PROC MEANS DATA=COEFFCAC NWAY NOPRINT;
   WEIGHT CATWGT;
   CLASS  XREGION;
   VAR    NEWADJST;
   OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
 RUN;


* create a region level weight;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=REGFILE1(OBS=70);
         TITLE2 'REGFILE1: Region level Sum of WGTS from Catchment sums';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA = REG_WGTS(OBS=70);
         TITLE2 'REG_WGTS: Region level Sum of WGTS from Group&igrp sums';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
```

```
          REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XREGION)
          REGFILE1(KEEP = ADJ&IGRP XREGION);
     BY XREGION;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;


PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
     TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of variables in R_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

%MEND SCORE1;



 *
;
 %MACRO SCORE2;
 ************************************;
 * use this macro for groups 3, 4, 6, 7;
 * region variables are to be used     ;
 ************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO SCORE2;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ****************************************;


* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                       PRED&IGRP RESID&IGRP CACSMPL XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XREGION CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
```

```
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XREGION NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XREGION=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT SUM=REGWGT;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XREGION REGCNT REGWGT);
      BY XREGION;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
```

```
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
/*PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT;
  CLASS  XREGION;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;
*/

%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          coeffreg(rename=(newadjst=adj&igrp));
    BY XREGION;
    RENAME REGCNT = REGCNT&IGRP;
    RENAME REGWGT = REGWGT&IGRP;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of REGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;


%IF &IGRP = 6 OR &IGRP = 7 %THEN %DO;
   * For active duty dependents(6) and retirees and dependents (7) calculate;
   * catchment level residuals from the enhanced HCSDB file;
   * here we sum the weights to the catchment level as well;
     PROC MEANS DATA = OUT2.H&IGRP&&DEPVAR&IVAR NOPRINT NWAY;
          ID XREGION;
          CLASS CACSMPL;
          weight &wgt;
          VAR RESID&IGRP;
          OUTPUT OUT=MEANRES MEAN= n=catcnt sumwgt=sumwgt;

     RUN;

     %IF &DEBUGFLG > 0  %THEN %DO;
          PROC PRINT DATA=MEANRES;
              TITLE2 "Print of MEANRES";
              TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
          RUN;
     %END;

     PROC SORT DATA=MEANRES;
          BY XREGION;
```

```
    RUN;


 * Merge the regional adjusted scores with the catchment;
 * level residual means.  Calculate the catchment level;
 * adjusted scores by adding the catchment mean residual;
 * to the region level adjusted score. Set the catchment;
 * level weight to 0.0 if the catchment adjusted score is;
 * missing;
    DATA MERGE&IGRP(KEEP=CACSMPL ADJ&IGRP CATCNT&IGRP CATWGT&IGRP);
         MERGE COEFFREG
               MEANRES(RENAME=(CATCNT=CATCNT&IGRP SUMWGT=CATWGT&IGRP));
          BY XREGION;
          ADJ&IGRP = RESID&IGRP+NEWADJST;
          IF ADJ&IGRP=. THEN CATWGT&IGRP=.;
    RUN;

    PROC SORT DATA=MERGE&IGRP;
         BY CACSMPL;
    RUN;


* merge the previous groups catchment results (if any);
* with the catchment level std and the current catchment;
* level results calculated above;
    DATA OUT.C_&&DEPVAR&IVAR;
          MERGE OUT.C_&&DEPVAR&IVAR(IN=INS)
                C&IGRP&&DEPVAR&IVAR
                MERGE&IGRP;
          BY CACSMPL;
          DEPENDNT = "&&DEPVAR&IVAR";
          IF INS;
    RUN;


    PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
         TITLE2 "Print of variables in C_&&DEPVAR&IVAR";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

 %END;

 %MEND SCORE2;


 *
;
 %MACRO MAKE_INC;
 ************************************;
 * creates include files for later Procs;
 * Needs to be run each time.  Called   ;
 * in the outer (beneficiary loop).     ;
 * I chose this method because it was   ;
 * clearer(to me at least).             ;
 * This macro needs to be run once per  ;
 * Dep var per subgroup.                ;
 ************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;
  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;

  RUN;

 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
```

```
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY CATCNT(9998) 8 CCNT0001 - CCNT9998;
      ARRAY REGCNT(16)   8 REGCNT01 - REGCNT16;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;

      * create a name array for the age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824 = 1 THEN AGECNT(1) + 1;
      IF AGE2534 = 1 THEN AGECNT(2) + 1;
      IF AGE3544 = 1 THEN AGECNT(3) + 1;
      IF AGE4554 = 1 THEN AGECNT(4) + 1;
      IF AGE5564 = 1 THEN AGECNT(5) + 1;
      IF AGE6574 = 1 THEN AGECNT(6) + 1;
      IF AGE75UP = 1 THEN AGECNT(7) + 1;

      * count records in each catchment group;
      * we will only use catchment areas ;
      * with more than than 2 obs;
      * I am using the catchment area as the subscript;
      * to make the code simpler and more readable;
      IF CACSMPL >= 1 AND CACSMPL <= 9998 THEN DO;
         CATCNT(CACSMPL) = CATCNT(CACSMPL) + 1;
      END;

      * count records in each REGION group;
      * we will only use REGIONS ;
      * with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XREGION >= 1 AND XREGION <=16  THEN DO;
         REGCNT(XREGION) = REGCNT(XREGION) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;


ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 16;
```

```
      IF(REGCNT(I) > 0) THEN DO;
         PUT  'REG' I Z2. REGCNT(I) 6.;
      END;
   END;
   PUT ' ';

   DO I = 1 TO 9998;
      IF(CATCNT(I) > 0) THEN DO;
         PUT  'CAT' I Z4. CATCNT(I) 6.;
      END;
   END;
   PUT ' ';
%END;    *** of debug test;


*-------------------------------------------------------;
* create an include file for the regression model;
* it is inconvient, but SAS requires that the;
* include file start after a complete statement;
* i.e. after a semicolon;
* This include is for the regression using catchment areas;
FILE 'REGRSCAT.INC';
PUT @6  "MODEL &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 +1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;
* drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;


* ditto for the catchment areas with > 0 obs;
* in this case we drop the last non-zero cnt;
* this is not consistent with Portias code which;
* unintentionally omitted several catchment area codes;
LAST_REC = 0;
DO I = 1 TO 9998;
   IF CATCNT(I) > 0 THEN LAST_REC = I;
END;

* skip the last cacsmpl with > 1 obs;
DO I = 1 TO LAST_REC-1;
   IF CATCNT(I) > 0 THEN DO;
      PUT @12 'CAT' I Z4.;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last REGION;
FILE 'REGRSREG.INC';
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
```

```
      CNT2 +1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;
DO I = 1 TO 16;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*-------------------------------------------------------------;
* create an ARRAY statement of the desired risk factors;
* called adjusters in the specs and in the code;
FILE 'RISKARRY.INC';
PUT @10  "ARRAY COEFFS(*) $8";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
```

```
        CNT3 + 1;
        PUT @12 "&IND_VAR2";
     END;

     IF "&IND_VAR3" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR3";
     END;
     PUT @11 ';';


     *-------------------------------------------------------;
     * create an ARRAY of mean names for the output;
     * from a proc MEANS of the Risk Factors in RISKARRY;
     FILE 'RISKMEAN.INC';
     IND_CNT = CNT2 + CNT3;
     PUT @6 "ARRAY MEANS(*) $8";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

*    -------------------------------------------------;
*    create the equivalent of the following statement;
*    OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
     FILE 'MEANFILE.INC';
     PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

     *-------------------------------------------------------;
     * create a catchment area array for all catchment areas;
     * with 1+ obs.
     * the missing value = 9999 was dropped in STEP1;  ** rlc 4/29/00;
     FILE 'CATARRAY.INC';
     PUT @10  "ARRAY CATRHS(*) $8";
     DO I = 1 TO 9998;            *** rlc 4/29/00 changed "9999" to "9998";
        IF CATCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'CAT' I Z4.;
        END;
     END;
     PUT @11 ';';

     *-------------------------------------------------------;
     * create a region area array;
     * with at least ONE obs;
     FILE 'REGARRAY.INC';
     PUT @10  "ARRAY REGRHS(*) $8";
     DO I = 1 TO 16;
        IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'REG' I Z2.;
        END;
     END;
     PUT @11 ';';
 file print;
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=group&igrp;

   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
    RUN;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
```

```
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
/* PROC MEANS DATA=in1.group8;
*   where &&depvar&ivar ne .;
   WEIGHT &WGT;
  %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
    RUN;*/

%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;




 %MEND MAKE_INC;



 *
;
 %MACRO R_SUDAAN(INFILE);
 ****************************************************;
 * use this macro to create standard err (variances);
 * FOR: REGIONS                                      ;
 ****************************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO R_SUDAAN (REGIONS);
 %PUT ****************************************;



DATA &INFILE;
   SET &INFILE;
   IF XREGION > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (REGION)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XREGION;
   SUBGROUP XREGION;
   LEVELS 16;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
```

```
        SET RS&DEP;
        KEEP XREGION SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print REGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  R_SUDAAN;


 %MACRO C_SUDAAN(INFILE);
 ************************************************;
 * use this macro to create standard err (variances);
 * FOR: CATCHMENT AREAS                           ;
 ************************************************;
 %PUT ***************************************;
 %PUT STARTING MACRO C_SUDAAN (CATCHMENT);
 %PUT ***************************************;

DATA &INFILE;
   SET &INFILE;
   IF CACSMPL > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN for CATCHMENT';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES CACSMPL;
   SUBGROUP CACSMPL;
   LEVELS 9998;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=CS&DEP;
   RUN;

   DATA C&IGRP&&DEPVAR&IVAR;
        SET CS&DEP;
        IF SEMEAN NE .;
        KEEP CACSMPL SEMEAN;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=C&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print CATCHMENT DESCRIPT DATA=C&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  C_SUDAAN;


 *
```

```
;
%*********************************;
%*  call the macros;               *;
%*********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %IF &IGRP = 1 OR &IGRP = 2 OR &IGRP = 5 or &igrp = 8 %THEN
                %SCORE1;
             %ELSE
                %SCORE2;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

10.C. CALCULATE CAHPS COMPOSITE SCORES – ANNUAL

```
*************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified: 1) 02/27/2001 By Keith Rathbun, Small changes to input DSNs to
*              accommodate the move of ALLSCORE.SAS functionality into the
*              STEP2Q.SAS program.
*           2) 01/08/2002 By Daniele Beahm, Changed versions in libname statements
*              so program can be run with SAS v8 and still produce SAS v612 datasets.
*           3) 04/10/2002 By Mike Scott, Updated variable names for 2002
*              survey.
*************************************************************************;
OPTIONS NOCENTER NOFMTERR LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=YES;
libname in v612  "data";
libname in2 v612 "data\adulthatfiles";
libname out v612 "data";

 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XREGION');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

 ************************************;
 *   Create a Composite Score       ;
 ************************************;
 DATA _NULL_;
     FILE 'FILES.INC';
     PUT @6 'SET';
     IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
     IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
     IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
     IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
     PUT @8 ';';
 RUN;


 DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE 'FILES.INC';
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
 RUN;

 PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
 RUN;

 PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
 RUN;

 DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
      BY &BYVAR;
   %IF "&TYPE" = "R" %THEN %DO;
       ARRAY N(*) REGCNT1 - REGCNT8;
       ARRAY W(*) REGWGT1 - REGWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       ARRAY N(*) CATCNT1 - CATCNT8;
       ARRAY W(*) CATWGT1 - CATWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END;
```

```
      ARRAY ADJ(*)    ADJ1 - ADJ8;
      ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
      ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
      RETAIN TOTADJ TN TW;
      RETAIN AVGADJ;

      IF FIRST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
         END;
      END; DROP I;

      PUT ' ';
      PUT ' --- STARTING LOOP1: ' &BYVAR=;
      DO I = 1 TO DIM(TOTADJ);
         PUT I= ADJ(I)=;
         IF ADJ(I) NE . THEN DO;
            TOTADJ(I) = TOTADJ(I) + ADJ(I);
            TN(I)=TN(I)+N(I);
            TW(I)=TW(I)+W(I);
         END;
         PUT I= ADJ(I)= TOTADJ(I)=;
      END;


      PUT ' ';
      PUT ' --- STARTING LOOP2: ' &BYVAR=;
      IF LAST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
            AVGADJ(I) = TOTADJ(I)/&QCOUNT;
            adj(i)=avgadj(i);
            N(I)=TN(I)/&QCOUNT;
            W(I)=TW(I)/&QCOUNT;
         END;
         OUTPUT;
      END;

 RUN;

%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
%if &type=R|(&i=1|&i=2|&i>4) %then %do;
%if &var1~= %then %do;
%let n=r_&var1;
%let m=s_&var1;

data s_&var1(rename=(semean&i=s_&var1));
set in.&type._&var1(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var1;
%if &i~=8 %then %do;
set in2.h&i.&var1(rename=(resid&i=r_&var1));
%end;
%else %do;
set in2.h5&var1(rename=(resid5=r_&var1)) in2.h6&var1(rename=(resid6=r_&var1))
in2.h7&var1(rename=(resid7=r_&var1));
%end;
proc sort data=r_&var1; by mprid;
%end;
%if &var2~= %then %do;
%let n=%str(&n r_&var2);
%let m=%str(&m s_&var2);
data s_&var2(rename=(semean&i=s_&var2));
set in.&type._&var2(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var2;
%if &i~=8 %then %do;
set in2.h&i.&var2(rename=(resid&i=r_&var2));
%end;
%else %do;
set in2.h5&var2(rename=(resid5=r_&var2)) in2.h6&var2(rename=(resid6=r_&var2))
in2.h7&var2(rename=(resid7=r_&var2));
%end;
```

```
proc sort data=r_&var2; by mprid;
%end;
%if &var3~= %then %do;
%let n=%str(&n r_&var3);
data s_&var3(rename=(semean&i=s_&var3));
set in.&type._&var3(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var3;
%if &i~=8 %then %do;
set in2.h&i.&var3(rename=(resid&i=r_&var3));
%end;
%else %do;
set in2.h5&var3(rename=(resid5=r_&var3)) in2.h6&var3(rename=(resid6=r_&var3))
in2.h7&var3(rename=(resid7=r_&var3));
%end;
proc sort data=r_&var3; by mprid;
%let m=%str(&m s_&var3); %end;

%if &var4~= %then %do;
%let n=%str(&n r_&var4);
data s_&var4(rename=(semean&i=s_&var4));
set in.&type._&var4(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var4;
%if &i~=8 %then %do;
set in2.h&i.&var4(rename=(resid&i=r_&var4));
%end;
%else %do;
set in2.h5&var4(rename=(resid5=r_&var4)) in2.h6&var4(rename=(resid6=r_&var4))
in2.h7&var4(rename=(resid7=r_&var4));
%end;

%let m=%str(&m s_&var4);
proc sort data=r_&var4; by mprid;
%end;
/* Merge residual files and estimate correlations */
data infile;
merge &n; by mprid;
proc sort; by &byvar;
proc corr  outp=outf noprint;
by &byvar;
var &n;
weight wrwt;
data outf;
set outf; by &byvar;
where _type_='CORR';
/*  sum standard error of a row variable times correlation times standard error of each column
variable, then sum sums and take square root, divide by number of variables */
data final;
merge &m outf; by &byvar;
data final;
set final; by &byvar;
array r_val &n;
array s_val &m;
sde=0;
do i=1 to dim(s_val);
%do j=1 %to &qcount;
if _name_="R_&&var&j" then
sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
%end;
end;
data sefin&compos._&i;
set final; by &byvar;
if first.&byvar then tv=0;
 tv+sde;
if last.&byvar then do;
sde&i=(tv**.5)/&qcount;
output;
end;
%if &i=1 %then %do;
data sefin&compos;
set sefin&compos._1(keep=&byvar sde&i); by &byvar;
rename sde&i=semean&i;
run;
```

```
%end;
%else %do;
data sefin&compos;
merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
rename sde&i=semean&i;
run;
%end;


%end;
%end;

data out.&type.compos&compos;
merge compos&compos sefin&compos; by &byvar;
run;
PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
      TITLE1 COMPTITL;
 RUN;
%MEND COMPOSIT;

*-------------------------------------;
*-       set the parameters here      -;
*-------------------------------------;
**********************************;
*  call the macro for each composite;
**********************************;
%COMPOSIT (type=R,compos=1,var1=R02009,var2=R02016,var3=R02030,var4=R02031,qcount=4);
%COMPOSIT (type=R,compos=2,var1=R02021,var2=R02023,var3=R02026,var4=R02032,qcount=4);
%COMPOSIT (type=R,compos=3,var1=R02035,var2=R02036,var3=R02037,var4=R02038,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R02033,var2=R02034,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R02048,var2=R02050,var3=R02055,qcount=3);
%COMPOSIT (type=R,compos=6,var1=R02044,var2=R02045,qcount=2);

%COMPOSIT (type=C,compos=1,var1=R02009,var2=R02016,var3=R02030,var4=R02031,qcount=4);
%COMPOSIT (type=C,compos=2,var1=R02021,var2=R02023,var3=R02026,var4=R02032,qcount=4);
%COMPOSIT (type=C,compos=3,var1=R02035,var2=R02036,var3=R02037,var4=R02038,qcount=4);
%COMPOSIT (type=C,compos=4,var1=R02033,var2=R02034,qcount=2);
%COMPOSIT (type=C,compos=5,var1=R02048,var2=R02050,var3=R02055,qcount=3);
%COMPOSIT (type=C,compos=6,var1=R02044,var2=R02045,qcount=2);
```

11. CONVERT CAHPS SCORES INTO WEB LAYOUT

```
*************************************************************************
*
* PROGRAM:  LOADCAHP.SAS
* TASK:     2002 DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
* PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/28/2002 BY KEITH RATHBUN, Updated to support the 2000 survey.
*           2) 01/07/2003 BY KEITH RATHBUN, Updated to support the 2002 survey.
*
* INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
*
* OUTPUT:   1) LOADCAHP.SD2 - Combined CAHPS Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*           2) CATREP.INC - Catchment definitions for WEB
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1.SAS - Recode questions and generate group files
*    - STEP2.SAS - Calculate individual adjusted scores for group 1-8
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*
* 2) The output file (LOADCAHP.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN  V612 "..\..\..\2002\PROGRAMS\REPORTCARDS\CAHPS_ADULT2002\DATA";
LIBNAME OUT V612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER NOFMTERR;

*************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*************************************************************************;
%INCLUDE "LOADCAHQ.INC";
%INCLUDE "CATREP.INC";

*************************************************************************
*************************************************************************
*
* Process Macro Input Parameters:
*
* 1) QUESTION = Variable Question Name (DSN).
*    - For individual Questions it is the variable name
*    - For composite Questions it is called xCOMPOSn
*      where n = a predefined composite # and
*            x = R (Region) or C (Catchment)
* 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
* 3) REGCAT = Region/Catchment Area
*
*************************************************************************
*************************************************************************;
%MACRO PROCESS(QUESTION=,TYPE=,REGCAT=);
*************************************************************************
* Assign value for BENTYPE composite year
*************************************************************************;
%LET YEAR = "2002";

*************************************************************************
* Assign prefix for weighted/unweighted count variables.
* Unweighted counts are REGCNTn or CATCNTn where n=group number.
* Weighted counts are REGWGTn or CATWGTn where n=group number.
*************************************************************************;
%IF "&REGCAT" = "Region" %THEN %DO;
   %LET PREFIX = REG;
%END;
%ELSE %IF "&REGCAT" = "Catchment" %THEN %DO;
   %LET PREFIX = CAT;
```

```
%END;
%ELSE %DO;
   %PUT "ERROR: Invalid Type = &TYPE";
%END;

*************************************************************************
*
* Convert the CAHPS individual Scores Record into WEB layout.
* There are 8 logical records (adjusted scores) per physical record:
*
* ____________________________________________________________
*    Adjusted Score           Definitions
*    Group Number
* ____________________________________________________________
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H99004=4
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H99004=4
* 3. Enrollees w/civ PCM      XENR_PCM = 3  AND H99004=4
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              BFGROUPP=1
* 6. Active duty dependents   BFGROUPP=2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All beneficiaries        All beneficiaries
*
*************************************************************************;
DATA &QUESTION;
   SET IN.&QUESTION;

   LENGTH MAJGRP  $30;
   LENGTH REGION  $15;
   LENGTH REGCAT  $26;
   LENGTH BENTYPE $50;
   LENGTH BENEFIT $34;

   ************************************************************************
   * Assign Region
   ************************************************************************;
   REGION  = PUT(XREGION,REGIONF.);
   ************************************************************************
   * Assign benefit and benefit type
   ************************************************************************;
   IF "&TYPE" = "INDIVIDUAL" THEN DO;
      IF DEPENDNT IN("R02039","R02056","R02011","R02018") THEN
         BENTYPE = PUT(&YEAR,$BENTYPF.);
      ELSE
         BENTYPE = PUT(DEPENDNT,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
   END;
   ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
      BENTYPE = PUT(&YEAR,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
   END;
   ELSE PUT "ERROR: Invalid TYPE = &TYPE";

   ************************************************************************
   * For now, Initialize Significance test to zero.
   ************************************************************************;
   SIG = 0;
   ************************************************************************
   * Assign Region/Catchment Area
   ************************************************************************;
   IF "&REGCAT" = "Region" THEN
      REGCAT = PUT(XREGION,REGIONF.);
   ELSE IF "&REGCAT" = "Catchment" THEN
      REGCAT = PUT(CACSMPL,CATREP.);
   ELSE PUT "ERROR: Invalid REGCAT = &REGCAT";

   ************************************************************************
   * 1 = Prime Enrollees
   ************************************************************************;
   MAJGRP = PUT(1,MAJGRPF.);
   SCORE = ADJ1;
   SEMEAN = SEMEAN1;
   N_OBS = &PREFIX.CNT1;
   N_WGT = &PREFIX.WGT1;
```

```
OUTPUT;

************************************************************************
* 2 = Enrollees with military PCM
************************************************************************;
MAJGRP = PUT(2,MAJGRPF.);
SCORE = ADJ2;
SEMEAN = SEMEAN2;
N_OBS = &PREFIX.CNT2;
N_WGT = &PREFIX.WGT2;
OUTPUT;

************************************************************************
* 3 = Enrollees with civilian PCM
************************************************************************;
IF "&REGCAT" = "Region" THEN DO;
   MAJGRP = PUT(3,MAJGRPF.);
   SCORE = ADJ3;
   SEMEAN = SEMEAN3;
   N_OBS = &PREFIX.CNT3;
   N_WGT = &PREFIX.WGT3;
   OUTPUT;
END;

************************************************************************
* 4 = Non-enrolled beneficiaries
************************************************************************;
IF "&REGCAT" = "Region" THEN DO;
   MAJGRP = PUT(4,MAJGRPF.);
   SCORE = ADJ4;
   SEMEAN = SEMEAN4;
   N_OBS = &PREFIX.CNT4;
   N_WGT = &PREFIX.WGT4;
   OUTPUT;
END;

************************************************************************
* 5 = Active duty
************************************************************************;
MAJGRP = PUT(5,MAJGRPF.);
SCORE = ADJ5;
SEMEAN = SEMEAN5;
N_OBS = &PREFIX.CNT5;
N_WGT = &PREFIX.WGT5;
OUTPUT;

************************************************************************
* 6 = Active duty dependents
************************************************************************;
IF "&REGCAT" = "Region" THEN DO;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;
END;

************************************************************************
* 7 = Retirees and dependents
************************************************************************;
IF "&REGCAT" = "Region" THEN DO;
   MAJGRP = PUT(7,MAJGRPF.);
   SCORE = ADJ7;
   SEMEAN = SEMEAN7;
   N_OBS = &PREFIX.CNT7;
   N_WGT = &PREFIX.WGT7;
   OUTPUT;
END;

************************************************************************
* 8 = All Beneficiaries
************************************************************************;
MAJGRP = PUT(8,MAJGRPF.);
```

```
   SCORE  = ADJ8;
   SEMEAN = SEMEAN8;
   N_OBS = &PREFIX.CNT8;
   N_WGT = &PREFIX.WGT8;
   OUTPUT;

KEEP MAJGRP
     REGION
     REGCAT
     BENTYPE
     BENEFIT
     SCORE
     SEMEAN
     N_OBS
     N_WGT
     SIG
   ;
RUN;

%MEND;

*************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R02009,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02016,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02030,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02031,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS1,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R02009,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02016,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02030,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02031,TYPE=INDIVIDUAL,REGCAT=Catchment);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R02021,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02023,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02026,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02032,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS2,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R02021,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02023,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02026,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02032,TYPE=INDIVIDUAL,REGCAT=Catchment);

*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R02035,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02036,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02037,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02038,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS3,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R02035,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02036,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02037,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02038,TYPE=INDIVIDUAL,REGCAT=Catchment);

*************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE, REGCAT=Region);
```

```
%PROCESS(QUESTION=R_R02033,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02034,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS4,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R02033,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02034,TYPE=INDIVIDUAL,REGCAT=Catchment);

************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE, REGCAT=Region );
%PROCESS(QUESTION=R_R02048,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02050,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02055,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS5,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R02048,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02050,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02055,TYPE=INDIVIDUAL,REGCAT=Catchment);

************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
************************************************************************;
%PROCESS(QUESTION=RCOMPOS6,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R02044,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R02045,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS6,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R02044,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R02045,TYPE=INDIVIDUAL,REGCAT=Catchment);

************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R02039,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R02039,TYPE=INDIVIDUAL,REGCAT=Catchment);

************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R02056,TYPE=INDIVIDUAL,REGCAT=Region)
%PROCESS(QUESTION=C_R02056,TYPE=INDIVIDUAL,REGCAT=Catchment)

************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R02011,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R02011,TYPE=INDIVIDUAL,REGCAT=Catchment);

************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R02018,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R02018,TYPE=INDIVIDUAL,REGCAT=Catchment);

************************************************************************
************************************************************************
* STACK up all of the files into one final output dataset.
************************************************************************
************************************************************************;
DATA OUT.LOADCAHP;
   SET R_R02009 C_R02009
       R_R02016 C_R02016
       R_R02030 C_R02030
       R_R02031 C_R02031
       R_R02021 C_R02021
       R_R02023 C_R02023
       R_R02026 C_R02026
```

```
       R_R02032 C_R02032
       R_R02035 C_R02035
       R_R02036 C_R02036
       R_R02037 C_R02037
       R_R02038 C_R02038
       R_R02033 C_R02033
       R_R02034 C_R02034
       R_R02048 C_R02048
       R_R02050 C_R02050
       R_R02055 C_R02055
       R_R02044 C_R02044
       R_R02045 C_R02045
       R_R02039 C_R02039
       R_R02056 C_R02056
       R_R02011 C_R02011
       R_R02018 C_R02018
       RCOMPOS1 CCOMPOS1
       RCOMPOS2 CCOMPOS2
       RCOMPOS3 CCOMPOS3
       RCOMPOS4 CCOMPOS4
       RCOMPOS5 CCOMPOS5
       RCOMPOS6 CCOMPOS6
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "2002 DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: LOADCAHP.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHP.SD2 - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

*************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accomodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
* NOTES:    1) Under the new contract (8860), the suvey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*************************************************************************
;
*************************************************************************
* FORMAT Definitions
*************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees           "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
```

```
   5 = "Active Duty                "
   6 = "Active Duty Dependents     "
   7 = "Retirees and Dependents    "
   8 = "All Beneficiaries          "
;
VALUE XSERVAFF
   1 = "Army"
   2 = "Air Force"
   3 = "Navy"
   4 = "Other/Unknown"
;
VALUE REGIONF
   0 = "CONUS MHS "
   1 = "Region 1  "
   2 = "Region 2  "
   3 = "Region 3  "
   4 = "Region 4  "
   5 = "Region 5  "
   6 = "Region 6  "
   8 = "Region 7/8"
   9 = "Region 9  "
  10 = "Region 10 "
  11 = "Region 11 "
  12 = "Region 12 "
  13 = "Europe    "
  14 = "Asia      "
  15 = "Latin America "
  16 = "Alaska    "
;
VALUE $BENTYPF
 "1998    " = "1998                                          "
 "1999    " = "1999                                          "
 "2000    " = "2000                                          "
 "2001    " = "2001                                          "
 "2002    " = "2002                                          "
 "2003    " = "2003                                          "
 "2000 Q1 " = "January, 2000 to December, 2000               "
 "2000 Q2 " = "April, 2000 to March, 2001                    "
 "2000 Q3 " = "July, 2000 to June, 2001                      "
 "2000 Q4 " = "October, 2000 to September, 2001              "
 "2002 Q1 " = "January, 2001 to December, 2001               "
 "2002 Q2 " = "April, 2001 to March, 2002                    "
 "2002 Q3 " = "July, 2001 to June, 2002                      "
 "2002 Q4 " = "October, 2001 to September, 2002              "
 /*********************/
 /* Admin. Year Defn. */
 /* 2001        2002  */
 /*********************/
 "R00007  ", "R02009  " = "Problems Getting Personal Doctor/Nurse        "
 "R00014  ", "R02016  " = "Problems Getting Referral to Specialist       "
 "R00028  ", "R02030  " = "Problems Getting Necessary Care               "
 "R00029  ", "R02031  " = "Delays in Care while Awaiting Approval        "
 "R00019  ", "R02021  " = "Advice over Telephone                         "
 "R00021  ", "R02023  " = "Wait for Routine Visit                        "
 "R00024  ", "R02026  " = "Wait for Urgent Care                          "
 "R00030  ", "R02032  " = "Wait More than 15 Minutes Past Appointment    "
 "R00033  ", "R02035  " = "Listens Carefully                             "
 "R00034  ", "R02036  " = "Explains so You can Understand                "
 "R00035  ", "R02037  " = "Shows Respect                                 "
 "R00036  ", "R02038  " = "Spends Time with You                          "
 "R00031  ", "R02033  " = "Courteous and Respectful                      "
 "R00032  ", "R02034  " = "Helpful                                       "
 "R00048  ", "R02048  " = "Problem Finding/Understanding Written Material"
 "R00050  ", "R02050  " = "Problem Getting Help from Customer Service    "
 "R00055  ", "R02055  " = "Problem with Paperwork                        "
 "R00044  ", "R02044  " = "Claims Handled in a Reasonable Time           "
 "R00045  ", "R02045  " = "Claims Handled Correctly                      "
 "R00037  ", "R02039  " = "Health Care                                   "
 "R00056  ", "R02056  " = "Health Plan                                   "
 "R00009  ", "R02011  " = "Primary Care Manager                          "
 "R00016  ", "R02018  " = "Specialty Care                                "
;
VALUE $BENEF
 "RCOMPOS1","CCOMPOS1","R00007","R00014","R00028","R00029",
```

```
                        "R02009","R02016","R02030","R02031"
    = "Getting Needed Care  "

    "RCOMPOS2","CCOMPOS2","R00019","R00021","R00024","R00030",
                        "R02021","R02023","R02026","R02032"
    = "Getting Care Quickly "

    "RCOMPOS3","CCOMPOS3","R00033","R00034","R00035","R00036",
                        "R02035","R02036","R02037","R02038"
    = "How Well Doctors Communicate "

    "RCOMPOS4","CCOMPOS4","R00031","R00032",
                        "R02033","R02034"
    = "Courteous and Helpful Office Staff "

    "RCOMPOS5","CCOMPOS5","R00048","R00050","R00055",
                        "R02048","R02050","R02055"
    = "Customer Service          "

    "RCOMPOS6","CCOMPOS6","R00044","R00045",
                        "R02044","R02045"
    = "Claims Processing                  "

    /*********************/
    /* Admin. Year Defn. */
    /* 2001        2002  */
    /*********************/
    "R00037", "R02039" = "Health Care                                  "
    "R00056", "R02056" = "Health Plan                                  "
    "R00009", "R02011" = "Primary Care Manager                         "
    "R00016", "R02018" = "Specialty Care                               "
RUN;
```

12. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB - ANNUAL

12.A. CALCULATE 2001 CAHPS BENCHMARK DATA FOR 2002 HCSDB - ANNUAL

```
*************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     2000 DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
* PURPOSE:  Adjust 2000 Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:   1) BENCHA02.SD2 - 2000 Adult CAHPS Questions Renamed to be
*              consistent with the 2000 MPR DOD Survey.
*           2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED: 1) Nov 2000 BY ERIC SCHONE - Output permanent datasets with
*              scores and standard errors and process the rest of the
*              composites and ratings.
*           2) Dec 2000 BY KEITH RATHBUN - Update variable names for
*              Q1 2000 Survey.
*           3) Jan 2002 BY KEITH RATHBUN - Updated to run under SAS
*              version 8 (changed INTERCEP to INTERCEPT).
*           4) Apr 2002 BY MIKE SCOTT - Updated variable names for Q1
*              2002 Survey.
*           5) Jul 2002 BY MIKE SCOTT - Changed R00077 to R02076, since
*              H02077 (health status) is back and was renamed to R02076
*              in HSC022_1.sd2.
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
libname in  V612 '..\..\..\Q2_2002\Programs\Benchmark2001\data';
libname in2 V612 '..\reportcards\cahps_adult2002\data';
libname out V612 'data';

%let wgt=cwrwt;

OPTIONS MLOGIC MPRINT NOCENTER LS=132 PS=79;


%macro comb(f,t,q,l);

proc summary data=&f;
 var &t;
 where &q~=.;
 weight &wgt;
 output out=temp mean=&t;
run;

data temp;
 set temp;
 array old &t;
 call symput('z',left(dim(old)));
run;

data temp(drop=_type_ &t);
 set temp;
 array old &t;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;

data &q._&l;
 merge temp c_&q;
 array coeffs &t;
```

```
 array means var1-var&z;
  DO I = 1 TO DIM(COEFFS);
   IF COEFFS(I) = . THEN COEFFS(I) = 0;
   IF MEANS(I) = . THEN MEANS(I) = 0;
   ADJUST + ( COEFFS(I) * MEANS(I) );
  END;

 ADJUST = ADJUST + intercept;
 &q._&l=adjust;

run;

%mend comb;

%macro adjust(x,y);



proc summary data=setup;
where &x>.;
 class product;

 output out=count;
run;

data count count2(rename=(_freq_=denom));
 set count;
 if _type_=0 then output count2;
 else output count;
run;

data count(keep=pweight product);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by product;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;
```

```
proc sort data=r_&x; by product;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST product / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;


%mend adjust;

/* adjust all the variables */

%macro comp(compno,a,b,c,d);
 %if &a~= %then %do;
  %let n=r_&a;
  %let m=s_&a;
  %do i=1 %to 8;
   %let p&i=&a._&i;
  %end;
  %let grpnum=1;
   proc sort data=r_&a;
    by mpid;
   run;
 %end;
 %if &b~= %then %do;
  %let n=%str(&n r_&b);
  %let m=%str(&m s_&b);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &b._&i);
  %end;
  %let grpnum=2;
   proc sort data=r_&b;
    by mpid;
   run;
 %end;
 %if &c~= %then %do;
  proc sort data=r_&c;
   by mpid;
  run;
  %let grpnum=3;
  %let n=%str(&n r_&c);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &c._&i);
  %end;
  %let m=%str(&m s_&c); %end;

  %if &d~= %then %do;
   proc sort data=r_&d;
    by mpid;
   run;
   %let grpnum=4;
   %let n=%str(&n r_&d);
    %do i=1 %to 8;
```

```
     %let p&i=%str(&&p&i &d._&i);
    %end;

    %let m=%str(&m s_&d);
  %end;

data infile;
 merge &n;
 by mpid;
run;

proc corr outp=outf noprint;
 var &n;
 weight pweight;
run;

data final;
 if _n_=1 then do;
  %if &a~= %then %do;
   set s_&a;
  %end;
  %if &b~= %then %do;
   set s_&b;
  %end;
  %if &c~= %then %do;
   set s_&c;
  %end;
  %if &d~= %then %do;
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
  %do i=1 %to &grpnum;
   if _name_="r_&&s&i" then
   sde=sde+r_val(i)*s_&&s&i*s_val(i);
  %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
  merge &&p&i;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;
```

```
data out&compno._&i;
 merge output temp;
run;

data out.comp&compno._&i;
   merge out&compno._&i
         sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by product;
run;
data setup;
set setup;
if ^(model in (2,4));
if disp='M10' & ac03_01=1;
data setup;
 set setup; by product;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;

      if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
run;
%INCLUDE "..\..\..\..\8687\PROGRAMS\REPORTCARDS\CONVERT.SAS";

%CONT1(DSN=SETUP, NUM=7,  Y=R02009 R02016 R02030 R02031
                           R02048 R02050 R02055);
%CONT2(DSN=SETUP, NUM=4,  Y=R02039 R02056 R02011 R02018);
%CONT3(DSN=SETUP, NUM=12, Y=R02021 R02023 R02026 R02032
                           R02035 R02036 R02037 R02038
                           R02033 R02034 R02044 R02045);
/* GETTING NEEDED CARE */
%adjust(r02009,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02016,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02030,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02031,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(1,r02009,r02016,r02030,r02031);

/* GETTING NEEDED CARE QUICKLY */
%adjust(r02021,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02023,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02026,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02032,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(2,r02021,r02023,r02026,r02032);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(r02035,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02036,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02037,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02038,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(3,r02035,r02036,r02037,r02038);

/* COURTEOUS AND HELPFUL OFFICE STAFF */
%adjust(r02033,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02034,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(4,r02033,r02034);

/* CUSTOMER SERVICE */
%adjust(r02048,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02050,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02055,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
```

```
%comp(5,r02048,r02050,r02055);

/* CLAIMS PROCESSING */
%adjust(r02044,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%adjust(r02045,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(6,r02044,r02045);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(r02039,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(7,r02039);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(r02056,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(8,r02056);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(r02011,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(9,r02011);

/* SPECIALTY CARE */
%adjust(r02018,age1824 age2534 age3544 age4554 age5564 age6574 r02076);
%comp(10,r02018);
```

12.B. CONVERT THE BENCHMARK SCORES DATABASE INTO THE WEB LAYOUT - ANNUAL

```
************************************************************************
*
* PROGRAM:  BENCHA04.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
* PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* INPUTS:   1) Benchmark data sets with adjusted scores
*              (COMPn_i.SD2 where n = composite number and i = group number)
*
* OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED: 1) Dec 2000 bY Keith Rathbun: Updated variable names for
*              Q1 2000 Survey.  For the quarterly survey group 8 (all benes)
*              is being used as the benchmark for all groups (1-8).  Thus,
*              this group is copied and output to each of the other 7 groups.
*           2) 01/23/2002 by Mike Scott: Updated variable names to be consistent
*              with 2000 survey.
*           4) 04/15/2002 by Mike Scott - Updated variable names for
*              Q1 2002 Survey.
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - BENCHA01.SAS - Extract Benchmark variables
*    - BENCHA02.SAS - Recode Benchmark variables
*    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
*
* 2) The output file (BENCHA04.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
************************************************************************
* Assign data libraries and options
************************************************************************;
LIBNAME IN  V612 "DATA";
LIBNAME OUT V612 "DATA";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

************************************************************************
************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* ____________________________________________________________
*    Adjusted Score           Definitions
*    Group Number
* ____________________________________________________________
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H98043_R>=7
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H98043_R>=7
* 3. Enrollees w/civ PCM      XENR_PCM = 3        AND H98043_R>=7
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              BFGROUPP = 1
* 6. Active duty dependents   BFGROUPP = 2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
```

```
*******************************************************************************
* Assign value for BENTYPE composite year
*******************************************************************************;
%LET YEAR = "2002";

*******************************************************************************
* Convert benchmark scores datasets into WEB layout.
*******************************************************************************;

   DATA COMP&CNUM._&Gnum;
      SET IN.COMP&CNUM._&GNUM;

      LENGTH MAJGRP  $30;
      LENGTH REGION  $15;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;

      ********************************************************************
      * For now, assign SIG = 0
      ********************************************************************;
      SIG = 0;

      ********************************************************************
      * Assign major group
      ********************************************************************;
      MAJGRP  = PUT(&Gnum,MAJGRPF.);

      ********************************************************************
      * Assign Region and Regcat
      ********************************************************************;
      REGION  = "Benchmark";
      REGCAT  = "Benchmark";

      ********************************************************************
      * Assign benefit and benefit type
      ********************************************************************;
      IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
      ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
      ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
      ELSE IF &CNUM = 4  THEN BENEFIT = "Courteous and Helpful Office Staff";
      ELSE IF &CNUM = 5  THEN BENEFIT = "Customer Service";
      ELSE IF &CNUM = 6  THEN BENEFIT = "Claims Processing";
      ELSE IF &CNUM = 7  THEN BENEFIT = "Health Care";
      ELSE IF &CNUM = 8  THEN BENEFIT = "Health Plan";
      ELSE IF &CNUM = 9  THEN BENEFIT = "Primary Care Manager";
      ELSE IF &CNUM = 10 THEN BENEFIT = "Specialty Care";

      BENTYPE = PUT(&YEAR,$BENTYPF.);

      ********************************************************************
      * Assign composite score and SEMEAN
      ********************************************************************;
      SCORE = TOTADJ;
      SEMEAN = SDE;

      ********************************************************************
      * Output composite score record for each REGION
      ********************************************************************;
      OUTPUT;

      ********************************************************************
      * Now, output the individual score records
      ********************************************************************;
      IF &NVAR GT 1 THEN DO;
         ARRAY ITEMS &VARS;
         ARRAY SE    &SE;
         LENGTH NAME $8;
         DO I = 1 TO DIM(ITEMS); DROP I;
            CALL VNAME(ITEMS(I),NAME);
            NAME = SUBSTR(NAME,1,6);
            SCORE  = ITEMS(I);
            SEMEAN = SE(I);
            BENTYPE = PUT(NAME,$BENTYPF.);
```

```
           OUTPUT;
         END;
      END;

   KEEP MAJGRP
        REGION
        REGCAT
        BENTYPE
        BENEFIT
        SEMEAN
        SCORE
        SIG
      ;
   RUN;


%MEND;

*************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=8, NVAR=4, VARS=r02009_8 R02016_8 R02030_8 R02031_8,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(CNUM=2, GNUM=8, NVAR=4, VARS=R02021_8 R02023_8 R02026_8 R02032_8,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(CNUM=3, GNUM=8, NVAR=4, VARS=R02035_8 R02036_8 R02037_8 R02038_8,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=8, NVAR=2, VARS=R02033_8 R02034_8, SE=S_R02033 S_R02034);

*************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=8, NVAR=3, VARS=R02048_8 R02050_8 R02055_8,
         SE=S_R02048 S_R02050 S_R02055);

*************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(CNUM=6, GNUM=8, NVAR=2, VARS=R02044_8 R02045_8, SE=S_R02044 S_R02045);

*************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=7, GNUM=8, NVAR=1, VARS=R02039_8, SE=S_R02039);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=8, NVAR=1, VARS=R02056_8, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=8, NVAR=1, VARS=R02011_8, SE=S_R02011);
```

```
*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=8, NVAR=1, VARS=R02018_8, SE=S_R02018);

*****************************************************************************
*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=1, GNUM=3, NVAR=4, VARS=r02009_3 R02016_3 R02030_3 R02031_3,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*****************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=2, GNUM=3, NVAR=4, VARS=R02021_3 R02023_3 R02026_3 R02032_3,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*****************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(CNUM=3, GNUM=3, NVAR=4, VARS=R02035_3 R02036_3 R02037_3 R02038_3,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*****************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*****************************************************************************;
%PROCESS(CNUM=4, GNUM=3, NVAR=2, VARS=R02033_3 R02034_3, SE=S_R02033 S_R02034);

*****************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*****************************************************************************;
%PROCESS(CNUM=5, GNUM=3, NVAR=3, VARS=R02048_3 R02050_3 R02055_3,
         SE=S_R02048 S_R02050 S_R02055);

*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=3, NVAR=2, VARS=R02044_3 R02045_3, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=7, GNUM=3, NVAR=1, VARS=R02039_3, SE=S_R02039);

*****************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=8, GNUM=3, NVAR=1, VARS=R02056_3, SE=S_R02056);

*****************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=9, GNUM=3, NVAR=1, VARS=R02011_3, SE=S_R02011);

*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=3, NVAR=1, VARS=R02018_3, SE=S_R02018);

*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
```

```
*******************************************************************************;
%PROCESS(CNUM=1, GNUM=4, NVAR=4, VARS=r02009_4 R02016_4 R02030_4 R02031_4,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*******************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=2, GNUM=4, NVAR=4, VARS=R02021_4 R02023_4 R02026_4 R02032_4,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*******************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*******************************************************************************;
%PROCESS(CNUM=3, GNUM=4, NVAR=4, VARS=R02035_4 R02036_4 R02037_4 R02038_4,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*******************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*******************************************************************************;
%PROCESS(CNUM=4, GNUM=4, NVAR=2, VARS=R02033_4 R02034_4, SE=S_R02033 S_R02034);

*******************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*******************************************************************************;
%PROCESS(CNUM=5, GNUM=4, NVAR=3, VARS=R02048_4 R02050_4 R02055_4,
         SE=S_R02048 S_R02050 S_R02055);

*******************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*******************************************************************************;
%PROCESS(CNUM=6, GNUM=4, NVAR=2, VARS=R02044_4 R02045_4, SE=S_R02044 S_R02045);

*******************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=7, GNUM=4, NVAR=1, VARS=R02039_4, SE=S_R02039);

*******************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=8, GNUM=4, NVAR=1, VARS=R02056_4, SE=S_R02056);

*******************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=9, GNUM=4, NVAR=1, VARS=R02011_4, SE=S_R02011);

*******************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=10, GNUM=4, NVAR=1, VARS=R02018_4, SE=S_R02018);

*******************************************************************************
*******************************************************************************;
*******************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=1, GNUM=5, NVAR=4, VARS=r02009_5 R02016_5 R02030_5 R02031_5,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*******************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=2, GNUM=5, NVAR=4, VARS=R02021_5 R02023_5 R02026_5 R02032_5,
```

```
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*******************************************************************************
*
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*******************************************************************************;
%PROCESS(CNUM=3, GNUM=5, NVAR=4, VARS=R02035_5 R02036_5 R02037_5 R02038_5,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*******************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*******************************************************************************;
%PROCESS(CNUM=4, GNUM=5, NVAR=2, VARS=R02033_5 R02034_5, SE=S_R02033 S_R02034);

*******************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*******************************************************************************;
%PROCESS(CNUM=5, GNUM=5, NVAR=3, VARS=R02048_5 R02050_5 R02055_5,
         SE=S_R02048 S_R02050 S_R02055);

*******************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*******************************************************************************;
%PROCESS(CNUM=6, GNUM=5, NVAR=2, VARS=R02044_5 R02045_5, SE=S_R02044 S_R02045);

*******************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=7, GNUM=5, NVAR=1, VARS=R02039_5, SE=S_R02039);

*******************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=8, GNUM=5, NVAR=1, VARS=R02056_5, SE=S_R02056);

*******************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=9, GNUM=5, NVAR=1, VARS=R02011_5, SE=S_R02011);

*******************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*******************************************************************************;
%PROCESS(CNUM=10, GNUM=5, NVAR=1, VARS=R02018_5, SE=S_R02018);

*******************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=1, GNUM=6, NVAR=4, VARS=r02009_6 R02016_6 R02030_6 R02031_6,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*******************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*******************************************************************************;
%PROCESS(CNUM=2, GNUM=6, NVAR=4, VARS=R02021_6 R02023_6 R02026_6 R02032_6,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*******************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*******************************************************************************;
%PROCESS(CNUM=3, GNUM=6, NVAR=4, VARS=R02035_6 R02036_6 R02037_6 R02038_6,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*******************************************************************************
* COMPOSITE # 4.
```

```
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=6, NVAR=2, VARS=R02033_6 R02034_6, SE=S_R02033 S_R02034);

************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=6, NVAR=3, VARS=R02048_6 R02050_6 R02055_6,
         SE=S_R02048 S_R02050 S_R02055);

************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(CNUM=6, GNUM=6, NVAR=2, VARS=R02044_6 R02045_6, SE=S_R02044 S_R02045);

************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=7, GNUM=6, NVAR=1, VARS=R02039_6, SE=S_R02039);

************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=6, NVAR=1, VARS=R02056_6, SE=S_R02056);

************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=6, NVAR=1, VARS=R02011_6, SE=S_R02011);

************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=6, NVAR=1, VARS=R02018_6, SE=S_R02018);

************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=7, NVAR=4, VARS=r02009_7 R02016_7 R02030_7 R02031_7,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(CNUM=2, GNUM=7, NVAR=4, VARS=R02021_7 R02023_7 R02026_7 R02032_7,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(CNUM=3, GNUM=7, NVAR=4, VARS=R02035_7 R02036_7 R02037_7 R02038_7,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=7, NVAR=2, VARS=R02033_7 R02034_7, SE=S_R02033 S_R02034);

************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=7, NVAR=3, VARS=R02048_7 R02050_7 R02055_7,
         SE=S_R02048 S_R02050 S_R02055);
```

```
*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=7, NVAR=2, VARS=R02044_7 R02045_7, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=7, GNUM=7, NVAR=1, VARS=R02039_7, SE=S_R02039);

*****************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=8, GNUM=7, NVAR=1, VARS=R02056_7, SE=S_R02056);

*****************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=9, GNUM=7, NVAR=1, VARS=R02011_7, SE=S_R02011);

*****************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=10, GNUM=7, NVAR=1, VARS=R02018_7, SE=S_R02018);

*****************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=1, GNUM=2, NVAR=4, VARS=r02009_2 R02016_2 R02030_2 R02031_2,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*****************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(CNUM=2, GNUM=2, NVAR=4, VARS=R02021_2 R02023_2 R02026_2 R02032_2,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*****************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%PROCESS(CNUM=3, GNUM=2, NVAR=4, VARS=R02035_2 R02036_2 R02037_2 R02038_2,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*****************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*****************************************************************************;
%PROCESS(CNUM=4, GNUM=2, NVAR=2, VARS=R02033_2 R02034_2, SE=S_R02033 S_R02034);

*****************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*****************************************************************************;
%PROCESS(CNUM=5, GNUM=2, NVAR=3, VARS=R02048_2 R02050_2 R02055_2,
         SE=S_R02048 S_R02050 S_R02055);

*****************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*****************************************************************************;
%PROCESS(CNUM=6, GNUM=2, NVAR=2, VARS=R02044_2 R02045_2, SE=S_R02044 S_R02045);

*****************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%PROCESS(CNUM=7, GNUM=2, NVAR=1, VARS=R02039_2, SE=S_R02039);
```

```
*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=2, NVAR=1, VARS=R02056_2, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=9, GNUM=2, NVAR=1, VARS=R02011_2, SE=S_R02011);

*************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=2, NVAR=1, VARS=R02018_2, SE=S_R02018);

*************************************************************************************************
*****************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(CNUM=1, GNUM=1, NVAR=4, VARS=r02009_1 R02016_1 R02030_1 R02031_1,
         SE=s_r02009 S_R02016 S_R02030 S_R02031);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(CNUM=2, GNUM=1, NVAR=4, VARS=R02021_1 R02023_1 R02026_1 R02032_1,
         SE=S_R02021 S_R02023 S_R02026 S_R02032);
*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(CNUM=3, GNUM=1, NVAR=4, VARS=R02035_1 R02036_1 R02037_1 R02038_1,
         SE=S_R02035 S_R02036 S_R02037 S_R02038);

*************************************************************************
* COMPOSITE # 4.
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%PROCESS(CNUM=4, GNUM=1, NVAR=2, VARS=R02033_1 R02034_1, SE=S_R02033 S_R02034);

*************************************************************************
* COMPOSITE # 5.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(CNUM=5, GNUM=1, NVAR=3, VARS=R02048_1 R02050_1 R02055_1,
         SE=S_R02048 S_R02050 S_R02055);

*************************************************************************
* COMPOSITE # 6.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(CNUM=6, GNUM=1, NVAR=2, VARS=R02044_1 R02045_1, SE=S_R02044 S_R02045);

*************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=7, GNUM=1, NVAR=1, VARS=R02039_1, SE=S_R02039);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=8, GNUM=1, NVAR=1, VARS=R02056_1, SE=S_R02056);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
```

```
*************************************************************************;
%PROCESS(CNUM=9, GNUM=1, NVAR=1, VARS=R02011_1, SE=S_R02011);

*************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
*************************************************************************;
%PROCESS(CNUM=10, GNUM=1, NVAR=1, VARS=R02018_1, SE=S_R02018);

*************************************************************************
*************************************************************************
* STACK up all of the files into one final output dataset.
*************************************************************************
*************************************************************************;
DATA OUT.BENCHA04;
   SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
       COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
       COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
       COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
       COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
       COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
       COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
       COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
       COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
       COMP10_1 COMP10_2 COMP10_3 COMP10_4 COMP10_5 COMP10_6 COMP10_7 COMP10_8
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

13. CALCULATE PREVENTIVE CARE COMPOSITE SCORES AND LOAD INTO WEB LAYOUT (ANNUAL)

```
*************************************************************
*  Project:   DoD Reporting and Analysis 8860-400
*  Program:   PRVCOMP.SAS
*  Author:    Chris Rankin
*  Date:      12/22/2000
*  Modified:  4/19/2001 By Keith Rathbun: Restrict population to
*             xins_cov in(1,2,3,6).  Use POSTSTR instead of
*             adj_cell.
*  Modified:  10/25/01 By Daniele Beahm: Because no poststratification
*             was done for q3 2000, changed POSTSTR back to ADJ_CELL
*             04/09/02 modified macros the first three macros to create
*             temporary datasets (instead of writing permanent datasets)
*             01/29/03 By Chris Rankin Added &YR to output variable names
*                      for the Trend program
*  Purpose:   Calculate MPR Preventive Care Composites
*  Input:     \\DOD\2002\DATA\AFINAL\HCS02A_1.SD2
*  Output:    RFINAL.SD2
*             CFINAL.SD2
*             MFINAL.SD2
*  Include
*   Files:    LOADCAHPQ.INC
*             CATREP.INC
*    Note:    Next program is Loadmprq.sas
*************************************************************;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
        NOFMTERR COMPRESS=YES;

LIBNAME IN   V612    "..\..\..\DATA";
LIBNAME OUT  V612    ".";
LIBNAME LIBRARY  V612    "..\..\..\DATA\FMTLIB";

%LET WGT=CWRWT;
%LET DEBUG=Y;      /** Set to Y for Debug print of datasets **/
%LET INDATA=HCS02A_1;
%LET YRDATA=HCS02A;
%LET YR=02;

/***** The following parameters are used in the Variance ****/
/***** calcuation macro for region and catchment area    ****/

%LET GRPNUM=8;      /** number of groups          **/
%LET COMPNUM=8;     /** numper of variables       **/
%LET REGNUM=16;     /** number of regions         **/
%LET CATCHNUM=9999; /** number of catchment areas **/

%LET CMPNUM1=4;    /** number of variables in first compostie  **/
%LET CMPNUM2=4;    /** number of variables in second composite **/

%LET COMPCNT=2;    /** number of composites                    **/

**** set up benchmarks for prentive services ;
**** note -- these are the hp 2000 goals     ;

%LET GOALVAR1= .90;    /** HP Goal for prenatal care        **/
%LET GOALVAR2= .70;    /** HP Goal for Mammography          **/
%LET GOALVAR3= .90;    /** HP Goal for Papsmear             **/
%LET GOALVAR4= .95;    /** HP Goal for Blood Pressure check **/
%LET GOALVAR5= .90;    /** HP Goal for Flu shot             **/
%LET GOALVAR6= .90;    /** access goals                     **/
%LET GOALVAR7= .90;
%LET GOALVAR8= .98;

%INCLUDE "..\..\..\PROGRAMS\LOADWEB\LOADCAHQ.INC";
%INCLUDE "..\..\..\PROGRAMS\LOADWEB\CATREP.INC";

*********************************************************;
* Beneficiary group note
*    Eight groups            Definitions
* ____________________________________________________;
* 1. Prime enrollees         XINS_COV IN (1,2,6) AND H02007>=2
* 2. Enrollees w/mil PCM     XENR_PCM IN (1,2,6) AND H02007>=2
* 3. Enrollees w/civ PCM     XENR_PCM IN (3,7)   AND H02007>=2
```

```
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              XBNFGRP = 1
* 6. Active duty dependents   XBNFGRP = 2
* 7. Retirees                 XBNFGRP IN (3,4)
* 8. All beneficiaries        ALL
*************************************************************;


/**** note -- output all data to a single dataset for macro */
/**** call                                                   */
/**** MACROS are no longer called for catchment areas       */


DATA &YRDATA(KEEP=BGROUP MHS CONUS XREGION CACSMPL &WGT TMP_CELL
                  PRVVAR1-PRVVAR&COMPNUM. NUM&YR.V1-NUM&YR.V&COMPNUM.
                  DEN&YR.V1-DEN&YR.V&COMPNUM);

  SET IN.&INDATA(KEEP=XINS_COV HP_FLU   HP_BP   HP_MAMOG HP_PAP HP_PRNTL
                      XREGION  XENR_PCM XBNFGRP ENBGSMPL &WGT   CACSMPL
                      ADJ_CELL H02023   H02026  H02032   H02007);
*  IF _N_ LE 100;


************************************************************************
* For quarterly reports, catchment level reporting is not done
* so the value of cellp is set to 1.
* For annual reporting purposes, cellp will need to be assigned
* to geocell
************************************************************************;

  CELLP=1;
  LENGTH TMP_CELL 8;
  TMP_CELL=ADJ_CELL;   /* make ADJ_CELL a numeric variable */

  IF XREGION=7 THEN XREGION=8;
  IF XREGION IN (.,0)    THEN DELETE;
  IF CACSMPL IN (.,9999) THEN DELETE;
  IF XINS_COV NOT IN(1,2,3,6) THEN DELETE;

  PRVVAR1=HP_PRNTL;        /** prenatal care  **/
  PRVVAR2=HP_MAMOG;        /** mammography    **/
  PRVVAR3=HP_PAP;          /** papsmear       **/
  PRVVAR4=HP_BP;           /** blood pressure **/
  PRVVAR5=HP_FLU;          /** flu shot       **/
  PRVVAR6=H02023;          /** access var 1   **/
  PRVVAR7=H02026;          /** access var 2   **/
  PRVVAR8=H02032;          /** access var 3   **/

/**** set up numerator and denominator for proportions ****/

  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUM&YR.V1-NUM&YR.V&COMPNUM;
  ARRAY  DENOM(*) DEN&YR.V1-DEN&YR.V&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;

  MHS= 1;   /* set up dummy for MHS-- include all observations */

************************************************************************
* Assign indicator of CONUS based on XREGION.  CONUS stands for
* Contential United States it but includes both Alaska and Hawaii.
```

```
*************************************************************************;
  IF      XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN CONUS=1;
  ELSE IF XREGION IN (13,14,15)                      THEN CONUS=0;
  ELSE IF XREGION = .                                THEN CONUS=.;

* Prime enrollees     *;

  IF (XINS_COV IN (1,2,6) AND H02007>=2) THEN DO;
     BGROUP=1;
     OUTPUT;
  END;

* Enrollees with military PCMs *;

  IF (XENR_PCM IN (1,2,6) AND H02007>=2) THEN DO;
     BGROUP=2;
     OUTPUT;
  END;

* Enrollees with civilian PCMs *;

  IF (XENR_PCM IN (3,7) AND H02007>=2) THEN DO;
     BGROUP=3;
     OUTPUT;
  END;

* Nonenrollees *;

  IF XINS_COV IN (3,4,5) THEN DO;
     BGROUP=4;
     OUTPUT;
  END;

* Active duty      *;

  IF XBNFGRP = 1 THEN DO;
     BGROUP=5;
     OUTPUT;
  END;

* Active duty dependents  *;

  IF XBNFGRP = 2 THEN DO;
     BGROUP=6;
     OUTPUT;
  END;

* Retirees  *;

  IF XBNFGRP IN (3,4) THEN DO;
     BGROUP=7;
     OUTPUT;
  END;

* All beneficiaries *;

  BGROUP=8;
  OUTPUT;

RUN;

**** Next, check catchment areas for requisite number of observations ;
**** for the macro calls (exclude cacsmpl w/ <2 obs)                  ;
**** also, keep list of region/catchment area combinations            ;


PROC FREQ NOPRINT DATA=&YRDATA;
    TABLE BGROUP*MHS*CONUS*XREGION*CACSMPL/MISSING LIST
    OUT=OBSCNT(DROP=PERCENT);
RUN;

PROC SORT DATA=&YRDATA; BY BGROUP MHS CONUS XREGION CACSMPL;
RUN;
```

```
DATA HCSDB /*FAILED*/;
   MERGE &YRDATA(IN=IN_ALL) OBSCNT(IN=IN_OBS);
   BY BGROUP MHS CONUS XREGION CACSMPL;
   IF COUNT < 2 THEN DO;
       PUT "Failed obs # criterion: XREGION=" XREGION "CACSMPL=" CACSMPL;
       /*OUTPUT FAILED; */
   END;
   ELSE OUTPUT HCSDB;
RUN;

DATA OBSCNT;
   SET OBSCNT;
   RENAME BGROUP=GROUP;
RUN;

PROC SORT NODUPKEY DATA=OBSCNT; BY GROUP CACSMPL;
RUN;

*****************************************************
*** First, calculate standard errors and create     ***
*** a file for each analytical unit                 ***
*****************************************************;

PROC SORT DATA=HCSDB; BY TMP_CELL;
RUN;

*****************************************************
***** Sudaan macro to calculate standard errors   *****
***** there are three output datasets created     *****
***** (REGION, CACSMPL, MHS)                      *****
***** Note:  7/10/2000 use CONUS for MHS          *****
***** Note:  there are 8 variables and 8 groups   *****
*****************************************************;

%MACRO A_SUDAAN(TABLEVAR);

*** set the number of levels in the proc descript ***;
*** for region or catchment                       ***;

 %IF %UPCASE(&TABLEVAR)=XREGION %THEN %DO;
     %LET ENDNUM=&REGNUM;
     %LET PREF=R;         /** dataset prefix for region data    **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=CACSMPL %THEN %DO;
     %LET ENDNUM=&CATCHNUM;
     %LET PREF=C;         /** dataset prefix for catchement area data **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=CONUS %THEN %LET PREF=M;

 %DO I=1 %TO &GRPNUM;     /** 8 groups    **/

     %DO J=1 %TO &COMPNUM;   /** 8 variables **/

         DATA INDATA&I.&J(KEEP=&WGT MHS CONUS XREGION CACSMPL
                              NUM&YR.V&J DEN&YR.V&J TMP_CELL);
           SET HCSDB;
           WHERE XREGION > 0 AND BGROUP=&I AND DEN&YR.V&J > 0;
           %IF %UPCASE(&TABLEVAR)=CONUS %THEN %DO;
               IF CONUS NE 1 THEN DELETE;  /* don't include all MHS */
           %END;
         RUN;

*** Calculate values for regions, catchment areas ****;

         %IF %UPCASE(&TABLEVAR) NE CONUS %THEN %DO;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUM&YR.V&J;
                TABLES &TABLEVAR;
                SUBGROUP &TABLEVAR;
                LEVELS &ENDNUM;
```

```
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
                FILENAME=&PREF.GRP&I.V&J;
             RUN;

          %END;
          %ELSE %IF %UPCASE(&TABLEVAR)=CONUS %THEN %DO;

**** No tables, levels, or subgroups needed ****;

             PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUM&YR.V&J;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
                FILENAME=&PREF.GRP&I.V&J;
             RUN;

          %END;

***** first, put all variables into one dataset for each group *****;

          DATA &PREF.GRP&I.V&J;
             SET &PREF.GRP&I.V&J;
             IF SEMEAN NE .;
             MHS=1;
             %IF %UPCASE(&TABLEVAR)=CONUS %THEN %DO;
                 CONUS=1;
             %END;
          RUN;

          %IF &J=1 %THEN %DO;
             DATA &PREF.SEGRP&I;
                SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                GROUP=&I;
                IF SEMEAN NE .;
                RENAME SEMEAN = SERR&YR.V&J;
             RUN;
          %END;
          %ELSE %DO;
             DATA &PREF.SEGRP&I;
                MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                BY &TABLEVAR;
                GROUP=&I;
                RENAME SEMEAN = SERR&YR.V&J;
             RUN;
          %END;
      %END;

***** Put all data into one dataset  *****
***** Note:  changed output dataset  *****
***** to include group               *****;

      %IF &I=1 %THEN %DO;

         DATA &PREF.SERR;
            SET &PREF.SEGRP&I;
            KEEP GROUP &TABLEVAR SERR&YR.V1-SERR&YR.V&COMPNUM;
         RUN;
      %END;
      %ELSE %DO;

         DATA &PREF.SERR;
            SET &PREF.SERR
            &PREF.SEGRP&I;
         RUN;
      %END;

******** DEBUG PRINT   *******;

      %IF &DEBUG=Y %THEN %DO;
         %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
              PROC PRINT DATA=&PREF.SERR;
                 VAR &TABLEVAR GROUP SERR&YR.V1-SERR&YR.V&COMPNUM;
```

```
            RUN;
        %END;
     %END;

 %END;

%MEND A_SUDAAN;

%A_SUDAAN (CONUS);
%A_SUDAAN (XREGION);
%A_SUDAAN (CACSMPL);

*******************************************************
*** Next, calculate correlation coefficients         ***
*** and create a file for each analytical unit       ***
*******************************************************;

%MACRO GETCORR(BYVAR);

 %IF %UPCASE(&BYVAR)=XREGION %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=CONUS %THEN %LET PREF=M;

 PROC SORT DATA=HCSDB; BY &BYVAR;
 RUN;

 %DO I = 1 %TO &GRPNUM;

    PROC CORR NOPRINT DATA=HCSDB OUTP=&PREF.CORRC&I;
       %IF %UPCASE(&BYVAR)=CONUS %THEN %DO;
          WHERE BGROUP=&I AND CONUS = 1;
       %END;
       %ELSE %DO;
          WHERE BGROUP=&I;
       %END;
       BY &BYVAR;
       VAR PRVVAR1-PRVVAR&COMPNUM;
       WITH PRVVAR1-PRVVAR&COMPNUM;
       WEIGHT &WGT;
    RUN;

    DATA &PREF.CORRC&I;
      SET &PREF.CORRC&I;
      WHERE _TYPE_="CORR";
      GROUP=&I;
      ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
      ARRAY NEW COR&YR.V1-COR&YR.V&COMPNUM;
      DO J = 1 TO &COMPNUM;
         NEW(J)=OLD(J);
      END;
      DROP J PRVVAR1-PRVVAR&COMPNUM;
    RUN;

    %IF &I=1 %THEN %DO;

       DATA &PREF.CORRC;
         SET &PREF.CORRC&I;
       RUN;

    %END;
    %ELSE %DO;

       DATA &PREF.CORRC;
         SET &PREF.CORRC
         &PREF.CORRC&I;
       RUN;

    %END;
    %IF &DEBUG=Y %THEN %DO;
        %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
           PROC PRINT DATA=&PREF.CORRC;
              WHERE GROUP=1;
           RUN;
        %END;
```

```
   %END;
 %END;

*** Flatten dataset(for each region, condense matrix to one row) ***;

 %DO K=1 %TO &COMPNUM;

    DATA &PREF.CORR&K;
      SET &PREF.CORRC;
      WHERE _NAME_ = "PRVVAR&K";
      ARRAY CORR   (&COMPNUM) COR&YR.V1-COR&YR.V&COMPNUM;
      ARRAY CORR&K (&COMPNUM) COR&YR.V&K.1-COR&YR.V&K.&COMPNUM;
      DO L=1 TO &COMPNUM;
         CORR&K(L)=CORR(L);
      END;
      KEEP GROUP &BYVAR COR&YR.V&K.1-COR&YR.V&K.&COMPNUM;
    RUN;
    %IF &K=1 %THEN %DO;
        DATA &PREF.CORR;
          SET &PREF.CORR&K;
        RUN;
    %END;
    %ELSE %DO;
       DATA &PREF.CORR;
         MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
          BY GROUP &BYVAR;
       RUN;
    %END;
    %IF &DEBUG=Y %THEN %DO;
       %IF &PREF=R %THEN %DO;
          PROC PRINT DATA=&PREF.CORR;
             WHERE GROUP=1;
          RUN;
       %END;
     %END;
 %END;

%MEND GETCORR;

%GETCORR(CONUS);
%GETCORR(XREGION);
%GETCORR(CACSMPL);

*****************************************************
***  Macro to derive composites for each         *******
***  beneficiary group, level                    *******
***  output one dataset for each group           *******
*****************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XREGION %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=CONUS %THEN %LET PREF=M;


 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR NUM&YR.V1-NUM&YR.V&COMPNUM
        DEN&YR.V1-DEN&YR.V&COMPNUM;
    WEIGHT &WGT;
    OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
    SUM =  ;
 RUN;

 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR DEN&YR.V1-DEN&YR.V&COMPNUM;
    OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
    SUM= NOBS&YR.V1-NOBS&YR.V&COMPNUM;
 RUN;
```

```
 DATA &PREF.CMPSUM;
   MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS&YR.))
         &PREF.DGFR;
   BY BGROUP &BYVAR;

   %IF &PREF=M %THEN %DO;  /** added 7/10/2000 **/
      WHERE CONUS=1;
   %END;

   /**** set up group variable  **/

   RENAME BGROUP=GROUP;;

   /**** set up proportions, and composites **/

   ARRAY PROPORT PROP&YR.V1-PROP&YR.V&COMPNUM;
   ARRAY NUMER   NUM&YR.V1-NUM&YR.V&COMPNUM;
   ARRAY DENOM   DEN&YR.V1-DEN&YR.V&COMPNUM;
   DO J=1 TO DIM(PROPORT);
      PROPORT(J) = NUMER(J)/DENOM(J);
   END;
   DROP J;

   /**** composites **/

   %DO Q=1 %TO &COMPCNT;
      %IF &Q=1 %THEN %DO;
         CP&YR.NUM&Q.=SUM(OF NUM&YR.V1-NUM&YR.V&CMPNUM1);
         CP&YR.DEN&Q.=SUM(OF DEN&YR.V1-DEN&YR.V&CMPNUM1);
         CP&YR.OBS&Q.=SUM(OF NOBS&YR.V1-NOBS&YR.V&CMPNUM1);
      %END;
      %ELSE %DO;
         CP&YR.NUM&Q.=SUM(OF NUM&YR.V&START-NUM&YR.V&COMPNUM);
         CP&YR.DEN&Q.=SUM(OF DEN&YR.V&START-DEN&YR.V&COMPNUM);
         CP&YR.OBS&Q.=SUM(OF NOBS&YR.V&START-NOBS&YR.V&COMPNUM);
      %END;
      COMP&YR.&Q.=CP&YR.NUM&Q./CP&YR.DEN&Q.;
   %END;

** added goalvars to datastep, 5/30/2000                ;
** taken out of temporary array for variance calculations;
** and used, kept as variables                          ;

   GOALVAR1=&GOALVAR1;
   GOALVAR2=&GOALVAR2;
   GOALVAR3=&GOALVAR3;
   GOALVAR4=&GOALVAR4;
   GOALVAR5=&GOALVAR5;
   GOALVAR6=&GOALVAR6;
   GOALVAR7=&GOALVAR7;
   GOALVAR8=&GOALVAR8;

** the weight for preventive service is defined as the        ;
** proportion of the denominator for that service to the      ;
;
** composite denominator                                      ;
** healthy people 2000 goals -- used as benchmarks            ;

   ARRAY   SVCWGT(&COMPNUM) WGT&YR.V1-WGT&YR.V&COMPNUM;
   ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
   ARRAY WGTBMARK(&COMPNUM) WTD&YR.V1-WTD&YR.V&COMPNUM;

   DO K = 1 TO &COMPNUM;
      IF K < &START THEN SVCWGT(K)= DENOM(K)/CP&YR.DEN1;
      ELSE SVCWGT(K) = DENOM(K)/CP&YR.DEN2;
      WGTBMARK(K) = SVCWGT(K)*BMARK(K);
   END;
   DROP K;
   CP&YR.BMK1=SUM(OF WTD&YR.V1-WTD&YR.V&CMPNUM1);
   CP&YR.BMK2=SUM(OF WTD&YR.V&START-WTD&YR.V&COMPNUM);

   DROP WGT&YR.V1-WGT&YR.V&COMPNUM WTD&YR.V1-WTD&YR.V&COMPNUM
        NUM&YR.V1-NUM&YR.V&COMPNUM;
```

```
 RUN;

 %IF &DEBUG=Y AND &PREF=R %THEN %DO;

    PROC PRINT DATA=&PREF.CMPSUM;  /* print out final dataset */
    RUN;                            /* for region to check     */
 %END;

%MEND GETPROP;

%GETPROP(CONUS);   /** changed to CONUS 7/10/2000  **/
%GETPROP(XREGION);
%GETPROP(CACSMPL);

*****************************************************
** since MHS benchmarks will be displayed           ****
** set up adjustment factor to apply to             ****
** each analytical unit's composite benchmarks      ****
*****************************************************;


DATA ADJUST;
   SET MCMPSUM(KEEP=GROUP CP&YR.BMK1 CP&YR.BMK2);
   WHERE GROUP=8;           /** use all beneficiaries **/
   RENAME CP&YR.BMK1=MHS&YR.BM1;
   RENAME CP&YR.BMK2=MHS&YR.BM2;
   DROP GROUP;
RUN;


**** simple macro added to get adjusted composite scores ****;
**** for region and catchment to be displayed in report  ****;
**** cards                                               ****;

%MACRO ADJUST(FILE,LEVEL);

  DATA &FILE;
      IF _N_=1 THEN SET  ADJUST;
                    SET  &FILE;
    %DO Z=1 %TO &COMPCNT;
/*       %IF &LEVEL=CONUS %THEN %DO;
          ADJ&YR.CP&Z.=1;
          C&YR.SCOR&Z=COMP&YR.&Z.*ADJ&YR.CP&Z.*100;
       %END;
       %ELSE %DO; */
          ADJ&YR.CP&Z.=MHS&YR.BM&Z./CP&YR.BMK&Z.;
          C&YR.SCOR&Z=COMP&YR.&Z.*ADJ&YR.CP&Z.*100;
   /*    %END;    */
    %END;
   RUN;

%MEND ADJUST;

%ADJUST(MCMPSUM,CONUS)
%ADJUST(RCMPSUM,REG);
%ADJUST(CCMPSUM,CAT);


*****************************************************;
***  Macro to merge 3 datasets for each          *******;
***  called by analytical unit                   *******;
***  output final dataset for                    *******;
***  Region, Catchment, MHS                      *******;
*****************************************************;


%MACRO GETSIG(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);
 %LET NEXT  = %EVAL(&CMPNUM1+2);

 %IF &BYVAR=XREGION %THEN %LET PREF=R;
 %ELSE %IF &BYVAR=CACSMPL %THEN %LET PREF=C;
 %ELSE %IF &BYVAR=CONUS %THEN %LET PREF=M;
```

```
DATA OUT.&PREF.FINAL(KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
               SIG&YR.V1-SIG&YR.V&COMPNUM SCOR&YR.V1-SCOR&YR.V&COMPNUM
               CP&YR.SIG1-CP&YR.SIG&COMPCNT CP&YR.1SE CP&YR.2SE
               C&YR.SCOR1-C&YR.SCOR&COMPCNT CP&YR.BMK1-CP&YR.BMK&COMPCNT
               SERR&YR.V1-SERR&YR.V&COMPNUM CP&YR.1SE CP&YR.2SE
               COMP&YR.1 COMP&YR.2 PROP&YR.V1-PROP&YR.V&COMPNUM
               DF&YR.SCR1-DF&YR.SCR&COMPNUM DF&YR._CP1 DF&YR._CP2
               NOBS&YR.V1-NOBS&YR.V&COMPNUM CP&YR.OBS1-CP&YR.OBS&COMPCNT
               DEN&YR.V1-DEN&YR.V&COMPNUM CP&YR.DEN1-CP&YR.DEN&COMPCNT);

 /** output a dataset to check **/

   /* OUT.&PREF.CHECK(DROP=DROP=SESQ&YR.V1-SESQ&YR.V&COMPNUM
                         PROP&YR.V1-PROP&YR.V&COMPNUM
                         SEM&YR.V11-SEM&YR.V&COMPNUM.&COMPNUM);*/

  FORMAT MAJGRP $30. REGION $15. REGCAT $42.;

  %IF &PREF=C %THEN %DO;

     MERGE OBSCNT(IN=IN_OBS) &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
           &PREF.SERR;
     BY GROUP &BYVAR;
     IF IN_OBS;

  %END;
  %ELSE %DO;

     MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
           &PREF.SERR;
     BY GROUP &BYVAR;
     IF IN_PROP;

  %END;

  /**  MAJGRP -- text field for group   **/

      IF GROUP=1 THEN MAJGRP="Prime Enrollees            ";
  ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
  ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
  ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
  ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
  ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
  ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
  ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";


  /**** REGION AND REGCAT SETUP          **/

  %IF &PREF=C %THEN %DO;
     REGCAT=PUT(CACSMPL, CATREP.);
     REGION=PUT(XREGION, REGIONF.);
  %END;
  %ELSE %IF &PREF=R %THEN %DO;
     REGION=PUT(XREGION, REGIONF.);
     REGCAT=PUT(XREGION, REGIONF.);
  %END;
  %ELSE %DO;
     REGION="CONUS MHS";
     REGCAT="CONUS MHS";
  %END;

  /**** setup t statistics, degreees of freedom    **/

  ARRAY    TSTAT{&COMPNUM} T_&YR.V1-T_&YR.V&COMPNUM;
  ARRAY    BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
  ARRAY  STNDERR{&COMPNUM} SERR&YR.V1-SERR&YR.V&COMPNUM;
  ARRAY  SERRSQR{&COMPNUM} SESQ&YR.V1-SESQ&YR.V&COMPNUM;
  ARRAY     DEGF{&COMPNUM} DF&YR.SCR1-DF&YR.SCR&COMPNUM;
  ARRAY    DENOM{&COMPNUM} DEN&YR.V1-DEN&YR.V&COMPNUM;
  ARRAY  PROPORT{&COMPNUM} PROP&YR.V1-PROP&YR.V&COMPNUM;
  ARRAY    SCORE{&COMPNUM} SCOR&YR.V1-SCOR&YR.V&COMPNUM;
  ARRAY   PVALUE{&COMPNUM} PVAL&YR.V1-PVAL&YR.V&COMPNUM;
```

```
 ARRAY      SIG{&COMPNUM} SIG&YR.V1-SIG&YR.V&COMPNUM;
 ARRAY    N_OBS{&COMPNUM} NOBS&YR.V1-NOBS&YR.V&COMPNUM;

 /** get the item variance, t-statistics, df, p-values **/
 /** and whether significant                           **/

 DO I=1 TO &COMPNUM;
    SERRSQR{I}=STNDERR{I}**2;  /* Item variance */
    SCORE{I}=PROPORT{I}*100;   /* Score (prop. * 100) */
    IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
    ELSE TSTAT{I}=.;
    DEGF{I}=N_OBS{I}-1;
    PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
    IF PVALUE{I} GE .05 THEN SIG{I}=0;
    ELSE IF PVALUE{I} < .05 THEN DO;
       IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
       IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
    END;
 END;
 DROP I;

 /** multiply each item pair std. errors and correlation coefficients **/
 /** preventive care composite                                        **/

 ARRAY SERRC1{&CMPNUM1} SERR&YR.V1-SERR&YR.V&CMPNUM1;
 ARRAY SEwC1{&CMPNUM1} SEw&YR.V1-SEw&YR.V&CMPNUM1;
 %DO J = 1 %TO &CMPNUM1;
    ARRAY  SMEAN&J{&CMPNUM1} SEM&YR.V&J.1-SEM&YR.V&J.&CMPNUM1;
    ARRAY CORVAR&J{&CMPNUM1} COR&YR.V&J.1-COR&YR.V&J.&CMPNUM1;
    DO K=1 TO &CMPNUM1;
       SMEAN&J{K}=SERR&YR.V&J*SERRC1{K}*CORVAR&J{K}*DENOM{K}*DEN&YR.V&J;
    END;
    SEM&YR.V&J.&J=0; /** don't count in final standard error calculation **/
    sew&yr.v&j= (DEN&YR.V&j**2)*SESQ&YR.V&j;
    %END;
 DROP K;
 /** multiply each item pair std. errors and correlation coefficients **/
 /** access to care composite                                         **/

 ARRAY SERRC2{&CMPNUM2} SERR&YR.V&START-SERR&YR.V&COMPNUM;

 %DO L = &START %TO &COMPNUM;
    ARRAY  SMEAN&L{&CMPNUM2} SEM&YR.V&L.&START-SEM&YR.V&L.&COMPNUM;
    ARRAY CORVAR&L{&CMPNUM2} COR&YR.V&L.&START-COR&YR.V&L.&COMPNUM;
    DO M=1 TO &CMPNUM2;
       SMEAN&L{M}=SERR&YR.V&L*SERRC2{M}*CORVAR&L{M};
    END;
    SEM&YR.V&L.&L=0;  /** don't coun't in final standard error calculation **/
  %END;
  DROP M;
/** calculate composite t-statistic, pvalue, and whether significant **/
/** for composites                                                   **/

  %DO P=1 %TO &COMPCNT;
     %IF &P=1 %THEN %DO;

        /** composite standard error comprised of two parts **/
        CP&YR.&P.SE1=SUM(OF SEw&YR.V1-SEw&YR.V&CMPNUM1);
        CP&YR.&P.SE2=SUM(OF SEM&YR.V11-SEM&YR.V&CMPNUM1.&CMPNUM1.);

     %END;
     %ELSE %DO;
        CP&YR.&P.SE1=SUM(OF SESQ&YR.V&START-SESQ&YR.V&COMPNUM);
        CP&YR.&P.SE2=SUM(OF SEM&YR.V&START.&START.-SEM&YR.V&COMPNUM.&COMPNUM.);

     %END;

  /** add the two parts of the composite standard error  **/
  /** calculate the composite t statistics and p-values  **/
  /** determine whether differences are sigificant       **/

     CP&YR.&P.SE=SQRT(CP&YR.&P.SE2+CP&YR.&P.SE1)/CP&YR.DEN&P;
     IF CP&YR.&P.SE > 0 THEN CP&YR._T&P.=(COMP&YR.&P.-CP&YR.BMK&P.)/CP&YR.&P.SE;
     ELSE CP&YR._T&P.= .;
```

```
      DF&YR._CP&P.=CP&YR.OBS&P. - 1;
      CP&YR._P&P.=(1-PROBT(ABS(CP&YR._T&P.),DF&YR._CP&P.))*2;
      IF CP&YR._P&P GE .05 THEN CP&YR.SIG&P=0;
      ELSE IF CP&YR._P&P < .05 THEN DO;
         IF COMP&YR.&P. > CP&YR.BMK&P THEN CP&YR.SIG&P= 1;
         ELSE IF COMP&YR.&P. < CP&YR.BMK&P THEN CP&YR.SIG&P=-1;
      END;

   %END;

   OUTPUT OUT.&PREF.FINAL;

   /*%IF &PREF=M %THEN %DO;
      OUTPUT OUT.&PREF.CHECK;
   %END; */

 RUN;

%MEND GETSIG;

%GETSIG(CONUS);    /** changed to CONUS 7/10/2000 **/
%GETSIG(XREGION);
%GETSIG(CACSMPL);

ENDSAS;
```

```
14.  CALCULATE TREND & PERFORM SIGNIFICANCE TESTS ON MPR SCORES - ANNUAL
*****************************************************************
*  Project:   DoD Reporting and Analysis 8687-100
*  Program:   TRENDMPR.SAS
*  Author:    Chris Rankin
*  Date:      6/19/2000
*
*  Modified:  1) 2/21/2001
*             trend calculation changed
*             2) 1/29/2003 By Keith Rathbun, Chris Rankin: Updated to
*                caculate trends based on 2000 to 2002.
*
*  Purpose:   Calculate trends from 2000 to 2002
*  Output:    RTREND.SD2
*             MTREND.SD2
*             CTREND.SD2
*  Input:     RFINAL.SD2
*             CFINAL.SD2
*             MFINAL.SD2
*    Note:    Next program is loadmpr.sas
*****************************************************************;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT;

LIBNAME   IN02    V612  ".";
LIBNAME   IN00    V612  "..\..\2000\ReportCards\MPR_Adult2000";
LIBNAME   OUT     V612  ".";
LIBNAME   LIBRARY  "..\..\..\data\fmtlib";


%LET COMPNUM=8;    /** number of variables       **/

**** Note:  groups changed 6/16/2000 to correspond with ;
**** definition of CAHPS groups                       ;

*************************************************************;
* Beneficiary group note
*    Eight groups             Definitions
* _____________________________________________________________;
* 1. Prime enrollees          XINSCOV IN (1,2,6) AND H99004=4
* 2. Enrollees w/mil PCM      XENR_PCM IN (2,6)  AND H99004=4
* 3. Enrollees w/civ PCM      XENR_PCM=3         AND H99004=4
* 4. Nonenrollees             XINSCOV IN (3,4,5)
* 5. Active duty              BFGROUPP=1
* 6. Active duty dependents   BFGROUPP=2
* 7. Retirees                 BFGROUPP IN (3,4)
* 8. All beneficiaries        ALL
*************************************************************;

/*** macro to merge final datasets together and calculate trends ***/

%MACRO TRENDS(INDATA, OUTDATA);

  PROC SORT DATA=IN00.&INDATA;
     BY MAJGRP REGION REGCAT;
  RUN;

  PROC SORT DATA=IN02.&INDATA;
     BY MAJGRP REGION REGCAT;
  RUN;

  DATA OUT.&OUTDATA;
     MERGE IN02.&INDATA(IN=IN_02) IN00.&INDATA(IN=IN_00);
     BY MAJGRP REGION REGCAT;
     IF IN_02 & IN_00;
 /*** calculate trends in the composite benchmarks ***/

     ARRAY   BMK02{*} CP02BMK1 CP02BMK2;
     ARRAY   BMK00{*} CP00BMK1 CP00BMK2;
     ARRAY BMKTRND{*} TRNDBMK1 TRNDBMK2;

     DO J=1 TO 2;
        IF BMK00{J} > 0 THEN BMKTRND{J}=100*(BMK02{J}-BMK00{J});
        ELSE BMKTRND{J}=.;
```

```
   END;
   DROP J;
/*** note-- don't use adjusted scores ***/

   ARRAY SCORE02{*} PROP02V1-PROP02V&COMPNUM COMP021 COMP022;
   ARRAY SCORE00{*} PROP00V1-PROP00V&COMPNUM COMP001 COMP002;
   ARRAY  SERR02{*} SERR02V1-SERR02V&COMPNUM CP021SE  CP022SE;
   ARRAY  SERR00{*} SERR00V1-SERR00V&COMPNUM CP001SE  CP002SE;
   ARRAY   TREND{*} TRENDV1-TRENDV&COMPNUM   CMPTRND1 CMPTRND2;
   ARRAY   TSTAT{*} T_TRNDV1-T_TRNDV&COMPNUM T_CTRND1 T_CTRND2;
   ARRAY  PVALUE{*} P_TRNDV1-P_TRNDV&COMPNUM P_CTRND1 P_CTRND2;
   ARRAY     SIG{*} SIGTRND1-SIGTRND&COMPNUM SIGCPTR1 SIGCPTR2;
   ARRAY DEGFR02{*} DF02SCR1-DF02SCR&COMPNUM DF02_CP1 DF02_CP2;
   ARRAY DEGFR00{*} DF00SCR1-DF00SCR&COMPNUM DF00_CP1 DF00_CP2;
   ARRAY    DEGF{*} DFSCOR1-DFSCOR&COMPNUM DF_COMP1 DF_COMP2;
   ARRAY   DENOM{*} DENOMT1-DENOMT&COMPNUM DENOMTC1 DENOMTC2;
   ARRAY   DEN00{*} DEN00V1-DEN00V&COMPNUM CP00DEN1 CP00DEN2;
   ARRAY   DEN02{*} DEN02V1-DEN02V&COMPNUM CP02DEN1 CP02DEN2;
   ARRAY    NWGT{*} NWGT1-NWGT&COMPNUM NWGTC1 NWGTC2;

/*** setup t statistics, degreees of freedom    ***/

   DO I=1 TO 10;
      IF SCORE00{I} GE 0 AND SCORE02{I} GE 0 THEN DO;
         IF SCORE00{I} > 0 THEN TREND{I}=100*(SCORE02{I}-SCORE00{I}); /*changed 2/21/2001*/
         ELSE TREND{I}=.;
         if i<9 then DENOM{I}= SERR00{I}**2+SERR02{I}**2;
         else DENOM{I}= SERR00{I}**2+(BMK00{I-8}*SERR02{I}/BMK02{I-8})**2;
         IF DENOM{I} > 0 THEN do;
            if i<9 then
            TSTAT{I}=(SCORE02{I}-SCORE00{I})/SQRT(DENOM{I});
            else
            TSTAT{I}=((SCORE02{I}*BMK00{I-8}/BMK02{I-8})-SCORE00{I})/SQRT(DENOM{I});
         end;
         ELSE TSTAT{I}=.;
         DEGF{I}=MIN(DEGFR02{I},DEGFR00{I});
         NWGT{I}=MIN(DEN02{I},DEN00{I});
         IF DEGF{I}=0 THEN DEGF{I}=1;
         IF DEGF{I}IN (0, .) THEN
         PUT "MAJGRP=" MAJGRP "REGCAT=" REGCAT "REGION=" REGION
         "DEGFR00=" DEGFR00{I} "DEGFR02=" DEGFR02{I};
         PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
         IF TREND{I}=. THEN SIG{I}=.;
         ELSE IF TREND{I} NE . THEN DO;
            IF PVALUE{I} GE .05 THEN SIG{I}=0;
            IF PVALUE{I} < .05  THEN DO;
               IF TSTAT{I} > 0 THEN SIG{I}=1;
               IF TSTAT{I} < 0 & TSTAT{I} ne . THEN SIG{I}=-1;
            END;
         END;
      END;
   END;
   DROP I;


  RUN;

%MEND TRENDS;

%TRENDS(MFINAL, MTREND);
%TRENDS(RFINAL, RTREND);
%TRENDS(CFINAL, CTREND);
```

15. MERGE THE FINAL 2000-2002 CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT - ANNUAL

15.A. GENERATE WEB LAYOUT FOR THE 2002 TRICARE CONSUMER REPORTS – ANNUAL

```
/*******************************************************************/
/* PROJECT:  8860 - 2002 Annual Survey                             */
/* PROGRAM:  FAKE.SAS                                              */
/* PURPOSE:  Generate Fake Data for Report Cards                   */
/* AUTHOR:   Mark A. Brinkley                                      */
/*                                                                 */
/* MODIFIED: 1) July 2000 By Eric Schone to utilize CACRPT and CATREP */
/*              include files.                                     */
/*           2) January 2002 By Keith Rathbun: Updated to support the */
/*              2000 Annual HCSDB format.                          */
/*           3) January 2003 By Keith Rathbun: Updated to support the */
/*              2002 Annual HCSDB format.  Delete flu shot, increment */
/*              previous years by 1, added 2002.                   */
/*                                                                 */
/* INCLUDES: 1) CATREP.INC - Report Card Catchment Format Defns    */
/*                                                                 */
/*******************************************************************/

LIBNAME OUT V612 '.';
LIBNAME IN  V612 '..\..\DATA';    /*** Changed from J: to relative reference MAB 1-24-2002 ***/
LIBNAME LIBRARY V612 '..\..\DATA\FMTLIB';
OPTIONS COMPRESS=YES NOFMTERR;

DATA TEMP;
   SET IN.HCS02A_1(KEEP=XREGION CACSMPL);
RUN;

************************************************************************
* CACSMPL FORMAT DEFINITIONS FOR REPORT CARD USE FACILITY NAME.
************************************************************************;
PROC FORMAT;
%INCLUDE "CATREP.INC";

PROC FORMAT;
   VALUE REG
       1  = 'Region 1'
       2  = 'Region 2'
       3  = 'Region 3'
       4  = 'Region 4'
       5  = 'Region 5'
       6  = 'Region 6'
       7  = 'Region 7/8'
       9  = 'Region 9'
       10 = 'Region 10'
       11 = 'Region 11'
       12 = 'Region 12'
       13 = 'Europe'
       14 = 'Asia'
       15 = 'Latin America'
       16 = 'Alaska';
RUN;

proc freq;
   table xregion*cacsmpl/ noprint out=temp;
run;

data temp;
   length cafmt $26;
   set temp end=last; by xregion;
   caf=0;
   where cacsmpl ne 9999;
   if first.xregion & xregion ne 8 then do;
      cafmt=put(xregion,reg.);
      output;
   end;
   cafmt=put(cacsmpl,catrep.);
   caf=1;
   if count>60 & cafmt ne 'INV' then output;
   if last then do;
      xregion=0;
```

```
      caf=0;
      cafmt='Benchmark';
      output;
      caf=1;
      cafmt='CONUS MHS';
      output;
   end;
run;

proc sort; by xregion caf cafmt; run;

data temp;
   set temp end=last;
   start=_n_; label=cafmt; type='N'; fmtname='ROWMAT';
   if last then call symput('x',_n_);
run;

proc format cntlin=temp;
proc print data=temp;

PROC FORMAT;
  VALUE BEN
  0 = 'Total' /*** Added 01-09-2002 by KRR ***/
  1 = 'Getting Needed Care'
  2 = 'Getting Care Quickly'
  3 = 'Courteous and Helpful Office Staff'
  4 = 'How Well Doctors Communicate'
  5 = 'Customer Service'
  6 = 'Claims Processing'
  7 = 'Health Plan'
  8 = 'Health Care'
  9 = 'Primary Care Manager'
 10 = 'Specialty Care'
 11 = 'Preventive Care';

  VALUE MAJOR
  1 = "Prime Enrollees            "
  2 = "Enrollees with Military PCM"
  3 = "Enrollees with Civilian PCM"
  /**4 = "Non-enrolled Beneficiaries " CHANGED MAB 1-25-2002**/
  4 = "Standard/Extra Users       "
  5 = "Active Duty                "
  6 = "Active Duty Dependents     "
  7 = "Retirees and Dependents    "
  /**8 = "All Beneficiaries          "  CHANGED MAB 1-25-2002**/
  8 = "All Users                  "  ;

RUN;

DATA FAKE;

  KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE I K;

  LENGTH MAJGRP $  30
         REGION $  15
         REGCAT $  26
         BENTYPE $ 50;

  DO I = 1 TO 8;             ** 8 Major groups **;

     MAJGRP=PUT(I,MAJOR.);

     DO J=1 TO &x;        ** Region/catchment **;

     REGCAT=PUT(J,ROWMAT.);
     RETAIN REGION;

     IF REGCAT="Benchmark" THEN REGION="Benchmark";
     ELSE IF REGCAT="CONUS MHS" THEN REGION="CONUS MHS";
     ELSE IF UPCASE(SUBSTR(REGCAT,1,6))="REGION" OR
             REGCAT="Alaska" OR
             REGCAT="Europe" OR
             REGCAT="Asia" OR
             REGCAT="Latin America" THEN REGION=REGCAT;
```

```
DO K = 0 TO 11; *Start with 0 (total) 12 Benefits 01-09-2002 - KRR;

BENEFIT=PUT(K,BEN.);


  /*** Changed 01-07-2003 KRR  - Order years as 1999/2000/2001/2002 ***/

  IF K=0 THEN DO;        /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=1 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="Problems Getting Personal Doctor/Nurse"; OUTPUT;
      BENTYPE="Problems Getting Referral to Specialist"; OUTPUT;
      BENTYPE="Problems Getting Necessary Care"; OUTPUT;
      BENTYPE="Delays in Care while Awaiting Approval"; OUTPUT;
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=2 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="Advice over Telephone"; OUTPUT;
      BENTYPE="Wait for Routine Visit"; OUTPUT;
      BENTYPE="Wait for Urgent Care"; OUTPUT;
      BENTYPE="Wait More than 15 Minutes Past Appointment"; OUTPUT;
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=3 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="Courteous and Respectful"; OUTPUT;
      BENTYPE="Helpful"; OUTPUT;
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=4 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="Listens Carefully             "; OUTPUT;
      BENTYPE="Explains so You can Understand"; OUTPUT;
      BENTYPE="Shows Respect                 "; OUTPUT;
      BENTYPE="Spends Time with You          "; OUTPUT;
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=5 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="Problem Finding/Understanding Written Material"; OUTPUT;
      BENTYPE="Problem Getting Help from Customer Service"; OUTPUT;
      BENTYPE="Problem with Paperwork"; OUTPUT;
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=6 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="Claims Handled in a Reasonable Time"; OUTPUT;
      BENTYPE="Claims Handled Correctly"; OUTPUT;
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
  END;
  ELSE IF K=7 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
      BENTYPE="2000"; OUTPUT;
      BENTYPE="2001"; OUTPUT;
      BENTYPE="2002"; OUTPUT;
      BENTYPE="Trend"; OUTPUT;
```

```
          END;
          ELSE IF K=8 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
              BENTYPE="2000"; OUTPUT;
              BENTYPE="2001"; OUTPUT;
              BENTYPE="2002"; OUTPUT;
              BENTYPE="Trend"; OUTPUT;
          END;
          ELSE IF K=9 THEN DO;   /*** Updated 01-07-2003 by KRR ***/
              BENTYPE="2000"; OUTPUT;
              BENTYPE="2001"; OUTPUT;
              BENTYPE="2002"; OUTPUT;
              BENTYPE="Trend"; OUTPUT;
          END;
          ELSE IF K=10 THEN DO;  /*** Updated 01-07-2003 by KRR ***/
              BENTYPE="2000"; OUTPUT;
              BENTYPE="2001"; OUTPUT;
              BENTYPE="2002"; OUTPUT;
              BENTYPE="Trend"; OUTPUT;
          END;
          ELSE IF K=11 THEN DO;  /*** Updated 01-07-2003 by KRR ***/
              BENTYPE="Mammography  "; OUTPUT;
              BENTYPE="Pap Smear    "; OUTPUT;
              BENTYPE="Hypertension "; OUTPUT;
              /* BENTYPE="Flu Shot     "; OUTPUT; */
              BENTYPE="Prenatal Care"; OUTPUT;
              BENTYPE="2000"; OUTPUT;
              BENTYPE="2001"; OUTPUT;
              BENTYPE="2002"; OUTPUT;
              BENTYPE="Trend"; OUTPUT;
          END;
        END;
      END;
  END;
RUN;

/*** Need to clean up data ***/
DATA OUT.FAKE;
  SET FAKE;

  /*** Need to set oddball records to missing ***/
  if region=''|compress(regcat)='.' then delete;

  /*** Don't populate catchment areas for 4 major groups ***/
  IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;
  SIG = .;
  SCORE = .;

  DROP I K;
RUN;

PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

15.B. MERGE THE FINAL 2000-2002 CAHPS AND MPR SCORES DATABASES INTO THE WEB LAYOUT - ANNUAL

```
*************************************************************************
*
* PROGRAM:  MERGFINL.SAS
* TASK:     2002 DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKE.SD2.
*
* WRITTEN:  06/07/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/09/2002 BY KEITH RATHBUN: Updated to support the 2000
*              annual HCSDB.
*           2) 01/07/2002 BY KEITH RATHBUN: Updated to support the 2002
*              annual HCSDB.
*
* INPUTS:   1) MPR and CAHPS Individual and Composite data sets with adjusted
*              scores, and benchmark data for 1999-2002 DoD HCS.
*              - LOADMPR.SD2  - 1999-2002 MPR Scores Databases
*              - LOADCAHP.SD2 - 1999-2002 CAHPS Scores Databases
*              - BENCHA04.SD2 - 1999-2002 CAHPS Benchmark Databases
*              - FAKE.SD2     - WEB Layout in Column order
*
* OUTPUT:   1) MERGFINL.SD2 - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) The following steps need to be run prior to this program (1999,2000,2001,2002):
*  - STEP1.SAS       - Recode questions and generate CAHPS group files
*  - STEP2.SAS       - Calculate CAHPS individual adjusted scores for groups 1-8
*  - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*  - PRVCOMP.SAS     - Calculate MPR individual and composite scores
*  - BENCHA01-04.SAS - Convert Benchmark Scores into WEB layout
*  - LOADCAHP.SAS    - Convert CAHPS Scores Database into WEB layout
*
* 2) The output file (MERGFINL.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN01  V612 ".";
LIBNAME IN02  V612 "..\..\..\2002\PROGRAMS\LOADWEB";
LIBNAME IN03  V612 "..\2001\LOADWEB";
LIBNAME IN04  V612 "..\2000\LOADWEB";
LIBNAME IN05  V612 "..\..\..\2002\PROGRAMS\REPORTCARDS\MPR_ADULT2002";
LIBNAME IN06  V612 "..\2001\REPORTCARDS\MPR_ADULT2001";
LIBNAME IN07  V612 "..\2000\REPORTCARDS\MPR_ADULT2000";
LIBNAME IN08  V612 "..\..\..\2002\PROGRAMS\BENCHMARK\DATA";
LIBNAME IN09  V612 "..\2001\BENCHMARK\DATA";
LIBNAME IN10  V612 "..\2000\BENCHMARK\DATA";
LIBNAME OUT   V612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
* Construct ORDERing variable from WEB layout
*************************************************************************;
DATA ORDER;
   SET IN01.FAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

*************************************************************************
* Merge the Scores Databases
*************************************************************************;
DATA MERGFINL;
   SET IN02.LOADCAHP (IN=INCAHP02)
       IN03.LOADCAHP (IN=INCAHP01)
```

```
       IN04.LOADCAHP (IN=INCAHP00)
       IN05.LOADMPR  (IN=INMPR02)
       IN06.LOADMPR  (IN=INMPR01)
       IN07.LOADMPR  (IN=INMPR00)
       IN08.BENCHA04 (IN=INBEN02)
       IN09.BENCHA04 (IN=INBEN01)
       IN10.BENCHA04 (IN=INBEN00);
   SVCAHP02 = INCAHP02;
   SVCAHP01 = INCAHP01;
   SVCAHP00 = INCAHP00;
   SVMPR02  = INMPR02 ;
   SVMPR01  = INMPR01 ;
   SVMPR00  = INMPR00 ;
   SVBEN02  = INBEN02 ;
   SVBEN01  = INBEN01 ;
   SVBEN00  = INBEN00 ;
   LENGTH KEY $200;
   IF MAJGRP = "All Beneficiaries" THEN MAJGRP = "All Users";
   IF MAJGRP = "Non-enrolled Beneficiaries" THEN MAJGRP = "Standard/Extra Users";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   IF SCORE = . THEN DELETE;
   IF TRIM(REGCAT) = "INV" THEN DELETE;
   ************************************************************************
   * Keep only the composites from 2000 and 2001.
   ************************************************************************;
   IF ( INBEN01 OR  INBEN00 OR
       INCAHP01 OR INCAHP00 OR
        INMPR01 OR  INMPR00) THEN DO;
      IF BENTYPE IN ("2000","2001") THEN OUTPUT;
   END;
   ELSE OUTPUT;

RUN;

PROC SORT DATA=MERGFINL; BY KEY; RUN;

************************************************************************
* Append ORDERing variable to the merged Scores database file
************************************************************************;
DATA MERGFINL out.MISSING;
   MERGE MERGFINL(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHP02 = 1 THEN SOURCE = "CAHPS 2002    ";
   IF SVCAHP01 = 1 THEN SOURCE = "CAHPS 2001    ";
   IF SVCAHP00 = 1 THEN SOURCE = "CAHPS 2000    ";
   IF SVMPR02  = 1 THEN SOURCE = "MPR 2002      ";
   IF SVMPR01  = 1 THEN SOURCE = "MPR 2001      ";
   IF SVMPR00  = 1 THEN SOURCE = "MPR 2000      ";
   IF SVBEN02  = 1 THEN SOURCE = "BENCHMARK 2002";
   IF SVBEN01  = 1 THEN SOURCE = "BENCHMARK 2001";
   IF SVBEN00  = 1 THEN SOURCE = "BENCHMARK 2000";

   IF IN1 AND NOT IN2 THEN OUTPUT out.MISSING; *Missing from layout;
   IF IN1 AND ORDER NE . THEN OUTPUT MERGFINL;
RUN;

************************************************************************
* Reorder file according to WEB layout
************************************************************************;
PROC SORT DATA=MERGFINL OUT=OUT.MERGFINL; BY ORDER; RUN;

DATA FAKE;
   SET IN01.FAKE;
   ORDER = _N_;
RUN;
```

```
DATA LAYONLY;
   MERGE FAKE(IN=IN1) OUT.MERGFINL(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "2002 DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: MERGFINL.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINL.SD2 - Merged Final Scores Database for input to MAKEHTML.SAS";

TITLE5 "MERGFINL.SD2 Data source counts";
PROC FREQ DATA=OUT.MERGFINL;
TABLES SOURCE FLAG

  SVCAHP02 SVCAHP01 SVCAHP00
  SVMPR02  SVMPR01  SVMPR00
  SVBEN02  SVBEN01  SVBEN00

  SVCAHP02 * SVCAHP01 * SVCAHP00 *
  SVMPR02  * SVMPR01  * SVMPR00  *
  SVBEN02  * SVBEN01  * SVBEN00

 /MISSING LIST;
RUN;

TITLE5 "MERGFINL.SD2 Data attribute counts";
PROC FREQ DATA=OUT.MERGFINL;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "LAYONLY.SD2 Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKE.SD2)";
PROC PRINT DATA=out.MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

16. GENERATE CAHPS CONUS SCORES AND PERFORM SIGNIFICANCE TESTS - ANNUAL

```
*************************************************************************
*
*  PROGRAM:  CONUS_Q.SAS
*  TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8687-210)
*  PURPOSE:  Generate CAHPS CONUS scores and perform significance tests.
*
*  WRITTEN:  11/13/2000 BY KEITH RATHBUN, Adapted from CONUS_A.SAS.
*            Merged SIGNIF_A.SAS funtionality.
*
*  MODIFIED: 1) 01/07/2002 BY KEITH RATHBUN, Updated for 2000 annual consumer
*               reports.
*            2) 01/27/2003 BY KEITH RATHBUN, Updated for 2002 annual consumer
*               reports.
*
*   INPUTS:  1) MERGFINL.SD2 - Scores Database in WEB Layout
*            2) FAKE.SD2 - Scores Database WEB Layout
*            3) CONUS_A.SD2 - Previous years Combined CAHPS/MPR Scores Database in WEB layout
*
*   OUTPUT:  1) CONUS_Q.SD2 - Combined CAHPS/MPR Scores Database in WEB layout
*            2) LT30Q.SD2 - Records with <= 30 observations
*
*    NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS   - Recode questions and generate group files
*    - STEP2.SAS    - Calculate individual adjusted scores for group 1-8
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*    - MERGFINL.SAS - Merge the final CAHPS and MPR Scores Databases
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN1 V612 ".";
LIBNAME OUT V612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
*************************************************************************
*
* Process Macro Input Parameters:
*
* 1) BENTYPE = Benefit Type
* 2) MAJGRP = Major Group
* 3) TYPE = INDIVIDUAL or COMPOSITE
* 4) BENEFIT = COMPOSITE Benefit Type
*
*************************************************************************
*************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
*************************************************************************;
%LET DSN = MERGFINL;

DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;
%LET FLAG = 0;

%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
   SET IN1.&DSN END=FINISHED;
   %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
       WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             REGION NOT IN("Benchmark","CONUS MHS") AND
             REGCAT NOT IN("Benchmark","CONUS MHS");
   %END;
   %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
       WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             BENEFIT = "&BENEFIT" AND
             REGION NOT IN("Benchmark","CONUS MHS") AND
             REGCAT NOT IN("Benchmark","CONUS MHS");
   %END;
   %ELSE %DO;
```

```
       PUT "ERROR: Invalid Type = &TYPE";
   %END;
RUN;

DATA TEMP;
   SET TEMP END=FINISHED;
   IF _N_ = 1 THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;
   ************************************************************************
   * Skip over the Non-CONUS
   ************************************************************************;
   IF REGION NOT IN("Asia","Europe","Latin America") THEN DO;
      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;
   END;
   IF FINISHED THEN GOTO FINISHED;
   RETURN;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;

FINISHED:
   SCORE   = SUMSCOR1/SUMWGT1;
   SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
   N_OBS   = N_OBS1;
   N_WGT   = SUMWGT1;
   SOURCE  = "CONUS";
   FLAG    = "CONUS";
   REGION  = "CONUS MHS";
   REGCAT  = "CONUS MHS";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   OUTPUT;
RUN;

%IF &FLAG = 0 %THEN %DO;
   DATA FINAL;
      SET INIT TEMP;
   RUN;
%END;
%ELSE %DO;
   DATA FINAL;
      SET FINAL TEMP;
   RUN;
%END;
%LET FLAG = 1;

%MEND;

************************************************************************
* Create CONUS for Active Duty - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                        ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                     ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time          ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                     ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval       ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand               ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                      ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=Listens Carefully                              ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service    ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                        ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care               ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse        ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist       ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                                 ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                          ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                          ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment    ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=Active Duty,
TYPE=INDIVIDUAL);

************************************************************************
* Create CONUS for Active Duty Dependents - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                         ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                      ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time           ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                      ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval        ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand                ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                       ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                             ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service    ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                        ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care               ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse        ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist       ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                                 ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                          ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                          ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment    ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);

************************************************************************
* Create CONUS for Enrollees with Civilian PCM - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                         ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                      ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time          ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                    ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval      ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand              ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                     ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                           ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service   ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                      ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care             ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse      ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist     ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                               ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                        ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                        ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment  ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                      ,MAJGRP=Enrollees with Civilian
PCM, TYPE=INDIVIDUAL);

*************************************************************************
* Create CONUS for Enrollees with Military PCM - Individual
*************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                       ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                    ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time         ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                    ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval      ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand              ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                     ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                           ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service   ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                      ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care             ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse      ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist     ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                               ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                        ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                        ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment  ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=Enrollees with Military
PCM, TYPE=INDIVIDUAL);

************************************************************************
* Create CONUS for Standard/Extra Users - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                         ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                      ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time           ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                      ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval        ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand                ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                       ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                             ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service    ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                        ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care               ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse        ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist       ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                                 ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                          ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                          ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment    ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=Standard/Extra Users,
TYPE=INDIVIDUAL);

************************************************************************
* Create CONUS for Prime Enrollees - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                         ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                      ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time           ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                      ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval        ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand                ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                       ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                             ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service    ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                        ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care               ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse        ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=Problems Getting Referral to Specialist       ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                                 ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                          ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                          ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment    ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);

************************************************************************
* Create CONUS for Retirees and Dependents - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                         ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                      ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time           ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                      ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand                ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                       ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                             ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service    ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care               ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist       ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                                 ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                          ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                          ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment    ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);

************************************************************************
* Create CONUS for All Users - Individual
************************************************************************;
%PROCESS(BENTYPE=Advice over Telephone                         ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled Correctly                      ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time           ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous and Respectful                      ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Delays in Care while Awaiting Approval        ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You can Understand                ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Helpful                                       ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                             ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
```

```
%PROCESS(BENTYPE=Problem Finding/Understanding Written Material,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem Getting Help from Customer Service    ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problem with Paperwork                        ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Necessary Care               ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Personal Doctor/Nurse        ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Problems Getting Referral to Specialist       ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                                 ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You                          ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care                          ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait More than 15 Minutes Past Appointment    ,MAJGRP=All Users,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit                        ,MAJGRP=All Users,
TYPE=INDIVIDUAL);

*************************************************************************
* Process Annual (2000,2001,2002) CONUS Composites
*************************************************************************;
%MACRO ANNUAL;
%DO PERIOD = 2000 %TO 2002;
*************************************************************************
* Create CONUS for Claims Processing - Annual
*************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty               , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents    , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Claims
Processing);

*************************************************************************
* Create CONUS for Courteous and Helpful Office Staff - Annual
*************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty               , TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents    , TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Courteous
and Helpful Office Staff);

*************************************************************************
* Create CONUS for Customer Service - Annual
*************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty               , TYPE=COMPOSITE,BENEFIT=Customer
Service);
```

```
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Customer
Service);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Customer
Service);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Customer
Service);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Customer
Service);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Customer
Service);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Customer
Service);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Customer
Service);

************************************************************************
* Create CONUS for Getting Care Quickly - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);

************************************************************************
* Create CONUS for Getting Needed Care - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);

************************************************************************
* Create CONUS for Health Care - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Health
Care);
```

```
************************************************************************
* Create CONUS for Health Plan - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Health
Plan);

************************************************************************
* Create CONUS for How Well Doctors Communicate - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=How Well
Doctors Communicate);

************************************************************************
* Create CONUS for Primary Care Manager - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                  , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);

************************************************************************
* Create CONUS for Specialty Care - Annual
************************************************************************;
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Specialty
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Specialty
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Specialty
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Specialty
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Standard/Extra Users       , TYPE=COMPOSITE,BENEFIT=Specialty
Care);
```

```
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Prime Enrollees           , TYPE=COMPOSITE,BENEFIT=Specialty
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=Retirees and Dependents   , TYPE=COMPOSITE,BENEFIT=Specialty
Care);
%PROCESS(BENTYPE="&PERIOD", MAJGRP=All Users                 , TYPE=COMPOSITE,BENEFIT=Specialty
Care);

%END; * END DO FOR 2000 TO 2002;
%MEND ANNUAL;
%ANNUAL;

*****************************************************************************
* Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
* as place holders for missing records.  FAKE will be used for adding
* new records.
*****************************************************************************;
DATA FAKE;
   SET IN1.FAKE;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));

RUN;
PROC SORT DATA=FAKE OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKE(KEEP=ORDER KEY); BY KEY; RUN;

*****************************************************************************
* Append BENCHMARK records to CAHPS records and perform significance tests
*****************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
   SET IN1.&DSN;
   WHERE REGION = "Benchmark" AND SVMPR00=0 AND SVMPR01=0 AND SVMPR02=0;
RUN;
Data abnchmrk(keep=benefit bentype ascore);
set benchmrk;
where upcase(majgrp)='ALL USERS';
rename score=ascore;
proc sort; by benefit bentype;
proc sort data=benchmrk; by benefit bentype;
data benchmrk;
merge benchmrk abnchmrk; by benefit bentype;

PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA CONUS_Q;
   MERGE FINAL(IN=IN1) FAKE(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE; RUN;

*****************************************************************************
* Perform significance tests for CONUS scores
*****************************************************************************;
DATA SIGTEST1;
   MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;

   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   REGION = "CONUS MHS";
   REGCAT = "CONUS MHS";

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
```

```
   SOURCE = "CONUS_Q";
   FLAG   = "CONUS_Q";
   score=score+ascore-bscore;
   IF SIN;
RUN;
PROC SORT DATA=SIGTEST1; BY KEY; RUN;

*************************************************************************
* Extract CAHPS scores to perform significance tests
*************************************************************************;
DATA CAHPS MPR;
   SET IN1.&DSN;
   ************************************************************************
   * Significance tests have already been performed for MPR scores,
   * so remove from file.
   ************************************************************************;
   IF SVMPR00 = 1|svmpr01=1|svmpr02=1 THEN OUTPUT MPR;
   IF SVMPR00 = 0 & svmpr01 = 0 & svmpr02 = 0 THEN OUTPUT CAHPS;
RUN;

PROC SORT DATA=CAHPS;
   BY MAJGRP BENEFIT BENTYPE;
RUN;

*************************************************************************
* Perform significance tests for CAHPS scores
*************************************************************************;
DATA SIGTEST2;
   MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
   score=score+ascore-bscore;
RUN;
PROC SORT DATA=SIGTEST2; BY KEY; RUN;

PROC SORT DATA=MPR; BY KEY; RUN;

*************************************************************************
* Combine previously created records with the new file
*************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 MPR;
   BY KEY;
   ************************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   ************************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

*************************************************************************
* Create place holders for missing records
*************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

*************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
*************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE;
```

```
   BY KEY;
   ************************************************************************
   * Convert CAHPS Composites and Individual to 1-100 scale.  Note that
   * preventive care, and scores from previous quarters have already been
   * converted to 1-100 scale.  The below if condition will need to have the
   * following condition added for Q4:
   * AND BENTYPE NE "July, 2000 to June, 2001".
   ************************************************************************;
   IF BENEFIT NE "Preventive Care" /*AND
      BENTYPE NOT IN ("1998","1999","2000")*/
   THEN SCORE = SCORE*100;
RUN;

PROC SORT DATA=CONUS_Q OUT=OUT.CONUS_Q; BY ORDER; RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (8687-210)";
TITLE2 "Program Name: CONUS_Q.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MERGFINL.SD2 - Scores Database in WEB Layout";
TITLE4 "Program Outputs: CONUS_Q.SD2 - CONUS Scores Database in WEB layout";

PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

17. CALCULATE CAHPS TOTAL SCORES AND CONDUCT SIGNIFICANCE TEST - ANNUAL

```
*************************************************************************
*
*  PROGRAM:  TOTAL_A.SAS
*  TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (8687-430)
*  PURPOSE:  Generate TOTAL scores and perform significance tests.
*
*  WRITTEN:  12/15/2000 BY KEITH RATHBUN
*
*  MODIFIED: 1) May 2001 BY ERIC SCHONE, Modified calculations for
*               Total Score.
*
*   INPUTS:  1) CONUS_Q.SD2 - Scores Database in WEB Layout
*            2) FAKEQ.SD2 - Scores Database WEB Layout
*            3) FACTCOMP.SD2 - Total Scores (Part 1)
*
*   OUTPUT:  1) TOTAL_A.SD2 - Combined CAHPS/MPR/TOTAL Scores Database in WEB layout
*
*    NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS   - Recode questions and generate group files
*    - STEP2Q.SAS   - Calculate individual adjusted scores for group 1-8
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*    - MERGFINQ.SAS - Merge the final CAHPS and MPR Scores Databases
*    - CONUS_Q.SAS  - Generate CAHPS CONUS scores and perform significance tests.
*    - FACTCOMP.SAS - Calculate total scores (Part 1)
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN1  V612 ".";
LIBNAME OUT  V612 ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*************************************************************************
*************************************************************************
*
* Process Macro Input Parameters:
*
* 1) MAJGRP = Major Group
* 2) REGION = Region
*
*************************************************************************
*************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
*************************************************************************;
%LET PERIOD = 2002;
%LET DSN = CONUS_Q;

DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;

PROC SORT DATA=IN1.FACTCOMP OUT=FACTCOMP; BY LAB; RUN;

PROC CONTENTS DATA=INIT;
TITLE 'CONUS_Q';
RUN;

PROC CONTENTS DATA=FACTCOMP;
TITLE 'FACTCOMP';
RUN;

%LET FLAG = 0;

%MACRO PROCESS(MAJGRP=, REGION=);
DATA TEMP(DROP=SUMSCOR1 SUMWGT1 SUMSE2);
   SET IN1.&DSN;
   WHERE ("&MAJGRP" = MAJGRP  AND
          ("&REGION" = REGION or region = "CONUS MHS") AND
          "&PERIOD" = BENTYPE AND
           BENEFIT NE 'Total');
```

```
RUN;

PROC SORT; BY BENEFIT REGION; RUN;

DATA TEMP;
   SET TEMP; BY BENEFIT REGION;
   RETAIN CSORE SWGT 0;
   IF FIRST.BENEFIT & REGION='CONUS MHS' THEN DO;
      CSORE = SCORE;
      SWGT = N_WGT;
   END;
RUN;

PROC SORT; BY BENEFIT DESCENDING REGION; RUN:

DATA TEMP(DROP=TSORE);
   SET TEMP; BY BENEFIT;
   RETAIN TSORE TWGT 0;
   IF FIRST.BENEFIT & REGION='CONUS MHS' THEN DO;
      TSORE = SCORE ;
      TWGT = N_WGT;
   END;
   IF REGION = "&REGION" THEN DO;
      if csore = 0 & swgt = 0 then do;
         CSORE = TSORE;
         SWGT = TWGT;
       end;
      SIGMA = SQRT(CSORE*(100-CSORE));
      OUTPUT;
   END;
RUN;

PROC SORT; BY BENEFIT; RUN;

DATA TEMP;
   MERGE TEMP FACTCOMP(RENAME=(LAB=BENEFIT)); BY BENEFIT;
   IF BENEFIT = 'Preventive Care' THEN VAR = 1/11;
RUN;
proc sort; by regcat;
DATA TEMP;
   SET TEMP; by regcat;
   IF first.regcat THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
      TSIG = 0; RETAIN TSIG;
   END;
   IF SCORE  NE . AND N_WGT NE . AND N_OBS > 29 THEN
      SUMSCOR1 = SUMSCOR1 + (VAR/SIGMA)*(SCORE*SWGT);
   ELSE SUMSCOR1 = SUMSCOR1+(VAR/SIGMA)*(CSORE*SWGT);
   SUMWGT1 = SUMWGT1  + VAR*SWGT;
   TSIG = TSIG+SIGMA;
   IF SEMEAN NE . AND N_WGT NE . & N_OBS > 29 THEN SUMSE2 = SUMSE2 + (VAR*SEMEAN*SWGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;
   IF last.regcat THEN GOTO FINISHED;
   RETURN;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;

FINISHED:
   SCORE   = TSIG*SUMSCOR1/(11*SUMWGT1);
   SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
   N_OBS   = N_OBS1;
   N_WGT   = SUMWGT1;
   SOURCE  = "TOTAL";
   FLAG    = "TOTAL";
   BENEFIT = "Total";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   OUTPUT;
```

```
RUN;

%IF &FLAG = 0 %THEN %DO;
   DATA FINAL;
      SET INIT TEMP;
   RUN;
%END;
%ELSE %DO;
   DATA FINAL;
      SET FINAL TEMP;
   RUN;
%END;

%LET FLAG = 1;

%MEND PROCESS;

************************************************************************
* Create TOTAL for Active Duty
************************************************************************;
%PROCESS(MAJGRP=Active Duty, REGION=Region 1       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 2       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 3       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 4       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 5       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 6       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 7/8     );
%PROCESS(MAJGRP=Active Duty, REGION=Region 9       );
%PROCESS(MAJGRP=Active Duty, REGION=Region 10      );
%PROCESS(MAJGRP=Active Duty, REGION=Region 11      );
%PROCESS(MAJGRP=Active Duty, REGION=Region 12      );
%PROCESS(MAJGRP=Active Duty, REGION=Europe         );
%PROCESS(MAJGRP=Active Duty, REGION=Asia           );
%PROCESS(MAJGRP=Active Duty, REGION=Latin America  );
%PROCESS(MAJGRP=Active Duty, REGION=Alaska         );
%PROCESS(MAJGRP=Active Duty, REGION=CONUS MHS      );

************************************************************************
* Create TOTAL for Active Duty Dependents
************************************************************************;
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 1           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 2           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 3           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 4           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 5           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 6           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 7/8         );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 9           );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 10          );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 11          );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Region 12          );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Europe             );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Asia               );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Latin America      );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=Alaska             );
%PROCESS(MAJGRP=Active Duty Dependents, REGION=CONUS MHS          );

************************************************************************
* Create TOTAL for Enrollees with Civilian PCM
************************************************************************;
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 1       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 2       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 3       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 4       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 5       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 6       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 7/8     );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 9       );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 10      );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 11      );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Region 12      );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Europe         );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Asia           );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Latin America  );
```

```
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=Alaska         );
%PROCESS(MAJGRP=Enrollees with Civilian PCM, REGION=CONUS MHS      );

************************************************************************
* Create TOTAL for Enrollees with Military PCM - Individual
************************************************************************;
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 1       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 2       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 3       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 4       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 5       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 6       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 7/8     );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 9       );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 10      );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 11      );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Region 12      );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Europe         );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Asia           );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Latin America  );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=Alaska         );
%PROCESS(MAJGRP=Enrollees with Military PCM, REGION=CONUS MHS      );

************************************************************************
* Create TOTAL for Standard/Extra Users
************************************************************************;
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 1        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 2        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 3        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 4        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 5        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 6        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 7/8      );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 9        );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 10       );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 11       );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Region 12       );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Europe          );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Asia            );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Latin America   );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=Alaska          );
%PROCESS(MAJGRP=Standard/Extra Users, REGION=CONUS MHS       );

************************************************************************
* Create TOTAL for Prime Enrollees
************************************************************************;
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 1                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 2                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 3                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 4                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 5                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 6                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 7/8               );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 9                 );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 10                );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 11                );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Region 12                );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Europe                   );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Asia                     );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Latin America            );
%PROCESS(MAJGRP=Prime Enrollees, REGION=Alaska                   );
%PROCESS(MAJGRP=Prime Enrollees, REGION=CONUS MHS                );

************************************************************************
* Create TOTAL for Retirees and Dependents
************************************************************************;
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 1          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 2          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 3          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 4          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 5          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 6          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 7/8        );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 9          );
```

```
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 10          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 11          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Region 12          );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Europe             );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Asia               );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Latin America      );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=Alaska             );
%PROCESS(MAJGRP=Retirees and Dependents, REGION=CONUS MHS          );

*************************************************************************
* Create TOTAL for All Users
*************************************************************************;
%PROCESS(MAJGRP=All Users, REGION=Region 1                 );
%PROCESS(MAJGRP=All Users, REGION=Region 2                 );
%PROCESS(MAJGRP=All Users, REGION=Region 3                 );
%PROCESS(MAJGRP=All Users, REGION=Region 4                 );
%PROCESS(MAJGRP=All Users, REGION=Region 5                 );
%PROCESS(MAJGRP=All Users, REGION=Region 6                 );
%PROCESS(MAJGRP=All Users, REGION=Region 7/8               );
%PROCESS(MAJGRP=All Users, REGION=Region 9                 );
%PROCESS(MAJGRP=All Users, REGION=Region 10                );
%PROCESS(MAJGRP=All Users, REGION=Region 11                );
%PROCESS(MAJGRP=All Users, REGION=Region 12                );
%PROCESS(MAJGRP=All Users, REGION=Europe                   );
%PROCESS(MAJGRP=All Users, REGION=Asia                     );
%PROCESS(MAJGRP=All Users, REGION=Latin America            );
%PROCESS(MAJGRP=All Users, REGION=Alaska                   );
%PROCESS(MAJGRP=All Users, REGION=CONUS MHS                );

*************************************************************************
* Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
* as place holders for missing records.  FAKEQ will be used for adding
* new records.
*************************************************************************;
DATA FAKEQ;
   SET IN1.FAKE;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));

RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

*************************************************************************
* Append BENCHMARK records to CAHPS records and perform significance tests
*************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
   SET IN1.&DSN;
   WHERE REGION = "Benchmark" AND SVMPR00 = 0 & svmpr01 = 0 & svmpr02 = 0;
RUN;
PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA TOTAL_A;
   MERGE FINAL(IN=IN1) FAKEQ(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=TOTAL_A; BY MAJGRP BENEFIT BENTYPE; RUN;

*************************************************************************
* Perform significance tests for TOTAL scores
*************************************************************************;
DATA SIGTESTS;
   MERGE TOTAL_A(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;

   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
```

```
   SIG = 0;
   IF TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   SOURCE = "TOTAL_A";
   FLAG   = "TOTAL_A";
   IF SIN;
RUN;
PROC SORT DATA=SIGTESTS; BY KEY; RUN;

PROC SORT DATA=IN1.&DSN OUT=PREVIOUS; BY KEY; RUN;

*************************************************************************
* Combine previously created records with the new file
*************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET PREVIOUS SIGTESTS;
   BY KEY;
   ***********************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   ***********************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

*************************************************************************
* Create place holders for missing records
*************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

*************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
*************************************************************************;
DATA TOTAL_A;
   SET FAKEONLY COMBINE;
   BY KEY;
   IF BENEFIT = "Total" THEN DO;
      SIG = 0;
      IF REGION = "Benchmark" OR MAJGRP = "Benchmark" THEN SCORE = .A;
   END;
RUN;

PROC SORT DATA=TOTAL_A OUT=OUT.TOTAL_A; BY ORDER; RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (8687-430)";
TITLE2 "Program Name: TOTAL_A.SAS By Keith Rathbun";
TITLE3 "Program Inputs: FAKEQ.SD2, FACTCOMP.SD2, CONUS_Q.SD2 - CONUS Scores Database in WEB
Layout";
TITLE4 "Program Outputs: TOTAL_A.SD2 - TOTAL Scores Database in WEB layout";

PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

18. CALCULATE TRENDS FOR CAHPS SCORES – ANNUAL

```
*************************************************************************
*
* PROGRAM:  TREND_A.SAS
* TASK:     2000 DOD HEALTH CARE SURVEY ANALYSIS (8687-210)
* PURPOSE:  Add TREND records to Scores database.
*
* WRITTEN:  06/28/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 02/21/2001 BY KEITH RATHBUN -- updated calculation for
*              trend score (DSCORE).
*           2) 01/07/2002 BY KEITH RATHBUN -- updated for 2000 survey.
*              Use 1998/2000 pairs to caclulate trends.
*           3) 01/27/2003 BY KEITH RATHBUN -- updated for 2002 survey.
*              Use 2000/2002 pairs to caclulate trends.
*
* INPUTS:   1) TOTAL_A.SD2 - MPR and CAHPS Scores Database in WEB layout
*           2) FAKE.SD2 - Scores Database WEB Layout
*
* OUTPUT:   1) TREND_A.SD2 - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) All of the scores DB programs must be run and MERGFINL.SAS prior to
*    running this program.  All report card records must be merged prior
*    to the trend calculations (MERGFINL.SAS,CONUS_Q.SAS,TOTAL_A.SAS).
*
* 2) The output file (TREND_A.SD2) will be run through the
*    MAKEHTML.SAS program to generate the HTML consumer reports.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN   ".";
LIBNAME OUT  ".";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER ERRORS=10000;

*************************************************************************
* Extract records to calculate TRENDs.  Keep only 1998/2000 pairs for CAHPS
* records.  Trends have already been calculated for MPR scores.
*************************************************************************;
DATA TRENDS;
   SET IN.TOTAL_A;
   WHERE BENTYPE IN ('2000','2002');
   ************************************************************************
   * Trends already calculated for MPR scores, so remove from file
   ************************************************************************;
   IF SVMPR00 = 1 THEN DELETE;
   IF SVMPR01 = 1 THEN DELETE;
   IF SVMPR02 = 1 THEN DELETE;

RUN;

DATA TEMP00;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT;
   IF BENTYPE = "2000";
RUN;
PROC SORT DATA=TEMP00; BY MAJGRP REGION REGCAT BENEFIT; RUN;

DATA TEMP02;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT;
   IF BENTYPE = "2002";
RUN;
PROC SORT DATA=TEMP02; BY MAJGRP REGION REGCAT BENEFIT; RUN;

DATA PAIR0002(keep=majgrp region regcat benefit);
   MERGE TEMP00(IN=IN00) TEMP02(IN=IN02);
   BY MAJGRP REGION REGCAT BENEFIT;
   IF IN00 AND IN02;
RUN;

PROC SORT DATA=TRENDS;
```

```
   BY MAJGRP REGION REGCAT BENEFIT;
RUN;

DATA TRENDS;
   MERGE TRENDS(IN=INTREND) PAIR0002(IN=INPAIR);
   BY MAJGRP REGION REGCAT BENEFIT;
   IF INTREND AND INPAIR;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
RUN;
  proc print data=trends(obs=100);
*************************************************************************
* Calculate TRENDs keeping only the TREND records
*************************************************************************;
DATA TRENDS bench;
   SET TRENDS(drop=bscore bsemean);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF BENTYPE = '2000' THEN DO;
      SCORE00 = SCORE/100;
      SE00    = SEMEAN;
      N00     = N_OBS;
      W00     = N_WGT;
   END;
   RETAIN SCORE00 SE00 N00 W00;
   IF BENTYPE = '2002' THEN DO;
      SCORE02 = SCORE/100;
      SE02    = SEMEAN;
      N02     = N_OBS;
      W02     = N_WGT;
   END;
   RETAIN SCORE02 SE02 N02 W02;
   IF BENTYPE = '2002' THEN DO;
      BENTYPE = "Trend";
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  ||
            UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
      SOURCE = "TREND";
      SEMEAN = SQRT(SE00**2+SE02**2);
      N_OBS  = MIN(N00,N02);
      N_WGT  = MIN(W00,W02);
      SCORE  = SCORE02-SCORE00;
      DSCORE = 100*(SCORE02-SCORE00);
      if region='Benchmark' then OUTPUT bench;
      else output trends;
   END;
   DROP ORDER SCORE00 SCORE02 SE00 SE02 N00 N02;
RUN;
PROC SORT DATA=trends;
   BY MAJGRP BENEFIT BENTYPE;
RUN;
proc sort data=bench out=benchs(keep=majgrp benefit bentype score semean);
by majgrp benefit bentype;
run;

*************************************************************************
* Perform significance tests for CAHPS scores
*************************************************************************;
DATA trends;
   MERGE trends(IN=SIN) BENCHs(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   if benefit='Getting Care Quickly' then do;
   score=.A; dscore=.A; sig=.A; end;
      IF SIN;
RUN;
proc print data=trends(obs=100);

data trends;
```

```
set trends bench;
score=dscore;
PROC SORT DATA=TRENDS; BY KEY; RUN;

*************************************************************************
* Construct ORDERing variable from WEB layout
*************************************************************************;
DATA ORDER;
   SET IN.FAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  ||
         UPCASE(TRIM(REGCAT))  || UPCASE(TRIM(REGION));
   KEEP KEY ORDER;
RUN;
PROC SORT DATA=ORDER; BY KEY; RUN;

DATA MERGTRND;
   MERGE TRENDS(IN=IN1) ORDER(IN=IN2);
   BY KEY;
   IF IN1;
RUN;

PROC SORT DATA=IN.TOTAL_A OUT=TOTAL_A; BY ORDER; RUN;
PROC SORT DATA=MERGTRND; BY ORDER; RUN;

DATA OUT.TREND_A;
   MERGE TOTAL_A MERGTRND;
   BY ORDER;
   IF BENEFIT = "Getting Care Quickly" THEN DO;
      IF BENTYPE IN ("2000") THEN DO;
         SIG = 0;
         IF REGCAT = "Benchmark" THEN SCORE = .A;
      END;
      IF BENTYPE = "Trend" THEN SCORE = .A;
   END;
   IF BENEFIT = "Preventive Care" AND BENTYPE = "Trend" THEN SCORE = .A; *KRR Added 2/3/2002;
   if regcat='Reynolds ACH/ALtus AFB' then regcat='Reynolds ACH/Altus AFB';
RUN;

TITLE1 "2002 DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: TREND_A.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS data records in WEB Layout";
TITLE4 "Program Outputs: TREND_A.SD2 - Merged Final Scores Database with TRENDs for input to
SIGNIF_A.SAS";

TITLE5 "FREQs of TREND_A.SD2";
PROC FREQ;
   TABLES SOURCE FLAG MAJGRP REGION BENEFIT BENTYPE
  /MISSING LIST;
RUN;

TITLE5 "FREQs of FAKE.SD2";
PROC FREQ DATA=IN.FAKE;
   TABLES MAJGRP REGION BENEFIT BENTYPE
  /MISSING LIST;
RUN;
```

19. GENERATE HTML FILE FOR THE 2002 TRICARE CONSUMER REPORTS - ANNUAL

```
*===================================================================;
*   Programmer:  Mark A. Brinkley                                   ;
*        Title:  MAKEHTMA.SAS                                       ;
*       Client:  8687-210                                           ;
*         Date:  01-10-2002                                         ;
*                                                                   ;
*      Purpose:  This program is designed to create                 ;
*                Annual report cards for the 2002 DOD project       ;
*                                                                   ;
*  Input files:  TOTAL_Q.SD2                                        ;
* Output files:  HTML\                                              ;
*                1292*3 F*.HTM Files (Frame version)                ;
*                1292   P*.HTM Files (Printer friendly - no frames) ;
*                 816   P*.XLS Files (Excel files)                  ;
*                ------------------                                 ;
*                5984                                               ;
*                                                                   ;
*                                                                   ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!   ;
*                                                                   ;
*     IF YOU MODIFY THIS PROGRAM THEN PLEASE INITIAL AND DOCUMENT   ;
*     YOUR CHANGES.  THOSE FAILING TO DO THIS WILL BE SEVERELY      ;
*     BEATEN.                                                       ;
*                                                                   ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!   ;
*                                                                   ;
*                                                                   ;
*                                                                   ;
* Modifications:                                                    ;
* 11-01-2000 - JSykes added pieces to create Excel Spreadsheets     ;
* 07-01-2001 - MAB modified for qtr 2                               ;
* 10-25-2001 - C.Rankin moved link to printer friendly version      ;
*              from frame, created macro variable to include        ;
*              third row of subbenefit heading                      ;
* 11-01-2001 - D.Beahm changed splitpercent to splitpixel and adjusted;
*              the pixel size of the top frame to prevent scrolling ;
*              she also added a <BR> before the printer icon to make;
*              sure it appears on it's own line                     ;
*              sure it appears on it's own line                     ;
* 01-10-2002 - MAB Modified Q3 MAKEHTMQ.SAS to create MAKEHTMA.SAS  ;
*               for 2000 annual program                             ;
* 01-18-2002 - MAB Changed comments of 'qtrly' to 'trend'           ;
* 01-30-2002 - MAB Changed 'qtr' to 'period' for images             ;
* 01-30-2003 - MJS Changed 1998, 1999, 2000 strings to 2000, 2001,  ;
*              and 2002                                             ;
* 02-12-2003 - MJS Added code to link catchment level back to the   ;
*              help file                                            ;
* 02-13-2003 - MJS Changed "Primary Care Manager" to "Personal Doctor";
* 02-18-2003 - MJS Added code to link catchment level back to the   ;
*              help file (needed code in another place).  Limited link;
*              creation to catchment areas other that "Region #" ones ;
*===================================================================;



/*** Changed  MAB 1-18-2002 ***/
%LET PERIOD=2002;           /** Period of these reports - MJS 1/30/2003 **/
%LET TRENDCOLUMNS=4;        /** Number of columns for trends **/


OPTIONS NOXWAIT;        /* 2000/11: added noxwait*/


/***OPTIONS MPRINT;  Removed MAB 1-23-2002 ***/


%LET HTMLSP=%NRSTR( );     /**DANIELE CHANGED %STR( ) TO %NRSTR( )**/
%LET QUOTE=%STR("");
%LET OUTDIR=HTML;                 /** Directory to put HTML files **/
%LET IMGDIR=images;               /** Directory with images **/
%LET TARGET=target='_parent';     /** HTML code for frames targeting **/
%LET OUTXLS=1;                    /** 1=Make XLS file/0=Don't   Added 1-24 MAB **/
%LET fontface=%STR(Arial,Helvetica,Swiss,Geneva);
```

```
%LET hdcolr=%STR('white');
%LET BLUE=%STR('#663300');        /** This is really dark red **/
%LET GREEN=%STR('#009933');
%LET RED=%STR('#cc0000');
%LET GRAY=%STR('white');
%LET LOGO=%STR('images\tricare_side_35_new.gif');
%LET HELP_BUT=%STR('images\help75.gif');
%LET HOME_BUT=%STR('images\home75.gif');
%LET BACK_BUT=%STR('images\back75.gif');
%LET NUMBER_HTML_FILES=0;         /** Keep count of HTML files created **/

%LET SUB_HEAD=0;                  /** Macro variable for sub-benfit heading **/


                                  /** 1=headings, 0=no headings            **/

/*******************************************************/
/***** Macro for putting notes at bottom of table   *****/
/*******************************************************/
%MACRO BOTTOM_NOTES();

%IF &var1=8 and &var3=3 %THEN %DO;

     PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
2002 Health Care Survey of DOD Beneficiaries</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates significance not
available</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";

%END;

%ELSE %DO;

     PUT "<tr>";
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
2002 Health Care Survey of DOD Beneficiaries</font>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#cc0000'><i>Indicates
score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates significance not
available</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
%END;

     PUT "</td></tr>";
%MEND BOTTOM_NOTES;



/*******************************************************/
/***** Macro for adding in link row to trends data  *****/
/*******************************************************/

/*** Macro variable with Javascript to go back ***/
%LET GOBACK=%STR(<script>document.write(&quote.<a href='javascript:history.go(-1)'
target='_parent'>&quote.);
document.write(&quote.<img src='images\\back75.gif' border='0' alt='Go to previous
page'>&quote.);document.write(&quote.</a>&quote.);</script>);


LIBNAME SRC1 V612 '.'  ACCESS=READONLY;
```

```
OPTIONS LS=132;


/*********************************************************************/
/****   Macro to create html pages                                  ****/
/****          var1=major group                                     ****/
/****          var2=region                                          ****/
/****          var3=benefit                                         ****/
/****       seppage=0/no separate pages for trends                  ****/
/****               1/1st separate page                             ****/
/****               2/2nd separate page                             ****/
/*********************************************************************/
%MACRO MKHTML(var1,var2,var3,seppage);


/*** Determine some macro variables ***/
%if &prefix=f %then %do;
  %let width1=640;
  %let width2=640;
  %let border=0;
%end;
%else %do;
  %let width1=90%;
  %let width2=85%;
  %let border=1;
%end;



%let number_html_files=%EVAL(1+&number_html_files.);


/** Load in data **/
DATA SUBSET;
  SET SRC1.TREND_A;
RUN;


/*** Need to clean up catchment areas to fix width problem in tables ***/
/*
DATA SUBSET;

  SET SUBSET;
          IF REGCAT="Bassett ACH/Eielson AFB"                                THEN REGCAT="Bassett
ACH/Eielson AFB";
*     ELSE IF REGCAT="Elmendorf AFB"                                          THEN
REGCAT="Elmendorf AFB";
*     ELSE IF REGCAT="NH Guam/Andersen AFB"                                   THEN REGCAT="NH
Guam<BR>Andersen AFB";
     ELSE IF REGCAT="NH Yokosuka"                                           THEN REGCAT="NH
Yokosuka</MCAS Iwakuni/BRMCL NAF Atsugi";
*     ELSE IF REGCAT="Osan Air Base/Kunsan Air Base/Taegu Air Ba"            THEN REGCAT="Osan
Air Base<BR>Kunsan Air Base<BR>Taegu Air Ba";
*     ELSE IF REGCAT="Yokota Air Base/Misawa/AHC Camp Zama"                  THEN REGCAT="Yokota
Air Base<BR>Misawa<BR>AHC Camp Zama";
     ELSE IF REGCAT="Heidelberg ACH"                                        THEN
REGCAT="Heidelberg ACH/AHC Hanau/AHC Mannheim";
     ELSE IF REGCAT="Landstuhl AMC"                                         THEN
REGCAT="Landstuhl AMC/AHC Vicenza/AHC Baumholder";
*     ELSE IF REGCAT="NH Naples/NH Sigonella/BRMCL Souda Bay"                THEN REGCAT="NH
Naples<BR>NH Sigonella<BR>BRMCL Souda Bay";
*     ELSE IF REGCAT="Out/Area-Europe"                                        THEN
REGCAT="Out<BR>Area-Europe";
*     ELSE IF REGCAT="RAF Lakenheath/RAF Upwood"                              THEN REGCAT="RAF
Lakenheath<BR>RAF Upwood";
*     ELSE IF REGCAT="Ramstein Air Base"                                      THEN
REGCAT="Ramstein Air Base";
*     ELSE IF REGCAT="Spangdahlem Air Base"                                   THEN
REGCAT="Spangdahlem Air Base";
*     ELSE IF REGCAT="Wuerzburg ACH/Aviano Air Base"                          THEN
REGCAT="Wuerzburg ACH<BR>Aviano Air Base";
```

```
*     ELSE IF REGCAT="Latin America"                                    THEN REGCAT="Latin
America";
*     ELSE IF REGCAT="NH Roosevelt Rds/NH Guantanamo/AS Borinque"       THEN REGCAT="NH
Roosevelt Rds<BR>NH Guantanamo<BR>AS Borinque";
*     ELSE IF REGCAT="Out/Area-Latin America & Canada"                  THEN
REGCAT="Out<BR>Area-Latin America & Canada";
*     ELSE IF REGCAT="Andrews AFB/NMCL Patuxent Riv/Bolling AFB"        THEN REGCAT="Andrews
AFB<BR>NMCL Patuxent Riv<BR>Bolling AFB";
*     ELSE IF REGCAT="Guthrie AHC"                                      THEN REGCAT="Guthrie
AHC";
      ELSE IF REGCAT="Kimbrough ACH"                                   THEN
REGCAT="Kimbrough ACH/Aberdeen/Carlisle Barracks";
*     ELSE IF REGCAT="McGuire AFB"                                     THEN REGCAT="McGuire
AFB";
*     ELSE IF REGCAT="NACC Groton/NACC Newport/NBMC Ballston Spa"       THEN REGCAT="NACC
Groton<BR>NACC Newport<BR>NBMC Ballston Spa";
*     ELSE IF REGCAT="NACC Portsmouth New Hamp/Hanscom AFB"             THEN REGCAT="NACC
Portsmouth New Hamp<BR>Hanscom AFB";
*     ELSE IF REGCAT="NMCL Annapolis"                                   THEN REGCAT="NMCL
Annapolis";
*     ELSE IF REGCAT="NMCL Quantico"                                    THEN REGCAT="NMCL
Quantico";
      ELSE IF REGCAT="NNMC Bethesda"                                   THEN REGCAT="NNMC
Bethesda/NBMC Colts Neck/NBMC Dahlgren";
*     ELSE IF REGCAT="Out/Area-Reg 1"                                   THEN
REGCAT="Out<BR>Area-Reg 1";
*     ELSE IF REGCAT="Walter Reed AMC"                                  THEN REGCAT="Walter
Reed AMC";
*     ELSE IF REGCAT="Beale AFB/McClellan AFB"                          THEN REGCAT="Beale
AFB<BR>McClellan AFB";
*     ELSE IF REGCAT="NH LeMoore/Castle AFB"                            THEN REGCAT="NH
LeMoore<BR>Castle AFB";
*     ELSE IF REGCAT="Out/Area-Reg 10"                                  THEN
REGCAT="Out<BR>Area-Reg 10";
*     ELSE IF REGCAT="Travis AFB/Onizuka AS"                            THEN REGCAT="Travis
AFB<BR>Onizuka AS";
*     ELSE IF REGCAT="Fairchild AFB"                                    THEN
REGCAT="Fairchild AFB";
      ELSE IF REGCAT="Madigan AMC"                                     THEN REGCAT="Madigan
AMC/Monterey AHC";
*     ELSE IF REGCAT="McChord AFB"                                      THEN REGCAT="McChord
AFB";
      ELSE IF REGCAT="NH Bremerton"                                    THEN REGCAT="NH
Bremerton/BRMCL Subase Bangor/NMCL Everett";
*     ELSE IF REGCAT="NH Oak Harbor"                                    THEN REGCAT="NH Oak
Harbor";
*     ELSE IF REGCAT="Out/Area-Reg 11"                                  THEN
REGCAT="Out<BR>Area-Reg 11";
      ELSE IF REGCAT="NMCL Pearl Harbor"                               THEN REGCAT="NMCL
Pearl Harbor/BRMCL Kaneohe/BRMCL Barbers Pt";
*     ELSE IF REGCAT="Out/Area-Reg 12"                                  THEN
REGCAT="Out<BR>Area-Reg 12";
      ELSE IF REGCAT="Tripler AMC"                                     THEN REGCAT="Tripler
AMC/Schofield Barracks";
*     ELSE IF REGCAT="Langley AFB"                                      THEN REGCAT="Langley
AFB";
*     ELSE IF REGCAT="McDonald ACH"                                     THEN
REGCAT="McDonald ACH";
*     ELSE IF REGCAT="NH Camp Lejeune"                                  THEN REGCAT="NH Camp
Lejeune";
*     ELSE IF REGCAT="NH Cherry Point"                                  THEN REGCAT="NH
Cherry Point";
*     ELSE IF REGCAT="NMC Portsmouth"                                   THEN REGCAT="NMC
Portsmouth";
*     ELSE IF REGCAT="Out/Area-Reg 2"                                   THEN
REGCAT="Out<BR>Area-Reg 2";
*     ELSE IF REGCAT="Seymour Johnson AFB"                              THEN REGCAT="Seymour
Johnson AFB";
*     ELSE IF REGCAT="Womack AMC/Pope AFB/Joel AHC"                     THEN REGCAT="Womack
AMC<BR>Pope AFB<BR>Joel AHC";
*     ELSE IF REGCAT="Charleston AFB"                                   THEN
REGCAT="Charleston AFB";
      ELSE IF REGCAT="Eisenhower AMC"                                  THEN
REGCAT="Eisenhower AMC/AHC Ft McPherson/AHC Ft Buc";
```

```
*     ELSE IF REGCAT="MacDill AFB/BRMCL Key West"                          THEN REGCAT="MacDill
AFB<BR>BRMCL Key West";
 *    ELSE IF REGCAT="Moncrief ACH"                                        THEN
REGCAT="Moncrief ACH";
     ELSE IF REGCAT="NH Beaufort"                                        THEN REGCAT="NH
Beaufort/BRMCL MCRD Parris Isl";
*     ELSE IF REGCAT="NH Charleston"                                       THEN REGCAT="NH
Charleston";
*     ELSE IF REGCAT="NH Jacksonville/Moody AFB"                           THEN REGCAT="NH
Jacksonville<BR>Moody AFB/NACC Kings Bay";
*     ELSE IF REGCAT="Out/Area-Reg 3"                                      THEN
REGCAT="Out<BR>Area-Reg 3";
*     ELSE IF REGCAT="Patrick AFB"                                         THEN REGCAT="Patrick
AFB";
*     ELSE IF REGCAT="Fox ACH/Noble AHC/Columbus AFB"                      THEN REGCAT="Fox
ACH<BR>Noble AHC<BR>Columbus AFB";
*     ELSE IF REGCAT="Hurlburt Field"                                      THEN
REGCAT="Hurlburt Field";
*     ELSE IF REGCAT="Keesler AFB"                                         THEN REGCAT="Keesler
AFB";
*     ELSE IF REGCAT="Maxwell AFB"                                         THEN REGCAT="Maxwell
AFB";
*     ELSE IF REGCAT="NH Pensacola/BRMCL NAS Memphis"                      THEN REGCAT="NH
Pensacola<BR>BRMCL NAS Memphis";
*     ELSE IF REGCAT="Out/Area-Reg 4"                                      THEN
REGCAT="Out<BR>Area-Reg 4";
*     ELSE IF REGCAT="Tyndall AFB"                                         THEN REGCAT="Tyndall
AFB";
*     ELSE IF REGCAT="Blanchfield ACH"                                     THEN
REGCAT="Blanchfield ACH";
*     ELSE IF REGCAT="Ireland ACH"                                         THEN REGCAT="Ireland
ACH";
*     ELSE IF REGCAT="NH Great Lakes"                                      THEN REGCAT="NH
Great Lakes";
*     ELSE IF REGCAT="Out/Area-Reg 5"                                      THEN
REGCAT="Out<BR>Area-Reg 5";
*     ELSE IF REGCAT="Wright Patterson AFB"                                THEN REGCAT="Wright
Patterson AFB";
*     ELSE IF REGCAT="Barksdale AFB"                                       THEN
REGCAT="Barksdale AFB";
*     ELSE IF REGCAT="Bayne-Jones ACH"                                     THEN REGCAT="Bayne-
Jones ACH";
*     ELSE IF REGCAT="Brooke AMC/Brooks AFB"                               THEN REGCAT="Brooke
AMC<BR>Brooks AFB";
*     ELSE IF REGCAT="Darnall ACH"                                         THEN REGCAT="Darnall
ACH";
*     ELSE IF REGCAT="Dyess AFB/Goodfellow AFB"                            THEN REGCAT="Dyess
AFB<BR>Goodfellow AFB";
     ELSE IF REGCAT="Lackland AFB/Laughlin AFB"                          THEN REGCAT="Lackland
AFB/Laughlin AFB/Kelly AFB";
*     ELSE IF REGCAT="Little Rock AFB"                                     THEN REGCAT="Little
Rock AFB";
     ELSE IF REGCAT="NH Corpus Christi"                                  THEN REGCAT="NNH
Corpus Christi/NBMC Kingsville/NHBC Ingleside";
*     ELSE IF REGCAT="Out/Area-Reg 6"                                      THEN
REGCAT="Out<BR>Area-Reg 6";
*     ELSE IF REGCAT="Randolph AFB"                                        THEN
REGCAT="Randolph AFB";
     ELSE IF REGCAT="Reynolds ACH/Altus AFB"                             THEN REGCAT="Reynolds
ACH/Altus AFB";
*     ELSE IF REGCAT="Sheppard AFB"                                        THEN
REGCAT="Sheppard AFB";
*     ELSE IF REGCAT="Davis Monthan AFB"                                   THEN REGCAT="Davis
Monthan AFB";
*     ELSE IF REGCAT="F.E. Warren AFB/Buckley ANGB"                        THEN REGCAT="F.E.
Warren AFB<BR>Buckley ANGB";
*     ELSE IF REGCAT="Grand Forks AFB/Minot AFB"                           THEN REGCAT="Grand
Forks AFB<BR>Minot AFB";
*     ELSE IF REGCAT="Hill AFB/Malmstrom AFB"                              THEN REGCAT="Hill
AFB<BR>Malmstrom AFB";
*     ELSE IF REGCAT="Holloman AFB"                                        THEN
REGCAT="Holloman AFB";
*     ELSE IF REGCAT="Kirtland AFB/Cannon AFB/Reese AFB"                   THEN
REGCAT="Kirtland AFB<BR>Cannon AFB<BR>Reese AFB";
```

```
*     ELSE IF REGCAT="L. Wood ACH"                                          THEN REGCAT="L. Wood
ACH";
*     ELSE IF REGCAT="McConnell AFB/Vance AFB"                              THEN
REGCAT="McConnell AFB<BR>Vance AFB";
*     ELSE IF REGCAT="Mountain Home AFB"                                    THEN
REGCAT="Mountain Home AFB";
*     ELSE IF REGCAT="Munson ACH/Whiteman AFB"                              THEN REGCAT="Munson
ACH<BR>Whiteman AFB";
*     ELSE IF REGCAT="Out/Area-Reg 7"                                       THEN
REGCAT="Out<BR>Area-Reg 7";
*     ELSE IF REGCAT="Out/Area-Reg 8"                                       THEN
REGCAT="Out<BR>Area-Reg 8";
*     ELSE IF REGCAT="USAF Acad. Hospital/Peterson AFB"                     THEN REGCAT="USAF
Acad. Hospital<BR>Peterson AFB";
*     ELSE IF REGCAT="William Beaumont AMC"                                 THEN REGCAT="William
Beaumont AMC";
*     ELSE IF REGCAT="Edwards AFB/Los Angeles AFB/NMCL Long Beac"           THEN REGCAT="Edwards
AFB<BR>Los Angeles AFB<BR>NMCL Long Beac";
     ELSE IF REGCAT="NH 29-Palms"                                          THEN REGCAT="NH 29-
Palms/BRMCL China Lake";
     ELSE IF REGCAT="NH Camp Pendleton"                                    THEN REGCAT="NH Camp
Pendleton/NBMC Yuma";
     ELSE IF REGCAT="NMC San Diego"                                        THEN REGCAT="NMC San
Diego/NBMC Coronado/NBMC North Isl";
*     ELSE IF REGCAT="Out/Area-Reg 9"                                       THEN
REGCAT="Out<BR>Area-Reg 9";
*     ELSE IF REGCAT="Port Hueneme/Vandenberg AFB"                          THEN REGCAT="Port
Hueneme<BR>Vandenberg AFB";

RUN;
*/

/** Load in data **/
DATA SUBSET;
  SET SUBSET;


  LENGTH FILEOUT1 $ 40;
  LENGTH FILEOUT2 $ 40;
  LENGTH FILEOUT3 $ 40;


  /*** VAR1 indicated major group ***/
  %if &var1.=0 %then %let major=%STR();
  %if &var1.=1 %then %let major=%STR(Prime Enrollees);
  %if &var1.=2 %then %let major=%STR(Enrollees with Military PCM);
  %if &var1.=3 %then %let major=%STR(Enrollees with Civilian PCM);
  %if &var1.=4 %then %let major=%STR(Standard/Extra Users);   /*** Changed from 'Non-enrolled
Beneficiaries' 1-25-2002 MAB ***/
  %if &var1.=5 %then %let major=%STR(Active Duty);
  %if &var1.=6 %then %let major=%STR(Active Duty Dependents);
  %if &var1.=7 %then %let major=%STR(Retirees and Dependents);
  %if &var1.=8 %then %let major=%STR(All Users);  /*** Changed from 'All Beneficiares' 1-24-2002
MAB ***/


  %if &var1.=0 %then %do;
     /***IF REGION=REGCAT AND REGION NOT IN("CONUS MHS","Benchmark") ***/
     IF REGION=REGCAT AND REGION NOT IN("Benchmark");  /** Replaced 1-22 MAB **/

      %if &var2.^=99 %then %do; /*** Added 1-30 mab ***/
        IF REGION="CONUS MHS" THEN DELETE;
      %end;

     %let comma=%STR();
     %let grpmsg=%STR();
  %end;
  %else %do;
     IF MAJGRP="&major.";    /*** Subset data by major group ***/
     %let comma=%STR(,);
     %let grpmsg=%STR(Click below to view this table by other groups);
  %end;
```

```
   /*** Create macro variables to refer to Component or Trend pages ***/
   %if &seppage.=2 %then %do;
      %let q=q;
      %let unq=;
      %let click_alt=Click for Component data;
      %let click_image=component.gif;
   %end;
   %else %do;
      %let q=;
      %let unq=q;
      %let click_alt=Click for Trend data;
      %let click_image=trend.gif;
   %end;



   FILEOUT1=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.&q..htm");    /** Main html **/
   FILEOUT2=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.&q.a.htm");   /** Header html **/
   FILEOUT3=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.&q.b.htm");   /** Data html **/


    /*** Added 07-12-2001 MAB  If creating Excel then don't create HTML ***/
    %if &outxls.=1 %then %do;
      %let fileout1= NUL;
      %let fileout2= NUL;
      %let fileout3= NUL;
    %end;
    %else %do;
      call symput('fileout1',FILEOUT1);
      call symput('fileout2',FILEOUT2);
      call symput('fileout3',FILEOUT3);
    %end;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  FILEOUTX=COMPRESS("&outdir.\p&var1.-&var2.-&var3..xls");         /* create run-specific xls
file */
  CALL SYMPUT('fileoutX',FILEOUTX);                                /* via global macro vars
*/

  TEMPLATE=COMPRESS("Templates\Template&var3..xls");
  CALL SYMPUT('template',TEMPLATE);                                /* identify which template
xls file */
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/


  /*** VAR3 dictates type of benefit heading ***/
  %if &var3=0 %then %do;
      %let headvar=BENEFIT;
  %end;
  %else %let headvar=BENTYPE;

  /*** clean up headvar variable ***/
  /***IF BENTYPE="Trend" THEN BENTYPE="Trend<BR>% change";***/

  /*** Link to XLS file ***/
  HREFXLS=COMPRESS("p&var1.-&var2.-&var3..xls");
  call symput('hrefxls',HREFXLS);
RUN;



/*** Subset data by region ***/
DATA SUBSET;
  SET SUBSET;

  %if &var2.=0 %then %do;    /** 0 = All regions **/
     IF REGION=REGCAT;       /** Just do All Region table **/
```

```
      %let sub_regs=%STR(All Regions);
  %end;
  %else %if &var2.=1 %then %do;
     IF REGION="Region 1" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 1);
  %end;
  %else %if &var2.=2 %then %do;
     IF REGION="Region 2" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 2);
  %end;
  %else %if &var2.=3 %then %do;
     IF REGION="Region 3" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 3);
  %end;
  %else %if &var2.=4 %then %do;
     IF REGION="Region 4" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 4);
  %end;
  %else %if &var2.=5 %then %do;
     IF REGION="Region 5" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 5);
  %end;
  %else %if &var2.=6 %then %do;
     IF REGION="Region 6" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 6);
  %end;
  %else %if &var2.=7 %then %do;
     IF REGION="Region 7/8" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 7/8);
  %end;
  %else %if &var2.=8 %then %do;
     IF REGION="Region 9" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 9);
  %end;
  %else %if &var2.=9 %then %do;
     IF REGION="Region 10" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 10);
  %end;
  %else %if &var2.=10 %then %do;
     IF REGION="Region 11" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 11);
  %end;
  %else %if &var2.=11 %then %do;
     IF REGION="Region 12" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Region 12);
  %end;
  %else %if &var2.=12 %then %do;
     IF REGION="Europe" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Europe);
  %end;
  %else %if &var2.=13 %then %do;
     IF REGION="Asia" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Asia);
  %end;
  %else %if &var2.=14 %then %do;
     IF REGION="Latin America" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Latin America);
  %end;
  %else %if &var2.=15 %then %do;
     IF REGION="Alaska" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(Alaska);
  %end;
  %else %if &var2.=99 %then %do;
     IF REGION="CONUS MHS" OR REGION IN("CONUS MHS","Benchmark");
      %let sub_regs=%STR(CONUS MHS);
  %end;

RUN;



/*** Subset data by Benefit ***/
DATA SUBSET;
  SET SUBSET;
```

```
  %if &var3.=0 %then %do;   /** 0=All Benefits **/
     IF BENTYPE="&period.";
  %end;
  %else %if &var3.=2 %then %do;
     IF BENEFIT="Getting Needed Care";

     /*** # of columns for this benefit table ***/
     %let columns=%EVAL(5+&trendcolumns.);
  %end;
  %else %if &var3.=3 %then %do;
     IF BENEFIT="Getting Care Quickly";
     %let columns=%EVAL(5+&trendcolumns.);
  %end;
  %else %if &var3.=4 %then %do;
     IF BENEFIT="Courteous and Helpful Office Staff";
     %let columns=%EVAL(3+&trendcolumns.);
  %end;
  %else %if &var3.=5 %then %do;
     IF BENEFIT="How Well Doctors Communicate";
     %let columns=%EVAL(5+&trendcolumns.);
  %end;
  %else %if &var3.=6 %then %do;
     IF BENEFIT="Customer Service";
     %let columns=%EVAL(4+&trendcolumns.);
  %end;
  %else %if &var3.=7 %then %do;
     IF BENEFIT="Claims Processing";
     %let columns=%EVAL(3+&trendcolumns.);
  %end;
  %else %if &var3.=8 %then %do;
     IF BENEFIT="Health Plan";
     %let columns=%EVAL(1+&trendcolumns.);
  %end;
  %else %if &var3.=9 %then %do;
     IF BENEFIT="Health Care";
     %let columns=%EVAL(1+&trendcolumns.);
  %end;
  %else %if &var3.=10 %then %do;
     IF BENEFIT="Personal Doctor";   /*MJS 02/13/2003*/
     %let columns=%EVAL(1+&trendcolumns.);
  %end;
  %else %if &var3.=11 %then %do;
     IF BENEFIT="Specialty Care";
     %let columns=%EVAL(1+&trendcolumns.);
  %end;
  %else %if &var3.=12 %then %do;
     IF BENEFIT="Preventive Care";
     %let columns=%EVAL(6+&trendcolumns.);
  %end;

  /*** Set macro variable ***/
  %if &var3.=0 %then %do;
      %let sub_ben=%STR(&period. Composite Scores);
      %let columns=13;
  %end;
  %else %do;
    call symput('sub_ben',BENEFIT);
  %end;


  /*** Determine number of columns for sub-benefits  ***/
  /*** Equals cols - (x for qtrs  - 1 for stub column) ***/
  %let subcols=%EVAL(&columns.-&trendcolumns.-1);

  /*** Determine number of columns less 1st (stub) column ***/
  %let columns_less1=%EVAL(&columns.-1);

RUN;



/*** Added 4-3-01 MAB ***/
```

```
DATA SUBSET;
  SET SUBSET;

  WIDTH_COL1=120; /** Set width of column 1 **/

  /*** Changed 1-18-2002 MAB ***/
  IF BENTYPE IN ("2000","2001","2002","Trend") THEN WIDTH3=120;
  ELSE WIDTH3=90;

  /** Deal with some special cases **/
  IF BENEFIT="Preventive Care" THEN DO;
      /*** Changed 1-18-2002 MAB ***/
      IF BENTYPE IN ("2000","2001","2002","Trend") THEN WIDTH3=.;
       ELSE WIDTH3=80;
  END;
  IF BENEFIT="Courteous and Helpful Office Staff" AND
          BENTYPE IN ("2000","2001","2002","Trend") THEN WIDTH3=70;
          /*** Changed 1-18-2002 MAB ***/


  %if &var3.=0 %then %do;
     WIDTH_COL1=.;
     WIDTH3=40;
  %end;


        /*** Added 5-7-2001 mab ***/
        %if &prefix.=p %then %do;
            WIDTH3=.;
        %end;

RUN;



OPTIONS LS=152;
PROC PRINT;
 VAR BENEFIT BENTYPE REGION REGCAT MAJGRP;
RUN CANCEL;



/*************************************************************/
/****  Put out Header rows of table                       ****/
/*************************************************************/
DATA HTML;
  SET SUBSET;


  IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark");

  /** Determine where back button should link to **/
  %if &var1.=0 %then %do;
     HREFBACK=COMPRESS("&prefix.8-0-0.htm");
  %end;
  %else %do;
     HREFBACK=COMPRESS("&prefix.&var1.-0-0.htm");
  %end;

  /*** Create macro variable date with today's date ***/
  DATETIME=DATETIME();
  CALL SYMPUT ('DATETIME',left(put(datetime,datetime20.)));
  DROP DATETIME;

RUN;



/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;

    /*** Make frameset page split frames smaller on all ratings pages ***/

   %if &var3.=0 %then %do;
```

```
        %let splitpixel=228;
    %end;
    %else %if &var3.=2 OR &var3.=3 %then %do;
        %let splitpixel=211;
    %end;
    %else %if &var3.=4 OR &var3.=7 %then %do;
        %let splitpixel=181;
    %end;
    %else %if &var3.=5 %then %do;
        %let splitpixel=196;
    %end;
    %else %if &var3.=6 %then %do;
        %let splitpixel=221;
    %end;
    %else %if &var3.=8 OR &var3.=9 OR &var3.=10 OR &var3.=11 %then %do;
        %let splitpixel=158;
    %end;
    %else %if &var3.=12 %then %do;
        %let splitpixel=192;
    %end;

    %if &SEPPAGE.=2 %then %do;
        %let splitpixel=157;
    %end;


   /*** Create frameset page HTML page ***/
   DATA _NULL_;
     FILE "&FILEOUT1.";
     PUT "<html>";
     PUT "<frameset rows='&splitpixel.,*'>";
      %if &seppage.=2 %then %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.qa.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.qb.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
      %end;
      %else %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.a.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.b.htm'  MARGINHEIGHT='0' MARGINWIDTH='0'>";
      %end;


     PUT "</frameset></html>";
   RUN;

   /*** Since done making frameset page then assign fileout1 = frame 1 ***/
   %let fileout1=&fileout2.;
   %if &seppage.=1 %then %do;
       %let fileout1=&fileout2.;
    %end;
    %else %if &seppage.=2 %then %do;
       %let fileout1=&fileout2.;
    %end;

%end;



/*** Initialize HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1.";

  PUT "<! Created &datetime.>";
  PUT "<html><head><title>";
  PUT "&major. &comma. &sub_ben., &sub_regs.";
  PUT "</title></head>";
  PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066' vlink='#996699'>";

  /*** link to printer friendly version moved, 10/25/2001 C.Rankin ***/


RUN;
```

```
/*-------------------------*/
/* 2000/11: begin xls code */
/*-------------------------*/
%if &outxls.=1 %then %do;
  X "COPY &template. &fileoutX.";                                   /* copy template xls to run-
specific xls file */
  X "START &fileoutX.";                                             /* open run-specific xls file
*/
  FILENAME XLSTITLE DDE 'excel|Sheet1!R1C1:R2C20' NOTAB;        /* xls rows 1 & 2 (titles)
*/
  FILENAME XLSDATA DDE 'excel|Sheet1!R6C1:R100C20' NOTAB;       /* xls rows 6+ (body of table)
*/
%end;
/*-------------------------*/
/* 2000/11: end xls code   */
/*-------------------------*/



/*ÛÛÛ
```

```
              PUT "<td width=40 colspan=1><IMG SRC='&imgdir.\total_score.gif' ALT='Total Score'
BORDER=0></td>";
              PUT "<td width=80 colspan=2><IMG SRC='&imgdir.\eoa.gif'ALT='Ease of Access'
BORDER=0></td>";
              PUT "<td width=185 colspan=4><IMG SRC='&imgdir.\com&cus_ser.gif' ALT='Communication
and Customer Service' BORDER=0></td>";
              PUT "<td width=160 colspan=4><IMG SRC='&imgdir.\ratings0.gif' ALT='Ratings'
BORDER=0></td>";
              PUT "<td width=50 colspan=1><IMG SRC='&imgdir.\prevention.gif' ALT='Prevention'
BORDER=0></td>";
              PUT "</tr>";
              PUT "<tr bgcolor= &hdcolr.>";
          %end;
          %else %do;
              PUT "<tr bgcolor= &hdcolr.>";
              PUT "<td>&htmlsp.</td>";
              PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Total Score</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=2><font face='&fontface.'
size='2'><b>Ease of Access</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=4><font face='&fontface.'
size='2'><b>Communication and Customer Service</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=4><font face='&fontface.'
size='2'><b>Ratings</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Prevention</b></font></td>";
              PUT "</tr>";
              PUT "<tr bgcolor= &hdcolr.>";
           %end;


         /*** Print out 1st column of 4th row ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
             PUT "<td width=55>&htmlsp.</td>";
         %end;
         %else %do;
             PUT "<td width='7%'><font face='&fontface.'>&htmlsp.</font></td>";
         %end;




         bennum=1;  /** index to all 11 benefits **/

         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

   FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */

   /*** Put Benefits across columns (Continuation of 4th row) ***/
   LENGTH HREF $ 20;
   HREF=COMPRESS("&prefix.&var1.-&var2.-"||bennum||".htm");



   /** If TOTAL benefit then don't have HREF **/
   /*** ÛÛ FRAMES SECTION ÛÛ ***/
   %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
     IF BENNUM=1 THEN PUT "<td align='center' valign='bottom'><IMG SRC='&imgdir.\image0_0.gif'
alt='Total' BORDER=0></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENEFIT "' BORDER=0></a></td>";
```

```
   %end;
   %else %do;
     IF BENNUM=1 THEN PUT "<td width='7%' align='center' valign='bottom'><font
face='&fontface.'size='1'>" &HEADVAR. "</font></td>";
     ELSE PUT "<td width='7%' align='center' valign='bottom'><font face='&fontface.'size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
   %end;


  bennum+1;


  IF EOF THEN DO;
    PUT "</tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;
%end;




/*ÛÛÛ
```

```
         %if &var3.=8 OR &var3.=9 OR &var3.=10 OR &var3.=11 %then %do;
               PUT "                &sub_ben.</b></font>";
         %end;
         %else %do;
               PUT "                &sub_ben.<BR>&period.</b></font>";
         %end;


         PUT "        </td>";
         PUT "</tr>";


         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /** 3rd Row ***/
            /** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
                   PUT "<td align='center' valign='bottom' colspan=&trendcolumns.><IMG
SRC='&imgdir.\composite.gif' ALT='Composite' BORDER=0></td></tr>";
                 %end;
                 %else %do;
                   PUT "<td align='center' valign='bottom' colspan=&trendcolumns.><IMG
SRC='&imgdir.\border_rating.gif' ALT='Ratings' BORDER=0></td></tr>";
                 %end;
            %end;
            %else %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                   PUT "<td align='center' valign='bottom' colspan=&trendcolumns.><font
face='&fontface.'><b>Composite</b></font></td></tr>";
                 %end;
                 %else %do;
                   PUT "<td align='center' valign='bottom' colspan=&trendcolumns.><font
face='&fontface.'><b>Ratings</b></font></td></tr>";
                 %end;
            %end;
         %end;


         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
```

```
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/
  HREF=COMPRESS("help.htm#q&var3.");


  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     IF _N_>&subcols. THEN IMAGE=COMPRESS("&imgdir.\period"||_N_-&subcols.||".gif");
     ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
     PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;
%end;



/*ÛÛÛ
```

```
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
       PUT "          <a href='&prefix.&var1.-&var2.-&var3.&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
         PUT "          <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return
to Main Page'></a>&htmlsp. ";

         /*** 4-17 MAB added JS code to go back ***/
         PUT "&goback.";
         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. ";
         PUT "          <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major. &comma.
&sub_regs. <br>";


         PUT "                 &sub_ben.<BR>&period.</b></font>";



         PUT "        </td>";
         PUT "</tr>";

         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /*** 3rd Row ***/
            /*** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
               PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
            %end;
            %else %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
            %end;
         %end;

         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
```

```
        %end;
        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/
  HREF=COMPRESS("help.htm#q&var3.");


  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
     PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;


RUN;
%end;



/*ÛÛÛ
```

```
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
       PUT "          <a href='&prefix.&var1.-&var2.-&var3.&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
         PUT "          <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return
to Main Page'></a>&htmlsp. &htmlsp.";

         /*** 4-17 MAB added JS code to go back ***/
         PUT "&goback.";

         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp.";
         PUT "          <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major. &comma.
&sub_regs. <br>";

         /*** Since trend data don't display reference period ***/
         PUT "                 &sub_ben.</b></font>";


         PUT "        </td>";
         PUT "</tr>";


         /*** 3rd Row ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         /**PUT "<td></td>"**/


         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/
```

```
  HREF=COMPRESS("help.htm#q&var3.");


  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\period"||_N_||".gif");
     PUT "<td align='center' valign='bottom'><a href="" HREF +(-1) "" &target.><IMG SRC='"
IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
     PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href="" HREF +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;


RUN;
%end;




/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;
  /*** Close out header HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT1." MOD;

    PUT "</center></table>";
    PUT "</body></html>";
  RUN;


  /*** Since done making frame 1 page then assign fileout1 = frame 2 ***/
  %let fileout1=&fileout3.;

  /*** Initialize out data HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT3.";

    PUT "<! Created &datetime.>";
    PUT "<html>";
    PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066' vlink='#996699'>";
    PUT "<center><table border='1' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
cols=&columns. width=640>";
  RUN;

%end;




/************************************/
/****  Put out rest of table      ****/
/****  Colored scores and Stub    ****/
/************************************/
%if &seppage.=0 OR &var3.=8 OR &var3.=9 OR &var3.=10 OR &var3.=11 %then %do;
DATA HTML;
  SET SUBSET;
RUN;
%end;
%else %if &seppage.=1 %then %do;
DATA HTML;
  SET SUBSET;
  /*** Since spliting up table need to delete some records ***/
```

```
  /*** Modified 2-2 MAB to deal with new period values **/
  IF BENTYPE IN ("2000","2001","2002","Trend") THEN DELETE; /*** Changed 1-18-2002 MAB ***/
RUN;
%end;
%else %if &seppage.=2 %then %do;
DATA HTML;
  SET SUBSET;
  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/
  IF BENTYPE IN ("2000","2001","2002","Trend");  /*** Changed 1-18-2002 MAB ***/
RUN;
%end;









/*** MAB 1-10-2002  -  This code should never be run since never create ***/
/*** all MAJGRP page for Annual report cards ***/
/*ÛÛÛÛ ALL MAJGRPS ÛÛÛÛ*/
%if &var1.=0 %then %do;

DATA HTML;
  SET HTML END=EOF;


  IF MAJGRP="Prime Enrollees" THEN MAJNUM=1;
  IF MAJGRP="Enrollees with Military PCM"  THEN MAJNUM=2;
  IF MAJGRP="Enrollees with Civilian PCM" THEN MAJNUM=3;
  IF MAJGRP="Standard/Extra Users" THEN MAJNUM=4;  /*** Changed from 'Non-enrolled Beneficiaries'
1-25-2002 MAB ***/
  IF MAJGRP="Active Duty" THEN MAJNUM=5;
  IF MAJGRP="Active Duty Dependents" THEN MAJNUM=6;
  IF MAJGRP="Retirees and Dependents" THEN MAJNUM=7;
  IF MAJGRP="All Users" THEN MAJNUM=8;   /*** Changed from 'All Beneficiares' 1-24-2002 MAB ***/


  /*** HREF link to another page ***/
  HREF=COMPRESS("&prefix."||MAJNUM||"-0-&var3.&q..htm");  /** Link is diff for CONUS MHS region
**/
  /*** MAB 7-12-2001 updated to reference trend page if needed ***/


  %if &var2.^=99 %then %do;
     IF REGION="CONUS MHS" THEN DELETE;
  %end;


  LENGTH HREFQ LMAJGRP $ 30;
  RETAIN LMAJGRP;

  IF _N_=1 THEN DO;
     LMAJGRP=" ";
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";

          %do i=2 %to 12;
             %if &i.^=8 AND &i.^=9 AND &i.^=10 AND &i.^=11 %then %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i.q.htm");  /*** href to 2nd html file
***/
             %end;
```

```
            %else %do;
                HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i..htm");  /*** href to 2nd html file
***/
            %end;

            PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
         %end;
         PUT "</tr>";
    %end;

  END;



  IF LMAJGRP^=MAJGRP THEN DO;             /*** Start new row ***/
       FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
       ROW+1;
       IF LMAJGRP^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


       /*** Column 1 / Row 1 ***/
       /*** ÛÛ FRAMES SECTION ÛÛ ***/
       %if &prefix=f %then %do;
           IF MAJGRP IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" MAJGRP "</font></b></td>";    /*** no HREF links ***/
       %end;
       %else %do;
           IF MAJGRP IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
MAJGRP "</font></b></td>";                            /*** no HREF links ***/
       %end;

       /*** Column 1 / Row 2+ ***/
       ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " MAJGRP " </a></font></td>";   /** Shade row **/
       ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """ &target.> "
MAJGRP " </a></font></td>";



       /*-------------------------*/
       /* 2000/11: begin xls code */
       /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LMAJGRP^=" " THEN           PUT " ";
          IF REGION IN("Benchmark") THEN PUT REGION '09'x @@;   /* '09'x ensures text string is
put into one cell */
          ELSE IF MOD(ROW,2)=0 THEN      PUT MAJGRP '09'x @@;   /* rather than spanning across
cells              */
          ELSE                           PUT MAJGRP '09'x @@;
        %end;
       /*-------------------------*/
       /* 2000/11: end xls code   */
       /*-------------------------*/

       LMAJGRP=MAJGRP;
  END;


  /*** Column 2+ ***/
  /*****************************************/
  /**** Need to output different formats    ****/
  /*****************************************/
  FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */


  IF MAJGRP IN("Benchmark") THEN DO;
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.B THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NB<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
```

```
      ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
       PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
       PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
   ELSE IF SCORE=.B THEN DO;
       PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NB<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
       IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'
color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=.B THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NB<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
       ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE 3.0
"<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF MAJGRP IN("Benchmark") THEN DO;   /** Replaced 1-22 mab **/
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE IF SCORE=.B THEN  PUT "NB"  '09'x @@;
         ELSE                   PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE IF SCORE=.B THEN DO;
          PUT "NB" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=.B THEN PUT "NB"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/

  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                          /* 2000/11: to refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/
```

```
    /*-------------------------*/
    /* 2000/11: begin xls code */
    /*-------------------------*/
    %if &outxls.=1 %then %do;
     FILE XLSDATA;
     PUT; PUT;
         %if &var1=8 and &var3=3 %then %do;
           PUT "Source: 2002 Health Care Survey of DOD Beneficiaries";
           PUT "Indicates score significantly exceeds benchmark";
           PUT "Indicates score significantly falls short of benchmark";
           PUT "NA Indicates not applicable";
           PUT "*** Indicates significance not available";
         %end;
         %else %do;
           PUT "Source: 2002 Health Care Survey of DOD Beneficiaries";
           PUT "Indicates score significantly exceeds benchmark";
           PUT "Indicates score significantly falls short of benchmark";
           PUT "NA Indicates benchmark not available";
           PUT "*** Indicates significance not available";
         %end;
    %end;
    /*-------------------------*/
    /* 2000/11: end xls code   */
    /*-------------------------*/

  END;
RUN;
%end;




/*ÛÛÛÛ All Regions ÛÛÛÛ*/
%if &var2.=0 %then %do;
DATA HTML;
  SET HTML END=EOF;


  LENGTH HREFQ LREGION $ 26;
  RETAIN LREGION;

  IF _N_=1 THEN DO;
     LREGION=" ";
     REGNUM=1;
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";

          %do i=2 %to 12;
             %if &i.^=8 AND &i.^=9 AND &i.^=10 AND &i.^=11 %then %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i.q.htm");  /*** href to 2nd html file
***/
             %end;
             %else %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i..htm");  /*** href to 2nd html file
***/
             %end;

             PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
          %end;
          PUT "</tr>";
    %end;
```

```
  END;


  IF LREGION^=REGION THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LREGION^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGION^=" " THEN PUT " ";          /*** terminate previous row ***/
          FILE "&FILEOUT1." MOD ;                /* 2000/11: to refer back to htm file */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        /***REMOVED MAB 1-18-2002***/
        /***IF REGION IN("CONUS MHS") THEN DO;
             ORIGNUM=REGNUM;
             REGNUM=99;
        END;***/


        /*** Column 1 / Row 1 ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        %if &prefix=f %then %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
           ELSE IF REGION IN("CONUS MHS") THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        %else %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
REGCAT "</font></b></td>";  /*** no HREF links ***/
           ELSE IF REGION IN("CONUS MHS") THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        ELSE DO;   /*** HREF links for each region ***/


          /***REMOVED MAB 1-10-2002  HREF=COMPRESS("&prefix.0-"||REGNUM||"-&var3.&q..htm");***/
          /*** Added MAB 1-10-2002 ***/
          HREF=COMPRESS("&prefix.&var1.-"||REGNUM||"-&var3.&q..htm");

          /*** Added MAB 1-10-2002 ***/
          /*** Certain major groups are not large enough to show ***/
          /*** catchment level detail. so don't add HREF link here  ***/
          %if &var1.=3 or &var1.=4 or &var1.=6 or &var1.=7  %then %do;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.' size='2'>
" REGCAT " </font></td>";    /**Shade row **/
            ELSE PUT "<tr><td><font  face='&fontface.' size='2'> " REGCAT " </font></td>";
          %end;
          %else %do;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.' size='2'><a
href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>";  /** Shade row **/
            ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
          %end;



          /*** Column 1 / Row 2+ ***/
          /*** REMOVED MAB 1-10-2002 ***/
          /***%if &prefix=f %then %do;
             IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>";  Shade row
```

```
            ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
          %end;
          %else %do;
             IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>";  Shade row
             ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
          %end;***/


          REGNUM+1;

          /***REMOVED MAB 1-18-2002***/
          /***IF REGION IN("CONUS MHS") THEN DO;
             REGNUM=ORIGNUM;
          END;***/

        END;

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF REGION IN("Benchmark") THEN  PUT REGCAT '09'x @@;   /* no logic difference */
          ELSE DO;
            IF MOD(ROW,2)=0 THEN          PUT REGCAT '09'x @@;   /* just presentation difference
in htm */
             ELSE                         PUT REGCAT '09'x @@;   /* keeping as is to preserve htm
code structure */
          END;
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/

        LREGION=REGION;
  END;


  /*** Column 2+ ***/
  /*****************************************/
  /**** Need to output different formats    ****/
  /*****************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.B THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NB<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.B THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NB<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'
color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
```

```
       ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=.B THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NB<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
       ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE 3.0
"<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;


  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN       PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN PUT "NA"  '09'x @@;
         ELSE IF SCORE=.B THEN PUT "NB"  '09'x @@;
         ELSE                  PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE IF SCORE=.B THEN DO;
          PUT "NB" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=.B THEN PUT "NB"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/



  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/


     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/
     %if &outxls.=1 %then %do;
       FILE XLSDATA;
       PUT; PUT;
       %if &var1=8 and &var3=3 %then %do;
           PUT "Source: 2002 Health Care Survey of DOD Beneficiaries";
           PUT "Indicates score significantly exceeds benchmark";
           PUT "Indicates score significantly falls short of benchmark";
           PUT "NA Indicates not applicable";
           PUT "*** Indicates significance not available";
         %end;
         %else %do;
           PUT "Source: 2002 Health Care Survey of DOD Beneficiaries";
           PUT "Indicates score significantly exceeds benchmark";
           PUT "Indicates score significantly falls short of benchmark";
```

```
          PUT "NA Indicates benchmark not available";
          PUT "*** Indicates significance not available";
         %end;
     %end;
     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;

%end;




/*ÛÛÛÛ Single Regions ÛÛÛÛ*/
/* This code is not applicable for the 2000 report cards */
/*  since not enough data to display sub-region info. */
/*  Will leave in code in case this changes */
%if &var2.^=0 AND &var1.^=0 %then %do;
DATA HTML;
  SET HTML END=EOF;

   /*** Added HREFQ 1-18-2002 MAB ***/
   /*** DKB CHANGED LENGTH FROM 26 to 42 B/C E.Schone CHANGED LENGTH OF REGCAT VAR 2-25-2002 ***/
  LENGTH HREFQ LREGCAT $ 42;
  RETAIN LREGCAT;

  IF _N_=1 THEN DO;
     LREGCAT=" ";
     ROW=0;

    /*** Add links to trend data 1.23.2002 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";

          %do i=2 %to 12;
             %if &i.^=8 AND &i.^=9 AND &i.^=10 AND &i.^=11 %then %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i.q.htm");  /*** href to 2nd html file
***/
             %end;
             %else %do;
                 HREFQ=COMPRESS("&prefix.&var1.-&var2.-&i..htm");  /*** href to 2nd html file
***/
             %end;

             PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
          %end;
          PUT "</tr>";
    %end;

  END;


  IF LREGCAT^=REGCAT THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LREGCAT^=" " THEN PUT "</tr>";  /*** terminate previous row ***/
        IF REGCAT IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
        ELSE IF REGCAT IN("CONUS MHS") THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
        ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""help.htm#" regcat +(-1)""">" REGCAT "</a></font></td>";   /** Shade row **/
/*MJS 02/18/2003*/
        ELSE DO;   /*MJS 02/18/2003*/
```

```
          IF SUBSTR(REGCAT,1,6)="Region" THEN
            PUT "<tr><td><font face='&fontface.' size='2'>" REGCAT "</font></td>";  /*MJS
02/12/2003*/
          ELSE
            PUT "<tr><td><font face='&fontface.' size='2'><a href=""help.htm#" regcat +(-1)""">"
REGCAT "</a></font></td>";  /*MJS 02/18/2003*/
        END;

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGCAT^=" " THEN PUT " ";
          IF REGCAT IN("Benchmark") THEN      PUT REGCAT '09'x @@;         /* no logic difference
*/
          ELSE IF REGCAT IN("CONUS MHS") THEN PUT REGCAT '09'x @@;
          ELSE IF MOD(ROW,2)=0 THEN           PUT REGCAT '09'x @@;         /* just presentation
difference in htm */
          ELSE                                PUT REGCAT '09'x @@;         /* keeping as is to
preserve htm code structure */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        LREGCAT=REGCAT;

  END;



  /*****************************************/
  /**** Need to output different formats    ****/
  /*****************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
       /*** Add WIDTH info 1.23.2002 MAB ***/
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.B THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NB<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.B THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NB<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'
color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.B THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NB<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE 3.0
"<!CODE= " +(-1) ORDER Z5.  "></font></td>";
```

```
  END;
 END;

 /*-------------------------*/
 /* 2000/11: begin xls code */
 /*-------------------------*/
 %if &outxls.=1 %then %do;
   FILE XLSDATA;
   IF REGION IN("Benchmark") THEN DO;
        IF SCORE=. THEN        PUT "***" '09'x @@;
        ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
        ELSE IF SCORE=.B THEN  PUT "NB"  '09'x @@;
        ELSE                   PUT SCORE '09'x @@;
   END;
   ELSE DO;
     IF SCORE=. THEN DO;
         PUT "***" '09'x @@;
     END;
     ELSE IF SCORE=.A THEN DO;
         PUT "NA" '09'x @@;
     END;
     ELSE IF SCORE=.B THEN DO;
         PUT "NB" '09'x @@;
     END;
     ELSE DO;
         IF SIG=1 THEN       PUT SCORE '09'x @@;
         ELSE IF SIG=. THEN  PUT "***" '09'x @@;
         ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
         ELSE IF SIG=.B THEN PUT "NB"  '09'x @@;
         ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
         ELSE                PUT SCORE '09'x @@;
     END;
   END;
 %end;
 /*-------------------------*/
 /* 2000/11: end xls code   */
 /*-------------------------*/


 IF EOF THEN DO;
    FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
    PUT "</tr>";  /*** terminate last row ***/

    %BOTTOM_NOTES;  /** Macro with bottom notes **/


    /*-------------------------*/
    /* 2000/11: begin xls code */
    /*-------------------------*/
    %if &outxls.=1 %then %do;
      FILE XLSDATA;
      PUT; PUT;
  %if &var1=8 and &var3=3 %then %do;
          PUT "Source: 2002 Health Care Survey of DOD Beneficiaries";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates significance not available";
        %end;
        %else %do;
          PUT "Source: 2002 Health Care Survey of DOD Beneficiaries";
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates benchmark not available";
          PUT "*** Indicates significance not available";
        %end;
    %end;
    /*-------------------------*/
    /* 2000/11: end xls code   */
    /*-------------------------*/

 END;

RUN;
```

```
%end;



/***********************************/
/****  Print out footer info      ****/
/***********************************/
DATA _NULL_;
    FILE "&FILEOUT1." MOD ;


    /** Determine where back button should link to **/
    %if &var1.=0 %then %do;
       HREFBACK=COMPRESS("&prefix.8-0-0.htm");
    %end;
    %else %do;
       HREFBACK=COMPRESS("&prefix.&var1.-0-0.htm");
    %end;


    /** MF Changes **/
    PUT "<tr>";
    PUT "   <td colspan='&columns.'>";
    PUT "      <center>";
    PUT "         <a href='index.htm' &target.><img src=&home_but. border='0' alt='Return to Main
Page'></a>&htmlsp.&htmlsp.";
             /*** 7-17 MAB added JS code to go back ***/
    PUT "&goback.";
    PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";

    PUT "         <a href='help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a><br>";
    PUT "         <font face='Arial,Helvetica,Swiss,Geneva' size='2'><b>&grpmsg.<br>";
    PUT "         </b></font>";



    majgrp1=COMPRESS("&prefix.1-&var2.-&var3.&q..htm");
    majgrp2=COMPRESS("&prefix.2-&var2.-&var3.&q..htm");
    majgrp3=COMPRESS("&prefix.3-&var2.-&var3.&q..htm");
    majgrp4=COMPRESS("&prefix.4-&var2.-&var3.&q..htm");
    majgrp5=COMPRESS("&prefix.5-&var2.-&var3.&q..htm");
    majgrp6=COMPRESS("&prefix.6-&var2.-&var3.&q..htm");
    majgrp7=COMPRESS("&prefix.7-&var2.-&var3.&q..htm");
    majgrp8=COMPRESS("&prefix.8-&var2.-&var3.&q..htm");


     /*** Certain major groups are not large enough to show ***/
     /*** catchment level detail. So if we are in html file ***/
     /*** which has this detail then don't link to a html   ***/
     /*** file which doesn't exist                          ***/

    %if &var1.^=0 %then %do;
      %if &var1.^=3 and &var1.^=4 and &var1.^=6 and &var1.^=7 and &var2.^=0 %then %do;

         PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP5 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP8 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";  /*** Changed from 'All Beneficiares' 1-24-2002 MAB ***/

      %end;
      %else %do;

        PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP3 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Civilian PCM</font></a>&htmlsp.&htmlsp.";
```

```
        PUT "<a href=""" MAJGRP4 +(-1) """ &target.><font face='&fontface.'
size='2'>Standard/Extra Users</font></a>&htmlsp.&htmlsp.";  /*** Changed from 'Non-enrolled
Beneficiaries' 1-25-2002 MAB ***/
        PUT "<br>";
        PUT "<a href=""" MAJGRP5 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active Duty
Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP7 +(-1) """ &target.><font face='&fontface.' size='2'>Retirees and
Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP8 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";    /*** Changed from 'All Beneficiares' 1-24-2002 MAB ***/

      %end;
    %end;

   /*** link to printer friendly version moved C.Rankin 10/25/2001 ***/

   /*** 4-17 MAB added  ***/
   /*** If creating frames need link to printer friendly version of file ***/
   /***DANIELE ADDED BR STATEMENT ON 11/1/01 SO PRINTER ICON WOULD SHOW UP ON SEPARATE LINE ***/
   %if &prefix=f %then %do;
      HREFP=COMPRESS("p&var1.-&var2.-&var3.&q..htm");
      PUT "    <BR><font face='Arial,Helvetica,Swiss,Geneva' size='1'><a href='" HREFP "'
&target.><img src='&imgdir.\printer.gif' alt='Printer Friendly Page' border=0>Printer Friendly
Page</a></font>";
   %end;



RUN;


/*** Close HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1." MOD ;

  PUT "</center></td></tr></table>";
  PUT "</body></html>";

RUN;



/*-------------------------------*/
/* 2000/12: begin xls color code */
/*-------------------------------*/
%if &outxls.=1 %then %do;
  FILENAME CMDS DDE 'excel|system';

  /* Align 2 titles */
  DATA _NULL_;
     FILE CMDS;
     CELL=COMPRESS("[SELECT(""R1C1:R1C"||&columns.||""")]"); PUT CELL;
     PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
     CELL=COMPRESS("[SELECT(""R2C1:R2C"||&columns.||""")]"); PUT CELL;
     PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
  RUN;

  DATA _NULL_;
    FILE CMDS;
    SET HTML(DROP=ROW) END=EOF;

    RETAIN ROW COLUMN;


    /*** Need to initialize row and column pointers ***/
    IF _N_=1 THEN DO;
      ROW=6;
      COLUMN=1;
    END;

    /*** Increment Row and Column pointers ***/
    COLUMN=COLUMN+1;
```

```
    IF COLUMN>&columns. THEN DO;
       ROW=ROW+1;
       COLUMN=2;
    END;


    CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
    PUT CELL;

    /** Before color cell center data **/
    PUT '[ALIGNMENT(3, False, 3,0, False)]';


    IF REGION IN("Benchmark") THEN PUT '[FORMAT.FONT("Arial",10,True,False,False,False,9)]';
/*** BOLD & DARK RED ***/
    ELSE IF SCORE NOT IN(.,.A) THEN DO;
      IF SIG=1 THEN PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /*** BOLD
& GREEN ***/
      ELSE IF SIG=-1 THEN PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED
***/
      ELSE PUT '[FORMAT.FONT("Arial",10,False,False,False,False,5)]';    /*** BLUE ***/
    END;


    /*** If last record then output footer ***/
    IF EOF THEN DO;
       ROW=ROW+3; COLUMN=1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /*** BOLD & GREEN ***/
       ROW=ROW+1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED ***/
    END;
  RUN;
  FILENAME CMDS DDE 'excel|system';
  DATA _NULL_;
    FILE CMDS;
    PUT '[SAVE()]';
    PUT '[CLOSE()]';
  RUN;
%end;
/*-------------------------------*/
/* 2000/12: end xls color code   */
/*-------------------------------*/


%MEND MKHTML;
/*ÛÛÛ
```

```
/*** Create 704 HTML pages (4 Majgrps / 16 Regions / 11 Benefits)***/
/*** Create 448 More pages if have sep page for trends ***/
%MACRO DOALL2();
      %DO J=0 %TO 15;
         %DO K=2 %TO 12;      * 11 Sub-benefits ;

              %MKHTML(1,&j.,&K.,1);
              %MKHTML(2,&j.,&K.,1);
              %MKHTML(5,&j.,&K.,1);
              %MKHTML(8,&j.,&K.,1);

                 /*** Call macro for 2nd page (except for ratings benefits) ***/
                 %if &k.^=8 AND &k.^=9 AND &k.^=10 AND &k.^=11 %then %do;
                   %MKHTML(1,&j.,&K.,2);
                   %MKHTML(2,&j.,&K.,2);
                   %MKHTML(5,&j.,&K.,2);
                   %MKHTML(8,&j.,&K.,2);
                 %end;
         %END;

      %END;
%MEND DOALL2;


/*** Create 72 HTML pages ***/
%MACRO DOALL3();
      %DO J=0 %TO 0;
         %DO K=2 %TO 12;      * 11 Sub-benefits ;

              %MKHTML(3,&j.,&K.,1);
              %MKHTML(4,&j.,&K.,1);
              %MKHTML(6,&j.,&K.,1);
              %MKHTML(7,&j.,&K.,1);


                 /*** Call macro for 2nd page (except for ratings benefits) ***/
                 %if &k.^=8 AND &k.^=9 AND &k.^=10 AND &k.^=11 %then %do;
                   %MKHTML(3,&j.,&K.,2);
                   %MKHTML(4,&j.,&K.,2);
                   %MKHTML(6,&j.,&K.,2);
                   %MKHTML(7,&j.,&K.,2);
                 %end;
         %END;

      %END;
%MEND DOALL3;




/*****************************************/
/**** Create macros to call MKHTML macro  ****/
/**** Need special macros for Excel files ****/
/*****************************************/
/*** Create 68 HTML files ***/
%MACRO EXCEL1();
      %DO J=0 %TO 15;
             %MKHTML(1,&j.,0,0);
             %MKHTML(2,&j.,0,0);
             %MKHTML(5,&j.,0,0);
             %MKHTML(8,&j.,0,0);
      %END;

      %MKHTML(3,0,0,0);
      %MKHTML(4,0,0,0);
      %MKHTML(6,0,0,0);
      %MKHTML(7,0,0,0);

%MEND EXCEL1;
```

```
/*** Create 704 HTML pages (4 Majgrps / 16 Regions / 11 Benefits)***/
%MACRO EXCEL2();
      %DO J=0 %TO 15;
         %DO K=2 %TO 12;      * 11 Sub-benefits ;

              %MKHTML(1,&j.,&K.,0);
              %MKHTML(2,&j.,&K.,0);
              %MKHTML(5,&j.,&K.,0);
              %MKHTML(8,&j.,&K.,0);

         %END;

      %END;
%MEND EXCEL2;


/*** Create 44 HTML pages ***/
%MACRO EXCEL3();
      %DO J=0 %TO 0;
         %DO K=2 %TO 12;      * 11 Sub-benefits ;

              %MKHTML(3,&j.,&K.,0);
              %MKHTML(4,&j.,&K.,0);
              %MKHTML(6,&j.,&K.,0);
              %MKHTML(7,&j.,&K.,0);

         %END;

      %END;
%MEND EXCEL3;


/*** Run macro to create Frame HTML files ***/
%LET PREFIX=f;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;



*endsas;


/*** Run macro to create Printer Friendly HTML files (non-frames) ***/
%LET PREFIX=p;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;




/*** Run macro to create Excel files ONLY ***/
%LET PREFIX=p;
%LET OUTXLS=1;
%EXCEL1;
%EXCEL2;
%EXCEL3;



%PUT "&number_html_files. HTML files created.";



ENDSAS;
*************************************************************************;
*************************************************************************;
*************************************************************************;
```

20. QUALITY ASSURANCE FOR CONSUMER REPORTS - ANNUAL

```
*=====================================================================;
*                                                                     ;
*   Programmer:  Mark A. Brinkley                                     ;
*        Title:  QC_ADULT.SAS                                         ;
*       Client:  8860-410                                             ;
*         Date:  03-29-2000                                           ;
*                                                                     ;
*      Purpose:  This program is designed to read in ALL adult html   ;
*                files, extract the table data, and then compare      ;
*                this data to the input data which was used to        ;
*                create the html report cards.  If everything is OK,  ;
*                then the comparison should yield no differences.     ;
*                                                                     ;
*  Input files:  1) All F*.HTM files                                  ;
*                2) TREND_A.SD2                                       :
*                                                                     ;
*  Modifications:                                                     ;
*  1) 02/14/2001 - Keith Rathbun, Remove outputting of permanent      ;
*     SAS Dataset.  Deleted directory output file.  Removed white     ;
*     space from program.  Removed BY statement from proc compares.   ;
*     Added titles.  Setup to run in LOADWEB directory on Jdrive.     ;
*                                                                     ;
*  2) 04/18/2001 - Chris Rankin -- added Macro to process             ;
*                  frames and non-frames version separately           ;
*                                                                     ;
*  3) 04/10/2002 - Keith Rathbun -- updated Project/Task number.      ;
*                  No code changes required.                          ;
*                                                                     ;
*  4) 08/14/2002 - Mark Brinkley                                      ;
*                    - Added kludge to remove '>' from SCORE          ;
*                    - Added DROP=SCORE since don't need to pull      ;
*                      in SCORE from TESTFILE file. Was causing       ;
*                      a type mismatch error.                         ;
*  5) 08/14/2002 - Keith Rathbun                                      ;
*                    - Added kludge to reset SIG to 0 for trend       ;
*                      records that have no score.                    ;
*                                                                     ;
* Output files: Comparison summary listing                            ;
*                                                                     ;
*=====================================================================;
LIBNAME IN V612 ".";
OPTIONS NOCENTER LS=132 PS=79 COMPRESS=NO;


*********************************************************************;
*****    Run batch command to create dir of all F*.HTM files   *****;
*********************************************************************;
OPTIONS NOXWAIT;

%MACRO COMPARE(INCOND=,TITLE=);

X "DIR Html\&INCOND..HTM /B > Html\QC_ADULT.DAT";
X "CD Html";

*********************************************************************;
*****    Read in QC_ADULT which was just created               *****;
*********************************************************************;

DATA QC_ADULT;
   INFILE "QC_ADULT.DAT" LRECL=15 PAD;
   INPUT HTMLFILE $ 1-15;
RUN;

*********************************************************************;
*******       Read in all F*.HTM files                        *******;
*********************************************************************;

DATA HTMLS;
   SET QC_ADULT;
   INFILE FILEREF FILEVAR=HTMLFILE  LRECL=175 PAD END=DONE;
   DO UNTIL(DONE);
      INPUT TEMPVAR $ 1-175;
      OUTPUT;
```

```
   END;
RUN;

DATA TEMP;
   SET HTMLS;
   LENGTH ORDER 5;
   IF INDEX(TEMPVAR,"CODE")>0;
   PLACEI=INDEX(TEMPVAR,"CODE");
   ORDER=SUBSTR(TEMPVAR,PLACEI+5,5);
RUN;

DATA TESTFILE(DROP=PLACE PLACE2 PLACE3 SRCH PLACEI LNGTH TEMPVAR COLOR); *SCORE);
   SET TEMP;
   LENGTH COLOR $6;
   LENGTH SCORE_ 3;
   LENGTH SCORE $4;
   LENGTH SIG_ 3;
   IF INDEX(TEMPVAR,"color")>0 THEN DO;
      PLACE=INDEX(TEMPVAR,"color");
      COLOR=SUBSTR(TEMPVAR,PLACE+8,6);
      SRCH=SUBSTR(TEMPVAR,PLACE,30);
      IF INDEX(SRCH,">")>0 AND INDEX(SRCH,"<")>0 THEN DO;
         PLACE2=INDEX(SRCH,">");
         PLACE3=INDEX(SRCH,"<");
         LNGTH=PLACE3-PLACE2-1;
         SCORE=SUBSTR(SRCH,PLACE2+1,LNGTH);
      END;
   END;
   ELSE DO;
      PLACE=INDEX(TEMPVAR,"CODE");
      SCORE=SUBSTR(TEMPVAR,PLACE-5,3);
      IF SUBSTR(SCORE,1,1)=">" THEN SCORE=SUBSTR(SCORE,2,2);    /** MAB 8-14-2002 **/
      COLOR='.';
   END;
   IF COLOR='663300' THEN SIG_=.;
   ELSE IF COLOR='cc0000' THEN SIG_=-1;
   ELSE IF COLOR='009933' THEN SIG_=1;
   ELSE IF COLOR='.' THEN SIG_=0;
   IF SCORE='***' THEN SCORE_=.;
   ELSE IF SCORE='NA' THEN SCORE_=.A;
   ELSE SCORE_=SCORE;
RUN;

PROC SORT DATA=TESTFILE;
   BY ORDER;
RUN;

DATA TESTFILE;
   SET TESTFILE;
   BY ORDER;
   IF FIRST.ORDER;
RUN;

DATA MERGED(KEEP=ORDER SIG SIG_ SCORE SCORE_ SCORE1);
   MERGE TESTFILE(IN=IN1 DROP=SCORE)  /** MAB 8-14-2002 Added DROP=SCORE **/
         IN.TREND_A;
   BY ORDER;
   IF IN1;
   LENGTH SCORE1 3;
   SCORE1=ROUND(SCORE);
   IF (SIG=. AND SIG_=0) THEN SIG_=.;
   ELSE IF (SIG=0 AND SIG_=.) THEN SIG_=0;
   IF (BENTYPE = 'Trend' AND SIG=-1 AND SCORE=.) THEN SIG=0; * KRR added 8/14/2002;
   IF (SCORE1=. AND SCORE_=.A) THEN SCORE_=.;
RUN;

TITLE1 "Validate Quarterly DOD Health Survey Scores/Report Cards (8860-410)";
TITLE2 "Program Name: QC_ADULT.SAS By Mark Brinkley";
TITLE3 "Program Inputs: TREND_A.SD2 - Scores Database in WEB Layout and report card HTML files";
TITLE4 &TITLE;

PROC COMPARE DATA=MERGED BRIEF;
   VAR SIG;
   WITH SIG_;
```

```
RUN;

/*
PROC PRINT DATA=MERGED;
VAR REGCAT BENTYPE SIG SIG_ SCORE SCORE_;
WHERE SIG NE SIG_;
RUN;
*/

PROC COMPARE DATA=MERGED BRIEF;
   VAR SCORE1;
   WITH SCORE_;
RUN;

X "DEL QC_ADULT.DAT";
X "CD ..";

%MEND COMPARE;

%COMPARE(INCOND=F*-*,TITLE="FRAMES VERSION");
%COMPARE(INCOND=P*-*,TITLE="NON-FRAMES VERSION");

ENDSAS;
```

APPENDIX I

SAS CODE FOR TRICARE CONSUMER WATCH

1. CALCULATE INTENT TO DISENROLL AND SPECIAL TOPICS FOR Q1 2002

```
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;
*******************************************************************************
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: FIGURES5TO9.SAS
* PURPOSE: To produce numbers that go into data sheet for figures 5-9
*          Includes: Intent to disenroll
*                    4 charts on special topic
* AUTHOR : MIKI SATAKE and NATALIE JUSTH
* DATE   : 5/08/01
* UPDATED: 7/16/01 FOR QUARTER 2
* UPDATED: 10/01/01 FOR QUARTER 3
* UPDATED: 1/15/01 FOR QUARTER 4
* UPDATED: 4/11/02 FOR QUARTER 1 2002
* INPUT  : (2002-Q1) ....\Q1_2002\DATA\AFINAL\HCS021_1.SD2
*          (2000-Q4) ....\Q4_2000\DATA\AFINAL\HCS004_1.SD2
*          (2000-Q3) ....\Q3_2000\DATA\AFINAL\HCS003_1.SD2
*          (2000-Q2) ....\Q2_2000\DATA\AFINAL\HCS002_1.SD2
* OUTPUT : FIG5TO9.SD2
*******************************************************************************
*******************************************************************************;
LIBNAME J1 '....\Q1_2002\DATA\AFINAL';
LIBNAME J2 '....\Q2_2000\DATA\AFINAL';
LIBNAME J3 '....\Q3_2000\DATA\AFINAL';
LIBNAME J4 '....\Q4_2000\DATA\AFINAL';
LIBNAME OUT '.';

TITLE '8860-420 DOD CONSUMER WATCH Q1 2002';

LIBNAME LIBRARY '....\Q1_2002\DATA\AFINAL\FMTLIB';
DATA HCS021_1(KEEP=TOTAL CONUS H02057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF S02L01 S02L02 S02L03A
              S02L03E S02L03F S02L03H S02L06 S02L07 S02L08 S02L09 S02L11 S02L12 S02L15 S02L16);
   SET J1.HCS021_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\Q2_2000\DATA\AFINAL\FMTLIB';
DATA HCS002_1(KEEP=TOTAL CONUS H00057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF);
   SET J2.HCS002_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\Q3_2000\DATA\AFINAL\FMTLIB';
DATA HCS003_1(KEEP=TOTAL CONUS H00057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF);
   SET J3.HCS003_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\Q4_2000\DATA\AFINAL\FMTLIB';
DATA HCS004_1(KEEP=TOTAL CONUS H00057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF);
   SET J4.HCS004_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

*******************************************************************************
*******************************************************************************
* FIGURE 5: Plans to Disenroll
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 5: Plans to Disenroll';

%MACRO FIGURE5 (DATASET,QUARTER,BENTYPE,ROW,VAR);

/*****/
/*MHS*/
/*****/
```

```
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSNUM&QUARTER(RENAME=(COUNT=MHSNUM));
   WEIGHT WRWT;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEN&QUARTER(RENAME=(COUNT=MHSDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEU&QUARTER(RENAME=(COUNT=MHSDENU));
RUN;

/********/
/*Region*/
/********/

PROC SORT DATA=&DATASET;BY XREGION;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5N&QUARTER(RENAME=(COUNT=FIG5NUM));
   WEIGHT WRWT;
   BY XREGION;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5D&QUARTER(RENAME=(COUNT=FIG5DEN));
   WEIGHT WRWT;
   BY XREGION;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5DU&QUARTER(RENAME=(COUNT=FIG5DENU));
   BY XREGION;
RUN;

/*********************/
/*Service Affiliation*/
/*********************/

PROC SORT DATA=&DATASET;BY SERVAFF;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SN&QUARTER(RENAME=(COUNT=FIG5NUMS));
   WEIGHT WRWT;
   BY SERVAFF;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SD&QUARTER(RENAME=(COUNT=FIG5DENS));
   WEIGHT WRWT;
   BY SERVAFF;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FG5SDU&QUARTER(RENAME=(COUNT=FG5DENSU));
   BY SERVAFF;
RUN;

DATA MHS5&QUARTER;
   MERGE MHSNUM&QUARTER MHSDEN&QUARTER MHSDEU&QUARTER;
```

```
   BY TOTAL;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (MHSDEN<200 OR MHSDENU<30) THEN COL2=.;
      ELSE COL2 = (MHSNUM / MHSDEN)*100;
RUN;
DATA REG5&QUARTER;
   MERGE FIG5N&QUARTER FIG5D&QUARTER FIG5DU&QUARTER;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DEN<200 OR FIG5DENU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUM / FIG5DEN)*100;
RUN;
DATA SRV5&QUARTER;
   MERGE FIG5SN&QUARTER FIG5SD&QUARTER FG5SDU&QUARTER;
   BY SERVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DENS<200 OR FG5DENSU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUMS / FIG5DENS)*100;
RUN;
DATA  FIG5&QUARTER(DROP=TOTAL  PERCENT  MHSNUM  MHSDEN  MHSDENU  FIG5NUM  FIG5DEN  FIG5DENU  FIG5NUMS
FIG5DENS FG5DENSU);
   SET MHS5&QUARTER REG5&QUARTER SRV5&QUARTER;
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 5';
RUN;
PROC PRINT;RUN;
%MEND;

%FIGURE5 (HCS002_1,Q2,'April, 2000 to March, 2001',27,H00057);
%FIGURE5 (HCS003_1,Q3,'July, 2000 to June, 2001',28,H00057);
%FIGURE5 (HCS004_1,Q4,'October, 2000 to September, 2001',29,H00057);
%FIGURE5 (HCS021_1,Q1,'January, 2001 to December, 2001',30,H02057);

*******************************************************************************
*******************************************************************************
* MACROS USED IN FIGURES 6-9
*******************************************************************************
*******************************************************************************;

/*********************/
/*2002 QUARTER 1 CONUS*/
/*********************/

%MACRO FIGCNUM(OUTNUM,NUMER);
PROC FREQ DATA=HCS021_1 NOPRINT;
   WHERE (CONUS=1 AND &NUMER);
   TABLES TOTAL / OUT=NUMC&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT WRWT;
RUN;
%MEND;

%MACRO FIGCDEN(OUTDEN,DENOM);
PROC FREQ DATA=HCS021_1 NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENC&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=HCS021_1 NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENUC&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/*****************************************/
```

```
/*2002 QUARTER 1 REGION/SERVICE AFFILIATION*/
/*****************************************/

%MACRO FIGNUM(OUTNUM,NUMER,BYVAR);
PROC SORT DATA=HCS021_1;BY &BYVAR;RUN;
PROC FREQ DATA=HCS021_1 NOPRINT;
   WHERE &NUMER;
   BY &BYVAR;
   TABLES TOTAL / OUT=NUM&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT WRWT;
RUN;
%MEND;

%MACRO FIGDEN(OUTDEN,DENOM,BYVAR);
PROC SORT DATA=HCS021_1;BY &BYVAR;RUN;
PROC FREQ DATA=HCS021_1 NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DEN&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=HCS021_1 NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DENU&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

*******************************************************************************
*******************************************************************************
* FIGURE 6: Problems with TRICARE For Life
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 6: Problems with TRICARE For Life';

/*****************************************/
/* BIG PROBLEM UNDERSTANDING BENEFITS       */
/* ASKED FOR PAYMENT AT TIME OF SERVICE     */
/* BILLED FOR SERVICES THOUGHT WERE COVERED */
/*****************************************/

%FIGCNUM(BEN,(S02L02=1));
%FIGCNUM(PAY,(S02L11=1));
%FIGCNUM(BIL,(S02L12=1));

%FIGCDEN(F6,(S02L01=1));

%FIGNUM(RBEN,(S02L02=1),XREGION);
%FIGNUM(RPAY,(S02L11=1),XREGION);
%FIGNUM(RBIL,(S02L12=1),XREGION);
%FIGNUM(SBEN,(S02L02=1),SERVAFF);
%FIGNUM(SPAY,(S02L11=1),SERVAFF);
%FIGNUM(SBIL,(S02L12=1),SERVAFF);

%FIGDEN(RF6,(S02L01=1),XREGION);
%FIGDEN(SF6,(S02L01=1),SERVAFF);

DATA FIG6CON(DROP=TOTAL PERCENT NUMBEN NUMPAY NUMBIL DENF6 DENUF6);
   MERGE NUMCBEN NUMCPAY NUMCBIL DENCF6 DENUCF6;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 6';
   IF (DENF6<200 OR DENUF6<30) THEN DO;
      COL4=.;
      COL3=.;
      COL2=.;
```

```
   END;
   ELSE DO;
      COL4 = (NUMBEN / DENF6)*100;
      COL3 = (NUMPAY / DENF6)*100;
      COL2 = (NUMBIL / DENF6)*100;
   END;
   ROW = 46;
RUN;
DATA FIG6REG(DROP=TOTAL PERCENT NUMRBEN NUMRPAY NUMRBIL DENRF6 DENURF6);
   MERGE NUMRBEN NUMRPAY NUMRBIL DENRF6 DENURF6;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 6';
   IF (DENRF6<200 OR DENURF6<30) THEN DO;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL4 = (NUMRBEN / DENRF6)*100;
      COL3 = (NUMRPAY / DENRF6)*100;
      COL2 = (NUMRBIL / DENRF6)*100;
   END;
   ROW = 47;
RUN;
DATA FIG6SRV(DROP=TOTAL PERCENT NUMSBEN NUMSPAY NUMSBIL DENSF6 DENUSF6);
   MERGE NUMSBEN NUMSPAY NUMSBIL DENSF6 DENUSF6;
   BY SERVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 6';
   IF (DENSF6<200 OR DENUSF6<30) THEN DO;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL4 = (NUMSBEN / DENSF6)*100;
      COL3 = (NUMSPAY / DENSF6)*100;
      COL2 = (NUMSBIL / DENSF6)*100;
   END;
   ROW = 47;
RUN;

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG6CON;RUN;
PROC PRINT DATA=FIG6REG;RUN;
PROC PRINT DATA=FIG6SRV;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 7: Changes Under TRICARE For Life
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 7: Changes Under TRICARE For Life';

/************************/
/* DROPPED MEDIGAP/HMO   */
/* ENROLLED IN PART B    */
/* CHANGED PHARMACIES    */
/************************/
```

```
%FIGCNUM(DRP,(S02L07=1 OR S02L08=1));
%FIGCNUM(ENR,(S02L06=1));
%FIGCNUM(PHR,(S02L15=1));

%FIGCDEN(DRP,(S02L07 IN (1,2,3,4) OR S02L08 IN (1,2)));
%FIGCDEN(ENR,(S02L06 IN (1,2,3,4)));
%FIGCDEN(PHR,(S02L15 IN (1,2)));

%FIGNUM(RDRP,(S02L07=1 OR S02L08=1),XREGION);
%FIGNUM(RENR,(S02L06=1),XREGION);
%FIGNUM(RPHR,(S02L15=1),XREGION);
%FIGNUM(SDRP,(S02L07=1 OR S02L08=1),SERVAFF);
%FIGNUM(SENR,(S02L06=1),SERVAFF);
%FIGNUM(SPHR,(S02L15=1),SERVAFF);

%FIGDEN(RDRP,(S02L07 IN (1,2,3,4) OR S02L08 IN (1,2)),XREGION);
%FIGDEN(RENR,(S02L06 IN (1,2,3,4)),XREGION);
%FIGDEN(RPHR,(S02L15 IN (1,2)),XREGION);
%FIGDEN(SDRP,(S02L07 IN (1,2,3,4) OR S02L08 IN (1,2)),SERVAFF);
%FIGDEN(SENR,(S02L06 IN (1,2,3,4)),SERVAFF);
%FIGDEN(SPHR,(S02L15 IN (1,2)),SERVAFF);

DATA FIG7CON(DROP=TOTAL PERCENT NUMDRP NUMENR NUMPHR DENDRP DENUDRP DENENR DENUENR DENPHR
DENUPHR);
   MERGE NUMCDRP NUMCENR NUMCPHR DENCDRP DENUCDRP DENCENR DENUCENR DENCPHR DENUCPHR;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 7';
   IF (DENDRP<200 OR DENUDRP<30) THEN COL4=.;
      ELSE COL4 = (NUMDRP / DENDRP)*100;
   IF (DENENR<200 OR DENUENR<30) THEN COL3=.;
      ELSE COL3 = (NUMENR / DENENR)*100;
   IF (DENPHR<200 OR DENUPHR<30) THEN COL2=.;
      ELSE COL2 = (NUMPHR / DENPHR)*100;
   ROW = 52;
RUN;
DATA FIG7REG(DROP=TOTAL PERCENT NUMRDRP NUMRENR NUMRPHR DENRDRP DENURDRP DENRENR DENURENR DENRPHR
DENURPHR);
   MERGE NUMRDRP NUMRENR NUMRPHR DENRDRP DENURDRP DENRENR DENURENR DENRPHR DENURPHR;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 7';
   IF (DENRDRP<200 OR DENURDRP<30) THEN COL4=.;
      ELSE COL4 = (NUMRDRP / DENRDRP)*100;
   IF (DENRENR<200 OR DENURENR<30) THEN COL3=.;
      ELSE COL3 = (NUMRENR / DENRENR)*100;
   IF (DENRPHR<200 OR DENURPHR<30) THEN COL2=.;
      ELSE COL2 = (NUMRPHR / DENRPHR)*100;
   ROW = 53;
RUN;
DATA FIG7SRV(DROP=TOTAL PERCENT NUMSDRP NUMSENR NUMSPHR DENSDRP DENUSDRP DENSENR DENUSENR DENSPHR
DENUSPHR);
   MERGE NUMSDRP NUMSENR NUMSPHR DENSDRP DENUSDRP DENSENR DENUSENR DENSPHR DENUSPHR;
   BY SERVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 7';
   IF (DENSDRP<200 OR DENUSDRP<30) THEN COL4=.;
      ELSE COL4 = (NUMSDRP / DENSDRP)*100;
   IF (DENSENR<200 OR DENUSENR<30) THEN COL3=.;
      ELSE COL3 = (NUMSENR / DENSENR)*100;
   IF (DENSPHR<200 OR DENUSPHR<30) THEN COL2=.;
      ELSE COL2 = (NUMSPHR / DENSPHR)*100;
   ROW = 53;
RUN;
```

```
/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG7CON;RUN;
PROC PRINT DATA=FIG7REG;RUN;
PROC PRINT DATA=FIG7SRV;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 8: Plans to Get Care From...
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 8: Plans to Get Care From...';

/************************/
/* MILITARY FACILITIES   */
/* CIVILIAN FACILITIES   */
/* VA FACILITIES         */
/************************/

%FIGCNUM(MIL,(S02L09=1));
%FIGCNUM(CIV,(S02L09=2));
%FIGCNUM(VA,(S02L09=3));

%FIGCDEN(F8,(S02L09 IN (1,2,3)));

%FIGNUM(RMIL,(S02L09=1),XREGION);
%FIGNUM(RCIV,(S02L09=2),XREGION);
%FIGNUM(RVA,(S02L09=3),XREGION);
%FIGNUM(SMIL,(S02L09=1),SERVAFF);
%FIGNUM(SCIV,(S02L09=2),SERVAFF);
%FIGNUM(SVA,(S02L09=3),SERVAFF);

%FIGDEN(RF8,(S02L09 IN (1,2,3)),XREGION);
%FIGDEN(SF8,(S02L09 IN (1,2,3)),SERVAFF);

DATA FIG8CON(DROP=TOTAL PERCENT NUMMIL NUMCIV NUMVA DENF8 DENUF8);
   MERGE NUMCMIL NUMCCIV NUMCVA DENCF8 DENUCF8;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 8';
   IF (DENF8<200 OR DENUF8<30) THEN DO;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL4 = (NUMMIL / DENF8)*100;
      COL3 = (NUMCIV / DENF8)*100;
      COL2 = (NUMVA / DENF8)*100;
   END;
   ROW = 57;
RUN;
DATA FIG8REG(DROP=TOTAL PERCENT NUMRMIL NUMRCIV NUMRVA DENRF8 DENURF8);
   MERGE NUMRMIL NUMRCIV NUMRVA DENRF8 DENURF8;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 8';
   IF (DENRF8<200 OR DENURF8<30) THEN DO;
      COL4=.;
      COL3=.;
```

```
      COL2=.;
   END;
   ELSE DO;
      COL4 = (NUMRMIL / DENRF8)*100;
      COL3 = (NUMRCIV / DENRF8)*100;
      COL2 = (NUMRVA / DENRF8)*100;
   END;
   ROW = 58;
RUN;
DATA FIG8SRV(DROP=TOTAL PERCENT NUMSMIL NUMSCIV NUMSVA DENSF8 DENUSF8);
   MERGE NUMSMIL NUMSCIV NUMSVA DENSF8 DENUSF8;
   BY SERVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 8';
   IF (DENSF8<200 OR DENUSF8<30) THEN DO;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL4 = (NUMSMIL / DENSF8)*100;
      COL3 = (NUMSCIV / DENSF8)*100;
      COL2 = (NUMSVA / DENSF8)*100;
   END;
   ROW = 58;
RUN;

/*************************************/
/************** DEBUG ****************/
/*************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG8CON;RUN;
PROC PRINT DATA=FIG8REG;RUN;
PROC PRINT DATA=FIG8SRV;RUN;

/*************************************/
/************** END DEBUG ************/
/*************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 9: Would Like More Information About...
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 9: Would Like More Information About...';

/************************************/
/* WHAT IS COVERED BY TFL           */
/* WHO IS ELIGIBLE FOR TFL          */
/* WHERE TO GET HELP OR INFORMATION */
/* WHETHER TO DROP PRIVATE INSURANCE*/
/************************************/

%FIGCNUM(COV,(S02L03A=1));
%FIGCNUM(ELI,(S02L03H=1));
%FIGCNUM(INF,(S02L03F=1));
%FIGCNUM(PRI,(S02L03E=1));

%FIGCDEN(F9,(S02L01=1));

%FIGNUM(RCOV,(S02L03A=1),XREGION);
%FIGNUM(RELI,(S02L03H=1),XREGION);
%FIGNUM(RINF,(S02L03F=1),XREGION);
%FIGNUM(RPRI,(S02L03E=1),XREGION);
%FIGNUM(SCOV,(S02L03A=1),SERVAFF);
%FIGNUM(SELI,(S02L03H=1),SERVAFF);
%FIGNUM(SINF,(S02L03F=1),SERVAFF);
%FIGNUM(SPRI,(S02L03E=1),SERVAFF);
```

```
%FIGDEN(RF9,(S02L01=1),XREGION);
%FIGDEN(SF9,(S02L01=1),SERVAFF);

DATA FIG9CON(DROP=TOTAL PERCENT NUMCOV NUMELI NUMINF NUMPRI DENF9 DENUF9);
   MERGE NUMCCOV NUMCELI NUMCINF NUMCPRI DENCF9 DENUCF9;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 9';
   IF (DENF9<200 OR DENUF9<30) THEN DO;
      COL5=.;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL5 = (NUMCOV / DENF9)*100;
      COL4 = (NUMELI / DENF9)*100;
      COL3 = (NUMINF / DENF9)*100;
      COL2 = (NUMPRI / DENF9)*100;
   END;
   ROW = 62;
RUN;
DATA FIG9REG(DROP=TOTAL PERCENT NUMRCOV NUMRELI NUMRINF NUMRPRI DENRF9 DENURF9);
   MERGE NUMRCOV NUMRELI NUMRINF NUMRPRI DENRF9 DENURF9;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 9';
   IF (DENRF9<200 OR DENURF9<30) THEN DO;
      COL5=.;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL5 = (NUMRCOV / DENRF9)*100;
      COL4 = (NUMRELI / DENRF9)*100;
      COL3 = (NUMRINF / DENRF9)*100;
      COL2 = (NUMRPRI / DENRF9)*100;
   END;
   ROW = 63;
RUN;
DATA FIG9SRV(DROP=TOTAL PERCENT NUMSCOV NUMSELI NUMSINF NUMSPRI DENSF9 DENUSF9);
   MERGE NUMSCOV NUMSELI NUMSINF NUMSPRI DENSF9 DENUSF9;
   BY SERVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = 'January, 2001 to December, 2001';
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 9';
   IF (DENSF9<200 OR DENUSF9<30) THEN DO;
      COL5=.;
      COL4=.;
      COL3=.;
      COL2=.;
   END;
   ELSE DO;
      COL5 = (NUMSCOV / DENSF9)*100;
      COL4 = (NUMSELI / DENSF9)*100;
      COL3 = (NUMSINF / DENSF9)*100;
      COL2 = (NUMSPRI / DENSF9)*100;
   END;
   ROW = 63;
RUN;

/***************************************/
/************* DEBUG *******************/
/***************************************/

TITLE2 'DEBUG';
```

```
PROC PRINT DATA=FIG9CON;RUN;
PROC PRINT DATA=FIG9REG;RUN;
PROC PRINT DATA=FIG9SRV;RUN;

/*****************************************/
/************** END DEBUG ****************/
/*****************************************/

*******************************************************************************************
*******************************************************************************************
* Combine all temporary datasets into one dataset for inclusion in consumer watch
*******************************************************************************************
*******************************************************************************************;

DATA OUT.FIG5TO9;
   SET FIG5Q1 FIG5Q2 FIG5Q3 FIG5Q4 FIG6CON FIG6REG FIG6SRV FIG7CON FIG7REG FIG7SRV
       FIG8CON FIG8REG FIG8SRV FIG9CON FIG9REG FIG9SRV;
   LENGTH REGION $20;
   IF XREGION=0 THEN REGION='CONUS';
      ELSE IF XREGION=1 THEN REGION='Region 1';
      ELSE IF XREGION=2 THEN REGION='Region 2';
      ELSE IF XREGION=3 THEN REGION='Region 3';
      ELSE IF XREGION=4 THEN REGION='Region 4';
      ELSE IF XREGION=5 THEN REGION='Region 5';
      ELSE IF XREGION=6 THEN REGION='Region 6';
      ELSE IF XREGION=8 THEN REGION='Region 7/8';
      ELSE IF XREGION=9 THEN REGION='Region 9';
      ELSE IF XREGION=10 THEN REGION='Region 10';
      ELSE IF XREGION=11 THEN REGION='Region 11';
      ELSE IF XREGION=12 THEN REGION='Region 12';
      ELSE IF XREGION=13 THEN REGION='Europe';
      ELSE IF XREGION=14 THEN REGION='Asia';
      ELSE IF XREGION=15 THEN REGION='Latin America';
      ELSE IF XREGION=16 THEN REGION='Alaska';
      ELSE IF SERVAFF='A' THEN REGION='Army';
      ELSE IF SERVAFF='N' THEN REGION='Navy';
      ELSE IF SERVAFF='F' THEN REGION='Air Force';
   PROC SORT;
   BY ROW;
RUN;
PROC PRINT;
RUN;
```

2. CALCULATE INTENT TO DISENROLL AND SPECIAL TOPICS FOR Q2 2002

```
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;
*******************************************************************************
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: FIGURES5TO9.SAS
* PURPOSE: To produce numbers that go into data sheet for figures 5-9
*          Includes: Intent to disenroll
*                    4 charts on special topic
* AUTHOR : MIKI SATAKE and NATALIE JUSTH
* DATE   : 5/08/01
* UPDATED: 7/16/01 FOR QUARTER 2
* UPDATED: 10/01/01 FOR QUARTER 3
* UPDATED: 1/15/01 FOR QUARTER 4
* UPDATED: 4/11/02 FOR QUARTER 1 2002
* UPDATED: 7/2/02 FOR QUARTER 2 2002
* INPUT  : (2002-Q2) ....\Q2_2002\DATA\AFINAL\HCS022_2.SD2
*          (2002-Q1) ....\Q1_2002\DATA\AFINAL\HCS021_1.SD2
*          (2000-Q4) ....\Q4_2000\DATA\AFINAL\HCS004_1.SD2
*          (2000-Q3) ....\Q3_2000\DATA\AFINAL\HCS003_1.SD2
* OUTPUT : FIG5TO9.SD2
*******************************************************************************
*******************************************************************************;
LIBNAME CURRNT '....\Q2_2002\DATA\AFINAL';
LIBNAME PRIOR1 '....\Q1_2002\DATA\AFINAL';
LIBNAME PRIOR2 '....\Q4_2000\DATA\AFINAL';
LIBNAME PRIOR3 '....\Q3_2000\DATA\AFINAL';
LIBNAME ALL2001 '....\2000\DATA';
LIBNAME OUT '.';

TITLE '8860-420 DOD CONSUMER WATCH Q2 2002';

LIBNAME LIBRARY '....\Q2_2002\DATA\AFINAL\FMTLIB';
DATA  HCS022_1(KEEP=TOTAL  CONUS  H02057  XBNFGRP  XENRLLMT  WRWT  XREGION  SERVAFF  XINS_COV  S02C18
S02C09 S02C11
              S02C13 S02C10 S02C12 S02C08);
   SET CURRNT.HCS022_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\Q1_2002\DATA\AFINAL\FMTLIB';
DATA HCS021_1(KEEP=TOTAL CONUS H02057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF);
   SET PRIOR1.HCS021_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\Q4_2000\DATA\AFINAL\FMTLIB';
DATA HCS004_1(KEEP=TOTAL CONUS H00057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF);
   SET PRIOR2.HCS004_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\Q3_2000\DATA\AFINAL\FMTLIB';
DATA HCS003_1(KEEP=TOTAL CONUS H00057 XBNFGRP XENRLLMT WRWT XREGION SERVAFF);
   SET PRIOR3.HCS003_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

LIBNAME LIBRARY '....\2000\DATA\FMTLIB';
DATA HCS00A_1(KEEP=TOTAL CONUS WRWT XREGION SERVAFF XINS_COV S00C18 S00C09 S00C11 S00C13 S00C10
S00C12
              S00C08);
   SET ALL2001.HCS00A_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
RUN;

*******************************************************************************
```

```
*******************************************************************************
* FIGURE 5: Plans to Disenroll
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 5: Plans to Disenroll';

%MACRO FIGURE5 (DATASET,QUARTER,BENTYPE,ROW,VAR);

/*****/
/*MHS*/
/*****/

PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSNUM&QUARTER(RENAME=(COUNT=MHSNUM));
   WEIGHT WRWT;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEN&QUARTER(RENAME=(COUNT=MHSDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEU&QUARTER(RENAME=(COUNT=MHSDENU));
RUN;

/********/
/*Region*/
/********/

PROC SORT DATA=&DATASET;BY XREGION;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5N&QUARTER(RENAME=(COUNT=FIG5NUM));
   WEIGHT WRWT;
   BY XREGION;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5D&QUARTER(RENAME=(COUNT=FIG5DEN));
   WEIGHT WRWT;
   BY XREGION;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5DU&QUARTER(RENAME=(COUNT=FIG5DENU));
   BY XREGION;
RUN;

/********************/
/*Service Affiliation*/
/********************/

PROC SORT DATA=&DATASET;BY SERVAFF;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SN&QUARTER(RENAME=(COUNT=FIG5NUMS));
   WEIGHT WRWT;
   BY SERVAFF;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SD&QUARTER(RENAME=(COUNT=FIG5DENS));
   WEIGHT WRWT;
   BY SERVAFF;
```

```
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FG5SDU&QUARTER(RENAME=(COUNT=FG5DENSU));
   BY SERVAFF;
RUN;

DATA MHS5&QUARTER;
   MERGE MHSNUM&QUARTER MHSDEN&QUARTER MHSDEU&QUARTER;
   BY TOTAL;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (MHSDEN<200 OR MHSDENU<30) THEN COL2=.;
      ELSE COL2 = (MHSNUM / MHSDEN)*100;
RUN;
DATA REG5&QUARTER;
   MERGE FIG5N&QUARTER FIG5D&QUARTER FIG5DU&QUARTER;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DEN<200 OR FIG5DENU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUM / FIG5DEN)*100;
RUN;
DATA SRV5&QUARTER;
   MERGE FIG5SN&QUARTER FIG5SD&QUARTER FG5SDU&QUARTER;
   BY SERVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DENS<200 OR FG5DENSU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUMS / FIG5DENS)*100;
RUN;
DATA  FIG5&QUARTER(DROP=TOTAL  PERCENT  MHSNUM  MHSDEN  MHSDENU  FIG5NUM  FIG5DEN  FIG5DENU  FIG5NUMS
FIG5DENS FG5DENSU);
   SET MHS5&QUARTER REG5&QUARTER SRV5&QUARTER;
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 5';
RUN;
PROC PRINT;RUN;
%MEND;

%FIGURE5 (HCS022_1,Q2,'April, 2001 to March, 2002',34,H02057);
%FIGURE5 (HCS021_1,Q1,'January, 2001 to December, 2001',33,H02057);
%FIGURE5 (HCS004_1,Q4,'October, 2000 to September, 2001',32,H00057);
%FIGURE5 (HCS003_1,Q3,'July, 2000 to June, 2001',31,H00057);

*******************************************************************************
*******************************************************************************
* MACROS USED IN FIGURES 6-9
*******************************************************************************
*******************************************************************************;

/**********************/
/*2001 AND 2002 CONUS */
/**********************/

%MACRO FIGCNUM(OUTNUM,NUMER,DATASET);
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &NUMER);
   TABLES TOTAL / OUT=NUMC&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT WRWT;
RUN;
%MEND;

%MACRO FIGCDEN(OUTDEN,DENOM,DATASET);
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENC&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
```

```
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENUC&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/*****************************************/
/*2001 AND 2002 REGION/SERVICE AFFILIATION */
/*****************************************/

%MACRO FIGNUM(OUTNUM,NUMER,BYVAR,DATASET);
PROC SORT DATA=&DATASET;BY &BYVAR;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &NUMER;
   BY &BYVAR;
   TABLES TOTAL / OUT=NUM&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT WRWT;
RUN;
%MEND;

%MACRO FIGDEN(OUTDEN,DENOM,BYVAR,DATASET);
PROC SORT DATA=&DATASET;BY &BYVAR;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DEN&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DENU&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/***********************************/
/* MERGE AND PREPARE DATA FROM FREQS */
/***********************************/

%MACRO
MERGDATC(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMR
GA,
                DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
RUN;
%MEND;

%MACRO
MERGDAT(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMRG
A,
               DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,BYVAR);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB;
```

```
   BY &BYVAR;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
RUN;
%MEND;

*******************************************************************************
*******************************************************************************
* FIGURE 6: Health Plan Ratings
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 6: Health Plan Ratings';

/**************************/
/* BY PRIME/STANDARD EXTRA */
/* AND 2001 VS 2002        */
/**************************/

%FIGCNUM(PR2,(S02C18 IN (8,9,10) AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV IN
(1,2,6)),HCS022_1);
%FIGCNUM(SE2,(S02C18 IN (8,9,10) AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND
XINS_COV=3),HCS022_1);
%FIGCNUM(PR1,(S00C18 IN (8,9,10) AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV IN
(1,2,6)),HCS00A_1);
%FIGCNUM(SE1,(S00C18 IN (8,9,10) AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND
XINS_COV=3),HCS00A_1);

%FIGCDEN(PR2,(S02C18 > 0 AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV IN
(1,2,6)),HCS022_1);
%FIGCDEN(SE2,(S02C18 > 0 AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV=3),HCS022_1);
%FIGCDEN(PR1,(S00C18 > 0 AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV IN
(1,2,6)),HCS00A_1);
%FIGCDEN(SE1,(S00C18 > 0 AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV=3),HCS00A_1);

%FIGNUM(RPR2,(S02C18 IN (8,9,10) AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV IN
(1,2,6)),XREGION,HCS022_1);
%FIGNUM(RSE2,(S02C18 IN (8,9,10) AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND
XINS_COV=3),XREGION,HCS022_1);
%FIGNUM(RPR1,(S00C18 IN (8,9,10) AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV IN
(1,2,6)),XREGION,HCS00A_1);
%FIGNUM(RSE1,(S00C18 IN (8,9,10) AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND
XINS_COV=3),XREGION,HCS00A_1);
%FIGNUM(SPR2,(S02C18 IN (8,9,10) AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV IN
(1,2,6)),SERVAFF,HCS022_1);
%FIGNUM(SSE2,(S02C18 IN (8,9,10) AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND
XINS_COV=3),SERVAFF,HCS022_1);
%FIGNUM(SPR1,(S00C18 IN (8,9,10) AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV IN
(1,2,6)),SERVAFF,HCS00A_1);
%FIGNUM(SSE1,(S00C18 IN (8,9,10) AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND
XINS_COV=3),SERVAFF,HCS00A_1);

%FIGDEN(RPR2,(S02C18 > 0 AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV IN
(1,2,6)),XREGION,HCS022_1);
%FIGDEN(RSE2,(S02C18 > 0 AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND
XINS_COV=3),XREGION,HCS022_1);
%FIGDEN(RPR1,(S00C18 > 0 AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV IN
(1,2,6)),XREGION,HCS00A_1);
%FIGDEN(RSE1,(S00C18 > 0 AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND
XINS_COV=3),XREGION,HCS00A_1);
%FIGDEN(SPR2,(S02C18 > 0 AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND XINS_COV IN
(1,2,6)),SERVAFF,HCS022_1);
%FIGDEN(SSE2,(S02C18 > 0 AND (S02C09=1 OR S02C11=1 OR S02C13=1) AND
XINS_COV=3),SERVAFF,HCS022_1);
%FIGDEN(SPR1,(S00C18 > 0 AND (S00C09=1 OR S00C11=1 OR S00C13=1) AND XINS_COV IN
(1,2,6)),SERVAFF,HCS00A_1);
```

```
%FIGDEN(SSE1,(S00C18    >    0    AND    (S00C09=1    OR    S00C11=1    OR    S00C13=1)    AND
XINS_COV=3),SERVAFF,HCS00A_1);

%MERGDATC(NUMPR2,NUMSE2,DENPR2,DENSE2,DENUPR2,DENUSE2,NUMCPR2,NUMCSE2,DENCPR2,DENCSE2,DENUCPR2,
          DENUCSE2,'April, 2001 to March, 2002','FIGURE 6',46,FIG6CON2,COL5,COL2);
%MERGDATC(NUMPR1,NUMSE1,DENPR1,DENSE1,DENUPR1,DENUSE1,NUMCPR1,NUMCSE1,DENCPR1,DENCSE1,DENUCPR1,
          DENUCSE1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6CON1,COL5,COL2);
%MERGDAT(NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURPR2,DENURSE2,NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURP
R2,
          DENURSE2,'April, 2001 to March, 2002','FIGURE 6',46,FIG6REG2,COL6,COL3,XREGION);
%MERGDAT(NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURPR1,DENURSE1,NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURP
R1,
          DENURSE1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6REG1,COL6,COL3,XREGION);
%MERGDAT(NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSPR2,DENUSSE2,NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSP
R2,
          DENUSSE2,'April, 2001 to March, 2002','FIGURE 6',46,FIG6SRV2,COL6,COL3,SERVAFF);
%MERGDAT(NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSPR1,DENUSSE1,NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSP
R1,
          DENUSSE1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6SRV1,COL6,COL3,SERVAFF);

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG6CON2;RUN;
PROC PRINT DATA=FIG6CON1;RUN;
PROC PRINT DATA=FIG6REG2;RUN;
PROC PRINT DATA=FIG6REG1;RUN;
PROC PRINT DATA=FIG6SRV2;RUN;
PROC PRINT DATA=FIG6SRV1;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 7: No Problems Getting Equipment
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 7: No Problems Getting Equipment';

/**************************/
/* BY PRIME/STANDARD EXTRA */
/* AND 2001 VS 2002        */
/**************************/

%FIGCNUM(PR2,(S02C10=3 AND XINS_COV IN (1,2,6)),HCS022_1);
%FIGCNUM(SE2,(S02C10=3 AND XINS_COV=3),HCS022_1);
%FIGCNUM(PR1,(S00C10=3 AND XINS_COV IN (1,2,6)),HCS00A_1);
%FIGCNUM(SE1,(S00C10=3 AND XINS_COV=3),HCS00A_1);

%FIGCDEN(PR2,(S02C10>0 AND XINS_COV IN (1,2,6)),HCS022_1);
%FIGCDEN(SE2,(S02C10>0 AND XINS_COV=3),HCS022_1);
%FIGCDEN(PR1,(S00C10>0 AND XINS_COV IN (1,2,6)),HCS00A_1);
%FIGCDEN(SE1,(S00C10>0 AND XINS_COV=3),HCS00A_1);

%FIGNUM(RPR2,(S02C10=3 AND XINS_COV IN (1,2,6)),XREGION,HCS022_1);
%FIGNUM(RSE2,(S02C10=3 AND XINS_COV=3),XREGION,HCS022_1);
%FIGNUM(RPR1,(S00C10=3 AND XINS_COV IN (1,2,6)),XREGION,HCS00A_1);
%FIGNUM(RSE1,(S00C10=3 AND XINS_COV=3),XREGION,HCS00A_1);
%FIGNUM(SPR2,(S02C10=3 AND XINS_COV IN (1,2,6)),SERVAFF,HCS022_1);
%FIGNUM(SSE2,(S02C10=3 AND XINS_COV=3),SERVAFF,HCS022_1);
%FIGNUM(SPR1,(S00C10=3 AND XINS_COV IN (1,2,6)),SERVAFF,HCS00A_1);
%FIGNUM(SSE1,(S00C10=3 AND XINS_COV=3),SERVAFF,HCS00A_1);

%FIGDEN(RPR2,(S02C10>0 AND XINS_COV IN (1,2,6)),XREGION,HCS022_1);
%FIGDEN(RSE2,(S02C10>0 AND XINS_COV=3),XREGION,HCS022_1);
%FIGDEN(RPR1,(S00C10>0 AND XINS_COV IN (1,2,6)),XREGION,HCS00A_1);
%FIGDEN(RSE1,(S00C10>0 AND XINS_COV=3),XREGION,HCS00A_1);
%FIGDEN(SPR2,(S02C10>0 AND XINS_COV IN (1,2,6)),SERVAFF,HCS022_1);
```

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%FIGDEN(SSE2,(S02C10>0 AND XINS_COV=3),SERVAFF,HCS022_1);
%FIGDEN(SPR1,(S00C10>0 AND XINS_COV IN (1,2,6)),SERVAFF,HCS00A_1);
%FIGDEN(SSE1,(S00C10>0 AND XINS_COV=3),SERVAFF,HCS00A_1);

%MERGDATC(NUMPR2,NUMSE2,DENPR2,DENSE2,DENUPR2,DENUSE2,NUMCPR2,NUMCSE2,DENCPR2,DENCSE2,DENUCPR2,
          DENUCSE2,'April, 2001 to March, 2002','FIGURE 7',52,FIG7CON2,COL5,COL2);
%MERGDATC(NUMPR1,NUMSE1,DENPR1,DENSE1,DENUPR1,DENUSE1,NUMCPR1,NUMCSE1,DENCPR1,DENCSE1,DENUCPR1,
          DENUCSE1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7CON1,COL5,COL2);
%MERGDAT(NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURPR2,DENURSE2,NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURP
R2,
          DENURSE2,'April, 2001 to March, 2002','FIGURE 7',52,FIG7REG2,COL6,COL3,XREGION);
%MERGDAT(NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURPR1,DENURSE1,NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURP
R1,
          DENURSE1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7REG1,COL6,COL3,XREGION);
%MERGDAT(NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSPR2,DENUSSE2,NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSP
R2,
          DENUSSE2,'April, 2001 to March, 2002','FIGURE 7',52,FIG7SRV2,COL6,COL3,SERVAFF);
%MERGDAT(NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSPR1,DENUSSE1,NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSP
R1,
          DENUSSE1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7SRV1,COL6,COL3,SERVAFF);

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG7CON2;RUN;
PROC PRINT DATA=FIG7CON1;RUN;
PROC PRINT DATA=FIG7REG2;RUN;
PROC PRINT DATA=FIG7REG1;RUN;
PROC PRINT DATA=FIG7SRV2;RUN;
PROC PRINT DATA=FIG7SRV1;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 8: No Problems Getting Therapy
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 8: No Problems Getting Therapy';

/***************************/
/* BY PRIME/STANDARD EXTRA */
/* AND 2001 VS 2002        */
/***************************/

%FIGCNUM(PR2,(S02C12=3 AND XINS_COV IN (1,2,6)),HCS022_1);
%FIGCNUM(SE2,(S02C12=3 AND XINS_COV=3),HCS022_1);
%FIGCNUM(PR1,(S00C12=3 AND XINS_COV IN (1,2,6)),HCS00A_1);
%FIGCNUM(SE1,(S00C12=3 AND XINS_COV=3),HCS00A_1);

%FIGCDEN(PR2,(S02C12>0 AND XINS_COV IN (1,2,6)),HCS022_1);
%FIGCDEN(SE2,(S02C12>0 AND XINS_COV=3),HCS022_1);
%FIGCDEN(PR1,(S00C12>0 AND XINS_COV IN (1,2,6)),HCS00A_1);
%FIGCDEN(SE1,(S00C12>0 AND XINS_COV=3),HCS00A_1);

%FIGNUM(RPR2,(S02C12=3 AND XINS_COV IN (1,2,6)),XREGION,HCS022_1);
%FIGNUM(RSE2,(S02C12=3 AND XINS_COV=3),XREGION,HCS022_1);
%FIGNUM(RPR1,(S00C12=3 AND XINS_COV IN (1,2,6)),XREGION,HCS00A_1);
%FIGNUM(RSE1,(S00C12=3 AND XINS_COV=3),XREGION,HCS00A_1);
%FIGNUM(SPR2,(S02C12=3 AND XINS_COV IN (1,2,6)),SERVAFF,HCS022_1);
%FIGNUM(SSE2,(S02C12=3 AND XINS_COV=3),SERVAFF,HCS022_1);
%FIGNUM(SPR1,(S00C12=3 AND XINS_COV IN (1,2,6)),SERVAFF,HCS00A_1);
%FIGNUM(SSE1,(S00C12=3 AND XINS_COV=3),SERVAFF,HCS00A_1);

%FIGDEN(RPR2,(S02C12>0 AND XINS_COV IN (1,2,6)),XREGION,HCS022_1);
%FIGDEN(RSE2,(S02C12>0 AND XINS_COV=3),XREGION,HCS022_1);
%FIGDEN(RPR1,(S00C12>0 AND XINS_COV IN (1,2,6)),XREGION,HCS00A_1);
%FIGDEN(RSE1,(S00C12>0 AND XINS_COV=3),XREGION,HCS00A_1);
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%FIGDEN(SPR2,(S02C12>0 AND XINS_COV IN (1,2,6)),SERVAFF,HCS022_1);
%FIGDEN(SSE2,(S02C12>0 AND XINS_COV=3),SERVAFF,HCS022_1);
%FIGDEN(SPR1,(S00C12>0 AND XINS_COV IN (1,2,6)),SERVAFF,HCS00A_1);
%FIGDEN(SSE1,(S00C12>0 AND XINS_COV=3),SERVAFF,HCS00A_1);

%MERGDATC(NUMPR2,NUMSE2,DENPR2,DENSE2,DENUPR2,DENUSE2,NUMCPR2,NUMCSE2,DENCPR2,DENCSE2,DENUCPR2,
          DENUCSE2,'April, 2001 to March, 2002','FIGURE 8',57,FIG8CON2,COL5,COL2);
%MERGDATC(NUMPR1,NUMSE1,DENPR1,DENSE1,DENUPR1,DENUSE1,NUMCPR1,NUMCSE1,DENCPR1,DENCSE1,DENUCPR1,
          DENUCSE1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8CON1,COL5,COL2);
%MERGDAT(NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURPR2,DENURSE2,NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURP
R2,
          DENURSE2,'April, 2001 to March, 2002','FIGURE 8',57,FIG8REG2,COL6,COL3,XREGION);
%MERGDAT(NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURPR1,DENURSE1,NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURP
R1,
          DENURSE1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8REG1,COL6,COL3,XREGION);
%MERGDAT(NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSPR2,DENUSSE2,NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSP
R2,
          DENUSSE2,'April, 2001 to March, 2002','FIGURE 8',57,FIG8SRV2,COL6,COL3,SERVAFF);
%MERGDAT(NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSPR1,DENUSSE1,NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSP
R1,
          DENUSSE1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8SRV1,COL6,COL3,SERVAFF);

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG8CON2;RUN;
PROC PRINT DATA=FIG8CON1;RUN;
PROC PRINT DATA=FIG8REG2;RUN;
PROC PRINT DATA=FIG8REG1;RUN;
PROC PRINT DATA=FIG8SRV2;RUN;
PROC PRINT DATA=FIG8SRV1;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 9: No Problems Getting Doctors to Agree
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 9: No Problems-Getting Doctors to Agree';

/**************************/
/* BY PRIME/STANDARD EXTRA */
/* AND 2001 VS 2002        */
/**************************/

%FIGCNUM(PR2,(S02C08=3 AND XINS_COV IN (1,2,6)),HCS022_1);
%FIGCNUM(SE2,(S02C08=3 AND XINS_COV=3),HCS022_1);
%FIGCNUM(PR1,(S00C08=3 AND XINS_COV IN (1,2,6)),HCS00A_1);
%FIGCNUM(SE1,(S00C08=3 AND XINS_COV=3),HCS00A_1);

%FIGCDEN(PR2,(S02C08>0 AND XINS_COV IN (1,2,6)),HCS022_1);
%FIGCDEN(SE2,(S02C08>0 AND XINS_COV=3),HCS022_1);
%FIGCDEN(PR1,(S00C08>0 AND XINS_COV IN (1,2,6)),HCS00A_1);
%FIGCDEN(SE1,(S00C08>0 AND XINS_COV=3),HCS00A_1);

%FIGNUM(RPR2,(S02C08=3 AND XINS_COV IN (1,2,6)),XREGION,HCS022_1);
%FIGNUM(RSE2,(S02C08=3 AND XINS_COV=3),XREGION,HCS022_1);
%FIGNUM(RPR1,(S00C08=3 AND XINS_COV IN (1,2,6)),XREGION,HCS00A_1);
%FIGNUM(RSE1,(S00C08=3 AND XINS_COV=3),XREGION,HCS00A_1);
%FIGNUM(SPR2,(S02C08=3 AND XINS_COV IN (1,2,6)),SERVAFF,HCS022_1);
%FIGNUM(SSE2,(S02C08=3 AND XINS_COV=3),SERVAFF,HCS022_1);
%FIGNUM(SPR1,(S00C08=3 AND XINS_COV IN (1,2,6)),SERVAFF,HCS00A_1);
%FIGNUM(SSE1,(S00C08=3 AND XINS_COV=3),SERVAFF,HCS00A_1);

%FIGDEN(RPR2,(S02C08>0 AND XINS_COV IN (1,2,6)),XREGION,HCS022_1);
%FIGDEN(RSE2,(S02C08>0 AND XINS_COV=3),XREGION,HCS022_1);
%FIGDEN(RPR1,(S00C08>0 AND XINS_COV IN (1,2,6)),XREGION,HCS00A_1);
```

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%FIGDEN(RSE1,(S00C08>0 AND XINS_COV=3),XREGION,HCS00A_1);
%FIGDEN(SPR2,(S02C08>0 AND XINS_COV IN (1,2,6)),SERVAFF,HCS022_1);
%FIGDEN(SSE2,(S02C08>0 AND XINS_COV=3),SERVAFF,HCS022_1);
%FIGDEN(SPR1,(S00C08>0 AND XINS_COV IN (1,2,6)),SERVAFF,HCS00A_1);
%FIGDEN(SSE1,(S00C08>0 AND XINS_COV=3),SERVAFF,HCS00A_1);

%MERGDATC(NUMPR2,NUMSE2,DENPR2,DENSE2,DENUPR2,DENUSE2,NUMCPR2,NUMCSE2,DENCPR2,DENCSE2,DENUCPR2,
          DENUCSE2,'April, 2001 to March, 2002','FIGURE 9',62,FIG9CON2,COL5,COL2);
%MERGDATC(NUMPR1,NUMSE1,DENPR1,DENSE1,DENUPR1,DENUSE1,NUMCPR1,NUMCSE1,DENCPR1,DENCSE1,DENUCPR1,
          DENUCSE1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9CON1,COL5,COL2);
%MERGDAT(NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURPR2,DENURSE2,NUMRPR2,NUMRSE2,DENRPR2,DENRSE2,DENURP
R2,
          DENURSE2,'April, 2001 to March, 2002','FIGURE 9',62,FIG9REG2,COL6,COL3,XREGION);
%MERGDAT(NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURPR1,DENURSE1,NUMRPR1,NUMRSE1,DENRPR1,DENRSE1,DENURP
R1,
          DENURSE1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9REG1,COL6,COL3,XREGION);
%MERGDAT(NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSPR2,DENUSSE2,NUMSPR2,NUMSSE2,DENSPR2,DENSSE2,DENUSP
R2,
          DENUSSE2,'April, 2001 to March, 2002','FIGURE 9',62,FIG9SRV2,COL6,COL3,SERVAFF);
%MERGDAT(NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSPR1,DENUSSE1,NUMSPR1,NUMSSE1,DENSPR1,DENSSE1,DENUSP
R1,
          DENUSSE1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9SRV1,COL6,COL3,SERVAFF);

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG9CON2;RUN;
PROC PRINT DATA=FIG9CON1;RUN;
PROC PRINT DATA=FIG9REG2;RUN;
PROC PRINT DATA=FIG9REG1;RUN;
PROC PRINT DATA=FIG9SRV2;RUN;
PROC PRINT DATA=FIG9SRV1;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************************
*******************************************************************************************
* Combine all temporary datasets into one dataset for inclusion in consumer watch
*******************************************************************************************
*******************************************************************************************;

DATA OUT.FIG5TO9;
   SET FIG5Q1 FIG5Q2 FIG5Q3 FIG5Q4 FIG6CON2 FIG6CON1 FIG6REG2 FIG6REG1 FIG6SRV2 FIG6SRV1 FIG7CON2
FIG7CON1
       FIG7REG2 FIG7REG1 FIG7SRV2 FIG7SRV1 FIG8CON2 FIG8CON1 FIG8REG2 FIG8REG1 FIG8SRV2 FIG8SRV1
       FIG9CON2 FIG9CON1 FIG9REG2 FIG9REG1 FIG9SRV2 FIG9SRV1;
   LENGTH REGION $20;
   IF XREGION=0 THEN REGION='CONUS';
      ELSE IF XREGION=1 THEN REGION='Region 1';
      ELSE IF XREGION=2 THEN REGION='Region 2';
      ELSE IF XREGION=3 THEN REGION='Region 3';
      ELSE IF XREGION=4 THEN REGION='Region 4';
      ELSE IF XREGION=5 THEN REGION='Region 5';
      ELSE IF XREGION=6 THEN REGION='Region 6';
      ELSE IF XREGION=8 THEN REGION='Region 7/8';
      ELSE IF XREGION=9 THEN REGION='Region 9';
      ELSE IF XREGION=10 THEN REGION='Region 10';
      ELSE IF XREGION=11 THEN REGION='Region 11';
      ELSE IF XREGION=12 THEN REGION='Region 12';
      ELSE IF XREGION=13 THEN REGION='Europe';
      ELSE IF XREGION=14 THEN REGION='Asia';
      ELSE IF XREGION=15 THEN REGION='Latin America';
      ELSE IF XREGION=16 THEN REGION='Alaska';
      ELSE IF SERVAFF='A' THEN REGION='Army';
      ELSE IF SERVAFF='N' THEN REGION='Navy';
      ELSE IF SERVAFF='F' THEN REGION='Air Force';
   PROC SORT;
   BY ROW;
RUN;
```

```
PROC PRINT;
RUN;
```

3. CALCULATE INTENT TO DISENROLL AND SPECIAL TOPICS FOR Q3 2002

```
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;
*******************************************************************************
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: FIGURES5TO9.SAS
* PURPOSE: To produce numbers that go into data sheet for figures 5-9
*          Includes: Intent to disenroll
*                    4 charts on special topic
* AUTHOR : MIKI SATAKE and NATALIE JUSTH
* DATE   : 5/08/01
* UPDATED: 7/16/01 FOR QUARTER 2
* UPDATED: 10/01/01 FOR QUARTER 3
* UPDATED: 1/15/01 FOR QUARTER 4
* UPDATED: 4/11/02 FOR QUARTER 1 2002
* UPDATED: 7/2/02 FOR QUARTER 2 2002
* UPDATED: 10/11/02 FOR QUARTER 3 2002
* INPUT  : (2002-Q3) ..\..\..\Q3_2002\DATA\AFINAL\HCS023_1.SD2
*          (2002-Q2) ..\..\..\Q2_2002\DATA\AFINAL\HCS022_1.SD2
*          (2002-Q1) ..\..\..\Q1_2002\DATA\AFINAL\HCS021_1.SD2
*          (2000-Q4) ..\..\..\Q4_2000\DATA\AFINAL\HCS004_1.SD2
* OUTPUT : FIG5TO9.SD2
*******************************************************************************
*******************************************************************************;
LIBNAME CURRNT '..\..\..\Q3_2002\DATA\AFINAL';
LIBNAME PRIOR1 '..\..\..\Q2_2002\DATA\AFINAL';
LIBNAME PRIOR2 '..\..\..\Q1_2002\DATA\AFINAL';
LIBNAME PRIOR3 '..\..\..\Q4_2000\DATA\AFINAL';
LIBNAME ALL2001 '..\..\..\2000\DATA';
LIBNAME OUT '.';

TITLE '8860-420 DOD CONSUMER WATCH Q3 2002';

PROC FORMAT;
   VALUE XSRVAFF
      1="Army"
      2="Air Force"
      3="Navy";
RUN;

LIBNAME LIBRARY '..\..\..\Q3_2002\DATA\AFINAL\FMTLIB';
DATA HCS023_1(KEEP=TOTAL CONUS H02057 XBNFGRP XENRLLMT WRWT XREGION XSRVAFF XINS_COV STRATUMN
              DEPVAR6A  DENOM6A  DEPVAR6N  DENOM6N  DEPVAR7A  DENOM7A  DEPVAR7N  DENOM7N  DEPVAR8A
DENOM8A
              DEPVAR8N DENOM8N DEPVAR9A DENOM9A DEPVAR9N DENOM9N DEPVAR5 DENOM5);
   SET CURRNT.HCS023_1;
   TOTAL=1;
   IF XREGION>7 THEN XREGION=XREGION-1;
   IF SERVAFF='A' THEN XSRVAFF=1;
      ELSE IF SERVAFF='F' THEN XSRVAFF=2;
      ELSE IF SERVAFF='N' THEN XSRVAFF=3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN=STRATUM+0;
   IF (S02M01=1 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR6A=1;
      ELSE DEPVAR6A=0;
   IF (S02M01=1 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR6N=1;
      ELSE DEPVAR6N=0;
   IF (S02M01>0 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM6A=1;
      ELSE DENOM6A=0;
   IF (S02M01>0 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM6N=1;
      ELSE DENOM6N=0;
   IF (S02M02=1 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR7A=1;
      ELSE DEPVAR7A=0;
   IF (S02M02=1 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR7N=1;
      ELSE DEPVAR7N=0;
   IF (S02M01=1 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM7A=1;
      ELSE DENOM7A=0;
   IF (S02M01=1 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM7N=1;
      ELSE DENOM7N=0;
   IF (S02M03>7 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR8A=1;
      ELSE DEPVAR8A=0;
   IF (S02M03>7 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR8N=1;
```

```
      ELSE DEPVAR8N=0;
   IF (S02M03>=0 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM8A=1;
      ELSE DENOM8A=0;
   IF (S02M03>=0 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM8N=1;
      ELSE DENOM8N=0;
   IF (S02M01=1 AND H02056>7 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR9A=1;
      ELSE DEPVAR9A=0;
   IF (S02M01=1 AND H02056>7 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR9N=1;
      ELSE DEPVAR9N=0;
   IF (S02M01=1 AND H02056>=0 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM9A=1;
      ELSE DENOM9A=0;
   IF (S02M01=1 AND H02056>=0 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM9N=1;
      ELSE DENOM9N=0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DEPVAR5=1;
      ELSE DEPVAR5=0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DENOM5=1;
      ELSE DENOM5=0;
RUN;


LIBNAME LIBRARY '..\..\..\Q2_2002\DATA\AFINAL\FMTLIB';
DATA  HCS022_1(KEEP=TOTAL  CONUS  H02057  XBNFGRP  XENRLLMT  WRWT  XREGION  XSRVAFF  DEPVAR5  DENOM5
STRATUMN);
   SET PRIOR1.HCS022_1;
   TOTAL=1;
   IF XREGION>7 THEN XREGION=XREGION-1;
   IF SERVAFF='A' THEN XSRVAFF=1;
      ELSE IF SERVAFF='F' THEN XSRVAFF=2;
      ELSE IF SERVAFF='N' THEN XSRVAFF=3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN=STRATUM+0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DEPVAR5=1;
      ELSE DEPVAR5=0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DENOM5=1;
      ELSE DENOM5=0;
RUN;

LIBNAME LIBRARY '..\..\..\Q1_2002\DATA\AFINAL\FMTLIB';
DATA  HCS021_1(KEEP=TOTAL  CONUS  H02057  XBNFGRP  XENRLLMT  WRWT  XREGION  XSRVAFF  DEPVAR5  DENOM5
STRATUMN);
   SET PRIOR2.HCS021_1;
   TOTAL=1;
   IF XREGION>7 THEN XREGION=XREGION-1;
   IF SERVAFF='A' THEN XSRVAFF=1;
      ELSE IF SERVAFF='F' THEN XSRVAFF=2;
      ELSE IF SERVAFF='N' THEN XSRVAFF=3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN=STRATUM+0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DEPVAR5=1;
      ELSE DEPVAR5=0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DENOM5=1;
      ELSE DENOM5=0;
RUN;

LIBNAME LIBRARY '..\..\..\Q4_2000\DATA\AFINAL\FMTLIB';
DATA  HCS004_1(KEEP=TOTAL  CONUS  H00057  XBNFGRP  XENRLLMT  WRWT  XREGION  XSRVAFF  DEPVAR5  DENOM5
STRATUMN);
   SET PRIOR3.HCS004_1;
   TOTAL=1;
   IF XREGION>7 THEN XREGION=XREGION-1;
   IF SERVAFF='A' THEN XSRVAFF=1;
      ELSE IF SERVAFF='F' THEN XSRVAFF=2;
      ELSE IF SERVAFF='N' THEN XSRVAFF=3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN=STRATUM+0;
   IF (H00057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DEPVAR5=1;
      ELSE DEPVAR5=0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT=2) THEN DENOM5=1;
      ELSE DENOM5=0;
RUN;

LIBNAME LIBRARY '..\..\..\2000\DATA\FMTLIB';
DATA HCS00A_1(KEEP=TOTAL CONUS WRWT XREGION XSRVAFF XINS_COV STRATUMN DEPVAR6A DENOM6A DEPVAR6N
```

```
            DENOM6N DEPVAR7A DENOM7A DEPVAR7N DENOM7N DEPVAR8A DENOM8A DEPVAR8N DENOM8N
            DEPVAR9A DENOM9A DEPVAR9N DENOM9N);
   SET ALL2001.HCS00A_1;
   TOTAL=1;
   IF XREGION>7 THEN XREGION=XREGION-1;
   IF SERVAFF='A' THEN XSRVAFF=1;
      ELSE IF SERVAFF='F' THEN XSRVAFF=2;
      ELSE IF SERVAFF='N' THEN XSRVAFF=3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN=STRATUM+0;
   IF (S00M01=1 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR6A=1;
      ELSE DEPVAR6A=0;
   IF (S00M01=1 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR6N=1;
      ELSE DEPVAR6N=0;
   IF (S00M01>0 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM6A=1;
      ELSE DENOM6A=0;
   IF (S00M01>0 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM6N=1;
      ELSE DENOM6N=0;
   IF (S00M02=1 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR7A=1;
      ELSE DEPVAR7A=0;
   IF (S00M02=1 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR7N=1;
      ELSE DEPVAR7N=0;
   IF (S00M01=1 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM7A=1;
      ELSE DENOM7A=0;
   IF (S00M01=1 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM7N=1;
      ELSE DENOM7N=0;
   IF (S00M03>7 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR8A=1;
      ELSE DEPVAR8A=0;
   IF (S00M03>7 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR8N=1;
      ELSE DEPVAR8N=0;
   IF (S00M03>=0 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM8A=1;
      ELSE DENOM8A=0;
   IF (S00M03>=0 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM8N=1;
      ELSE DENOM8N=0;
   IF (S00M01=1 AND H00056>7 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR9A=1;
      ELSE DEPVAR9A=0;
   IF (S00M01=1 AND H00056>7 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DEPVAR9N=1;
      ELSE DEPVAR9N=0;
   IF (S00M01=1 AND H00056>=0 AND XENRLLMT=1 AND XINS_COV IN (1,2,3,6)) THEN DENOM9A=1;
      ELSE DENOM9A=0;
   IF (S00M01=1 AND H00056>=0 AND XENRLLMT=2 AND XINS_COV IN (1,2,3,6)) THEN DENOM9N=1;
      ELSE DENOM9N=0;
RUN;

*******************************************************************************
*******************************************************************************
* FIGURE 5: Plans to Disenroll
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 5: Plans to Disenroll';

%MACRO FIGURE5 (DATASET,QUARTER,BENTYPE,ROW,VAR);

/***********************************/
/* RUN SIGNIFICANCE TESTS          */
/***********************************/

%MACRO RUNSE5 (DS,DEPVAR,INDEPVAR,NUMCOL,SUBPOP,QTR,BYVAR);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT WRWT;                  ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                  ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   TABLES &INDEPVAR;
   SUBGROUP &INDEPVAR;
   LEVELS &NUMCOL;
   PRINT /STYLE=NCHS;
```

```
   OUTPUT / TABLECELL=DEFAULT FILENAME=&QTR&BYVAR;
RUN;

PROC PRINT DATA=&QTR&BYVAR;
RUN;
%MEND RUNSE5;

%RUNSE5 (HCS023_1,DEPVAR5,XREGION,15,(DENOM5=1),Q3,REG);
%RUNSE5 (HCS023_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q3,SRV);
%RUNSE5 (HCS022_1,DEPVAR5,XREGION,15,(DENOM5=1),Q2,REG);
%RUNSE5 (HCS022_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q2,SRV);
%RUNSE5 (HCS021_1,DEPVAR5,XREGION,15,(DENOM5=1),Q1,REG);
%RUNSE5 (HCS021_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q1,SRV);
%RUNSE5 (HCS004_1,DEPVAR5,XREGION,15,(DENOM5=1),Q4,REG);
%RUNSE5 (HCS004_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q4,SRV);

%MACRO RUNSEC5 (DS,DEPVAR,SUBPOP,QTR);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT WRWT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&QTR;
RUN;

PROC PRINT DATA=&QTR;
RUN;
%MEND RUNSEC5;

%RUNSEC5 (HCS023_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q3);
%RUNSEC5 (HCS022_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q2);
%RUNSEC5 (HCS021_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q1);
%RUNSEC5 (HCS004_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q4);

%MACRO SIGFLAG5(NUMCOL,QTR,BYVAR,INDEPVAR);
DATA N&QTR&BYVAR (KEEP=COL4 &INDEPVAR);
   MERGE &QTR(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &QTR&BYVAR;
   BY TABLENO;
   RETAIN NCOL 0;
   ARRAY COLUMNS COL1-COL&NUMCOL;
   IF &INDEPVAR > 0;
   NCOL+1;
   IF &INDEPVAR IN (1,2,3,4,5,6,8,9,10,11,12,16) THEN
      VARDIF = ((1 - 2*NSUM/DOM_N)*DOM_SE**2 + SEMEAN**2);
   IF &INDEPVAR IN (13,14,15) THEN VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COLUMNS(NCOL) = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COLUMNS(NCOL) = -1;
   ELSE COLUMNS(NCOL) = 0;
   DO I=1 TO &NUMCOL;
      IF COLUMNS(I) NE . THEN COL4=COLUMNS(I);
   END;
RUN;

PROC PRINT DATA=N&QTR&BYVAR;
RUN;
%MEND SIGFLAG5;

%SIGFLAG5(15,Q3,REG,XREGION);
%SIGFLAG5(15,Q2,REG,XREGION);
%SIGFLAG5(15,Q1,REG,XREGION);
%SIGFLAG5(15,Q4,REG,XREGION);
```

```
%SIGFLAG5(3,Q3,SRV,XSRVAFF);
%SIGFLAG5(3,Q2,SRV,XSRVAFF);
%SIGFLAG5(3,Q1,SRV,XSRVAFF);
%SIGFLAG5(3,Q4,SRV,XSRVAFF);

/*****/
/*MHS*/
/*****/

PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSNUM&QUARTER(RENAME=(COUNT=MHSNUM));
   WEIGHT WRWT;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEN&QUARTER(RENAME=(COUNT=MHSDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEU&QUARTER(RENAME=(COUNT=MHSDENU));
RUN;

/********/
/*Region*/
/********/

PROC SORT DATA=&DATASET;BY XREGION;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5N&QUARTER(RENAME=(COUNT=FIG5NUM));
   WEIGHT WRWT;
   BY XREGION;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5D&QUARTER(RENAME=(COUNT=FIG5DEN));
   WEIGHT WRWT;
   BY XREGION;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5DU&QUARTER(RENAME=(COUNT=FIG5DENU));
   BY XREGION;
RUN;

/********************/
/*Service Affiliation*/
/********************/

PROC SORT DATA=&DATASET;BY XSRVAFF;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SN&QUARTER(RENAME=(COUNT=FIG5NUMS));
   WEIGHT WRWT;
   BY XSRVAFF;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SD&QUARTER(RENAME=(COUNT=FIG5DENS));
   WEIGHT WRWT;
   BY XSRVAFF;
RUN;
/************/
/*UNWEIGHTED*/
/************/
```

```
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FG5SDU&QUARTER(RENAME=(COUNT=FG5DENSU));
   BY XSRVAFF;
RUN;

DATA MHS5&QUARTER;
   MERGE MHSNUM&QUARTER MHSDEN&QUARTER MHSDEU&QUARTER;
   BY TOTAL;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (MHSDEN<200 OR MHSDENU<30) THEN COL2=.;
      ELSE COL2 = (MHSNUM / MHSDEN)*100;
RUN;
DATA REG5&QUARTER;
   MERGE FIG5N&QUARTER FIG5D&QUARTER FIG5DU&QUARTER N&QUARTER.REG;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DEN<200 OR FIG5DENU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUM / FIG5DEN)*100;
RUN;
DATA SRV5&QUARTER;
   MERGE FIG5SN&QUARTER FIG5SD&QUARTER FG5SDU&QUARTER N&QUARTER.SRV;
   BY XSRVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DENS<200 OR FG5DENSU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUMS / FIG5DENS)*100;
RUN;
DATA  FIG5&QUARTER(DROP=TOTAL  PERCENT  MHSNUM  MHSDEN  MHSDENU  FIG5NUM  FIG5DEN  FIG5DENU  FIG5NUMS
FIG5DENS FG5DENSU);
   SET MHS5&QUARTER REG5&QUARTER SRV5&QUARTER;
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 5';
RUN;
PROC PRINT;RUN;
%MEND FIGURE5;

%FIGURE5 (HCS023_1,Q3,'July, 2001 to June, 2002',34,H02057);
%FIGURE5 (HCS022_1,Q2,'April, 2001 to March, 2002',33,H02057);
%FIGURE5 (HCS021_1,Q1,'January, 2001 to December, 2001',32,H02057);
%FIGURE5 (HCS004_1,Q4,'October, 2000 to September, 2001',31,H00057);

*******************************************************************************
*******************************************************************************
* MACROS USED IN FIGURES 6-9
*******************************************************************************
*******************************************************************************;

/*********************/
/*2001 AND 2002 CONUS */
/*********************/

%MACRO FIGCNUM(OUTNUM,NUMER,DATASET);
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &NUMER);
   TABLES TOTAL / OUT=NUMC&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT WRWT;
RUN;
%MEND;

%MACRO FIGCDEN(OUTDEN,DENOM,DATASET);
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENC&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
```

```
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENUC&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/*****************************************/
/*2001 AND 2002 REGION/SERVICE AFFILIATION */
/*****************************************/

%MACRO FIGNUM(OUTNUM,NUMER,BYVAR,DATASET);
PROC SORT DATA=&DATASET;BY &BYVAR;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &NUMER;
   BY &BYVAR;
   TABLES TOTAL / OUT=NUM&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT WRWT;
RUN;
%MEND;

%MACRO FIGDEN(OUTDEN,DENOM,BYVAR,DATASET);
PROC SORT DATA=&DATASET;BY &BYVAR;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DEN&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DENU&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/***********************************/
/* MERGE AND PREPARE DATA FROM FREQS */
/***********************************/

%MACRO
MERGDATC(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMR
GA,
               DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,SIG1,SIG2);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB COLAD
COLNA);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB &SIG1 &SIG2;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
   COL8=COLAD;
   COL10=COLNA;
RUN;
%MEND;

%MACRO
MERGDAT(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMRG
A,
              DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,BYVAR);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB;
   BY &BYVAR;
```

```
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
RUN;
%MEND;

%MACRO
MERGDATN(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMR
GA,
              DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,SIG1,SIG2,BYVAR);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB COLAD
COLNA);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB &SIG1 &SIG2;
   BY &BYVAR;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
   COL7=COLAD;
   COL9=COLNA;
RUN;
%MEND;

/************************************/
/* RUN SIGNIFICANCE TESTS           */
/************************************/

%MACRO RUNSE (DS,DEPVAR,INDEPVAR,NUMCOL,SUBPOP,INS,YR,BYVAR);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT WRWT;                  ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                  ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   TABLES &INDEPVAR;
   SUBGROUP &INDEPVAR;
   LEVELS &NUMCOL;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&INS&YR&BYVAR;
RUN;

PROC PRINT DATA=&INS&YR&BYVAR;
RUN;
%MEND RUNSE;

%MACRO SIGFLAG(NUMCOL,INS,YR1,YR2,BYVAR,INDEPVAR);
DATA &INS&BYVAR(KEEP=COL&INS &INDEPVAR);
   MERGE &INS&YR1&BYVAR(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &INS&YR2&BYVAR;
   BY &INDEPVAR;
   RETAIN NCOL 0;
   ARRAY COLUMNS COL1-COL&NUMCOL;
   IF &INDEPVAR > 0;
   NCOL+1;
   VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
```

```
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COLUMNS(NCOL) = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COLUMNS(NCOL) = -1;
   ELSE COLUMNS(NCOL) = 0;
   DO I=1 TO &NUMCOL;
      IF COLUMNS(I) NE . THEN COL&INS=COLUMNS(I);
   END;
RUN;

PROC PRINT DATA=&INS&BYVAR;
RUN;
%MEND SIGFLAG;

%MACRO RUNSEC (DS,DEPVAR,SUBPOP,INS,YR);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT WRWT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&INS&YR;
RUN;

PROC PRINT DATA=&INS&YR;
RUN;
%MEND RUNSEC;

%MACRO SIGFLAGC(INS,YR1,YR2);
DATA &INS(KEEP=COL&INS TOTAL);
   MERGE &INS&YR1(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &INS&YR2;
   VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COL&INS = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COL&INS = -1;
   ELSE COL&INS = 0;
   TOTAL=1;
RUN;

PROC PRINT DATA=&INS;
RUN;
%MEND SIGFLAGC;

*******************************************************************************
*******************************************************************************
* FIGURE 6: Need for Behavioral Health Treatment
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 6: Behavioral Health Treatment';

/*********************************/
/* BY ACTIVE DUTY/NON-ACTIVE DUTY */
/* AND 2001 VS 2002               */
/*********************************/

%FIGCNUM(AD2,(DEPVAR6A=1),HCS023_1);
%FIGCNUM(NA2,(DEPVAR6N=1),HCS023_1);
%FIGCNUM(AD1,(DEPVAR6A=1),HCS00A_1);
%FIGCNUM(NA1,(DEPVAR6N=1),HCS00A_1);

%FIGCDEN(AD2,(DENOM6A=1),HCS023_1);
%FIGCDEN(NA2,(DENOM6N=1),HCS023_1);
```

```
%FIGCDEN(AD1,(DENOM6A=1),HCS00A_1);
%FIGCDEN(NA1,(DENOM6N=1),HCS00A_1);

%FIGNUM(RAD2,(DEPVAR6A=1),XREGION,HCS023_1);
%FIGNUM(RNA2,(DEPVAR6N=1),XREGION,HCS023_1);
%FIGNUM(RAD1,(DEPVAR6A=1),XREGION,HCS00A_1);
%FIGNUM(RNA1,(DEPVAR6N=1),XREGION,HCS00A_1);
%FIGNUM(SAD2,(DEPVAR6A=1),XSRVAFF,HCS023_1);
%FIGNUM(SNA2,(DEPVAR6N=1),XSRVAFF,HCS023_1);
%FIGNUM(SAD1,(DEPVAR6A=1),XSRVAFF,HCS00A_1);
%FIGNUM(SNA1,(DEPVAR6N=1),XSRVAFF,HCS00A_1);

%FIGDEN(RAD2,(DENOM6A=1),XREGION,HCS023_1);
%FIGDEN(RNA2,(DENOM6N=1),XREGION,HCS023_1);
%FIGDEN(RAD1,(DENOM6A=1),XREGION,HCS00A_1);
%FIGDEN(RNA1,(DENOM6N=1),XREGION,HCS00A_1);
%FIGDEN(SAD2,(DENOM6A=1),XSRVAFF,HCS023_1);
%FIGDEN(SNA2,(DENOM6N=1),XSRVAFF,HCS023_1);
%FIGDEN(SAD1,(DENOM6A=1),XSRVAFF,HCS00A_1);
%FIGDEN(SNA1,(DENOM6N=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS023_1,DEPVAR6A,XREGION,15,(DENOM6A=1),AD,02,REG);
%RUNSE (HCS00A_1,DEPVAR6A,XREGION,15,(DENOM6A=1),AD,00,REG);
%RUNSE (HCS023_1,DEPVAR6N,XREGION,15,(DENOM6N=1),NA,02,REG);
%RUNSE (HCS00A_1,DEPVAR6N,XREGION,15,(DENOM6N=1),NA,00,REG);
%RUNSE (HCS023_1,DEPVAR6A,XSRVAFF,3,(DENOM6A=1),AD,02,SRV);
%RUNSE (HCS00A_1,DEPVAR6A,XSRVAFF,3,(DENOM6A=1),AD,00,SRV);
%RUNSE (HCS023_1,DEPVAR6N,XSRVAFF,3,(DENOM6N=1),NA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR6N,XSRVAFF,3,(DENOM6N=1),NA,00,SRV);
%RUNSEC (HCS023_1,DEPVAR6A,(DENOM6A=1 AND CONUS=1),AD,02);
%RUNSEC (HCS00A_1,DEPVAR6A,(DENOM6A=1 AND CONUS=1),AD,00);
%RUNSEC (HCS023_1,DEPVAR6N,(DENOM6N=1 AND CONUS=1),NA,02);
%RUNSEC (HCS00A_1,DEPVAR6N,(DENOM6N=1 AND CONUS=1),NA,00);

%SIGFLAG(15,AD,00,02,REG,XREGION);
%SIGFLAG(15,NA,00,02,REG,XREGION);
%SIGFLAG(3,AD,00,02,SRV,XSRVAFF);
%SIGFLAG(3,NA,00,02,SRV,XSRVAFF);
%SIGFLAGC(AD,00,02);
%SIGFLAGC(NA,00,02);

%MERGDATC(NUMAD2,NUMNA2,DENAD2,DENNA2,DENUAD2,DENUNA2,NUMCAD2,NUMCNA2,DENCAD2,DENCNA2,DENUCAD2,
          DENUCNA2,'July, 2001 to June, 2002','FIGURE 6',46,FIG6CON2,COL5,COL2,AD,NA);
%MERGDATC(NUMAD1,NUMNA1,DENAD1,DENNA1,DENUAD1,DENUNA1,NUMCAD1,NUMCNA1,DENCAD1,DENCNA1,DENUCAD1,
          DENUCNA1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6CON1,COL5,COL2);
%MERGDATN(NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENURAD2,DENURNA2,NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENUR
AD2,
          DENURNA2,'July,            2001            to            June,            2002','FIGURE
6',46,FIG6REG2,COL6,COL3,ADREG,NAREG,XREGION);
%MERGDAT(NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURAD1,DENURNA1,NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURA
D1,
          DENURNA1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUSAD2,DENUSNA2,NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUS
AD2,
          DENUSNA2,'July,            2001            to            June,            2002','FIGURE
6',46,FIG6SRV2,COL6,COL3,ADSRV,NASRV,XSRVAFF);
%MERGDAT(NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSAD1,DENUSNA1,NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSA
D1,
          DENUSNA1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6SRV1,COL6,COL3,XSRVAFF);

/*************************************/
/************* DEBUG *****************/
/*************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG6CON2;RUN;
PROC PRINT DATA=FIG6CON1;RUN;
PROC PRINT DATA=FIG6REG2;RUN;
PROC PRINT DATA=FIG6REG1;RUN;
PROC PRINT DATA=FIG6SRV2;RUN;
PROC PRINT DATA=FIG6SRV1;RUN;

/*************************************/
```

```
/************** END DEBUG ****************/
/*****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 7: Problems Getting Behavioral Health Treatment
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 7: Problems Getting Behavioral Health Treatment';

/*********************************/
/* BY ACTIVE DUTY/NON-ACTIVE DUTY */
/* AND 2001 VS 2002               */
/*********************************/

%FIGCNUM(AD2,(DEPVAR7A=1),HCS023_1);
%FIGCNUM(NA2,(DEPVAR7N=1),HCS023_1);
%FIGCNUM(AD1,(DEPVAR7A=1),HCS00A_1);
%FIGCNUM(NA1,(DEPVAR7N=1),HCS00A_1);

%FIGCDEN(AD2,(DENOM7A=1),HCS023_1);
%FIGCDEN(NA2,(DENOM7N=1),HCS023_1);
%FIGCDEN(AD1,(DENOM7A=1),HCS00A_1);
%FIGCDEN(NA1,(DENOM7N=1),HCS00A_1);

%FIGNUM(RAD2,(DEPVAR7A=1),XREGION,HCS023_1);
%FIGNUM(RNA2,(DEPVAR7N=1),XREGION,HCS023_1);
%FIGNUM(RAD1,(DEPVAR7A=1),XREGION,HCS00A_1);
%FIGNUM(RNA1,(DEPVAR7N=1),XREGION,HCS00A_1);
%FIGNUM(SAD2,(DEPVAR7A=1),XSRVAFF,HCS023_1);
%FIGNUM(SNA2,(DEPVAR7N=1),XSRVAFF,HCS023_1);
%FIGNUM(SAD1,(DEPVAR7A=1),XSRVAFF,HCS00A_1);
%FIGNUM(SNA1,(DEPVAR7N=1),XSRVAFF,HCS00A_1);

%FIGDEN(RAD2,(DENOM7A=1),XREGION,HCS023_1);
%FIGDEN(RNA2,(DENOM7N=1),XREGION,HCS023_1);
%FIGDEN(RAD1,(DENOM7A=1),XREGION,HCS00A_1);
%FIGDEN(RNA1,(DENOM7N=1),XREGION,HCS00A_1);
%FIGDEN(SAD2,(DENOM7A=1),XSRVAFF,HCS023_1);
%FIGDEN(SNA2,(DENOM7N=1),XSRVAFF,HCS023_1);
%FIGDEN(SAD1,(DENOM7A=1),XSRVAFF,HCS00A_1);
%FIGDEN(SNA1,(DENOM7N=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS023_1,DEPVAR7A,XREGION,15,(DENOM7A=1),AD,02,REG);
%RUNSE (HCS00A_1,DEPVAR7A,XREGION,15,(DENOM7A=1),AD,00,REG);
%RUNSE (HCS023_1,DEPVAR7N,XREGION,15,(DENOM7N=1),NA,02,REG);
%RUNSE (HCS00A_1,DEPVAR7N,XREGION,15,(DENOM7N=1),NA,00,REG);
%RUNSE (HCS023_1,DEPVAR7A,XSRVAFF,3,(DENOM7A=1),AD,02,SRV);
%RUNSE (HCS00A_1,DEPVAR7A,XSRVAFF,3,(DENOM7A=1),AD,00,SRV);
%RUNSE (HCS023_1,DEPVAR7N,XSRVAFF,3,(DENOM7N=1),NA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR7N,XSRVAFF,3,(DENOM7N=1),NA,00,SRV);
%RUNSEC (HCS023_1,DEPVAR7A,(DENOM7A=1 AND CONUS=1),AD,02);
%RUNSEC (HCS00A_1,DEPVAR7A,(DENOM7A=1 AND CONUS=1),AD,00);
%RUNSEC (HCS023_1,DEPVAR7N,(DENOM7N=1 AND CONUS=1),NA,02);
%RUNSEC (HCS00A_1,DEPVAR7N,(DENOM7N=1 AND CONUS=1),NA,00);

%SIGFLAG(15,AD,00,02,REG,XREGION);
%SIGFLAG(15,NA,00,02,REG,XREGION);
%SIGFLAG(3,AD,00,02,SRV,XSRVAFF);
%SIGFLAG(3,NA,00,02,SRV,XSRVAFF);
%SIGFLAGC(AD,00,02);
%SIGFLAGC(NA,00,02);

%MERGDATC(NUMAD2,NUMNA2,DENAD2,DENNA2,DENUAD2,DENUNA2,NUMCAD2,NUMCNA2,DENCAD2,DENCNA2,DENUCAD2,
          DENUCNA2,'July, 2001 to June, 2002','FIGURE 7',52,FIG7CON2,COL5,COL2,AD,NA);
%MERGDATC(NUMAD1,NUMNA1,DENAD1,DENNA1,DENUAD1,DENUNA1,NUMCAD1,NUMCNA1,DENCAD1,DENCNA1,DENUCAD1,
          DENUCNA1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7CON1,COL5,COL2);
%MERGDATN(NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENURAD2,DENURNA2,NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENUR
AD2,
          DENURNA2,'July,            2001            to            June,            2002','FIGURE
7',52,FIG7REG2,COL6,COL3,ADREG,NAREG,XREGION);
```

```
%MERGDAT(NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURAD1,DENURNA1,NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURA
D1,
          DENURNA1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUSAD2,DENUSNA2,NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUS
AD2,
          DENUSNA2,'July,            2001            to            June,            2002','FIGURE
7',52,FIG7SRV2,COL6,COL3,ADSRV,NASRV,XSRVAFF);
%MERGDAT(NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSAD1,DENUSNA1,NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSA
D1,
          DENUSNA1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7SRV1,COL6,COL3,XSRVAFF);

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG7CON2;RUN;
PROC PRINT DATA=FIG7CON1;RUN;
PROC PRINT DATA=FIG7REG2;RUN;
PROC PRINT DATA=FIG7REG1;RUN;
PROC PRINT DATA=FIG7SRV2;RUN;
PROC PRINT DATA=FIG7SRV1;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 8: Rating of Behavioral Health Treatment
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 8: Rating of Behavioral Health Treatment';

/*********************************/
/* BY ACTIVE DUTY/NON-ACTIVE DUTY */
/* AND 2001 VS 2002               */
/*********************************/

%FIGCNUM(AD2,(DEPVAR8A=1),HCS023_1);
%FIGCNUM(NA2,(DEPVAR8N=1),HCS023_1);
%FIGCNUM(AD1,(DEPVAR8A=1),HCS00A_1);
%FIGCNUM(NA1,(DEPVAR8N=1),HCS00A_1);

%FIGCDEN(AD2,(DENOM8A=1),HCS023_1);
%FIGCDEN(NA2,(DENOM8N=1),HCS023_1);
%FIGCDEN(AD1,(DENOM8A=1),HCS00A_1);
%FIGCDEN(NA1,(DENOM8N=1),HCS00A_1);

%FIGNUM(RAD2,(DEPVAR8A=1),XREGION,HCS023_1);
%FIGNUM(RNA2,(DEPVAR8N=1),XREGION,HCS023_1);
%FIGNUM(RAD1,(DEPVAR8A=1),XREGION,HCS00A_1);
%FIGNUM(RNA1,(DEPVAR8N=1),XREGION,HCS00A_1);
%FIGNUM(SAD2,(DEPVAR8A=1),XSRVAFF,HCS023_1);
%FIGNUM(SNA2,(DEPVAR8N=1),XSRVAFF,HCS023_1);
%FIGNUM(SAD1,(DEPVAR8A=1),XSRVAFF,HCS00A_1);
%FIGNUM(SNA1,(DEPVAR8N=1),XSRVAFF,HCS00A_1);

%FIGDEN(RAD2,(DENOM8A=1),XREGION,HCS023_1);
%FIGDEN(RNA2,(DENOM8N=1),XREGION,HCS023_1);
%FIGDEN(RAD1,(DENOM8A=1),XREGION,HCS00A_1);
%FIGDEN(RNA1,(DENOM8N=1),XREGION,HCS00A_1);
%FIGDEN(SAD2,(DENOM8A=1),XSRVAFF,HCS023_1);
%FIGDEN(SNA2,(DENOM8N=1),XSRVAFF,HCS023_1);
%FIGDEN(SAD1,(DENOM8A=1),XSRVAFF,HCS00A_1);
%FIGDEN(SNA1,(DENOM8N=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS023_1,DEPVAR8A,XREGION,15,(DENOM8A=1),AD,02,REG);
%RUNSE (HCS00A_1,DEPVAR8A,XREGION,15,(DENOM8A=1),AD,00,REG);
%RUNSE (HCS023_1,DEPVAR8N,XREGION,15,(DENOM8N=1),NA,02,REG);
%RUNSE (HCS00A_1,DEPVAR8N,XREGION,15,(DENOM8N=1),NA,00,REG);
%RUNSE (HCS023_1,DEPVAR8A,XSRVAFF,3,(DENOM8A=1),AD,02,SRV);
```

```
%RUNSE (HCS00A_1,DEPVAR8A,XSRVAFF,3,(DENOM8A=1),AD,00,SRV);
%RUNSE (HCS023_1,DEPVAR8N,XSRVAFF,3,(DENOM8N=1),NA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR8N,XSRVAFF,3,(DENOM8N=1),NA,00,SRV);
%RUNSEC (HCS023_1,DEPVAR8A,(DENOM8A=1 AND CONUS=1),AD,02);
%RUNSEC (HCS00A_1,DEPVAR8A,(DENOM8A=1 AND CONUS=1),AD,00);
%RUNSEC (HCS023_1,DEPVAR8N,(DENOM8N=1 AND CONUS=1),NA,02);
%RUNSEC (HCS00A_1,DEPVAR8N,(DENOM8N=1 AND CONUS=1),NA,00);

%SIGFLAG(15,AD,00,02,REG,XREGION);
%SIGFLAG(15,NA,00,02,REG,XREGION);
%SIGFLAG(3,AD,00,02,SRV,XSRVAFF);
%SIGFLAG(3,NA,00,02,SRV,XSRVAFF);
%SIGFLAGC(AD,00,02);
%SIGFLAGC(NA,00,02);

%MERGDATC(NUMAD2,NUMNA2,DENAD2,DENNA2,DENUAD2,DENUNA2,NUMCAD2,NUMCNA2,DENCAD2,DENCNA2,DENUCAD2,
          DENUCNA2,'July, 2001 to June, 2002','FIGURE 8',57,FIG8CON2,COL5,COL2,AD,NA);
%MERGDATC(NUMAD1,NUMNA1,DENAD1,DENNA1,DENUAD1,DENUNA1,NUMCAD1,NUMCNA1,DENCAD1,DENCNA1,DENUCAD1,
          DENUCNA1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8CON1,COL5,COL2);
%MERGDATN(NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENURAD2,DENURNA2,NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENUR
AD2,
          DENURNA2,'July,            2001            to            June,            2002','FIGURE
8',57,FIG8REG2,COL6,COL3,ADREG,NAREG,XREGION);
%MERGDAT(NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURAD1,DENURNA1,NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURA
D1,
          DENURNA1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUSAD2,DENUSNA2,NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUS
AD2,
          DENUSNA2,'July,            2001            to            June,            2002','FIGURE
8',57,FIG8SRV2,COL6,COL3,ADSRV,NASRV,XSRVAFF);
%MERGDAT(NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSAD1,DENUSNA1,NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSA
D1,
          DENUSNA1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8SRV1,COL6,COL3,XSRVAFF);

/***************************************/
/************** DEBUG ******************/
/***************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG8CON2;RUN;
PROC PRINT DATA=FIG8CON1;RUN;
PROC PRINT DATA=FIG8REG2;RUN;
PROC PRINT DATA=FIG8REG1;RUN;
PROC PRINT DATA=FIG8SRV2;RUN;
PROC PRINT DATA=FIG8SRV1;RUN;

/***************************************/
/************** END DEBUG **************/
/***************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 9: Plan Ratings by Beneficiaries who need Behavioral Health Treatment
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 9: Plan Ratings/Behavioral Health';

/*********************************/
/* BY ACTIVE DUTY/NON-ACTIVE DUTY */
/* AND 2001 VS 2002              */
/*********************************/

%FIGCNUM(AD2,(DEPVAR9A=1),HCS023_1);
%FIGCNUM(NA2,(DEPVAR9N=1),HCS023_1);
%FIGCNUM(AD1,(DEPVAR9A=1),HCS00A_1);
%FIGCNUM(NA1,(DEPVAR9N=1),HCS00A_1);

%FIGCDEN(AD2,(DENOM9A=1),HCS023_1);
%FIGCDEN(NA2,(DENOM9N=1),HCS023_1);
%FIGCDEN(AD1,(DENOM9A=1),HCS00A_1);
%FIGCDEN(NA1,(DENOM9N=1),HCS00A_1);
```

```
%FIGNUM(RAD2,(DEPVAR9A=1),XREGION,HCS023_1);
%FIGNUM(RNA2,(DEPVAR9N=1),XREGION,HCS023_1);
%FIGNUM(RAD1,(DEPVAR9A=1),XREGION,HCS00A_1);
%FIGNUM(RNA1,(DEPVAR9N=1),XREGION,HCS00A_1);
%FIGNUM(SAD2,(DEPVAR9A=1),XSRVAFF,HCS023_1);
%FIGNUM(SNA2,(DEPVAR9N=1),XSRVAFF,HCS023_1);
%FIGNUM(SAD1,(DEPVAR9A=1),XSRVAFF,HCS00A_1);
%FIGNUM(SNA1,(DEPVAR9N=1),XSRVAFF,HCS00A_1);

%FIGDEN(RAD2,(DENOM9A=1),XREGION,HCS023_1);
%FIGDEN(RNA2,(DENOM9N=1),XREGION,HCS023_1);
%FIGDEN(RAD1,(DENOM9A=1),XREGION,HCS00A_1);
%FIGDEN(RNA1,(DENOM9N=1),XREGION,HCS00A_1);
%FIGDEN(SAD2,(DENOM9A=1),XSRVAFF,HCS023_1);
%FIGDEN(SNA2,(DENOM9N=1),XSRVAFF,HCS023_1);
%FIGDEN(SAD1,(DENOM9A=1),XSRVAFF,HCS00A_1);
%FIGDEN(SNA1,(DENOM9N=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS023_1,DEPVAR9A,XREGION,15,(DENOM9A=1),AD,02,REG);
%RUNSE (HCS00A_1,DEPVAR9A,XREGION,15,(DENOM9A=1),AD,00,REG);
%RUNSE (HCS023_1,DEPVAR9N,XREGION,15,(DENOM9N=1),NA,02,REG);
%RUNSE (HCS00A_1,DEPVAR9N,XREGION,15,(DENOM9N=1),NA,00,REG);
%RUNSE (HCS023_1,DEPVAR9A,XSRVAFF,3,(DENOM9A=1),AD,02,SRV);
%RUNSE (HCS00A_1,DEPVAR9A,XSRVAFF,3,(DENOM9A=1),AD,00,SRV);
%RUNSE (HCS023_1,DEPVAR9N,XSRVAFF,3,(DENOM9N=1),NA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR9N,XSRVAFF,3,(DENOM9N=1),NA,00,SRV);
%RUNSEC (HCS023_1,DEPVAR9A,(DENOM9A=1 AND CONUS=1),AD,02);
%RUNSEC (HCS00A_1,DEPVAR9A,(DENOM9A=1 AND CONUS=1),AD,00);
%RUNSEC (HCS023_1,DEPVAR9N,(DENOM9N=1 AND CONUS=1),NA,02);
%RUNSEC (HCS00A_1,DEPVAR9N,(DENOM9N=1 AND CONUS=1),NA,00);

%SIGFLAG(15,AD,00,02,REG,XREGION);
%SIGFLAG(15,NA,00,02,REG,XREGION);
%SIGFLAG(3,AD,00,02,SRV,XSRVAFF);
%SIGFLAG(3,NA,00,02,SRV,XSRVAFF);
%SIGFLAGC(AD,00,02);
%SIGFLAGC(NA,00,02);

%MERGDATC(NUMAD2,NUMNA2,DENAD2,DENNA2,DENUAD2,DENUNA2,NUMCAD2,NUMCNA2,DENCAD2,DENCNA2,DENUCAD2,
          DENUCNA2,'July, 2001 to June, 2002','FIGURE 9',62,FIG9CON2,COL5,COL2,AD,NA);
%MERGDATC(NUMAD1,NUMNA1,DENAD1,DENNA1,DENUAD1,DENUNA1,NUMCAD1,NUMCNA1,DENCAD1,DENCNA1,DENUCAD1,
          DENUCNA1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9CON1,COL5,COL2);
%MERGDATN(NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENURAD2,DENURNA2,NUMRAD2,NUMRNA2,DENRAD2,DENRNA2,DENUR
AD2,
          DENURNA2,'July,            2001            to            June,            2002','FIGURE
9',62,FIG9REG2,COL6,COL3,ADREG,NAREG,XREGION);
%MERGDAT(NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURAD1,DENURNA1,NUMRAD1,NUMRNA1,DENRAD1,DENRNA1,DENURA
D1,
          DENURNA1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUSAD2,DENUSNA2,NUMSAD2,NUMSNA2,DENSAD2,DENSNA2,DENUS
AD2,
          DENUSNA2,'July,            2001            to            June,            2002','FIGURE
9',62,FIG9SRV2,COL6,COL3,ADSRV,NASRV,XSRVAFF);
%MERGDAT(NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSAD1,DENUSNA1,NUMSAD1,NUMSNA1,DENSAD1,DENSNA1,DENUSA
D1,
          DENUSNA1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9SRV1,COL6,COL3,XSRVAFF);

/*****************************************/
/************** DEBUG ********************/
/*****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG9CON2;RUN;
PROC PRINT DATA=FIG9CON1;RUN;
PROC PRINT DATA=FIG9REG2;RUN;
PROC PRINT DATA=FIG9REG1;RUN;
PROC PRINT DATA=FIG9SRV2;RUN;
PROC PRINT DATA=FIG9SRV1;RUN;

/*****************************************/
/************** END DEBUG ****************/
/*****************************************/
```

```
*********************************************************************************************
*********************************************************************************************
* Combine all temporary datasets into one dataset for inclusion in consumer watch
*********************************************************************************************
*********************************************************************************************;

DATA OUT.FIG5TO9;
   SET FIG5Q1 FIG5Q2 FIG5Q3 FIG5Q4 FIG6CON2 FIG6CON1 FIG6REG2 FIG6REG1 FIG6SRV2 FIG6SRV1 FIG7CON2
FIG7CON1
       FIG7REG2 FIG7REG1 FIG7SRV2 FIG7SRV1 FIG8CON2 FIG8CON1 FIG8REG2 FIG8REG1 FIG8SRV2 FIG8SRV1
       FIG9CON2 FIG9CON1 FIG9REG2 FIG9REG1 FIG9SRV2 FIG9SRV1;
   LENGTH REGION $20;
   IF XREGION=0 THEN REGION='CONUS';
      ELSE IF XREGION=1 THEN REGION='Region 1';
      ELSE IF XREGION=2 THEN REGION='Region 2';
      ELSE IF XREGION=3 THEN REGION='Region 3';
      ELSE IF XREGION=4 THEN REGION='Region 4';
      ELSE IF XREGION=5 THEN REGION='Region 5';
      ELSE IF XREGION=6 THEN REGION='Region 6';
      ELSE IF XREGION=7 THEN REGION='Region 7/8';
      ELSE IF XREGION=8 THEN REGION='Region 9';
      ELSE IF XREGION=9 THEN REGION='Region 10';
      ELSE IF XREGION=10 THEN REGION='Region 11';
      ELSE IF XREGION=11 THEN REGION='Region 12';
      ELSE IF XREGION=12 THEN REGION='Europe';
      ELSE IF XREGION=13 THEN REGION='Asia';
      ELSE IF XREGION=14 THEN REGION='Latin America';
      ELSE IF XREGION=15 THEN REGION='Alaska';
      ELSE IF XSRVAFF=1 THEN REGION='Army';
      ELSE IF XSRVAFF=3 THEN REGION='Navy';
      ELSE IF XSRVAFF=2 THEN REGION='Air Force';
   PROC SORT;
   BY ROW;
RUN;
PROC PRINT;
RUN;
```

4. CALCULATE INTENT TO DISENROLL AND SPECIAL TOPICS FOR Q4 2002

```
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;
*******************************************************************************
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: FIGURES5TO9.SAS
* PURPOSE: To produce numbers that go into data sheet for figures 5-9
*          Includes: Intent to disenroll
*                    4 charts on special topic
* AUTHOR : MIKI SATAKE and NATALIE JUSTH
* DATE   : 5/08/01
* UPDATED: 7/16/01 FOR QUARTER 2
* UPDATED: 10/01/01 FOR QUARTER 3
* UPDATED: 1/15/01 FOR QUARTER 4
* UPDATED: 4/11/02 FOR QUARTER 1 2002
* UPDATED: 7/2/02 FOR QUARTER 2 2002
* UPDATED: 10/11/02 FOR QUARTER 3 2002
* UPDATED: 11/12/02 FOR QUARTER 4 2002
* INPUT  : (2002-Q4) ..\..\..\Q4_2002\DATA\AFINAL\HCS024_1.SD2
*          (2002-Q3) ..\..\..\Q3_2002t\DATA\AFINAL\HCS023_1.SD2
*          (2002-Q2) ..\..\..\Q2_2002t\DATA\AFINAL\HCS022_1.SD2
*          (2002-Q1) ..\..\..\Q1_2002t\DATA\AFINAL\HCS021_1.SD2
* OUTPUT : FIG5TO9.SD2
*******************************************************************************
*******************************************************************************;
LIBNAME CURRNT  V612 '..\..\..\Q4_2002\DATA\AFINAL';
LIBNAME PRIOR1  V612 '..\..\..\Q3_2002t\DATA\AFINAL';
LIBNAME PRIOR2  V612 '..\..\..\Q2_2002t\DATA\AFINAL';
LIBNAME PRIOR3  V612 '..\..\..\Q1_2002t\DATA\AFINAL';
LIBNAME ALL2001 V612 '..\..\..\2000\DATA';
LIBNAME ALL2002 V612 '..\..\..\2002\DATA';
LIBNAME OUT V612 '.';

TITLE '8860-420 DOD CONSUMER WATCH Q4 2002';

PROC FORMAT;
   VALUE XSRVAFF
      1 = "Army"
      2 = "Air Force"
      3 = "Navy";
RUN;

LIBNAME LIBRARY '..\..\..\2002\DATA\FMTLIB';
DATA HCS02A_1(KEEP=TOTAL CONUS H02057 XBNFGRP XENRLLMT CWRWT XREGION XSRVAFF XINS_COV STRATUMN
              DEPVAR6S DENOM6S DEPVAR6P DENOM6P DEPVAR7S DENOM7S DEPVAR7P DENOM7P
              DEPVAR8S DENOM8S DEPVAR8P DENOM8P DEPVAR9S DENOM9S DEPVAR9P DENOM9P);
   SET ALL2002.HCS02A_1;
   TOTAL = 1;
   IF XREGION > 7 THEN XREGION = XREGION - 1;
   IF SERVAFF = 'A' THEN XSRVAFF = 1;
      ELSE IF SERVAFF = 'F' THEN XSRVAFF = 2;
      ELSE IF SERVAFF = 'N' THEN XSRVAFF = 3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN = STRATUM + 0;
   IF (H02016 = 3 AND XINS_COV = 3) THEN DEPVAR6S = 1;
      ELSE DEPVAR6S = 0;
   IF (H02016 IN (1,2,3) AND XINS_COV = 3) THEN DENOM6S = 1;
      ELSE DENOM6S = 0;
   IF (H02016 = 3 AND XINS_COV IN (1,2,6)) THEN DEPVAR6P = 1;
      ELSE DEPVAR6P = 0;
   IF (H02016 IN (1,2,3) AND XINS_COV IN (1,2,6)) THEN DENOM6P = 1;
      ELSE DENOM6P = 0;
   IF (H02009 = 3 AND XINS_COV = 3) THEN DEPVAR7S = 1;
      ELSE DEPVAR7S = 0;
   IF (H02009 IN (1,2,3) AND XINS_COV = 3) THEN DENOM7S = 1;
      ELSE DENOM7S = 0;
   IF (H02009 = 3 AND XINS_COV IN (1,2,6)) THEN DEPVAR7P = 1;
      ELSE DEPVAR7P = 0;
   IF (H02009 IN (1,2,3) AND XINS_COV IN (1,2,6)) THEN DENOM7P = 1;
      ELSE DENOM7P = 0;
   IF (H02030 = 3 AND XINS_COV = 3) THEN DEPVAR8S = 1;
      ELSE DEPVAR8S = 0;
```

```
   IF (H02030 IN (1,2,3) AND XINS_COV = 3) THEN DENOM8S = 1;
      ELSE DENOM8S = 0;
   IF (H02030 = 3 AND XINS_COV IN (1,2,6)) THEN DEPVAR8P = 1;
      ELSE DEPVAR8P = 0;
   IF (H02030 IN (1,2,3) AND XINS_COV IN (1,2,6)) THEN DENOM8P = 1;
      ELSE DENOM8P = 0;
   IF (H02023 IN (3,4) AND XINS_COV = 3) THEN DEPVAR9S = 1;
      ELSE DEPVAR9S = 0;
   IF (H02023 IN (1,2,3,4) AND XINS_COV = 3) THEN DENOM9S = 1;
      ELSE DENOM9S = 0;
   IF (H02023 IN (3,4) AND XINS_COV IN (1,2,6)) THEN DEPVAR9P = 1;
      ELSE DEPVAR9P = 0;
   IF (H02023 IN (1,2,3,4) AND XINS_COV IN (1,2,6)) THEN DENOM9P = 1;
      ELSE DENOM9P = 0;
RUN;

LIBNAME LIBRARY '..\..\..\Q4_2002\DATA\AFINAL\FMTLIB';
DATA HCS024_1(KEEP=TOTAL CONUS H02057 XBNFGRP XENRLLMT WRWT XREGION XSRVAFF XINS_COV STRATUMN
              DEPVAR5 DENOM5);
   SET CURRNT.HCS024_1;
   TOTAL = 1;
   IF XREGION > 7 THEN XREGION = XREGION - 1;
   IF SERVAFF = 'A' THEN XSRVAFF = 1;
      ELSE IF SERVAFF = 'F' THEN XSRVAFF = 2;
      ELSE IF SERVAFF = 'N' THEN XSRVAFF = 3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN = STRATUM + 0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
RUN;

LIBNAME LIBRARY '..\..\..\Q3_2002t\DATA\AFINAL\FMTLIB';
DATA  HCS023_1(KEEP=TOTAL  CONUS  H02057  XBNFGRP  XENRLLMT  WRWT  XREGION  XSRVAFF  DEPVAR5  DENOM5
STRATUMN);
   SET PRIOR1.HCS023_1;
   TOTAL = 1;
   IF XREGION > 7 THEN XREGION = XREGION - 1;
   IF SERVAFF = 'A' THEN XSRVAFF = 1;
      ELSE IF SERVAFF = 'F' THEN XSRVAFF = 2;
      ELSE IF SERVAFF = 'N' THEN XSRVAFF = 3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN = STRATUM + 0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
RUN;


LIBNAME LIBRARY '..\..\..\Q2_2002t\DATA\AFINAL\FMTLIB';
DATA  HCS022_1(KEEP=TOTAL  CONUS  H02057  XBNFGRP  XENRLLMT  WRWT  XREGION  XSRVAFF  DEPVAR5  DENOM5
STRATUMN);
   SET PRIOR2.HCS022_1;
   TOTAL = 1;
   IF XREGION > 7 THEN XREGION = XREGION - 1;
   IF SERVAFF = 'A' THEN XSRVAFF = 1;
      ELSE IF SERVAFF = 'F' THEN XSRVAFF = 2;
      ELSE IF SERVAFF = 'N' THEN XSRVAFF = 3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN = STRATUM + 0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
RUN;

LIBNAME LIBRARY '..\..\..\Q1_2002t\DATA\AFINAL\FMTLIB';
DATA  HCS021_1(KEEP=TOTAL  CONUS  H02057  XBNFGRP  XENRLLMT  WRWT  XREGION  XSRVAFF  DEPVAR5  DENOM5
STRATUMN);
   SET PRIOR3.HCS021_1;
   TOTAL = 1;
```

```
   IF XREGION > 7 THEN XREGION = XREGION - 1;
   IF SERVAFF = 'A' THEN XSRVAFF = 1;
      ELSE IF SERVAFF = 'F' THEN XSRVAFF = 2;
      ELSE IF SERVAFF = 'N' THEN XSRVAFF = 3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN = STRATUM + 0;
   IF (H02057 IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
RUN;

LIBNAME LIBRARY '..\..\..\2000\DATA\FMTLIB';
DATA HCS00A_1(KEEP=TOTAL CONUS CWRWT XREGION XSRVAFF XINS_COV STRATUMN
              DEPVAR6S DENOM6S DEPVAR6P DENOM6P DEPVAR7S DENOM7S DEPVAR7P DENOM7P
              DEPVAR8S DENOM8S DEPVAR8P DENOM8P DEPVAR9S DENOM9S DEPVAR9P DENOM9P);
   SET ALL2001.HCS00A_1;
   TOTAL = 1;
   IF XREGION > 7 THEN XREGION = XREGION - 1;
   IF SERVAFF = 'A' THEN XSRVAFF = 1;
      ELSE IF SERVAFF = 'F' THEN XSRVAFF = 2;
      ELSE IF SERVAFF = 'N' THEN XSRVAFF = 3;
   FORMAT XSRVAFF XSRVAFF.;
   STRATUMN = STRATUM + 0;
   IF (H00014 = 3 AND XINS_COV = 3) THEN DEPVAR6S = 1;
      ELSE DEPVAR6S = 0;
   IF (H00014 IN (1,2,3) AND XINS_COV = 3) THEN DENOM6S = 1;
      ELSE DENOM6S = 0;
   IF (H00014 = 3 AND XINS_COV IN (1,2,6)) THEN DEPVAR6P = 1;
      ELSE DEPVAR6P = 0;
   IF (H00014 IN (1,2,3) AND XINS_COV IN (1,2,6)) THEN DENOM6P = 1;
      ELSE DENOM6P = 0;
   IF (H00007 = 3 AND XINS_COV = 3) THEN DEPVAR7S = 1;
      ELSE DEPVAR7S = 0;
   IF (H00007 IN (1,2,3) AND XINS_COV = 3) THEN DENOM7S = 1;
      ELSE DENOM7S = 0;
   IF (H00007 = 3 AND XINS_COV IN (1,2,6)) THEN DEPVAR7P = 1;
      ELSE DEPVAR7P = 0;
   IF (H00007 IN (1,2,3) AND XINS_COV IN (1,2,6)) THEN DENOM7P = 1;
      ELSE DENOM7P = 0;
   IF (H00028 = 3 AND XINS_COV = 3) THEN DEPVAR8S = 1;
      ELSE DEPVAR8S = 0;
   IF (H00028 IN (1,2,3) AND XINS_COV = 3) THEN DENOM8S = 1;
      ELSE DENOM8S = 0;
   IF (H00028 = 3 AND XINS_COV IN (1,2,6)) THEN DEPVAR8P = 1;
      ELSE DEPVAR8P = 0;
   IF (H00028 IN (1,2,3) AND XINS_COV IN (1,2,6)) THEN DENOM8P = 1;
      ELSE DENOM8P = 0;
   IF (H00021 IN (3,4) AND XINS_COV = 3) THEN DEPVAR9S = 1;
      ELSE DEPVAR9S = 0;
   IF (H00021 IN (1,2,3,4) AND XINS_COV = 3) THEN DENOM9S = 1;
      ELSE DENOM9S = 0;
   IF (H00021 IN (3,4) AND XINS_COV IN (1,2,6)) THEN DEPVAR9P = 1;
      ELSE DEPVAR9P = 0;
   IF (H00021 IN (1,2,3,4) AND XINS_COV IN (1,2,6)) THEN DENOM9P = 1;
      ELSE DENOM9P = 0;
RUN;

*******************************************************************************
*******************************************************************************
* FIGURE 5: Plans to Disenroll
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 5: Plans to Disenroll';

%MACRO FIGURE5 (DATASET,QUARTER,BENTYPE,ROW,VAR);

/***********************************/
/* RUN SIGNIFICANCE TESTS          */
/***********************************/

%MACRO RUNSE5 (DS,DEPVAR,INDEPVAR,NUMCOL,SUBPOP,QTR,BYVAR);
```

```
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT WRWT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   TABLES &INDEPVAR;
   SUBGROUP &INDEPVAR;
   LEVELS &NUMCOL;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&QTR&BYVAR;
RUN;

PROC PRINT DATA=&QTR&BYVAR;
RUN;
%MEND RUNSE5;

%RUNSE5 (HCS024_1,DEPVAR5,XREGION,15,(DENOM5=1),Q4,REG);
%RUNSE5 (HCS024_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q4,SRV);
%RUNSE5 (HCS023_1,DEPVAR5,XREGION,15,(DENOM5=1),Q3,REG);
%RUNSE5 (HCS023_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q3,SRV);
%RUNSE5 (HCS022_1,DEPVAR5,XREGION,15,(DENOM5=1),Q2,REG);
%RUNSE5 (HCS022_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q2,SRV);
%RUNSE5 (HCS021_1,DEPVAR5,XREGION,15,(DENOM5=1),Q1,REG);
%RUNSE5 (HCS021_1,DEPVAR5,XSRVAFF,3,(DENOM5=1),Q1,SRV);

%MACRO RUNSEC5 (DS,DEPVAR,SUBPOP,QTR);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT WRWT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&QTR;
RUN;

PROC PRINT DATA=&QTR;
RUN;
%MEND RUNSEC5;

%RUNSEC5 (HCS024_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q4);
%RUNSEC5 (HCS023_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q3);
%RUNSEC5 (HCS022_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q2);
%RUNSEC5 (HCS021_1,DEPVAR5,(DENOM5=1 AND CONUS=1),Q1);

%MACRO SIGFLAG5(NUMCOL,QTR,BYVAR,INDEPVAR);
DATA N&QTR&BYVAR (KEEP=COL4 &INDEPVAR);
   MERGE &QTR(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &QTR&BYVAR;
   BY TABLENO;
   RETAIN NCOL 0;
   ARRAY COLUMNS COL1-COL&NUMCOL;
   IF &INDEPVAR > 0;
   NCOL+1;
   IF &INDEPVAR IN (1,2,3,4,5,6,8,9,10,11,12,16) THEN
      VARDIF = ((1 - 2*NSUM/DOM_N)*DOM_SE**2 + SEMEAN**2);
   IF &INDEPVAR IN (13,14,15) THEN VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COLUMNS(NCOL) = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COLUMNS(NCOL) = -1;
```

```
   ELSE COLUMNS(NCOL) = 0;
   DO I=1 TO &NUMCOL;
      IF COLUMNS(I) NE . THEN COL4=COLUMNS(I);
   END;
RUN;

PROC PRINT DATA=N&QTR&BYVAR;
RUN;
%MEND SIGFLAG5;

%SIGFLAG5(15,Q4,REG,XREGION);
%SIGFLAG5(15,Q3,REG,XREGION);
%SIGFLAG5(15,Q2,REG,XREGION);
%SIGFLAG5(15,Q1,REG,XREGION);
%SIGFLAG5(3,Q4,SRV,XSRVAFF);
%SIGFLAG5(3,Q3,SRV,XSRVAFF);
%SIGFLAG5(3,Q2,SRV,XSRVAFF);
%SIGFLAG5(3,Q1,SRV,XSRVAFF);

/*****/
/*MHS*/
/*****/

PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSNUM&QUARTER(RENAME=(COUNT=MHSNUM));
   WEIGHT WRWT;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEN&QUARTER(RENAME=(COUNT=MHSDEN));
   WEIGHT WRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEU&QUARTER(RENAME=(COUNT=MHSDENU));
RUN;

/********/
/*Region*/
/********/

PROC SORT DATA=&DATASET;BY XREGION;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5N&QUARTER(RENAME=(COUNT=FIG5NUM));
   WEIGHT WRWT;
   BY XREGION;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5D&QUARTER(RENAME=(COUNT=FIG5DEN));
   WEIGHT WRWT;
   BY XREGION;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5DU&QUARTER(RENAME=(COUNT=FIG5DENU));
   BY XREGION;
RUN;

/********************/
/*Service Affiliation*/
/********************/

PROC SORT DATA=&DATASET;BY XSRVAFF;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
```

```
   WHERE (&VAR IN (4,5) AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SN&QUARTER(RENAME=(COUNT=FIG5NUMS));
   WEIGHT WRWT;
   BY XSRVAFF;
RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5SD&QUARTER(RENAME=(COUNT=FIG5DENS));
   WEIGHT WRWT;
   BY XSRVAFF;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FG5SDU&QUARTER(RENAME=(COUNT=FG5DENSU));
   BY XSRVAFF;
RUN;

DATA MHS5&QUARTER;
   MERGE MHSNUM&QUARTER MHSDEN&QUARTER MHSDEU&QUARTER;
   BY TOTAL;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (MHSDEN<200 OR MHSDENU<30) THEN COL2=.;
      ELSE COL2 = (MHSNUM / MHSDEN)*100;
RUN;
DATA REG5&QUARTER;
   MERGE FIG5N&QUARTER FIG5D&QUARTER FIG5DU&QUARTER N&QUARTER.REG;
   BY XREGION;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DEN<200 OR FIG5DENU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUM / FIG5DEN)*100;
RUN;
DATA SRV5&QUARTER;
   MERGE FIG5SN&QUARTER FIG5SD&QUARTER FG5SDU&QUARTER N&QUARTER.SRV;
   BY XSRVAFF;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DENS<200 OR FG5DENSU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUMS / FIG5DENS)*100;
RUN;
DATA  FIG5&QUARTER(DROP=TOTAL  PERCENT  MHSNUM  MHSDEN  MHSDENU  FIG5NUM  FIG5DEN  FIG5DENU  FIG5NUMS
FIG5DENS FG5DENSU);
   SET MHS5&QUARTER REG5&QUARTER SRV5&QUARTER;
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 5';
RUN;
PROC PRINT;RUN;
%MEND FIGURE5;

%FIGURE5 (HCS024_1,Q4,'October, 2001 to September, 2002',34,H02057);
%FIGURE5 (HCS023_1,Q3,'July, 2001 to June, 2002',33,H02057);
%FIGURE5 (HCS022_1,Q2,'April, 2001 to March, 2002',32,H02057);
%FIGURE5 (HCS021_1,Q1,'January, 2001 to December, 2001',31,H02057);

*******************************************************************************
*******************************************************************************
* MACROS USED IN FIGURES 6-9
*******************************************************************************
*******************************************************************************;

/*********************/
/*2001 AND 2002 CONUS */
/*********************/

%MACRO FIGCNUM(OUTNUM,NUMER,DATASET);
PROC FREQ DATA=&DATASET NOPRINT;
```

```
   WHERE (CONUS=1 AND &NUMER);
   TABLES TOTAL / OUT=NUMC&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT CWRWT;
RUN;
%MEND;

%MACRO FIGCDEN(OUTDEN,DENOM,DATASET);
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENC&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT CWRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE (CONUS=1 AND &DENOM);
   TABLES TOTAL / OUT=DENUC&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/*****************************************/
/*2001 AND 2002 REGION/SERVICE AFFILIATION */
/*****************************************/

%MACRO FIGNUM(OUTNUM,NUMER,BYVAR,DATASET);
PROC SORT DATA=&DATASET;BY &BYVAR;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &NUMER;
   BY &BYVAR;
   TABLES TOTAL / OUT=NUM&OUTNUM(RENAME=(COUNT=NUM&OUTNUM));
   WEIGHT CWRWT;
RUN;
%MEND;

%MACRO FIGDEN(OUTDEN,DENOM,BYVAR,DATASET);
PROC SORT DATA=&DATASET;BY &BYVAR;RUN;
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DEN&OUTDEN(RENAME=(COUNT=DEN&OUTDEN));
   WEIGHT CWRWT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET NOPRINT;
   WHERE &DENOM;
   BY &BYVAR;
   TABLES TOTAL / OUT=DENU&OUTDEN(RENAME=(COUNT=DENU&OUTDEN));
RUN;
%MEND;

/***********************************/
/* MERGE AND PREPARE DATA FROM FREQS */
/***********************************/

%MACRO
MERGDATCN(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUM
RGA,
               DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,SIG1,SIG2);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB COL00
COL02);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB &SIG1 &SIG2;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
```

```
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
   COL9=COL00;
   COL10=COL02;
RUN;
%MEND;

%MACRO
MERGDATC(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMR
GA,
               DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB;
   BY TOTAL;
   XREGION=0;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
RUN;
%MEND;

%MACRO
MERGDAT(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMRG
A,
              DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,BYVAR);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB;
   BY &BYVAR;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
RUN;
%MEND;

%MACRO
MERGDATN(NUMVARA,NUMVARB,DENVARA,DENVARB,DENUVARA,DENUVARB,NUMMRGA,NUMMRGB,DENMRGA,DENMRGB,DENUMR
GA,
              DENUMRGB,BENTYPE,FIGURE,ROW,NEWDATA,COLA,COLB,SIG1,SIG2,BYVAR);
DATA &NEWDATA(DROP=TOTAL PERCENT &NUMVARA &NUMVARB &DENVARA &DENVARB &DENUVARA &DENUVARB COL00
COL02);
   MERGE &NUMMRGA &NUMMRGB &DENMRGA &DENMRGB &DENUMRGA &DENUMRGB &SIG1 &SIG2;
   BY &BYVAR;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   LENGTH FIGURE $12;
   FIGURE = &FIGURE;
   IF (&DENVARA<200 OR &DENUVARA<30) THEN &COLA=.;
      ELSE &COLA = (&NUMVARA/&DENVARA)*100;
   IF (&DENVARB<200 OR &DENUVARB<30) THEN &COLB=.;
      ELSE &COLB = (&NUMVARB/&DENVARB)*100;
   ROW = &ROW;
   COL7=COL00;
   COL8=COL02;
RUN;
%MEND;

/***********************************/
/* RUN SIGNIFICANCE TESTS          */
/***********************************/

%MACRO RUNSE (DS,DEPVAR,INDEPVAR,NUMCOL,SUBPOP,INS,YR,BYVAR);
```

```
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT CWRWT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   TABLES &INDEPVAR;
   SUBGROUP &INDEPVAR;
   LEVELS &NUMCOL;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&INS&YR&BYVAR;
RUN;

PROC PRINT DATA=&INS&YR&BYVAR;
RUN;
%MEND RUNSE;

%MACRO SIGFLAG(NUMCOL,INS1,INS2,YR,BYVAR,INDEPVAR);
DATA &BYVAR&YR(KEEP=COL&YR &INDEPVAR);
   MERGE &INS1&YR&BYVAR(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &INS2&YR&BYVAR;
   BY &INDEPVAR;
   RETAIN NCOL 0;
   ARRAY COLUMNS COL1-COL&NUMCOL;
   IF &INDEPVAR > 0;
   NCOL+1;
   VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COLUMNS(NCOL) = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COLUMNS(NCOL) = -1;
   ELSE COLUMNS(NCOL) = 0;
   DO I=1 TO &NUMCOL;
      IF COLUMNS(I) NE . THEN COL&YR=COLUMNS(I);
   END;
RUN;

PROC PRINT DATA=&BYVAR&YR;
RUN;
%MEND SIGFLAG;

%MACRO RUNSEC (DS,DEPVAR,SUBPOP,INS,YR);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR /*NOPRINT*/;
   WEIGHT CWRWT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&INS&YR;
RUN;

PROC PRINT DATA=&INS&YR;
RUN;
%MEND RUNSEC;

%MACRO SIGFLAGC(INS1,INS2,YR);
DATA Z&YR(KEEP=COL&YR TOTAL);
   MERGE &INS1&YR(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &INS2&YR;
   VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
```

```
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COL&YR = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COL&YR = -1;
   ELSE COL&YR = 0;
   TOTAL=1;
RUN;

PROC PRINT DATA=Z&YR;
RUN;
%MEND SIGFLAGC;

*******************************************************************************
*******************************************************************************
* FIGURE 6: Getting referrals
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 6: Getting referrals';

/*********************************/
/* BY PRIME/STANDARD EXTRA       */
/* AND 2001 VS 2002              */
/*********************************/

%FIGCNUM(PR2,(DEPVAR6P=1),HCS02A_1);
%FIGCNUM(SA2,(DEPVAR6S=1),HCS02A_1);
%FIGCNUM(PR1,(DEPVAR6P=1),HCS00A_1);
%FIGCNUM(SA1,(DEPVAR6S=1),HCS00A_1);

%FIGCDEN(PR2,(DENOM6P=1),HCS02A_1);
%FIGCDEN(SA2,(DENOM6S=1),HCS02A_1);
%FIGCDEN(PR1,(DENOM6P=1),HCS00A_1);
%FIGCDEN(SA1,(DENOM6S=1),HCS00A_1);

%FIGNUM(RPR2,(DEPVAR6P=1),XREGION,HCS02A_1);
%FIGNUM(RSA2,(DEPVAR6S=1),XREGION,HCS02A_1);
%FIGNUM(RPR1,(DEPVAR6P=1),XREGION,HCS00A_1);
%FIGNUM(RSA1,(DEPVAR6S=1),XREGION,HCS00A_1);
%FIGNUM(SPR2,(DEPVAR6P=1),XSRVAFF,HCS02A_1);
%FIGNUM(SSA2,(DEPVAR6S=1),XSRVAFF,HCS02A_1);
%FIGNUM(SPR1,(DEPVAR6P=1),XSRVAFF,HCS00A_1);
%FIGNUM(SSA1,(DEPVAR6S=1),XSRVAFF,HCS00A_1);

%FIGDEN(RPR2,(DENOM6P=1),XREGION,HCS02A_1);
%FIGDEN(RSA2,(DENOM6S=1),XREGION,HCS02A_1);
%FIGDEN(RPR1,(DENOM6P=1),XREGION,HCS00A_1);
%FIGDEN(RSA1,(DENOM6S=1),XREGION,HCS00A_1);
%FIGDEN(SPR2,(DENOM6P=1),XSRVAFF,HCS02A_1);
%FIGDEN(SSA2,(DENOM6S=1),XSRVAFF,HCS02A_1);
%FIGDEN(SPR1,(DENOM6P=1),XSRVAFF,HCS00A_1);
%FIGDEN(SSA1,(DENOM6S=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS02A_1,DEPVAR6P,XREGION,15,(DENOM6P=1),PR,02,REG);
%RUNSE (HCS00A_1,DEPVAR6P,XREGION,15,(DENOM6P=1),PR,00,REG);
%RUNSE (HCS02A_1,DEPVAR6S,XREGION,15,(DENOM6S=1),SA,02,REG);
%RUNSE (HCS00A_1,DEPVAR6S,XREGION,15,(DENOM6S=1),SA,00,REG);
%RUNSE (HCS02A_1,DEPVAR6P,XSRVAFF,3,(DENOM6P=1),PR,02,SRV);
%RUNSE (HCS00A_1,DEPVAR6P,XSRVAFF,3,(DENOM6P=1),PR,00,SRV);
%RUNSE (HCS02A_1,DEPVAR6S,XSRVAFF,3,(DENOM6S=1),SA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR6S,XSRVAFF,3,(DENOM6S=1),SA,00,SRV);
%RUNSEC (HCS02A_1,DEPVAR6P,(DENOM6P=1 AND CONUS=1),PR,02);
%RUNSEC (HCS00A_1,DEPVAR6P,(DENOM6P=1 AND CONUS=1),PR,00);
%RUNSEC (HCS02A_1,DEPVAR6S,(DENOM6S=1 AND CONUS=1),SA,02);
%RUNSEC (HCS00A_1,DEPVAR6S,(DENOM6S=1 AND CONUS=1),SA,00);

%SIGFLAG(15,PR,SA,00,REG,XREGION);
%SIGFLAG(15,PR,SA,02,REG,XREGION);
%SIGFLAG(3,PR,SA,00,SRV,XSRVAFF);
%SIGFLAG(3,PR,SA,02,SRV,XSRVAFF);
%SIGFLAGC(PR,SA,00);
```

```
%SIGFLAGC(PR,SA,02);

%MERGDATCN(NUMPR2,NUMSA2,DENPR2,DENSA2,DENUPR2,DENUSA2,NUMCPR2,NUMCSA2,DENCPR2,DENCSA2,DENUCPR2,
          DENUCSA2,'October, 2001 to September, 2002','FIGURE 6',46,FIG6CON2,COL5,COL2,Z00,Z02);
%MERGDATC(NUMPR1,NUMSA1,DENPR1,DENSA1,DENUPR1,DENUSA1,NUMCPR1,NUMCSA1,DENCPR1,DENCSA1,DENUCPR1,
          DENUCSA1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6CON1,COL5,COL2);
%MERGDATN(NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENURPR2,DENURSA2,NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENUR
PR2,
          DENURSA2,'October,          2001          to          September,          2002','FIGURE
6',46,FIG6REG2,COL6,COL3,REG00,REG02,XREGION);
%MERGDAT(NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURPR1,DENURSA1,NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURP
R1,
          DENURSA1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUSPR2,DENUSSA2,NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUS
PR2,
          DENUSSA2,'October,          2001          to          September,          2002','FIGURE
6',46,FIG6SRV2,COL6,COL3,SRV00,SRV02,XSRVAFF);
%MERGDAT(NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSPR1,DENUSSA1,NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSP
R1,
          DENUSSA1,'January, 2000 to December, 2000','FIGURE 6',47,FIG6SRV1,COL6,COL3,XSRVAFF);

/***************************************/
/************** DEBUG ******************/
/***************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG6CON2;RUN;
PROC PRINT DATA=FIG6CON1;RUN;
PROC PRINT DATA=FIG6REG2;RUN;
PROC PRINT DATA=FIG6REG1;RUN;
PROC PRINT DATA=FIG6SRV2;RUN;
PROC PRINT DATA=FIG6SRV1;RUN;

/***************************************/
/************** END DEBUG **************/
/***************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 7: Finding a personal doctor
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 7: Finding a personal doctor';

/*********************************/
/* BY PRIME/STANDARD EXTRA       */
/* AND 2001 VS 2002              */
/*********************************/

%FIGCNUM(PR2,(DEPVAR7P=1),HCS02A_1);
%FIGCNUM(SA2,(DEPVAR7S=1),HCS02A_1);
%FIGCNUM(PR1,(DEPVAR7P=1),HCS00A_1);
%FIGCNUM(SA1,(DEPVAR7S=1),HCS00A_1);

%FIGCDEN(PR2,(DENOM7P=1),HCS02A_1);
%FIGCDEN(SA2,(DENOM7S=1),HCS02A_1);
%FIGCDEN(PR1,(DENOM7P=1),HCS00A_1);
%FIGCDEN(SA1,(DENOM7S=1),HCS00A_1);

%FIGNUM(RPR2,(DEPVAR7P=1),XREGION,HCS02A_1);
%FIGNUM(RSA2,(DEPVAR7S=1),XREGION,HCS02A_1);
%FIGNUM(RPR1,(DEPVAR7P=1),XREGION,HCS00A_1);
%FIGNUM(RSA1,(DEPVAR7S=1),XREGION,HCS00A_1);
%FIGNUM(SPR2,(DEPVAR7P=1),XSRVAFF,HCS02A_1);
%FIGNUM(SSA2,(DEPVAR7S=1),XSRVAFF,HCS02A_1);
%FIGNUM(SPR1,(DEPVAR7P=1),XSRVAFF,HCS00A_1);
%FIGNUM(SSA1,(DEPVAR7S=1),XSRVAFF,HCS00A_1);

%FIGDEN(RPR2,(DENOM7P=1),XREGION,HCS02A_1);
%FIGDEN(RSA2,(DENOM7S=1),XREGION,HCS02A_1);
%FIGDEN(RPR1,(DENOM7P=1),XREGION,HCS00A_1);
%FIGDEN(RSA1,(DENOM7S=1),XREGION,HCS00A_1);
```

```
%FIGDEN(SPR2,(DENOM7P=1),XSRVAFF,HCS02A_1);
%FIGDEN(SSA2,(DENOM7S=1),XSRVAFF,HCS02A_1);
%FIGDEN(SPR1,(DENOM7P=1),XSRVAFF,HCS00A_1);
%FIGDEN(SSA1,(DENOM7S=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS02A_1,DEPVAR7P,XREGION,15,(DENOM7P=1),PR,02,REG);
%RUNSE (HCS00A_1,DEPVAR7P,XREGION,15,(DENOM7P=1),PR,00,REG);
%RUNSE (HCS02A_1,DEPVAR7S,XREGION,15,(DENOM7S=1),SA,02,REG);
%RUNSE (HCS00A_1,DEPVAR7S,XREGION,15,(DENOM7S=1),SA,00,REG);
%RUNSE (HCS02A_1,DEPVAR7P,XSRVAFF,3,(DENOM7P=1),PR,02,SRV);
%RUNSE (HCS00A_1,DEPVAR7P,XSRVAFF,3,(DENOM7P=1),PR,00,SRV);
%RUNSE (HCS02A_1,DEPVAR7S,XSRVAFF,3,(DENOM7S=1),SA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR7S,XSRVAFF,3,(DENOM7S=1),SA,00,SRV);
%RUNSEC (HCS02A_1,DEPVAR7P,(DENOM7P=1 AND CONUS=1),PR,02);
%RUNSEC (HCS00A_1,DEPVAR7P,(DENOM7P=1 AND CONUS=1),PR,00);
%RUNSEC (HCS02A_1,DEPVAR7S,(DENOM7S=1 AND CONUS=1),SA,02);
%RUNSEC (HCS00A_1,DEPVAR7S,(DENOM7S=1 AND CONUS=1),SA,00);

%SIGFLAG(15,PR,SA,00,REG,XREGION);
%SIGFLAG(15,PR,SA,02,REG,XREGION);
%SIGFLAG(3,PR,SA,00,SRV,XSRVAFF);
%SIGFLAG(3,PR,SA,02,SRV,XSRVAFF);
%SIGFLAGC(PR,SA,00);
%SIGFLAGC(PR,SA,02);

%MERGDATCN(NUMPR2,NUMSA2,DENPR2,DENSA2,DENUPR2,DENUSA2,NUMCPR2,NUMCSA2,DENCPR2,DENCSA2,DENUCPR2,
          DENUCSA2,'October, 2001 to September, 2002','FIGURE 7',52,FIG7CON2,COL5,COL2,Z00,Z02);
%MERGDATC(NUMPR1,NUMSA1,DENPR1,DENSA1,DENUPR1,DENUSA1,NUMCPR1,NUMCSA1,DENCPR1,DENCSA1,DENUCPR1,
          DENUCSA1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7CON1,COL5,COL2);
%MERGDATN(NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENURPR2,DENURSA2,NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENUR
PR2,
          DENURSA2,'October,          2001          to          September,          2002','FIGURE
7',52,FIG7REG2,COL6,COL3,REG00,REG02,XREGION);
%MERGDAT(NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURPR1,DENURSA1,NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURP
R1,
          DENURSA1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUSPR2,DENUSSA2,NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUS
PR2,
          DENUSSA2,'October,          2001          to          September,          2002','FIGURE
7',52,FIG7SRV2,COL6,COL3,SRV00,SRV02,XSRVAFF);
%MERGDAT(NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSPR1,DENUSSA1,NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSP
R1,
          DENUSSA1,'January, 2000 to December, 2000','FIGURE 7',53,FIG7SRV1,COL6,COL3,XSRVAFF);

/*****************************************/
/************** DEBUG ********************/
/*****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG7CON2;RUN;
PROC PRINT DATA=FIG7CON1;RUN;
PROC PRINT DATA=FIG7REG2;RUN;
PROC PRINT DATA=FIG7REG1;RUN;
PROC PRINT DATA=FIG7SRV2;RUN;
PROC PRINT DATA=FIG7SRV1;RUN;

/*****************************************/
/************** END DEBUG ****************/
/*****************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 8: Getting needed care
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 8: Getting needed care';

/*********************************/
/* BY PRIME/STANDARD EXTRA       */
/* AND 2001 VS 2002              */
/*********************************/
```

```
%FIGCNUM(PR2,(DEPVAR8P=1),HCS02A_1);
%FIGCNUM(SA2,(DEPVAR8S=1),HCS02A_1);
%FIGCNUM(PR1,(DEPVAR8P=1),HCS00A_1);
%FIGCNUM(SA1,(DEPVAR8S=1),HCS00A_1);

%FIGCDEN(PR2,(DENOM8P=1),HCS02A_1);
%FIGCDEN(SA2,(DENOM8S=1),HCS02A_1);
%FIGCDEN(PR1,(DENOM8P=1),HCS00A_1);
%FIGCDEN(SA1,(DENOM8S=1),HCS00A_1);

%FIGNUM(RPR2,(DEPVAR8P=1),XREGION,HCS02A_1);
%FIGNUM(RSA2,(DEPVAR8S=1),XREGION,HCS02A_1);
%FIGNUM(RPR1,(DEPVAR8P=1),XREGION,HCS00A_1);
%FIGNUM(RSA1,(DEPVAR8S=1),XREGION,HCS00A_1);
%FIGNUM(SPR2,(DEPVAR8P=1),XSRVAFF,HCS02A_1);
%FIGNUM(SSA2,(DEPVAR8S=1),XSRVAFF,HCS02A_1);
%FIGNUM(SPR1,(DEPVAR8P=1),XSRVAFF,HCS00A_1);
%FIGNUM(SSA1,(DEPVAR8S=1),XSRVAFF,HCS00A_1);

%FIGDEN(RPR2,(DENOM8P=1),XREGION,HCS02A_1);
%FIGDEN(RSA2,(DENOM8S=1),XREGION,HCS02A_1);
%FIGDEN(RPR1,(DENOM8P=1),XREGION,HCS00A_1);
%FIGDEN(RSA1,(DENOM8S=1),XREGION,HCS00A_1);
%FIGDEN(SPR2,(DENOM8P=1),XSRVAFF,HCS02A_1);
%FIGDEN(SSA2,(DENOM8S=1),XSRVAFF,HCS02A_1);
%FIGDEN(SPR1,(DENOM8P=1),XSRVAFF,HCS00A_1);
%FIGDEN(SSA1,(DENOM8S=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS02A_1,DEPVAR8P,XREGION,15,(DENOM8P=1),PR,02,REG);
%RUNSE (HCS00A_1,DEPVAR8P,XREGION,15,(DENOM8P=1),PR,00,REG);
%RUNSE (HCS02A_1,DEPVAR8S,XREGION,15,(DENOM8S=1),SA,02,REG);
%RUNSE (HCS00A_1,DEPVAR8S,XREGION,15,(DENOM8S=1),SA,00,REG);
%RUNSE (HCS02A_1,DEPVAR8P,XSRVAFF,3,(DENOM8P=1),PR,02,SRV);
%RUNSE (HCS00A_1,DEPVAR8P,XSRVAFF,3,(DENOM8P=1),PR,00,SRV);
%RUNSE (HCS02A_1,DEPVAR8S,XSRVAFF,3,(DENOM8S=1),SA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR8S,XSRVAFF,3,(DENOM8S=1),SA,00,SRV);
%RUNSEC (HCS02A_1,DEPVAR8P,(DENOM8P=1 AND CONUS=1),PR,02);
%RUNSEC (HCS00A_1,DEPVAR8P,(DENOM8P=1 AND CONUS=1),PR,00);
%RUNSEC (HCS02A_1,DEPVAR8S,(DENOM8S=1 AND CONUS=1),SA,02);
%RUNSEC (HCS00A_1,DEPVAR8S,(DENOM8S=1 AND CONUS=1),SA,00);

%SIGFLAG(15,PR,SA,00,REG,XREGION);
%SIGFLAG(15,PR,SA,02,REG,XREGION);
%SIGFLAG(3,PR,SA,00,SRV,XSRVAFF);
%SIGFLAG(3,PR,SA,02,SRV,XSRVAFF);
%SIGFLAGC(PR,SA,00);
%SIGFLAGC(PR,SA,02);

%MERGDATCN(NUMPR2,NUMSA2,DENPR2,DENSA2,DENUPR2,DENUSA2,NUMCPR2,NUMCSA2,DENCPR2,DENCSA2,DENUCPR2,
          DENUCSA2,'October, 2001 to September, 2002','FIGURE 8',57,FIG8CON2,COL5,COL2,Z00,Z02);
%MERGDATC(NUMPR1,NUMSA1,DENPR1,DENSA1,DENUPR1,DENUSA1,NUMCPR1,NUMCSA1,DENCPR1,DENCSA1,DENUCPR1,
          DENUCSA1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8CON1,COL5,COL2);
%MERGDATN(NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENURPR2,DENURSA2,NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENUR
PR2,
          DENURSA2,'October,          2001          to          September,          2002','FIGURE
8',57,FIG8REG2,COL6,COL3,REG00,REG02,XREGION);
%MERGDAT(NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURPR1,DENURSA1,NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURP
R1,
          DENURSA1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUSPR2,DENUSSA2,NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUS
PR2,
          DENUSSA2,'October,          2001          to          September,          2002','FIGURE
8',57,FIG8SRV2,COL6,COL3,SRV00,SRV02,XSRVAFF);
%MERGDAT(NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSPR1,DENUSSA1,NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSP
R1,
          DENUSSA1,'January, 2000 to December, 2000','FIGURE 8',58,FIG8SRV1,COL6,COL3,XSRVAFF);

/*****************************************/
/************** DEBUG ********************/
/*****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG8CON2;RUN;
```

```
PROC PRINT DATA=FIG8CON1;RUN;
PROC PRINT DATA=FIG8REG2;RUN;
PROC PRINT DATA=FIG8REG1;RUN;
PROC PRINT DATA=FIG8SRV2;RUN;
PROC PRINT DATA=FIG8SRV1;RUN;

/*************************************/
/************** END DEBUG ***************/
/*************************************/

*******************************************************************************
*******************************************************************************
* FIGURE 9: Waiting for routine care
*******************************************************************************
*******************************************************************************;

TITLE2 'Figure 9: Waiting for routine care';

/*********************************/
/* BY PRIME/STANDARD EXTRA       */
/* AND 2001 VS 2002              */
/*********************************/

%FIGCNUM(PR2,(DEPVAR9P=1),HCS02A_1);
%FIGCNUM(SA2,(DEPVAR9S=1),HCS02A_1);
%FIGCNUM(PR1,(DEPVAR9P=1),HCS00A_1);
%FIGCNUM(SA1,(DEPVAR9S=1),HCS00A_1);

%FIGCDEN(PR2,(DENOM9P=1),HCS02A_1);
%FIGCDEN(SA2,(DENOM9S=1),HCS02A_1);
%FIGCDEN(PR1,(DENOM9P=1),HCS00A_1);
%FIGCDEN(SA1,(DENOM9S=1),HCS00A_1);

%FIGNUM(RPR2,(DEPVAR9P=1),XREGION,HCS02A_1);
%FIGNUM(RSA2,(DEPVAR9S=1),XREGION,HCS02A_1);
%FIGNUM(RPR1,(DEPVAR9P=1),XREGION,HCS00A_1);
%FIGNUM(RSA1,(DEPVAR9S=1),XREGION,HCS00A_1);
%FIGNUM(SPR2,(DEPVAR9P=1),XSRVAFF,HCS02A_1);
%FIGNUM(SSA2,(DEPVAR9S=1),XSRVAFF,HCS02A_1);
%FIGNUM(SPR1,(DEPVAR9P=1),XSRVAFF,HCS00A_1);
%FIGNUM(SSA1,(DEPVAR9S=1),XSRVAFF,HCS00A_1);

%FIGDEN(RPR2,(DENOM9P=1),XREGION,HCS02A_1);
%FIGDEN(RSA2,(DENOM9S=1),XREGION,HCS02A_1);
%FIGDEN(RPR1,(DENOM9P=1),XREGION,HCS00A_1);
%FIGDEN(RSA1,(DENOM9S=1),XREGION,HCS00A_1);
%FIGDEN(SPR2,(DENOM9P=1),XSRVAFF,HCS02A_1);
%FIGDEN(SSA2,(DENOM9S=1),XSRVAFF,HCS02A_1);
%FIGDEN(SPR1,(DENOM9P=1),XSRVAFF,HCS00A_1);
%FIGDEN(SSA1,(DENOM9S=1),XSRVAFF,HCS00A_1);

%RUNSE (HCS02A_1,DEPVAR9P,XREGION,15,(DENOM9P=1),PR,02,REG);
%RUNSE (HCS00A_1,DEPVAR9P,XREGION,15,(DENOM9P=1),PR,00,REG);
%RUNSE (HCS02A_1,DEPVAR9S,XREGION,15,(DENOM9S=1),SA,02,REG);
%RUNSE (HCS00A_1,DEPVAR9S,XREGION,15,(DENOM9S=1),SA,00,REG);
%RUNSE (HCS02A_1,DEPVAR9P,XSRVAFF,3,(DENOM9P=1),PR,02,SRV);
%RUNSE (HCS00A_1,DEPVAR9P,XSRVAFF,3,(DENOM9P=1),PR,00,SRV);
%RUNSE (HCS02A_1,DEPVAR9S,XSRVAFF,3,(DENOM9S=1),SA,02,SRV);
%RUNSE (HCS00A_1,DEPVAR9S,XSRVAFF,3,(DENOM9S=1),SA,00,SRV);
%RUNSEC (HCS02A_1,DEPVAR9P,(DENOM9P=1 AND CONUS=1),PR,02);
%RUNSEC (HCS00A_1,DEPVAR9P,(DENOM9P=1 AND CONUS=1),PR,00);
%RUNSEC (HCS02A_1,DEPVAR9S,(DENOM9S=1 AND CONUS=1),SA,02);
%RUNSEC (HCS00A_1,DEPVAR9S,(DENOM9S=1 AND CONUS=1),SA,00);

%SIGFLAG(15,PR,SA,00,REG,XREGION);
%SIGFLAG(15,PR,SA,02,REG,XREGION);
%SIGFLAG(3,PR,SA,00,SRV,XSRVAFF);
%SIGFLAG(3,PR,SA,02,SRV,XSRVAFF);
%SIGFLAGC(PR,SA,00);
%SIGFLAGC(PR,SA,02);

%MERGDATCN(NUMPR2,NUMSA2,DENPR2,DENSA2,DENUPR2,DENUSA2,NUMCPR2,NUMCSA2,DENCPR2,DENCSA2,DENUCPR2,
          DENUCSA2,'October, 2001 to September, 2002','FIGURE 9',62,FIG9CON2,COL5,COL2,Z00,Z02);
```

```
%MERGDATC(NUMPR1,NUMSA1,DENPR1,DENSA1,DENUPR1,DENUSA1,NUMCPR1,NUMCSA1,DENCPR1,DENCSA1,DENUCPR1,
          DENUCSA1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9CON1,COL5,COL2);
%MERGDATN(NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENURPR2,DENURSA2,NUMRPR2,NUMRSA2,DENRPR2,DENRSA2,DENUR
PR2,
          DENURSA2,'October,          2001          to          September,          2002','FIGURE
9',62,FIG9REG2,COL6,COL3,REG00,REG02,XREGION);
%MERGDAT(NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURPR1,DENURSA1,NUMRPR1,NUMRSA1,DENRPR1,DENRSA1,DENURP
R1,
          DENURSA1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9REG1,COL6,COL3,XREGION);
%MERGDATN(NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUSPR2,DENUSSA2,NUMSPR2,NUMSSA2,DENSPR2,DENSSA2,DENUS
PR2,
          DENUSSA2,'October,          2001          to          September,          2002','FIGURE
9',62,FIG9SRV2,COL6,COL3,SRV00,SRV02,XSRVAFF);
%MERGDAT(NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSPR1,DENUSSA1,NUMSPR1,NUMSSA1,DENSPR1,DENSSA1,DENUSP
R1,
          DENUSSA1,'January, 2000 to December, 2000','FIGURE 9',63,FIG9SRV1,COL6,COL3,XSRVAFF);

/****************************************/
/************** DEBUG *******************/
/****************************************/

TITLE2 'DEBUG';
PROC PRINT DATA=FIG9CON2;RUN;
PROC PRINT DATA=FIG9CON1;RUN;
PROC PRINT DATA=FIG9REG2;RUN;
PROC PRINT DATA=FIG9REG1;RUN;
PROC PRINT DATA=FIG9SRV2;RUN;
PROC PRINT DATA=FIG9SRV1;RUN;

/****************************************/
/************** END DEBUG ***************/
/****************************************/

*******************************************************************************************
*******************************************************************************************
* Combine all temporary datasets into one dataset for inclusion in consumer watch
*******************************************************************************************
*******************************************************************************************;

DATA OUT.FIG5TO9;
   SET FIG5Q1 FIG5Q2 FIG5Q3 FIG5Q4 FIG6CON2 FIG6CON1 FIG6REG2 FIG6REG1 FIG6SRV2 FIG6SRV1 FIG7CON2
FIG7CON1
       FIG7REG2 FIG7REG1 FIG7SRV2 FIG7SRV1 FIG8CON2 FIG8CON1 FIG8REG2 FIG8REG1 FIG8SRV2 FIG8SRV1
       FIG9CON2 FIG9CON1 FIG9REG2 FIG9REG1 FIG9SRV2 FIG9SRV1;
   LENGTH REGION $20;
   IF XREGION=0 THEN REGION='CONUS';
      ELSE IF XREGION=1 THEN REGION='Region 1';
      ELSE IF XREGION=2 THEN REGION='Region 2';
      ELSE IF XREGION=3 THEN REGION='Region 3';
      ELSE IF XREGION=4 THEN REGION='Region 4';
      ELSE IF XREGION=5 THEN REGION='Region 5';
      ELSE IF XREGION=6 THEN REGION='Region 6';
      ELSE IF XREGION=7 THEN REGION='Region 7/8';
      ELSE IF XREGION=8 THEN REGION='Region 9';
      ELSE IF XREGION=9 THEN REGION='Region 10';
      ELSE IF XREGION=10 THEN REGION='Region 11';
      ELSE IF XREGION=11 THEN REGION='Region 12';
      ELSE IF XREGION=12 THEN REGION='Europe';
      ELSE IF XREGION=13 THEN REGION='Asia';
      ELSE IF XREGION=14 THEN REGION='Latin America';
      ELSE IF XREGION=15 THEN REGION='Alaska';
      ELSE IF XSRVAFF=1 THEN REGION='Army';
      ELSE IF XSRVAFF=3 THEN REGION='Navy';
      ELSE IF XSRVAFF=2 THEN REGION='Air Force';
   PROC SORT;
   BY ROW;
RUN;
PROC PRINT;
RUN;
```

5. POPULATE EXCEL REPORT FOR REGIONAL CONSUMER WATCH

```
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH.SAS
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
* AUTHOR : MIKI SATAKE
* DATE   : 4/24/01
* UPDATED: 7/16/01 FOR QUARTER 2 BY NATALIE JUSTH
* UPDATED: 10/16/01 FOR QUARTER 3 BY NATALIE JUSTH
* UPDATED: 1/11/02 FOR QUARTER 4 BY NATALIE JUSTH
* UPDATED AND RENAMED: 4/9/02 FOR QUARTER 1 2002 BY NATALIE JUSTH
* UPDATED: 7/5/02 FOR QUARTER 2 2002 BY NATALIE JUSTH
* UPDATED: 7/15/02 FOR QUARTER 3 2002 BY NATALIE JUSTH
* UPDATED: 11/12/02 FOR QUARTER 4 2002 BY NATALIE JUSTH
* INPUT  : FIGURE 1 - FIGURE 4 AND TABLE 1 - REGION
*          (2002-Q4) ..\..\PROGRAMS\LOADWEB\TOTAL_Q.SD2
*          (2002-Q3 PREVENTIVE CARE ONLY) ..\..\..\Q3_2002t\LOADWEB\TOTAL_Q.SD2
*          (2002-Q2 PREVENTIVE CARE ONLY) ..\..\..\Q2_2002t\LOADWEB\TOTAL_Q.SD2
*          (2002-Q1 PREVENTIVE CARE ONLY) ..\..\..\Q1_2002t\LOADWEB\TOTAL_Q.SD2
*          FIGURE 5 AND SPECIAL REPORT GRAPHS
*          (ALL) FIG5TO9.SD2
* OUTPUT : INTO EXCEL SPREADSHEET
*******************************************************************************;

OPTIONS NOXWAIT MPRINT;

/***************************/
/* UPDATE REGIONAL LIBNAMES */
/***************************/

/* LIBNAMES for Regional Consumer Watch */
LIBNAME CURNTR '..\..\PROGRAMS\LOADWEB';
LIBNAME PRV1R  '..\..\..\Q3_2002t\LOADWEB';
LIBNAME PRV2R  '..\..\..\Q2_2002t\LOADWEB';
LIBNAME PRV3R  '..\..\..\Q1_2002t\LOADWEB';

LIBNAME IN    '.';

/*****************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/*****************************************/

%LET CURRNT  = 'October, 2001 to September, 2002';
%LET CURRNTQ = Q4;
%LET PREV1   = 'July, 2001 to June, 2002';
%LET PREV1Q  = Q3;
%LET PREV2   = 'April, 2001 to March, 2002';
%LET PREV2Q  = Q2;
%LET PREV3   = 'January, 2001 to December, 2001';
%LET PREV3Q  = Q1;

%MACRO      RUNCW      (AREA=,                                                  /*      Region
*/
              NAME=,                          /*   Name   of   Excel   file   for   each   region
*/
              CURRENT=,                /*   Libname   and   dataset   for   the   current   quarter
*/
              PREVIOUS1=,            /*   Libname   and   dataset   for   the   previous   quarter
*/
              PREVIOUS2=,     /* Libname and dataset for the 2nd quarter prior to current quarter
*/
              PREVIOUS3=      /* Libname and dataset for the 3rd quarter prior to current quarter
*/
              );

/* Change parameter for each region */
%LET VAL = &AREA.;

x "COPY TEMPLATE-R.XLS &NAME.";
X "START &NAME.";
```

```
DATA _NULL_;
   X=SLEEP(8);
RUN;

TITLE "8860-420 DOD SHORT REPORT &CURRNTQ 2002";
TITLE2 "&AREA.";

/* This macro pulls data from the specified dataset to be used in the Consumer Watch */
%MACRO GETDATA (DATASET=,    /* Current quarter data set  */
                MAJGRP=,     /* Value of variable MAJGRP  */
                REGION=,     /* Value of variable REGION  */
                REGCAT=,     /* Value of variable REGCAT  */
                BENEFIT=,    /* Value of variable BENEFIT */
                BENTYPE=,    /* Value of variable BENTYPE */
                OUTDATA=     /* Name of output data set   */
                );
PROC FREQ NOPRINT DATA=&DATASET;
   WHERE MAJGRP = &MAJGRP
     AND REGION IN &REGION
     AND REGCAT IN &REGCAT
     AND BENEFIT IN &BENEFIT
     AND BENTYPE = &BENTYPE;
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SCORE*N_OBS*N_WGT*SIG/ OUT=&OUTDATA(DROP=COUNT PERCENT);
RUN;
%MEND GETDATA;

/* This macro re-calculates SCORE based on the quarterly benchmark */
%MACRO   NEWSCORE   (FIGURE=,              /*   Figure   number   in   consumer   watch   reports
*/
                 QUARTER=      /* Data is processed for current quarter and each of 3 previous
quarters */
                 );
DATA FIG&FIGURE&QUARTER FIGB&QUARTER(KEEP=SCORE);
   SET FIG&FIGURE&QUARTER;
   IF REGION='Benchmark' THEN OUTPUT FIGB&QUARTER;
      ELSE OUTPUT FIG&FIGURE&QUARTER;
RUN;
DATA FIG&FIGURE&QUARTER(DROP=RSCORE);
   MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGURE&QUARTER;
   SCORE=SCORE-RSCORE;
RUN;
%MEND NEWSCORE;

%MACRO COMBDATA (FIGURE=   /* Figure number in consumer watch reports */
                );
DATA FIG&FIGURE(DROP=BSCORE);
   SET BENCH FIG&FIGURE.Q4 FIG&FIGURE.Q3 FIG&FIGURE.Q2 FIG&FIGURE.Q1;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF BENTYPE = &PREV3 THEN DO;
      ROW = 4;
      SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF BENTYPE = &PREV2 THEN DO;
      ROW = 5;
      SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF BENTYPE = &PREV1 THEN DO;
      ROW = 6;
      SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF BENTYPE = &CURRNT THEN DO;
      ROW=7;
      SCORE=SCORE+BSCORE;
   END;
   COL2 = SCORE / 100;
```

```
   COL3 = SIG;
RUN;
PROC SORT;
   BY ROW;
RUN;
%MEND COMBDATA;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG1&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&PREV1,
          OUTDATA=FIG1&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&PREV2,
          OUTDATA=FIG1&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&PREV3,
          OUTDATA=FIG1&PREV3Q);

%NEWSCORE (FIGURE=1,
           QUARTER=&CURRNTQ);
%NEWSCORE (FIGURE=1,
           QUARTER=&PREV1Q);
%NEWSCORE (FIGURE=1,
           QUARTER=&PREV2Q);
%NEWSCORE (FIGURE=1,
           QUARTER=&PREV3Q);

%COMBDATA (FIGURE=1);

PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R3C2:R7C3";

DATA _NULL_;
   SET FIG1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
```

```
* FIGURE 2: Health Plan Rating
*******************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG2&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&PREV1,
          OUTDATA=FIG2&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&PREV2,
          OUTDATA=FIG2&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&PREV3,
          OUTDATA=FIG2&PREV3Q);

%NEWSCORE (FIGURE=2,
           QUARTER=&CURRNTQ);
%NEWSCORE (FIGURE=2,
           QUARTER=&PREV1Q);
%NEWSCORE (FIGURE=2,
           QUARTER=&PREV2Q);
%NEWSCORE (FIGURE=2,
           QUARTER=&PREV3Q);

%COMBDATA (FIGURE=2);

PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R10C2:R14C3";

DATA _NULL_;
   SET FIG2;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 3: Personal Provider Rating
*******************************************************************************;
TITLE2 'Figure 3: Personal Provider Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Primary Care Manager'),
```

```
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG3&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&PREV1,
          OUTDATA=FIG3&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&PREV2,
          OUTDATA=FIG3&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&PREV3,
          OUTDATA=FIG3&PREV3Q);

%NEWSCORE (FIGURE=3,
           QUARTER=&CURRNTQ);
%NEWSCORE (FIGURE=3,
           QUARTER=&PREV1Q);
%NEWSCORE (FIGURE=3,
           QUARTER=&PREV2Q);
%NEWSCORE (FIGURE=3,
           QUARTER=&PREV3Q);

%COMBDATA (FIGURE=3);

PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R17C2:R21C3";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 4: Health Care Topics
*******************************************************************************;
TITLE2 'Figure 4: Health Care Topics';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
```

```
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG4&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&PREV1,
          OUTDATA=FIG4&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&PREV2,
          OUTDATA=FIG4&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&PREV3,
          OUTDATA=FIG4&PREV3Q);

%MACRO F4SCORE (QUARTER=     /* Data is processed for current quarter and each of 3 previous
quarters */
               );
DATA FIG4Q&QUARTER FIGB&QUARTER(KEEP=SCORE BENEFIT SIG);
   SET FIG4Q&QUARTER;
   IF REGION = 'Benchmark' THEN OUTPUT FIGB&QUARTER;
      ELSE OUTPUT FIG4Q&QUARTER;
RUN;
PROC SORT DATA=FIG4Q&QUARTER;
   BY BENEFIT;
RUN;
PROC SORT DATA=FIGB&QUARTER;
   BY BENEFIT;
RUN;
DATA FIG4Q&QUARTER(DROP=RSCORE);
   MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
         FIG4Q&QUARTER;
   BY BENEFIT;
   SCORE=SCORE-RSCORE;
RUN;
%MEND F4SCORE;

%F4SCORE (QUARTER=1);
%F4SCORE (QUARTER=2);
%F4SCORE (QUARTER=3);
%F4SCORE (QUARTER=4);

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(KEEP=ROW SCORE1 RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SCORE1 RENAME=(SCORE1=COL6))
     COL7(KEEP=ROW SCORE1 RENAME=(SCORE1=COL7))
     COL8(KEEP=ROW SIG RENAME=(SIG=COL8))
     COL9(KEEP=ROW SIG RENAME=(SIG=COL9))
     COL10(KEEP=ROW SIG RENAME=(SIG=COL10))
     COL11(KEEP=ROW SIG RENAME=(SIG=COL11))
     COL12(KEEP=ROW SIG RENAME=(SIG=COL12))
     COL13(KEEP=ROW SIG RENAME=(SIG=COL13));
   SET BENCH FIG4Q4 FIG4Q3 FIG4Q2 FIG4Q1;
```

```
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      BSCORE=SCORE;
      ROW = 24;
      SCORE1 = SCORE;
   END;
   ELSE IF BENTYPE = &PREV3 THEN DO;
      ROW = 25;
      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = &PREV2 THEN DO;
      ROW = 26;
      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = &PREV1 THEN DO;
      ROW = 27;
      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = &CURRNT THEN DO;
      ROW = 28;
      SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF BENEFIT = 'Getting Needed Care' THEN OUTPUT COL2 COL8;
   IF BENEFIT = 'Getting Care Quickly' THEN OUTPUT COL3 COL9;
   IF BENEFIT = 'Courteous and Helpful Office Staff' THEN OUTPUT COL4 COL10;
   IF BENEFIT = 'How Well Doctors Communicate' THEN OUTPUT COL5 COL11;
   IF BENEFIT = 'Customer Service' THEN OUTPUT COL6 COL12;
   IF BENEFIT = 'Claims Processing' THEN OUTPUT COL7 COL13;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;

DATA FIG4;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13;
   BY ROW;
RUN;

PROC PRINT;
RUN;

*************************************************************************
* DDE LINK (EXCEL file has to be open )
*************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R24C2:R28C14";

DATA _NULL_;
   SET FIG4;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9
       '09'X COL10 '09'X COL11 '09'X COL12 '09'X COL13;
RUN;
```

```
*******************************************************************************
* FIGURE 5: Intent to Disenroll
*******************************************************************************;
TITLE2 'Figure 5: Intent to Disenroll';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &CURRNT
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&CURRNTQ(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &CURRNT
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&CURRNTQ.C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV1
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&PREV1Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV1
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&PREV1Q.C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV2
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&PREV2Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV2
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&PREV2Q.C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV3
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&PREV3Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV3
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&PREV3Q.C(DROP=COUNT PERCENT);
RUN;

DATA COL2(DROP=COL3 COL4)
     COL3(DROP=COL2 COL4)
     COL4(DROP=COL2 COL3);
   SET FIG5Q1 FIG5Q1C FIG5Q4 FIG5Q4C FIG5Q3 FIG5Q3C FIG5Q2 FIG5Q2C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL4>=-1 THEN OUTPUT COL4;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;

DATA FIG5;
   MERGE COL2 COL3 COL4;
   BY ROW;
RUN;

TITLE2 'FIGURE 5';
```

```
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R31C2:R34C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4;
RUN;

*******************************************************************************
* FIGURE 6
*******************************************************************************;
TITLE2 'Figure 6';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 6'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG6(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 6'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG6C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG6 FIG6C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
DATA FIG6;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 6';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R46C7:R47C10";

DATA _NULL_;
```

```
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R46C16:R47C20";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* FIGURE 7
*******************************************************************************;
TITLE2 'Figure 7';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 7'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG7(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 7'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG7C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG7 FIG7C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;

DATA FIG7;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 7';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R52C7:R53C10";

DATA _NULL_;
```

```
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R52C16:R53C20";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* FIGURE 8
*******************************************************************************;
TITLE2 'Figure 8';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 8'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG8(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 8'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG8C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG8 FIG8C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;

DATA FIG8;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 8';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R57C7:R58C10";

DATA _NULL_;
```

```
   SET FIG8;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R57C16:R58C20";

DATA _NULL_;
   SET FIG8;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* FIGURE 9
*******************************************************************************;
TITLE2 'Figure 9';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 9'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG9(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 9'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG9C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG9 FIG9C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;

DATA FIG9;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 9';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R62C7:R63C10";

DATA _NULL_;
```

```
   SET FIG9;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R62C16:R63C20";

DATA _NULL_;
   SET FIG9;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* TABLE 1: Preventive Care
* CHANGED MAJGRP TO 'Prime Enrollees' (from 'All Users') in Q2_2002
*******************************************************************************;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP IN ('Prime Enrollees','Benchmark')
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&CURRNTQ(DROP=COUNT PERCENT);
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*N_OBS/ OUT=TAB2_&CURRNTQ(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&PREVIOUS1;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&PREV1Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&PREVIOUS2;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&PREV2Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&PREVIOUS3;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&PREV3Q(DROP=COUNT PERCENT);
RUN;
DATA TAB1&CURRNTQ;
   SET TAB1_&CURRNTQ;
   IF MAJGRP = 'Benchmark' THEN DO;
      ROW=42;
      IF BENTYPE='Mammography' THEN COL2=SCORE;
         ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
         ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
         ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
   END;
      ELSE DO;
      ROW = 40;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
```

```
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB2&CURRNTQ;
   SET TAB2_&CURRNTQ;
   ROW=41;
   IF MAJGRP='Prime Enrollees';
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PREV1Q;
   SET TAB1_&PREV1Q;
   ROW=39;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PREV2Q;
   SET TAB1_&PREV2Q;
   ROW=38;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PREV3Q;
   SET TAB1_&PREV3Q;
   ROW=37;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
```

```
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB1&PREV3Q TAB1&PREV2Q TAB1&PREV1Q TAB1&CURRNTQ TAB2&CURRNTQ;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8);
   SET TAB1;

   IF COL2 NE . THEN OUTPUT COL2;
   IF COL3 NE . THEN OUTPUT COL3;
   IF COL4 NE . THEN OUTPUT COL4;
   IF COL5 NE . THEN OUTPUT COL5;
   IF COL6 NE . THEN OUTPUT COL6;
   IF COL7 NE . THEN OUTPUT COL7;
   IF COL8 NE . THEN OUTPUT COL8;
   IF COL9 NE . THEN OUTPUT COL9;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
DATA TABLE1;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9;
   BY ROW;
RUN;
TITLE2 'TABLE 1';
PROC PRINT;
RUN;

*************************************************************************
* DDE LINK (EXCEL file has to be open )
*************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R37C2:R42C9";

DATA _NULL_;
   SET TABLE1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9;
RUN;

FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[CLOSE]';
RUN;

%MEND RUNCW;
```

```
%RUNCW(AREA=Region 1,
       NAME=Region1.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 2,
       NAME=Region2.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 3,
       NAME=Region3.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 4,
       NAME=Region4.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 5,
       NAME=Region5.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 6,
       NAME=Region6.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 7/8,
       NAME=Region78.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 9,
       NAME=Region9.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 10,
       NAME=Region10.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 11,
       NAME=Region11.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Region 12,
       NAME=Region12.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Europe,
       NAME=Europe.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Asia,
```

```
       NAME=Asia.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Latin America,
       NAME=LatinAmerica.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
%RUNCW(AREA=Alaska,
       NAME=Alaska.xls,
       CURRENT=CURNTR.TOTAL_Q,
       PREVIOUS1=PRV1R.CONUS_Q,
       PREVIOUS2=PRV2R.CONUS_Q,
       PREVIOUS3=PRV3R.CONUS_Q);
```

6. POPULATE EXCEL REPORT FOR SERVICE AFFILIATION CONSUMER WATCH

```
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH.SAS
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
* AUTHOR : MIKI SATAKE
* DATE   : 4/24/01
* UPDATED: 7/16/01 FOR QUARTER 2 BY NATALIE JUSTH
* UPDATED: 10/16/01 FOR QUARTER 3 BY NATALIE JUSTH
* UPDATED: 1/11/02 FOR QUARTER 4 BY NATALIE JUSTH
* UPDATED AND RENAMED: 4/9/02 FOR QUARTER 1 2002 BY NATALIE JUSTH
* UPDATED: 7/5/02 FOR QUARTER 2 2002 BY NATALIE JUSTH
* UPDATED: 7/15/02 FOR QUARTER 3 2002 BY NATALIE JUSTH
* UPDATED: 11/12/02 FOR QUARTER 4 2002 BY NATALIE JUSTH
* INPUT  : FIGURE 1 - FIGURE 4 AND TABLE 1 - SERVICE AFFILIATION
*          (2002-Q4) Q4_2002/CONUS_Q.SD2
*          (2002-Q3) Q3_2002/CONUS_Q.SD2
*          (2002-Q2) Q2_2002/CONUS_Q.SD2
*          (2002-Q1) Q1_2002/CONUS_Q.SD2
*          FIGURE 5 AND SPECIAL REPORT GRAPHS
*          (ALL) FIG5TO9.SD2
* OUTPUT : INTO EXCEL SPREADSHEET
*******************************************************************************;
;

OPTIONS NOXWAIT MPRINT;

/***************************/
/* UPDATE SERVICE LIBNAMES  */
/***************************/

/* LIBNAMES for Service Affiliation Consumer Watch */
LIBNAME CURNTS 'Q4_2002';
LIBNAME PRV1S  'Q3_2002';
LIBNAME PRV2S  'Q2_2002';
LIBNAME PRV3S  'Q1_2002';

LIBNAME IN    '.';

/*****************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/*****************************************/

%LET CURRNT  = 'October, 2001 to September, 2002';
%LET CURRNTQ = Q4;
%LET PREV1   = 'July, 2001 to June, 2002';
%LET PREV1Q  = Q3;
%LET PREV2   = 'April, 2001 to March, 2002';
%LET PREV2Q  = Q2;
%LET PREV3   = 'January, 2001 to December, 2001';
%LET PREV3Q  = Q1;

%MACRO    RUNCW    (AREA=,                                          /*    Service    affiliation
*/
             NAME=,                  /*  Name  of  Excel  file  for  each  service  affiliation
*/
             CURRENT=,                /*   Libname   and   dataset   for   the   current   quarter
*/
             PREVIOUS1=,            /*   Libname   and   dataset   for   the   previous   quarter
*/
             PREVIOUS2=,    /* Libname and dataset for the 2nd quarter prior to current quarter
*/
             PREVIOUS3=     /* Libname and dataset for the 3rd quarter prior to current quarter
*/
             );

/* Change parameter for each service affiliation */
%LET VAL = &AREA.;

x "COPY TEMPLATE-S.XLS &NAME.";
X "START &NAME.";
```

```
DATA _NULL_;
   X=SLEEP(8);
RUN;

TITLE "8860-420 DOD SHORT REPORT &CURRNTQ 2002";
TITLE2 "&AREA.";

/* This macro pulls data from the specified dataset to be used in the Consumer Watch */
%MACRO GETDATA (DATASET=,    /* Current quarter data set  */
                MAJGRP=,     /* Value of variable MAJGRP  */
                REGION=,     /* Value of variable REGION  */
                REGCAT=,     /* Value of variable REGCAT  */
                BENEFIT=,    /* Value of variable BENEFIT */
                BENTYPE=,    /* Value of variable BENTYPE */
                OUTDATA=     /* Name of output data set   */
                );
PROC FREQ NOPRINT DATA=&DATASET;
   WHERE MAJGRP = &MAJGRP
     AND REGION IN &REGION
     AND REGCAT IN &REGCAT
     AND BENEFIT IN &BENEFIT
     AND BENTYPE = &BENTYPE;
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SCORE*N_OBS*N_WGT*SIG/ OUT=&OUTDATA(DROP=COUNT PERCENT);
RUN;
%MEND GETDATA;

/* This macro re-calculates SCORE based on the quarterly benchmark */
%MACRO   NEWSCORE   (FIGURE=,              /*   Figure   number   in   consumer   watch   reports
*/
                 QUARTER=      /* Data is processed for current quarter and each of 3 previous
quarters */
                 );
DATA FIG&FIGURE&QUARTER FIGB&QUARTER(KEEP=SCORE);
   SET FIG&FIGURE&QUARTER;
   IF REGION='Benchmark' THEN OUTPUT FIGB&QUARTER;
      ELSE OUTPUT FIG&FIGURE&QUARTER;
RUN;
DATA FIG&FIGURE&QUARTER(DROP=RSCORE);
   MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGURE&QUARTER;
   SCORE=SCORE-RSCORE;
RUN;
%MEND NEWSCORE;

%MACRO COMBDATA (FIGURE=   /* Figure number in consumer watch reports */
                );
DATA FIG&FIGURE(DROP=BSCORE);
   SET BENCH FIG&FIGURE.Q4 FIG&FIGURE.Q3 FIG&FIGURE.Q2 FIG&FIGURE.Q1;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF BENTYPE = &PREV3 THEN DO;
      ROW = 4;
      SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF BENTYPE = &PREV2 THEN DO;
      ROW = 5;
      SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF BENTYPE = &PREV1 THEN DO;
      ROW = 6;
      SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF BENTYPE = &CURRNT THEN DO;
      ROW=7;
      SCORE=SCORE+BSCORE;
   END;
```

```
   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;
PROC SORT;
   BY ROW;
RUN;
%MEND COMBDATA;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG1&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&PREV1,
          OUTDATA=FIG1&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&PREV2,
          OUTDATA=FIG1&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=&PREV3,
          OUTDATA=FIG1&PREV3Q);

%NEWSCORE (FIGURE=1,
           QUARTER=&CURRNTQ);
%NEWSCORE (FIGURE=1,
           QUARTER=&PREV1Q);
%NEWSCORE (FIGURE=1,
           QUARTER=&PREV2Q);
%NEWSCORE (FIGURE=1,
           QUARTER=&PREV3Q);

%COMBDATA (FIGURE=1);

PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R3C2:R7C3";

DATA _NULL_;
   SET FIG1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;
```

```
*******************************************************************************
* FIGURE 2: Health Plan Rating
*******************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG2&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&PREV1,
          OUTDATA=FIG2&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&PREV2,
          OUTDATA=FIG2&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=&PREV3,
          OUTDATA=FIG2&PREV3Q);

%NEWSCORE (FIGURE=2,
           QUARTER=&CURRNTQ);
%NEWSCORE (FIGURE=2,
           QUARTER=&PREV1Q);
%NEWSCORE (FIGURE=2,
           QUARTER=&PREV2Q);
%NEWSCORE (FIGURE=2,
           QUARTER=&PREV3Q);

%COMBDATA (FIGURE=2);

PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R10C2:R14C3";

DATA _NULL_;
   SET FIG2;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 3: Personal Provider Rating
*******************************************************************************;
TITLE2 'Figure 3: Personal Provider Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
```

```
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG3&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&PREV1,
          OUTDATA=FIG3&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&PREV2,
          OUTDATA=FIG3&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Primary Care Manager'),
          BENTYPE=&PREV3,
          OUTDATA=FIG3&PREV3Q);

%NEWSCORE (FIGURE=3,
           QUARTER=&CURRNTQ);
%NEWSCORE (FIGURE=3,
           QUARTER=&PREV1Q);
%NEWSCORE (FIGURE=3,
           QUARTER=&PREV2Q);
%NEWSCORE (FIGURE=3,
           QUARTER=&PREV3Q);

%COMBDATA (FIGURE=3);

PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R17C2:R21C3";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 4: Health Care Topics
*******************************************************************************;
TITLE2 'Figure 4: Health Care Topics';
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly','Courteous and Helpful Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&CURRNT,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
```

```
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&CURRNT,
          OUTDATA=FIG4&CURRNTQ);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&PREV1,
          OUTDATA=FIG4&PREV1Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&PREV2,
          OUTDATA=FIG4&PREV2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP='Prime Enrollees',
          REGION=("&VAL",'Benchmark'),
          REGCAT=("&VAL",'Benchmark'),
          BENEFIT=('Getting  Needed  Care','Getting  Care  Quickly','Courteous  and  Helpful  Office
Staff',
                   'How Well Doctors Communicate','Customer Service','Claims Processing'),
          BENTYPE=&PREV3,
          OUTDATA=FIG4&PREV3Q);

%MACRO F4SCORE (QUARTER=     /* Data is processed for current quarter and each of 3 previous
quarters */
               );
DATA FIG4Q&QUARTER FIGB&QUARTER(KEEP=SCORE BENEFIT SIG);
   SET FIG4Q&QUARTER;
   IF REGION = 'Benchmark' THEN OUTPUT FIGB&QUARTER;
      ELSE OUTPUT FIG4Q&QUARTER;
RUN;
PROC SORT DATA=FIG4Q&QUARTER;
   BY BENEFIT;
RUN;
PROC SORT DATA=FIGB&QUARTER;
   BY BENEFIT;
RUN;
DATA FIG4Q&QUARTER(DROP=RSCORE);
   MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
         FIG4Q&QUARTER;
   BY BENEFIT;
   SCORE=SCORE-RSCORE;
RUN;
%MEND F4SCORE;

%F4SCORE (QUARTER=1);
%F4SCORE (QUARTER=2);
%F4SCORE (QUARTER=3);
%F4SCORE (QUARTER=4);

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(KEEP=ROW SCORE1 RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SCORE1 RENAME=(SCORE1=COL6))
     COL7(KEEP=ROW SCORE1 RENAME=(SCORE1=COL7))
     COL8(KEEP=ROW SIG RENAME=(SIG=COL8))
     COL9(KEEP=ROW SIG RENAME=(SIG=COL9))
     COL10(KEEP=ROW SIG RENAME=(SIG=COL10))
     COL11(KEEP=ROW SIG RENAME=(SIG=COL11))
     COL12(KEEP=ROW SIG RENAME=(SIG=COL12))
     COL13(KEEP=ROW SIG RENAME=(SIG=COL13));
```

```
   SET BENCH FIG4Q4 FIG4Q3 FIG4Q2 FIG4Q1;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      BSCORE=SCORE;
      ROW = 24;
      SCORE1 = SCORE;
   END;
   ELSE IF BENTYPE = &PREV3 THEN DO;
      ROW = 25;
      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = &PREV2 THEN DO;
      ROW = 26;
      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = &PREV1 THEN DO;
      ROW = 27;
      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = &CURRNT THEN DO;
      ROW = 28;
      SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF BENEFIT = 'Getting Needed Care' THEN OUTPUT COL2 COL8;
   IF BENEFIT = 'Getting Care Quickly' THEN OUTPUT COL3 COL9;
   IF BENEFIT = 'Courteous and Helpful Office Staff' THEN OUTPUT COL4 COL10;
   IF BENEFIT = 'How Well Doctors Communicate' THEN OUTPUT COL5 COL11;
   IF BENEFIT = 'Customer Service' THEN OUTPUT COL6 COL12;
   IF BENEFIT = 'Claims Processing' THEN OUTPUT COL7 COL13;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;

DATA FIG4;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13;
   BY ROW;
RUN;

PROC PRINT;
RUN;

*************************************************************************
* DDE LINK (EXCEL file has to be open )
*************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R24C2:R28C14";

DATA _NULL_;
   SET FIG4;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9
       '09'X COL10 '09'X COL11 '09'X COL12 '09'X COL13;
RUN;
```

```
*******************************************************************************
* FIGURE 5: Intent to Disenroll
*******************************************************************************;
TITLE2 'Figure 5: Intent to Disenroll';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &CURRNT
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&CURRNTQ(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &CURRNT
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&CURRNTQ.C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV1
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&PREV1Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV1
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&PREV1Q.C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV2
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&PREV2Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV2
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&PREV2Q.C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV3
     AND FIGURE='FIGURE 5'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL3*COL4*ROW/ OUT=FIG5&PREV3Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE = &PREV3
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*REGION*FIGURE*COL2*ROW/ OUT=FIG5&PREV3Q.C(DROP=COUNT PERCENT);
RUN;

DATA COL2(DROP=COL3 COL4)
     COL3(DROP=COL2 COL4)
     COL4(DROP=COL2 COL3);
   SET FIG5Q1 FIG5Q1C FIG5Q4 FIG5Q4C FIG5Q3 FIG5Q3C FIG5Q2 FIG5Q2C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL4>=-1 THEN OUTPUT COL4;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;

DATA FIG5;
   MERGE COL2 COL3 COL4;
   BY ROW;
RUN;
```

```
TITLE2 'FIGURE 5';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R31C2:R34C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4;
RUN;

*******************************************************************************
* FIGURE 6
*******************************************************************************;
TITLE2 'Figure 6';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 6'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG6(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 6'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG6C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG6 FIG6C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
DATA FIG6;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 6';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R46C7:R47C10";
```

```
DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R46C16:R47C20";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* FIGURE 7
*******************************************************************************;
TITLE2 'Figure 7';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 7'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG7(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 7'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG7C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG7 FIG7C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;

DATA FIG7;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 7';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R52C7:R53C10";
```

```
DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R52C16:R53C20";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*************************************************************************
* FIGURE 8
*************************************************************************;
TITLE2 'Figure 8';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 8'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG8(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 8'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG8C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG8 FIG8C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;

DATA FIG8;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 8';
PROC PRINT;
RUN;

*************************************************************************
* DDE LINK (EXCEL file has to be open )
*************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R57C7:R58C10";
```

```
DATA _NULL_;
   SET FIG8;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R57C16:R58C20";

DATA _NULL_;
   SET FIG8;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* FIGURE 9
*******************************************************************************;
TITLE2 'Figure 9';
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE FIGURE='FIGURE 9'
     AND REGION = "&VAL";
   TABLES BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL7*COL8*ROW/ OUT=FIG9(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIG5TO9;
   WHERE BENTYPE IN (&CURRNT, 'January, 2000 to December, 2000')
     AND FIGURE='FIGURE 9'
     AND REGION='CONUS';
   TABLES      BENTYPE*REGION*FIGURE*COL2*COL3*COL5*COL6*COL9*COL10*ROW/      OUT=FIG9C(DROP=COUNT
PERCENT);
RUN;

DATA COL2(DROP=COL3 COL5 COL6 COL7 COL8 COL9 COL10)
     COL3(DROP=COL2 COL5 COL6 COL7 COL8 COL9 COL10)
     COL5(DROP=COL2 COL3 COL6 COL7 COL8 COL9 COL10)
     COL6(DROP=COL2 COL3 COL5 COL7 COL8 COL9 COL10)
     COL7(DROP=COL2 COL3 COL5 COL6 COL8 COL9 COL10)
     COL8(DROP=COL2 COL3 COL5 COL6 COL7 COL9 COL10)
     COL9(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL10)
     COL10(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9);
   SET FIG9 FIG9C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL5>=0 THEN OUTPUT COL5;
   IF COL6>=0 THEN OUTPUT COL6;
   IF COL7>=-1 THEN OUTPUT COL7;
   IF COL8>=-1 THEN OUTPUT COL8;
   IF COL9>=-1 THEN OUTPUT COL9;
   IF COL10>=-1 THEN OUTPUT COL10;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;

DATA FIG9;
   MERGE COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10;
   BY ROW;
RUN;
TITLE2 'FIGURE 9';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R62C7:R63C10";
```

```
DATA _NULL_;
   SET FIG9;
   FILE TBL NOTAB LRECL=200;
   PUT COL7 '09'X COL8 '09'X COL9 '09'X COL10;
RUN;

FILENAME TBL DDE "EXCEL|DATA!R62C16:R63C20";

DATA _NULL_;
   SET FIG9;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X '09'X COL5 '09'X COL6;
RUN;

*******************************************************************************
* TABLE 1: Preventive Care
* CHANGED MAJGRP TO 'Prime Enrollees' (from 'All Users') in Q2_2002
*******************************************************************************;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP IN ('Prime Enrollees','Benchmark')
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&CURRNTQ(DROP=COUNT PERCENT);
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*N_OBS/ OUT=TAB2_&CURRNTQ(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&PREVIOUS1;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&PREV1Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&PREVIOUS2;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&PREV2Q(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&PREVIOUS3;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGION = "&VAL"
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_&PREV3Q(DROP=COUNT PERCENT);
RUN;
DATA TAB1&CURRNTQ;
   SET TAB1_&CURRNTQ;
   IF MAJGRP = 'Benchmark' THEN DO;
      ROW=42;
      IF BENTYPE='Mammography' THEN COL2=SCORE;
         ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
         ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
         ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
   END;
      ELSE DO;
      ROW = 40;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
```

```
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB2&CURRNTQ;
   SET TAB2_&CURRNTQ;
   ROW=41;
   IF MAJGRP='Prime Enrollees';
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PREV1Q;
   SET TAB1_&PREV1Q;
   ROW=39;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PREV2Q;
   SET TAB1_&PREV2Q;
   ROW=38;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PREV3Q;
   SET TAB1_&PREV3Q;
   ROW=37;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL6=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
```

```
         COL7=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL8=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL9=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB1&PREV3Q TAB1&PREV2Q TAB1&PREV1Q TAB1&CURRNTQ TAB2&CURRNTQ;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8);
   SET TAB1;

   IF COL2 NE . THEN OUTPUT COL2;
   IF COL3 NE . THEN OUTPUT COL3;
   IF COL4 NE . THEN OUTPUT COL4;
   IF COL5 NE . THEN OUTPUT COL5;
   IF COL6 NE . THEN OUTPUT COL6;
   IF COL7 NE . THEN OUTPUT COL7;
   IF COL8 NE . THEN OUTPUT COL8;
   IF COL9 NE . THEN OUTPUT COL9;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
DATA TABLE1;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9;
   BY ROW;
RUN;
TITLE2 'TABLE 1';
PROC PRINT;
RUN;

*************************************************************************
* DDE LINK (EXCEL file has to be open )
*************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R37C2:R42C9";

DATA _NULL_;
   SET TABLE1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9;
RUN;

FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[CLOSE]';
RUN;

%MEND RUNCW;
```

```
%RUNCW(AREA=Navy,
       NAME=Navy.xls,
       CURRENT=CURNTS.CONUS_Q,
       PREVIOUS1=PRV1S.CONUS_Q,
       PREVIOUS2=PRV2S.CONUS_Q,
       PREVIOUS3=PRV3S.CONUS_Q);
%RUNCW(AREA=Air Force,
       NAME=AirForce.xls,
       CURRENT=CURNTS.CONUS_Q,
       PREVIOUS1=PRV1S.CONUS_Q,
       PREVIOUS2=PRV2S.CONUS_Q,
       PREVIOUS3=PRV3S.CONUS_Q);
%RUNCW(AREA=Army,
       NAME=Army.xls,
       CURRENT=CURNTS.CONUS_Q,
       PREVIOUS1=PRV1S.CONUS_Q,
       PREVIOUS2=PRV2S.CONUS_Q,
       PREVIOUS3=PRV3S.CONUS_Q);
```

7. CALCULATES INTENT TO DISENROLL

A. OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;

```
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: FIGURE5-C.SAS
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
*          Catchment level only
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* OUTPUT : FIGURE5C.SD2
*******************************************************************************;

OPTIONS NOXWAIT;

/* LIBNAMES for Catchment-level Consumer Watch */
LIBNAME ALLYR V612 '..\..\..\2002\DATA';

LIBNAME IN    '.';
LIBNAME OUT V612 '.';

/*****************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/*****************************************/

%LET CURRNT  = '2002';
%LET CURRNTQ = X02;
%LET PREV1   = '2001';
%LET PREV1Q  = X01;
%LET PREV2   = '2000';
%LET PREV2Q  = X00;

TITLE 'Consumer Watch 2002 - Catchment';

PROC FORMAT;
VALUE   CATREP
   1= "Fox AHC                      "
   3= "Lyster ACH                   "
   4= "42nd Med Grp - Maxwell       "
   5= "Bassett ACH                  "
   6= "3rd Med Grp-Elmendorf        "
   8= "R W Bliss AHC                "
   9= "56th Med Grp-Luke            "
  10= "355th Med Grp-Davis Monthan  "
  13= "314th Med Grp-Little Rock    "
  14= "60th Med Grp-Travis          "
  19= "95th Med Grp-Edwards         "
  24= "NH Camp Pendleton            "
  28= "NH LeMoore                   "
  29= "NMC San Diego                "
  30= "NH Twentynine Palms          "
  32= "Evans ACH                    "
  33= "10th Med Grp-USAF Academy    "
  35= "NACC Groton                  "
  36= "436th Med Grp-Dover          "
  37= "Walter Reed AMC              "
  38= "NH Pensacola                 "
  39= "NH Jacksonville              "
  42= "96th Med Grp-Eglin           "
  43= "325th Med Grp-Tyndall        "
  45= "6th Med Grp-MacDill          "
  46= "45th Med Grp-Patrick         "
  47= "Eisenhower AMC               "
  48= "Martin ACH                   "
  49= "Winn ACH                     "
  51= "78th Med Grp-Robins          "
  52= "Tripler AMC                  "
  53= "366th Med Grp-Mountain Home  "
  55= "375th Med Grp-Scott          "
  56= "NH Great Lakes               "
```

```
  57= "Irwin ACH                     "
  58= "Munson AHC                    "
  59= "22nd Med Grp-McConnell        "
  60= "Blanchfield ACH               "
  61= "Ireland ACH                   "
  62= "2nd Med Grp-Barksdale         "
  64= "Bayne-Jones ACH               "
  66= "89th Med Grp-Andrews          "
  67= "NNMC Bethesda                 "
  69= "Kimbrough Amb Car Cen-Ft Meade"
  73= "81st Med Grp-Keesler          "
  75= "L. Wood ACH                   "
  78= "55th Med Grp-Offutt           "
  79= "99th Med Grp- O'Callaghan Hosp"
  83= "377th Med Grp-Kirtland        "
  86= "Keller ACH                    "
  89= "Womack AMC                    "
  90= "4th Med Grp-Seymour Johnson   "
  91= "NH Camp Lejeune               "
  92= "NH Cherry Point               "
  95= "74th Med Grp-Wright-Patterson "
  96= "72nd Med Grp-Tinker           "
  98= "Reynolds ACH                  "
 101= "20th Med Grp-Shaw             "
 103= "NH Charleston                 "
 104= "NH Beaufort                   "
 105= "Moncrief ACH                  "
 108= "William Beaumont AMC          "
 109= "Brooke AMC                    "
 110= "Darnall ACH                   "
 112= "7th Med Grp-Dyess             "
 113= "82nd Med Grp-Sheppard         "
 117= "59th Med Wing-Lackland        "
 118= "NH Corpus Christi             "
 119= "75th Med Grp-Hill             "
 120= "1st Med Grp-Langley           "
 121= "McDonald ACH                  "
 123= "Dewitt ACH                    "
 124= "NMC Portsmouth                "
 125= "Madigan AMC                   "
 126= "NH Bremerton                  "
 127= "NH Oak Harbor                 "
 128= "92nd Med Grp-Fairchild        "
 129= "90th Med Grp-F.E. Warren      "
 131= "Weed ACH                      "
 280= "NMCL Pearl Harbor             "
 287= "15th Med Grp-Hickam           "
 321= "NACC Portsmouth NH            "
 326= "305th Med Grp-McGuire         "
 330= "Guthrie AHC                   "
 366= "12th Med Grp-Randolph         "
 385= "NMCL Quantico                 "
 606= "Heidelberg Meddac             "
 607= "Landstuhl Regional Medcen     "
 609= "Wuerzburg Meddac              "
 612= "121st Gen Hosp-Seoul          "
 616= "NH Roosevelt Roads-Ceiba      "
 617= "NH Naples                     "
 620= "NH Guam-Agana                 "
 621= "NH Okinawa                    "
 622= "NH Yokosuka                   "
 633= "48th Med Grp-Lakenheath       "
 638= "51st Med Grp-Osan AB          "
 640= "374th Med Grp-Yokota AB       "
 804= "18th Med Grp-Kadena AB        "
 805= "52nd MED Grp-Spangdahlem      "
 806= "86th Med Grp-Ramstein         "
7139= "16th Med Grp-Hurlburt Field   "
9901= "Out of Catchment Region 01    "
9902= "Out of Catchment Region 02    "
9903= "Out of Catchment Region 03    "
9904= "Out of Catchment Region 04    "
9905= "Out of Catchment Region 05    "
```

```
9906= "Out of Catchment Region 06    "
9907= "Out of Catchment Region 07    "
9908= "Out of Catchment Region 08    "
9909= "Out of Catchment Region 09    "
9910= "Out of Catchment Region 10    "
9911= "Out of Catchment Region 11    "
9912= "Out of Catchment Region 12    "
9913= "Out of Catchment Europe       "
9914= "Out of Catchment Asia         "
9915= "Out of Catchment Latin America"
;


RUN;

TITLE2 'Figure 5: Plans to Disenroll';

LIBNAME LIBRARY '..\..\..\2002\DATA\FMTLIB';
DATA HCS02A_1(KEEP=TOTAL CONUS KDISENRL XBNFGRP XENRLLMT CWRWT CACSMPL DEPVAR5 DENOM5 STRATUMN);
   SET ALLYR.HCS02A_1;
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
   IF (KDISENRL=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
   STRATUMN = STRATUM + 0;
RUN;

LIBNAME LIBRARY '..\..\..\2002\DATA\FMTLIB';
DATA CAC01REV(KEEP=TOTAL CONUS KDISENRL XBNFGRP XENRLLMT CWRWT CACSMPL DEPVAR5 DENOM5 STRATUMN
              DROP=XCACSMPL);
   SET ALLYR.CAC01REV(RENAME=(CACSMPL=XCACSMPL));
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
   FORMAT CACSMPL CATREP.;
   IF (KDISENRL=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
   STRATUMN = STRATUM + 0;

   LENGTH CACSMPL 8.;
   CACSMPL=INPUT(XCACSMPL,8.);
RUN;

LIBNAME LIBRARY '..\..\..\2002\DATA\FMTLIB';
DATA CAC00REV(KEEP=TOTAL XREGION CONUS KDISENRL XBNFGRP XENRLLMT WRWT99 CACSMPL DEPVAR5 DENOM5
STRATUMN
              DROP=XCACSMPL);
   SET ALLYR.CAC00REV(RENAME=(CACSMPL=XCACSMPL));
   TOTAL=1;
   IF XREGION=7 THEN XREGION=8;
   FORMAT CACSMPL CATREP.;
   IF (KDISENRL=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DEPVAR5 = 1;
      ELSE DEPVAR5 = 0;
   IF (XBNFGRP IN (2,3,4) AND XENRLLMT = 2) THEN DENOM5 = 1;
      ELSE DENOM5 = 0;
   STRATUMN = STRATUM + 0;

   LENGTH CACSMPL 8.;
   CACSMPL=INPUT(XCACSMPL,8.);
RUN;

*******************************************************************************
* FIGURE 5: Intent to Disenroll
*******************************************************************************;

%MACRO FIGURE5 (DATASET,YEAR,BENTYPE,ROW,WT);

/***********************************/
/* RUN SIGNIFICANCE TESTS          */
/***********************************/
```

```
%MACRO RUNSE5 (DS,DEPVAR,INDEPVAR,NUMCOL,SUBPOP,YR,WGT);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
   TABLES &INDEPVAR;
   SUBGROUP &INDEPVAR;
   LEVELS &NUMCOL;
*   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&YR;
RUN;

PROC PRINT DATA=&YR;
RUN;
%MEND RUNSE5;

%RUNSE5 (HCS02A_1,DEPVAR5,CACSMPL,9999,(DENOM5=1),Z02,CWRWT);
%RUNSE5 (CAC01REV,DEPVAR5,CACSMPL,9999,(DENOM5=1),Z01,CWRWT);
%RUNSE5 (CAC00REV,DEPVAR5,CACSMPL,9999,(DENOM5=1),Z00,WRWT99);

%MACRO RUNSEC5 (DS,DEPVAR,SUBPOP,YR,WGT);
***CALCULATE VALUES FOR EACH COLUMN FOR ENTIRE POPULATION****;
PROC SORT DATA=&DS;
   BY STRATUMN;
RUN;

PROC DESCRIPT DATA=&DS DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;                    ******  FINAL SURVEY WEIGHT   ********;
   NEST STRATUMN / MISSUNIT;
   VAR &DEPVAR;                    ******  VARIABLES TO BE ESTIMATED**;
   SUBPOPN &SUBPOP;
*   PRINT /STYLE=NCHS;
   OUTPUT / TABLECELL=DEFAULT FILENAME=&YR;
RUN;

PROC PRINT DATA=&YR;
RUN;
%MEND RUNSEC5;

%RUNSEC5 (HCS02A_1,DEPVAR5,(DENOM5=1 AND CONUS=1),C02,CWRWT);
%RUNSEC5 (CAC01REV,DEPVAR5,(DENOM5=1 AND CONUS=1),C01,CWRWT);
%RUNSEC5 (CAC00REV,DEPVAR5,(DENOM5=1 AND CONUS=1),C00,WRWT99);

%MACRO SIGFLAG5(NUMCOL,ZYR,CYR,INDEPVAR,ROW);
DATA N&ZYR (KEEP=COL4 &INDEPVAR ROW);
   MERGE &CYR(RENAME=(MEAN=DOM_MEAN SEMEAN=DOM_SE NSUM=DOM_N))
         &ZYR;
   BY TABLENO;
   RETAIN NCOL 0;
   ARRAY COLUMNS COL1-COL&NUMCOL;
   IF &INDEPVAR > 0;
   NCOL+1;
   IF &INDEPVAR IN (35,36,37,66,67,69,86,123,321,326,330,385,9901,
                    89,90,91,92,120,121,124,9902,
                    39,45,46,47,48,49,51,101,103,104,105,9903,
                    1,3,4,38,42,43,73,7139,9904,
                    55,56,60,61,95,9905,
                    13,62,64,96,98,109,110,112,113,117,118,366,9906,
                    8,9,10,79,83,108,9907,32,33,53,57,58,59,75,78,119,129,9908,
                    19,24,29,30,131,9909,
                    14,28,9910,
                    125,126,127,128,9911,
                    52,280,287,9912,
                    5,6) THEN
      VARDIF = ((1 - 2*NSUM/DOM_N)*DOM_SE**2 + SEMEAN**2);
   IF &INDEPVAR IN (606,607,609,617,633,805,806,9913,
```

```
                  612,620,621,622,638,640,804,9914,
                  616,9915) THEN VARDIF = DOM_SE**2 + SEMEAN**2;
   SEDIF = SQRT(VARDIF);
   N=MIN(NSUM,DOM_N);
   ***SIGNIFICANCE TEST****;
   TESTVAL = 2*(1-PROBT(ABS(MEAN - DOM_MEAN) / SEDIF,N));
   PUT VARDIF= SEDIF= TESTVAL=;
   IF TESTVAL<.05 & MEAN>DOM_MEAN THEN COLUMNS(NCOL) = 1;
   ELSE IF TESTVAL <.05 & MEAN<DOM_MEAN THEN COLUMNS(NCOL) = -1;
   ELSE COLUMNS(NCOL) = 0;
   DO I=1 TO &NUMCOL;
      IF COLUMNS(I) NE . THEN COL4=COLUMNS(I);
   END;
   ROW=&ROW;
RUN;

PROC PRINT DATA=N&ZYR;
RUN;
%MEND SIGFLAG5;

%SIGFLAG5(9999,Z02,C02,CACSMPL,33);
%SIGFLAG5(9999,Z01,C01,CACSMPL,32);
%SIGFLAG5(9999,Z00,C00,CACSMPL,31);

/*****/
/*MHS*/
/*****/

PROC FREQ DATA=&DATASET;
   WHERE (CONUS=1 AND KDISENRL=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSNUM&YEAR(RENAME=(COUNT=MHSNUM));
   WEIGHT &WT;
RUN;
PROC FREQ DATA=&DATASET;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEN&YEAR(RENAME=(COUNT=MHSDEN));
   WEIGHT &WT;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET;
   WHERE (CONUS=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=MHSDEU&YEAR(RENAME=(COUNT=MHSDENU));
RUN;


/********/
/*MTF   */
/********/

PROC SORT DATA=&DATASET;BY CACSMPL;RUN;
PROC FREQ DATA=&DATASET;
   WHERE (KDISENRL=1 AND XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5N&YEAR(RENAME=(COUNT=FIG5NUM));
   WEIGHT &WT;
   BY CACSMPL;
RUN;
PROC FREQ DATA=&DATASET;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5D&YEAR(RENAME=(COUNT=FIG5DEN));
   WEIGHT &WT;
   BY CACSMPL;
RUN;
/************/
/*UNWEIGHTED*/
/************/
PROC FREQ DATA=&DATASET;
   WHERE (XBNFGRP IN (2,3,4) AND XENRLLMT=2);
   TABLES TOTAL / OUT=FIG5DU&YEAR(RENAME=(COUNT=FIG5DENU));
   BY CACSMPL;
RUN;
```

```
DATA MHS5&YEAR;
   MERGE MHSNUM&YEAR MHSDEN&YEAR MHSDEU&YEAR;
   BY TOTAL;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (MHSDEN<200 OR MHSDENU<30) THEN COL2=.;
      ELSE COL2 = (MHSNUM / MHSDEN)*100;
RUN;
DATA CAC5&YEAR;
   MERGE FIG5N&YEAR FIG5D&YEAR FIG5DU&YEAR NZ&YEAR;
   BY CACSMPL;
   LENGTH BENTYPE $35;
   BENTYPE = &BENTYPE;
   ROW=&ROW;
   IF (FIG5DEN<200 OR FIG5DENU<30) THEN COL3=.;
      ELSE COL3 = (FIG5NUM / FIG5DEN)*100;
RUN;
DATA FIG5&YEAR(DROP=TOTAL PERCENT MHSNUM MHSDEN MHSDENU FIG5NUM FIG5DEN FIG5DENU);
   SET MHS5&YEAR CAC5&YEAR;
   LENGTH FIGURE $12;
   FIGURE = 'FIGURE 5';
RUN;
PROC PRINT;RUN;
%MEND FIGURE5;

%FIGURE5 (HCS02A_1,02,'2002',33,CWRWT);
%FIGURE5 (CAC01REV,01,'2001',32,CWRWT);
%FIGURE5 (CAC00REV,00,'2000',31,WRWT99);

*********************************************************************************
*********************************************************************************
* Combine all temporary datasets into one dataset for inclusion in consumer watch
*********************************************************************************
*********************************************************************************;

DATA OUT.FIGURE5C;
   SET FIG502 FIG501 FIG500;

   IF CACSMPL NOT IN (.,35,36,37,66,67,69,86,123,321,326,330,385,9901,
                      89,90,91,92,120,121,124,9902,
                      39,45,46,47,48,49,51,101,103,104,105,9903,
                      1,3,4,38,42,43,73,7139,9904,
                      55,56,60,61,95,9905,
                      13,62,64,96,98,109,110,112,113,117,118,366,9906,
                      8,9,10,79,83,108,9907,32,33,53,57,58,59,75,78,119,129,9908,
                      19,24,29,30,131,9909,
                      14,28,9910,
                      125,126,127,128,9911,
                      52,280,287,9912,
                      5,6,
                      606,607,609,617,633,805,806,9913,
                      612,620,621,622,638,640,804,9914,
                      616,9915) THEN DELETE;

   PROC SORT;
   BY ROW;
RUN;
PROC PRINT;
RUN;
```

B. OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR;

```
*********************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-C.SAS
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
*          Catchment level only
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* INPUT  : ..\..\..\2002\PROGRAMS\LOADWEB\TREND_A.SD2
* OUTPUT : INTO EXCEL SPREADSHEET
*********************************************************************************;

OPTIONS NOXWAIT;

/* LIBNAMES for Catchment-level Consumer Watch */
LIBNAME CURNTR '..\..\..\2002\PROGRAMS\LOADWEB';
LIBNAME ALLYR '..\..\..\2002\DATA';
LIBNAME PRV00 '..\..\..\2002\PROGRAMS\2000\REPORTCARDS\MPR_ADULT2000';
LIBNAME PRV01 '..\..\..\2002\PROGRAMS\2001\REPORTCARDS\MPR_ADULT2001';

LIBNAME IN    '.';

/*****************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/*****************************************/

%LET CURRNT  = '2002';
%LET CURRNTQ = X02;
%LET PREV1   = '2001';
%LET PREV1Q  = X01;
%LET PREV2   = '2000';
%LET PREV2Q  = X00;

TITLE 'Consumer Watch 2002 - Catchment';

PROC FORMAT;
VALUE   CATREP
   1= "Fox AHC                      "
   3= "Lyster ACH                   "
   4= "42nd Med Grp - Maxwell       "
   5= "Bassett ACH                  "
   6= "3rd Med Grp-Elmendorf        "
   8= "R W Bliss AHC                "
   9= "56th Med Grp-Luke            "
  10= "355th Med Grp-Davis Monthan  "
  13= "314th Med Grp-Little Rock    "
  14= "60th Med Grp-Travis          "
  19= "95th Med Grp-Edwards         "
  24= "NH Camp Pendleton            "
  28= "NH LeMoore                   "
  29= "NMC San Diego                "
  30= "NH Twentynine Palms          "
  32= "Evans ACH                    "
  33= "10th Med Grp-USAF Academy    "
  35= "NACC Groton                  "
  36= "436th Med Grp-Dover          "
  37= "Walter Reed AMC              "
  38= "NH Pensacola                 "
  39= "NH Jacksonville              "
  42= "96th Med Grp-Eglin           "
  43= "325th Med Grp-Tyndall        "
  45= "6th Med Grp-MacDill          "
  46= "45th Med Grp-Patrick         "
  47= "Eisenhower AMC               "
  48= "Martin ACH                   "
  49= "Winn ACH                     "
  51= "78th Med Grp-Robins          "
  52= "Tripler AMC                  "
  53= "366th Med Grp-Mountain Home  "
  55= "375th Med Grp-Scott          "
  56= "NH Great Lakes               "
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  57= "Irwin ACH                     "
  58= "Munson AHC                    "
  59= "22nd Med Grp-McConnell        "
  60= "Blanchfield ACH               "
  61= "Ireland ACH                   "
  62= "2nd Med Grp-Barksdale         "
  64= "Bayne-Jones ACH               "
  66= "89th Med Grp-Andrews          "
  67= "NNMC Bethesda                 "
  69= "Kimbrough Amb Car Cen-Ft Meade"
  73= "81st Med Grp-Keesler          "
  75= "L. Wood ACH                   "
  78= "55th Med Grp-Offutt           "
  79= "99th Med Grp- O'Callaghan Hosp"
  83= "377th Med Grp-Kirtland        "
  86= "Keller ACH                    "
  89= "Womack AMC                    "
  90= "4th Med Grp-Seymour Johnson   "
  91= "NH Camp Lejeune               "
  92= "NH Cherry Point               "
  95= "74th Med Grp-Wright-Patterson "
  96= "72nd Med Grp-Tinker           "
  98= "Reynolds ACH                  "
 101= "20th Med Grp-Shaw             "
 103= "NH Charleston                 "
 104= "NH Beaufort                   "
 105= "Moncrief ACH                  "
 108= "William Beaumont AMC          "
 109= "Brooke AMC                    "
 110= "Darnall ACH                   "
 112= "7th Med Grp-Dyess             "
 113= "82nd Med Grp-Sheppard         "
 117= "59th Med Wing-Lackland        "
 118= "NH Corpus Christi             "
 119= "75th Med Grp-Hill             "
 120= "1st Med Grp-Langley           "
 121= "McDonald ACH                  "
 123= "Dewitt ACH                    "
 124= "NMC Portsmouth                "
 125= "Madigan AMC                   "
 126= "NH Bremerton                  "
 127= "NH Oak Harbor                 "
 128= "92nd Med Grp-Fairchild        "
 129= "90th Med Grp-F.E. Warren      "
 131= "Weed ACH                      "
 280= "NMCL Pearl Harbor             "
 287= "15th Med Grp-Hickam           "
 321= "NACC Portsmouth NH            "
 326= "305th Med Grp-McGuire         "
 330= "Guthrie AHC                   "
 366= "12th Med Grp-Randolph         "
 385= "NMCL Quantico                 "
 606= "Heidelberg Meddac             "
 607= "Landstuhl Regional Medcen     "
 609= "Wuerzburg Meddac              "
 612= "121st Gen Hosp-Seoul          "
 616= "NH Roosevelt Roads-Ceiba      "
 617= "NH Naples                     "
 620= "NH Guam-Agana                 "
 621= "NH Okinawa                    "
 622= "NH Yokosuka                   "
 633= "48th Med Grp-Lakenheath       "
 638= "51st Med Grp-Osan AB          "
 640= "374th Med Grp-Yokota AB       "
 804= "18th Med Grp-Kadena AB        "
 805= "52nd Med Grp-Spangdahlem      "
 806= "86th Med Grp-Ramstein         "
7139= "16th Med Grp-Hurlburt Field   "
9901= "Out of Catchment Region 01    "
9902= "Out of Catchment Region 02    "
9903= "Out of Catchment Region 03    "
9904= "Out of Catchment Region 04    "
9905= "Out of Catchment Region 05    "
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```
9906= "Out of Catchment Region 06    "
9907= "Out of Catchment Region 07    "
9908= "Out of Catchment Region 08    "
9909= "Out of Catchment Region 09    "
9910= "Out of Catchment Region 10    "
9911= "Out of Catchment Region 11    "
9912= "Out of Catchment Region 12    "
9913= "Out of Catchment Europe       "
9914= "Out of Catchment Asia         "
9915= "Out of Catchment Latin America"
;


RUN;

%MACRO RUNCW (AREA,NAME,XLOPEN);

/*AREA=Catchment area                                                    */
/*NAME=Name of Excel file being created for catchment area               */
/*XLOPEN=Name of Excel template for region (with regional special topic)  */

/* Change parameter for each catchment area */
%LET VAL = &AREA.;

x "COPY &XLOPEN. &NAME.";
X "START &NAME.";

DATA _NULL_;
   X=SLEEP(8);
RUN;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Health Care'
     AND BENTYPE IN ('2000', '2001', '2002');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE*SIG/ OUT=FIG1_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Health Care'
     AND BENTYPE = '2002';
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE/ OUT=FIG1_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG1_SC FIG1_A(KEEP=SCORE BENTYPE);
   SET FIG1_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG1_A;
      ELSE OUTPUT FIG1_SC;
RUN;
PROC SORT DATA=FIG1_SC;
   BY BENTYPE;
RUN;
PROC SORT DATA=FIG1_A;
   BY BENTYPE;
RUN;
DATA FIG1_SC(DROP=ASCORE);
   MERGE FIG1_SC
         FIG1_A(RENAME=(SCORE=ASCORE));
   BY BENTYPE;
   SCORE=SCORE-ASCORE;
RUN;

DATA FIG1;
   SET FIG1_BE FIG1_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
```

```
   END;
   ELSE IF BENTYPE = '2000' THEN DO;
      ROW = 4;
      SCORE=BSCORE+SCORE;
   END;
   ELSE IF BENTYPE = '2001' THEN DO;
      ROW = 5;
      SCORE=BSCORE+SCORE;
   END;
   ELSE IF BENTYPE = '2002' THEN DO;
      ROW = 6;
      SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;

PROC SORT;
   BY ROW;
RUN;
TITLE2 'FIGURE 1';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R3C2:R6C3";

DATA _NULL_;
   SET FIG1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 2: Health Plan Rating
*******************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Health Plan'
     AND BENTYPE IN ('2000', '2001', '2002');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE*SIG/ OUT=FIG2_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Health Plan'
     AND BENTYPE = '2002';
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE/ OUT=FIG2_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG2_SC FIG2_A(KEEP=SCORE BENTYPE);
   SET FIG2_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG2_A;
      ELSE OUTPUT FIG2_SC;
RUN;
PROC SORT DATA=FIG2_SC;
   BY BENTYPE;
RUN;
PROC SORT DATA=FIG2_A;
   BY BENTYPE;
RUN;
DATA FIG2_SC(DROP=ASCORE);
   MERGE FIG2_SC
         FIG2_A(RENAME=(SCORE=ASCORE));
   BY BENTYPE;
   SCORE=SCORE-ASCORE;
RUN;

DATA FIG2;
```

```
   SET FIG2_BE FIG2_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF BENTYPE = '2000' THEN DO;
      ROW = 4;
      SCORE=BSCORE+SCORE;
   END;
   ELSE IF BENTYPE = '2001' THEN DO;
      ROW = 5;
      SCORE=BSCORE+SCORE;
   END;
   ELSE IF BENTYPE = '2002' THEN DO;
      ROW = 6;
      SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;

PROC SORT;
   BY ROW;
RUN;
TITLE2 'FIGURE 2';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R10C2:R13C3";

DATA _NULL_;
   SET FIG2;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 3: Personal Doctor
*******************************************************************************;
TITLE2 'Figure 3: Personal Doctor Rating';
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Personal Doctor'
     AND BENTYPE IN ('2000', '2001', '2002');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE*SIG/ OUT=FIG3_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Personal Doctor'
     AND BENTYPE = '2002';
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE/ OUT=FIG3_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG3_SC FIG3_A(KEEP=SCORE BENTYPE);
   SET FIG3_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG3_A;
      ELSE OUTPUT FIG3_SC;
RUN;
PROC SORT DATA=FIG3_SC;
   BY BENTYPE;
RUN;
PROC SORT DATA=FIG3_A;
   BY BENTYPE;
RUN;
DATA FIG3_SC(DROP=ASCORE);
   MERGE FIG3_SC
         FIG3_A(RENAME=(SCORE=ASCORE));
```

```
   BY BENTYPE;
   SCORE=SCORE-ASCORE;
RUN;

DATA FIG3;
   SET FIG3_BE FIG3_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF BENTYPE = '2000' THEN DO;
      ROW = 4;
      SCORE=BSCORE+SCORE;
   END;
   ELSE IF BENTYPE = '2001' THEN DO;
      ROW = 5;
      SCORE=BSCORE+SCORE;
   END;
   ELSE IF BENTYPE = '2002' THEN DO;
      ROW = 6;
      SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;

PROC SORT;
   BY ROW;
RUN;
TITLE2 'FIGURE 3';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R17C2:R20C3";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 4: Health Care Topics
*******************************************************************************;
TITLE2 'Figure 4: Health Care Topics';
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT IN ('Getting Needed Care','Getting Care Quickly','Courteous and Helpful Office
Staff',
                     'How Well Doctors Communicate','Customer Service','Claims Processing')
     AND BENTYPE IN ('2000', '2001', '2002');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE*SIG/ OUT=FIG4_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('Getting Needed Care','Getting Care Quickly','Courteous and Helpful Office
Staff',
                     'How Well Doctors Communicate','Customer Service','Claims Processing')
     AND BENTYPE = '2002';
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SCORE/ OUT=FIG4_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG4_SC FIG4_A(KEEP=SCORE BENTYPE BENEFIT);
   SET FIG4_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG4_A;
      ELSE OUTPUT FIG4_SC;
RUN;
```

```
PROC SORT DATA=FIG4_SC;
   BY BENEFIT BENTYPE;
RUN;
PROC SORT DATA=FIG4_A;
   BY BENEFIT BENTYPE;
RUN;
DATA FIG4_SC(DROP=ASCORE);
   MERGE FIG4_SC
         FIG4_A(RENAME=(SCORE=ASCORE));
   BY BENEFIT BENTYPE;
   SCORE=SCORE-ASCORE;
RUN;
PROC SORT DATA=FIG4_BE;
   BY BENEFIT;
RUN;

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(KEEP=ROW SCORE1 RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SCORE1 RENAME=(SCORE1=COL6))
     COL7(KEEP=ROW SCORE1 RENAME=(SCORE1=COL7))
     COL8(KEEP=ROW SIG RENAME=(SIG=COL8))
     COL9(KEEP=ROW SIG RENAME=(SIG=COL9))
     COL10(KEEP=ROW SIG RENAME=(SIG=COL10))
     COL11(KEEP=ROW SIG RENAME=(SIG=COL11))
     COL12(KEEP=ROW SIG RENAME=(SIG=COL12))
     COL13(KEEP=ROW SIG RENAME=(SIG=COL13));
   SET FIG4_BE FIG4_SC ; BY BENEFIT;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 24;
      BSCORE=SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = '2000' THEN DO;
      ROW=25;
      IF BENEFIT = 'Getting Care Quickly' THEN SCORE=.;
      ELSE DO;
         SCORE=BSCORE+SCORE;
         SCORE1=SCORE;
      END;
   END;
   ELSE IF BENTYPE = '2001' THEN DO;
      ROW = 26;
      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF BENTYPE = '2002' THEN DO;
      ROW = 27;
      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;

   IF BENEFIT = 'Getting Needed Care' THEN OUTPUT COL2 COL8;
   IF BENEFIT = 'Getting Care Quickly' THEN OUTPUT COL3 COL9;
   IF BENEFIT = 'Courteous and Helpful Office Staff' THEN OUTPUT COL4 COL10;
   IF BENEFIT = 'How Well Doctors Communicate' THEN OUTPUT COL5 COL11;
   IF BENEFIT = 'Customer Service' THEN OUTPUT COL6 COL12;
   IF BENEFIT = 'Claims Processing' THEN OUTPUT COL7 COL13;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
```

```
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;

DATA FIG4;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13;
   BY ROW;
RUN;
TITLE2 'FIGURE 4';
PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R24C2:R27C14";

DATA _NULL_;
   SET FIG4;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9
       '09'X COL10 '09'X COL11 '09'X COL12 '09'X COL13;
RUN;

*****************************************************************************
* FIGURE 5: Intent to Disenroll
*****************************************************************************;

TITLE2 'Figure 5: Intent to Disenroll';
PROC FREQ NOPRINT DATA=IN.FIGURE5C;
   WHERE BENTYPE = '2002'
     AND FIGURE='FIGURE 5'
     AND PUT(CACSMPL,CATREP.) = "&VAL";
   TABLES BENTYPE*CACSMPL*FIGURE*COL3*COL4*ROW/ OUT=FIG502A(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIGURE5C;
   WHERE BENTYPE = '2002'
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*FIGURE*COL2*ROW/ OUT=FIG502C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIGURE5C;
   WHERE BENTYPE = '2001'
     AND FIGURE='FIGURE 5'
     AND PUT(CACSMPL,CATREP.) = "&VAL";
   TABLES BENTYPE*CACSMPL*FIGURE*COL3*COL4*ROW/ OUT=FIG501A(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIGURE5C;
   WHERE BENTYPE = '2001'
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*FIGURE*COL2*ROW/ OUT=FIG501C(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIGURE5C;
   WHERE BENTYPE = '2000'
     AND FIGURE='FIGURE 5'
     AND PUT(CACSMPL,CATREP.) = "&VAL";
   TABLES BENTYPE*CACSMPL*FIGURE*COL3*COL4*ROW/ OUT=FIG500A(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=IN.FIGURE5C;
   WHERE BENTYPE = '2000'
     AND FIGURE='FIGURE 5'
     AND COL2 NE .;
   TABLES BENTYPE*FIGURE*COL2*ROW/ OUT=FIG500C(DROP=COUNT PERCENT);
RUN;

DATA COL2(DROP=COL3 COL4)
     COL3(DROP=COL2 COL4)
     COL4(DROP=COL2 COL3);
   SET FIG502A FIG502C FIG501A FIG501C FIG500A FIG500C;

   IF COL2>=0 THEN OUTPUT COL2;
   IF COL3>=0 THEN OUTPUT COL3;
   IF COL4>=0 THEN OUTPUT COL4;
```

```
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;

DATA FIG5;
   MERGE COL2 COL3 COL4;
   BY ROW;
RUN;

TITLE2 'FIGURE 5';
PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R31C2:R33C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4;
RUN;

*******************************************************************************
* TABLE 1: Preventive Care
*******************************************************************************;
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE/ OUT=TAB1_02(DROP=COUNT PERCENT);
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*N_OBS/ OUT=TAB2_02(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE/ OUT=TAB3_02(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=PRV01.LOADMPR;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES      MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*N_OBS*N_WGT/      OUT=TAB1_01(DROP=COUNT
PERCENT);
RUN;
PROC FREQ NOPRINT DATA=PRV00.LOADMPR;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = "&VAL"
     AND BENEFIT = 'Preventive Care'
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care');
   TABLES      MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*N_OBS*N_WGT/      OUT=TAB1_00(DROP=COUNT
PERCENT);
RUN;
DATA TAB302;
   SET TAB3_02;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW=42;
      IF BENTYPE='Mammography' THEN COL2=SCORE;
         ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
         ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
         ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
end;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB202;
```

```
   SET TAB2_02;
   ROW=41;
   IF MAJGRP='Prime Enrollees';
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB102;
   SET TAB1_02;
   ROW=40;
   IF BENTYPE='Mammography' THEN COL2=SCORE;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
      ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB100;
   SET TAB1_00;
   ROW=38;
   IF BENTYPE='Mammography' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL2=.;
      ELSE COL2=SCORE;
   END;
   ELSE IF BENTYPE='Pap Smear' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL3=.;
      ELSE COL3=SCORE;
   END;
   ELSE IF BENTYPE='Hypertension' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL4=.;
      ELSE COL4=SCORE;
   END;
   ELSE IF BENTYPE='Prenatal Care' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL5=.;
      ELSE COL5=SCORE;
   END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB101;
   SET TAB1_01;
   ROW=39;
   IF BENTYPE='Mammography' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL2=.;
      ELSE COL2=SCORE;
   END;
   ELSE IF BENTYPE='Pap Smear' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL3=.;
      ELSE COL3=SCORE;
   END;
   ELSE IF BENTYPE='Hypertension' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL4=.;
      ELSE COL4=SCORE;
   END;
   ELSE IF BENTYPE='Prenatal Care' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL5=.;
      ELSE COL5=SCORE;
   END;
   PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB100 TAB101 TAB102 TAB202 TAB302;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5)
     COL3(DROP=COL2 COL4 COL5)
     COL4(DROP=COL2 COL3 COL5)
     COL5(DROP=COL2 COL3 COL4);
```

```
   SET TAB1;

   IF COL2 NE . THEN OUTPUT COL2;
   IF COL3 NE . THEN OUTPUT COL3;
   IF COL4 NE . THEN OUTPUT COL4;
   IF COL5 NE . THEN OUTPUT COL5;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
DATA TABLE1;
   MERGE COL2 COL3 COL4 COL5;
   BY ROW;
RUN;
TITLE2 'TABLE 1';
PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|DATA!R38C2:R42C5";

DATA _NULL_;
   SET TABLE1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5;
RUN;

FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[CLOSE]';
RUN;


%MEND RUNCW;


/*Region 1*/
%RUNCW(NACC Groton,NACCGroton.xls,template-c1.xls);
%RUNCW(436th Med Grp-Dover,436thMedGrpDover.xls,template-c1.xls);
%RUNCW(Walter Reed AMC,WalterReedAMC.xls,template-c1.xls);
%RUNCW(89th Med Grp-Andrews,89thMedGrpAndrews.xls,template-c1.xls);
%RUNCW(NNMC Bethesda,NNMCBethesda.xls,template-c1.xls);
%RUNCW(Kimbrough Amb Car Cen-Ft Meade,KimbroughAmbCarCenFtMeade.xls,template-c1.xls);
%RUNCW(Keller ACH,KellerACH.xls,template-c1.xls);
%RUNCW(Dewitt ACH,DewittACH.xls,template-c1.xls);
%RUNCW(NACC Portsmouth NH,NACCPortsmouthNH.xls,template-c1.xls);
%RUNCW(305th Med Grp-McGuire,305thMedGrpMcGuire.xls,template-c1.xls);
%RUNCW(Guthrie AHC,GuthrieAHC.xls,template-c1.xls);
%RUNCW(NMCL Quantico,NMCLQuantico.xls,template-c1.xls);

/*Region 2*/
%RUNCW(Womack AMC,WomackAMC.xls,template-c2.xls);
%RUNCW(4th Med Grp-Seymour Johnson,4thMedGrpSeymourJohnson.xls,template-c2.xls);
%RUNCW(NH Camp Lejeune,NHCampLejeune.xls,template-c2.xls);
%RUNCW(NH Cherry Point,NHCherryPoint.xls,template-c2.xls);
%RUNCW(1st Med Grp-Langley,1stMedGrpLangley.xls,template-c2.xls);
%RUNCW(McDonald ACH,McDonaldACH.xls,template-c2.xls);
%RUNCW(NMC Portsmouth,NMCPortsmouth.xls,template-c2.xls);

/*Region 3*/
%RUNCW(NH Jacksonville,NHJacksonville.xls,template-c3.xls);
%RUNCW(6th Med Grp-MacDill,6thMedGrpMacDill.xls,template-c3.xls);
%RUNCW(45th Med Grp-Patrick,45thMedGrpPatrick.xls,template-c3.xls);
%RUNCW(Eisenhower AMC,EisenhowerAMC.xls,template-c3.xls);
%RUNCW(Martin ACH,MartinACH.xls,template-c3.xls);
%RUNCW(Winn ACH,WinnACH.xls,template-c3.xls);
%RUNCW(78th Med Grp-Robins,78thMedGrpRobins.xls,template-c3.xls);
```

```
%RUNCW(20th Med Grp-Shaw,20thMedGrpShaw.xls,template-c3.xls);
%RUNCW(NH Charleston,NHCharleston.xls,template-c3.xls);
%RUNCW(NH Beaufort,NHBeaufort.xls,template-c3.xls);
%RUNCW(Moncrief ACH,MoncriefACH.xls,template-c3.xls);

/*Region 4*/
%RUNCW(Fox AHC,FoxAHC.xls,template-c4.xls);
%RUNCW(Lyster ACH,LysterACH.xls,template-c4.xls);
%RUNCW(42nd Med Grp - Maxwell,42ndMedGrpMaxwell.xls,template-c4.xls);
%RUNCW(NH Pensacola,NHPensacola.xls,template-c4.xls);
%RUNCW(96th Med Grp-Eglin,96thMedGrpEglin.xls,template-c4.xls);
%RUNCW(325th Med Grp-Tyndall,325thMedGrpTyndall.xls,template-c4.xls);
%RUNCW(81st Med Grp-Keesler,81stMedGrpKeesler.xls,template-c4.xls);
%RUNCW(16th Med Grp-Hurlburt Field,16thMedGrpHurlburtField.xls,template-c4.xls);

/*Region 5*/
%RUNCW(375th Med Grp-Scott,375thMedGrpScott.xls,template-c5.xls);
%RUNCW(NH Great Lakes,NHGreatLakes.xls,template-c5.xls);
%RUNCW(Blanchfield ACH,BlanchfieldACH.xls,template-c5.xls);
%RUNCW(Ireland ACH,IrelandACH.xls,template-c5.xls);
%RUNCW(74th Med Grp-Wright-Patterson,74thMedGrpWrightPatterson.xls,template-c5.xls);

/*Region 6*/
%RUNCW(314th Med Grp-Little Rock,314thMedGrpLittleRock.xls,template-c6.xls);
%RUNCW(2nd Med Grp-Barksdale,2ndMedGrpBarksdale.xls,template-c6.xls);
%RUNCW(Bayne-Jones ACH,BayneJonesACH.xls,template-c6.xls);
%RUNCW(72nd Med Grp-Tinker,72ndMedGrpTinker.xls,template-c6.xls);
%RUNCW(Reynolds ACH,ReynoldsACH.xls,template-c6.xls);
%RUNCW(Brooke AMC,BrookeAMC.xls,template-c6.xls);
%RUNCW(Darnall ACH,DarnallACH.xls,template-c6.xls);
%RUNCW(7th Med Grp-Dyess,7thMedGrpDyess.xls,template-c6.xls);
%RUNCW(82nd Med Grp-Sheppard,82ndMedGrpSheppard.xls,template-c6.xls);
%RUNCW(59th Med Wing-Lackland,59thMedWingLackland.xls,template-c6.xls);
%RUNCW(NH Corpus Christi,NHCorpusChristi.xls,template-c6.xls);
%RUNCW(12th Med Grp-Randolph,12thMedGrpRandolph.xls,template-c6.xls);

/*Region 7/8*/
%RUNCW(R W Bliss AHC,RWBlissAHC.xls,template-c78.xls);
%RUNCW(56th Med Grp-Luke,56thMedGrpLuke.xls,template-c78.xls);
%RUNCW(355th Med Grp-Davis Monthan,355thMedGrpDavisMonthan.xls,template-c78.xls);
%RUNCW(99th Med Grp- O'Callaghan Hosp,99thMedGrp-OCallaghanHosp.xls,template-c78.xls);
%RUNCW(377th Med Grp-Kirtland,377thMedGrpKirtland.xls,template-c78.xls);
%RUNCW(William Beaumont AMC,WilliamBeaumontAMC.xls,template-c78.xls);
%RUNCW(Evans ACH,EvansACH.xls,template-c78.xls);
%RUNCW(10th Med Grp-USAF Academy,10thMedGrpUSAFAcademy.xls,template-c78.xls);
%RUNCW(366th Med Grp-Mountain Home,366thMedGrpMountainHome.xls,template-c78.xls);
%RUNCW(Irwin ACH,IrwinACH.xls,template-c78.xls);
%RUNCW(Munson AHC,MunsonAHC.xls,template-c78.xls);
%RUNCW(22nd Med Grp-McConnell,22ndMedGrpMcConnell.xls,template-c78.xls);
%RUNCW(L. Wood ACH,LWoodACH.xls,template-c78.xls);
%RUNCW(55th Med Grp-Offutt,55thMedGrpOffutt.xls,template-c78.xls);
%RUNCW(75th Med Grp-Hill,75thMedGrpHill.xls,template-c78.xls);
%RUNCW(90th Med Grp-F.E. Warren,90thMedGrpFEWarren.xls,template-c78.xls);

/*Region 9*/
%RUNCW(95th Med Grp-Edwards,95thMedGrpEdwards.xls,template-c9.xls);
%RUNCW(NH Camp Pendleton,NH Camp Pendleton.xls,template-c9.xls);
%RUNCW(NMC San Deigo,NMCSanDiego.xls,template-c9.xls);
%RUNCW(NH Twentynine Palms,NHTwentyninePalms.xls,template-c9.xls);
%RUNCW(Weed ACH,WeedACH.xls,template-c9.xls);

/*Region 10*/
%RUNCW(60th Med Grp-Travis,60thMedGrpTravis.xls,template-c10.xls);
%RUNCW(NH LeMoore,NHLeMoore.xls,template-c10.xls);

/*Region 11*/
%RUNCW(Madigan AMC,MadiganAMC.xls,template-c11.xls);
%RUNCW(NH Bremerton,NHBremerton.xls,template-c11.xls);
%RUNCW(NH Oak Harbor,NHOakHarbor.xls,template-c11.xls);
%RUNCW(92nd Med Grp-Fairchild,92ndMedGrpFairchild.xls,template-c11.xls);

/*Region 12*/
%RUNCW(Tripler AMC,TriplerAMC.xls,template-c12.xls);
```

```
%RUNCW(NMCL Pearl Harbor,NMCLPearlHarbor.xls,template-c12.xls);
%RUNCW(15th Med Grp-Hickam,15thMedGrpHickam.xls,template-c12.xls);

/*Europe*/
%RUNCW(Heidelberg Meddac,HeidelbergMeddac.xls-template-eur.xls);
%RUNCW(Landstuhl Regional Medcen,LandstuhlRegionalMedcen.xls,template-eur.xls);
%RUNCW(Wuerzburg Meddac,WuerzburgMeddac.xls,template-eur.xls);
%RUNCW(NH Naples,NHNaples.xls,template-eur.xls);
%RUNCW(48th Med Grp-Lakenheath,48thMedGrpLakenheath.xls,template-eur.xls);
%RUNCW(52nd Med Grp-Spangdahlem,52ndMedGrpSpangdahlem.xls,template-eur.xls);
%RUNCW(86th Med Grp-Ramstein,86thMedGrpRamstein.xls,template-eur.xls);

/*Asia*/
%RUNCW(121st Gen Hosp-Seoul,121stGenHospSeoul.xls,template-asia.xls);
%RUNCW(NH Guam-Agana,NHGuamAgana.xls,template-asia.xls);
%RUNCW(NH Okinawa,NHOkinawa.xls,template-asia.xls);
%RUNCW(NH Yokosuka,NHYokosuka.xls,template-asia.xls);
%RUNCW(51st Med Grp-Osan AB,51stMedGrpOsanAB.xls,template-asia.xls);
%RUNCW(374th Med Grp-Yokota AB,374thMedGrpYokotaAB.xls,template-asia.xls);
%RUNCW(18th Med Grp-Kadena AB,18thMedGrpKadenaAB.xls,template-asia.xls);

/*Latin America*/
%RUNCW(NH Roosevelt Roads-Ceiba,NHRooseveltRoadsCeiba.xls,template-lat.xls);

/*Alaska*/
%RUNCW(Bassett ACH,Bassett ACH.xls,template-alaska.xls);
%RUNCW(3rd Med Grp-Elmendorf,3rdMedGrpElmendorf.xls,template-alaska.xls);

/* Out of catchment areas */
%RUNCW(Out of Catchment Region 01,OutOfCatchmentRegion01.xls,template-c1.xls);
%RUNCW(Out of Catchment Region 02,OutOfCatchmentRegion02.xls,template-c2.xls);
%RUNCW(Out of Catchment Region 03,OutOfCatchmentRegion03.xls,template-c3.xls);
%RUNCW(Out of Catchment Region 04,OutOfCatchmentRegion04.xls,template-c4.xls);
%RUNCW(Out of Catchment Region 05,OutOfCatchmentRegion05.xls,template-c5.xls);
%RUNCW(Out of Catchment Region 06,OutOfCatchmentRegion06.xls,template-c6.xls);
%RUNCW(Out of Catchment Region 07,OutOfCatchmentRegion07.xls,template-c78.xls);
%RUNCW(Out of Catchment Region 08,OutOfCatchmentRegion08.xls,template-c78.xls);
%RUNCW(Out of Catchment Region 09,OutOfCatchmentRegion09.xls,template-c9.xls);
%RUNCW(Out of Catchment Region 10,OutOfCatchmentRegion10.xls,template-c10.xls);
%RUNCW(Out of Catchment Region 11,OutOfCatchmentRegion11.xls,template-c11.xls);
%RUNCW(Out of Catchment Region 12,OutOfCatchmentRegion12.xls,template-c12.xls);
%RUNCW(Out of Catchment Europe,OutOfCatchmentEurope.xls,template-eur.xls);
%RUNCW(Out of Catchment Asia,OutOfCatchmentAsia.xls,template-asia.xls);
%RUNCW(Out of Catchment Latin America,OutOfCatchmentLatinAmerica.xls,template-lat.xls);
```

APPENDIX J

SUDAAN CODE FOR VARIANCE ESTIMATION

```
*****************************************************************
*  program:   SUDTEST.SAS
*  purpose:   to demonstrate SAS callable SUDAAN procedures to get
*                 SEs for survey estimates
*  input: j:\dod\q1_2002\data\Afinal\hcs001_1.sd2
*****************************************************************
*;
options ps=79 ls=132;
libname in 'j:\dod\q1_2000\data\Afinal\hcs001_1.sd2';
libname library  'j:\dod\q1_2002\data\Afinal\fmtlib';


***SORT FILE BY STRATUM****;
data hcsq1;
set in.hcs021_1;
***make xregion = 7 to xregion = 8 for tables  ***;
if xregion = 7 then xregion = 8;
run;

PROC SORT DATA=HCSQ1(keep=xregion h00015 h00016 h00062 xenrllmt
                           wrwt poststr);
BY poststr;
RUN;


************************************************************
if you want to estimate means
************************************************************;
title 'Output file from SUDAAN for estimating means';
title2 'Overall ratings among all beneficiaries in the past 12 months’;
title3 ‘who saw a specilist (H00015=1) for each region (XREGION)';

PROC DESCRIPT DATA=HCSQ1 DESIGN=STRWR NOPRINT;
 WEIGHT   WRWT;        ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST POSTSTR / missunit;
 VAR  H00016;                 ******  VARIABLES TO BE ESTIMATED**;
 SUBPOPN H00015=1;               ******specify domains to be reported;
 TABLES XREGION;
 SUBGROUP XREGION;
 LEVELS 16;
 OUTPUT MEAN SEMEAN deffmean/ TABLECELL=DEFAULT FILENAME=mnsDAT;
 ***SEMEAN=standard error and deffmean=design effect**;
RUN;

proc print data=mnsdat;
run;

************************************************************
if you want to estimate percentage
************************************************************;
title 'Output file from SUDAAN for estimating percentages';
title2 'Those who last had a blood pressure reading less than 12 months;
title3 ‘ago, 1 to 2 years ago, and more than 2years ago (H00062)’;
title4 ‘by TRICARE enrollment (XENRLLMT) in region 3’;
TITLE5 'PROC CROSSTAB';
PROC CROSSTAB DATA=HCSQ1 DESIGN=STRWR NOPRINT;
 WEIGHT   WRWT;
```

```
 NEST POSTSTR / missunit;
 SUBPOPN XREGION=3;
 SUBGROUP H00062 XENRLLMT;
 LEVELS 3 5;
 TABLES H00062*XENRLLMT;              /*  DEP * INDEP */
 OUTPUT NSUM WSUM SEWGT COLPER SECOL
   / TABLECELL=DEFAULT FILENAME=OUTDAT;
RUN;

proc print data=outdat;
run;
```

APPENDIX K

SAS CODE TO CREATE THE 2002 NATIONAL EXECUTIVE SUMMARY REPORT

```
*************************************************************************
*
* PROGRAM:  nesrtc.SAS
* TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS-National Executive Summary Report
* PURPOSE:  Output results of survey for the NESR
* WRITTEN:  12/1/2002 BY DARRYL CREEL
*
* MODIFIED: 1) 12/21/2002 BY Tricia Class, Updated for the 2002 survey.
*            2) 2/5/2003 By Tricia Class, removed code for 4.3,4.6,ans 7.5, they will not be in
the
*              2002 NESR
*
* INPUTS:   1) hcs02a_1 - 2002 Annual DOD Health Survey Data
*
* OUTPUTS:  1) Excel Spreadsheets for the NESR - 2002 Annual DOD Health Survey Data
*
*************************************************************************
*;

title1 "National Executive Summary Report";

options ls = 132 ps = 79 nocenter mprint mlogic symbolgen;


***Libname for test data set.***;
libname in v612 "F:\DOD\2002\DATA";

*** Libname for the format library. ***;
libname library v612 "F:\DOD\2002\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_1 v612 "c:\DOD\data\benchmarks";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set;
set in.hcs02a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set;
run;

*** Macro for Descriptive Information. ***;

%macro descriptive_statistics
   (
   in_data, /* input data set */
   pcm_type, /* group variable ALL, CIV, or MIL */
   design, /* type of survey design */
   weight, /* weight variable */
   nest, /* lists in order variables whose values identify the design stages */
   analysis_variable, /* variable to be described (response or outcome). */
   sub_groups, /* lists the variables */
   sub_group_levels, /* number of categories in each subgroup variable */
   out_data /* output data set */
   );

proc sort data = &in_data;
by &nest;
run;

proc descript data = &in_data design = &design noprint;
weight &weight;
nest &nest / missunit;
var &analysis_variable;
tables &sub_groups;
subgroups &sub_groups;
```

```
levels &sub_group_levels;
***print / style = nchs;
output / tablecell = default filename = &out_data;
run;

data &out_data ( drop = procnum tableno variable wsum total );
set &out_data ( rename = ( nsum = domain_count mean = domain_mean semean = domain_se ));
pcm_type_d = "&pcm_type";
run;

%mend descriptive_statistics;

*** Macro for Benchmark Information. ***;

%macro get_benchmark_info
   (
   path, /* location of file */
   se_data_set, /* standard error data set */
   p_data_set, /* point estimate data set */
   pcm_type, /* group variable All, CIV, or MIL */
   out_data /* output data set */
   );

data &out_data;
merge &path..&se_data_set &path..&p_data_set;
pcm_type_b = "&pcm_type";
run;

data &out_data ( keep = pcm_type_b benchmark_mean benchmark_se );
set &out_data ( rename = ( &se_data_set = benchmark_se &p_data_set = benchmark_mean ));
run;

%mend get_benchmark_info;

*** Macro for Significant Differences Inforamtion. ***;

%macro significance_flag
   (
   benchmark_data, /* benchmark data set */
   domain_data, /* domain estimate data set */
   output_data /* output dat set */
   );

data &output_data;
if _n_ = 1 then
   set &benchmark_data;
set &domain_data;
*** Difference variance, standard error, and mean. ***;
diff_var = benchmark_se**2 + domain_se**2;
diff_se = sqrt ( diff_var );
diff_mean = domain_mean - benchmark_mean;
*** Calculate the test value. ***;
test_value = diff_mean / diff_se;
*** Create significance flags. ***;
if test_value >= 1.96 then
   sig_flag = 1;
else if test_value <= -1.96 then
   sig_flag = 2;
else
   sig_flag = 0;
run;

%mend significance_flag;

*** Include the Excel macros. ***;
%include "C:\DOD\open_excel_file.sas";
%include "C:\DOD\write_to_excel_file.sas";
%include "C:\DOD\save_excel_file.sas";
%include "C:\DOD\close_excel_file.sas";



************************** Section 2 *******************;
```

```
title2 "Information for Table 2.2";

data tab_2_2;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov in ( 1, 2, 3, 6, 7 );
if xenr_pcm = 6 then
   xenr_pcm = 2;
if 1 <= xenr_pcm <= 5;
run;

proc freq data = tab_2_2;
table xenr_pcm / list missing;
run;

%descriptive_statistics
   (
   tab_2_2,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   h02011,
   xenr_pcm,
   5,
   domain
   )

%get_benchmark_info ( in_1, s_r02011, r02011_1, ALL, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\dod\data\Chapter2.xls )
%write_to_excel ( C:\DoD\Data, Chapter2.xls, 2.2, sig_flag )
%save_excel
%close_excel

title2 "Infomation for Table 2.3: Military";

data tab_2_3;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if xins_cov in ( 1, 2, 3, 6, 7 );
if h02041 = 1;
if 1 <= xenrllmt <= 4;
run;

proc freq data = tab_2_3;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_3,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   h02039,
   xenrllmt,
   4,
   domain
   )
```

```
%get_benchmark_info ( in_1, s_r02039, r02039_2, MIL, benchmark )

%significance_flag ( benchmark, domain, sig_flag_m )

proc print data = sig_flag_m;
run;

title2 "Infomation for Table 2.3: Civilian";

data tab_2_3;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if xins_cov in ( 1, 2, 3, 6, 7 );
if h02041 = 2;
if 1 <= xenrllmt <= 4;
run;

proc freq data = tab_2_3;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_3,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   h02039,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_3, CIV, benchmark )

%significance_flag ( benchmark, domain, sig_flag_c )

proc print data = sig_flag_c;
run;

data sig_flag;
set sig_flag_m sig_flag_c;
run;

proc print data = sig_flag;
run;

%open_excel ( C:\DoD\data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.3, sig_flag )
%save_excel
%close_excel


title2 "Information for Table 2.4";

data tab_2_4;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if h02041 = 1;
if 1 <= xenrllmt <= 4;
run;
```

```
proc freq data = tab_2_4;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_4,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   h02039,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_2, MIL, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.4.2, sig_flag )
%save_excel
%close_excel

title2 "Information for Table 2.5";

data tab_2_5;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if h02041 = 2;
if 1 <= xenrllmt <= 4;
run;

proc freq data = tab_2_5;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_5,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   h02039,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_3, CIV, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\Data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.5.2, sig_flag )
%save_excel
%close_excel

************************* Section 3 ******************;
```

```
title2 "Information for Table 3.2";

data tab_3_2;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov = 7 then
   xins_cov = 6;
if xins_cov in ( 1, 2, 3, 6 ) then
   conusa = 1;
else
   conusa = .;
if 1 <= xins_cov <= 6;
run;

proc freq data = tab_3_2;
table xins_cov * conusa/ list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_3_2,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   h02056,
   xins_cov,
   6,
   domain
   )

%get_benchmark_info ( in_1, s_r02056, r02056_1, ALL, benchmark )

%significance_flag ( benchmark, domain, sig_flag_d )

proc print data = sig_flag_d;
run;

proc freq data = tab_3_2;
table conusa * xins_cov / list missing;
run;

%descriptive_statistics
   (
   tab_3_2,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   h02056,
   conusa,
   1,
   domain
   )

%get_benchmark_info ( in_1, s_r02056, r02056_1, ALL, benchmark )

%significance_flag ( benchmark, domain, sig_flag_c )

data sig_flag_c;
set sig_flag_c;
xins_cov = 0;
run;

proc print data = sig_flag_c;
run;

data sig_flag;
set sig_flag_d sig_flag_c;
run;
```

```
proc print data = sig_flag;
run;


%open_excel ( C:\DOD\data\Chapter3.xls )
%write_to_excel ( C:\DOD\Data, Chapter3.xls, 3.2, sig_flag )
%save_excel
%close_excel

****************************** Section 4 *********************;

title2 "Information for Table 4.4";

data tab_4_4;
set analysis_data_set;
 IF XREGION IN (.,13,14,15) THEN DELETE;             /* DELETE MISSING AND FOREIGN REGION */
 IF KMILOFFC IN (1,2) OR KCIVOFFC IN (1,2) THEN POP4_2=1; /* RECODE OF POP4_2=1 */
 IF XINS_COV IN (1,2,3,6,7);                           /* SUBSET FOR THIS GROUP ONLY */
 IF XENRLLMT=5 THEN XENRLLMT=.;                       /* RECODE ENR 5 TO 2 */
if 1 <= xenrllmt <= 4 and ( kmiloffc in ( 1, 2 ) or kcivoffc in ( 1, 2 ));
if kmiloffc = 2 then
   kmiloffc = 0;
if kcivoffc = 2 then
   kcivoffc = 0;
run;

proc freq data = tab_4_4;
table xenrllmt kmiloffc kcivoffc / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_4_4,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   kmiloffc,
   xenrllmt,
   4,
   domain_m
   )

proc print data = domain_m;
run;

/*%get_benchmark_info ( in_1, s_r02032, r02032_2, MIL, benchmark )

%significance_flag ( benchmark, domain, sig_flag_d )

proc print data = sig_flag_d;
run;*/


%descriptive_statistics
   (
   tab_4_4,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   kcivoffc,
   xenrllmt,
   4,
   domain_c
   )

proc print data = domain_c;
run;

/*%get_benchmark_info ( in_1, s_r02032, r02032_3, CIV, benchmark )
```

```
%significance_flag ( benchmark, domain, sig_flag_d )

proc print data = sig_flag_d;
run;*/


data domain;
set domain_m domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\dod\data\Chapter4.xls )
%write_to_excel ( C:\dod\Data, Chapter4.xls, 4.4, domain )
%save_excel
%close_excel

title2 "Information for Table 4.5";

data tab_4_5;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
IF XINS_COV=7 THEN
   XINSCOV=6;
IF XINS_COV IN (1,2,3,6) THEN
   CONUSA=1;
if kbgprb1 = 2 then
   kbgprb1 = 0;
if kbgprb1 in ( 0, 1 );
run;

proc freq data = tab_4_5;
table conusa * xins_cov kbgprb1 / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_4_5,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   kbgprb1,
   xins_cov,
   8,
   domain
   )

%get_benchmark_info ( in_1, s_r02016, r02016_1, ALL, benchmark )

%significance_flag ( benchmark, domain, sig_flag_d )

proc print data = sig_flag_d;
run;

%descriptive_statistics
   (
   tab_4_5,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   kbgprb1,
   conusa,
   1,
   domain
   )

%get_benchmark_info ( in_1, s_r02016, r02016_1, ALL, benchmark )
```

```
%significance_flag ( benchmark, domain, sig_flag_c )

proc print data = sig_flag_c;
run;

data sig_flag_c;
set sig_flag_c;
xins_cov = 0;
run;

data sig_flag;
set sig_flag_d sig_flag_c;
run;

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\data\Chapter4.xls )
%write_to_excel ( C:\DOD\Data, Chapter4.xls, 4.5, sig_flag )
%save_excel
%close_excel



********************** Section 5 ********************;

title2 "Information for Table 5.1";

data tab_5_1;
set analysis_data_set;
 IF H02041 = 1 THEN DO; /* MILITARY */
    IF H02028 = 1 THEN KMILEMER=2;   /* NO ER VISIT */
    ELSE KMILEMER=1; /* AT LEAST 1 ER VISIT */
 END;
 IF H02041 = 2 THEN DO; /* CIVILIAN */
    IF H02028 = 1 THEN KCIVEMER=2;   /* NO ER VISIT */
    ELSE KCIVEMER=1; /* AT LEAST 1 ER VISIT */
 END;
 IF XENRLLMT=5 THEN XENRLLMT=2;                      /* RECODE ENR 5 TO 2 */
 IF KMILEMER IN (1,2) OR KCIVEMER IN (1,2) THEN POP5_1=1; /* RECODE POP5_1 */
 IF XREGION IN (.,13,14,15) THEN DELETE;
if kmilemer = 2 then
   kmilemer = 0;
if kcivemer = 2 then
   kcivemer = 0;
if 1 <= xenrllmt <= 4 and ( kmilemer in ( 0, 1 ) or kcivemer in ( 0, 1 ));
run;

proc freq data = tab_5_1;
table xenrllmt kcivemer kmilemer / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_5_1,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   kmilemer,
   xenrllmt,
   4,
   domain_m
   )

proc print data = domain_m;
run;

%descriptive_statistics
   (
   tab_5_1,
   CIV,
```

```
   strwr,
   &weight_variable.,
   strat_num,
   kcivemer,
   xenrllmt,
   4,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.1, domain )
%save_excel
%close_excel



title2 "Information for Table 5.2";

data tab_5_22;
set analysis_data_set;
if h02041=1;
if xregion = . then delete;
 IF H02028 = 1 THEN KMILEMER=2;   /* NO ER VISIT */
    ELSE KMILEMER=1; /* AT LEAST 1 ER VISIT */
 if kmilemer = 2 then
   kmilemer = 0;
if kmilemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_22;
table xenrllmt kmilemer / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_22,
   MTF,
   strwr,
   &weight_variable.,
   strat_num,
   kmilemer,
   xenrllmt,
   2,
   domain_m
   )

proc print data = domain_m;
run;

/*%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.2, domain_m )
%save_excel
%close_excel*/


data tab_5_22;
set analysis_data_set;
if h02041=2;
if xregion = . then delete;
 IF H02028 = 1 THEN KcivEMER=2;   /* NO ER VISIT */
```

```
    ELSE KcivEMER=1; /* AT LEAST 1 ER VISIT */
 if kcivemer = 2 then
   kcivemer = 0;
if kcivemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_22;
table xenrllmt kcivemer / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_22,
   CTF,
   strwr,
   &weight_variable.,
   strat_num,
   kcivemer,
   xenrllmt,
   2,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.2, domain )
%save_excel
%close_excel


********************** Section 6 ********************;

title2 "Information for Table 6.1";

data tab_6_1;
set analysis_data_set;
if xregion = . then
   delete;
if xregion = 7 then
   xregion = 8;
if hp_prntl = . then
   delete;
else if hp_prntl = 2 then
   hp_prntl = 0;
if hp_prntl in ( 0, 1 );
run;

proc freq data = tab_6_1;
table hp_prntl / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_6_1,
   All,
   strwr,
   &weight_variable.,
   strat_num,
   hp_prntl,
   xregion,
   16,
   domain
   )
```

```
proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter6.xls )
%write_to_excel ( C:\DOD\Data, Chapter6.xls, 6.1, domain )
%save_excel
%close_excel

title2 "Information for Table 6.2";

data tab_6_2;
set analysis_data_set;
if xregion = . then
   delete;
if xregion = 7 then
   xregion = 8;
if xsexa ne 2 then
   delete;
if input ( fieldage, 8. ) >= 40;
if hp_mamog = . then
   delete;
else if hp_mamog = 2 then
   hp_mamog = 0;
if hp_mamog in ( 0, 1 );
run;

proc freq data = tab_6_2;
table hp_mamog / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_6_2,
   All,
   strwr,
   &weight_variable.,
   strat_num,
   hp_mamog,
   xregion,
   16,
   domain
   )

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter6.xls )
%write_to_excel ( C:\DOD\Data, Chapter6.xls, 6.2, domain )
%save_excel
%close_excel

title2 "Information for Table 6.3";

data tab_6_3;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xsexa ne 2 then
   delete;
if xenr_pcm = 6 then
   xenr_pcm = 2;
if hp_pap = . then
   delete;
else if hp_pap = 2 then
   hp_pap = 0;
if 1 <= xenr_pcm <= 6;
run;

proc freq data = tab_6_3;
table hp_pap / list missing;
```

```
format _all_;
run;

%descriptive_statistics
   (
   tab_6_3,
   All,
   strwr,
   &weight_variable.,
   strat_num,
   hp_pap,
   xenr_pcm,
   6,
   domain
   )

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter6.xls )
%write_to_excel ( C:\DOD\Data, Chapter6.xls, 6.3, domain )
%save_excel
%close_excel


title2 "Information for Table 6.4";

data tab_6_4;
set analysis_data_set;
if xenr_pcm=6 then xenr_pcm=2;
if xregion in (.,13,14,15) then delete;
if hp_bp = 2 then
   hp_bp = 0;
if hp_bp in ( 0, 1 );
run;

proc freq data = tab_6_4;
table hp_bp / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_6_4,
   All,
   strwr,
   &weight_variable.,
   strat_num,
   hp_bp,
   xenr_pcm,
   5,
   domain
   )

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter6.xls )
%write_to_excel ( C:\DOD\Data, Chapter6.xls, 6.4, domain )
%save_excel
%close_excel



title2 "Information for Table 6.5";

data tab_6_5;
set analysis_data_set;
if xregion in ( . ) then
   delete;
if xregion = 7 then
   xregion = 8;
if input ( fieldage, 8. ) >= 50;
if hp_flu = . then
```

```
   delete;
else if hp_flu = 2 then
   hp_flu = 0;
if hp_flu in ( 0, 1 );
run;

proc freq data = tab_6_5;
table hp_flu / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_6_5,
   All,
   strwr,
   &weight_variable.,
   strat_num,
   hp_flu,
   xregion,
   16,
   domain
   )

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter6.xls )
%write_to_excel ( C:\DOD\Data, Chapter6.xls, 6.5, domain )
%save_excel
%close_excel

title2 "Information for Table 6.6";

data tab_6_6;
set analysis_data_set;
if xregion in ( . ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xsexa ne 1 then
   delete;
if input ( fieldage, 8. ) >= 50;
if hp_pros = . then
   delete;
else if hp_pros = 2 then
   hp_pros = 0;
if hp_pros in ( 0, 1 );
run;

proc freq data = tab_6_6;
table hp_pros / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_6_6,
   All,
   strwr,
   &weight_variable.,
   strat_num,
   hp_pros,
   xregion,
   16,
   domain
   )

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter6.xls )
%write_to_excel ( C:\DOD\Data, Chapter6.xls, 6.6, domain )
%save_excel
```

```
%close_excel

******************** Section 7 ************************;

title2 "Information for Table 7.3: Military";

data tab_7_3;
set analysis_data_set;
if h02041 = 1;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov in ( 1, 2, 3, 6, 7 );
if xenrllmt = 5 then
   xenrllmt = .;
if 1 <= xenrllmt <= 4;
if h02035 in ( 3, 4 ) then
   var7 = 1;
else if h02035 in ( 1, 2 ) then
   var7 = 0;
else
   var7 = .;
if var7 = . then
   delete;
run;

proc freq data = tab_7_3;
table var7*h02035 xenrllmt / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_7_3,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var7,
   xenrllmt,
   4,
   domain_m
   )

proc print data = domain_m;
run;

title2 "Information for Table 7.3: Civilian";

data tab_7_3;
set analysis_data_set;
if h02041 = 2;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov in ( 1, 2, 3, 6, 7 );
if xenrllmt = 5 then
   xenrllmt = .;
if 1 <= xenrllmt <= 4;
if h02035 in ( 3, 4 ) then
   var7 = 1;
else if h02035 in ( 1, 2 ) then
   var7 = 0;

run;

proc freq data = tab_7_3;
table var7*h02035 xenrllmt / list missing;
format _all_;
run;

%descriptive_statistics
```

```
   (
   tab_7_3,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   var7,
   xenrllmt,
   4,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter7.xls )
%write_to_excel ( C:\DOD\Data, Chapter7.xls, 7.3, domain )
%save_excel
%close_excel

title2 "Information for Table 7.4: Military";

data tab_7_4;
set analysis_data_set;
if h02041 = 1;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov in ( 1, 2, 3, 6, 7 );
if xenrllmt = 5 then
   xenrllmt = .;
if 1 <= xenrllmt <= 4;
if h02034 in ( 3, 4 ) then
   var7 = 1;
else if h02034 in ( 1, 2 ) then
   var7 = 0;
else
   var7 = .;
if var7 = . then
   delete;
run;

proc freq data = tab_7_4;
table var7*h02034 xenrllmt / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_7_4,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var7,
   xenrllmt,
   4,
   domain_m
   )

proc print data = domain_m;
run;

title2 "Information for Table 7.4: Civilian";

data tab_7_4;
```

```
set analysis_data_set;
if h02041 = 2;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov in ( 1, 2, 3, 6, 7 );
if xenrllmt = 5 then
   xenrllmt = .;
if 1 <= xenrllmt <= 4;
if h02034 in ( 3, 4 ) then
   var7 = 1;
else if h02034 in ( 1, 2 ) then
   var7 = 0;
else
   var7 = .;
if var7 = . then
   delete;
run;

proc freq data = tab_7_4;
table var7*h02034 xenrllmt / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_7_4,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   var7,
   xenrllmt,
   4,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter7.xls )
%write_to_excel ( C:\DOD\Data, Chapter7.xls, 7.4, domain )
%save_excel
%close_excel


************************ Section 8 ***********************;

title2 "Information for Table 8.3";

data tab_8_3;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov = 7 then
   xins_cov = 6;
if 1 <= xins_cov <= 8;
if h02043 in ( 1, 2 ) then
   do;
   if h02044 in ( 3, 4 ) then
      var71 = 1;
   else if h02044 in ( 1, 2 ) then
      var71 = 0;
   end;
```

```
if var71 in ( 0, 1 );
if xins_cov in ( 1, 2, 3, 6 ) then
   conusa = 1;
else
   conusa = .;
run;

proc freq data = tab_8_3;
table h02043*h02044*var71 xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_3,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   xins_cov,
   8,
   domain_d
   )

proc print data = domain_d;
run;

proc freq data = tab_8_3;
table conusa * xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_3,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   conusa,
   1,
   domain_c
   )

proc print data = domain_c;
run;

data domain_c;
set domain_c;
xins_cov = 0;
run;

data domain;
set domain_d domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter8.xls )
%write_to_excel ( C:\DOD\Data, Chapter8.xls, 8.3, domain )
%save_excel
%close_excel

title2 "Information for Table 8.4";

data tab_8_4;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
```

```
if xins_cov = 7 then
   xins_cov = 6;
if 1 <= xins_cov <= 8;
if h02043 in ( 1, 2 ) then
   do;
   if h02045 in ( 3, 4 ) then
      var71 = 1;
   else if h02045 in ( 1, 2 ) then
      var71 = 0;
   end;
if var71 in ( 0, 1 );
if xins_cov in ( 1, 2, 3, 6 ) then
   conusa = 1;
else
   conusa = .;
run;

proc freq data = tab_8_4;
table h02043*h02045*var71 xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_4,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   xins_cov,
   8,
   domain_d
   )

proc print data = domain_d;
run;

proc freq data = tab_8_4;
table conusa * xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_4,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   conusa,
   1,
   domain_c
   )

proc print data = domain_c;
run;

data domain_c;
set domain_c;
xins_cov = 0;
run;

data domain;
set domain_d domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter8.xls )
%write_to_excel ( C:\DOD\Data, Chapter8.xls, 8.4, domain )
%save_excel
```

```
%close_excel

title2 "Information for Table 8.5";

data tab_8_5;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov = 7 then
   xins_cov = 6;
if 1 <= xins_cov <= 8;
if h02047 in ( 1, 2 ) then
   do;
   if h02048 in ( 1 ) then
      var71 = 1;
   else if h02048 in ( 2, 3 ) then
      var71 = 0;
   end;
if var71 in ( 0, 1 );
if xins_cov in ( 1, 2, 3, 6 ) then
   conusa = 1;
else
   conusa = .;
run;

proc freq data = tab_8_5;
table h02047*h02048*var71 xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_5,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   xins_cov,
   8,
   domain_d
   )

proc print data = domain_d;
run;

proc freq data = tab_8_5;
table conusa * xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_5,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   conusa,
   1,
   domain_c
   )

proc print data = domain_c;
run;

data domain_c;
set domain_c;
xins_cov = 0;
run;
```

```
data domain;
set domain_d domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter8.xls )
%write_to_excel ( C:\DOD\Data, Chapter8.xls, 8.5, domain )
%save_excel
%close_excel

title2 "Information for Table 8.6";

data tab_8_6;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov = 7 then
   xins_cov = 6;
if 1 <= xins_cov <= 8;
if h02049 in ( 1, 2 ) then
   do;
   if h02050 in ( 1 ) then
      var71 = 1;
   else if h02050 in ( 2, 3 ) then
      var71 = 0;
   end;
if var71 in ( 0, 1 );
if xins_cov in ( 1, 2, 3, 6 ) then
   conusa = 1;
else
   conusa = .;
run;

proc freq data = tab_8_6;
table h02049*h02050*var71 xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_6,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   xins_cov,
   8,
   domain_d
   )

proc print data = domain_d;
run;

proc freq data = tab_8_6;
table conusa * xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_6,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   conusa,
   1,
   domain_c
```

```
   )

proc print data = domain_c;
run;

data domain_c;
set domain_c;
xins_cov = 0;
run;

data domain;
set domain_d domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter8.xls )
%write_to_excel ( C:\DOD\Data, Chapter8.xls, 8.6, domain )
%save_excel
%close_excel

title2 "Information for Table 8.7";

data tab_8_7;
set analysis_data_set;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xins_cov = 7 then
   xins_cov = 6;
if 1 <= xins_cov <= 8;
if h02054 in ( 1, 2 ) then
   do;
   if h02055 in ( 1 ) then
      var71 = 1;
   else if h02055 in ( 2, 3 ) then
      var71 = 0;
   end;
if var71 in ( 0, 1 );
if xins_cov in ( 1, 2, 3, 6 ) then
   conusa = 1;
else
   conusa = .;
run;

proc freq data = tab_8_7;
table h02054*h02055*var71 xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_8_7,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   xins_cov,
   8,
   domain_d
   )

proc print data = domain_d;
run;

proc freq data = tab_8_7;
table conusa * xins_cov / list missing;
format _all_;
run;

%descriptive_statistics
```

```
   (
   tab_8_7,
   ALL,
   strwr,
   &weight_variable.,
   strat_num,
   var71,
   conusa,
   1,
   domain_c
   )

proc print data = domain_c;
run;

data domain_c;
set domain_c;
xins_cov = 0;
run;

data domain;
set domain_d domain_c;
run;

proc print data = domain;
run;

%open_excel ( C:\DOD\data\Chapter8.xls )
%write_to_excel ( C:\DOD\Data, Chapter8.xls, 8.7, domain )
%save_excel
%close_excel

*************************************************************************************************;
*2001 progs included to minimize number of programs needed for NESR;
*The following charts need to have 2001 data: 2.4, 2.5, 5.2.1
*************************************************************************************************;
***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;

title2 "Information for Table 2.4";

data tab_2_4;
set analysis_data_set_01;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if h00042 = 1;
if 1 <= xenrllmt <= 4;
run;
```

```
proc freq data = tab_2_4;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_4,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   h00037,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_2, MIL, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.4.1, sig_flag )
%save_excel
%close_excel

title2 "Information for Table 2.5";

data tab_2_5;
set analysis_data_set_01;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if h00042 = 2;
if 1 <= xenrllmt <= 4;
run;

proc freq data = tab_2_5;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_5,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   h00037,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_3, CIV, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\Data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.5.1, sig_flag )
%save_excel
%close_excel


title2 "Information for Table 5.2";
```

```
/*Year 2001*/

***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;


data tab_5_21;
set analysis_data_set_01;
if h00042=1;
if xregion = . then delete;
IF H00026 = 1 THEN KMILEMER=2;   /* NO ER VISIT */
    ELSE KMILEMER=1; /* AT LEAST 1 ER VISIT */
 if kmilemer = 2 then
   kmilemer = 0;
if kmilemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_21;
table xenrllmt kmilemer/ list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   MTF,
   strwr,
   &weight_variable.,
   strat_num,
   kmilemer,
   xenrllmt,
   2,
   domain_m
   )

proc print data = domain_m;
run;

/*%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.1, domain_m )
%save_excel
%close_excel*/

data tab_5_21;
set analysis_data_set_01;
if h00042=2;
IF H00026 = 1 THEN KcivEMER=2;   /* NO ER VISIT */
    ELSE KcivEMER=1; /* AT LEAST 1 ER VISIT */
 if kcivemer = 2 then
   kcivemer = 0;
```

```
if kcivemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_21;
table xenrllmt kcivemer / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   CTF,
   strwr,
   &weight_variable.,
   strat_num,
   kcivemer,
   xenrllmt,
   2,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.1, domain )
%save_excel
%close_excel

*******************************************************************************
**Chapter9 Year 2002
**Set weight to wrwt
*******************************************************************************
title1 "National Executive Summary Report";
options ls = 132 ps = 79 nocenter mprint mlogic symbolgen;

***Libname for test data set.***;
libname in v612 "F:\DOD\2002\DATA";

*** Libname for the format library. ***;
libname library v612 "F:\DOD\2002\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_1 v612 "c:\DOD\data\benchmarks";

*** Macro variables for the program. ***;

%let weight_variable = wrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set;
set in.hcs02a_1;
strat_num = input ( stratum, 8. );
run;
proc contents data = analysis_data_set;
run;


title2 "Information for Table 9.1";
**Chapter9 is is run for 2002 but not for 2001;

data tab_9_1;
set analysis_data_set;
 IF H02041 = 1;
 IF XENRLLMT=5 THEN XENRLLMT=2;                    /* RECODE ENR 5 TO 2 */
```

```
 IF KMID_H IN (1,2) OR KMID_MH IN (1,2) THEN POP9_1=1; /* RECODE POP9_1 */
 IF XREGION IN (.,13,14,15) THEN DELETE;
 kmID_H = kmid_h-1;
  kMID_MH = kmid_mh-1;
if 1 <= xenrllmt <= 4 and ( kmiD_H in ( 0, 1 ) or kMID_MH in ( 0, 1 ));
run;
proc freq data = tab_9_1;
table xenrllmt kMID_H kmiD_MH / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_9_1,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   kmid_h,
   xenrllmt,
   4,
   domain_m
   )

proc print data = domain_m;
run;

%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.1, domain_m )
%save_excel
%close_excel

data tab_912;
set analysis_data_set;
 IF H02041 = 2; /* CIVILIAN */
 IF XENRLLMT=5 THEN XENRLLMT=2;                      /* RECODE ENR 5 TO 2 */
 IF KMID_H IN (1,2) OR KMID_MH IN (1,2) THEN POP9_1=1; /* RECODE POP9_1 */
 IF XREGION IN (.,13,14,15) THEN DELETE;
kmID_H = kmid_h-1;
  kMID_MH = kmid_mh-1;
if 1 <= xenrllmt <= 4 and ( kmiD_H in ( 0, 1 ) or kMID_MH in ( 0, 1 ));
run;

%descriptive_statistics
   (
   tab_912,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   kmid_mh,
   xenrllmt,
   4,
   domain_c
   )

proc print data = domain_c;
run;


%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.1.2, domain_c )
%save_excel
%close_excel

title2 "Information for Table 9.2";
/*Year2002*/

data tab_922;
set analysis_data_set;
 IF H02041 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;  */    /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
```

```
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
if s02m02 in (1,2,3) then do;
 if s02m02=1 then var1=1;
 else var1=0;
end;
run;
proc freq data = tab_922;
table xins_cov s02m02 / list missing;
run;

%descriptive_statistics
   (
   tab_922,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;

%descriptive_statistics
   (
   tab_922,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.2.2, domain )
%save_excel
%close_excel


title2 "Information for Table 9.3";
/*Year 2002*/

data tab_932;
set analysis_data_set;
 IF H02041 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;*/      /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;

if ((s02c10 in (1,2,3)) or (s02c12 in (1,2,3)) or (s02c14 in (1,2,3))) then do;
  if ((s02c10 in (1,2)) or (s02c12 in (1,2)) or (s02c14 in (1,2)))
  then var1=1;
  else var1=0;
end;
run;

%descriptive_statistics
   (
   tab_932,
   MIL,
```

```
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_932,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.3.2, domain )
%save_excel
%close_excel

title2 "Information for Table 9.4";
/*Year2002*/

data tab_942;
set analysis_data_set;
 IF H02041 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;  */    /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4; */
if xins_cov in (0,1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
  if s02c18 in (0,1,2,3,4,5,6,7,8,9,10) then do;
  if s02c18>7 then var1=1;
else var1=0;
end;
run;
proc freq data = tab_942;
table xenrllmt s02c18 / list missing;
run;

%descriptive_statistics
   (
   tab_942,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;

%descriptive_statistics
   (
   tab_942,
   MIL,
```

```
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.4.2, domain )
%save_excel
%close_excel


*************************************************************************************************;
**Setting up the Libraries to run Chapter9 Year 2001 programs;
*************************************************************************************************;

***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = wrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;

/*9.2 for Year 2001*/

data tab_921;
set analysis_data_set_01;
 IF H00042 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;*/      /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
if s00m02 in (1,2,3) then do;
 if s00m02=1 then var1=1;
 else var1=0;
end;
run;
proc freq data = tab_921;
table xins_cov s00m02 / list missing;
run;

%descriptive_statistics
   (
   tab_921,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
```

```
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_921,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.2.1, domain )
%save_excel
%close_excel


title2 "Information for Table 9.3";
/*Year 2001*/

data tab_931;
set analysis_data_set_01;
 IF H00042 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;*/      /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
if ((s00c10 in (1,2,3)) or (s00c12 in (1,2,3)) or (s00c14 in (1,2,3))) then do;
  if ((s00c10 in (1,2)) or (s00c12 in (1,2)) or (s00c14 in (1,2)))
  then var1=1;
  else var1=0;
end;
run;

%descriptive_statistics
   (
   tab_931,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_931,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
```

```
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.3.1, domain )
%save_excel
%close_excel

/*9.4 for Year 2001*/

data tab_941;
set analysis_data_set_01;
 IF H00042 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;   */   /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4; */
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;

if s00c18 in (0,1,2,3,4,5,6,7,8,9,10) then do;
  if s00c18>7 then var1=1;
  else var1=0;
end;
run;
proc freq data = tab_941;
table xenrllmt s00c18 / list missing;
run;

%descriptive_statistics
   (
   tab_941,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )
proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_941,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )
proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.4.1, domain )
%save_excel
%close_excel


*************************************************************************;
*
* PROGRAM:  chap10nesr.SAS
```

```
* TASK:     Annual DOD HEALTH CARE SURVEY ANALYSIS (8860-430)
* PURPOSE:  Chapter 10 NESR---CHildren with Special Health Care Needs
* WRITTEN:  1/14/2000 BY Tricia Class
*
* MODIFIED: 1) Put in the nesrtc program to minimize the number of programs needed to run
*              for the NESR.
*
* INPUTS:   1) hcs02c_1- 2002 Quarter 3 Child Processing File (DOD Health Survey Data)
*
* OUTPUTS:  1) Excel Spreadsheet
*
*************************************************************************;

options ls = 132 ps = 79 nocenter mprint mlogic symbolgen;


***Libname for test data set.***;
libname inc v612 "F:\DOD\Q3_2002\Data\Cfinal";

*** Libname for the format library. ***;
libname library v612 "F:\DOD\Q3_2002\Data\Cfinal\fmtlib";

*** Macro variables for the program. ***;

%let weight_variable = wrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_child;
set inc.hcs02c_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_child;
run;

title2 "Information for Table 10.1";
***10.1 data for Children with Special Health Care Needs***;

data tab_10_1;
set analysis_data_set_child;
    if  (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
    if (c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1) or
   (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1) or
   (c02075=1 & c02076=1)
then CSHCN=1;
if cshcn = 1;
if c02057 in (0,1,2,3,4,5,6,7,8,9,10) then do;
if c02057 > 7 then var1=1;
    else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;

if var1 in (0,1);
run;

proc freq data = tab_10_1;
table xins_cov CSHCN / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_10_1,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov ,
```

```
   4,
   domain_1
   )

proc print data = domain_1;
run;

%descriptive_statistics
   (
   tab_10_1,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.1 data for Not-Children with Special Health Care Needs***;

data tab_10_1;
set analysis_data_set_child;
    if  (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
    if (c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1) or
   (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1) or
   (c02075=1 & c02076=1)
then CSHCN=1;
if cshcn = 2;
if c02057 in (0,1,2,3,4,5,6,7,8,9,10) then do;
  if c02057 > 7 then var1=1;
    else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
if var1 in (0,1);
run;

proc freq data = tab_10_1;
table xins_cov  var1 / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_10_1,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov ,
   4,
   domain_3
   )

proc print data = domain_3;
run;

%descriptive_statistics
   (
   tab_10_1,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
```

```
   2,
   domain_4
   )
proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\data, Chapter10.xls, 10.1, domain )
%save_excel
%close_excel


title2 "Information for Table 10.2";
***10.2 data for Children with Special Health Care Needs***;

data tab_10_2;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
    or(c02069=1 & c02070=1 & c02071=1 or c02072=1 & c02073=1 & c02074=1)
    or (c02075=1 & c02076=1))
then CSHCN=1;
if xins_cov=1 then do;
     if c02043=1 then pxins_cov=1;
     else if c02043=2 then pxins_cov=2;
     end;
if xins_cov=2 then pxins_cov=3;
if xins_cov=3 then pxins_cov=4;
if cshcn = 1;
if c02042 in (0,1,2,3,4,5,6,7,8,9,10) then do;
 if c02042 > 7 then var1=1;
 else var1=0;
end;
if var1 in (0,1);
if pxins_cov in ( 1, 2, 3,4);
if xins_cov in (1,2) then tri_cov=1;
     else tri_cov=0;
run;
proc freq data = tab_10_2;
table xins_cov / list missing;
run;

%descriptive_statistics
   (
   tab_10_2,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   pxins_cov,
   4,
   domain_1
   )
proc print data=domain_1;
run;

%descriptive_statistics
   (
   tab_10_2,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
```

```
run;

***10.2 data for Not-Children with Special Health Care Needs***;

data tab_10_2;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
       or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
       or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 2;
if c02042 in (0,1,2,3,4,5,6,7,8,9,10) then do;
if c02042 > 7 then var1=1;
    else var1=0;
end;
if var1 in (0,1);
if xins_cov=1 then do;
    if c02043=1 then pxins_cov=1;
    else if c02043=2 then pxins_cov=2;
    end;
if xins_cov=2 then pxins_cov=3;
if xins_cov=3 then pxins_cov=4;
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;
proc freq data = tab_10_2;
table xins_cov / list missing;
run;
%descriptive_statistics
   (
   tab_10_2,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   pxins_cov,
   4,
   domain_3
   )
proc print data=domain_3;
run;

%descriptive_statistics
   (
   tab_10_2,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )

proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\Data, Chapter10.xls, 10.2, domain )
%save_excel
%close_excel


title2 "Information for Table 10.3";
***10.3 data for Children with Special Health Care Needs***;

data tab_10_3;
set analysis_data_set_child;
```

```
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 1;
if c02031 in (1,2,3) then do;
  if c02031=1 then var1=1;
  else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if var1 in (1,0);
if xins_cov in ( 1, 2, 3);
if xins_cov in (1,2) then tri_cov=1;
     else tri_cov=0;
run;


proc freq data = tab_10_3;
table xins_cov var1/ list missing;
run;

%descriptive_statistics
   (
   tab_10_3,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )
proc print data=domain_1;
run;
%descriptive_statistics
   (
   tab_10_3,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.3 data for Not-Children with Special Health Care Needs***;

data tab_10_3;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
   or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
   or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 2;
if c02031 in (1,2,3) then do;
  if c02031=1 then var1=1;
  else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if var1 in (1,0);
if xins_cov in (1,2) then tri_cov=1;
     else tri_cov=0;
run;
```

```
proc freq data = tab_10_3;
table xins_cov  var1/ list missing;
run;
%descriptive_statistics
   (
   tab_10_3,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_3
   )
proc print data=domain_3;
run;
%descriptive_statistics
   (
   tab_10_3,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )
proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\Data, Chapter10.xls, 10.3, domain )
%save_excel
%close_excel


title2 "Information for Table 10.4";
***10.4 data for Children with Special Health Care Needs***;

data tab_10_4;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
   or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
  or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 1;
if xins_cov in ( 1, 2, 3);
if c02014 in (1,2,3) then do;
  if c02014=1 then var1=1;
 else var1=0;
end;
if var1 in (0,1);
if xins_cov in (1,2) then tri_cov=1;
     else tri_cov=0;
run;

proc freq data = tab_10_4;
table xins_cov var1/ list missing;
run;

%descriptive_statistics
   (
   tab_10_4,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
```

```
   xins_cov,
   4,
   domain_1
   )
proc print data=domain_1;
run;
%descriptive_statistics
   (
   tab_10_4,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.4 data for Not-Children with Special Health Care Needs***;

data tab_10_4;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
   or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
   or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 2;
if xins_cov in ( 1, 2, 3);
if c02014 in (1,2,3) then do;
 if c02014=1 then var1=1;
 else var1=0;
end;
if var1 in (0,1);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;

proc freq data = tab_10_4;
table xins_cov  var1/ list missing;
run;

%descriptive_statistics
   (
   tab_10_4,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_3
   )
proc print data=domain_3;
run;
%descriptive_statistics
   (
   tab_10_4,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )
proc print data = domain_4;
```

```
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\Data, Chapter10.xls, 10.4, domain )
%save_excel
%close_excel
```

```
*********************************************************************;
* Program Name:   OtherCharts.SAS                                   ;
*                 Program was formely called DATAC.SAS and now includes;
*                 CREATE2X5.SAS                                     ;
*              creates charts 4.1, 4.2, 7.2, 7.1, 8.1, 8.2, 2.1, 2.6  ;
* This program contains calls to macros in DOD macro library to produce;
* the various other charts in Excel                                 ;
*********************************************************************;

* MODIFIED BY HEATHER HESKETH ;
* TEST RUN WITH OLD DATA 4/11/02 ;
* UPDATED FILENAMES FOR DODMACRO AND STRATUM ;

*********************************************************************;

* MODIFIED BY HEATHER HESKETH ;
* UPDATED VARIABLE NAMES FOR 2002 DATA;

*********************************************************************;

/*************************************************************************/
/* The following file def statement MUST be included in all programs to be run */
/* It contains the SAS Macros to prepare and import data into Excel          */
/*************************************************************************/

libname data  'F:\DoD\2002\data';

libname library 'F:\DoD\2002\data\fmtlib';

libname CONUS_A 'F:\DoD\2002\Programs\Loadweb';

libname out 'C:\DoD\data';

libname in02 'C:\DoD\data';

libname in00 'C:\DOD\data\2000';



%let CONUS_A=CONUS_A.Trend_a;
%let HCS02=data.hcs02a_1;
%let indat=in02.r_r02011;
%let indat2=in00.signifc7;
%let indat3_1=in02.r_r02056;

%LET WGHT = CWRWT;                              /* weight var */
%LET AGEVAR = FIELDAGE;                         /* age var */




/*********************************************/
/*                 CHART 2.1                 */
/*********************************************/
 PROC FORMAT;
   VALUE REG
       1  = 'Region 1'
       2  = 'Region 2'
       3  = 'Region 3'
       4  = 'Region 4'
       5  = 'Region 5'
       6  = 'Region 6'
       8  = 'Region 7/8'
       9  = 'Region 9'
       10 = 'Region 10'
       11 = 'Region 11'
       12 = 'Region 12'
       13 = 'Europe'
       14 = 'Asia'
       15 = 'Latin America'
       16 = 'Alaska'
       17 = 'CONUS MHS';
data out.signifc7(keep=benefit bentype majgrp region regcat score sig n_obs);
```

```
   set &indat;
benefit = "Health Plan";  bentype = "2002";
majgrp = "Prime Enrollees";
region=put(xregion,reg.); regcat=region;
sig=.;score=adj8; n_obs=regcnt8;
run;

proc print data=out.signifc7;run;

data out.s200021(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &indat2;
 benefit = "Health Plan";  bentype = "2002";
 majgrp = "Prime Enrollees";
 region=put(xregion,reg.); regcat=region;
        sig=.;score=adj8; n_obs=regcnt8;

run;

proc print data=out.s200021;run;

/* 2001 data */

FILENAME RAWX DDE "EXCEL|[chapter2.xls]2.1!R20C1:R40C8";
DATA _NULL_;
  SET out.s200021;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Primary Care Manager'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

/* 2002 data */

FILENAME RAWX DDE "EXCEL|[chapter2.xls]2.1!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc7;
  FILE RAWX NOTAB LRECL=2503;
  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

/*************************************************************************************/
/* CHART 3.1 - PREVIOUSLY 3x2.SAS                                                    */
/*************************************************************************************/

data out.signifc1(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &indat3_1;
benefit = "Health Plan";  bentype = "2002";
majgrp = "Prime Enrollees";
region=put(xregion,reg.); regcat=region;
sig=.;score=adj1; n_obs=regcnt1;

run;

proc print data=out.signifc1;run;


FILENAME RAWX DDE "EXCEL|[chapter3.xls]3.1!R1C1:R31C8";
DATA _NULL_;
  SET out.signifc1;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Health Plan'
```

```
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;


/*********************************************/
/*                CHART 4.1                  */
/*********************************************/

data out.signifc1(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Getting Needed Care" and bentype = "2002" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.signifc1;run;

data out.s199941(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Getting Needed Care" and bentype = "2001" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.s199941;run;

FILENAME rawx DDE "EXCEL|[chapter4.xls]4.1!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc1;
  FILE rawx  NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Getting Needed Care'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;
FILENAME rawx DDE "EXCEL|[chapter4.xls]4.1!R20C1:R40C8";
DATA _NULL_;
  SET out.s199941;
  FILE rawx NOTAB LRECL=2503;

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

/*********************************************/
/*                CHART 4.2                  */
/*********************************************/

data out.signifc2(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Getting Care Quickly" and bentype = "2002" and
      majgrp = "All Users" and region=regcat;
run;

data out.signifc1(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Getting Care Quickly" and bentype = "2001" and
      majgrp = "All Users" and region=regcat;
run;
```

```
proc print data=out.signifc2;run;

FILENAME rawx DDE "EXCEL|[chapter4.xls]4.2!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc2;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Getting Care Quickly'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
               '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
               '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
               '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
               '09'X  N_OBS;

RUN;

/*Need to put in some code like this to get 2001 data for 4.2*/
FILENAME rawx DDE "EXCEL|[chapter4.xls]4.2!R20C1:R40C8";
DATA _NULL_;
  SET out.signifc1;
  FILE rawx NOTAB LRECL=2503;

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
               '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
               '09'X  N_OBS;

RUN;

/*********************************************/
/*                CHART 7.2                  */
/*********************************************/

data out.signifc3(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Courteous and Helpful Office Staff" and bentype = "2002" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.signifc3;run;

data out.s199972(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Courteous and Helpful Office Staff" and bentype = "2001" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.s199972;run;

FILENAME rawx DDE "EXCEL|[chapter7.xls]7.2!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc3;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Courteous and Helpful Office Staff'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
               '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
               '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
               '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
               '09'X  N_OBS;

RUN;

FILENAME rawx DDE "EXCEL|[chapter7.xls]7.2!R20C1:R40C8";
DATA _NULL_;
  SET out.s199972;
  FILE RAWX NOTAB LRECL=2503;
```

```
  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

/*********************************************/
/*                 CHART 7.1                 */
/*********************************************/

data out.signifc4(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "How Well Doctors Communicate" and bentype = "2002" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.signifc4;run;

data out.s199971(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "How Well Doctors Communicate" and bentype = "2001" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.s199971;run;

FILENAME rawx DDE "EXCEL|[chapter7.xls]7.1!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc4;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'How Well Doctors Communicate'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

FILENAME rawx DDE "EXCEL|[chapter7.xls]7.1!R20C1:R40C8";
DATA _NULL_;
  SET out.s199971;
  FILE RAWX NOTAB LRECL=2503;
  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;


/*********************************************/
/*                 CHART 8.1                 */
/*********************************************/

data out.signifc5(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Customer Service" and bentype = "2002" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.signifc5;run;

data out.s199981(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Customer Service" and bentype = "2001" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.s199981;run;
```

```
FILENAME rawx DDE "EXCEL|[chapter8.xls]8.1!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc5;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Customer Service'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;
FILENAME rawx DDE "EXCEL|[chapter8.xls]8.1!R20C1:R40C8";
DATA _NULL_;
  SET out.s199981;
  FILE RAWX NOTAB LRECL=2503;
  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;



/*********************************************/
/*                 CHART 8.2                 */
/*********************************************/

data out.signifc6(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Claims Processing" and bentype = "2002" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.signifc6;run;

data out.s199982(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &CONUS_A;
   if benefit = "Claims Processing" and bentype = "2001" and
      majgrp = "All Users" and region=regcat;
run;

proc print data=out.s199982;run;

FILENAME rawx DDE "EXCEL|[chapter8.xls]8.2!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc6;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Claims Processing'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;
FILENAME rawx DDE "EXCEL|[chapter8.xls]8.2!R20C1:R40C8";
DATA _NULL_;
  SET out.s199982;
  FILE RAWX NOTAB LRECL=2503;
  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;
```

```
/*********************************************/
/*                 CHART 2.6                 */
/*********************************************/
************************************************************
*  program:  CREATE2x5.SAS
*  purpose:   to do demographic adjustments for NESR chart 2.6
*  written by Daisy Ewell
*  from specs given by Myles Maxfield & Donsig Jang
*  date 3/25/99
*  modified by Natalie Justh 6/20/2000 for 1999 report
************************************************************
*;

title 'Logistic Regression for Demographic Adjustments';
title2 'Chart 2.6';
title3 'Satisfaction with Military & Civilian Care by Region';

data hcs02a;
   set &hcs02;
  IF S02S01 =6 THEN H00077 = 0;
  ELSE IF S02S01 =5 THEN H00077 = 1;
  ELSE IF S02S01 = 4 THEN H00077 = 2;
  ELSE IF S02S01 = 3 THEN H00077 = 3;
  ELSE IF S02S01 = 2 THEN H00077 = 4;
  ELSE IF S02S01 = 1 THEN H00077 = 5;
run;

***SORT FILE BY STRATUM****;
PROC SORT DATA=hcs02a (keep=xregion H02041 H02039
     &AGEVAR /* sf12pcs sf12mcs */ &WGHT stratum conus H00077)  out=hcs02a;
where xregion ne .;
BY STRATUM;
RUN;


************************************************************
chart 2.6:  NESR - satisfaction by XREGION
************************************************************;
data chart;
set hcs02a;

if H02041=1 then KMIL00=H02039;
   else KMIL00=.;
if H02041=2 then KCIV00=H02039;
   else KCIV00=.;


****create dummy variables for region variable****;
if xregion = 7 then xregion = 8;
array dummy r1 - r16;
do n = 1 to 16;
   dummy(n) = 0;
end;
dummy(xregion) = 1;


***calculate dummy variables for age****;
a18_24 = 0;
a25_34 = 0;
a35_44 = 0;
a45_54 = 0;
a55_64 = 0;
a65_74 = 0;
a75_up = 0;
if 18 <= &AGEVAR <= 24 then a18_24 = 1;
else if 25 <= &AGEVAR <= 34 then a25_34 = 1;
else if 35 <= &AGEVAR <= 44 then a35_44 = 1;
else if 45 <= &AGEVAR <= 54 then a45_54 = 1;
else if 55 <= &AGEVAR <= 64 then a55_64 = 1;
else if 65 <= &AGEVAR <= 74 then a65_74 = 1;
else if &AGEVAR > 74 then a75_up = 1;
```

```
****do regressions to calculate betas****;
***note that we drop out 75 and up for military**;
 proc regress data=chart design=strwr;
 weight &WGHT;
 nest stratum /missunit;
 model KMIL00 = r1 r2  r3  r4  r5  r6  r8
     r9  r10  r11  r12  r13  r14  r15  /*r16*/
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 /*a75_up*/ H00077;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=milbetas;
 run;

/* proc print data=milbetas;
 title4 'Output File from Regression on KMIL00';
 run;*/

 proc regress data=chart design=strwr;
 weight &WGHT;
 nest stratum / missunit;
 model KCIV00 = r1 r2  r3  r4  r5  r6  r8
     r9  r10  r11  r12  r13  r14  r15  /*r16*/
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=civbetas;
 run;

/* proc print data=civbetas;
 title4 'Output File from Regression on KCIV00';
 run;*/

 proc regress data=chart design=strwr;
 weight &WGHT;
 nest stratum /missunit;
 model KMIL00 = conus
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=conusmil;
 run;

/* proc print data=conusmil;
 title4 'Output File from Regression on KMIL00 - Domestic';
 run;*/

 proc regress data=chart design=strwr;
 weight &WGHT;
 nest stratum /missunit;
 model KCIV00 = conus
     a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 test satadjchi waldchi;
 output beta sebeta p_beta/filename=conusciv;
 run;

 /*proc print data=conusciv;
 title4 'Output File from Regression on KCIV00 - Domestic';
 run;*/

 ***calculate weighted means****;
 ****MILITARY****;
 proc means data=chart noprint;
 where KMIL00 ge 0 and xregion ne .;
 weight &WGHT;
 var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 output out=milmns mean=;
 title4 'Proc Means on KMIL00';
 run;
/* proc print data=milmns;
 title4 'Output File from Proc MEANS for KMIL00';
 run;*/

 ****CIVILIAN****;
 proc means data=chart noprint;
 where KCIV00 ge 0 and xregion ne .;
 weight &WGHT;
```

```
 var a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 output out=civmns mean=;
 title4 'Proc Means on KCIV00';
 run;
 /*proc print data=civmns;
 title4 'Output File from Proc MEANS for KCIV00';
 run;*/

 ***get sample size for all with military or civilian****;
 proc means data=chart noprint;
 where (KMIL00 ge 0 or KCIV00 ge 0) and xregion ne .;
 weight &WGHT;
 var r1 r2  r3  r4  r5  r6  r8  r9  r10  r11  r12  r16;
 output out=cntstot sum= ;
 title4 'Proc Means for KCIV00 & KMIL00 - weighted counts for each CONUS region';
 run;
/* proc print data=cntstot;
 title5 'Output File';
 run;*/

 ***calculate adjusted means***;
 ****MILITARY****;
 data miladj(keep=amil_1-amil_6 amil_8-amil_16 sampsize);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 if not lastmn then set milmns end=lastmn;

 ****read in military betas and store****;
if lastmn then do;
 set milbetas(in=mil) end=lastbeta;
 array betas beta1-beta22;
 array pvals pval1-pval22;
 retain beta1-beta22;
 retain pval1-pval22;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
 *put lastm= modelrhs=;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted means for each region****;
 array miladj amil_1-amil_6 amil_8-amil_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*H00077;
 do i = 1 to 15;
 /*   start with constant  */
  miladj(i) = constant ;
 /*    then add in regional piece (for all regions but 16)  */
     if i < 15 then miladj(i) + betas(i+1);
 end;

 ***read in sample size for CONUS regions ****;
    set cntstot(keep=_freq_ rename=_freq_=sampsize) ;

 output;
end;
run;

/*proc print data=miladj;
title4 'Adjusted Means for each Region for KMIL00';
run;*/

 ****CIVILIAN****;
 data civadj(keep=aciv_1-aciv_6 aciv_8-aciv_16);
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
```

```
 ****first read in weighted means***;
 if not lastmn then set civmns end=lastmn;

 ****read in civilian betas and store****;
if lastmn then do;
 set civbetas(in=civ) end=lastbeta;
 array betas beta1-beta23;
 array pvals pval1-pval23;
 retain beta1-beta23;
 retain pval1-pval23;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted means for each region****;
 array civadj aciv_1-aciv_6 aciv_8-aciv_16;
 ***calculate constant piece***;
  constant = betas(1) ;
  /* add in age & health status  */
     constant + betas(16)*a18_24;
     constant + betas(17)*a25_34;
     constant + betas(18)*a35_44;
     constant + betas(19)*a45_54;
     constant + betas(20)*a55_64;
     constant + betas(21)*a65_74;
     constant + betas(22)*a75_up;
     constant + betas(23)*H00077;
 do i = 1 to 15;
 /*   start with constant  */
  civadj(i) = constant ;
 /*    then add in regional piece (all but 16)  */
     if i < 15 then civadj(i) + betas(i+1);
 end;

 output;
end;
run;

/*proc print data=civadj;
title4 'Adjusted Means for each Region for KCIV00';
run;*/

 ***calculate adjusted CONUS mean***;
 ****Military****;
 data conusmil(keep=conusmil);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077 ;
 if not lastmn then set milmns end=lastmn;

 ****read in 2000 betas and store****;
if lastmn then do;
 set conusmil end=lastbeta;
 array betas beta1-beta10;
 array pvals pval1-pval10;
 retain beta1-beta10;
 retain pval1-pval10;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted Conus mean****;
 ***calculate constant piece***;
  constant = betas(1) ;
 /*    then add in domestic piece  */
     constant + betas(2);
  /* add in age & health status */
     constant + betas(3)*a18_24;
     constant + betas(4)*a25_34;
     constant + betas(5)*a35_44;
     constant + betas(6)*a45_54;
```

```
     constant + betas(7)*a55_64;
     constant + betas(8)*a65_74;
     constant + betas(9)*a75_up;
     constant + betas(10)*H00077;

     conusmil=constant;
 output;
end;
run;

 ****Civilian****;
 data conusciv(keep=conusciv);
 ****first read in weighted means***;
 retain a18_24 a25_34 a35_44 a45_54 a55_64 a65_74 a75_up H00077;
 if not lastmn then set civmns end=lastmn;

 ****read in 2000 betas and store****;
if lastmn then do;
 set conusciv end=lastbeta;
 array betas beta1-beta10;
 array pvals pval1-pval10;
 retain beta1-beta10;
 retain pval1-pval10;
 betas(modelrhs) = beta;
 pvals(modelrhs) = p_beta;
end;

if lastbeta then do;
 ****after reading in weighted means and all betas, calculate
     adjusted Conus mean****;
 ***calculate constant piece***;
  constant = betas(1) ;
 /*    then add in domestic piece  */
     constant + betas(2);
  /* add in age & health status  */
     constant + betas(3)*a18_24;
     constant + betas(4)*a25_34;
     constant + betas(5)*a35_44;
     constant + betas(6)*a45_54;
     constant + betas(7)*a55_64;
     constant + betas(8)*a65_74;
     constant + betas(9)*a75_up;
     constant + betas(10)*H00077;

     conusciv=constant;
 output;
end;
run;

data out.chart2x5;
set miladj ;
set conusmil;
set civadj;
set conusciv;
run;

proc print data=out.chart2x5;
title4 'Adjusted Means for each Region for KMIL00 and KCIV00';
run;

FILENAME rawx DDE "EXCEL|[chapter2.xls]2.6!R2C2:R2C19";
DATA _NULL_;
  SET out.chart2x5;
  FILE RAWX NOTAB LRECL=2503;
  PUT AMIL_1    '09'X  AMIL_2    '09'X  AMIL_3  '09'X  AMIL_4
                '09'X  AMIL_5    '09'X  AMIL_6
                '09'X  AMIL_8    '09'X  AMIL_9  '09'X  AMIL_10
                '09'X  AMIL_11   '09'X  AMIL_12 '09'X  AMIL_13
                '09'X  AMIL_14   '09'X  AMIL_15 '09'X  AMIL_16
                '09'X  CONUSMIL  '09'X  SAMPSIZE ;

RUN;

FILENAME rawx DDE "EXCEL|[chapter2.xls]2.6!R4C2:R4C18";
```

```
DATA _NULL_;
  SET out.chart2x5;
  FILE RAWX NOTAB LRECL=2503;
  PUT Aciv_1    '09'X  Aciv_2    '09'X  Aciv_3  '09'X  Aciv_4
                '09'X  Aciv_5    '09'X  Aciv_6
                '09'X  Aciv_8    '09'X  Aciv_9  '09'X  Aciv_10
                '09'X  Aciv_11   '09'X  Aciv_12 '09'X  Aciv_13
                '09'X  Aciv_14   '09'X  Aciv_15 '09'X  Aciv_16
                '09'X  CONUSCIV ;

RUN;
```

```
*************************************************************************************************;
*2001 progs included to minimize number of programs needed for NESR;
*The following charts need to have 2001 data: 2.4, 2.5, 5.2.1
*************************************************************************************************;
***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;


*** Macro for Descriptive Information. ***;

%macro descriptive_statistics
   (
   in_data, /* input data set */
   pcm_type, /* group variable ALL, CIV, or MIL */
   design, /* type of survey design */
   weight, /* weight variable */
   nest, /* lists in order variables whose values identify the design stages */
   analysis_variable, /* variable to be described (response or outcome). */
   sub_groups, /* lists the variables */
   sub_group_levels, /* number of categories in each subgroup variable */
   out_data /* output data set */
   );

proc sort data = &in_data;
by &nest;
run;

proc descript data = &in_data design = &design noprint;
weight &weight;
nest &nest / missunit;
var &analysis_variable;
tables &sub_groups;
subgroups &sub_groups;
levels &sub_group_levels;
***print / style = nchs;
output / tablecell = default filename = &out_data;
run;

data &out_data ( drop = procnum tableno variable wsum total );
set &out_data ( rename = ( nsum = domain_count mean = domain_mean semean = domain_se ));
pcm_type_d = "&pcm_type";
run;

%mend descriptive_statistics;

*** Macro for Benchmark Information. ***;

%macro get_benchmark_info
   (
   path, /* location of file */
   se_data_set, /* standard error data set */
   p_data_set, /* point estimate data set */
   pcm_type, /* group variable All, CIV, or MIL */
   out_data /* output data set */
   );

data &out_data;
merge &path..&se_data_set &path..&p_data_set;
pcm_type_b = "&pcm_type";
run;

data &out_data ( keep = pcm_type_b benchmark_mean benchmark_se );
set &out_data ( rename = ( &se_data_set = benchmark_se &p_data_set = benchmark_mean ));
```

```
run;

%mend get_benchmark_info;

*** Macro for Significant Differences Inforamtion. ***;

%macro significance_flag
   (
   benchmark_data, /* benchmark data set */
   domain_data, /* domain estimate data set */
   output_data /* output dat set */
   );

data &output_data;
if _n_ = 1 then
   set &benchmark_data;
set &domain_data;
*** Difference variance, standard error, and mean. ***;
diff_var = benchmark_se**2 + domain_se**2;
diff_se = sqrt ( diff_var );
diff_mean = domain_mean - benchmark_mean;
*** Calculate the test value. ***;
test_value = diff_mean / diff_se;
*** Create significance flags. ***;
if test_value >= 1.96 then
   sig_flag = 1;
else if test_value <= -1.96 then
   sig_flag = 2;
else
   sig_flag = 0;
run;

%mend significance_flag;

*** Include the Excel macros. ***;
%include "C:\DOD\open_excel_file.sas";
%include "C:\DOD\write_to_excel_file.sas";
%include "C:\DOD\save_excel_file.sas";
%include "C:\DOD\close_excel_file.sas";


*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;

title2 "Information for Table 2.4";

data tab_2_4;
set analysis_data_set_01;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if h00042 = 1;
if 1 <= xenrllmt <= 4;
run;

proc freq data = tab_2_4;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_4,
   MIL,
```

```
   strwr,
   &weight_variable.,
   strat_num,
   h00037,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_2, MIL, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.4.1, sig_flag )
%save_excel
%close_excel

title2 "Information for Table 2.5";

data tab_2_5;
set analysis_data_set_01;
if xregion in ( ., 13, 14, 15 ) then
   delete;
if xregion = 7 then
   xregion = 8;
if xenrllmt = 5 then
   xenrllmt = .;
if h00042 = 2;
if 1 <= xenrllmt <= 4;
run;

proc freq data = tab_2_5;
table xenrllmt / list missing;
run;

%descriptive_statistics
   (
   tab_2_5,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   h00037,
   xenrllmt,
   4,
   domain
   )

%get_benchmark_info ( in_1, s_r02039, r02039_3, CIV, benchmark )

%significance_flag ( benchmark, domain, sig_flag )

proc print data = sig_flag;
run;

%open_excel ( C:\DOD\Data\Chapter2.xls )
%write_to_excel ( C:\DOD\Data, Chapter2.xls, 2.5.1, sig_flag )
%save_excel
%close_excel


title2 "Information for Table 5.2";
/*Year 2001*/

***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";
```

```
*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;


data tab_5_21;
set analysis_data_set_01;
if h00042=1;
if xregion = . then delete;
IF H00026 = 1 THEN KMILEMER=2;   /* NO ER VISIT */
    ELSE KMILEMER=1; /* AT LEAST 1 ER VISIT */
 if kmilemer = 2 then
   kmilemer = 0;
if kmilemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_21;
table xenrllmt kmilemer/ list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   MTF,
   strwr,
   &weight_variable.,
   strat_num,
   kmilemer,
   xenrllmt,
   2,
   domain_m
   )

proc print data = domain_m;
run;

/*%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.1, domain_m )
%save_excel
%close_excel*/

data tab_5_21;
set analysis_data_set_01;
if h00042=2;
IF H00026 = 1 THEN KcivEMER=2;   /* NO ER VISIT */
    ELSE KcivEMER=1; /* AT LEAST 1 ER VISIT */
 if kcivemer = 2 then
   kcivemer = 0;
if kcivemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_21;
table xenrllmt kcivemer / list missing;
```

```
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   CTF,
   strwr,
   &weight_variable.,
   strat_num,
   kcivemer,
   xenrllmt,
   2,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.1, domain )
%save_excel
%close_excel

*******************************************************************************
**Chapter9 Year 2002
**Set weight to wrwt
*******************************************************************************
title1 "National Executive Summary Report";
options ls = 132 ps = 79 nocenter mprint mlogic symbolgen;

***Libname for test data set.***;
libname in v612 "F:\DOD\2002\DATA";

*** Libname for the format library. ***;
libname library v612 "F:\DOD\2002\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_1 v612 "c:\DOD\data\benchmarks";

*** Macro variables for the program. ***;

%let weight_variable = wrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set;
set in.hcs02a_1;
strat_num = input ( stratum, 8. );
run;
proc contents data = analysis_data_set;
run;


title2 "Information for Table 9.1";
**Chapter9 is is run for 2002 but not for 2001;

data tab_9_1;
set analysis_data_set;
 IF H02041 = 1;
 IF XENRLLMT=5 THEN XENRLLMT=2;                      /* RECODE ENR 5 TO 2 */
 IF KMID_H IN (1,2) OR KMID_MH IN (1,2) THEN POP9_1=1; /* RECODE POP9_1 */
 IF XREGION IN (.,13,14,15) THEN DELETE;
 kmID_H = kmid_h-1;
  kMID_MH = kmid_mh-1;
if 1 <= xenrllmt <= 4 and ( kmiD_H in ( 0, 1 ) or kMID_MH in ( 0, 1 ));
run;
proc freq data = tab_9_1;
table xenrllmt kMID_H kmiD_MH / list missing;
```

```
*format _all_;
run;

%descriptive_statistics
   (
   tab_9_1,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   kmid_h,
   xenrllmt,
   4,
   domain_m
   )

proc print data = domain_m;
run;

%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.1, domain_m )
%save_excel
%close_excel

data tab_912;
set analysis_data_set;
 IF H02041 = 2; /* CIVILIAN */
 IF XENRLLMT=5 THEN XENRLLMT=2;                      /* RECODE ENR 5 TO 2 */
 IF KMID_H IN (1,2) OR KMID_MH IN (1,2) THEN POP9_1=1; /* RECODE POP9_1 */
 IF XREGION IN (.,13,14,15) THEN DELETE;
kmID_H = kmid_h-1;
  kMID_MH = kmid_mh-1;
if 1 <= xenrllmt <= 4 and ( kmiD_H in ( 0, 1 ) or kMID_MH in ( 0, 1 ));
run;

%descriptive_statistics
   (
   tab_912,
   CIV,
   strwr,
   &weight_variable.,
   strat_num,
   kmid_mh,
   xenrllmt,
   4,
   domain_c
   )

proc print data = domain_c;
run;


%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.1.2, domain_c )
%save_excel
%close_excel

title2 "Information for Table 9.2";
/*Year2002*/

data tab_922;
set analysis_data_set;
 IF H02041 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;  */    /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
if s02m02 in (1,2,3) then do;
 if s02m02=1 then var1=1;
 else var1=0;
end;
run;
proc freq data = tab_922;
```

```
table xins_cov s02m02 / list missing;
run;

%descriptive_statistics
   (
   tab_922,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;

%descriptive_statistics
   (
   tab_922,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.2.2, domain )
%save_excel
%close_excel


title2 "Information for Table 9.3";
/*Year 2002*/

data tab_932;
set analysis_data_set;
 IF H02041 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;*/      /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;

if ((s02c10 in (1,2,3)) or (s02c12 in (1,2,3)) or (s02c14 in (1,2,3))) then do;
  if ((s02c10 in (1,2)) or (s02c12 in (1,2)) or (s02c14 in (1,2)))
  then var1=1;
  else var1=0;
end;
run;

%descriptive_statistics
   (
   tab_932,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )
```

```
proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_932,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.3.2, domain )
%save_excel
%close_excel

title2 "Information for Table 9.4";
/*Year2002*/

data tab_942;
set analysis_data_set;
 IF H02041 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;  */    /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4; */
if xins_cov in (0,1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
  if s02c18 in (0,1,2,3,4,5,6,7,8,9,10) then do;
  if s02c18>7 then var1=1;
else var1=0;
end;
run;
proc freq data = tab_942;
table xenrllmt s02c18 / list missing;
run;

%descriptive_statistics
   (
   tab_942,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;

%descriptive_statistics
   (
   tab_942,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )
```

```
proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.4.2, domain )
%save_excel
%close_excel


*************************************************************************************************;
**Setting up the Libraries to run Chapter9 Year 2001 programs;
*************************************************************************************************;

***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = wrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;

/*9.2 for Year 2001*/

data tab_921;
set analysis_data_set_01;
 IF H00042 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;*/      /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
if s00m02 in (1,2,3) then do;
 if s00m02=1 then var1=1;
 else var1=0;
end;
run;
proc freq data = tab_921;
table xins_cov s00m02 / list missing;
run;

%descriptive_statistics
   (
   tab_921,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;
```

```
%descriptive_statistics
   (
   tab_921,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.2.1, domain )
%save_excel
%close_excel


title2 "Information for Table 9.3";
/*Year 2001*/

data tab_931;
set analysis_data_set_01;
 IF H00042 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;*/      /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4;*/
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;
if ((s00c10 in (1,2,3)) or (s00c12 in (1,2,3)) or (s00c14 in (1,2,3))) then do;
  if ((s00c10 in (1,2)) or (s00c12 in (1,2)) or (s00c14 in (1,2)))
  then var1=1;
  else var1=0;
end;
run;

%descriptive_statistics
   (
   tab_931,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )

proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_931,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )

proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
```

```
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.3.1, domain )
%save_excel
%close_excel

/*9.4 for Year 2001*/

data tab_941;
set analysis_data_set_01;
 IF H00042 = 1;
/*IF XENRLLMT=5 THEN XENRLLMT=2;   */   /* RECODE ENR 5 TO 2 */
/*if 1 <= xenrllmt <= 4; */
if xins_cov in (1,2,3,4,5);
if xins_cov in (1,2,3) then tri_cov=1;
else tri_cov=0;

if s00c18 in (0,1,2,3,4,5,6,7,8,9,10) then do;
  if s00c18>7 then var1=1;
  else var1=0;
end;
run;
proc freq data = tab_941;
table xenrllmt s00c18 / list missing;
run;

%descriptive_statistics
   (
   tab_941,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )
proc print data = domain_1;
run;
%descriptive_statistics
   (
   tab_941,
   MIL,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov,
   2,
   domain_2
   )
proc print data = domain_2;
run;
data domain;
set domain_1 domain_2;
run;
%open_excel ( C:\DOD\data\Chapter9.xls )
%write_to_excel ( C:\DOD\data, Chapter9.xls, 9.4.1, domain )
%save_excel
%close_excel


*************************************************************************;
*
* PROGRAM:  chap10nesr.SAS
* TASK:     Annual DOD HEALTH CARE SURVEY ANALYSIS (8860-430)
* PURPOSE:  Chapter 10 NESR---CHildren with Special Health Care Needs
* WRITTEN:  1/14/2000 BY Tricia Class
*
* MODIFIED: 1) Put in the nesrtc program to minimize the number of programs needed to run
*              for the NESR.
*
* INPUTS:   1) hcs02c_1- 2002 Quarter 3 Child Processing File (DOD Health Survey Data)
```

```
*
* OUTPUTS:  1) Excel Spreadsheet
*
*******************************************************************************;

options ls = 132 ps = 79 nocenter mprint mlogic symbolgen;


***Libname for test data set.***;
libname inc v612 "F:\DOD\Q3_2002\Data\Cfinal";

*** Libname for the format library. ***;
libname library v612 "F:\DOD\Q3_2002\Data\Cfinal\fmtlib";

*** Macro variables for the program. ***;

%let weight_variable = wrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_child;
set inc.hcs02c_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_child;
run;

title2 "Information for Table 10.1";
***10.1 data for Children with Special Health Care Needs***;

data tab_10_1;
set analysis_data_set_child;
    if  (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
    if (c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1) or
   (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1) or
   (c02075=1 & c02076=1)
then CSHCN=1;
if cshcn = 1;
if c02057 in (0,1,2,3,4,5,6,7,8,9,10) then do;
if c02057 > 7 then var1=1;
    else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;

if var1 in (0,1);
run;

proc freq data = tab_10_1;
table xins_cov CSHCN / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_10_1,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov ,
   4,
   domain_1
   )

proc print data = domain_1;
run;

%descriptive_statistics
```

```
   (
   tab_10_1,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.1 data for Not-Children with Special Health Care Needs***;

data tab_10_1;
set analysis_data_set_child;
    if  (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
    if (c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1) or
   (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1) or
   (c02075=1 & c02076=1)
then CSHCN=1;
if cshcn = 2;
if c02057 in (0,1,2,3,4,5,6,7,8,9,10) then do;
  if c02057 > 7 then var1=1;
    else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
if var1 in (0,1);
run;

proc freq data = tab_10_1;
table xins_cov  var1 / list missing;
*format _all_;
run;

%descriptive_statistics
   (
   tab_10_1,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov ,
   4,
   domain_3
   )

proc print data = domain_3;
run;

%descriptive_statistics
   (
   tab_10_1,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )
proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
```

```
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\data, Chapter10.xls, 10.1, domain )
%save_excel
%close_excel


title2 "Information for Table 10.2";
***10.2 data for Children with Special Health Care Needs***;

data tab_10_2;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
     or(c02069=1 & c02070=1 & c02071=1 or c02072=1 & c02073=1 & c02074=1)
    or (c02075=1 & c02076=1))
then CSHCN=1;
if xins_cov=1 then do;
     if c02043=1 then pxins_cov=1;
     else if c02043=2 then pxins_cov=2;
     end;
if xins_cov=2 then pxins_cov=3;
if xins_cov=3 then pxins_cov=4;
if cshcn = 1;
if c02042 in (0,1,2,3,4,5,6,7,8,9,10) then do;
 if c02042 > 7 then var1=1;
 else var1=0;
end;
if var1 in (0,1);
if pxins_cov in ( 1, 2, 3,4);
if xins_cov in (1,2) then tri_cov=1;
     else tri_cov=0;
run;
proc freq data = tab_10_2;
table xins_cov / list missing;
run;

%descriptive_statistics
   (
   tab_10_2,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   pxins_cov,
   4,
   domain_1
   )
proc print data=domain_1;
run;

%descriptive_statistics
   (
   tab_10_2,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.2 data for Not-Children with Special Health Care Needs***;

data tab_10_2;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
```

```
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
       or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
       or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 2;
if c02042 in (0,1,2,3,4,5,6,7,8,9,10) then do;
if c02042 > 7 then var1=1;
    else var1=0;
end;
if var1 in (0,1);
if xins_cov=1 then do;
    if c02043=1 then pxins_cov=1;
    else if c02043=2 then pxins_cov=2;
    end;
if xins_cov=2 then pxins_cov=3;
if xins_cov=3 then pxins_cov=4;
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;
proc freq data = tab_10_2;
table xins_cov / list missing;
run;
%descriptive_statistics
   (
   tab_10_2,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   pxins_cov,
   4,
   domain_3
   )
proc print data=domain_3;
run;

%descriptive_statistics
   (
   tab_10_2,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )

proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\Data, Chapter10.xls, 10.2, domain )
%save_excel
%close_excel


title2 "Information for Table 10.3";
***10.3 data for Children with Special Health Care Needs***;

data tab_10_3;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 1;
if c02031 in (1,2,3) then do;
```

```
  if c02031=1 then var1=1;
  else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if var1 in (1,0);
if xins_cov in ( 1, 2, 3);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;


proc freq data = tab_10_3;
table xins_cov var1/ list missing;
run;

%descriptive_statistics
   (
   tab_10_3,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )
proc print data=domain_1;
run;
%descriptive_statistics
   (
   tab_10_3,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.3 data for Not-Children with Special Health Care Needs***;

data tab_10_3;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
   or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
   or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 2;
if c02031 in (1,2,3) then do;
  if c02031=1 then var1=1;
  else var1=0;
end;
if xins_cov in ( 1, 2, 3);
if var1 in (1,0);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;

proc freq data = tab_10_3;
table xins_cov  var1/ list missing;
run;
%descriptive_statistics
   (
   tab_10_3,
   NCSHCN,
   strwr,
```

```
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_3
   )
proc print data=domain_3;
run;
%descriptive_statistics
   (
   tab_10_3,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )
proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\Data, Chapter10.xls, 10.3, domain )
%save_excel
%close_excel


title2 "Information for Table 10.4";
***10.4 data for Children with Special Health Care Needs***;

data tab_10_4;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
   or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
  or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 1;
if xins_cov in ( 1, 2, 3);
if c02014 in (1,2,3) then do;
  if c02014=1 then var1=1;
 else var1=0;
end;
if var1 in (0,1);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;

proc freq data = tab_10_4;
table xins_cov var1/ list missing;
run;

%descriptive_statistics
   (
   tab_10_4,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_1
   )
proc print data=domain_1;
run;
%descriptive_statistics
   (
```

```
   tab_10_4,
   CSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_2
   )

proc print data = domain_2;
run;

***10.4 data for Not-Children with Special Health Care Needs***;

data tab_10_4;
set analysis_data_set_child;
 if (c02063 >0 or c02066 >0 or c02069 >0 or c02072 >0 or c02075 >0)
then CSHCN=2;
 if ((c02063=1 & c02064=1 & c02065=1) or (c02066=1 & c02067=1 & c02068=1)
   or (c02069=1 & c02070=1 & c02071=1) or (c02072=1 & c02073=1 & c02074=1)
   or (c02075=1 & c02076=1))
then CSHCN=1;
if cshcn = 2;
if xins_cov in ( 1, 2, 3);
if c02014 in (1,2,3) then do;
 if c02014=1 then var1=1;
 else var1=0;
end;
if var1 in (0,1);
if xins_cov in (1,2) then tri_cov=1;
    else tri_cov=0;
run;

proc freq data = tab_10_4;
table xins_cov  var1/ list missing;
run;

%descriptive_statistics
   (
   tab_10_4,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   xins_cov,
   4,
   domain_3
   )
proc print data=domain_3;
run;
%descriptive_statistics
   (
   tab_10_4,
   NCSHCN,
   strwr,
   &weight_variable.,
   strat_num,
   var1,
   tri_cov ,
   2,
   domain_4
   )
proc print data = domain_4;
run;
data domain;
set domain_1 domain_2 domain_3 domain_4;
run;
%open_excel ( C:\DOD\data\Chapter10.xls )
%write_to_excel ( C:\DOD\Data, Chapter10.xls, 10.4, domain )
%save_excel
%close_excel
```

```
*************************************************************************
*
* PROGRAM:  nesrtc.SAS
* TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS-National Executive SUmmary Report
* PURPOSE:  Output results of survey for the NESR
* WRITTEN:  12/1/2002 BY DARRYL CREEL
*
* MODIFIED: 1) 12/21/2002 BY Tricia Class, Updated for the 2002 survey.
*            2) 2/5/2003 By Tricia Class, removed code for 4.3,4.6,ans 7.5, they will not be in
the
*              2002 NESR
*
* INPUTS:   1) hcs02a_1 - 2002 Annual DOD Health Survey Data
*
* OUTPUTS:  1) Excel Spreadsheets for the NESR - 2002 Annual DOD Health Survey Data
*
*************************************************************************
*;

title1 "National Executive Summary Report";

options ls = 132 ps = 79 nocenter mprint mlogic symbolgen;


***Libname for test data set.***;
libname in v612 "F:\DOD\2002\DATA";

*** Libname for the format library. ***;
libname library v612 "F:\DOD\2002\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_1 v612 "c:\DOD\data\benchmarks";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set;
set in.hcs02a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set;
run;

*** Macro for Descriptive Information. ***;

%macro descriptive_statistics
   (
   in_data, /* input data set */
   pcm_type, /* group variable ALL, CIV, or MIL */
   design, /* type of survey design */
   weight, /* weight variable */
   nest, /* lists in order variables whose values identify the design stages */
   analysis_variable, /* variable to be described (response or outcome). */
   sub_groups, /* lists the variables */
   sub_group_levels, /* number of categories in each subgroup variable */
   out_data /* output data set */
   );

proc sort data = &in_data;
by &nest;
run;

proc descript data = &in_data design = &design noprint;
weight &weight;
nest &nest / missunit;
var &analysis_variable;
tables &sub_groups;
subgroups &sub_groups;
```

```
levels &sub_group_levels;
***print / style = nchs;
output / tablecell = default filename = &out_data;
run;

data &out_data ( drop = procnum tableno variable wsum total );
set &out_data ( rename = ( nsum = domain_count mean = domain_mean semean = domain_se ));
pcm_type_d = "&pcm_type";
run;

%mend descriptive_statistics;

*** Macro for Benchmark Information. ***;

%macro get_benchmark_info
   (
   path, /* location of file */
   se_data_set, /* standard error data set */
   p_data_set, /* point estimate data set */
   pcm_type, /* group variable All, CIV, or MIL */
   out_data /* output data set */
   );

data &out_data;
merge &path..&se_data_set &path..&p_data_set;
pcm_type_b = "&pcm_type";
run;

data &out_data ( keep = pcm_type_b benchmark_mean benchmark_se );
set &out_data ( rename = ( &se_data_set = benchmark_se &p_data_set = benchmark_mean ));
run;

%mend get_benchmark_info;

*** Macro for Significant Differences Inforamtion. ***;

%macro significance_flag
   (
   benchmark_data, /* benchmark data set */
   domain_data, /* domain estimate data set */
   output_data /* output dat set */
   );

data &output_data;
if _n_ = 1 then
   set &benchmark_data;
set &domain_data;
*** Difference variance, standard error, and mean. ***;
diff_var = benchmark_se**2 + domain_se**2;
diff_se = sqrt ( diff_var );
diff_mean = domain_mean - benchmark_mean;
*** Calculate the test value. ***;
test_value = diff_mean / diff_se;
*** Create significance flags. ***;
if test_value >= 1.96 then
   sig_flag = 1;
else if test_value <= -1.96 then
   sig_flag = 2;
else
   sig_flag = 0;
run;

%mend significance_flag;

*** Include the Excel macros. ***;
%include "C:\DOD\open_excel_file.sas";
%include "C:\DOD\write_to_excel_file.sas";
%include "C:\DOD\save_excel_file.sas";
%include "C:\DOD\close_excel_file.sas";



title2 "Information for Table 5.2";
```

```
data tab_5_22;
set analysis_data_set;
if h02041=1;
if xregion = . then delete;
 IF H02028 = 1 THEN KMILEMER=2;   /* NO ER VISIT */
    ELSE KMILEMER=1; /* AT LEAST 1 ER VISIT */
 if kmilemer = 2 then
   kmilemer = 0;
if kmilemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_22;
table xenrllmt kmilemer / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   MTF,
   strwr,
   &weight_variable.,
   strat_num,
   kmilemer,
   xenrllmt,
   2,
   domain_m
   )

proc print data = domain_m;
run;

/*%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.2, domain_m )
%save_excel
%close_excel*/


data tab_5_22;
set analysis_data_set;
if h02041=2;
if xregion = . then delete;
 IF H02028 = 1 THEN KcivEMER=2;   /* NO ER VISIT */
    ELSE KcivEMER=1; /* AT LEAST 1 ER VISIT */
 if kcivemer = 2 then
   kcivemer = 0;
if kcivemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_22;
table xenrllmt kcivemer / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_22,
   CTF,
   strwr,
   &weight_variable.,
   strat_num,
   kcivemer,
   xenrllmt,
   2,
   domain_c
   )

proc print data = domain_c;
```

```
run;

data domain;
set domain_m domain_c;
run;

%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.2, domain )
%save_excel
%close_excel



title2 "Information for Table 5.2";
/*Year 2001*/

***Libname for test data set.***;
libname in0 v612 "F:\DOD\2000\DATA";

*** Libname for the format library. ***;
libname librar0 v612 "F:\DOD\2000\data\fmtlib";

*** Libname for the Benchmark Data Sets. ***;
libname in_10 v612 "F:\DOD\Q1_2002\Programs\NESR";

*** Macro variables for the program. ***;

%let weight_variable = cwrwt;

*** Read in the analysis data set and
create a numeric stratum variable. ***;

data analysis_data_set_01;
set in0.hcs00a_1;
strat_num = input ( stratum, 8. );
run;

proc contents data = analysis_data_set_01;
run;


data tab_5_21;
set analysis_data_set_01;
if h00042=1;
if xregion = . then delete;
IF H00026 = 1 THEN KMILEMER=2;   /* NO ER VISIT */
    ELSE KMILEMER=1; /* AT LEAST 1 ER VISIT */
 if kmilemer = 2 then
   kmilemer = 0;
if kmilemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_21;
table xenrllmt kmilemer/ list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   MTF,
   strwr,
   &weight_variable.,
   strat_num,
   kmilemer,
   xenrllmt,
   2,
   domain_m
   )

proc print data = domain_m;
```

```
run;

/*%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.1, domain_m )
%save_excel
%close_excel*/

data tab_5_21;
set analysis_data_set_01;
if h00042=2;
IF H00026 = 1 THEN KcivEMER=2;   /* NO ER VISIT */
    ELSE KcivEMER=1; /* AT LEAST 1 ER VISIT */
 if kcivemer = 2 then
   kcivemer = 0;
if kcivemer in ( 0, 1 );
if 1 <= xenrllmt <= 4;
if xenrllmt in (3,4) then xenrllmt=2;
else if xenrllmt in (1,2) then xenrllmt=1;
run;

proc freq data = tab_5_21;
table xenrllmt kcivemer / list missing;
format _all_;
run;

%descriptive_statistics
   (
   tab_5_21,
   CTF,
   strwr,
   &weight_variable.,
   strat_num,
   kcivemer,
   xenrllmt,
   2,
   domain_c
   )

proc print data = domain_c;
run;

data domain;
set domain_m domain_c;
run;

%open_excel ( C:\DOD\data\Chapter5.xls )
%write_to_excel ( C:\DOD\Data, Chapter5.xls, 5.2.1, domain )
%save_excel
%close_excel
```

```
*************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                  Create a Female dummy variable
*                  Create an Education dummy variable
*                  Create 15 region dummies combining regions.
*                         7 & 8 into region 8. That is, there
*                         isn't a region 7 dummy.
*                  Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                  1 - the least desirable value
*                  2 - the 2nd least desirable value
*                  3 - the most desirable value
*                  . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                 IF (XINS_COV IN (1,2,6) AND H02007>=2) THEN GROUP1 = 1
*                 IF (XENR_PCM IN (1,2,6) AND H02007>=2) THEN GROUP2 = 1
*                 IF (XENR_PCM = 3,7      AND H02007>=2) THEN GROUP3 = 1
*                 IF XINS_COV IN (3,4,5)                 THEN GROUP4 = 1
*                 IF XBNFGRP = 1                         THEN GROUP5 = 1
*                 IF XBNFGRP = 2                         THEN GROUP6 = 1
*                 IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                 GROUP8 is output for all beneficiaries
*
*  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
*               adult report cards.  Removed permanent dataset ENTIRE.SD2.
*            2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
*               for 3rd quarter adult report cards.
*            3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
*               stratification done in Q3, changed all references of the
*               POSTSTR variable to ADJ_CELL
*            4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
*               XENR_PCM
*            5) April 2002 By Mike Scott, Updated variable names for 2002
*               survey.
*       6) February 2003 by Tricia Class, Updated variable names for 2002
*
*
*  INPUTS:   1) HCS02a_1 - DoD AnnualHCS Database
*
*  OUTPUTS:  1) GROUP1-8.SD2 - DoD Annual GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                             values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*************************************************************************;
OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT "c:\dod\data\2002";
LIBNAME IN1 "f:\dod\2002\DATA";

TITLE1    'Program Saved as: STEP1Q.SAS';

PROC CONTENTS DATA=IN1.HCS02a_1;
RUN;

DATA ENTIRE;
   SET IN1.HCS02a_1(KEEP=
                MPRID
                DAGEQY
                XREGION
                CONUS
                ENBGSMPL
                SREDA
                XSEXA
                XBNFGRP
                ADJ_CELL
```

```
                XINS_COV
                XENR_PCM
                cWRWT
                /* Getting Needed Care */
                H02009
                H02016
                H02030
                H02031
                /* Getting Care Quickly */
                H02021
                H02023
                H02026
                H02032
                /* How Well Doctors Communicate */
                H02035
                H02036
                H02037
                H02038
                /* Courteous and Helpful Office Staff */
                H02033
                H02034
                /* Customer Service */
                H02048
                H02050
                H02055
                /* Claims Processing */
                H02044
                H02045
H02076
                S02S01 /****************************/
                H02039 /* Health Care Rating        */
                H02056 /* Health Plan Rating        */
                H02011 /* Personal Doctor Rating    */
                H02018 /* Specialist Rating         */
                H02007 /* How Long in Health Plan   */
                       /* Health Status             */
                       /****************************/
              );
    FORMAT _ALL_;
    IF XREGION = .    THEN DELETE;
    IF XINS_COV NOT IN(1,2,3,6) THEN DELETE;
                     /* Note:  use tmp_cell in step2q.sas */
    LENGTH TMP_CELL 8;
    TMP_CELL=ADJ_CELL;
wrwt=cwrwt;
RUN;

*************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF DAGEQY NE "  " THEN DO;
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
      AGE75UP=0;
      IF      ( '018' <= DAGEQY <= '024' ) THEN AGE1824=1;
      ELSE IF ( '025' <= DAGEQY <= '034' ) THEN AGE2534=1;
      ELSE IF ( '035' <= DAGEQY <= '044' ) THEN AGE3544=1;
      ELSE IF ( '045' <= DAGEQY <= '054' ) THEN AGE4554=1;
      ELSE IF ( '055' <= DAGEQY <= '064' ) THEN AGE5564=1;
      ELSE IF ( '065' <= DAGEQY <= '074' ) THEN AGE6574=1;
      ELSE IF (          DAGEQY  > '074' ) THEN AGE75UP=1;
   END;

  * IF H02047=2 THEN H02048=1;
   ************************************************************************
   * Create the FEMALE dummy variable.
```

```
*******************************************************************************;
IF XSEXA = 2 THEN
   FEMALE = 1;
ELSE
   FEMALE = 0;

*******************************************************************************
* Create the beneficiary group/enrollment group subsets.
*******************************************************************************;
GROUP1 = 0;
GROUP2 = 0;
GROUP3 = 0;
GROUP4 = 0;
GROUP5 = 0;
GROUP6 = 0;
GROUP7 = 0;
GROUP8 = 1;     * EVERYONE;

IF (XINS_COV IN (1,2,6)  AND H02007>=2) THEN GROUP1 = 1;
IF (XENR_PCM IN (1,2,6)  AND H02007>=2) THEN GROUP2 = 1;
IF (XENR_PCM IN (3,7)    AND H02007>=2) THEN GROUP3 = 1;
IF XINS_COV IN (3,4,5)   THEN GROUP4 = 1;
IF XBNFGRP = 1           THEN GROUP5 = 1;
IF XBNFGRP = 2           THEN GROUP6 = 1;
IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

*******************************************************************************
* Reorder the codes for H02032.  H02032 is in reverse order.
*******************************************************************************;
IF H02032 = 1      THEN R02032 = 4;
ELSE IF H02032 = 2 THEN R02032 = 3;
ELSE IF H02032 = 3 THEN R02032 = 2;
ELSE IF H02032 = 4 THEN R02032 = 1;
ELSE IF H02032 < 0 THEN R02032 = .;
   IF R02032 > 1   THEN R02032 = R02032 - 1;

*******************************************************************************
* Recode variables with Never, Sometimes, Usually and Always:
*    Recode Never & Sometimes (1 & 2) to 1.
*    Recode Usually (3) to 2.
*    Recode Always (4) to 3.
*******************************************************************************;
IF H02021 = 1      THEN R02021 = 1;
ELSE IF H02021 = 2 THEN R02021 = 1;
ELSE IF H02021 = 3 THEN R02021 = 2;
ELSE IF H02021 = 4 THEN R02021 = 3;
ELSE IF H02021 < 0 THEN R02021 = .;

IF H02023 = 1      THEN R02023 = 1;
ELSE IF H02023 = 2 THEN R02023 = 1;
ELSE IF H02023 = 3 THEN R02023 = 2;
ELSE IF H02023 = 4 THEN R02023 = 3;
ELSE IF H02023 < 0 THEN R02023 = .;

IF H02026 = 1      THEN R02026 = 1;
ELSE IF H02026 = 2 THEN R02026 = 1;
ELSE IF H02026 = 3 THEN R02026 = 2;
ELSE IF H02026 = 4 THEN R02026 = 3;
ELSE IF H02026 < 0 THEN R02026 = .;

IF H02033 = 1      THEN R02033 = 1;
ELSE IF H02033 = 2 THEN R02033 = 1;
ELSE IF H02033 = 3 THEN R02033 = 2;
ELSE IF H02033 = 4 THEN R02033 = 3;
ELSE IF H02033 < 0 THEN R02033 = .;

IF H02034 = 1      THEN R02034 = 1;
ELSE IF H02034 = 2 THEN R02034 = 1;
ELSE IF H02034 = 3 THEN R02034 = 2;
ELSE IF H02034 = 4 THEN R02034 = 3;
ELSE IF H02034 < 0 THEN R02034 = .;

IF H02035 = 1      THEN R02035 = 1;
ELSE IF H02035 = 2 THEN R02035 = 1;
```

```
ELSE IF H02035 = 3 THEN R02035 = 2;
ELSE IF H02035 = 4 THEN R02035 = 3;
ELSE IF H02035 < 0 THEN R02035 = .;

IF H02036 = 1      THEN R02036 = 1;
ELSE IF H02036 = 2 THEN R02036 = 1;
ELSE IF H02036 = 3 THEN R02036 = 2;
ELSE IF H02036 = 4 THEN R02036 = 3;
ELSE IF H02036 < 0 THEN R02036 = .;

IF H02037 = 1      THEN R02037 = 1;
ELSE IF H02037 = 2 THEN R02037 = 1;
ELSE IF H02037 = 3 THEN R02037 = 2;
ELSE IF H02037 = 4 THEN R02037 = 3;
ELSE IF H02037 < 0 THEN R02037 = .;

IF H02038 = 1      THEN R02038 = 1;
ELSE IF H02038 = 2 THEN R02038 = 1;
ELSE IF H02038 = 3 THEN R02038 = 2;
ELSE IF H02038 = 4 THEN R02038 = 3;
ELSE IF H02038 < 0 THEN R02038 = .;

IF H02044 = 1      THEN R02044 = 1;
ELSE IF H02044 = 2 THEN R02044 = 1;
ELSE IF H02044 = 3 THEN R02044 = 2;
ELSE IF H02044 = 4 THEN R02044 = 3;
ELSE IF H02044 < 0 THEN R02044 = .;

IF H02045 = 1      THEN R02045 = 1;
ELSE IF H02045 = 2 THEN R02045 = 1;
ELSE IF H02045 = 3 THEN R02045 = 2;
ELSE IF H02045 = 4 THEN R02045 = 3;
ELSE IF H02045 < 0 THEN R02045 = .;

IF S02S01 =6 THEN H02076 = 0;        /* H02076 is the health status */
ELSE IF S02S01 =5 THEN H02076 = 1;   /* variable for 2002.          */
ELSE IF S02S01 = 4 THEN H02076 = 2;
ELSE IF S02S01 = 3 THEN H02076 = 3;
ELSE IF S02S01 = 2 THEN H02076 = 4;
ELSE IF S02S01 = 1 THEN H02076 = 5;


************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
************************************************************************;
R02009 = H02009;  IF R02009 < 0 THEN R02009 = .;
R02011 = H02011;  IF R02011 < 0 THEN R02011 = .;
R02016 = H02016;  IF R02016 < 0 THEN R02016 = .;
R02018 = H02018;  IF R02018 < 0 THEN R02018 = .;
R02030 = H02030;  IF R02030 < 0 THEN R02030 = .;
R02031 = H02031;  IF R02031 < 0 THEN R02031 = .;
R02039 = H02039;  IF R02039 < 0 THEN R02039 = .;
R02048 = H02048;  IF R02048 < 0 THEN R02048 = .;
R02050 = H02050;  IF R02050 < 0 THEN R02050 = .;
R02055 = H02055;  IF R02055 < 0 THEN R02055 = .;
R02056 = H02056;  IF R02056 < 0 THEN R02056 = .;
  R02076 = H02076;  IF R02076 < 0 THEN R02076 = .;


************************************************************************
* Recode H00077 because this is the Health Status Question which was
* changed in the 4th quarter so have to recode to be consistent with
* previous quarters
************************************************************************;


************************************************************************
* Create region dummies.
************************************************************************;
IF XREGION NE . THEN DO;
   ARRAY REGDUMS (15) REG01 REG02 REG03 REG04 REG05 REG06 REG08
                      REG09 REG10 REG11 REG12 REG13 REG14 REG15 REG16;
   DO I = 1 TO 15;
```

```
         REGDUMS(I)=0;
      END;
      IF XREGION= 7  THEN XREGION = 8;  * Recode Region 7 into Region 8;
      IF       XREGION= 1  THEN REG01  =1;
      ELSE IF  XREGION= 2  THEN REG02  =1;
      ELSE IF  XREGION= 3  THEN REG03  =1;
      ELSE IF  XREGION= 4  THEN REG04  =1;
      ELSE IF  XREGION= 5  THEN REG05  =1;
      ELSE IF  XREGION= 6  THEN REG06  =1;
      ELSE IF  XREGION= 8  THEN REG08  =1;
      ELSE IF  XREGION= 9  THEN REG09  =1;
      ELSE IF  XREGION=10  THEN REG10  =1;
      ELSE IF  XREGION=11  THEN REG11  =1;
      ELSE IF  XREGION=12  THEN REG12  =1;
      ELSE IF  XREGION=13  THEN REG13  =1;
      ELSE IF  XREGION=14  THEN REG14  =1;
      ELSE IF  XREGION=15  THEN REG15  =1;
      ELSE IF  XREGION=16  THEN REG16  =1;
   END;

RUN;

*************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
*************************************************************************;
/*%INCLUDE "......\8687\PROGRAMS\REPORTCARDS\CONVERT.SAS";

%CONT1(DSN=ENTIRE, NUM=7,  Y=R02009 R02016 R02030 R02031
                           R02048 R02050 R02055);
%CONT2(DSN=ENTIRE, NUM=4,  Y=R02039 R02056 R02011 R02018);
%CONT3(DSN=ENTIRE, NUM=12, Y=R02021 R02023 R02026 R02032
                           R02035 R02036 R02037 R02038
                           R02033 R02034 R02044 R02045);
*/
*************************************************************************
* Sort the main file to reorder it by MPRID.
*************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*************************************************************************
* Print the contents of ENTIRE dataset.
*************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       DAGEQY
       XREGION
       CONUS
       ENBGSMPL
       XSEXA
       ADJ_CELL
       XINS_COV
       XENR_PCM
       WRWT
      ;
RUN;

*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR DAGEQY
       AGE1824
       AGE2534
       AGE3544
```

```
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
       GROUP6
       GROUP7
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H02009  R02009
       H02011  R02011
       H02016  R02016
       H02018  R02018
       H02021  R02021
       H02023  R02023
       H02026  R02026
       H02030  R02030
       H02031  R02031
       H02032  R02032
       H02033  R02033
       H02034  R02034
       H02035  R02035
       H02036  R02036
      ;
RUN;


PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H02037  R02037
       H02038  R02038
       H02039  R02039
       H02044  R02044
       H02045  R02045
       H02048  R02048
       H02050  R02050
       H02055  R02055
       H02056  R02056
       H02076  R02076
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XREGION
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
```

```
     ;
RUN;

*************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
*************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;

     SET ENTIRE;

     DROP
        H02009
        H02011
        H02016
        H02018
        H02021
        H02023
        H02026
        H02030
        H02031
        H02032
        H02033
        H02034
        H02035
        H02036
        H02037
        H02038
        H02039
        H02044
        H02045
        H02048
        H02050
        H02055
        H02056
        H02076
        ;
      IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
      IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
      IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
      IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
      IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
      IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
      IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
      OUTPUT OUT.GROUP8;
RUN;
```

```
*************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                  Create a Female dummy variable
*                  Create an Education dummy variable
*                  Create 15 region dummies combining regions.
*                         7 & 8 into region 8. That is, there
*                         isn't a region 7 dummy.
*                  Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                  1 - the least desirable value
*                  2 - the 2nd least desirable value
*                  3 - the most desirable value
*                  . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                 IF (XINS_COV IN (1,2,6) AND H00002>=2) THEN GROUP1 = 1
*                 IF (XENR_PCM IN (1,2,6) AND H00002>=2) THEN GROUP2 = 1
*                 IF (XENR_PCM = 3        AND H00002>=2) THEN GROUP3 = 1
*                 IF XINS_COV IN (3,4,5)                 THEN GROUP4 = 1
*                 IF XBNFGRP = 1                         THEN GROUP5 = 1
*                 IF XBNFGRP = 2                         THEN GROUP6 = 1
*                 IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                 GROUP8 is output for all beneficiaries
*
*  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
*               adult report cards.  Removed permanent dataset ENTIRE.SD2.
*            2) April 2001 By Keith Rathbun, limit population to
*               XINS_COV IN (1,2,3,6) in response to Erics email dated
*               4/19/2001.  Use POSTSTR instead of ADJ_CELL as input to
*               the STEP2Q.SAS program.
*
*  INPUTS:   1) HCS02a_1 - DoD Annual HCS Database
*
*  OUTPUTS:  1) GROUP1-8.SD2 - DoD Quarterly GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                             values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*************************************************************************;
OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT "c:\dod\data\2000";
LIBNAME IN1 v612 "f:\dod\2000\data";
LIBNAME LIBRARY v612 "f:\dod\2000\data\FMTLIB";

TITLE1    'Program Saved as: STEP1Q.SAS';

DATA ENTIRE;
   SET IN1.HCS00A_1;
   %INCLUDE "RENAME.SAS";
RUN;

DATA ENTIRE;
   SET ENTIRE(KEEP=
                MPRID
                DAGEQY
                XREGION
                CONUS
                SREDA
                XSEXA
                XBNFGRP
                /*POSTSTR*/
                XINS_COV
                XENR_PCM
                cWRWT
                /* Getting Needed Care */
                H00007
```

```
                H00014
                H00028
                H00029
                /*Getting Care Quickly */
                H00019
                H00021
                H00024
                H00030
                /* How Well Doctors Communicate */
                H00033
                H00034
                H00035
                H00036
                /* Courteous and Helpful Office Staff */
                H00031
                H00032
                /*Customer Service */
                H00048
                H00050
                H00055
                /* Claims Processing */
                H00044
                H00045
                       /*****************************/
                H00037 /* Health Care Rating        */
                H00056 /* Health Plan Rating        */
                H00009 /* Personal Doctor Rating    */
                H00016 /* Specialist Rating         */
                /*H00002  How Long in Health Plan   */
                H00077 /* Health Status             */
                       /*****************************/
               );
    FORMAT _ALL_;
    IF XREGION = .    THEN DELETE;
    IF XINS_COV NOT IN(1,2,3,6) THEN DELETE;
                     /* Note:  use tmp_cell in step2q.sas */
    LENGTH TMP_CELL 8;
    TMP_CELL=adj_cell;
wrwt=cwrwt;

RUN;

*************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF DAGEQY NE "  " THEN DO;
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
      AGE75UP=0;
      IF      ( '018' <= DAGEQY <= '024' ) THEN AGE1824=1;
      ELSE IF ( '025' <= DAGEQY <= '034' ) THEN AGE2534=1;
      ELSE IF ( '035' <= DAGEQY <= '044' ) THEN AGE3544=1;
      ELSE IF ( '045' <= DAGEQY <= '054' ) THEN AGE4554=1;
      ELSE IF ( '055' <= DAGEQY <= '064' ) THEN AGE5564=1;
      ELSE IF ( '065' <= DAGEQY <= '074' ) THEN AGE6574=1;
      ELSE IF (          DAGEQY  > '074' ) THEN AGE75UP=1;
   END;

   *********************************************************************
   * Create the FEMALE dummy variable.
   *********************************************************************;
   IF XSEXA = 2 THEN
      FEMALE = 1;
   ELSE
      FEMALE = 0;
```

```
*************************************************************************
* Create the beneficiary group/enrollment group subsets.
*************************************************************************;
GROUP1 = 0;
GROUP2 = 0;
GROUP3 = 0;
GROUP4 = 0;
GROUP5 = 0;
GROUP6 = 0;
GROUP7 = 0;
GROUP8 = 1;     * EVERYONE;

IF (XINS_COV IN (1,2,6)  AND H00007>=2) THEN GROUP1 = 1;
IF (XENR_PCM IN (1,2,6)  AND H00007>=2) THEN GROUP2 = 1;
IF (XENR_PCM = 3         AND H00007>=2) THEN GROUP3 = 1;
IF XINS_COV IN (3,4,5)   THEN GROUP4 = 1;
IF XBNFGRP = 1           THEN GROUP5 = 1;
IF XBNFGRP = 2           THEN GROUP6 = 1;
IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

*************************************************************************
* Reorder the codes for H00021 and H00030.  They are in reverse order
* for 1999.
*************************************************************************;
IF H00021 = 1      THEN R00021 = 4;
ELSE IF H00021 = 2 THEN R00021 = 3;
ELSE IF H00021 = 3 THEN R00021 = 2;
ELSE IF H00021 = 4 THEN R00021 = 1;
ELSE IF H00021 < 0 THEN R00021 = .;
   IF R00021 > 1   THEN R00021 = R00021 - 1;

IF H00030 = 1      THEN R00030 = 4;
ELSE IF H00030 = 2 THEN R00030 = 3;
ELSE IF H00030 = 3 THEN R00030 = 2;
ELSE IF H00030 = 4 THEN R00030 = 1;
ELSE IF H00030 < 0 THEN R00030 = .;
   IF R00030 > 1   THEN R00030 = R00030 - 1;

*************************************************************************
* Recode variables with Never, Sometimes, Usually and Always:
*    Recode Never & Sometimes (1 & 2) to 1.
*    Recode Usually (3) to 2.
*    Recode Always (4) to 3.
*************************************************************************;
IF H00019 = 1      THEN R00019 = 1;
ELSE IF H00019 = 2 THEN R00019 = 1;
ELSE IF H00019 = 3 THEN R00019 = 2;
ELSE IF H00019 = 4 THEN R00019 = 3;
ELSE IF H00019 < 0 THEN R00019 = .;

IF H00024 = 1      THEN R00024 = 1;
ELSE IF H00024 = 2 THEN R00024 = 1;
ELSE IF H00024 = 3 THEN R00024 = 2;
ELSE IF H00024 = 4 THEN R00024 = 3;
ELSE IF H00024 < 0 THEN R00024 = .;

IF H00031 = 1      THEN R00031 = 1;
ELSE IF H00031 = 2 THEN R00031 = 1;
ELSE IF H00031 = 3 THEN R00031 = 2;
ELSE IF H00031 = 4 THEN R00031 = 3;
ELSE IF H00031 < 0 THEN R00031 = .;

IF H00032 = 1      THEN R00032 = 1;
ELSE IF H00032 = 2 THEN R00032 = 1;
ELSE IF H00032 = 3 THEN R00032 = 2;
ELSE IF H00032 = 4 THEN R00032 = 3;
ELSE IF H00032 < 0 THEN R00032 = .;

IF H00033 = 1      THEN R00033 = 1;
ELSE IF H00033 = 2 THEN R00033 = 1;
ELSE IF H00033 = 3 THEN R00033 = 2;
ELSE IF H00033 = 4 THEN R00033 = 3;
ELSE IF H00033 < 0 THEN R00033 = .;
IF H00034 = 1      THEN R00034 = 1;
```

```
 ELSE IF H00034 = 2 THEN R00034 = 1;
 ELSE IF H00034 = 3 THEN R00034 = 2;
 ELSE IF H00034 = 4 THEN R00034 = 3;
 ELSE IF H00034 < 0 THEN R00034 = .;

 IF H00035 = 1      THEN R00035 = 1;
 ELSE IF H00035 = 2 THEN R00035 = 1;
 ELSE IF H00035 = 3 THEN R00035 = 2;
 ELSE IF H00035 = 4 THEN R00035 = 3;
 ELSE IF H00035 < 0 THEN R00035 = .;

 IF H00036 = 1      THEN R00036 = 1;
 ELSE IF H00036 = 2 THEN R00036 = 1;
 ELSE IF H00036 = 3 THEN R00036 = 2;
 ELSE IF H00036 = 4 THEN R00036 = 3;
 ELSE IF H00036 < 0 THEN R00036 = .;

 IF H00044 = 1      THEN R00044 = 1;
 ELSE IF H00044 = 2 THEN R00044 = 1;
 ELSE IF H00044 = 3 THEN R00044 = 2;
 ELSE IF H00044 = 4 THEN R00044 = 3;
 ELSE IF H00044 < 0 THEN R00044 = .;

 IF H00045 = 1      THEN R00045 = 1;
 ELSE IF H00045 = 2 THEN R00045 = 1;
 ELSE IF H00045 = 3 THEN R00045 = 2;
 ELSE IF H00045 = 4 THEN R00045 = 3;
 ELSE IF H00045 < 0 THEN R00045 = .;
IF S00S01 =6 THEN H00077 = 0;        /* H02077 is the health status */
 ELSE IF S00S01 =5 THEN H00077 = 1;   /* variable for 2002.          */
 ELSE IF S00S01 = 4 THEN H00077 = 2;
 ELSE IF S00S01 = 3 THEN H00077 = 3;
 ELSE IF S00S01 = 2 THEN H00077 = 4;
 ELSE IF S00S01 = 1 THEN H00077 = 5;

 ************************************************************************
 * Recode variables to one missing condition ".".
 * This also renames all the "H000xx" to "R000xx".
 ************************************************************************;
 R00007 = H00007;  IF R00007 < 0 THEN R00007 = .;
 R00009 = H00009;  IF R00009 < 0 THEN R00009 = .;
 R00014 = H00014;  IF R00014 < 0 THEN R00014 = .;
 R00016 = H00016;  IF R00016 < 0 THEN R00016 = .;
 R00028 = H00028;  IF R00028 < 0 THEN R00028 = .;
 R00029 = H00029;  IF R00029 < 0 THEN R00029 = .;
 R00037 = H00037;  IF R00037 < 0 THEN R00037 = .;
 R00048 = H00048;  IF R00048 < 0 THEN R00048 = .;
 R00050 = H00050;  IF R00050 < 0 THEN R00050 = .;
 R00055 = H00055;  IF R00055 < 0 THEN R00055 = .;
 R00056 = H00056;  IF R00056 < 0 THEN R00056 = .;
 R00077 = H00077;  IF R00077 < 0 THEN R00077 = .;

 ************************************************************************
 * Create region dummies.
 ************************************************************************;
 IF XREGION NE . THEN DO;
    ARRAY REGDUMS (15) REG01 REG02 REG03 REG04 REG05 REG06 REG08
                       REG09 REG10 REG11 REG12 REG13 REG14 REG15 REG16;
    DO I = 1 TO 15;
       REGDUMS(I)=0;
    END;
    IF XREGION= 7  THEN XREGION = 8;  * Recode Region 7 into Region 8;
    IF       XREGION= 1  THEN REG01  =1;
    ELSE IF  XREGION= 2  THEN REG02  =1;
    ELSE IF  XREGION= 3  THEN REG03  =1;
    ELSE IF  XREGION= 4  THEN REG04  =1;
    ELSE IF  XREGION= 5  THEN REG05  =1;
    ELSE IF  XREGION= 6  THEN REG06  =1;
    ELSE IF  XREGION= 8  THEN REG08  =1;
    ELSE IF  XREGION= 9  THEN REG09  =1;
    ELSE IF  XREGION=10  THEN REG10  =1;
    ELSE IF  XREGION=11  THEN REG11  =1;
    ELSE IF  XREGION=12  THEN REG12  =1;
    ELSE IF  XREGION=13  THEN REG13  =1;
```

```
      ELSE IF  XREGION=14  THEN REG14  =1;
      ELSE IF  XREGION=15  THEN REG15  =1;
      ELSE IF  XREGION=16  THEN REG16  =1;
   END;

RUN;

*************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
*************************************************************************;
/*%INCLUDE "J:\8687\PROGRAMS\REPORTCARDS\CONVERT.SAS";

%CONT1(DSN=ENTIRE, NUM=7,  Y=R00007 R00014 R00028 R00029
                           R00048 R00050 R00055);
%CONT2(DSN=ENTIRE, NUM=4,  Y=R00037 R00056 R00009 R00016);
%CONT3(DSN=ENTIRE, NUM=12, Y=R00019 R00021 R00024 R00030
                           R00033 R00034 R00035 R00036
                           R00031 R00032 R00044 R00045);
*/
*************************************************************************
* Sort the main file to reorder it by MPRID.
*************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*************************************************************************
* Print the contents of ENTIRE dataset.
*************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       DAGEQY
       XREGION
       CONUS
       XSEXA
       /*POSTSTR*/
       XINS_COV
       XENR_PCM
       WRWT
      ;
RUN;

*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR DAGEQY
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       XINS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
```

```
       GROUP6
       GROUP7
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H00007  R00007
       H00009  R00009
       H00014  R00014
       H00016  R00016
       H00019  R00019
       H00021  R00021
       H00024  R00024
       H00028  R00028
       H00029  R00029
       H00030  R00030
       H00031  R00031
       H00032  R00032
       H00033  R00033
       H00034  R00034
      ;
RUN;


PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H00035  R00035
       H00036  R00036
       H00037  R00037
       H00044  R00044
       H00045  R00045
       H00048  R00048
       H00050  R00050
       H00055  R00055
       H00056  R00056
       H00077  R00077
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XREGION
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
      ;
RUN;

*************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
*************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;

     SET ENTIRE;
```

```
      DROP
         H00007
         H00009
         H00014
         H00016
         H00019
         H00021
         H00024
         H00028
         H00029
         H00030
         H00031
         H00032
         H00033
         H00034
         H00035
         H00036
         H00037
         H00044
         H00045
         H00048
         H00050
         H00055
         H00056
         H00077
         ;
       IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
       IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
       IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
       IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
       IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
       IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
       IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
       OUTPUT OUT.GROUP8;
RUN;
```

```
*************************************************************************
*
*  Project:  DoD - Quarterly Adult Report Cards
*  Program:  STEP2Q.SAS
*  Purpose:  Generate risk-adjusted CAHPS Scores for Adult Report Card.
*
*  Requires: Program STEP1Q.SAS must be run prior to running this program.
*
*  The adult report card contains a large number of risk-adjusted scores.
*  Some scores are calculated from responses to individual survey questions.
*  Composite scores are calculated by combining scores from individual
*  questions.  The scores then are compared with external civilian
*  benchmarks.  The programming tasks involved in building the report
*  card are:
*
*       1) Preparing data for analyses
*       2) Estimating risk adjustment models
*       3) Calculating risk-adjusted values and variances
*       4) Calculating benchmarks
*       5) Comparing risk-adjusted values to benchmarks
*          and hypothesis testing
*
*  Subgroup Definitions:
*  ____________________________________________________________
*     Seven Subgroups          Definitions
*  ____________________________________________________________
*  1. Prime enrollees          XINS_COV IN (1,2,6) AND H02007>=2
*  2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H02007>=2
*  3. Enrollees w/civ PCM      XENR_PCM = 3        AND H02007>=2
*  4. Nonenrollees             XINS_COV IN (3,4,5)
*  5. Active duty              XBNFGRP = 1
*  6. Active duty dependents   XBNFGRP = 2
*  7. Retirees and dependents  XBNFGRP IN (3,4)
*
*  Previous Program:  STEP1Q.SAS
*
*  Modified: 1) 04/10/02 By Mike Scott, Updated variable names for 2002
*               survey.
*        2) 02/06/03 Tricia Class, Update for 2002 NESR
*************************************************************************;
OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;
LIBNAME   IN1  ".";
LIBNAME   IN2  "c:\dod\data\2002";
LIBNAME   OUT  "c:\dod\data\2002\output";
LIBNAME   OUT2  "c:\dod\data\2002\output";
Libname   in3 "f:\dod\2000\data";

/*LIBNAME   IN1 v612 "c:\dod\data\2002";
LIBNAME   IN2 v612 "f:\dod\2002\DATA";
libname   in3 v612 "f:\dod\2000\data";
LIBNAME   OUT v612 "c:\dod\data\2002\output";
LIBNAME   OUT2 v612 "c:\dod\data\2002\output";*/

************************************************************************
************************************************************************
* Set GLOBAL parameters here.
************************************************************************
************************************************************************;

************************************************************************
* Set the number of Dependent variables to process.
* One does not need to start at 1, but the max must be >= min.
************************************************************************;
%LET MIN_VAR =  21;
%LET MAX_VAR = 22;

************************************************************************
* Set the number of subgroups to process.
************************************************************************;
%LET MIN_GRP = 1;
%LET MAX_GRP = 8;

************************************************************************
```

```
* These are expected to remain the same for a particular dependent
* variable run.
*************************************************************************;
%LET WGT      = CWRWT;
%LET IND_VAR1 = R02076;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;


%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;


*************************************************************************
* GETTING NEEDED CARE.
*************************************************************************;
%LET DEPVAR1 = R02009;
%LET DEPVAR2 = R02016;
%LET DEPVAR3 = R02030;
%LET DEPVAR4 = R02031;

*************************************************************************
* GETTING NEEDED CARE QUICKLY.
*************************************************************************;
%LET DEPVAR5 = R02021;
%LET DEPVAR6 = R02023;
%LET DEPVAR7 = R02026;
%LET DEPVAR8 = R02032;

*************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%LET DEPVAR9  = R02035;
%LET DEPVAR10 = R02036;
%LET DEPVAR11 = R02037;
%LET DEPVAR12 = R02038;

*************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%LET DEPVAR13 = R02033;
%LET DEPVAR14 = R02034;

*************************************************************************
* CUSTOMER SERVICE.
*************************************************************************;
%LET DEPVAR15 = R02048;
%LET DEPVAR16 = R02050;
%LET DEPVAR17 = R02055;

*************************************************************************
* CLAIMS PROCESSING.
*************************************************************************;
%LET DEPVAR18 = R02044;
%LET DEPVAR19 = R02045;

*************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR20 = R02039;

*************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%LET DEPVAR21 = R02056;

*************************************************************************
```

```
* RATING OF PERSONAL DR: 0 - 10.
*************************************************************************;
%LET DEPVAR22 = R02011;

*************************************************************************
* SPECIALITY CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR23 = R02018;

%MACRO SCORE;
************************************;
* use this macro for all groups;
* super region variables are to be used     ;
************************************;
%PUT ****************************************;
%PUT STARTING MACRO SCORE;
%PUT "GROUP    = " GROUP&IGRP;
%PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
%PUT "DEP_VAR  = " &&DEPVAR&IVAR;
%PUT "IND_VAR1 = " &IND_VAR1;
%PUT "IND_VAR2 = " &IND_VAR2;
%PUT "IND_VAR3 = " &IND_VAR3;
%PUT "WGT      = " &WGT;
%PUT ****************************************;

*-------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*-------------------------------------------------;
OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;

%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = IN3.SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                      PRED&IGRP RESID&IGRP XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XREGION &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*-----------------------------------------;
*----- get the standard err/variance ----;
*-----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
```

```
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XREGION NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XREGION=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XREGION REGCNT&IGRP REGWGT&IGRP);
      BY XREGION;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
```

```
    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT&IGRP;
  CLASS  XREGION;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XREGION)
           REGFILE1(KEEP = ADJ&IGRP XREGION);
     BY XREGION;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          REG_WGTS
          REGFILE1;
    BY XREGION;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of XREGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

%MEND SCORE;

%MACRO MAKE_INC;
************************************;
* creates include files for later Procs;
* Needs to be run each time.  Called   ;
* in the outer (beneficiary loop).     ;
* I chose this method because it was   ;
* clearer(to me at least).             ;
* This macro needs to be run once per  ;
* Dep var per subgroup.                ;
************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;
  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;
  RUN;
```

```
 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY REGCNT(16)  8 REGCNT01 - REGCNT16;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;

      * create a name array for the parent age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824  = 1 THEN AGECNT(1) + 1;
      IF AGE2534  = 1 THEN AGECNT(2) + 1;
      IF AGE3544  = 1 THEN AGECNT(3) + 1;
      IF AGE4554  = 1 THEN AGECNT(4) + 1;
      IF AGE5564  = 1 THEN AGECNT(5) + 1;
      IF AGE6574  = 1 THEN AGECNT(6) + 1;
      IF AGE75UP  = 1 THEN AGECNT(7) + 1;

      * count records in each XREGION group;
      * we will only use XREGIONs with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XREGION >= 1 AND XREGION <= 16  THEN DO;
         REGCNT(XREGION) = REGCNT(XREGION) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;

ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 16;
           IF(REGCNT(I) > 0) THEN DO;
              PUT  'REG' I Z2. REGCNT(I) 6.;
           END;
```

```
   END;
   PUT ' ';


 %END;    *** of debug test;

*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last XREGION;
FILE 'REGRSREG.INC';
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 + 1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;
DO I = 1 TO 16;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
```

```
    PUT @11 ';';


    *-----------------------------------------------------------;
    * create an ARRAY statement of the desired risk factors;
    * called adjusters in the specs and in the code;
    FILE 'RISKARRY.INC';
    PUT @10  "ARRAY COEFFS(*) $8";
    DO I = 1 TO CNT2;
       PUT @12 AGENAMX(I);
    END;

    CNT3 = 0;
    IF "&IND_VAR1" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR1";
    END;

    IF "&IND_VAR2" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR2";
    END;

    IF "&IND_VAR3" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR3";
    END;
    PUT @11 ';';


    *-----------------------------------------------------------;
    * create an ARRAY of mean names for the output;
    * from a proc MEANS of the Risk Factors in RISKARRY;
    FILE 'RISKMEAN.INC';
    IND_CNT = CNT2 + CNT3;
    PUT @6 "ARRAY MEANS(*) $8";
    DO I = 1 TO IND_CNT;
       PUT @12 "MEAN" I Z2.;
    END;
    PUT @11 ';';

*   ---------------------------------------------------;
*   create the equivalent of the following statement;
*   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
    FILE 'MEANFILE.INC';
    PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
    DO I = 1 TO IND_CNT;
       PUT @12 "MEAN" I Z2.;
    END;
    PUT @11 ';';

    *-----------------------------------------------------------;
    * create a super region area array;
    * with at least ONE obs;
    FILE 'REGARRAY.INC';
    PUT @10  "ARRAY REGRHS(*) $8";
    DO I = 1 TO 16;
       IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
          PUT  @16 'REG' I Z2.;
       END;
    END;
    PUT @11 ';';
RUN;

* Create the means of the adjuster variables;
* They will be used to replace missing adjuster variables;
* calculate weighted means;
PROC MEANS DATA=GROUP&IGRP;
  WEIGHT &WGT;
  %INCLUDE 'RISKVARS.INC';
  %INCLUDE 'MEANFILE.INC';
RUN;
```

```
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
/* PROC MEANS DATA=out.group8;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;*/
%MEND MAKE_INC;

%MACRO R_SUDAAN(INFILE);
**************************************************
* Use this macro to create standard err (variances)
* for XREGIONs.
**************************************************;
%PUT ****************************************;
%PUT STARTING MACRO R_SUDAAN (XREGION);
%PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF XREGION > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (XREGION)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for super regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XREGION;
   SUBGROUP XREGION;
   LEVELS 16;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XREGION SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;
```

```
   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print XREGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

%MEND  R_SUDAAN;


%*********************************;
%*  call the macros;
%*********************************;

OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;


%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %SCORE;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

```
*************************************************************************
*
*  Project:  DoD - Quarterly Adult Report Cards
*  Program:  STEP2Q.SAS
*  Purpose:  Generate risk-adjusted CAHPS Scores for Adult Report Card.
*
*  Requires: Program STEP1Q.SAS must be run prior to running this program.
*
*  The adult report card contains a large number of risk-adjusted scores.
*  Some scores are calculated from responses to individual survey questions.
*  Composite scores are calculated by combining scores from individual
*  questions.  The scores then are compared with external civilian
*  benchmarks.  The programming tasks involved in building the report
*  card are:
*
*       1) Preparing data for analyses
*       2) Estimating risk adjustment models
*       3) Calculating risk-adjusted values and variances
*       4) Calculating benchmarks
*       5) Comparing risk-adjusted values to benchmarks
*          and hypothesis testing
*
* Subgroup Definitions:
* ____________________________________________________________
*    Seven Subgroups          Definitions
* ____________________________________________________________
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H00002>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H00002>=2
* 3. Enrollees w/civ PCM      XENR_PCM = 3        AND H00002>=2
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              XBNFGRP = 1
* 6. Active duty dependents   XBNFGRP = 2
* 7. Retirees and dependents  XBNFGRP IN (3,4)
*
* Previous Program:  STEP1Q.SAS
* Next Program:      ALLSCORE.SAS
*
*************************************************************************;
OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;
LIBNAME   IN1 v612  ".";
LIBNAME   IN2 v612  "c:\dod\data\2000";
LIBNAME   OUT v612  "c:\dod\data\2000\output";
LIBNAME   OUT2 v612  "c:\dod\data\2000\output";
Libname   in3 v612  "f:\dod\2000\data";
LIBNAME   IN2000 v612 "c:\dod\data\2000\output";



/*LIBNAME   IN1  "DATA";
LIBNAME   IN2  "F:\DOD\2000\DATA\AFINAL";
LIBNAME   IN2000 "..\..\DATA";
LIBNAME   OUT  "DATA";
LIBNAME   OUT2 "c:\dod\data\2000";*/

*************************************************************************
*************************************************************************
* Set GLOBAL parameters here.
*************************************************************************
*************************************************************************;

*************************************************************************
* Set the number of Dependent variables to process.
* One does not need to start at 1, but the max must be >= min.
*************************************************************************;
%LET MIN_VAR =  21;
%LET MAX_VAR = 22;

*************************************************************************
* Set the number of subgroups to process.
*************************************************************************;
%LET MIN_GRP = 1;
%LET MAX_GRP = 8;
```

```
*************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
*************************************************************************;
%LET WGT      = WRWT;
%LET IND_VAR1 = R00077;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;


%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;


*************************************************************************
* GETTING NEEDED CARE.
*************************************************************************;
%LET DEPVAR1 = R00007;
%LET DEPVAR2 = R00014;
%LET DEPVAR3 = R00028;
%LET DEPVAR4 = R00029;

*************************************************************************
* GETTING NEEDED CARE QUICKLY.
*************************************************************************;
%LET DEPVAR5 = R00019;
%LET DEPVAR6 = R00021;
%LET DEPVAR7 = R00024;
%LET DEPVAR8 = R00030;

*************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%LET DEPVAR9  = R00033;
%LET DEPVAR10 = R00034;
%LET DEPVAR11 = R00035;
%LET DEPVAR12 = R00036;

*************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
*************************************************************************;
%LET DEPVAR13 = R00031;
%LET DEPVAR14 = R00032;

*************************************************************************
* CUSTOMER SERVICE.
*************************************************************************;
%LET DEPVAR15 = R00048;
%LET DEPVAR16 = R00050;
%LET DEPVAR17 = R00055;

*************************************************************************
* CLAIMS PROCESSING.
*************************************************************************;
%LET DEPVAR18 = R00044;
%LET DEPVAR19 = R00045;

*************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR20 = R00037;

*************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%LET DEPVAR21 = R00056;
```

```
*************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
*************************************************************************;
%LET DEPVAR22 = R00009;

*************************************************************************
* SPECIALITY CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR23 = R00016;

%MACRO SCORE;
************************************;
* use this macro for all groups;
* super region variables are to be used     ;
************************************;
%PUT ****************************************;
%PUT STARTING MACRO SCORE;
%PUT "GROUP    = " GROUP&IGRP;
%PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
%PUT "DEP_VAR  = " &&DEPVAR&IVAR;
%PUT "IND_VAR1 = " &IND_VAR1;
%PUT "IND_VAR2 = " &IND_VAR2;
%PUT "IND_VAR3 = " &IND_VAR3;
%PUT "WGT      = " &WGT;
%PUT ****************************************;

*-------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*-------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = IN2.SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                      PRED&IGRP RESID&IGRP XREGION &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XREGION &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
```

```
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPt;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XREGION NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XREGION=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XREGION;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XREGION REGCNT&IGRP REGWGT&IGRP);
      BY XREGION;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
```

```
        TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT&IGRP;
  CLASS  XREGION;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XREGION)
           REGFILE1(KEEP = ADJ&IGRP XREGION);
     BY XREGION;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          REG_WGTS
          REGFILE1;
    BY XREGION;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of XREGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;

%MEND SCORE;

%MACRO MAKE_INC;
************************************;
* creates include files for later Procs;
* Needs to be run each time.  Called   ;
* in the outer (beneficiary loop).     ;
* I chose this method because it was   ;
* clearer(to me at least).             ;
* This macro needs to be run once per  ;
* Dep var per subgroup.                ;
************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;
  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;
  RUN;
```

```
 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY REGCNT(16)  8 REGCNT01 - REGCNT16;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;

      * create a name array for the parent age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824  = 1 THEN AGECNT(1) + 1;
      IF AGE2534  = 1 THEN AGECNT(2) + 1;
      IF AGE3544  = 1 THEN AGECNT(3) + 1;
      IF AGE4554  = 1 THEN AGECNT(4) + 1;
      IF AGE5564  = 1 THEN AGECNT(5) + 1;
      IF AGE6574  = 1 THEN AGECNT(6) + 1;
      IF AGE75UP  = 1 THEN AGECNT(7) + 1;

      * count records in each XREGION group;
      * we will only use XREGIONs with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XREGION >= 1 AND XREGION <= 16  THEN DO;
         REGCNT(XREGION) = REGCNT(XREGION) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;

ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 16;
           IF(REGCNT(I) > 0) THEN DO;
              PUT  'REG' I Z2. REGCNT(I) 6.;
           END;
        END;
```

```
   PUT ' ';


 %END;    *** of debug test;

*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last XREGION;
FILE 'REGRSREG.INC';
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 + 1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;
DO I = 1 TO 16;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';
```

```
    *-----------------------------------------------------------;
    * create an ARRAY statement of the desired risk factors;
    * called adjusters in the specs and in the code;
    FILE 'RISKARRY.INC';
    PUT @10  "ARRAY COEFFS(*) $8";
    DO I = 1 TO CNT2;
       PUT @12 AGENAMX(I);
    END;

    CNT3 = 0;
    IF "&IND_VAR1" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR1";
    END;

    IF "&IND_VAR2" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR2";
    END;

    IF "&IND_VAR3" NE "" THEN DO;
        CNT3 + 1;
        PUT @12 "&IND_VAR3";
    END;
    PUT @11 ';';


    *-----------------------------------------------------------;
    * create an ARRAY of mean names for the output;
    * from a proc MEANS of the Risk Factors in RISKARRY;
    FILE 'RISKMEAN.INC';
    IND_CNT = CNT2 + CNT3;
    PUT @6 "ARRAY MEANS(*) $8";
    DO I = 1 TO IND_CNT;
       PUT @12 "MEAN" I Z2.;
    END;
    PUT @11 ';';

*   ---------------------------------------------------;
*   create the equivalent of the following statement;
*   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
     FILE 'MEANFILE.INC';
     PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

     *-----------------------------------------------------------;
     * create a super region area array;
     * with at least ONE obs;
     FILE 'REGARRAY.INC';
     PUT @10  "ARRAY REGRHS(*) $8";
     DO I = 1 TO 16;
        IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'REG' I Z2.;
        END;
     END;
     PUT @11 ';';
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=GROUP&IGRP;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;
```

```
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
 /*PROC MEANS DATA=in2000.group8;
 where &&depvar&ivar ne .;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;*/
%MEND MAKE_INC;

%MACRO R_SUDAAN(INFILE);
**************************************************
* Use this macro to create standard err (variances)
* for XREGIONs.
**************************************************;
%PUT ****************************************;
%PUT STARTING MACRO R_SUDAAN (XREGION);
%PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF XREGION > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (XREGION)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for super regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XREGION;
   SUBGROUP XREGION;
   LEVELS 16;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XREGION SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;
```

```
   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print XREGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

%MEND  R_SUDAAN;


%*********************************;
%*  call the macros;
%*********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %SCORE;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

```
%macro conus(x,y);
data &x(drop=t_adj t_wgt t_cnt t_se);
set &x end=last;

retain t_wgt t_adj t_cnt t_se 0;
if 0<xregion<13|xregion=16 then do;
t_cnt=sum(t_cnt,regcnt&y);
t_wgt=sum(t_wgt,regwgt&y);
t_adj=sum(t_adj,regwgt&y*adj&y);
*v_se=sum(t_se^2,(semean&y^2)*(regwgt&y^2));
*t_se=sqrt(v_se);
end;
if xregion< 17 then output;
if last then do;
regcnt&y=t_cnt;
adj&y=t_adj/t_wgt;
xregion=17;
regwgt&y=t_wgt;
*se&y=t_se/t_wgt;
output;
end;
run;
%mend;
libname inp1 'c:\dod\data\2002\output';
libname inp2 v612 'c:\dod\data\2000\output';
options mlogic mprint;
%conus(inp1.r_r02011,8);
%conus(inp2.r_r00009,8);
%conus(inp1.r_r02056,1);
%conus(inp2.r_r00056,1);
```

```
*********************************************************************;
* Program Name:   chart2_1.SAS                                      ;
*                 Program was formely called DATAC.SAS and now includes;
*                 CREATE2X5.SAS                                     ;
* This program contains calls to macros in DOD macro library to produce;
* the various other charts in Excel                                 ;
*********************************************************************;

/*****************************************************************************/
/* The following file def statement MUST be included in all programs to be run */
/* It contains the SAS Macros to prepare and import data into Excel           */
/*****************************************************************************/

*FILENAME DODMACRO 'C:\DoD\DODMACROS_NESR.SAS';
*%INCLUDE DODmacro / source2;

*FILENAME STRATUM 'C:\DoD\STRATUMFIX.SAS';
*%INCLUDE STRATUM / source2;


*%INCLUDE DODmacro;
 libname in02 'C:\DOD\data\2002\output';
 libname in00 v612 'C:\DOD\data\2000\output';
 %let indat=in02.r_r02011;
 %let indat2=in00.r_r00009;
 /*%let indat2=in00.signifc7;*/

libname out ".";
*libname chart 'E:\DOD\Q1_2002\Programs\NESR\Nesr draft\charts21_31';


/*********************************************/
/*                 CHART 2.1                 */
/*********************************************/


 PROC FORMAT;
   VALUE REG
        1  = 'Region 1'
        2  = 'Region 2'
        3  = 'Region 3'
        4  = 'Region 4'
        5  = 'Region 5'
        6  = 'Region 6'
        8  = 'Region 7/8'
        9  = 'Region 9'
        10 = 'Region 10'
        11 = 'Region 11'
        12 = 'Region 12'
        13 = 'Europe'
        14 = 'Asia'
        15 = 'Latin America'
        16 = 'Alaska'
        17 = 'CONUS MHS';
data out.signifc7(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &indat;
 benefit = "Health Plan";  bentype = "2002";

      majgrp = "Prime Enrollees";
        region=put(xregion,reg.); regcat=region;
        sig=.;score=adj8; n_obs=regcnt8;
run;

proc print data=out.signifc7;run;

data out.s200021(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &indat2;
 benefit = "Health Plan";  bentype = "2001";

      majgrp = "Prime Enrollees";
        region=put(xregion,reg.); regcat=region;
        sig=.;score=adj8; n_obs=regcnt8;

run;
```

```
proc print data=out.s200021;run;



/* 2001 data */

FILENAME RAWX DDE "EXCEL|[chapter2.xls]2.1!R20C1:R40C8";
DATA _NULL_;
  SET out.s200021;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Primary Care Manager'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

/* 2002 data */

FILENAME RAWX DDE "EXCEL|[chapter2.xls]2.1!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc7;
  FILE RAWX NOTAB LRECL=2503;
  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;
```

```
*********************************************************************;
* Program Name: Chart3_1.SAS                                        ;
* This program contains calls to macros in DOD macro library to produce;
* the Chart 3 tables: 3.1                                              ;
* The following macros are used:                                    ;
*  - CHART2_3 -- Chart 3 uses the same program as in Chart2.sas      ;
*  - CH2_4ADJ                                                         ;
*  - SIGFLAG                                                         ;
*********************************************************************;
options ps=79 ls=132 ;

/*****************************************************************************/
/* The following file def statement MUST be included in all programs to be run */
/* It contains the SAS Macros to prepare and import data into Excel           */
/*****************************************************************************/
libname out ".";
*FILENAME DODMACRO 'C:\DOD\DODMACROS_NESR.SAS';
*%INCLUDE DODmacro / source2;

*FILENAME STRATUM 'C:\DOD\STRATUMFIX.SAS';
*%INCLUDE STRATUM / source2;

 libname in02 'C:\DOD\data\2002\output';
 libname in00 'C:\DOD\data\2000\output';
 %let indat=in02.r_r02056;
%let indat2=in00.r_r00056;


/*****************************************************************************************/
/* CHART 3.1 - PREVIOUSLY 3x2.SAS                                                         */
/*****************************************************************************************/


PROC FORMAT;
   VALUE REG
       1  = 'Region 1'
       2  = 'Region 2'
       3  = 'Region 3'
       4  = 'Region 4'
       5  = 'Region 5'
       6  = 'Region 6'
       8  = 'Region 7/8'
       9  = 'Region 9'
       10 = 'Region 10'
       11 = 'Region 11'
       12 = 'Region 12'
       13 = 'Europe'
       14 = 'Asia'
       15 = 'Latin America'
       16 = 'Alaska'
       17 = 'CONUS MHS';
RUN;
data out.signifc1(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &Indat;
 benefit = "Health Plan";  bentype = "2002";

      majgrp = "Prime Enrollees";
        region=put(xregion,reg.); regcat=region;
        sig=.;score=adj1; n_obs=regcnt1;

run;

proc print data=out.signifc1;run;

data out.s200031(keep=benefit bentype majgrp region regcat score sig n_obs);
   set &indat2;
 benefit = "Health Plan";  bentype = "2001";

      majgrp = "Prime Enrollees";
        region=put(xregion,reg.); regcat=region;
        sig=.;score=adj8; n_obs=regcnt8;

run;
```

```
proc print data=out.s200031;run;


/*Year2002*/

FILENAME RAWX DDE "EXCEL|[chapter3.xls]3.1!R1C1:R19C8";
DATA _NULL_;
  SET out.signifc1;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Health Plan'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;



/* 2000 data */

FILENAME RAWX DDE "EXCEL|[chapter3.xls]3.1!R20C1:R40C8";
DATA _NULL_;
  SET out.s200031;
  FILE RAWX NOTAB LRECL=2503;

  IF _N_ = 1 THEN
  PUT 'Primary Care Manager'
   / 'Majgrp'   '09'X 'Region'      '09'X 'Regcat' '09'X 'Bentype'
                '09'X 'Benefit'     '09'X 'Sig'    '09'X 'Score'
                '09'X 'N';

  PUT MAJGRP    '09'X  REGION    '09'X  REGCAT  '09'X  BENTYPE
                '09'X  BENEFIT   '09'X  SIG     '09'X  SCORE
                '09'X  N_OBS;

RUN;

/*2002 data*/
```