



HEALTH AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE

**1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200**

OCT 6 2006

The Honorable John W. Warner
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The enclosed report responds to Section 723 of the National Defense Authorization Act (NDAA) for fiscal year (FY) 2000 and the modifications from Section 742 of the NDAA for FY 2006, which directs the Assistant Secretary of Defense for Health Affairs to submit an annual report on the quality of care furnished under the health care programs of DoD. This FY 2005 report includes highlights on medical management, population health, evidence-based practice, quality measures, patient safety, patient satisfaction and biosurveillance.

The health care programs and clinical quality measures utilized by DoD to assess the care provided to our beneficiaries are aligned with current national initiatives and support comparison with national recognized benchmarks. This enhances the ability of military treatment facilities (MTFs) to identify opportunities to continuously improve the care and services provided. The DoD has advanced the capabilities of several innovative surveillance programs to ensure essential health information is available for planning, response and decision-making, especially in theater.

Providing the best possible health care to our beneficiaries requires constant commitment from all involved in the Defense Health Program.

Thank you for your continued interest in the Military Health System

Sincerely,


William Winkenwerder, Jr., MD

cc:
The Honorable Carl Levin
Ranking Member



HEALTH AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE

**1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200**

OCT 6 2006

The Honorable Lindsey O. Graham
Chairman, Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

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William Winkenwerder, Jr., MD

cc:
The Honorable Ben Nelson
Ranking Member



THE ASSISTANT SECRETARY OF DEFENSE

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HEALTH AFFAIRS

OCT 6 2006

The Honorable Duncan Hunter
Chairman, Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

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The Honorable Ike Skelton
Ranking Member



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**1200 DEFENSE PENTAGON
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OCT 6 2006

The Honorable John McHugh
Chairman, Subcommittee on Military Personnel
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515-6035

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Sincerely,


William Winkenwerder, Jr., MD

cc:
The Honorable Vic Snyder
Ranking Member



THE ASSISTANT SECRETARY OF DEFENSE

**1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200**

HEALTH AFFAIRS

OCT 6 2006

The Honorable Thad Cochran
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

The enclosed report responds to Section 723 of the National Defense Authorization Act (NDAA) for fiscal year (FY) 2000 and the modifications from Section 742 of the NDAA for FY 2006, which directs the Assistant Secretary of Defense for Health Affairs to submit an annual report on the quality of care furnished under the health care programs of DoD. This FY 2005 report includes highlights on medical management, population health, evidence-based practice, quality measures, patient safety, patient satisfaction and biosurveillance.

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William Winkenwerder, Jr., MD

cc:
The Honorable Robert C. Byrd
Ranking Member



THE ASSISTANT SECRETARY OF DEFENSE

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WASHINGTON, DC 20301-1200**

HEALTH AFFAIRS

OCT 6 2006

The Honorable Ted Stevens
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

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Sincerely,

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cc:
The Honorable Daniel K. Inouye
Ranking Member



THE ASSISTANT SECRETARY OF DEFENSE

**1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200**

HEALTH AFFAIRS

OCT 6 2006

The Honorable Jerry Lewis
Chairman, Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

The enclosed report responds to Section 723 of the National Defense Authorization Act (NDAA) for fiscal year (FY) 2000 and the modifications from Section 742 of the NDAA for FY 2006, which directs the Assistant Secretary of Defense for Health Affairs to submit an annual report on the quality of care furnished under the health care programs of DoD. This FY 2005 report includes highlights on medical management, population health, evidence-based practice, quality measures, patient safety, patient satisfaction and biosurveillance.

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Sincerely,


William Winkenwerder, Jr., MD

cc:
The Honorable David R. Obey
Ranking Member



THE ASSISTANT SECRETARY OF DEFENSE

**1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200**

HEALTH AFFAIRS

OCT 6 2006

The Honorable James Walsh
Chairman, Subcommittee on Military Quality of Life
and Veterans Affairs, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The enclosed report responds to Section 723 of the National Defense Authorization Act (NDAA) for fiscal year (FY) 2000 and the modifications from Section 742 of the NDAA for FY 2006, which directs the Assistant Secretary of Defense for Health Affairs to submit an annual report on the quality of care furnished under the health care programs of DoD. This FY 2005 report includes highlights on medical management, population health, evidence-based practice, quality measures, patient safety, patient satisfaction and biosurveillance.

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A handwritten signature in black ink that reads "William Winkenwerder, Jr." with a stylized flourish at the end.

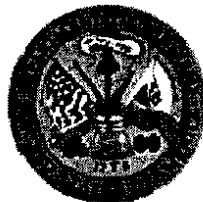
William Winkenwerder, Jr., MD

cc:
The Honorable Chet Edwards
Ranking Member

Department of Defense Health Care Quality



A report to Congress
on the quality of health care
provided by the
health care programs of the
Department of Defense
during FY 2005



A message from

**William Winkenwerder, Jr., MD, MBA
Assistant Secretary of Defense (Health Affairs)
Director of the TRICARE Management Activity**



I am pleased to submit this annual report to Congress on the quality of healthcare provided by the Department of Defense (DoD) during FY 2005. The demanding operational tempo set in 2003 and 2004 has continued. The U.S. Military Health System (MHS) is meeting the challenge of providing the world's finest combat medicine and aero-medical evacuation even while providing high quality care for DoD beneficiaries at home. Care provided by the MHS is evidence-based, safe and patient centered, and we are constantly working to make it even better. Health and fitness are a basic part of the military readiness culture. As a modern and forward-looking health system, the MHS proactively promotes and preserves wellness, rather than waiting to address the ravages of disease and injury. In 2005 the MHS moved forward with three healthy lifestyle demonstration projects.

The MHS has long benchmarked its performance against that of civilian healthcare organizations. All fixed DoD facilities are accredited by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO). DoD uses JCAHO hospital performance measures, Health Plan Employer Data Information Set Measures (HEDIS[®]), and the National Research Corporations (NRC-Picker) Health System Satisfaction Surveys. The quality of care provided by the MHS is favorably comparable to that provided by brand name U.S. commercial health plans.

At a recent conference on Quality featuring speakers from organizations external to DoD including the National Quality Forum (NQF), the Agency for Healthcare Research and Quality (AHRQ) and the Veterans Health Administration (VHA), multiple speakers praised the DoD for its leadership in the areas of health information technology and patient safety.

It has been a privilege for me to serve our country by caring for the men and women of the Armed Forces of the United States. The patients served by the MHS are American heroes, whether they are soldiers, sailors, airmen or marines, or the families that sacrifice to support them in their service. Their dedicated healthcare team will accept nothing less than the best care for them that our nation can provide. You are an essential part of this team, and your ongoing interest and support are required for the continued success of the MHS mission.

William Winkenwerder, MD, MBA

Health Care Quality

Health Programs of the Department of Defense

The requirement for this report is outlined in Public Law and Congressional direction as follows:

National Defense Authorization Act Fiscal Year 2000; Public Law 106-65 Title VII: Health Care; Section 723(e): Health Care Quality Information and Technology Enhancement. The quality measures mandated by Section 723(e) were modified by Section 742 of the NDAA for FY 2006, Public Law 109-163.

The Assistant Secretary of Defense for Health Affairs shall submit to Congress on an annual basis a report on the quality of health care furnished under the health care programs of the Department of Defense. The report shall cover the most recent fiscal year ending before the date the report is submitted and shall contain a discussion of the quality of the health care measured on the basis of each statistical and customer satisfaction factor that the Assistant Secretary determines appropriate, including, at a minimum, a discussion of the following:

- Quality measures, including structure, process, and outcomes concerning--
 - patient safety;
 - timeliness and accessibility of care;
 - patient satisfaction; and
 - use of evidence-based practices.
- Population health.
- Biosurveillance.

DoD Healthcare Quality Initiatives Review Panel Report

Reestablish the Quality Management Report as a comprehensive information product for communicating with and educating leadership within Congress, the Office of the Assistant Secretary of Defense (Health Affairs), TRICARE Management Activity, the Services and the Military Treatment Facilities on the status of quality in the Military Health System.

The preparation of this report was coordinated through TRICARE Management Activity, Office of the Chief Medical Officer.

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Executive Summary

Medical Management and Population Health

The aim of Medical Management is to enhance patient care coordination and provide more efficient approaches to providing quality health care. Medical Management provides a managed care model that links Utilization Management, Case Management, and Disease Management into a synergistic, integrated approach to managing patient care while also connecting Military Treatment Facility (MTF) clinical processes to business planning.

Population Health addresses four challenges: 1) providing a healthy, fit, and ready force; 2) improving the health status of our beneficiaries; 3) managing an effective and efficient health delivery system; and 4) community involvement. These challenges are met through measurement and assessment of health status of the specified population and engaging in targeted prevention and intervention activities in order to realize quantifiable improvement.

In support of both Medical Management and Population Health, the MHS Portal generates detailed "action lists" for clinical preventive services, and disease/condition management at the provider and clinic level for enrolled beneficiaries. This tri-Service tool also produces disease prevalence information and clinical measure scores similar to the Health Employer Data Information System (HEDIS®) measures.

To address the key health behaviors associated with premature and preventable death, the TRICARE Management Activity solicited proposals for three healthy lifestyle initiatives: tobacco cessation and weight management demonstration studies, and a web-based alcohol abuse prevention project. In addition, social marketing campaigns to counter tobacco use and alcohol abuse among young active duty personnel are also being developed and tested. Results from these projects will be used to positively influence this target audience's attitudes and behaviors related to tobacco use and alcohol abuse.

Evidence Based Practice with Quality Measurement

DoD is committed to incorporating evidence based clinical practices into the MHS to ensure DoD beneficiaries receive the best possible care based on the most current evidence available. Support strategies identified to accomplish this mission include the development and communication of evidence based clinical practice information followed by ongoing measurement.

Using a collaborative approach, the Department of Veterans Affairs and DoD develop and maintain the clinical practice guidelines (CPGs) that serve as the foundation for interagency condition management initiatives. With expanding use of CPGs, we expect to see improvement in care quality and cost-effectiveness.

EXECUTIVE SUMMARY

Like other health systems that have adopted the Hospital Quality Alliance quality measures, DoD collects data on ten performance indicators at all MTFs in the MHS. On eight of these ten indicators, DoD performance is consistent with or better than national rates. On two indicators, DoD lags behind the national rates. The availability of nationally comparative data allows the Department to focus effort and resources on the areas with the greatest opportunities for improvement and to identify, understand, and reproduce best practices and high functioning micro-systems.

The MHS works closely with the National Perinatal Information Center (NPIC), which provides a means to compare DoD childbirth data with information from multiple women's and infants' hospitals nationwide. The MHS continues to surpass the national norms established through the NPIC benchmark database for perinatal process and outcome measures.

The National Committee for Quality Assurance's HEDIS[®] metrics monitor how well health plans deliver preventive care and how well members with acute illnesses or chronic diseases are managed to avoid or minimize complications. For those HEDIS[®] measures used within the MHS, DoD performed as well as or better than the 50th percentile of health plans voluntarily agreeing to participate in reporting in FY 2005.

Patient Safety

The DoD Patient Safety Program is leading the MHS to a culture of safety by providing oversight and coordination of enterprise-wide programs, supporting initiatives, and enabling implementation of effective actions to improve patient safety and quality. The Patient Safety Program's infrastructure includes three core components: the DoD Patient Safety Center, the Healthcare Team Coordination Program, and the Center for Education and Research in Patient Safety.

The DoD Patient Safety Center conducts analyses and provides enterprise-wide recommendations based on near miss and adverse events within the MHS.

The Healthcare Team Coordination Program develops and deploys tools to reduce the potential of harm to patients while delivering care. This program focuses on opportunities to facilitate and integrate teamwork principles into practice through research, education and training initiatives.

The Center for Education and Research in Patient Safety facilitates patient safety education, training, best practices, as well as research on the effectiveness of program outcomes.

A significant project during FY 2005 was planning for an extensive assessment of patient safety culture throughout the direct care system. DoD tailored the Agency for Healthcare Research and Quality's Hospital Survey on Patient Safety

to assess staff perceptions about the facility's environment related to medical errors and patient safety culture. This effort will be used as a baseline for on-going performance improvement as the MHS tracks changes in patient safety over time and evaluates the impact of patient safety interventions at the unit, MTF, Service, and MHS levels.

Patient Satisfaction

Patient Satisfaction information is gathered through a variety of venues and at multiple levels across the MHS. Patient satisfaction surveys provide insight into beneficiaries' perceptions of the TRICARE program. Results of satisfaction surveys are disseminated to the Services and MTF staff as well as posted on the TRICARE website and published in the annual "Evaluation of the TRICARE Program" report.

The TRICARE Inpatient Satisfaction Survey is conducted annually to obtain information on patients' perceptions of inpatient care when receiving medical, surgical and childbirth services. The comparative analysis of the surgical data revealed that direct care system patients were more satisfied in every dimension with the care received. For medical patients, satisfaction in all the dimensions of care was comparable to civilian benchmarks. The inpatient survey results for MHS childbirth experience patients revealed that patient satisfaction in all the dimensions of care fell somewhat short of the civilian benchmarks, although MHS patients exceeded the benchmark in the area of physical comfort.

Biosurveillance

The DoD remains vigilant and focused on the identification of potential threats and the prevention of causalities from environmental, occupational, operational, biological and chemical warfare events. Three complementary biosurveillance programs form the foundation of the Department's biosurveillance efforts: the DoD-Global Emerging Infections Surveillance and Response System (GEIS); the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE); and the Joint Medical Workstation (JMeWS).

The mission of the DoD-GEIS is to support and coordinate DoD global surveillance, training, public health research and outbreak response capabilities for microbial threats impacting force health protection and national security.

ESSENCE is a system for the early detection of infectious disease outbreaks in communities. It uses data from episodes of outpatient care to detect and analyze the occurrence of syndromes related to infectious diseases.

JMeWS is an automated health care monitoring and tracking system, first deployed in January 2003, that provides online near-real-time medical situational awareness for forward-deployed forces. An updated version of JMeWS was launched in June 2005, offering commanders an improved user interface and more accurate medical surveillance algorithms.

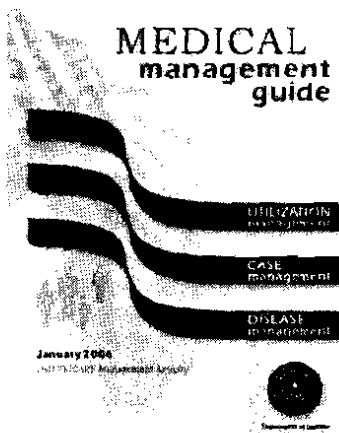
Medical Management and Population Health

**Improving the health of our
military communities**

MHS Medical Management

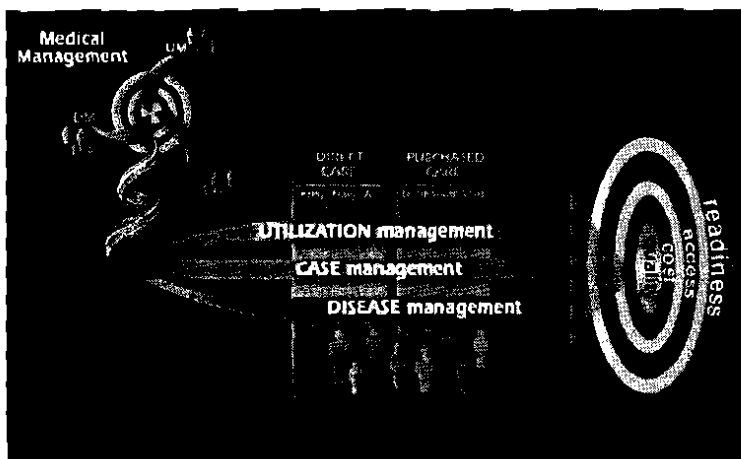
The MHS Strategic Plan has a goal to optimize stewardship of MHS resources and improve health outcomes, which are the chief functions of Medical Management (MM) activities. MM provides a managed care model with a three-pronged strategy that links Utilization Management (UM), Case Management (CM), and Disease Management (DM) into a synergistic, integrated approach to managing patient care. The aim of MM is to enhance patient care coordination and provide more efficient approaches to providing quality health care, while blending it with a population health focus. MM efforts are geared toward linking the Military Treatment Facility's (MTF) clinical processes with business planning.

Policy Development and Guidelines



The policy directing MTFs to implement MM is the Department of Defense Instruction (DoDI) 6025.20, Medical Management Programs in the Direct Care System and Remote Areas. While the DoDI establishes minimal policy requirements, MTFs rely on a companion publication, the TRICARE Management Activity (TMA) MM Guide. The Guide provides specific "how to" guidance for MTF staff in establishing MM programs, including information on outcomes management. It includes a wealth of resources, such as website links, sample forms, and tools that can be customized at the local level.

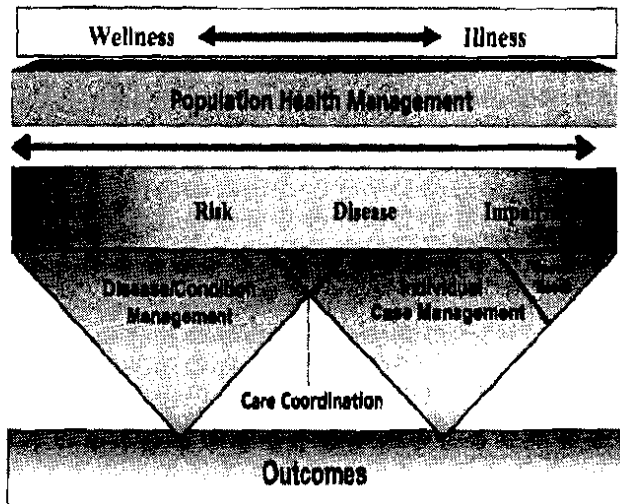
Utilization Management is an organization-wide, interdisciplinary approach to balancing quality, risk, and cost concerns in the provision of patient care. Using commercially licensed standards and criteria sets to authorize and manage service delivery (e.g., ensure medical necessity and appropriateness of specialty referrals), UM staff reviews the cost of services, how people access them, and their utilization rates, establishing a valuable process to decrease both direct and purchased care costs.



MEDICAL MANAGEMENT AND POPULATION HEALTH

Case Management is defined as “a collaborative process under the population health continuum which assesses, plans, implements, coordinates, monitors, and evaluates options and services to meet an individual’s health needs through communication and available resources to promote quality, cost effective outcomes.”

Military Case Management

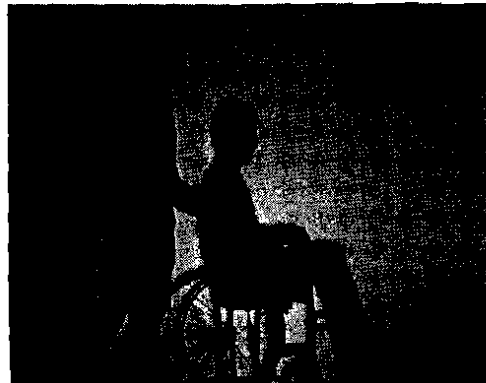


CM is an important clinical process that offers the ability to provide seamless continuity of care and coordination of services to meet an individual’s healthcare needs. Patients benefiting from CM services include those with complex, high-risk, and multiple health conditions, such as special needs/exceptional family members and active duty war fighters receiving definitive care for injuries.

Case managers demonstrate a positive return-on-investment through cost avoidance of unnecessary healthcare services, reduction of fragmented care, and most importantly, the promotion of quality, clinical outcomes. TMA continues to work to gain support for obtaining an enterprise-wide automated CM system, which will assist with clinical documentation of the treatment plan and seamless communication of case managed patients.

Disease Management is defined as “an organized effort to achieve desired health outcomes in populations with prevalent, often chronic, diseases, for which care practices may be subject to considerable variation.”

The term “condition management” is also used to include non-disease states, such as pregnancy or childhood developmental disorders, or other temporary changes to health status. Many MTFs have established DM programs to assist patients with managing their own disease/condition through patient education. Through self-care, patients help minimize complications, and in turn, decrease the cost of healthcare services.



MEDICAL MANAGEMENT AND POPULATION HEALTH

Medical Management Education and Training

TMA met the challenge of equipping personnel with the proper knowledge and training to meet the requirements of the DoDI policy. Between September 2003 and October 2005, Population Health and Medical Management Division (PHMMD) staff presented over thirty classroom-based courses to more than a thousand participants within the United States and overseas. Not only did this highly rated course include principles of MM, it addressed the critical link between clinical and business operations, assisting staff in business plan development.

The PHMMD began educating MTF staff about establishing MM programs through a variety of venues, such as national meetings (e.g., 2005 TRICARE Conference, Air Force Nursing Executive Leadership Symposium, and American Academy of Medical Administrators); written publications (e.g., Office of the Chief Medical Officer ClinOps Newsletter) and most notably, through training.

TMA also offered another mode of training through various distance learning modules available online through the PHMMD Support Center website (<http://www.dodmedicalmanagement.info>). The learning modules include MM, as well as population health topics, such as CM, UM, Preventive Coding, and Obesity.

MHS POPULATION HEALTH & MEDICAL MANAGEMENT SUPPORT CENTER

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TRICARE

Welcome to the
MHS Population Health & Medical Management Division

Mission
The PHMM Division provides policies, instructions, programs, forums, and resources to measure, improve, and sustain the health status of the population.

Vision
We are the definitive source for population health information to facilitate the transformation of the MHS from a reactive to a proactive system.

POPULATION HEALTH

- Population Health
- PHI Plan & Guide
- Conferences & Training
- Resources
 - Websites
 - Library
- Online Learning Center
 - REGISTRATION**
 - LOG-IN**
 - Course List

MEDICAL MANAGEMENT

- Medical Management
 - Utilization Management
 - Case Management
 - Disease Management
- Medical Management Guide
- Conferences & Training
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Population Health

Population Health concepts address four challenges: 1) providing a healthy, fit, and ready force; 2) improving the health status of our beneficiaries; 3) managing an effective and efficient health delivery system; and 4) community involvement. These challenges are met through measurement and assessment of health status of the specified population and engaging in targeted prevention and intervention activities in order to realize quantifiable improvement.

MHS Disease Management – Raising the Bar

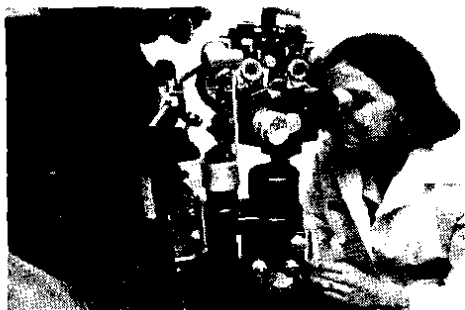
The DoD is committed to providing the best quality care possible given current medical science and knowledge. For beneficiaries with chronic conditions, DM services are offered to help improve their health status by:



- Teaching patients self-management skills (e.g., monitoring of symptoms, avoiding/reducing complications) and increasing knowledge about their conditions
- Increasing compliance with treatment plans and prescribed medications

MHS DM programs have been developed by MTFs and TRICARE managed care networks to address the needs of their specific communities. In an effort to improve on existing successes, and to identify best practices, the MHS Disease Management Summit was held on September 8, 2005. Presentations were made by Johns Hopkins Health Care, Centers for Medicare and Medicaid Services, as well as each of the Services, and the Managed Care Support Contractors. The Assistant Secretary of Defense (Health Affairs) charged the MHS attendees to develop an action plan for a system-wide approach to DM.

As a direct result of the Summit, the DoD is adopting a unified approach to DM across the MHS with a focus on the same disease states. This will reduce variation in the system and result in improved quality and consistency for beneficiaries with targeted chronic illnesses, regardless of geographic location. In addition, this system-wide approach will improve the MHS's ability to evaluate the quality of care and cost effectiveness of DM efforts.



The goals of the MHS Disease Management initiative are to improve clinical outcomes, increase patient and provider satisfaction, and ensure appropriate utilization of resources.

Healthy Choices for Life Initiatives – Tobacco, Obesity, and Alcohol



The Healthy Choices for Life initiatives were launched in response to the results of the latest DoD Health Related Behavior Survey. The survey results indicated an increase in tobacco use, obesity and alcohol abuse based on active duty respondents. Similarly, these health behaviors increased among active duty family members respondents. A strategic approach focusing on these leading causes of preventable deaths in the United States was formulated and included the conceptual framework for healthy lifestyle projects. TMA solicited proposals for three healthy lifestyle initiatives to address the key health

behaviors. Two of the initiatives are tobacco cessation and weight management demonstration studies, which are comprehensive behavioral interventions that provide optional pharmacotherapy to assist TRICARE Prime beneficiaries to decrease tobacco use and lose weight. The third project is a web-based alcohol abuse prevention pilot focused on education. In addition to these three studies, social marketing campaigns to counter tobacco use and alcohol abuse are also being developed. These marketing campaigns are targeted toward young enlisted active duty members. The results of these demonstration projects have implications for benefit change and cost savings for the Military Health System.

The key elements of these healthy lifestyle initiatives include:

Tobacco cessation project:

- Targets Prime beneficiaries 18-64 years of age (not eligible for Medicare) residing in non-catchment areas in Colorado, Kansas, Missouri, and Wisconsin.
- Design elements include a DoD-sponsored 1-800 proactive telephone quit line, a web-based educational tool and access to a pharmacotherapy benefit including nicotine replacement products.



MEDICAL MANAGEMENT AND POPULATION HEALTH

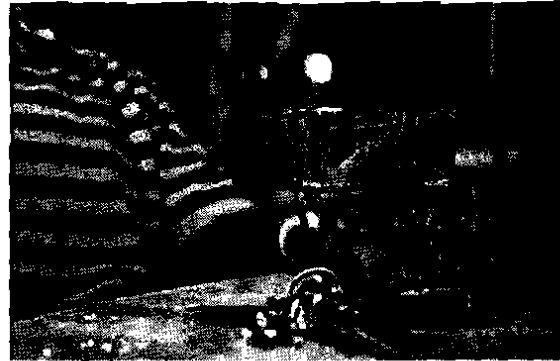


Weight management:

- Targets overweight and obese Prime, non-active duty patients 18-64 years of age (not eligible for Medicare) residing in Indiana, Illinois, Ohio, and Michigan.
- Design elements include behavioral modification tools; educational support; and cost-sharing of FDA-approved prescription weight loss medication when medication use is considered desirable and appropriate by participants and their Primary Care Managers.
- Clinicians are encouraged to follow the National Heart Lung and Blood Institute recommendation which includes consideration of pharmacotherapy for patients with a body mass index (BMI) greater than 27.5 with risk factors or a BMI of 30 without risk factors.

Web-based alcohol abuse prevention education pilot project:

- Targets young active duty Service members on eight military installations representing each of the Services.
- Design elements include pre- and post-intervention assessment, access to interactive telephone counseling, and follow-up to evaluate the intervention's impact on alcohol consumption.
- Complements existing Service-level alcohol prevention efforts.



Tobacco and Alcohol Social Counter-Marketing Campaigns

Social marketing campaigns to counter tobacco use and alcohol abuse among active duty personnel 18-24 years old are being developed and tested. Focus groups and survey techniques provide information to support the development of the marketing materials. The ultimate goal of the campaigns is to positively influence this target audience's attitudes and behaviors related to tobacco use and alcohol abuse. These projects leverage the influence of peers and identified role models such as senior enlisted personnel and include interactive websites and media outreach. Moreover, the campaigns are designed to strengthen partnerships with existing tobacco and alcohol prevention programs.

Technology

The primary mission of the MHS is to ensure the nation has available at all times a healthy fighting force and the ability to support the Department's missions worldwide. To meet this mission, the MHS continues to optimize the role of technology.

MHS Population Health Portal

The MHS Portal is a Tri-Service centralized web-based population health management system. This tool generates detailed "action lists" for prevention and disease management at the provider and clinic level. The Portal uses medical coding obtained from various databases to assist in generating clinical measure scores similar to the Health Employer Data Information System (HEDIS®) measure as well as MTF action and prevalence lists. The Portal provides technological support for:



- Assessment of population health demographics
- Demand forecasting for clinical preventive service and disease management needs of their enrolled population
- Patient-specific information by provider
- Analyzing the primary care high utilizer data for potential case management patients
- Allocating resources where they are most needed
- Identifying opportunities for improvement

The Portal provides easily accessible and actionable system wide data to enhance the health of our beneficiaries.

Demographics | Preventive Services | Disease/Condition Management | Administration

Choose a PCM [All]

OR Choose a Provider Group [All]

Aggregate Reports
 All Patients
 Children <
 Children 24
 Women 18-
 Women 50-
 Women >=
 Men >= 35
 Men and Wo

Demographic Tab:

- Population data stratified by preventive service, age and gender

Demographics | Preventive Services | Disease/Condition Management | Administration

Choose a PCM [All]

OR Choose a Provider Group [All]

Preventive Services Tab:

- Proactively monitor six preventive services through action lists
- Track success with national HEDIS® benchmarks
- Childhood immunizations currently for Air Force MTFs and one Navy demonstration site

Demographics | Preventive Services | Disease/Condition Management | Administration

Choose a PCM [All]

OR Choose a Provider Group [All]

Quick Look
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Quick Look
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Disease/Condition Management Tab:

- Aggressively manage 10 diseases or conditions with action lists, prevalence reports and aggregate counts
- Track your success

Demographics | Preventive Services | Disease/Condition Management | Administration

Generated Reports
 Personalization
 Documents
 Links
 Revision History
 Logout

Administrative tab:

- Update contact information
- Contains generated reports
- User's manual
- Frequently asked questions

AHLTA: The Military's Electronic Health Record

AHLTA marks a significant new era in healthcare for the Military Health System and the nation. As an interoperable, secure and highly efficient electronic health record system, AHLTA, when fully deployed, will support more than 9.2 million TRICARE beneficiaries.

AHLTA leverages advanced technology to its fullest potential, ensuring healthcare providers have instant access to invaluable medical information about their patients.

Equally as capable in field mobile units as it is in peace-time medical centers, AHLTA is a system that is consistently:

Powerful: Valuable, life-saving beneficiary information is available online 24/7, worldwide.

Legible: Beneficiary records are complete, accurate and clear.

Secure: Only authorized users can access records and they are protected from natural or man-made disasters.

Longitudinal: 25 months of laboratory, anatomic pathology, pharmacy and radiology data is pre-entered from MHS legacy systems.

Knowledgeable: Offers healthcare providers alerts and wellness reminders for their patients.

Efficient: Interoperability ensures that costly tests, labs and scans are not needlessly duplicated.

Proactive: AHLTA provides critical information that lets healthcare providers know about disease outbreaks, allowing early intervention in targeted populations.



GLOBAL INFORMATION
for **QUALITY CARE**

The MHS enterprise-wide medical and dental clinical information system will:

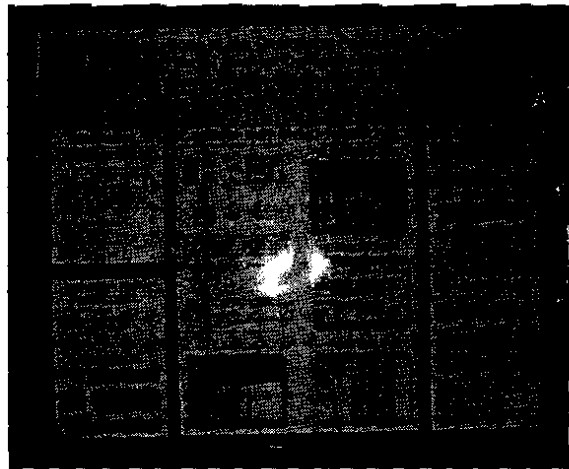
- Provide a complete, legible and comparable medical and dental health record at the point of care
- Build single encounter documents out of team effort, linking diagnoses, procedures, and orders
- Follow an entire outpatient encounter from scheduling an appointment to patient check-out
- Use more than two years of historical information pulled from Composite Health Care System (CHCS) to pre-populate AHLTA (Laboratory, Radiology, and Pharmacy)
- Check orders automatically and transparently at multiple levels for interactions and contradictions
- Provide decision support
- Be implemented worldwide by the end of 2006, with additional software releases to follow
- Incorporate commercial off-the-shelf and government products to replace and enhance functionality currently provided by various legacy applications

Healthcare Innovations Program

MHS personnel have implemented many innovative programs in an effort to increase access to care; improve quality of care; accomplish the mission in a cost-effective manner; and enhance the readiness of military forces. However, MTFs often times do not know what others have accomplished, nor have the time to research it. In an effort to link people with ideas, the PHMMD annually sponsors the Healthcare Innovations Program (HIP), which highlights best practice innovations throughout the MHS.

The HIP solicits the submission of abstracts from MHS staff that demonstrate innovative programs in one of the following five categories:

- **Access:** "Develop a methodology that matches the Right Patient to the Right Provider at the Right Place and at the Right Time."
- **Cost:** "Accomplish our mission in a cost-effective manner that is visible and fully accountable."
- **Quality:** "Ensure benchmark standards for health and healthcare are met while obtaining maximum effectiveness from the resources we are given."
- **Readiness:** "Focus on activities to enhance readiness of military forces and the medical assets that support them."
- **Healthy Lifestyles:** "Promote healthy lifestyles through wellness activities and programs."



A multidisciplinary evaluation panel reviewed all the abstracts submitted and objectively selected the top 50 abstracts from nearly 90 submissions for poster exhibition during the 2005 TRICARE Conference. The top winners from each category were invited to present their innovations and participate in a panel discussion during a conference session. The following table lists the 2005 Health Innovation Program winners.

2005 Healthcare Innovations Award

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Regional Consolidation of Overseas and Sea Suitability Screening
Suitability screenings were done at seven military sites throughout the San Diego region along with additional screenings completed by various civilian physicians, flight surgeons and ship General Medical Officers. This resulted in costly, inadequate screenings and poor patient satisfaction. Naval Medical Center San Diego created a centralized Center for Suitability Screening which included screening for all outlying San Diego commands. Centralizing and streamlining the screening process in metropolitan areas with a large number of active duty personnel and families resulted in decreased inadequate screenings, and improved customer satisfaction for the active duty members, and dependents. The process ensures increased readiness of our deployed and overseas population by identifying members who are at high risk for return and provides monetary savings for the Navy and Marine Corps.

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Population Health Data to Help Prepare U.S. Army for Combat
Currently, there are no surveillance mechanisms in place to determine health effects of deployment across the spectrum of coded diagnoses. The goal of this study was to examine the health effects of deployment from a utilization and disease prevalence perspective. Brooke Army Medical Center designed a retrospective quantitative data review and analysis to quantify and describe the distribution of diseases and injuries reported prior to soldiers' departures in comparison to their return from deployment. Over 53,000 active duty Army members were included in the study. The disease prevalence report from the study revealed changes in disease/injury state post deployment. Hospitals may use this type of information for resource planning. The results of the study provided additional insight on the medical affects of deployment and have application to all the Services.

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Innovations at the Deckplate: Population Health
Naval Medical Center San Diego developed a ground-breaking approach to population-based healthcare. Clinical Quality Teams designed and deployed evidence based online clinical management training for all primary care providers based on command-wide CPGs. Diabetes and asthma registries were established and implemented with standardized performance reports available on the command intranet dashboard; provider profiling, and proactive patient contact lists. Clinicians have web-based point of care decision support tools (e.g., alerts for required tests; notification of diabetes specific co-morbidities and lab summaries; and related CPGs) available during diabetic patient encounters, as well as lists of assigned patients via the web-based "Easy CHCS" portal. This innovation improves productivity by enabling all clinic staff to intervene to provide evidence based care at every patient interaction.

MEDICAL MANAGEMENT AND POPULATION HEALTH

Population Health Based Disease Management Clinic

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T The McDonald Army Community Hospital Disease Management Clinic (DMC) was initially implemented to address challenges in meeting the goals of required clinical practice guidelines (CPG). CPG outcome data identified wide variations in care among providers, inconsistent compliance with evidence based guidelines, provider concerns with CPG implementation, and no systematic process for patient education. The current population health metrics for each disease state reveal that the initial intent was accomplished since the hospital performs well above national averages for many measures. Joint Commission surveyors noted that the disease management initiative at McDonald Army Community Hospital was the best program they had surveyed. The DMC has also resulted in cost savings. Historically, internal medicine, pediatric, and community health have treated patients with the chronic conditions of asthma, diabetes, hypertension, and nicotine dependence. The DMC meets the disease management needs of chronic patients at a decreased cost. The genesis of this cost savings was cost minimization and staffing ingenuity.

GAMEPLAN

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S Poor lifestyle choices (e.g. sedentary habits, high calorie and low nutrient foods) are currently the second leading cause of mortality for Americans. Naval Health Care New England, Naval Ambulatory Care Clinic, Groton designed a program to provide a structure for providers to offer, and clients to adopt, modified lifestyle choices. Such modification is the initial treatment of choice for many chronic conditions such as diabetes, hypertension, hyperlipidemia and obesity. GAMEPLAN is a multidisciplinary, client driven treatment, which builds upon existing programs and personnel initiatives. The program holds the promise of great cost savings for treatment centers in pharmaceutical costs as well as visits and hospitalizations. It is not only cost effective; it is effective for clients. Initial results indicated GAMEPLAN positively affected weight loss, blood pressure, lipid levels, blood glucose and perceived energy level. Analysis of the program will continue to assess the long term results.

Evidence Based Practice and Quality Measurement

**Providing scientifically validated
healthcare and measuring results**

EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Expansion of knowledge to support evidence based clinical practice revolves around establishing consistent clinical practice and measuring the results. Evidence based clinical practice provides the foundation for the development of healthcare quality measures. The DoD actively supports the development of clinical standards and clinical quality measures by collaborating with nationally recognized private and federal sector healthcare organizations such as the National Quality Forum, the Agency for Healthcare Research and Quality, Veterans Health Affairs and the National Perinatal Information Center.

DoD is focused on incorporating evidence based clinical practices into the MHS. Support strategies identified to accomplish this mission include the development and communication of evidence based clinical practice information followed by ongoing measurement. Alignment of clinical quality measures with national healthcare organizations and initiatives is essential to ensure DoD beneficiaries receive the best possible care based on the most current evidence available.

Evidence Based Clinical Practice

Clinical practice is based on knowledge gathered from didactic studies and experiential learning. The availability of healthcare related information continually expands and ongoing research provides new techniques and treatments to improve patient care. Healthcare is obviously a dynamic, complex industry. However, over time some treatment modalities are proven by clinical evidence as best available standard of practice.

Evidence based clinical practice integrates medical research evidence, practitioner knowledge and experience, and the patient's individual care needs and values to create a treatment plan likely to produce the optimal health outcome. As healthcare is provided by a variety of independent practitioners and multiple settings, the implementation of evidence based practices in day-to-day patient care processes presents a challenge for the healthcare industry.

Using a collaborative approach, the DoD and Veterans Health Administration (VHA) develop and maintain the CPGs that serve as the foundation for interagency population health prevention and condition management initiatives. With expanding use of CPGs, improvements in the quality and cost-effectiveness of care provided are anticipated. A criterion based, cyclical process is used to develop and revise the VA/DoD clinical practice guidelines utilized by the DoD and VA healthcare practitioners.



DoD/VA Evidence-Based Practice Work Group

Partnering to improve the quality, efficiency and effectiveness of the delivery of healthcare benefits and services to veterans, service members, military retirees, and their families




EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Guidelines available for use throughout the MHS and the VHA include:

- Hypertension
- Glaucoma
- Low Back Pain.
- Tobacco Use Cessation
- Asthma
- Diabetes Mellitus
- Chronic Obstructive Pulmonary Disease
- Major Depressive Disorder
- Dysuria in Women
- Pre-End Stage Renal Disease
- Chronic Heart Failure
- Erectile Dysfunction
- Substance Use Disorder
- Post-Deployment Health
- Post Traumatic Stress Disorder
- Dyslipidemia
- Health Promotion and Disease Prevention
 - Breast Cancer
 - Cervical Cancer
 - Chlamydial Infection
 - Colorectal Cancer
 - Lipid Abnormalities
 - Problem Drinking
 - Tobacco Use
 - Immunizations (influenza, pneumococcus)
- Uncomplicated Pregnancy
- Stroke Rehabilitation
- Gastro-esophageal Reflux Disease
- Opioid Therapy for Chronic Pain
- Psychosis
- Post-Operative Pain

The Army serves as the DoD lead for our CPG initiative and maintains a website to ensure easy access to CPG information and tool kits for DoD practitioners and facility staff. The website address is www.qmo.amedd.army.mil

On-Line Ordering System for Clinical Practice Guideline Tool Kit Supplies	
Visit our on-line shopping system available to Army, Air Force and Navy facilities to replenish supplies of the Clinical Practice Guideline Tool Kits. Order refill items for multiple CPGs at one time. Receive an email confirmation of your order with a link to check your order status on-line.	<p>Army = Air Force = Navy Order On-Line</p> <hr style="border: 1px solid black;"/> <p><u>Start shopping now</u> </p>

The identification of clinical practice areas for the development of new CPGs is based on criteria including the healthcare issues of the military beneficiary and the evidence available in peer reviewed clinical literature. In FY 2005 the DoD/VA Evidence Based Practice Work Group initiated three new guidelines or guideline modules including Adult Overweight and Obesity, Amputation, and Acute Stroke. Management of Polytrauma was selected for development as a new guideline in 2006. Existing guidelines are updated every two years in order to keep pace with advances in medical practice. Three guidelines underwent scheduled updating in 2005: Dyslipidemia, Asthma, and Chronic Obstructive Pulmonary Disease.

Quality Measures

Healthcare executives, providers and purchasers seek performance measures to determine the quality of care provided by the healthcare organizations in the United States. As the cost of healthcare continues to increase, defining and measuring the quality of care provided and the outcomes obtained by healthcare organizations is essential to ensure the best value for the limited resources available. The balance between quality and cost continues to be a leading topic of discussion throughout the industry. Leaders in healthcare quality are now, more than ever, working collaboratively to develop clinical quality measures with uniform definitions to support industry wide comparisons.

MHS staff members actively participated in the development, review and acceptance of quality measures established by the National Quality Forum and the Agency for Healthcare Research and Quality. The DoD utilizes these nationally recognized clinical quality measures as well as accreditation by external agencies with industry accepted standards to assess the care provided in the MHS.

Joint Commission on Accreditation of Healthcare Organizations

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is a nationally recognized healthcare accrediting body focusing on continuous improvement in safety and quality of care. The Joint Commission standards and elements of performance are used to survey over 15,000 healthcare organizations across the nation. As participating in the survey process is voluntarily, accredited organizations demonstrate a commitment to providing safe, quality health care and continuous performance improvement.

DoD recognizes the value of organizational assessments by external professionals and participates in the JCAHO accreditation process as one method to assess and continually improve the quality of care provided to beneficiaries. All MTFs are accredited by the Joint Commission.

Providing the public with information to support informed decisions on selecting a healthcare organization has been a long term goal of the Joint Commission. To meet this goal the Joint Commission developed Quality Check[®], an easy to use web based system for comparing the performance of accredited organizations in key areas including the national patient safety goals and quality improvement measures. The results of MTF accreditation are posted on Quality Check[®]. Additionally, performance information for all DoD MTFs and many network hospitals is available at www.jcaho.org.



Quality Check[®]

EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Accreditation

The accreditation process consists of three major components – self assessment, performance measurement and the survey process. The annual self assessment requires organizations to determine their compliance with each element of performance listed for the standards. If an area of non-compliance is identified, the organization must develop and implement an action plan to remedy the problem. The self assessment supports the organization in ensuring continuous compliance with healthcare industry standards and provides insight to surveyors during triennial on-site surveys.

MTFs are surveyed every three years by a team of healthcare professionals with significant experience in patient care settings and the survey process. The surveys are unannounced. This is a recent change and was implemented to ensure the survey was conducted during normal operating conditions. The Joint Commission continues to refine the survey process and has identified fourteen priority focus areas to guide the survey activities. A few of the priority areas are communication, staffing, and medication management assessment and care services. The surveyors focus on the actual care provided to the patient rather than just the policy and procedures documented. Based on the services provided at the facility, actual patients are identified and the care provided is reviewed by tracing all the patient's care encounters from admission to discharge. Action plans are developed, implemented and monitored for any opportunities for improvement identified by the surveyors.

ORYX® Quality Measures

JCAHO integrated performance measures into the accreditation process with its required ORYX® quality measures program. Accredited hospitals serving patient populations with conditions covered under core measures were required to report results in three of five available core measure sets: Core measure sets include acute myocardial infarction, heart failure, pregnancy, pneumonia and surgical infection prevention. In some of the smaller MTFs, the JCAHO core measure sets are not applicable to the patient populations served and approved non-core measures can be selected to meet the accreditation requirement. DoD has approval for two non-core measure sets: disease management of diabetes and asthma. Non-core measures for hypertension will be added in 2006.

Data on the measures selected by the MTF to meet the ORYX® requirements is abstracted from the clinical records and submitted quarterly. The Joint Commission publicly publishes ORYX® data for accredited organizations, along with the national averages for each core measure. DoD analyzes the data to gauge its clinical performance against the benchmarks established by national rates. This program provides the Department with an abundance of clinically-relevant data in each of the core measure sets.

National Consensus Measures

The measurement of the quality of healthcare provided throughout the United States continues to challenge healthcare policy makers, providers, and consumers. The goal of the Hospital Quality Alliance program is to identify standardized hospital quality measures for use by all stakeholders in the healthcare system to improve the quality of care provided and enhance the ability of consumers to make informed healthcare choices. As part of the Alliance, the Joint Commission, Centers for Medicare and Medicaid Services (CMS), and National Quality Forum are working collaboratively to identify a robust set of standardized and easy-to-understand hospital quality measures based on the most current clinical evidence available.

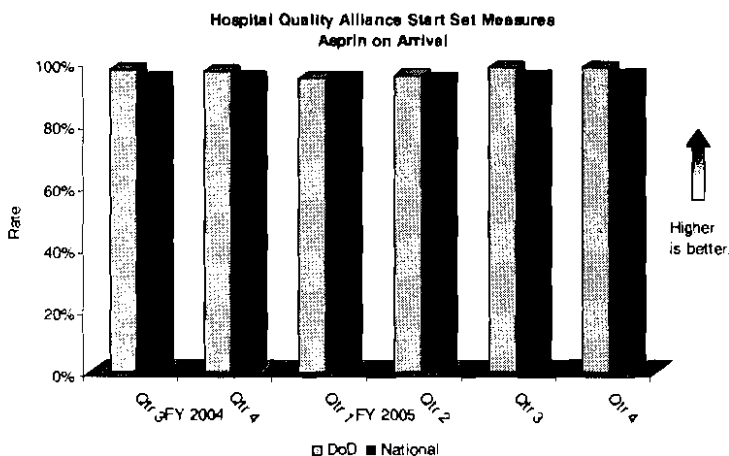
The initial Hospital Quality Measures consisted of ten performance indicators, all of which are part of JCAHO ORYX® core measure sets. DoD collects data on these ten measures at all MTFs. Data collection for the starter set of measures began in third quarter of 2004. The MHS trended data is displayed below.

Acute Myocardial Infarction Measures

Measure

Acute myocardial infarction (AMI) patients without aspirin contraindications who received aspirin within 24 hours before or after hospital arrival.

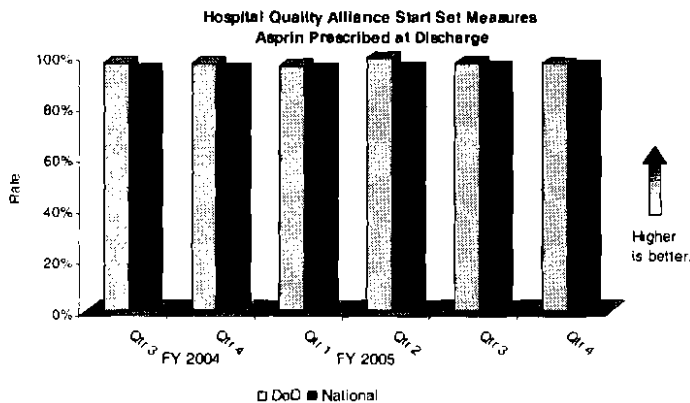
DoD performance rates are slightly higher than national rates.



Measure

Acute myocardial infarction (AMI) patients without aspirin contraindications who were prescribed aspirin at hospital discharge.

DoD performance is slightly higher than the national rates.

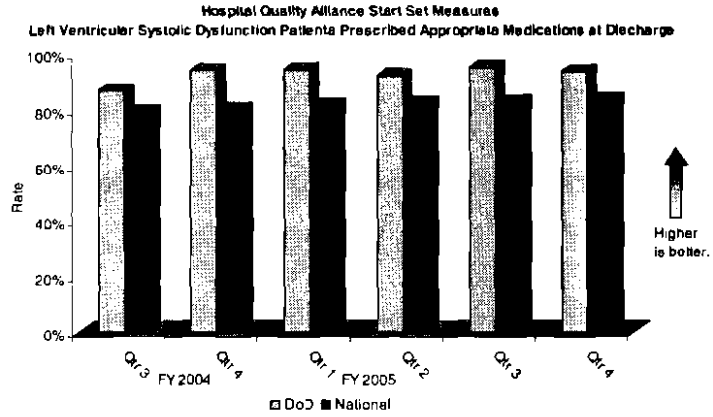


EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Measure

Acute myocardial infarction (AMI) patients with left ventricular systolic dysfunction (LVSD) and without angiotensin converting enzyme inhibitor (ACEI) and angiotensin receptor blocker (ARB) contra-indications who were prescribed either an ACEI or ARB at hospital discharge.

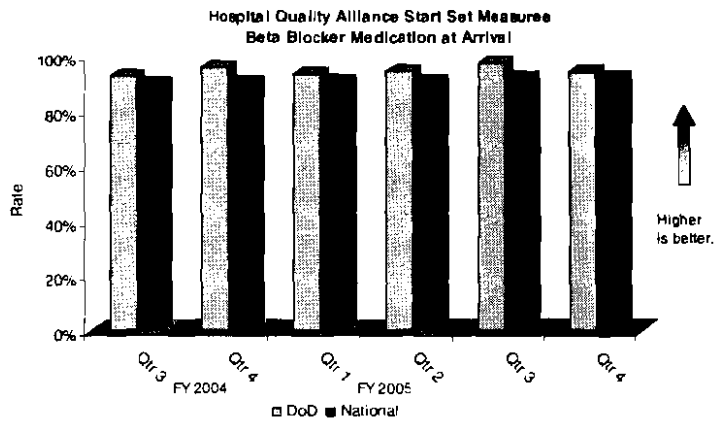
DoD performance rates are significantly higher than national rates.



Measure

Acute myocardial infarction (AMI) patients without beta blocker contraindications who received a beta blocker within 24 hours after hospital arrival.

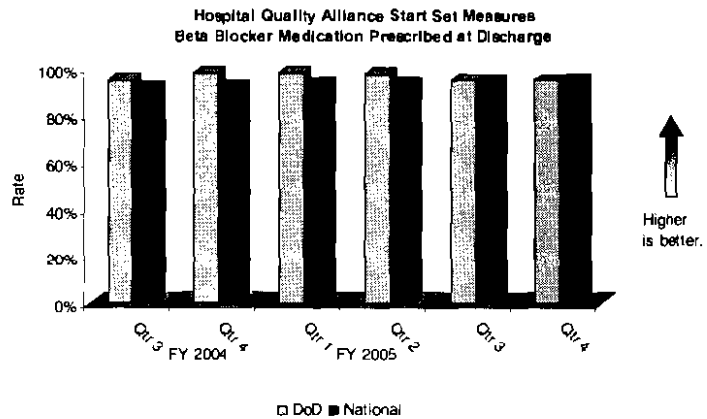
DoD performance rates are slightly higher than national rates.



Measure

Acute myocardial infarction (AMI) patients without beta blocker contraindications who were prescribed a beta blocker at hospital discharge.

DoD performance rates are consistent with national rates.

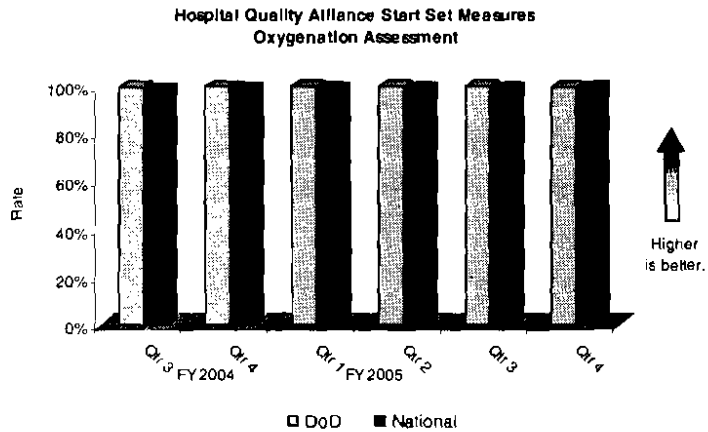


Pneumonia Measures

Measure

Pneumonia patients who had an assessment of arterial oxygenation by arterial blood gas measurement or pulse oximetry within 24 hours prior to or after arrival at the hospital.

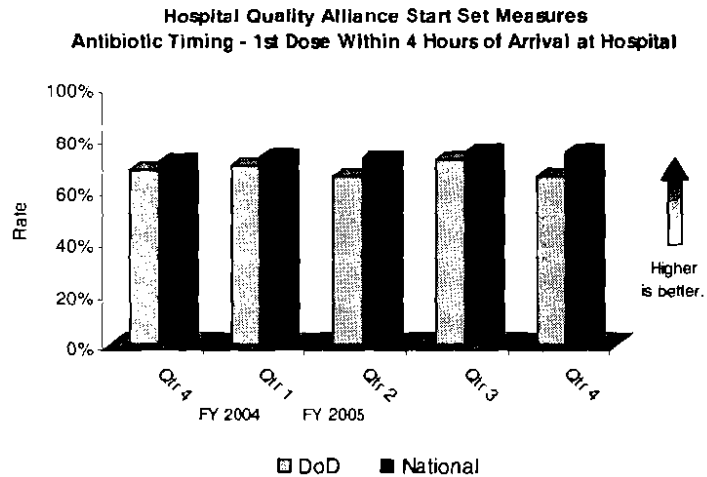
DoD performance rates are consistent with the national rates.



Measure

Pneumonia patients who receive their first dose of antibiotics within 4 hours after arrival at the hospital.

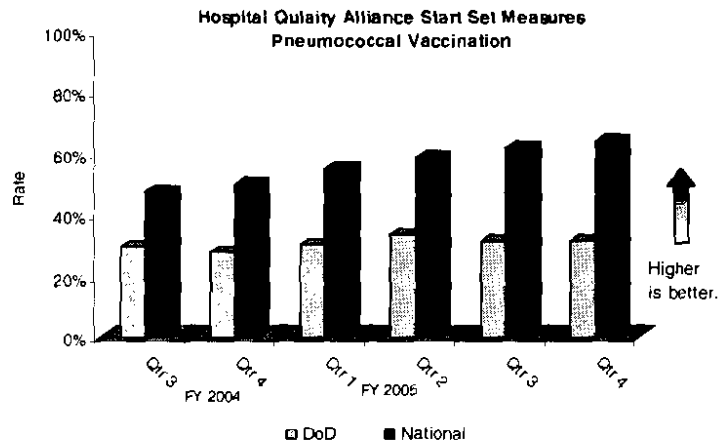
DoD performance rates are slightly lower than national rates.



Measure

Pneumonia patients age 65 and older who were screened for pneumococcal vaccine status and were administered the vaccine prior to discharge, if indicated.

DoD performance rates are significantly lower than national rates.

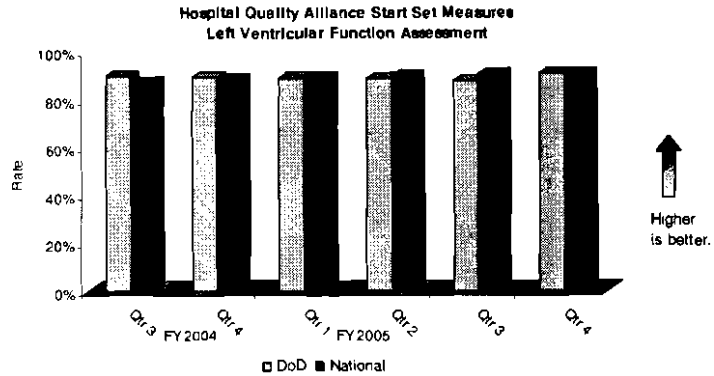


Heart Failure Measures

Measure

Heart failure patients with documentation in the hospital record that left ventricular function (LVF) were assessed before arrival, during hospitalization, or planned for after discharge.

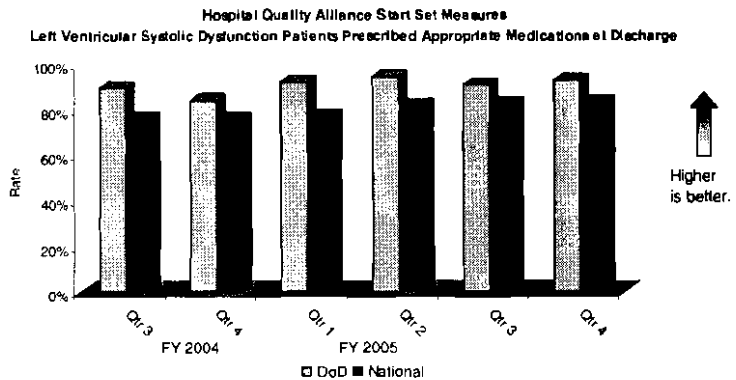
DoD performance rates are consistent with the national rates



Measure

Heart failure patients with left ventricular systolic dysfunction (LVSD) and without angiotensin converting enzyme inhibitor (ACEI) and angiotensin receptor blocker (ARB) contraindications who are prescribed either an ACEI or ARB at hospital discharge.

DoD performance rates are significantly higher than national rates



The starter measures will be expanded to twenty-two measures over the next two years. DoD currently collects data on all of the proposed measures.

The availability of nationally comparative data allows systems to focus effort and resources on the areas with the greatest opportunities for improvement. It also allows organizations such as the MHS to identify, understand, and reproduce best practices and high functioning micro-systems. The use of consensus measures to identify strengths and weaknesses is only a first step. Consensus measures are most effective when they are closely linked to leadership-directed performance improvement. Consensus measures are increasingly being looked at for their potential linkage to economic incentives or “pay-for-performance.” The Centers for Medicare and Medicaid Services (CMS) have taken steps to pilot such efforts on a voluntary basis in the inpatient arena. The DoD is observing these initiatives with interest.

National Perinatal Information Center

Young families represent a significant portion of today's military beneficiary population. Childbirth remains the leading reason for hospitalization in the MHS with over 50,000 births in military hospitals each year.

The MHS participates extensively in the National Perinatal Information Center, thereby providing a means to closely compare childbirth data from across the nation in a national perinatal database with data from thirty-four military treatment facilities delivering infants. Validated, risk-adjusted, perinatal information from multiple women's and infants' hospitals is analyzed to provide benchmarks for infant and maternal outcomes, patient safety, utilization of services, costs and staffing data.

The data from participating MTFs across the three Services were used in the analysis of perinatal processes and outcomes. Key findings are summarized below:

**National Perinatal Information Center
Comparative Data
CY 2005**

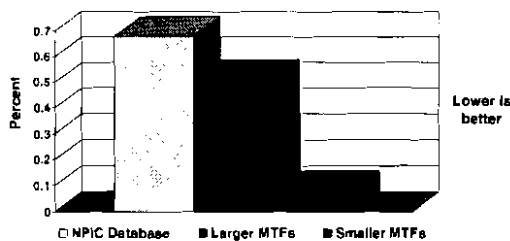
Outcome Measures	Military Treatment Facility	Perinatal Center Database
Cesarean birth rates	24.0%	31.1%
Major complication rates, all deliveries	5.7%	6.9%
Extreme complication rates, all deliveries	0.1%	0.3%
Operative delivery rate	5.5%	5.7%
Induction rate	18.7%	18.4%
Major complications for the neonates	4.4%	5.9%
Extreme complications for the neonates	0.5%	1.6%
Mortality rate for special care neonates	1.9%	2.7%

Note: Lower scores are better

The MHS continues to exceed the national norms established through the Perinatal Information Center benchmark database, again attesting to the high quality clinical care for mothers and newborns delivered to military families.

Additional trend analysis on the neonatal mortality data provides insight into the outcome of care provided the different sized treatment facilities. Large MTFs have a lower neonatal mortality for infants born at the facility than comparable NPIC organizations. Smaller MTFs have a lower mortality rate than larger MTFs.

**Neonatal Mortality Rate
Hospital Births for CY 2005**



National Quality Management Program Special Studies

The National Quality Management Program (NQMP) special studies provide DoD with an analysis of care across the MHS and include private sector data when available. A tri-Service panel selects the study topics annually with input from across the MHS. Summaries of the FY 2005 studies are provided below. For more special studies information, visit the NQMP website at www.nqmp.info.



Discharge Instructions Following Hospitalization for Heart Failure

Heart failure is a common and serious health condition, usually precipitated by other contributing health conditions, the most common being coronary artery disease, hypertension, and diabetes. Heart failure may result in numerous hospitalizations and emergency room visits as the disease progresses. Readmission rates for heart failure have been reported at 18% within 30 days (Babayan et al, 2003), 30% within 90 days (Polanczyk et al, 2001), and 44% within six months (Krumholz et al, 1997).

Many MTFs measure heart failure care as part of the Joint Commission's ORYX® program. One of the ORYX® heart failure measures looks at the documentation of discharge instructions provided to heart failure patients. A complete set of discharge instructions provides information relating to six topics: activity, diet, follow-up post discharge, medications, what to do if symptoms worsen, and weight monitoring.

The FY 2005 study of heart failure and discharge instructions examined the relationship between heart failure discharge instruction documentation during a heart failure hospitalization and readmission to the hospital within 30 days. The study also examined re-hospitalizations, pre-existing comorbidities, utilization following the index hospitalization and mortality of heart failure patients.

Conclusions

Heart failure patients at MTFs have lower readmission rates and higher appropriate medication prescription rates than those reported in the literature. Patients that have been hospitalized for heart failure also have other significant pre-existing medical problems and use healthcare services more often. Neither the availability of specialty services for heart failure patients nor the documentation of discharge instructions changed the 30-day readmission rate. Discharge instructions on five of the six topics were documented in the patient record at least 80% of the time. Weight monitoring was documented the least at about 30%.

EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Association of Prehypertension with the Development of Subsequent Hypertension

High blood pressure or hypertension (HTN), affects an estimated 50 million Americans age six and older with one in four adults diagnosed with HTN. Nearly one-third of adults with HTN do not know that they have the condition, thereby elevating the risk of associated complications and diseases. A prior NQMP study revealed that the prevalence of HTN among non-active duty TRICARE-eligible beneficiaries seeking care in the MHS was 20%. The prevalence of HTN among active duty beneficiaries ranged from 3 to 4%.

In May 2003, the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure recognized a new category of elevated blood pressure concern and labeled it as "prehypertension." In this new categorization, individuals with systolic blood pressure 120 to 139 mmHg or diastolic blood pressure 80 to 89mmHg are considered to have prehypertension. Recognition of these individuals brings attention to those for whom early intervention could reduce blood pressure and thereby decrease the rate of progression to HTN with advancing age. Prior NQMP studies estimated that up to 39% of MHS beneficiaries enrolled to an MTF could be classified as prehypertensive.

The purpose of the FY 2005 NQMP study on hypertension was to identify the rate of development of new diagnoses of hypertension among normotensive and prehypertensive individuals in the MHS. The study also examined the initial management and healthcare utilization patterns of the two groups of newly diagnosed hypertensives.

Conclusions

A cohort of 7,054 beneficiaries was reviewed for the subsequent development of hypertension in the study year. In this cohort, 209 individuals were diagnosed with HTN (2.96%) with a higher proportion being diagnosed in the initially normotensive group (3.76%, n=127) than in the prehypertensive group (2.45%, n=82). Patterns of hypertension management and healthcare utilization were similar between the two groups of new hypertensives. Slightly less than half of newly diagnosed hypertensives had documentation of prescribed and dispensed anti-hypertensive medications suggesting initial trials of non-pharmacologic interventions, although coded documentation of diet and exercise were found in only 33-40% of cases. Improvement in the documentation of non-pharmacologic interventions and close adherence to the clinical practice guidelines for the initial management of hypertension should continue to be promoted and measured. As expected, outpatient and inpatient utilization were higher in the diagnosed hypertensives as was the higher documentation of co-morbid conditions. Of particular note, over 75% of new hypertensives had body mass indexes in the overweight and obese categories, highlighting the need to address weight management as part of an overall strategy to prevent and treat hypertension.

EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Post-Deployment Post Traumatic Stress Disorder Screening

Post-Traumatic Stress Disorder (PTSD) is a behavior health condition that can occur as a result of experiencing or witnessing of life-threatening events including military combat. According to the VA National Center for Post-Traumatic Stress Disorder, individuals with PTSD are more likely to contact primary care providers than any other health professional. Populations exposed to war are noteworthy candidates for PTSD screening in the primary care setting.

As a means to meet the healthcare needs of deployed military troops, DoD implemented a total population screening which is conducted immediately post-deployment. The existence of this extensive screening process, the Post-Deployment Health Assessment (PDHA), affords a unique opportunity for early assessment of the mental health status of returning Service members.

The PDHA involves completion of a self assessment form to screen and assess for health issues among military personnel following deployment. Service members complete a series of screening questions and clinical providers use these screening results to complete face-to-face health assessments. During this assessment, the provider validates the screening results, establishes a clinical diagnosis and plans for any needed intervention. A mental health referral may be made for further services if the provider feels a formal referral is indicated. The focus of this study is on the screening process and the need for mental health referral.



Conclusions

The study found that among recently deployed Service members the overall rate of positive results on a brief PTSD screen was approximately 4%. A positive PTSD screen was associated with a greater than 10-fold likelihood of recommended mental health referral than a negative screen. The study used administrative data and was not designed to assess the face to face interaction between the patient and provider at the time of a positive PTSD screen. Conclusions regarding the clinical appropriateness of case-by-case mental health referral decisions could not be drawn from the available administrative data.

The NQMP will continue to study PTSD with a study focused at the point of assessment and care in a primary care setting to determine the content and outcomes of post deployment clinical encounters. In addition, the recent initiation of the Post-Deployment Health Reassessment (PDHRA) program to reassess post deployed Service members and Service specific programs to facilitate behavioral health care access are examples of the on-going efforts in DoD to fully address the health care needs of returning Service members.

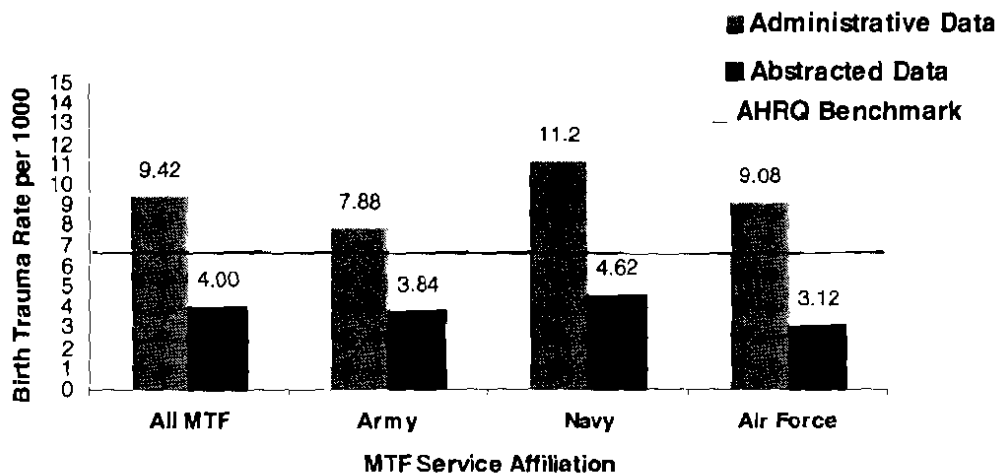
EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Birth Trauma Study in DoD Military Treatment Facilities

During FY 2004, the TMA Patient Safety Division examined birth trauma in MTFs using the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicator-17 (PSI-17) for birth trauma. Birth product line-related measures are of particular interest to TMA since deliveries represent the largest single group of inpatient services provided by MTFs. The review of FY 2003 administrative data indicated a rate of 20.75 traumas per 1,000 births, much higher than the AHRQ benchmark of 6.34 per 1,000. As a result of the alarming disparity between the rate of birth trauma identified in MTF administrative data and the AHRQ benchmark, the NQMP conducted a validation study of the PSI-17 data with a comparison of administrative data with detailed abstracted data from medical records.

Conclusions

Birth trauma administrative diagnosis codes were identified in 493 cases of a total 52,313 births for a rate of 9.42 per 1,000 births. This was compared to an abstracted sample of over 16,000 birth records for an overall rate of 4.00 birth trauma cases per 1,000 births based on chart review. Results are summarized for the three services and compared with the AHRQ benchmark in the chart below:



From this study it was clear that DoD clinically performed very well in this particular measure of patient safety in comparison to the AHRQ benchmark when abstracted data was utilized. It was also clear from the study, however, that the significant discrepancy between administrative data and abstracted data indicated a prominent need to remain focused on improving the quality of diagnostic coding within MTFs. Other potential discrepancies between administrative data and abstracted charts will be assessed by the NQMP in the future in order to monitor and promote continued efforts to improve the quality of administrative data within the MHS.

Clinical Performance Measures

The National Committee for Quality Assurance (NCQA) developed the Health Plan Employer Data and Information Set (HEDIS[®]) to provide reliable, comparative data about health care quality, using data from health plans across the country. The MHS Population Health Portal uses methodologies similar to HEDIS[®] to monitor how well Military Treatment Facilities deliver preventive care (e.g., breast cancer screening, cervical cancer screening), and how well members with acute illnesses (e.g. acute myocardial infarction) or chronic diseases (e.g., asthma, diabetes) are managed to avoid or minimize complications. Current clinical performance measures based on HEDIS[®] methodologies include:

- Cervical cancer screening rates (Pap tests)
- Breast cancer screening rates (mammography)
- Use of appropriate medications for people with asthma
- Diabetes care (HbA1c testing and control, retinal exams, low density lipoprotein screening and control)

The data for these clinical performance metrics was gathered from an MHS electronic central database which includes inpatient, outpatient, and pharmacy information. Reports on the clinical performance measures, with comparative data internal and external to the MTF, are provided to MTF and MHS leadership. Clinicians can continually monitor the status of the patients they serve to ensure their healthcare needs are met.

The ready availability of performance measures through the MHS Population Health Portal permits visibility of clinical performance information at all levels of the MHS, from providers through senior leadership. Actionable information permits providers to deliver timely, evidence based medical services. Aggregate data permits MHS leadership to assess the performance of the healthcare delivery system overall. Incorporation of HEDIS[®] and ORYX[®] measures into the MHS Balanced Scorecard demonstrates the importance of these measures to the Department.

As use of the MHS Portal and AHLTA becomes more widespread and MTF providers have continuous access to health information, performance metrics, and clinical practice guidelines, we expect that our beneficiaries will derive ever increasing benefits in the form of higher quality care and improved outcomes.

The following examples of the data and comparative analysis demonstrate the value of using consistent, nationally recognized measures. For those HEDIS[®] measures used within the MHS (cervical cancer screening rates; breast cancer screening rates; use of appropriate medications for people with asthma; and diabetes care), DoD performed near the 50th percentile of health plans voluntarily agreeing to participate in reporting in FY 2005.

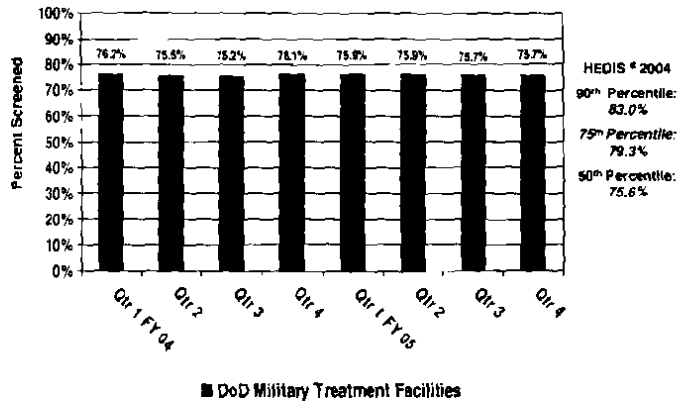
EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Breast Cancer Screening

Breast cancer is one of the most common types of cancer among women in this country. Mammograms help detect breast cancer in early stages. When breast cancer is detected early (prior to spread to nearby lymph nodes), the five year survival rate is 98%.

The HEDIS® defined measure of performance for breast cancer screening represents the percentage of women, continuously enrolled to a MTF, ages 52 to 69, who had a mammogram in the past 24 months.

Department of Defense
MHS Breast Cancer Screening
 FY 2004 -2005



Data Source and Analysis: Informatics Team
 Population Health Support Division, U.S. Air Force



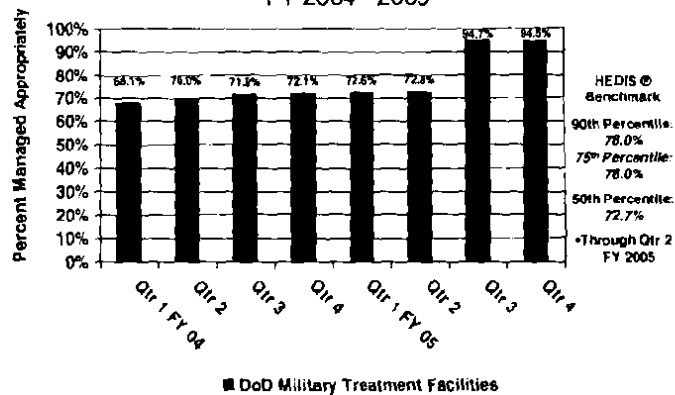
The MHS trended rates for breast cancer screening are comparable to the HEDIS® 50th percentile for health plan performance.

Asthma Medication Management

Asthma affects about 20 million Americans and is the most common long term disease of children. Anti-inflammatory medications reduce signs and symptoms for people suffering from asthma.

The HEDIS® defined measure of performance on appropriate medications for asthma represents the percentage of TRICARE prime patients continuously enrolled to a MTF, ages 5 to 56, with persistent asthma that are prescribed medications considered acceptable as the primary long-term control of asthma.

Department of Defense
MHS Use of Appropriate Medications for Enrollees with Asthma
 FY 2004 - 2005



Data Source and Analysis: Informatics Team
 Population Health Support Division, U.S. Air Force



The HEDIS® measure of performance definition was altered in FY 2005 to refine the population selection criteria. New benchmark values are unavailable.

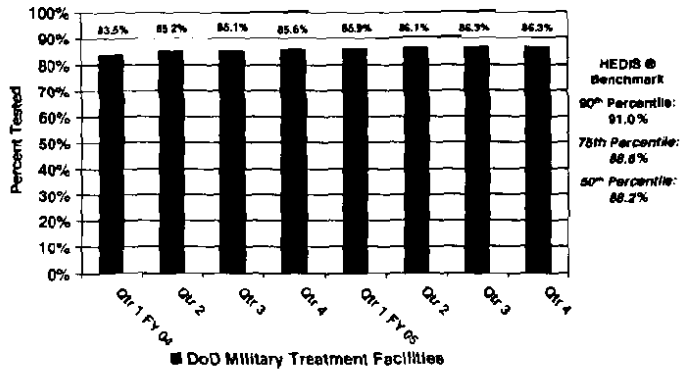
EVIDENCE BASED PRACTICE AND QUALITY MEASUREMENT

Diabetes Care – HbA1c Testing

The HbA1c (glycosylated hemoglobin) test reveals the average blood glucose over a period of two to three months and provides the patient and provider with a good idea of how well the patient's diabetes treatment plan is working.

The performance measure HbA1c testing represents the percent of beneficiaries with diabetes mellitus, ages 18 to 75, continuously enrolled to a MTF, who had a HbA1c test during the preceding 12 months.

Department of Defense
MHS Annual HbA1c Testing
FY 2004 - 2005



Data Source and Analysis: Informatics Team
Population Health Support Division, U.S. Air Force

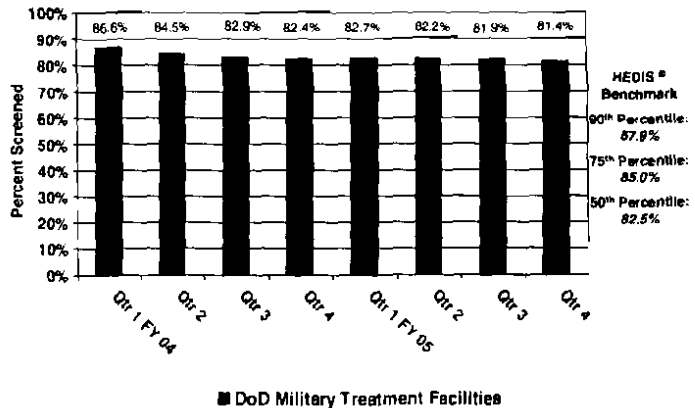
The MHS rates for glycosylated hemoglobin testing are above the HEDIS® 50th percentile for health plan performance.

Cervical Cancer Screening

Cervical cancer is one of the most successfully treated cancers, if detected early. The Papanicolaou (Pap) test can detect precancerous changes or cancer of the cervix. Early detection of precancerous changes may prevent or delay progression to invasive cancer. Early detection of cervical cancer significantly reduces mortality.

The performance measure for cervical cancer screening represents the percentage of women, ages 21 to 64, continuously enrolled in a MTF, who had a Pap test in the preceding 36 months.

Department of Defense
MHS Cervical Cancer Screening
FY 2004 - 2005



Data Source and Analysis: Informatics Team
Population Health Support Division, U.S. Air Force

In FY 2005, the DoD data on cervical cancer screening approached the HEDIS® 50th percentile for health plan performance.

National Surgical Quality Improvement Program

The National Surgical Quality Improvement Program (NSQIP) was developed by the Veterans Health Administration (VHA) in response to a Congressional mandate requiring an annual report of risk adjusted, nationally compared surgical outcomes. NSQIP is the only nationally recognized, validated, out-come based, risk-adjusted surgical quality improvement program. A pilot study on the applicability of VHA NSIQIP in private sector hospitals revealed the program was effective outside of the VHA. In October of 2004, the American College of Surgeons (ACS) began enrolling private sector hospitals into the ACS NSQIP.

In FY 2005, the DoD received feedback from the initial six months of NSQIP data collection and completed its first complete year of data collection at the pilot sites. The analysis of the six months of data identified opportunities to clarify data definitions and provided general information. The most common pre-operative risk factors identified for DoD patients were hypertension and smoking. Though limited in number, the most common post-operative complications included urinary tract infections and wound infections. Due to the limited volume of surgical case reviews completed to date, observed to expected ratios are not yet available.

ALHTA presents an opportunity to leverage technology in support of NSQIP. The implementation of ALHTA in the outpatient setting significantly enhances the ability of the Surgical Nurse Reviewer to gather the thirty day post operative information.



DoD NSQIP Timeline

2003

- NSQIP selected as DoD's Surgical Quality Improvement Program

2004

- Initiate NSQIP at 3 pilot sites (Walter Reed Army Medical Center, Wilford Hall Air Force Medical Center and Naval Medical Center San Diego)

2005

- Formal report of 2004 DoD data compared to national clinical database
- Feedback to pilot sites
- Complete first full year of data collection; submit and analyze

2006

- Formal data report to include observed to expected risk adjusted outcome ratios
- Determine next steps for the program
 - Evolve from pilot to established program
 - Collaborate with VHA and ACS to ensure national comparability and share lessons learned

2007

- Plan for staged expansions of DOD NSQIP to include MTFs with sufficient surgical volume for inclusion

Patient Safety

**Building a culture of safe
patient care**

PATIENT SAFETY

The DoD Patient Safety Program is leading the Military Health System (MHS) to a culture of safety by providing oversight and coordination of enterprise-wide programs, supporting initiatives, and enabling implementation of effective actions to improve patient safety and quality. The primary goals of the program are to:

- Improve the coordination of patient safety activities across the Services;
- Develop an analysis plan for patient safety data to uncover opportunities for improvement in the MHS;
- Create a culture of trust in reporting medical errors; and
- Increase patient awareness and involvement in patient safety initiatives.



The core components of the Patient Safety Program's infrastructure include:

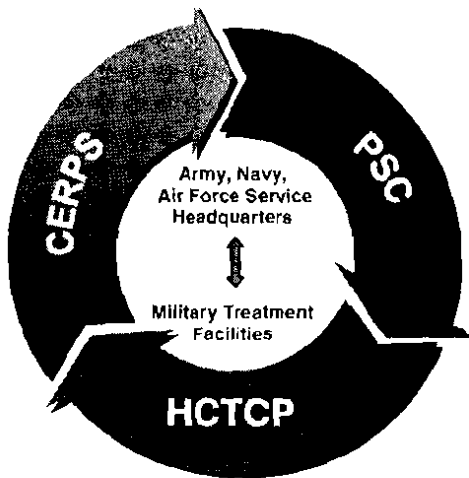
- DoD Patient Safety Program Office: Ensures continuity and consistency in the implementation of the DoD Patient Safety Program across the MHS through tri-Service collaboration.
- DoD Patient Safety Center (DoD PSC): Conducts analyses and provides enterprise-wide recommendations based on near miss and adverse events within the MHS.
- Healthcare Team Coordination Program (HCTCP): Develops and deploys tools to reduce the potential of harm to patients while delivering care. The HCTCP focuses on opportunities to facilitate and integrate teamwork principles into practice through research, education and training initiatives.
- Center for Education and Research in Patient Safety (CERPS): Facilitates patient safety education, training, best practices, as well as research on the effectiveness of program outcomes.

FY 2005 Major Accomplishments:

- Office of Management and Budget approval of MHS Patient Safety Culture Survey and marketing of the survey instrument
- Pilot of DoD-developed Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS)
- Proof of Concept of a web-based Patient Safety Reporting system at three Military Treatment Facilities (MTFs)

MHS DoD Patient Safety Program Office

The mission of the DoD Patient Safety Program (PSP) is to improve patient safety and health care quality throughout the Military Health System. The Patient Safety Program Office in the TRICARE Management Activity, Office of the Chief Medical Officer, provides oversight on all DoD system-wide patient safety related policy development, program design and initiative implementation.



The DoD Patient Safety Program is based on a multi-faceted design with centralized coordination. The Patient Safety Center, the Center for Education and Research in Patient Safety, and the Healthcare Team Coordination Program provide support to all of the Army, Navy, and Air Force MTFs ensuring implementation of consistent strategies in the MHS.

The impact of the Patient Safety Program has enormous potential, but its success requires the resolve to change in all components and at all levels of our healthcare system.

Patient Safety Reporting System

The MHS Patient Safety Reporting (PSR) System project is fully-funded and has received the authority to proceed with acquisition, design and development of a PSR solution for the MHS. Implementation will allow standardized data capture and communication on adverse and "near-miss" events in the MHS. The application is designed to be an intuitive, web-based, solution that will be available on the desktop of all healthcare delivery personnel in the MHS.

In January of 2005, a competitively sourced commercial solution was selected for a Proof of Concept evaluation at three MTFs. By August of 2005, the project was approved to continue with the design and development phase which entailed customization of the commercial application to meet Service

and MHS enterprise requirements. This effort was led by the TMA Office of the Chief Medical Officer Patient Safety Division and the TMA Resources Information Technology Program Office with coordination through an active tri-Service workgroup. The initial deployment of the reporting system is anticipated in FY 2007.

Patient Safety Culture Survey

The DoD tailored the Hospital Survey on Patient Safety (HSOP) developed by the Agency for Healthcare Research and Quality (AHRQ) to assess the patient safety culture in the MHS. This web-based survey is designed to assess staff perceptions about the facility's environment related to medical errors and patient safety culture. This effort will be used as a baseline for on-going performance improvement as the MHS tracks changes in patient safety over time and evaluates the impact of patient safety interventions at the unit, MTF, Service, and MHS levels. The results will be available in 2006. The key dimensions of the survey are:

<i>Unit Level Measure:</i>	<i>Hospital Level Measures:</i>	<i>Global Safety Culture Measures:</i>
<ul style="list-style-type: none">• Supervisor/manager expectations & actions promoting patient safety• Organizational learning—Continuous improvement• Teamwork within hospital units• Communication openness• Feedback & communication about error• Non-punitive response to error• Staffing	<ul style="list-style-type: none">• Hospital management support for patient safety• Teamwork across hospital units• Hospital handoffs & transitions	<ul style="list-style-type: none">• Overall perceptions of patient safety• Overall patient safety grade• Frequency of events reported• Number of events reported

Annual DoD Patient Safety Awards

DoD Health Affairs created the Patient Safety Award to recognize successful patient safety efforts, particularly those promoting the development of a culture of safety, and to inspire organizations to increase their patient safety efforts. The award recognizes leadership and innovation in quality, safety, and commitment to MTF patient care. The projects selected are data driven, practical, creative, and potentially transferable across the MHS. The recipients of the awards are recognized at the annual State of the MHS Conference.

2005 DoD Patient Safety Awards

**Policy
and
Procedure**



Trauma Patient Registration

The 59th Medical Wing at Wilford Hall Medical Center, San Antonio, Texas reviewed and optimized its existing registration and identification process for trauma patients. The new process accurately identifies trauma patients who cannot identify themselves using two of the Joint Commission on Accreditation of Healthcare Organizations required unique patient identifiers at registration. Under the optimized policy, the Emergency Department creates a registration identification band using both a number and a name and places the band on the patient's ankle where it remains until discharge. These unique identifiers have eliminated confusion, miscommunication, delays and interruptions in treatment.

**Medical Team
Training**



Surgical Checklist

In a unique effort to enhance teamwork, the 89th Medical Group, Clinton, Maryland, adapted the pre-flight safety assessment long used by flying colleagues to the operating rooms at Andrews Air Force Base. A multi-disciplinary team developed the surgical check-list, a tool designed to mimic the pre-flight checklist. Staff members complete the checklist during a "team huddle" prior to the start of each surgical case to determine the case risk factors. The checklist was conceived as a way to improve care delivery performance, enhance situational awareness and assign responsibilities and tasks depending on experience and competency levels.

Technology



Medication Reconciliation

The National Naval Medical Center, Bethesda, Maryland developed a medication reconciliation process, using the Composite Health Care System, to meet the requirements of the Patient Safety Goal established by the Joint Commission on Accreditation of Healthcare Organizations. The goal directs health care organizations to "accurately and completely reconcile medications across the continuum of care." The working team developed specialized medication reconciliation forms to compare a patient's profile of current medications against medication orders written at admission, transfer and discharge. Utilizing the comparison process provided by these forms, inconsistencies in medication orders can be easily recognized and addressed.

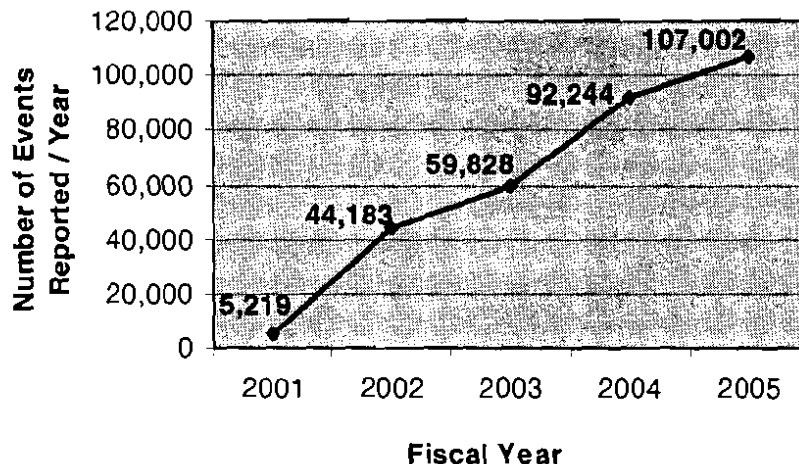
DoD Patient Safety Center

The DoD Patient Safety Center (PSC) serves as the repository for all DoD patient safety data and manages the Patient Safety Registry, which is comprised of data from four sources:

- Monthly Summary Reports: Utilized throughout the MHS and developed as an interim tool to report non-medication patient safety events.
- MEDMARX®: United States Pharmacopeia’s anonymous, web-based medication reporting program. It incorporates a nationally recognized taxonomy to enhance data collection, reporting, and analysis.
- Root Cause Analyses (RCAs): Structured retrospective risk analyses typically occurring after serious events are discovered. RCAs are required for all reviewable Joint Commission on Accreditation of Healthcare Organizations (JCAHO) sentinel events and patient safety events with a Safety Assessment Code score of three.
- Failure Mode and Effects Analyses: Proactive risk assessments conducted on high risk processes.

Since 2003, MTFs have submitted data sets to the PSC monthly on a voluntary basis. There has been with a significant increase in reporting as noted in the graph below. This reporting trend indicates a culture increasingly willing to report errors.

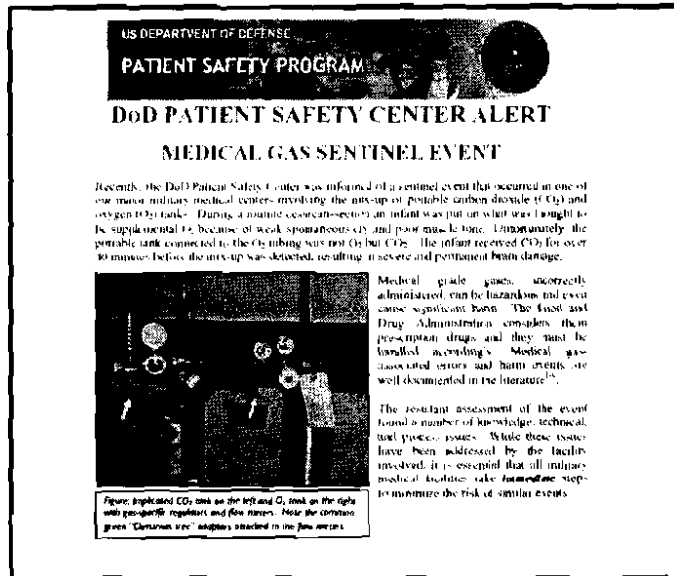
DoD Reported Patient Safety Events



The PSC staff provides focused assistance with database structure and analysis of medication error reporting, quarterly summaries of Service-specific data, and quarterly reports on blood transfusion-related events. The PSC provides Service and MTF support as part of its core mission to review and integrate processes for reducing errors and enhancing patient safety.

Publications & Presentations

The PSC produces an Annual Summary which provides synopses, trending, analysis, and actionable recommendations based on events reported during each fiscal year. Patient Safety Newsletters are circulated every quarter to highlight new initiatives and share best practices within the MHS. Bimonthly DoD Patient Safety *Hot Topics* and Patient Safety Alerts are distributed throughout the MHS as well.



The PSC presented FY 2004 medication error findings and trends at the 2005 Federal Combined Forces Pharmacy Seminar. The Center collaborated with the Services, the Center for Education and Research in Patient Safety (CERPS), and TRICARE Management Activity to address confusing medical abbreviations recommended for elimination by JCAHO, medication reconciliation, National Patient Safety Goals, and refinement of requirements for the new pharmacy commercial off-the-shelf component of DoD's electronic health record.

Tool Kits

Tool kits based on extensive literature review are available to assist MTFs with improving care. In alignment with the JCAHO National Patient Safety Goal on patient falls, the PSC developed a Patient Falls Reduction Tool Kit. This guide for enhancing the existing MTF patient fall reduction program, emphasizes four facets of a credible patient fall reduction program:

- Assessment and re-assessment of all patients for fall risk
- Interventions to prevent falls
- Education of the patient and family
- Data collection for continuous program improvement

Center for Education and Research in Patient Safety (CERPS)

CERPS was established to provide the MHS community with the educational materials, tools, training, and resources necessary to improve the safety and quality of health care delivery within the MHS. CERPS focuses on:

- Facilitating the education and training necessary to develop a military health care culture of patient safety;
- Helping MTFs meet accreditation requirements related to safety; and
- Incorporating and disseminating best practices.

Patient Safety Training Program

CERPS offers various educational opportunities on patient safety and numerous tools that support patient safety efforts. Both in-residence and on-site programs are offered to meet the individual and facility learning needs in the MHS.



All new patient safety managers are encouraged to attend the in-residence program to obtain the overview and build the skills necessary for successfully fulfilling their role. MTFs interested in having a large number of individuals participate in patient safety training can arrange for on-site training, which provides the opportunity for a wider audience to become familiar with the concepts and tools that support patient safety.

In FY 2005, the in-residence curriculum, hosted through the Uniformed Services University of Health Sciences was standardized, incorporating the basic, advanced and regional training programs into a single basic course for leadership and patient safety managers. The new curriculum components are:

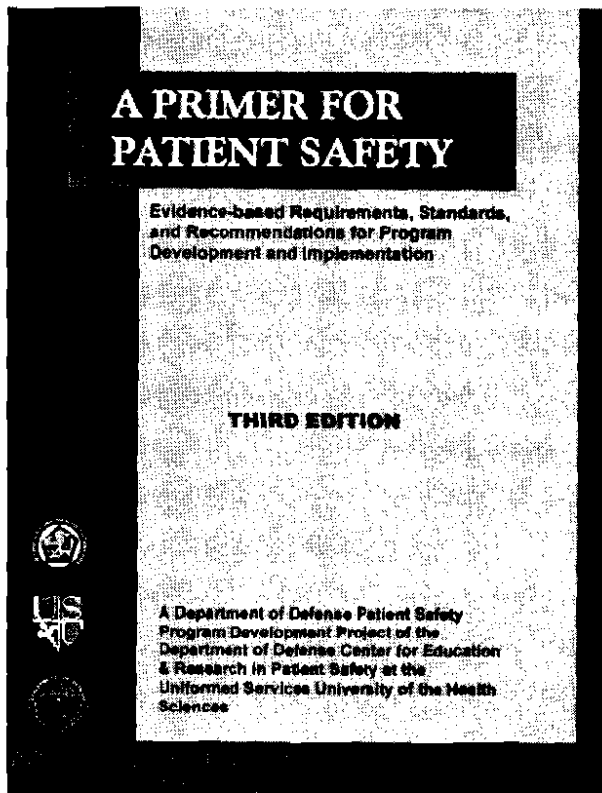
- Overview - Addresses the impact of errors on healthcare operations, barriers to change, human factors and system based solutions for patient safety.
- Leadership – Focuses on creating a culture of safety, supporting patient safety initiatives, disclosure of medical errors and evidence based patient safety practices.
- Patient Safety Managers Workshop – Provides intensive training on the utilization of patient safety data collection tools, error analysis and reporting requirements to the DoD PSC.

Healthcare personnel across the DoD enhanced their patient safety knowledge and skills by attending training based on the new curriculum. More than 1,400 DoD personnel received patient safety training in FY 2005.

Patient Safety Training	
Training Program	Number of Attendees
Overview	759
Leadership	67
Patient Safety Manager Workshop	93
TapRoot®	387
MEDMARX®	100

Primer for Patient Safety

Expanding the knowledge of patient safety leaders is essential to ensure the continued development of a strong culture of patient safety in the MHS. CERPS produced a Primer for Patient Safety as a handbook that provides a concise compilation of evidence-based requirements, standards, and recommendations for patient safety program development and implementation.



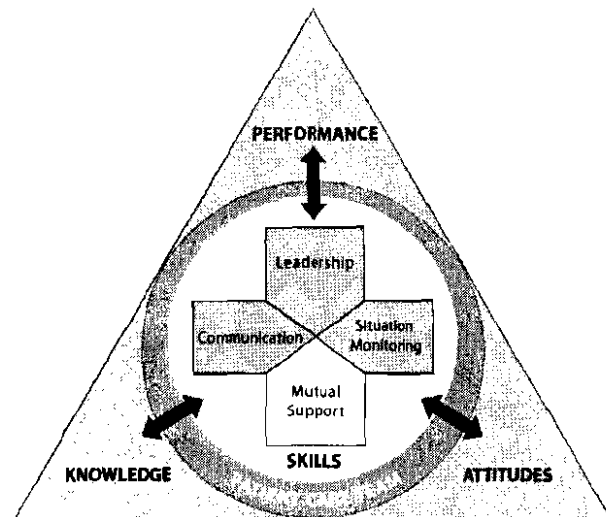
The Primer includes information on a variety of patient safety topics such as safe practices, error reporting systems, healthcare personnel training and staffing issues, patient safety performance measures, electronic information technology, areas for further research, and general healthcare system re-design. This handbook was distributed to DoD patient safety managers and serves as a quick reference of major work conducted in the field of patient safety.

Healthcare Team Coordination Program (HCTCP)

A major focus of the HCTCP for FY 2005 was the continued development and piloting of TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety), an evidence-based curriculum that incorporates over 20 years of research based on teams and team performance in aviation and other high-risk industries. TeamSTEPPS was created under the auspices of the 2001 National Defense Authorization Act and developed in collaboration with the Agency for Healthcare Research and Quality.

TeamSTEPPS:

This medical teamwork initiative provides specific tools and strategies for integrating teamwork principles, such as communication into clinical practice. It is a customizable resource that can transform the culture in both the MTFs and combat casualty care organizations. In FY 2005, over 400 tri-Service participants from 20 facilities (Service-wide) became trainers for continuing education-approved medical team training sessions.



TeamSTEPPS Framework

Team Resource Centers

The HCTCP identified Team Resource Centers (TRCs) to serve as centers of excellence (COEs) for the development, validation, proliferation and sustainment of medical team training as mandated by the 2001 National Defense Authorization Act. The mandate requires that the selected COEs support fixed military healthcare facilities and combat casualty care organizations.

By FY 2005, the HCTCP established two COEs to serve as designated TRCs:

- Air Force Expeditionary Medical Skills Institutes' Centers for the Sustainment of Trauma and Readiness Skills (C-STARS) and
- Army Trauma Training Center (ATTC).

HCTCP plans to expand the capabilities of the TRCs to include medical simulation and subject matter expertise to create scenario based, simulation enhanced, patient safety and team training curricula.

C-STARS

The Air Force C-STARS course is designed to update trauma/critical care skills and fulfill the Clinical Readiness Skills Verification program requirements.



This C-STARS program delivers TeamSTEPPS in the trauma environment and provides objective data on course effectiveness on two integrated projects:

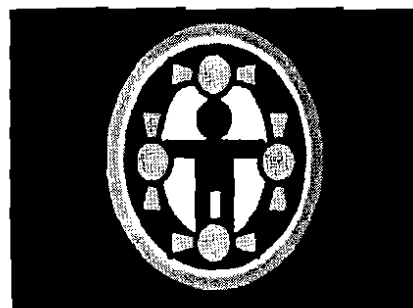
- Course effectiveness in distance learning environment.
- Evaluation of team performance during trauma resuscitations (using simulation based evaluations and video analysis of actual trauma evaluations).

ATTC

The ATTC's mission is to ensure clinical readiness for Army Forward Surgical Teams and units within the combat hospital surgical teams. As a COE, ATTC retooled its program of instruction around the mission of helping Army trauma teams prepare for clinical deployment. Team development principles are designed to promote safe, effective combat casualty care.



Army Trauma Training Center:



www.traumateams.com

Longitudinal Labor & Delivery Quality Improvement Study

The longitudinal Labor and Delivery (L&D) quality improvement study is an evaluation of quality improvement initiatives currently being undertaken by hospital L&D units in five hospitals; two MTFs and three civilian hospitals. These hospitals are selected to represent a variety of hospital types and differing stages of teamwork implementation in the L&D units.

Central to this improvement initiative is the implementation of improved teamwork as a unit-wide, system level change of practice impacting the entire L&D unit. The staff, including obstetricians, nurses, and anesthesiologists, work collaboratively to reduce the likelihood of adverse events for patients delivering babies and for newborn infants. L&D study participants receive medical team training and consultative support coupled with highly structured evaluation to document and analyze the teamwork development process and related outcomes

A formal process will be utilized to evaluate the teamwork development activities of participating hospitals. The evaluation process is designed to track TeamSTEPPS training interventions, collect staff perceptions, and observe teamwork practices. Outcome measures data from the National Perinatal Information Center will be correlated with activities at participating hospitals to better understand the effects of teamwork on patient care outcomes. Study results will be available in 2007.

Development of Outcome Measures for Effective Teamwork in Healthcare

DoD has implemented medical team training initiatives with the goal of reducing adverse events, and thus providing safer care to our patients through teamwork. The next step to ensuring effective teamwork within the MHS is to translate the knowledge and skills gained from the team training into improved performance in the day to day delivery of care. Since outcome measures are needed to better understand the relationship between teamwork and performance, HCTCP has initiated identification and development of measures representing important patient safety and quality of care outcomes. There is an anticipated improvement of these outcomes as a result of effective teamwork. A clinical advisory panel of DoD and civilian experts is working collaboratively on this project.

Key components of developing effective measures to assess the impact of teamwork include: a literature review; identification and selection of patient safety and quality measures for specific health care settings; and comparative analysis of selected measures using MHS data. The information gathered for the analysis of data on these newly developed measures will strategically guide the future direction of teamwork in DoD. Clinical areas included in the study are Labor and Delivery, Surgery and Emergency Care. The estimated duration of the project is eighteen months.

Pharmacy Data Transaction Service

The Pharmacy Data Transaction Service (PDTS) is a centralized data repository containing information about prescriptions filled worldwide for DoD beneficiaries, regardless of whether the prescription is filled at an MTF or through the TRICARE Retail Pharmacy network or the TRICARE Mail Order Pharmacy program. PDTS involves continuous, concurrent electronic screening of medication usage to enhance the quality and safety of pharmacy services provided to DoD beneficiaries.



PDTS was designed to enhance patient safety and the quality of medical care by reducing the likelihood of:

- Adverse reactions between two or more prescriptions
- Duplicate medications prescribed to treat the same condition
- Same medication obtained from multiple sources
- Excessive or insufficient dosing
- Over- or under-utilization of medications

Pharmacy Data Transaction Service					
<small>Data updated to reflect most current information available</small>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Transactions Processed	47,778,021	97,250,064	111,624,993	127,483,104	148,628,172
Potentially Life-Threatening Drug Events (Level 1 DDIs) Identified	12,464 <small>(7/1-9/30)</small>	39,899	36,856	35,483	33,132
Rate	0.026%	0.041%	0.033%	0.028%	0.022%

Technological advancements in the mail order and retail pharmacy components of PDTS enhanced patient safety by establishing a technological barrier between the patient and potentially life-threatening drug to drug interaction (DDIs). Pharmacy orders with potentially life-threatening DDIs are automatically rejected and require an interaction by the healthcare provider to resolve. This is an excellent example of using knowledge on human factors and automation to reduce errors.

Patient Satisfaction

**Listening to the patient's perception of
care to guide to quality improvement**

PATIENT SATISFACTION

Patient Satisfaction information is gathered through a variety of venues and at multiple levels across the MHS. Patient satisfaction surveys focused on indicators relating to inpatient care, outpatient services, TRICARE health plan, primary care provider, customer service, ease of access for appointments, communication and clinical care, provide insight on our beneficiaries' perceptions of the TRICARE program. The results of satisfaction information are disseminated to the Services and MTF staff as well as posted on the TRICARE website and published in the annual "Evaluation of the TRICARE Program" report.

TRICARE Inpatient Satisfaction Survey

The TRICARE Inpatient Satisfaction Survey (TRISS) is conducted annually to obtain information on patients' perceptions of inpatient care. TRISS reports on patient experiences for adults receiving Medical, Surgical and Childbirth services from the MHS's seventy-one direct care Military Treatment Facilities (MTFs) and through MHS purchased care networks. The FY 2005 survey included patients discharged during the period of July 1, 2005 through September 30, 2005.

The TRISS was conducted by National Research Corporation (NRC) through its NRC+Picker division using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and NRC+Picker questions to create a full representation of the Picker Dimensions of Patient Centered Care. The HCAHPS is a survey instrument developed by the Agency for Healthcare Research and Quality for use in the Centers for Medicare and Medicaid Services' Hospital Quality Initiative. This initiative gathers and publicly reports standard clinical and patient survey measures for acute care hospitals across the United States. The Picker Dimensions of Care represent key aspects of Patient Centered Care.

The measures comprising the NRC+Picker survey are focused on the aspects of care that matter most to patients. The Picker dimensions of patient centered care include the following areas:

Dimensions of Care

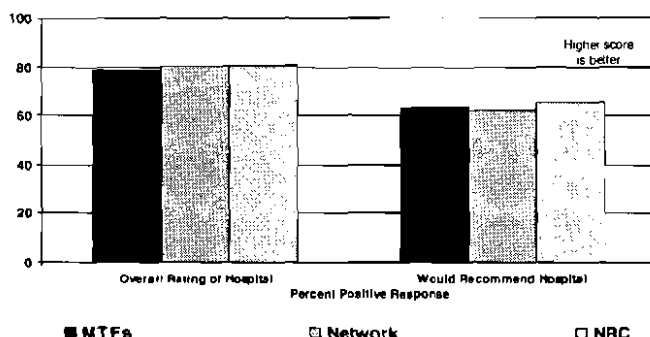
- Respect for patient preferences
- Information and education
- Involvement of family and friends
- Physical comfort
- Coordination of care
- Emotional support
- Continuity and transition

A positive score is defined as the percentage of positive responses of the total number of valid and applicable responses. Higher scores reflect higher levels of satisfaction.

Overall Satisfaction

The overall rating of the hospital includes two questions. The first question asks the patient to give the hospital a score between 0 (worst hospital) and 10 (best hospital) possible. The second question focuses on recommending the hospital to friends and family member.

National Research Corporation:
2005 Health System Satisfaction Survey
Overall Satisfaction

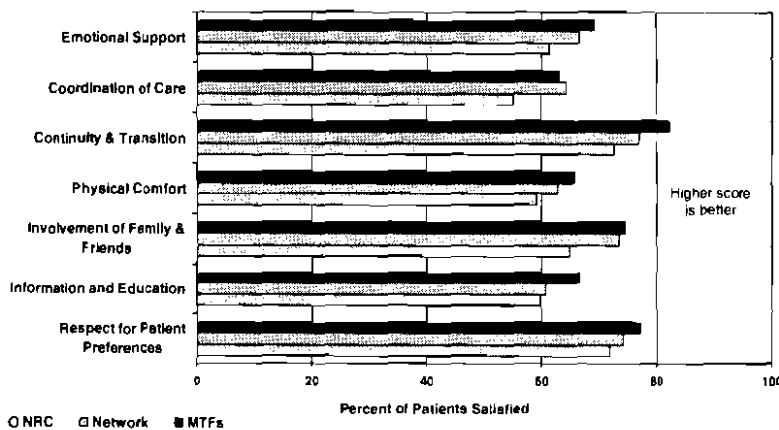


The comparative analysis of the overall satisfaction with hospitals providing care in the direct care and purchased care systems revealed the MHS is comparable to the NRC benchmark.

Surgical

A total of 5,383 surgical patients in the MHS were surveyed on the NRC+Picker dimensions of care between July 1, 2005 and September 30, 2005. Each area is compared to the NRC data.

National Research Corporation:
2005 Health System Satisfaction Survey
Surgical Inpatient



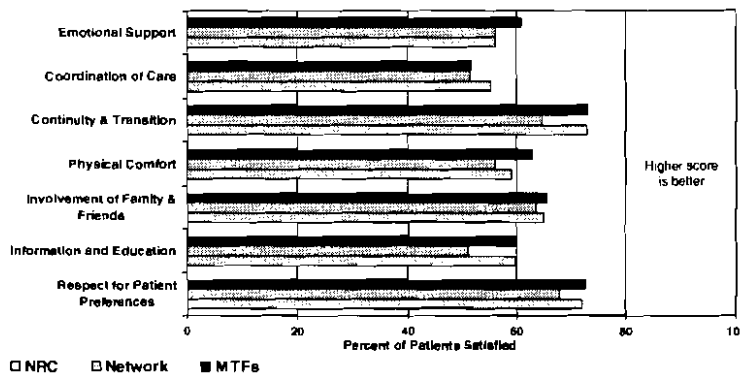
The comparative analysis of the surgical data for the direct and purchased care revealed a statistically significant difference in the care received by the MHS beneficiaries. Surgical patients were more satisfied in every dimension with the care received.

PATIENT SATISFACTION

Medical

A survey of 8,064 Military Health System patients who received care while hospitalized for medical conditions in MTFs and network hospitals was conducted from July 1, 2005 through September 30, 2005.

National Research Corporation:
2005 Health System Satisfaction Survey - Medical Inpatient

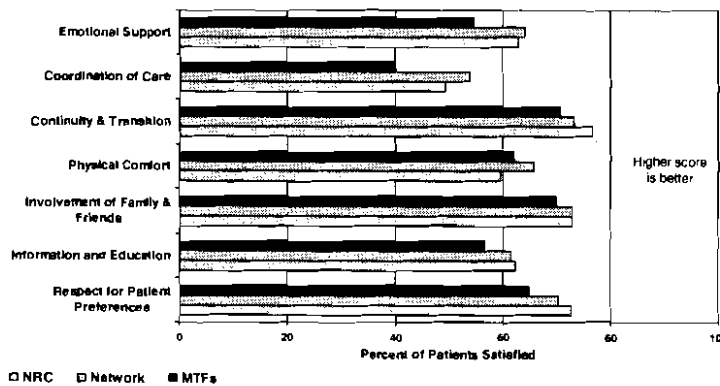


The inpatient survey results for MHS medical patients revealed MTF patients compare more closely to the NRC data than network hospital patients' satisfaction in the dimensions of care assessed.

Childbirth Experience

Over 4,000 obstetric patients who received care while hospitalized for childbirth in MTFs and network hospitals were surveyed between July 1, 2005 and September 30, 2005.

National Research Corporation:
2005 Health System Satisfaction Survey
Childbirth Experience



The MHS childbirth experience results show that perception of perinatal care in TRICARE network hospitals compares more closely to the NRC data than does care in MTFs. While the NPIC data demonstrates that the outcome of perinatal care in the direct care system is superior to national comparative data, there is an opportunity to improve patient satisfaction with and perception of childbirth in the MTF.

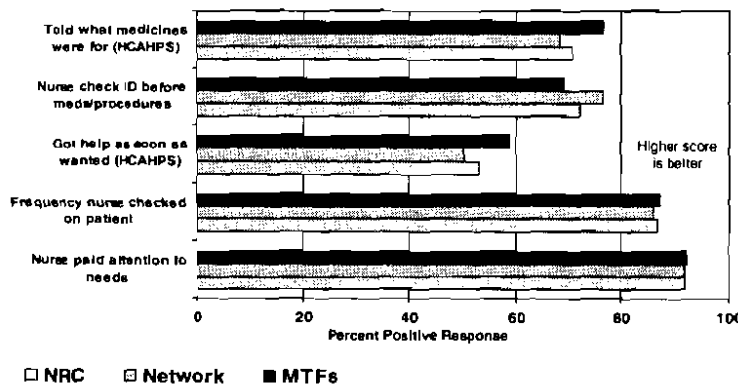
Other Survey Areas

TRISS provides a holistic view of inpatient care in the MHS by including clinical support areas and patient safety related survey questions.

Safe Medical Practice

Data on safe medical practices were gathered from all patients surveyed. A total of 13,230 patients provided insight to their hospital care experience. The questions reflect patients' awareness that the staff is using safe practices in their care such as medication use or verification of patient identity. The results of the survey add another dimension of information to the Patient Safety Program for analysis and comparison.

National Research Corporation:
2005 Health System Satisfaction Survey
Experience with Safe Medical Practice



Patients feedback on their experiences with safe medical practice reveals MHS direct care and network hospitals are generally consistent with the NRC comparative data.

Source: National Research Corporation Inpatient Satisfaction Survey – Surgery, Medicine and Childbirth Experience; Military Health System July – Sept 2005

The TRISS also provides feedback on clinical support services including dietary, radiology, laboratory and housekeeping. The survey questions address the service provided as well as the helpfulness of the staff. For each of these areas, the overall performance of MTFs and network hospitals is consistent with the NRC comparative data. The inclusion of the support services provides a more complete view of the patient's care experience.

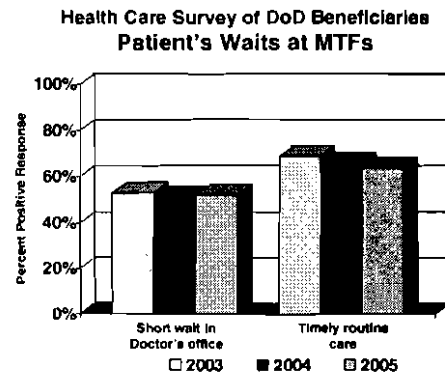
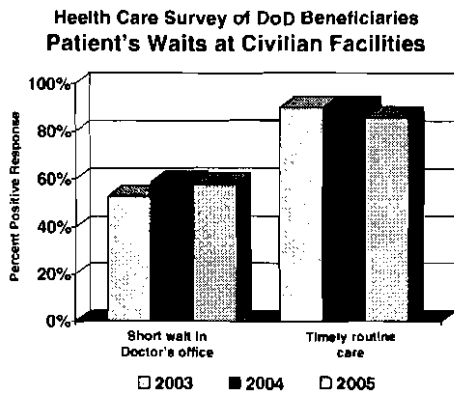
Health Care Survey of DoD Beneficiaries

The Health Care Survey of DoD Beneficiaries (HCSDB) is a worldwide survey of MHS beneficiaries conducted annually by the Office of the Assistant Secretary of Defense, TMA. The survey provides DoD with ongoing information on the satisfaction of MHS beneficiaries with their health care.

The HCSDB includes two distinct surveys, the Adult and Child HCSDB. Both surveys provide information on a wide range of health care issues such as the beneficiaries' ease of access to health care and preventative care services. In addition, the surveys provide information on beneficiaries' satisfaction with their doctors, health care, health plan and the health care staff's communication and customer service efforts.

HCSDB questions on satisfaction with and access to health care have been closely modeled on the Consumer Assessment of Health Plans Survey program. This program is a nationally recognized set of standardized questions and reporting formats that has been used to collect and report meaningful, reliable information about the health care experiences of patients.

The measures relating to the performance in MTF ambulatory care settings reflect both timeliness and access to care. These measures include the availability of appointments and waits in the doctor's office.



The MTF results of the HCSDB survey are provided to a tri-Service work group. Each Service representative is responsible for ensuring the survey results are shared throughout their organization to enhance performance. The civilian facility data are presented to the TRICARE Regional Offices for dissemination.

The entire HCSDB survey and other satisfaction surveys conducted by the MHS are available on the TRICARE website for viewing by all beneficiaries, stakeholders, staff, and leadership. The link for the HCSDB report is <http://www.tricare.osd.mil/survey/hcsurvey>. HCSDB surveys for the past three years are posted on this site.

Biosurveillance

**Identifying potential threats to
the health of our beneficiaries**

DoD's biosurveillance initiatives focus on prevention and early detection through collaboration. The DoD remains vigilant and focused on the identification of potential threats and the prevention of casualties from environmental, occupational, operational, biological and chemical warfare events. The cooperative efforts of service members, health care providers, families, and military as well as community leaders support the health and safety of service members on the battlefield and in our communities across the world.

Global Emerging Infections Surveillance and Response System

The mission of the DoD-Global Emerging Infections Surveillance and Response System (GEIS) is to support and coordinate DoD global surveillance, training, public health research and outbreak response capabilities for microbial threats impacting force health protection and national security. Specifically, DoD-GEIS projects support outbreak response preparation, detection, clinical investigation, microbial agent identification, and communicable disease control and prevention.



DoD-GEIS is a network of medical professionals focused on outbreak response preparation. As a tri-Service program, DoD-GEIS works through partners and programs within the MHS and five DoD overseas medical laboratories. Coordination of the system is provided by the GEIS Central Hub.

DoD has approximately 9.2 million military medical beneficiaries, including about 2.4 million active duty and reserve personnel, and 120,000 healthcare workers distributed across the globe. These populations are a primary focus of medical surveillance, sources of surveillance information, and consumers of medical information created by DoD-GEIS. Coordination and flexibility were functional requirements incorporated into the planning and operations of the DoD-GEIS network. Thus, the strength and performance of the DoD-GEIS team as a whole is designed to be greater than the sum of its individual partners. DoD-GEIS was designed to strengthen the prevention of, surveillance of, and response to infectious diseases that:

- Pose a threat to military personnel and families;
- Reduce medical readiness; or
- Present a risk to United States national security.

Surveillance

DoD-GEIS surveillance projects in FY 2005 were designed to facilitate tri-Service readiness, relevance, and responsiveness to the medical challenges emerging in the MHS and operational medicine settings. The project designs included methods to facilitate professional interactions within DoD medical organizations so that lines of communication would be strengthened and the MHS better prepared for serious medical emergencies such as pandemic influenza.

The surveillance priorities for DoD-GEIS focus on microbial agents capable of causing serious outbreaks in military populations. These are:

- Respiratory illnesses (especially influenza and pandemic influenza);
- Febrile illnesses (especially malaria, dengue and viral hemorrhagic fevers);
- Diarrheal illnesses;
- Sexually transmitted infections; and
- Agents with antimicrobial resistance.

In FY 2005, DoD-GEIS partnered with hundreds of Army, Navy and Air Force medical professionals working in fourteen military medical research laboratories and medical treatment facilities on many cooperative projects in over thirty countries. DoD-GEIS provided important information to the nation and for global public health. Three of the five laboratories located outside the United States are World Health Organization Collaborating Centers.

The most important activities of DoD-GEIS in FY 2005 were influenza surveillance and pandemic response preparation, and the most important products were timely medical information and medical expertise that were provided for the military medical leadership.

Partnering in the Fight Against Emerging Infections

Other key FY 2005 initiatives of DoD-GEIS included building surge capacity into the planning, budgeting, and project execution of its global systems. This supports optimized flexibility and emergency response of DoD-GEIS partners in public health emergencies, such as the Indian Ocean tsunami, by promoting communication, interoperability, professional interactions including joint training, resource sharing, and standardization among partners. An informative public and secure website is maintained by DoD-GEIS to enhance education and communication. Additionally, teleconferences to discuss epidemics and related topics with leading MHS subject matter experts were held twice a month.

DoD-GEIS has supported the development of a robust global emerging infections surveillance and response system of expertise, logistical resources, and ability to integrate with security forces. The information provided on DoD-GEIS was obtained from the FY 2005 annual report. The entire report is available on the www.geis.fhp.osd.mil.

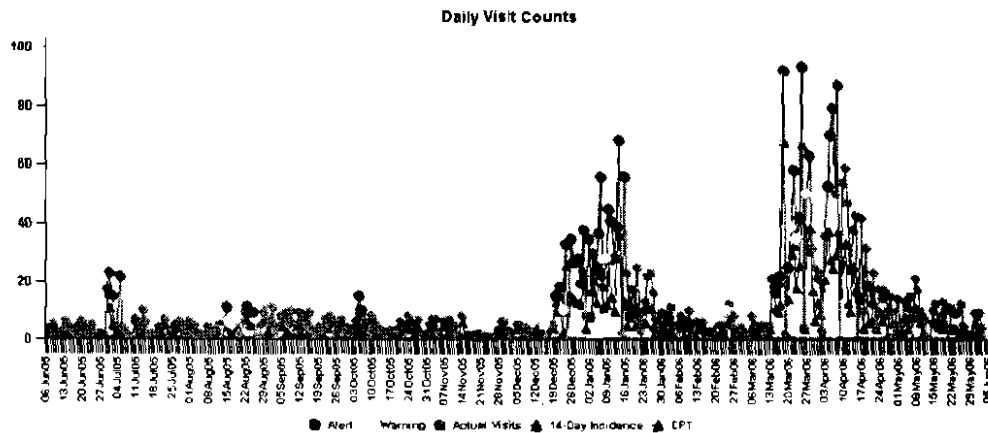
Electronic Surveillance System for the Early Notification of Community-based Epidemics

The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) is a system for the early detection of infectious disease outbreaks in communities. It uses data from episodes of outpatient care to detect and analyze the occurrence of syndromes related to infectious diseases.

Three times a day, ambulatory care data are downloaded into the central data repository of AHLTA, the military's electronic health record, from military treatment facilities around the world. In addition, data from the Pharmacy Data Transaction Service is assessed by ESSENCE to independently track fluctuations in drug usage as possible early alerts for disease outbreaks. ESSENCE then analyzes the diagnoses for patterns and trends that might need further investigation. When ESSENCE signals an alert, public health officials assess the information underlying the alert to determine if an outbreak is occurring and, if so, implement initial steps in investigating, monitoring, and controlling the outbreak. ESSENCE is routinely used to screen for outbreaks by officials at the local, regional, Service, and Department levels.

ESSENCE serves as a key biosurveillance resource for DoD and the nation. The system can detect outbreaks of the most important kinds of infections caused by naturally occurring organisms and by potential acts of bioterrorism. The DoD continues to collaborate with the Centers for Disease Control and Prevention and academic researchers to determine the best types of data for this kind of surveillance and to validate and refine the analytical methods used by ESSENCE to minimize false alarms.

The graph below illustrates the capability of ESSENCE to compile and display the results of its data analyses. On each of the dates displaying a yellow or red alert point, ESSENCE alerted users to a possible outbreak. The ESSENCE-generated graph clearly shows the first indications of an increase in disease incidence and epidemic course through its resolution.

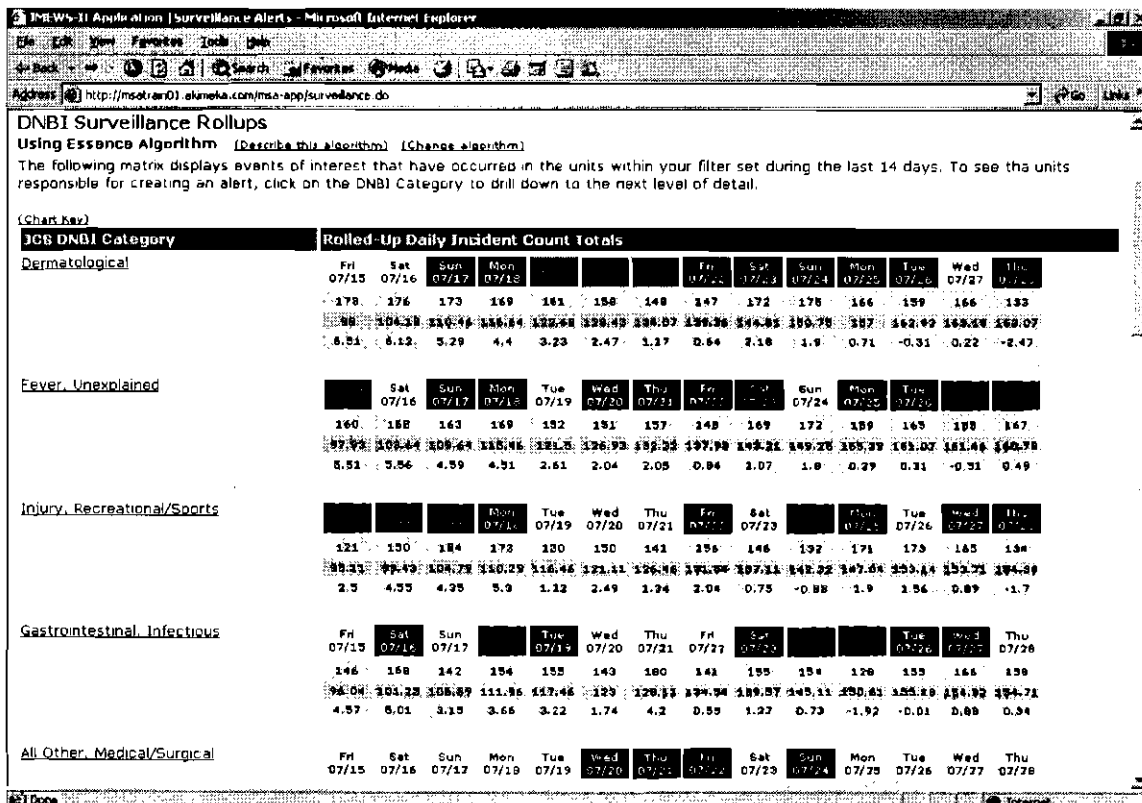


Joint Medical Workstation

The Joint Medical Workstation (JMeWS), an automated health care monitoring and tracking system, was rapidly deployed in January 2003 in response to a need for commanders to have online, near-real-time medical situational awareness for forward-deployed forces during Operation Iraqi Freedom (OIF). An updated version of JMeWS was launched in June 2005, bringing an improved user interface and more accurate medical surveillance algorithms.

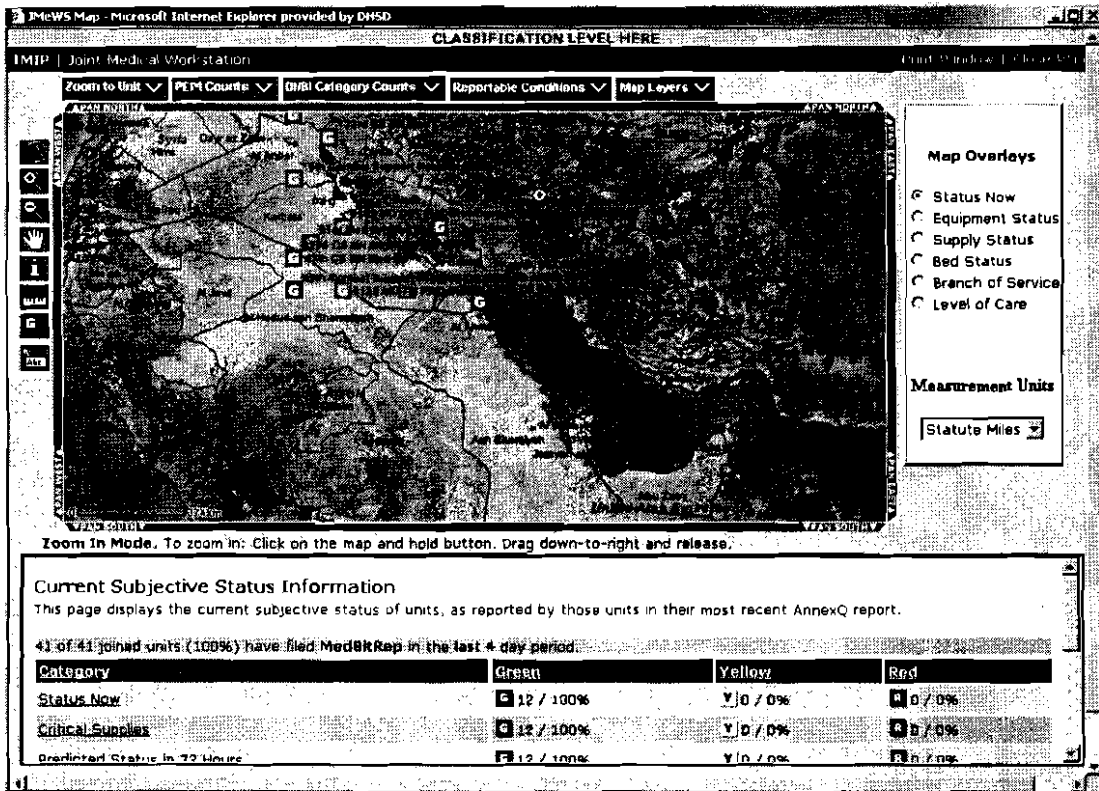
JMeWS directly supports OIF command and control and surveillance requirements by providing access to medical threat and surveillance data, and the capability to receive, process, display, and analyze situation information. This information includes in-theater medical data; exposure data; and critical logistics data such as blood supply, hospital bed, and equipment availability.

JMeWS applications analyze data derived from patient records and DNBI (Disease and Non-Battle Injury) reports looking for abnormalities. If the JMeWS surveillance tools alert for spikes in particular areas, the command surgeon can investigate possible causes by searching the database for patients with particular symptoms.



When a medical treatment facility is established in theater, designated personnel submit a joining report and various capability reports to the system through the JMeWS online reporting application. These reports include information such as location, equipment, supplies, blood, and personnel. Medical treatment facilities update these reports every day.

Once the report is updated, the medical treatment facility has literally placed itself on the map. Theater commanders and medical planners can see where treatment facilities are located on the JMeWS map viewer, and by clicking on a facility icon, they get an overview of the facility's current status and capability.



More than 3,654,428 Patient Encounter Module records are in JMeWS. It currently receives Standard Ambulatory Data Record files from European Command (4 facilities), Northern Command (11 facilities), and Pacific Command (23 facilities). Treatment facilities without the ability to submit the entire patient record to JMeWS file a DNBI report to record patient visits and diagnoses for medical surveillance.

Additional improvements are being developed, including the ability to search JMeWS by individual patient and track a patient's movement through an interface with the TRANSCOM Regulating and Command and Control Evacuation System and the Joint Patient Tracking Application. Other planned enhancements will provide an earlier detection of biological incidents and symptom-based surveillance by providing a map-based view of medical surveillance data.

Acronyms

ACEI	Angiotensin Converting Enzyme Inhibitor
ACS	American College of Surgeons
AHRQ	Agency for Healthcare Research and Quality
AMI	Acute Myocardial Infarction
ARB	Angiotensin Receptor Blocker
ATTC	Army Trauma Training Center
BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
CERPS	Center for Education and Research in Patient Safety
CHCS	Composite Health Care System
CM	Case Management
CMS	Centers for Medicare and Medicaid Services
CPG	Clinical Practice Guideline
C-STARS	Center for Sustainment of Trauma and Readiness Skills
DDI	Drug to Drug Interaction
DM	Disease Management
DMC	Disease Management Clinic
DoD	Department of Defense
DoDI	Department of Defense Instruction
ESSENCE	Electronic Surveillance System for the Early Notification of Community-based Epidemics
FY	Fiscal Year
GEIS	Global Emerging Infections Surveillance and Response System
HbA1c	Glycosylated Hemoglobin (Hemoglobin A1c)
HCTCP	Healthcare Team Coordination Program
HCSDB	Health Care Survey of DoD Beneficiaries
HEDIS [®]	Health Employer Data Information System
HF	Heart Failure
HIP	Healthcare Innovations Program
HTN	Hypertension
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
JMeWS	Joint Medical Workstation
L&D	Labor and Delivery
LVSD	Left Ventricular Systolic Dysfunction
MHS	Military Health System
MHSPHP	Military Health System Population Health Portal
MM	Medical Management
MTF	Military Treatment Facility

ACRONYMS

NCQA	National Committee for Quality Assurance
NHANES	National Health and Nutrition Examination Survey
NPIC	National Perinatal Information Center
NQMP	National Quality Monitoring Program
NRC + Picker	National Research Corporation in partnership with the Picker Group
NSQIP	National Surgical Quality Improvement Program
Pap Test	Papanicolaou Test
PCM	Primary Care Manager
PDHA	Post Deployment Health Assessment
PDHRA	Post-Deployment Health Reassessment
PDTS	Pharmacy Data Transaction Service
PHMMD	Population Health Medical Management Division
PSC	Patient Safety Center
PSEC	Patient Safety Executive Council
PSM	Patient Safety Managers
PSP	Patient Safety Program
PSR	Patient Safety Reporting
Qtr	Quarter
RCA	Root Cause Analysis
SAP	Scientific Advisory Panel
TeamSTEPPS	Team Strategies and Tools to Enhance Performance and Patient Safety
TRISS	TRICARE Inpatient Satisfaction Survey
UM	Utilization Management
U. S.	United States
VA	Department of Veterans Affairs
VHA	Veterans Health Administration
WHO	World Health Organization