EI/DS Program Management

Worldwide Workload Report (WWR) Interface Control Document
Describing the WWR Data
Exchange to the MDR
BASELINE

Approved Version

February 20, 2004



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WWR ICD
Describing the WWR Data Exchange
to the MDR

Approved Version

February 20, 2004

Approval Page

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WWR ICD
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Preface

This document is a deliverable for SRA International as a subcontractor to Irving Burton Associates (IBA) under the Naval Sea Logistics Command (NSLC) contract N65538-03Q-0069 titled "Executive Information/Decision Support (EI/DS) Professional Services Contract." It describes the interface that provides the Worldwide Workload Report (WWR) from the military services to the EI/DS Program Office that is loaded into the Military Health System (MHS) Data Repository (MDR).

This document is under EI/DS project configuration control. Changes to this document will be made by document change notice (DCN) or by complete revision.

Questions on proposed changes concerning this plan should be addressed to:

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Abstract

The Executive Information/Decision Support (EI/DS) Program Office manages the Military Health System (MHS) Data Repository (MDR) as the core repository for MHS clinical, beneficiary population, enrollment, costing and workload data. The MDR collects, catalogues and organizes data files from several systems. This document is the Interface Control Document (ICD) that specifies the Worldwide Workload Report (WWR) data exchange with the military services.

**Keywords:** Decision Support, Executive Information, Interface Control Document, MHS Data Repository, Worldwide Workload Report, DS, EI, ICD, MDR, WWR

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| **BASELINE, CHANGE AND REVISION HISTORY PAGE** |
| **ISSUE** | **DATE** | **PAGES AFFECTED** | **DESCRIPTION** |
| Baseline | Dec 9, 2003 | All | Baseline |
| Mod 1 | Feb 9, 2004 | 1-1, A-1, 2-2 | WWR data received on 10th (vs. 15th); EI/DS internal data flow; Services send file note on record count, etc. |
| Mod 2 | Feb 20, 2004 | 1-1, 1-2, 2-1, A-1, A-4, A-5, A-8, A-9 | AFMOA changed to AFMSA; Patient Category value range changes; Army WWR justification note; remove APV from Bed Days field |
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# Introduction

## Document Identification

This document describes the interface that provides the Worldwide Workload Report (WWR) extracts to the MHS Data Repository (MDR).

## Scope

This document describes and identifies the parameters and specifies the file layout of the WWR extract that the EI/DS Program Office receives from the military services. The WWR is a key dataset for MHS EI/DS products.

## System Overview

The WWR is a product of the Composite Health Care System (CHCS). A CHCS production job is run by each MTF at the end of the month to compile the month’s WWR file submission. The WWR’s are sent from respective MTFs to their Service Headquarters.

* Army MTFs send WWRs to Patient Administration Systems and Biostatistics Activity (PASBA)
* Navy MTFs send WWRs to Navy Medical Information Management Center (NMIMC)
* Air Force MTFs send WWRs to Air Force Medical Support Agency (AFMSA)

The Services process the WWRs and develop various internal reports. In addition, they produce a monthly Service extract that includes specific data fields from all of their MTFs. This file is sent to the EI/DS Program Office and is the subject of this Interface Control Document (ICD).

The Services send their respective WWR extract to the Denver Enterprise Computing Center (DECC) via File Transfer Protocol (FTP). The files are received by the EI/DS Feed Nodes on approximately the 10th day of the month. EI/DS monthly WWR processing begins after receipt.

The Feed Nodes are part of the EI/DS central host, an IBM RS/6000SP multi-node processor. The Feed Nodes pass the raw files to the Tivoli Storage Manager (TSM) node where the data is copied and stored for back-up purposes. The MDR receives the raw WWR files from the Feed Nodes and processes the data to yield a processed extract that is stored in the MDR Operational Data Store (ODS). WWR extracts for EI/DS products, such as the MHS Mart (M2), are pulled from the MDR. Figure 1‑1 depicts the data flow. 

Figure 1‑1 WWR Interface Flow

## Reference Documents

EI/DS Program Office, *CEIS Operational Requirements Document (ORD)*, Falls Church, VA, December 1997.

## Operational Agreement

This ICD provides the technical specification for an interface between the Services (i.e., PASBA, NMIMC, and AFMSA) and the EI/DS Program Office regarding the WWR extract. The Action Memo that accompanies the baseline ICD and any modified ICD versions, when approved by EI/DS and the Services, establishes the on-going operational agreement. It is the responsibility of the source system Program Office (i.e., PASBA, NMIMC, and AFMSA) to notify EI/DS of any potential or planned changes to data feed formats or contents as soon as these potential changes are known in order to minimize adverse impacts on EI/DS receiving systems. When required, the ICD will be modified by the data receiver (i.e., EI/DS Program Office), and a copy of the revised ICD will be sent to the data senders (i.e., PASBA, NMIMC, and AFMSA).

Appendix A delineates the WWR data elements that are sent to the EI/DS Program Office under this agreement.

Should problems with the interface arise, EI/DS data production support personnel will contact the respective Service operational personnel. Should there be systemic data problems recognized during MDR processing, EI/DS members will coordinate with their counterparts in the TRICARE Management Activity (TMA).

# Data Specification

## Identification of Data Exchanges

This ICD addresses the following data feed from PASBA, NMIMC, and AFMSA to EI/DS:

* WWR Extract. The WWR Extract provides a replacement of the entire fiscal year for that Service.

This ICD will be changed *only* if the interface changes from the interface file format or file content specified herein.

## Precedence and Criticality of Requirements

Workload information is necessary for the MHS to make knowledge-based decisions. The MDR provides this information to MHS decision-makers. Updates are required for effective performance of MHS operations. An inability to obtain this data could have an adverse impact on the ability of MHS managers to oversee MHS operations.

## Communications Methods

The WWR extract will be sent monthly to EI/DS via FTP from each Service.

## Performance Requirements

There are no unique performance requirements for this data. The data needs to be provided according to a regularly scheduled time frame.

## Security and Integrity

The data exchanged in this interface *does not* contain protected patient level identifiable information. However, because the aggregate data being transmitted from EI/DS is becoming part of a database that does contain sensitive data, it will be protected in accordance with the C2-level protection standards mandated for all "Sensitive Unclassified Systems" by the requirements of DoD Directive 5200.28. These standards help ensure compliance with the following Federal laws:

* Privacy Act of 1974
* U.S. Code, Title 10, Section 1102, Medical Quality Assurance Records
* U.S. Code, Title 10, Section 1030, Fraud and Related Activity in Connection with Computers
* Computer Security Act of 1987
* Health Insurance Portability and Accountability Act (HIPAA)

### Data Integrity and Quality

The Services send a file note via email that provides the record count, and a list of sites that are missing WWR data for the respective month. These procedures assist EI/DS Operations in validation and processing, and notification to users of data shortfalls.

Validation checks such as record counts, file formats, source stamps, and date-time stamps will be performed on the data transferred from WWR to MDR as defined in the design documentation. When errors are discovered in the data exchange, the respective Service will be notified immediately by EI/DS operations personnel. If there are systemic problems, Interface Working Group (IWG) counterparts will be contacted to work issues.

**Appendix A: WWR File Layout**

**A.1 File Format**

AFMSA, PASBA and NMIMC FTP WWR extracts monthly to the Feed Nodes on the IBM SP located at DECC-Denver. These normally arrive by the 10th of the month, and processing begins subsequently.

The WWR files originate in CHCS servers located at each CHCS-site. Each month, MTF-level WWRs are sent to their respective Service locations (i.e., AFMSA for Air Force; PASBA for Army; and NMIMC for Navy). The Services process these files and provide a monthly extract to EI/DS and an email note identifying file parameters. The extract will contain many records.

There are two different file formats that are used. The main differences are noted.

* Army and Navy format (see Table A-1)
* Files are fixed length format.
* Army record terminator is: <CR><LF>
* Navy record terminator is: <Null><Null><LF>
* Air Force format (see Table A-2)
* Files are pipe (“|”) delimited.
* Uses a four-digit year, versus a two-digit year used by Army and Navy.
* Record terminator is: <LF>

**A.2 Record Layout**

The record layouts are described in Table A-1 (from PASMA and NMIMC) and Table A-2 (from AFMSA). The MDR uses the data extract as delivered to process and develop the necessary data required to support EI/DS data requirements.

A single MTF (i.e., DMIS ID) will have multiple records for a particular calendar year and month, because of the breakdown by dimensions of item, clinic specialty, and patient category. Once fully dimensioned the record provides various counts (e.g., bed days).

**A.3 File Operational Context**

EI/DS processes the records on a monthly basis and loads them into the Operational Data Store (ODS). EI/DS user systems, such as the M2, receive an extract and upload them into their databases.

The WWR extract is a replacement of the entire fiscal year for that Service. When a Service submits altered data from a prior fiscal year, that year is also processed in the month of receipt.

Table A‑1 Army and Navy WWR Data Elements

| Field Name(logical name) | Field Length | Position | Data Type | Data Units | Value Range | Functional Description |
| --- | --- | --- | --- | --- | --- | --- |
| DMIS ID | 4 | 1-4 | A-Numeric | N/A | Valid values obtained from the MTF Masterfile in operation from the Month and Calendar Year fields. | Identification number of the facility for which the summary workload data describes. |
| Calendar Year | 2 | 5-6 | Character | N/A | None | Calendar year of the summary data (last 2 digits of year). |
| Month | 2 | 7-8 | Character | N/A | 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 | Calendar month of the WWR summary data. Coded as follows:01 January02 February03 March04 April05 May06 June07 July08 August09 September10 October11 November12 December |
| Item (Source Code) | 2 | 9-10 | Character | N/A | 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 | Equivalent to Item Codes. Coded as follows:00 Basic, all admissions excluding live births, occupied bed days, sick days, days in newborn nursery.01 Live birth admissions, bassinet days, sick days in newborn nursery.02 Absent sick03 Bed capacity04 Ancillary services05 Venereal disease06 Reserved (Army historical database)07 Reserved (Army historical database)08 Bassinet capacity09 Personnel excused from duty (Air Force)10 Absences11 Transients12 Dispositions and cumulative days13 Vasectomies14 Ambulatory Procedure Visits |
| Clinic Specialty | 4 | 11-14 | Character | N/A | MEPRS codes in operation for the Month and Calendar Year fields | The facility clinic/department code that accomplished the workload. Coded from 4-letter MEPRS codes. |
| Patient Category | 3 | 15-17 | Character | N/A | A11-A15, A21- A29, A31-A33, A41, A43, A45, A47-A49, B11, B26, B31-B33, B41, B43, B45, B47-B49, C11-C14, C22, C24-C29, C31-C33, C41, C43, C45,C47-C49, F11-F15, F21-F29, F31-F33, F41, F43, F45, F47-F49, K51-K59, K61-K69, K71-K79, K81-84, K91, K92, K99,M11-13, M22, M24-M29,M31-M33, M41,M43,M45, M47-M49,N11-N14, N21,N22, N24-N29, N31-N33, N41,N43, N45, N47-N49, P11, P12, P22, P26, P31-P33, P41, P43, P45, P47-P49, R72-R75  | A code that describes the beneficiary’s relationship to uniformed duty status. |
| Admissions | 4 | 18-21 | Numeric[See Note] | N/A | None | The count of inpatient admissions (item codes 00, 01, 11), disease (09), quarters (10), and dispositions (12) for a particular MEPRS code at a particular DMIS ID. |
| Bed Days | 5 | 22-26 | Numeric[See Note] | N/A | None | The count of bed days (items codes 00, 01, 11), normal (03, 08), inpatient raw count (04), nonbattle injury (09), OB quarters (10), and cumulative bed days (12) for a particular MEPRS code at a particular DMIS ID. |
| Sick Days | 5 | 27-31 | Numeric[See Note] | NA | None | The count of sick days (item codes 00, 01, 02), expanded (03), inpatient weighted count (04), battle casualties (09), other (10), and cumulative sick days (12), and Navy (13) for a particular MEPRS code at a particular DMIS ID. |
| Inpatient Visits (IPV) | 5 | 32-36 | Numeric[See Note] | NA | None | The count of inpatient visits (item codes 00, 01), remain (02), operating (03, 08) outpatient raw count (04), and Marine (13) for a particular MEPRS code at a particular DMIS ID. |
| Outpatient Visits (OPV) | 10 | 37-46 | Numeric[See Note] | NA | None | The count of outpatient visits (item codes 00, 01), outpatient weighted count (04), dispositions (02), mobilization (03), new cases (05), Ambulatory Procedure Visits (14), and all others (13) for a particular MEPRS code at a particular DMIS ID. |
| Type Record | 1 | 47 | Character | NA | C, F, I, M | The type of record that is being submitted. Coded as follows:C CorrectedF FinalI InitialM Monthly |

Note for Admissions, Bed Days, Sick Days, IPV, and OPV. The Army and Navy WWR right justifies the numbers with leading zeros.

Table A‑2 Air Force WWR Data Elements

| Field Name(logical name) | Field Length | Position | Data Type | Data Units | Value Range | Functional Description |
| --- | --- | --- | --- | --- | --- | --- |
| DMIS ID | 4 | Delimited | A-Numeric | N/A | Valid values obtained from the MTF Masterfile in operation from the Month and Calendar Year fields. | Identification number of the facility for which the summary workload data describes. |
| Month | 2 | Delimited | Character | N/A | 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 | Calendar month of the WWR summary data. Coded as follows:01 January02 February03 March04 April05 May06 June07 July08 August09 September10 October11 November12 December |
| Calendar Year | 4 | Delimited | Character | N/A | None | Calendar year of the summary data. |
| Item (Source Code) | 2 | Delimited | Character | N/A | 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 | Equivalent to Item Codes. Coded as follows:00 Basic, all admissions excluding live births, occupied bed days, sick days, days in newborn nursery.01 Live birth admissions, bassinet days, sick days in newborn nursery.02 Absent sick03 Bed capacity04 Ancillary services05 Venereal disease06 Reserved (Army historical database)07 Reserved (Army historical database)08 Bassinet capacity09 Personnel excused from duty (Air Force)10 Absences11 Transients12 Dispositions and cumulative days13 Vasectomies14 Ambulatory Procedure Visits |
| Clinic Specialty | 4 | Delimited | Character | N/A | MEPRS codes in operation for the Month and Calendar Year fields | The facility clinic/department code that accomplished the workload. Coded from 4-letter MEPRS codes. |
| Patient Category | 3 | Delimited | Character | N/A | A11-A15, A21- A29, A31-A33, A41, A43, A45, A47-A49, B11, B26, B31-B33, B41, B43, B45, B47-B49, C11-C14, C22, C24-C29, C31-C33, C41, C43, C45,C47-C49, F11-F15, F21-F29, F31-F33, F41, F43, F45, F47-F49, K51-K59, K61-K69, K71-K79, K81-84, K91, K92, K99,M11-13, M22, M24-M29,M31-M33, M41,M43,M45, M47-M49,N11-N14, N21,N22, N24-N29, N31-N33, N41,N43, N45, N47-N49, P11, P12, P22, P26, P31-P33, P41, P43, P45, P47-P49, R72-R75  | A code that describes the beneficiary’s relationship to uniformed duty status. |
| Admissions | 4 | Delimited | Numeric[See Note] | N/A | None | The count of inpatient admissions (item codes 00, 01, 11), disease (09), quarters (10), and dispositions (12) for a particular MEPRS code at a particular DMIS ID. |
| Bed Days | 5 | Delimited | Numeric[See Note] | N/A | None | The count of bed days (items codes 00, 01, 11), normal (03, 08), inpatient raw count (04), nonbattle injury (09), OB quarters (10), and cumulative bed days (12) for a particular MEPRS code at a particular DMIS ID. |
| Sick Days | 5 | Delimited | Numeric[See Note] | NA | None | The count of sick days (item codes 00, 01, 02), expanded (03), inpatient weighted count (04), battle casualties (09), other (10), and cumulative sick days (12), and Navy (13) for a particular MEPRS code at a particular DMIS ID. |
| Inpatient Visits (IPV) | 5 | Delimited | Numeric[See Note] | NA | None | The count of inpatient visits (item codes 00, 01), remain (02), operating (03, 08) outpatient raw count (04), and Marine (13) for a particular MEPRS code at a particular DMIS ID. |
| Outpatient Visits (OPV) | 10 | Delimited | Numeric[See Note] | NA | None | The count of outpatient visits (item codes 00, 01), outpatient weighted count (04), dispositions (02), mobilization (03), new cases (05), Ambulatory Procedure Visits (14), and all others (13) for a particular MEPRS code at a particular DMIS ID. |
| Type Record | 1 | Delimited | Character | NA | C, F, I, M | The type of record that is being submitted. Coded as follows:C CorrectedF FinalI InitialM Monthly |

**Appendix B: Acronyms**

|  |  |
| --- | --- |
| **AFMOA** | Air Force Medical Operations Agency |
| **AFMSA** | Air Force Medical Support Agency |
| **CEIS** | Corporate Executive Information System |
| **CHCS** | Composite Health Care System |
| **CR** | Carriage return |
| **DCN** | Document Change Notice |
| **DECC** | Defense Enterprise Computing Center |
| **DMIS** | Defense Medical Information System |
| **DoD** | Department of Defense |
| **EI/DS** | Executive Information/Decision Support |
| **FTP** | File Transfer Protocol |
| **HIPAA** | Health Insurance Portability and Accountability Act |
| **IBA** | Irving Burton Associates |
| **ICD** | Interface Control Document |
| **IPV** | Inpatient Visit |
| **IWG** | Interface Working Group |
| **LF** | Line feed |
| **M2** | MHS Mart |
| **MDR** | MHS Data Repository |
| **MEPRS** | Medical Expense and Performance Reporting System |
| **MHS** | Military Health System |
| **MTF** | Medical Treatment Facility |
| **NMIMC** | Navy Medical Information Management Center |
| **NSLC** | Naval Sea Logistics Command |
| **ODS** | Operational Data Store |
| **OPV** | Outpatient Visit |
| **ORD** | Operational Requirements Document |
| **PASBA** | Patient Administration Systems and Biostatistics Activity |
| **TMA** | TRICARE Management Activity |
| **TSM** | Tivoli Storage Manager |
| **WWR** | Worldwide Workload Report |