

Defense Health Program
Fiscal Year (FY) 2007 Budget Estimates
Exhibit R-2, DHP Budget Item Justification

Date: January 2006
R-1 Item Nomenclature: 7
Information Technology Development - 0605013HP

Appropriation/Budget Activity
Defense Health Program/BA-2

COST (\$ in Millions)	FY 2005 <u>Actual</u>	FY 2006 <u>Estimate</u>	FY 2007 <u>Estimate</u>	FY 2008 <u>Estimate</u>	FY 2009 <u>Estimate</u>	FY 2010 <u>Estimate</u>	FY 2011 <u>Estimate</u>
Total PE Cost	106.094	136.847	86.696	60.300	87.409	89.765	83.516
Military Computer-Based Patient Record (MCP)	5.689	37.505	20.232	5.461	0.710	1.371	19.241
TRICARE On Line (TOL)	0.452	5.244	2.544	2.590	6.031	5.191	5.544
Defense Blood Standard System (DBSS)	1.260	1.485	1.462	1.462	1.462	1.492	1.522
Executive Information/Decision Support System (EI/DS)	2.085	15.507	10.742	8.114	7.798	11.478	5.709
Defense Medical Logistics Standard System (DMLSS)	2.729	1.029	0.814	1.170	15.019	22.529	1.120
Defense Medical Human Resources System (internet) (DMHRSi)	0.000	4.493	4.905	0.000	16.782	6.147	0.000
Enterprise Wide Scheduling and Registration (EWS-R)	6.394	13.522	6.191	0.000	0.402	0.256	0.000
Patient Accounting System (PAS)	0.948	4.696	1.111	0.304	0.271	0.129	0.000
Expense Assignment System IV (EAS IV)	0.000	0.000	0.000	0.000	0.201	12.554	24.030
Theater Medical Information Program (TMIP)	29.443	13.436	11.204	16.643	14.658	12.330	11.700
TRANSCOM Regulation and Command and Control Evacuation System (TRAC2ES)	4.152	5.226	5.661	4.356	3.169	0.000	0.000
Joint Electronic Health Record Interoperability (JEHRI)	3.433	2.722	5.074	4.875	4.875	0.000	0.000
Patient Safety Reporting (PSR)	1.930	2.518	2.546	3.280	1.345	0.129	0.000
Veterinary Service Information Management System (VSIMS)	0.000	3.003	1.099	0.000	0.000	0.000	0.000
Items less than \$1.0 million	0.440	0.000	0.000	0.000	0.538	1.504	0.430
Other Related Technical Activities	0.000	3.756	2.258	1.946	4.153	4.580	4.064
MHS CIO Management Operations	2.996	3.613	0.992	0.171	0.000	0.000	0.000
MHS CIO Management Operations (Navy)	3.615	3.747	3.861	3.928	3.995	4.075	4.156
Integrated Clinical Database/Test Bed		2.376	2.400	2.400	2.400	2.400	2.400
AF Family of Medical Web Applications		3.564	3.600	3.600	3.600	3.600	3.600
AF Integrated Medical Information Technology System (IMITS) Initiative	3.703						
Assessment & Demo Center for USAF Surgeon General	3.313						
Automated Clinical Practice Guidelines	3.096						
Clinical Coupler Integration	2.728						
Computer Assisted Medical Diagnostics	1.462						
Computer-Aided Detection & Diagnostics of Breast Cancer	1.078						

**Defense Health Program
Fiscal Year (FY) 2007 Budget Estimates
Exhibit R-2, DHP Budget Item Justification**

**Date: January 2006
R-1 Item Nomenclature: 7
Information Technology Development - 0605013HP
(Continued)**

**Appropriation/Budget Activity
Defense Health Program/BA-2**

Direct Real-Time Secure Collaborative Application/Analysis Sharing Environment for the USAF	0.974	
DoD/Veterans Administration Demonstration Site Projects	0.787	
Hawaii Federal Healthcare Network	20.907	
Healthcare Informatics Testbed	1.656	1.485
Protected Health Informatics	0.824	
AFSG Server Consolidation Initiative		2.475
Directed Mission Upgrades of the Defense Medical Logistics Standard Support System (DMLSS)		4.257
USAF Environmental & Occupational Factors in Women's Health Program		1.188

The Military Health System (MHS) centrally-managed Information Management/Information Technology (IM/IT) Program is linked to the overall MHS Strategic Plan and supports military medical readiness and MHS transformation. The MHS IM/IT Program ensures compliance with the Federal Enterprise Architecture, Federal Health Architecture, and the DoD Business Enterprise Architecture through the MHS Enterprise Architecture which is a mapping of all system requirements to one of the four MHS core business processes (Manage the Business, Access to Care, Population Health Management, and Provision of Health Services). The enterprise strategy, which creates a prioritized Portfolio of requirements, incorporates reengineering and business process improvements, use of innovative acquisition techniques, integration of commercial off-the-shelf products as well as modular development, where necessary; and integration and/or elimination of legacy systems.

The MHS centrally-managed, IM/IT program includes the following major (Acquisition Category (ACAT) I) initiatives: 1) AHLTA (included in the Military Computer-Based Patient Record (CPR) initiative) integrates patient data from difference times, providers and sites of care and will contain a Service member's life-long medical record of all illnesses and injuries, care and inoculations received and exposure to different hazards; 2) Theater Medical Information Program (TMIP), a seamless, interoperable medical system, designed to support theater health services across all echelons of care; and 3) Defense Medical Logistics Standard System (DMLSS), designed to support cataloging, customer logistics, hospital facility operations, property accounting, maintenance of biomedical devices, purchasing and contracting, and inventory management. DMLSS is in sustainment with pre-planned product improvements; and 4) Executive Information/Decision Support (EI/DS), which provides support information used by managers, clinicians, and analysts to manage the business of health care within the MHS, is in sustainment with pre-planned product improvement. The Central IM/IT Program also contains funding for ACAT III initiatives such as the following: the Defense Medical Human Resources System (internet), the Patient Accounting System (PAS), Defense Blood Standard System (DBSS), TRICARE On Line (TOL), Enterprise Wide Scheduling and Registration (EWS-R), the Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH), and Patient Safety Reporting (PSR). A joint DoD/Veterans Affairs (VA) sharing initiative, the Joint Electronic Health Record Interoperability (JEHRI), is also included in the Central IM/IT Program for the DoD portion of this effort.

Program increases are mainly associated with the development of the Clinical Data Repository (CRD/HDR) module within JEHRI. Decreases between FY06 and FY07 reflector adjusted development requirements for Prospective Payment Support and Medical Surveillance modules within EI/DS, continued CHCS II development requirements, Patient Accounting System (PAS) development associated with the Chargemaster billing module, TRICARE On Line (TOL), and Health Insurance Portability & Accountability Act (HIPAA) National Provider Identifier requirement.

The Navy Medical Service is responsible for funding the development required for systems such as Shipboard Medical Immunization Tracking, SNAP Automated Medical System (SAMS) and Ophthalmic Production systems at NOSTRA, OPAS. Integration between DHP components ensure there is no developmental overlap within the DHP.

Defense Health Program
Fiscal Year (FY) 2007 Budget Estimates
Exhibit R-2, DHP Budget Item Justification

Date: January 2006
R-1 Item Nomenclature: 7
Information Technology Development - 0605013HP
(Continued)

Appropriation/Budget Activity
Defense Health Program/BA-2

The Air Force Medical Service (AFMS) programs resulted from a funding realignment to Defense Health Program (DHP) RDT&E from the DHP Operation and Maintenance appropriations beginning in Fiscal Year 2006 and out. The Information Management/Information Technology (IM/IT) Program incorporates the Air Force Transformation Flight Plan, Air Force CONOPS, and Air Force Medical Service Concept Document, which aligns to DoD Medical Program Guidance. The AFMS core capabilities: 1) Ensure a Fit and Healthy Force; 2) Prevent Casualties; 3) Restore Health; 4) Enhance Human Performance; and to provide for enabling services supporting and connecting these capabilities in the arena of software integration in accordance with the Air Force Enterprise Architecture end-state as defined by the Air Force Integrated Framework within the Global Combat Support Services (GCSS) data services construct.

The Air Force Medical Service IM/IT modernization program includes the following initiatives: creation of the Environmental, Safety and Occupational Health management information system, and continued major development efforts to construct the Integrated Clinical Database - Air Force, in addition to building and transitioning web applications to the Air Force Portal as solutions to the existing validated requirements generating more than \$30M in other software development funding requirements over the program 06-11 life-cycle. The Integrated Clinical Database offers the following capabilities: Enterprise Application Integration (EAI) lays the foundation to get various "stovepipe" systems to share information and processing power. It does so by providing the ability to integrate not only data but also methods and objects. This adds "intelligence" to the ICDB translating to agile functionality and rapid deployment that benefits the enterprise as a whole while leveraging low cost grass root capabilities designed and developed by the users. EAI for the ICDB translates to more robust capabilities, more data where it is needed and decision support in a timely manner allowing the ICDB to provide solutions to validated Air Force Medical requirements such as a more robust immunization and personnel readiness tracking application. Data Analysis Capability: The ICDB provides an operational data store that allows for automated capabilities not found in existing source databases. This is achieved through ease of integration allowing development efforts to focus on the user's needs vs. the technical requirements to extract the data. The capabilities are largely clinical and operational in nature but open the door to population and business management. Through the use of data analysis, the ICDB as a clinical technology development platform and test bed can provide the basis for additional capabilities that will give tools to non-clinicians to enhance their abilities to increase the health of patient populations and business operations. The adoption of several key technologies expands the infrastructure to support development of clinical and business tools for all types of healthcare workers. Microsoft's .Net framework incorporated in architecture specifically designed by the ICDB PO eases the integration of functionality onto one platform. This equates to substantially lower costs and much more rapid deployment of capabilities. Implementation of a common data standard XML provides secure and simple access to data from existing and future automated systems for requirements not yet known. Enhanced Hardware Capacity: With the ever growing demand for new capabilities in the ICDB, enhancing the current configuration provides long term capacity to meet these needs. As the ICDB becomes the standard platform of choice for systems development, providing the necessary hardware infrastructure is crucial to keeping the platform available for efforts as they are completed. Future applications are expected to make novel use of data elements currently not in production like images and video to support validated Air Force telehealth and telemedicine requirements. Air Force Medical Omnibus Web Applications Pool (AFMOWAP) supports the research, development, test and evaluation of AF Medical Service web-based software requirements. Efforts include conversion of existing client-server based applications to cost-effective web-based solutions as well as new software development from approved requirements. Conversion of existing applications consolidates disparate systems into enterprise-wide applications. Benefits include significant savings over client-server systems, improved access to information by all levels of leadership, and vastly improved security. In addition AFMOWAP directly supports DoD and AF guidance and policy for IT Services Consolidation.

Defense Health Program
Fiscal Year (FY) 2007 Budget Estimates
Exhibit R-2, DHP Budget Item Justification

Date: January 2006
R-1 Item Nomenclature: 7
Information Technology Development - 0605013HP
(Continued)

Appropriation/Budget Activity
Defense Health Program/BA-2

B. Program Change Summary:

COST (\$ in Millions)	<u>FY 2005</u> <u>Actual</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>
FY07 Budget Estimates Submission RDT&E	77.036	128.729	86.696
FY07 President's Budget Submission RDT&E	106.094	136.847	86.696
Total Adjustments	29.058	8.118	0.000
Congressional Program actions			
Congressional rescissions		-1.382	
Congressional increases		9.500	
Reprogrammings	4.304		
Fact-of-Life Adjustments			
SBIR/STTR Transfer - year of execution ac	-2.742		
Internal Adjustment	27.496		

C. Other Program Funding Summary:

	<u>FY 2005</u> <u>Actual</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>
DHP Operation & Maintenance	680.877	617.435	668.783	659.151	711.847	715.979	739.314
BA-1, PE 0807714	2.900	2.900	2.900	2.900	2.900	2.900	2.900
BA-1, PE 0807724	1.700	1.700	1.700	1.700	1.700	1.700	1.700
BA-1, PE 0807781	97.157	101.996	111.098	110.256	112.131	113.681	115.243
BA-1, PE 0807793	560.531	485.756	527.235	517.934	568.250	570.529	591.998
BA-1, PE 0807795	15.938	20.408	21.033	21.450	21.860	22.107	22.355
BA-1, PE 0807995	2.651	4.675	4.817	4.911	5.006	5.062	5.118
DHP Procurement	216.098	175.139	207.048	209.097	181.711	189.912	187.739
BA-3, PE 0807720	0.000	0.000	2.000	0.500	0.500	0.510	0.520
BA-3, PE 0807721	216.098	175.139	205.048	208.597	181.211	189.402	187.219

**Defense Health Program
Fiscal Year (FY) 2007 Budget Estimates
Exhibit R-2, DHP Budget Item Justification**

**Date: January 2006
R-1 Item Nomenclature: 7
Information Technology Development - 0605013HP
(Continued)**

**Appropriation/Budget Activity
Defense Health Program/BA-2**

D. Acquisition Strategy: Not applicable.

E. Program Accomplishments and Plan:

FY 2005 Accomplishments

- Completed developmental testing of TMIP Block 2 Release 1.
- Purchased Pharmacy and Laboratory Commercial Off-the-Shelf (COTS) products for the Composite Health Care System II (CHCS II) associated with the development of Block 3.
- Completed formal design and development of the Medical Surveillance data mart and Clinical Data Mart (CDM) Initial Operating Capability (IOC) within EI/DS.
- Completed preparations and selected appropriate demonstration sites for EWS-R. Completed interface and data management design.
- Began development of TRAC2ES Full Operating Capability (FOC) increment one, which includes intra-theater regulating at military treatment facilities (MTFs) and expanding reporting/interfacing capabilities.
- Conducted project planning and design of TOL enhancements. Designed plan to provide TOL server failover capability.
- Completed testing at limited rate deployment sites for Patient Accounting System (PAS) Coding and Compliance Editor.
- Completed documentation and certification, including modification of software code, to meet DoD information assurance and security standardization for DMLSS Air Evacuation Equipment Management module. Additionally, redesigned the DMLSS Joint Medical Asset Repository (JMAR) web-user interface to meet security, functionality, and navigation requirements.
- Began reengineering of DBSS version 6.00 (web-based global database).

FY 2006 Plans

- Receive Milestone C approval for TMIP Block 2 Release 1. Complete developmental testing of TMIP Block 2 Release 2 and receive fielding decision.
- Purchase Radiology and Inpatient Commercial Off-the-Shelf (COTS) products for the Composite Health Care System II (CHCS II). Receive Milestone B approval for CHCS II Block 3.
- Complete developmental test and evaluation (DT&E) for Medical Surveillance and CDM IOC within EI/DS. Commence formal design and development of the Clinical Data Warehouse (CDW), Prospective Payment capability, Performance Management Display Tool and additional clinical and business reporting tools within EI/DS.
- Initiate legacy system conversion to object-based relational database solution, develop web interfaces & initiate System Integration & Testing (SIT) and Design Integration Testing (DIT) testing of EWS-R.
- Continue TRAC2ES FOC increment one development efforts. Deliver first reporting/interfacing improvements in 3rd Qtr FY 2006. Begin preparation for TRAC2ES FOC increment two implementation planning.
- TOL pre-planned product improvements acquisition.
- Acquire and configure the PAS Charge Master Based billing module and prepare Milestone C documentation.
- Begin configuration of DMHRSi Block 2.0 (Enterprise Wide Provider Database Capability, National Provider Identifier (NPI), Center for Medicaid and Medicare Services (CMS) message interface, development of new Interface Control Documents (ICDs) etc.)
- Begin development of a medical logistics data warehouse for the JMAR module within DMLSS.
- Conduct testing of DBSS version 6.00 and obtain clearance from the Food and Drug Administration (FDA).

FY 2007 Plans

- Complete developmental testing of TMIP Block 2 Release 3 and begin development of Block 2 Release 4.
- Conduct testing on CHCS II Block 3.
- Complete formal design, development, and DT&E of the Clinical Data Warehouse (CDW), Prospective Payment capability, Performance Management Display Tool and additional clinical and business reporting tools within EI/DS.
- Deliver first phase of TRAC2ES intra-theater regulating and final reporting/interfacing capabilities in 1st Qtr FY 2007. Begin development of remaining interfaces with the Department of Veteran's Affairs (VA) National Disaster Medical System as well as CHCS II. Develop auto notification of patient movement.
- Continue TOL pre-planned product improvements acquisition.
- Begin configuration of DMHRSi Block 3.0 (Reserve Personnel Management, Special Pay, etc.)
- Continued development of a medical logistics data warehouse for the JMAR module within DMLSS.
- Add Products Components Processing Functions to DBSS (track time to freezer, time thawed, spun and frozen).