

Defense Health Program  
 Fiscal Year (FY) 2013 Budget Estimates  
 Exhibit R-2, DHP RDT&E Budget Item Justification

Appropriation/Budget Activity  
 Defense Health Program/BA: 2

DATE: February 2012  
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 Information Technology Development  
 0605013HP

COST: (Dollars in Millions)

	2011 Actual	2012 Estimate	2013 Estimate	2014 Estimate	2015 Estimate	2016 Estimate	2017 Estimate
<b>Total PE 0605013</b>	137.541	171.936	145.268	145.002	110.652	108.933	97.635
<b>Air Force Integrated Healthcare Toolset (AFIFHCT) (Air Force)</b>	2.243	0.000	0.000	0.000	0.000	0.000	0.000
<b>Armed Forces Health Longitudinal Technology Application (AHLTA) (Army)</b>	0.000	0.000	1.651	1.684	1.718	1.778	1.831
<b>Armed Forces Health Longitudinal Technology Application (AHLTA) (TMA)</b>	4.137	0.000	0.000	0.000	0.000	0.000	0.000
<b>Army Medicine CIO Management Operations (Army)</b>	1.176	0.000	2.867	2.944	3.034	3.131	3.223
<b>Army Warrior Care and Transition System (AWCTS) (Army)</b>	0.117	0.488	0.365	0.365	0.364	0.364	0.300
<b>Automation of Medical Quarters (Air Force)</b>	0.780	0.000	0.000	0.000	0.000	0.000	0.000

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<b>Centralized Credentials and Quality Assurance System (CCQAS)(TMA)</b>	0.211	1.481	0.000	0.000	0.000	0.000	0.000
<b>Clinical Case Management (CCM) (TMA)</b>	0.000	2.925	3.100	0.000	0.000	0.000	0.000
<b>Composite Health Care System (CHCS)(TMA)</b>	2.466	0.000	0.000	0.000	0.000	0.000	0.000
<b>Composite Occupational Health &amp; Operational Risk Tracking (COHORT) (Air Force)</b>	1.365	0.000	0.000	0.000	0.000	0.000	0.000
<b>Defense Center of Excellence (FHP&amp;RP)</b>	1.175	1.199	1.270	1.295	1.323	1.346	1.370
<b>Defense Medical Human Resources System (internet) DMHRSI (TMA)</b>	3.271	0.000	0.000	0.000	0.000	0.000	0.000
<b>Defense Medical Logistics Standard Support (DMLSS) (TMA)</b>	12.018	7.512	4.272	7.126	0.000	0.000	0.000

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Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) (TMA)	0.462	8.795	8.451	8.685	4.099	4.469	4.545
Diabetes Information Tracking System (Air Force)	0.780	0.000	0.000	0.000	0.000	0.000	0.000
Electronic Health Record (EHR) Way Ahead (Budgeted)(TMA)	40.579	84.547	63.000	64.100	42.000	40.299	27.801
Enterprise Blood Management System (EBMS) (TMA)	2.925	0.000	0.000	0.000	0.000	0.000	0.000
Executive Information/Decision Support (EI/DS) (TMA)	1.949	3.196	1.479	3.863	5.399	5.821	5.920
Health Services Data Warehouse (HSDW) (Air Force)	1.623	0.000	0.000	0.000	0.000	0.000	0.000
IM/IT Test Bed (Air Force)	2.167	2.243	2.400	2.395	2.501	2.544	2.587
Integrated Clinical Database (ICDB-AF)	0.488	0.000	0.000	0.000	0.000	0.000	0.000

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<b>Medical Operational Data System (MODS) (Army)</b>	3.396	3.510	3.450	3.519	3.589	3.715	3.826
<b>Medical Readiness Decision Support System Enhancements (Air Force)</b>	1.365	0.000	0.000	0.000	0.000	0.000	0.000
<b>Multidrug-Resistant Organism Repository and Surveillance Network (MRSN)(Army)</b>	0.000	0.828	0.000	0.000	0.000	0.000	0.000
<b>Navy Medicine CIO Management Operations (Navy)</b>	1.428	2.729	4.323	4.409	4.497	4.574	4.652
<b>Navy Medicine CIO Management Operations (Navy)</b>	0.257	0.000	0.000	0.000	0.000	0.000	0.000
<b>Navy Medicine Online (Navy)</b>	2.373	1.404	0.000	0.000	0.000	0.000	0.000
<b>Neuro Cognitive Assessment Tool (NCAT) (TMA)</b>	2.898	0.000	0.000	0.000	0.000	0.000	0.000
<b>Other Related Technical Activities (TMA)</b>	8.012	12.631	1.523	1.508	1.675	1.697	1.724
<b>Patient Safety Reporting (PSR) (TMA)</b>	0.000	0.000	0.000	0.511	0.253	0.000	0.000

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Psychological and Behavioral Health - Tools for Evaluation, Risk, and Management (PBH-TERM)(Army)	0.000	0.096	0.000	0.000	0.000	0.000	0.000
Theater Enterprise Wide Logistics System (TEWLS) (TMA)	5.209	5.150	3.821	0.000	0.000	0.000	0.000
Theater Medical Information Program (TMIP) (TMA)	21.848	24.304	39.803	39.032	36.554	35.485	36.084
Third Party Outpatient Collection System (TPOCS) (TMA)	0.459	0.000	0.000	0.000	0.000	0.000	0.000
TMA E-Commerce (TMA)	5.489	3.296	3.493	3.566	3.646	3.710	3.772
Veterinary Service Information Management System (VSIMS) (TMA)	0.000	0.463	0.000	0.000	0.000	0.000	0.000
Virtual Lifetime Electronic Record (VLER)(Budgeted)(TMA)	4.875	4.875	0.000	0.000	0.000	0.000	0.000
Workload Management System for Nursing - Internet (WMSNi)(Army)	0.000	0.264	0.000	0.000	0.000	0.000	0.000

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**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:** The Army Medical Command received PE 0605013 funding to identify, explore, and demonstrate key technologies to overcome medical and military unique technology barriers. Programs include Army service level support for the Armed Forces Health Longitudinal Technology Application (AHLTA), the Army Medical CIO Management Operations (AMCMO), the Army Warrior Care and Transition System (AWCTS), the Medical Occupational Data System (MODS), the Workload Management System for Nursing - Internet (WMSNi), the Psychological and Behavioral Health - Tools for Evaluation, Risk, and Management (PBH-TERM), and the Multidrug-resistant organism Repository and Surveillance Network (MRSN).

The Navy Medical Information Management/Information Technology (IM/IT) service RDT&E funds the development required for those systems which are integral to Navy Medicine (i.e. Navy Medicine Knowledge Management System (NMKMS)). Navy Medicine also funds, when appropriate, a number of small-scale, opportunistic business improvements when the technology makes a sudden advance. These projects are generally not in the scope of the TRICARE Management Activity (TMA) Central Programs.

For the Air Force Medical Service this program element supports IMIT development requirements within four AFMS Chief Information Officer defined core capabilities as essential to Air Force Medical Service IM/IT mission support. Data warehousing, reporting services, systems integration, and custom application development are featured in almost all IM/IT systems and application requests. The information needs of the AFMS are growing in volume, complexity, and delivery formats. In order to meet future requirements, aggregation of more and varied data sources require increasingly complex data warehousing capabilities. Demand for dynamic analytic capability will require investments in business intelligence, predictive analytic tools, open source research data models, and emerging personalized medicine analysis. Information is still largely produced in an ad hoc manner without standard methodologies, mapping of business requirements, transparent analytic models, and distributed by office productivity software. Centralized production of standard reports, balance sheets, and dynamic query tools would relieve many managers and action officer of routine work and increase leadership decision support. AFMS medical readiness reporting and tracking has set the standard in the DoD for over a decade but multiple applications now encompass what has merged into a common process of tracking unit capability and personal health assessments. Consolidation of medical readiness applications would streamline disability, medical readiness, deployment surveillance, and flying status tracking and reporting who currently must move between multiple applications.

a. Medical Readiness - There are at least 6 applications that medics use for tracking and reporting disability, deployment health, health assessment, and preventive health assessment. Medics would benefit from a common source to track these essential mission requirements in order to assure that the readiness and

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occupational needs of the AF are maintained. Additionally, an increasing number of reports and data feeds are requested to support AF Line, AFMS leadership, and MAJCOM/MTF customers. Data models and dynamic query tools are needed for self-service ad hoc reporting and building standard, policy-driven reports.

b. Population Health - Chronic disease care is the most expensive and fastest growing consumer of medical resources. Improvements are needed in clinical decision support, patient safety, facilitation of home and remote monitoring, and telemedicine that will facilitate new models for delivery of medicine other than the traditional visit to the doctor's office. Personalized medicine research will identify new methods for preventing and treating diseases--this research needs very sophisticated data analytics and integrated data warehouses.

c. Experience of Care - Technology advancements are bridging the gap between patient and provider allowing better communication, relationships, and objective monitoring for physical factors that drive preventable visits and hospitalizations. There is also increasing opportunity to bring patients, primary care, and specialists into collaborative visits without multiple appointments and long-distance travel. These telemedicine tools require significant investments in integration for use on AF Networks.

d. Per capita cost -- The integration of accounting systems, human resource tracking, and 'cost of care' is extremely difficult because of siloed systems. The aggregation of these data sets and modeling for improved analytics would significantly improve decision making capability of management and leadership.

The funding in this program element also provides for operation and sustainment of the IM/IT Test Bed (IMIT-TB) capability, which is a dedicated OT location and staff encompassing the entire spectrum of healthcare services and products available in MTFs, to provide risk controlled testing of designated core and interim medical applications in a live environment.

The MHS centrally-managed, Tri-Service IM/IT RDT&E program includes funding for development/integration, test and evaluation for the following initiatives of special interest: 1) Electronic Health Record Way Ahead (EHRWA)/Integrated Electronic Health Record (iEHR) is a proposed Major Automated Information System (MAIS) program designed to replace/sunset the current portfolio of systems providing initial EHR capability, such as AHLTA (which is DoD's current Electronic Health Record (EHR) and one of the world's largest clinical information systems that provides secure, 24x7, worldwide online access to patients medical records); and Composite Health Care System (CHCS)(which is the military's legacy computerized provider order entry (CPOE) system used for ordering/documenting lab tests, radiology exams, prescription transactions, and for documenting outpatient appointments as well as other care that is administered). EHRWA/iEHR will establish a

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comprehensive, longitudinal, electronic health record that will also support the Virtual Lifetime Electronic Record (VLER) initiative; 2) Theater Medical Information Program-Joint (TMIP-J) integrates components of the military medical information systems to ensure interoperable medical support for all Theater and deployed forces; 3) Defense Medical Logistics Standard Support (DMLSS) provides integrated supply chain and life cycle management for pharmaceuticals, medical supplies, equipment, health facilities, and services; 4) Executive Information/Decision Support (EI/DS) receives, stores, processes data from MHS systems used for managing the business of health care; 5) Defense Occupational and Environmental Health Readiness System - Industrial Hygiene (DOEHRS-IH) assembles, evaluates and stores data on occupational personnel exposure information, workplace environment monitoring, personnel protective equipment usage, and observation of work practices. The Central IM/IT Program also provides RDT&E funding for mission essential initiatives such as: Enterprise Blood Management System (EBMS), Patient Safety Reporting (PSR), Theater Enterprise Wide Medical Logistics System (TEWLS), and various Wounded, Ill and Injured (WII) Warrior initiatives like Neuro-Cognitive Assessment Tool (NCAT), and Clinical Case Management (CCM).

The DHP, RDT&E appropriation includes the following TMA initiatives: Electronic Commerce System: This system was developed for centralized collection, integration, and reporting of accurate purchased care contracting and financial data. It provides an integrated set of data reports from multiple data sources to management, as well as tools to control the end-to-end program change management process. E-Commerce is composed of several major applications including: Contract Management (CM), utilizing Comprizon.Buy and the replacement Prism software to support contract action development and documentation; Resource Management (RM), employing Oracle Federal Financials and TED interface software to support the budgeting, accounting, case recoupment, and disbursement processes; Document Management, utilizing Documentum software to provide electronic storage, management, and retrieval of contract files; Management Tracking and Reporting, utilizing custom software to provide reports to assist in the management and tracking of changes to the managed care contracts as well as current and out year liabilities; the Purchased Care and Contractor's Resource Center web sites that provide up-to-date financial information for both TMA and the Services concerning the military treatment facilities (MTFs), and expenditures for MTF enrollee purchased care and supplemental care. E-Commerce includes an infrastructure of over 60 servers supporting development, test, and production. E-Commerce is employed by several hundred users in more than 7 different organizations. Project oversight and coordination must be provided to ensure that the needs of the disparate organizations are met without influencing system performance or support to any individual user. Server configurations must remain current with respect to security policies, user authorizations, and interactions with other systems and functions. All of these activities must be managed and coordinated on a daily basis.



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**B. PROGRAM CHANGE SUMMARY:**

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
FY13 Budget Estimate RDT&E	133.091	176.345	199.812	144.205
Change Proposal	0.000	0.000	-54.544	0.797
Congressional Rescission	0.257	0.000	0.000	0.000
Realignment	0.000	0.000	0.000	0.000
Reprogramming	4.300	0.000	0.000	0.000
SBIR	-0.107	-4.409	0.000	0.000
FY13 Budget Submission RDT&E	137.541	171.936	145.268	145.002

**PROGRAM CHANGE SUMMARY EXPLANATION:**

FY 2011: Congressional Special Interest increase to DHP RDT&E, PE 0605013-Information Technology Development for Diabetes Information Tracking System (Air Force) (+\$0.800 million); Automation of Medical Quarters (Air Force) (+\$0.800 million); Medical Readiness Decision Support System Enhancements (Air Force) (+\$1.400 million); and Air Force Integrated Healthcare Toolset (AFIFHCT) (Air Force) (+\$1.300 million).

SBIR Transfer from DHP RDT&E, PE 0605013 - Information Technology Development (-\$0.107 million) to DHP RDT&E, PE 0605502 - Small Business Innovation Research (SBIR) program (+\$0.107 million).

Congressional Rescission increase to DHP RDT&E, PE 0605013-Information Technology Development for Office Secretary of Defense, Comptroller Efficiency reduction per Consolidated Appropriations Act, 2012, Public Law 112-74, Section 8040, "Of the funds appropriated in Department of Defense Appropriations Acts, the following funds are hereby rescinded from the following accounts and programs in the specified amounts: Defense Health Program, 2011/2012 (+\$0.257 million). Funds are pending decrease to the FY 2011/2012 Defense Health Program RDT&E appropriation.

FY 2012: SBIR Transfer from DHP RDT&E, PE 0605013 - Information Technology Development (-\$4.409 million) to DHP RDT&E, PE 0605502 - Small Business Innovation Research (SBIR) program (+\$4.409 million).

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FY 2013: Change Proposal from DHP RDT&E, PE 0605013 - Information Technology Development for adjustments to the centrally managed IM/IT program which is primarily associated with the departmentally directed rebaselining of EHRWA as a result of the effort to jointly address the need to modernize EHRs within DoD and VA with both Departments working together to synchronize planning activities and implement a common approach known as the Integrated Electronic Health Record (iEHR) (-\$56.700 million).

Change Proposal for inflation adjustment to DHP RDT&E, PE 0605013 - Information Technology Development (+\$2.156 million).

FY 2014: Change Proposal from DHP RDT&E, PE 0605013 - Information Technology Development for adjustments to the centrally managed IM/IT program which is primarily associated with the departmentally directed rebaselining of EHRWA as a result of the effort to jointly address the need to modernize EHRs within DoD and VA with both Departments working together to synchronize planning activities and implement a common approach known as the Integrated Electronic Health Record (iEHR) (-\$0.600 million).

Change Proposal for inflation adjustment to DHP RDT&E, PE 0605013 - Information Technology Development for Electronic Health Record (+\$1.397 million).

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**C. OTHER PROGRAM FUNDING SUMMARY\*:**

	<u>FY 2011</u> <u>Estimate</u>	<u>FY 2012</u> <u>Estimate</u>	<u>FY 2013</u> <u>Estimate</u>	<u>FY 2014</u> <u>Estimate</u>	<u>FY 2015</u> <u>Estimate</u>	<u>FY 2016</u> <u>Estimate</u>	<u>FY 2017</u> <u>Estimate</u>
<b>DHP Operation &amp; Maintenance</b>	<b>624.588</b>	<b>753.998</b>	<b>804.914</b>	<b>721.358</b>	<b>773.586</b>	<b>790.191</b>	<b>821.561</b>
BA-1, PE 0807714	2.577	1.398	1.440	1.483	1.528	1.573	1.621
BA-1, PE 0807724	6.399	7.036	7.105	7.331	7.481	7.760	7.801
BA-1, PE 0807752	12.684	16.178	16.404	16.634	16.866	17.102	17.393
BA-1, PE 0807781	224.802	217.909	228.815	230.967	235.249	240.665	245.504
BA-1, PE 0807793	359.700	496.241	535.106	448.760	496.072	506.454	532.326
BA-1, PE 0807795	15.970	12.888	13.596	13.702	13.874	14.085	14.326
BA-1, PE 0807995	2.456	2.348	2.448	2.481	2.516	2.552	2.590
<b>DHP Procurement</b>	<b>189.189</b>	<b>249.369</b>	<b>120.081</b>	<b>219.282</b>	<b>82.049</b>	<b>77.134</b>	<b>70.118</b>
BA-3, PE 0807721	184.990	248.839	119.537	218.725	81.486	76.560	69.534
BA-3, PE 0807720	4.199	0.530	0.544	0.557	0.563	0.574	0.584

**D. ACQUISITION STRATEGY:** Test and evaluate software development products to gather data needed for military and regulatory requirements prior to production and fielding.

**E. PERFORMANCE METRICS:**

In the Army Medical Department, program cost, schedule and performance are measured using a systematic approach. The results of these measurements are presented to management on a regular basis to determine program effectiveness and provide new direction as needed to ensure the efficient use of resources. Program performances are highlighted within each project's plans and accomplishments.