Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Health Program

R-1 Program Element (Number/Name)

0130: Defense Health Program I BA 2: RDT&E

Appropriation/Budget Activity

PE 0605023HP I Integrated Electronic Health Record (iEHR)

Date: February 2015

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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
Total Program Element	0.000	19.912	68.267	9.216	-	9.216	8.125	-	-	-	Continuing	Continuing	
444A: Integrated Electronic Health Record Inc 1/ Defense Medical Information Exchange (DMIX)	0.000	12.634	45.915	9.216	-	9.216	8.125	-	-	-	Continuing	Continuing	
444B: Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)	0.000	4.720	-	-	-	-	-	-	-	-	Continuing	Continuing	
449A: Virtual Lifetime Electronic Record (VLER) HEALTH	0.000	2.558	22.352	-	-	-	-	-	-	-	Continuing	Continuing	

Program MDAP/MAIS Code:

Project MDAP/MAIS Code(s): 465

A. Mission Description and Budget Item Justification

In March 2008, the MHS embarked upon Electronic Health Record (EHR) modernization planning, establishing the initial Electronic Health Records Way Ahead (EHRWA).

In March 2011, the Program was expanded to include the VA in a joint initiative to implement a new, integrated electronic health record for both Departments, called the Integrated Electronic Health Record (iEHR) program.

Secretary Hagel's Memorandum titled "Integrated Electronic Health Records," dated May 2013, provided additional direction to the program:

- DoD shall continue near-term coordinated efforts with VA to develop data federation, presentation, and interoperability. This near-term goal shall be pursued as a first priority separately from the longer-term goal of health record information technology (IT) modernization.
- DoD shall pursue a full and open competition for a core set of capabilities for EHR modernization.

To fulfill Secretary Hagel's directive, parallel programs have been defined, splitting the original iEHR program into two distinct areas. In the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) Acquisition Decision Memoranda (ADM), dated June 21, 2013 and January 2, 2014, the former joint DoD and VA Integrated Electronic Health Record (iEHR) program was restructured to pursue two separate but related healthcare information technology efforts, the DoD Healthcare Management System Modernization (DHMSM) program and a newly defined iEHR focused on providing seamless integrated sharing of electronic health

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Health Program

Date: February 2015

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0130: Defense Health Program I BA 2: RDT&E

PE 0605023HP I Integrated Electronic Health Record (iEHR)

data between the DoD and VA to be called Defense Medical Information Exchange (DMIX). The remaining iEHR Increment 1 (iEHR Inc 1) was significantly de-scoped to only the Medical Single Sign-on/Context management (MSSO/CM) implemented at James A. Lovell Federal Health Care Center (JAL FHCC).

iEHR RDT&E is reported under the program element (PE) 0605013 through FY 2013 inclusive, but iEHR, VLER Health and DHMSM will be reported under new program element 0605023 for FY 2014.

In FY 2015, PE 0605023 will report only iEHR and VLER Health since DHMSM will have its own PE starting in FY 2015.

In FY 2016 and out, only iEHR Increment 1 will be reported in PE 0605023. DHMSM will continue to be only initiative reported in PE 0605026. However, new PE 06050039 is established for DMIX for FY 2016 and out. DMIX will incorporate the previous VLER Health and JEHRI initiatives.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	64.100	68.267	34.560	-	34.560
Current President's Budget	19.912	68.267	9.216	-	9.216
Total Adjustments	-44.188	-	-25.344	-	-25.344
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-43.614	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.574	-			
 Integrated Electronic Health Record Inc 1/ Defense Medical Information Exchange (DMIX) 	-	-	-25.344	-	-25.344

Change Summary Explanation

FY 2014: Realignment from Defense Health Program, Research, Development, Test and Evaluation (DHP RDT&E), PE 0605023-Integrated Electronic Health Record (iEHR) (-\$0.574 million) to DHP RDT&E PE 0605502-Small Business Innovation Research (SBIR) Program (+\$0.574 million).

FY 2014: Congressional Rescissions to DHP RDT&E, PE 0605013-Information Technology Development (-\$43.614 million)

FY 2016: Realignment from Defense Health Program, Research, Development, Test and Evaluation (DHP RDT&E), PE 0605023-Integrated Electronic Health Record Inc 1 / Defense Medical Information Exchange (DMIX) (-\$25.344 million).

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Health Program											Date: February 2015		
Appropriation/Budget Activity 0130 / 2					PE 060502	am Elemen 23HP / Integ cord (iEHR)	•	•	Project (Number/Name) 444A I Integrated Electronic Health Record Inc 1/ Defense Medical Information Exchange (DMIX)				
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
444A: Integrated Electronic Health Record Inc 1/ Defense Medical Information Exchange (DMIX)	-	12.634	45.915	9.216	-	9.216	8.125	-	-	-	Continuing	Continuing	

Project MDAP/MAIS Code: 465

A. Mission Description and Budget Item Justification

In March 2008, the MHS embarked upon Electronic Health Record (EHR) modernization planning, establishing the initial Electronic Health Records Way Ahead (EHRWA).

In March 2011, the Program was expanded to include the VA in a joint initiative to implement a new, integrated electronic health record for both Departments, called the Integrated Electronic Health Record (iEHR) program.

Secretary Hagel's Memorandum titled "Integrated Electronic Health Records," dated May 2013, provided additional direction to the program:

- DoD shall continue near-term coordinated efforts with VA to develop data federation, presentation, and interoperability. This near-term goal shall be pursued as a first priority separately from the longer-term goal of health record information technology (IT) modernization.
- DoD shall pursue a full and open competition for a core set of capabilities for EHR modernization.

To fulfill Secretary Hagel's directive, parallel programs have been defined, splitting the original iEHR program into two distinct areas. In the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) Acquisition Decision Memoranda (ADM), dated June 21, 2013 and January 2, 2014, the former joint DoD and VA Integrated Electronic Health Record (iEHR) program was restructured to pursue two separate but related healthcare information technology efforts, the DoD Healthcare Management System Modernization (DHMSM) program and a newly defined iEHR focused on providing seamless integrated sharing of electronic health data between the DoD and VA to be called Defense Medical Information Exchange (DMIX). The remaining iEHR Increment 1 (iEHR Inc 1) was significantly de-scoped to only the Medical Single Sign-on/Context management (MSSO/CM) implemented at James A. Lovell Federal Health Care Center (JAL FHCC).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Title: Integrated Electronic Health Record Inc 1/ Defense Medical Information Exchange (DMIX) (Tri-Service)	12.634	45.915	9.216
Description: The iEHR Increment 1 initiative achieved Full Deployment Decision November 2014 and is targeted to reach Full Deployment milestone by May 2016. Sustainment efforts for iEHR Increment 1 include the DoD sustainment of the James A			

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

Exhibit D OA DDT9E Drainet Instit											
Exhibit R-2A, RDT&E Project Justif	fication: PB	2016 Defens	se Health Pr	ogram					Date: Fe	bruary 2015	
Appropriation/Budget Activity 0130 / 2				PE 06	rogram Eler 05023HP / / n Record (iEi	ntegrated Ele		Project (Number/Name) 444A I Integrated Electronic Health Record Inc 1/ Defense Medical Information Exchange (DMIX)			
B. Accomplishments/Planned Prog	ırams (\$ in N	lillions)							FY 2014	FY 2015	FY 2016
Lovell Federal Health Care Center (J management (MSSO/CM). Program	AL FHCC) he	ealth care in									
and coordinating the establishment of create seamless integration of health open architecture design principles to commercial entities. The IPO will entitle Health Information Technology within organizations and coordinate and morphismary deliverables include technical standards identification and data except 2014 Accomplishments:	data for DoE o preserve fle hance existin o the Health a onitor the com il data interop	D and VA. T xibility, and g DoD and b and Human s amon compo perability ard	the IPO will I foster data i VA efforts wi Services (HI onents requi	everage nati nteroperabili ith The Office HS) and othe red for health	ional and int ity with each e of the Nati er national ar n data sharir	ernational st other and a onal Coordir nd internation og and intero	andards and opropriate ator (ONC) f nal standards perability. Tl	ne			
 Achieved a Milestone C July, 2014 Achieved a Fielding Deployment Defended FY 2015 Plans: Funding for testing as needed. 	ecision on No	vember, 20	14								
Achieved a Fielding Deployment Deployme	ecision on No	vember, 20	14								
 Achieved a Fielding Deployment Defail of Plans: Funding for testing as needed. 	ecision on No	vember, 20	14								
 Achieved a Fielding Deployment Definition FY 2015 Plans: Funding for testing as needed. FY 2016 Plans: 	ecision on No	vember, 20	14	Accon	nplishment	s/Planned P	rograms Su	btotals	12.634	45.915	9.216
 Achieved a Fielding Deployment Definition FY 2015 Plans: Funding for testing as needed. FY 2016 Plans: 			14	Accon	nplishment	s/Planned P	rograms Su	btotals	12.634	45.915	9.216
 Achieved a Fielding Deployment Definition of PY 2015 Plans: Funding for testing as needed. FY 2016 Plans: Funding for testing as needed. C. Other Program Funding Summa 	ry (\$ in Millio	ons)	FY 2016	FY 2016	FY 2016					Cost To	
 Achieved a Fielding Deployment Definition of PY 2015 Plans: Funding for testing as needed. FY 2016 Plans: Funding for testing as needed. C. Other Program Funding Summa Line Item 	ry (\$ in Millio	ons) FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 201	9 FY 2020	Cost To	Total Cos
 Achieved a Fielding Deployment Definition FY 2015 Plans: Funding for testing as needed. FY 2016 Plans: Funding for testing as needed. C. Other Program Funding Summa Line Item BA-1, PE 0807784HP: Information 	ry (\$ in Millio	ons)	FY 2016	FY 2016	FY 2016				9 FY 2020	Cost To	Total Cos
 Achieved a Fielding Deployment Definition of PY 2015 Plans: Funding for testing as needed. FY 2016 Plans: Funding for testing as needed. C. Other Program Funding Summan 	ry (\$ in Millio	ons) FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 201	9 FY 2020 3 41.349	Cost To	Total Cos Continuing

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Health Program	Date: February 2015	
Appropriation/Budget Activity 0130 / 2	R-1 Program Element (Number/Name) PE 0605023HP / Integrated Electronic	Project (Number/Name) 444A I Integrated Electronic Health
	Health Record (iEHR)	Record Inc 1/ Defense Medical Information Exchange (DMIX)

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions.

iEHR/DMIX is a collaborative effort between the DoD and VA to share Health Care Resources to improve access to, and quality and cost effectiveness of, health care as mandated by law. This investment is deeply embedded in the MHS Enterprise Roadmap as both Departments have need for modernization/ replacement of existing legacy systems. This investment will use a combination of an open architecture approach, and the purchase (in some instances) of GOTS and COTS products.

E. Performance Metrics

Program cost, schedule and performance are mea	sured periodically using a syster	matic approach as required for M	ajor Automated Information ও	Systems (MAIS) per DoD
Directives and Instructions.				

Exhibit R-2A, RDT&E Project Ju		Date: February 2015										
Appropriation/Budget Activity 0130 / 2					PE 0605023HP I Integrated Electronic 444 Health Record (iEHR) - L				Project (Number/Name) 444B I Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)			
COST (\$ in Millions)	COST (\$ in Millions) Prior Years FY 2016 FY 2015 Base					FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
444B: Information Technology Development - DoD Healthcare Management System Modernization (DHMSM)	-	4.720	-	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

DHMSM will acquire and support deployment, and implementation of an electronic health record (EHR) system that replaces the DoD legacy MHS inpatient and outpatient EHR systems. Overarching goal of the program is to enable healthcare teams to deliver high-quality, safe care and preventive services to patients through the use of easily accessible standards-based computerized patient records resulting in: improved accuracy of diagnoses and medication; improved impact on health outcomes; increased patient participation in the healthcare process; improved patient-centered care coordination; and increased practice efficiencies in all settings, including operational environments.

DHMSM replaces DoD legacy healthcare systems with a commercial solution in use in other medical systems that is open, rendered as a modular architecture, using standards-based/non-proprietary interfaces. DHMSM will support the Department's goals of net centricity by providing a framework for full human and technical connectivity and interoperability that allows DoD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it. Once fielded, the EHR will support the following healthcare activities for DoD's 44,000 practitioners and 9.5 million beneficiaries.

- 1. Clinical workflow and provider clinical decision support;
- 2. Capture, maintain, use, protect, preserve and share health data and information;
- 3. Retrieval and presentation of health data and information that is meaningful for EHR users regardless of where the patient's records are physically maintained; and
- 4. Analysis and management of health information from multiple perspectives to include population health, military medical readiness, clinical quality, disease management, and medical research.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Title: DoD Healthcare Management System Modernization (DHMSM)	4.720	-	-
Description: DHMSM will be executed to deliver uniform information management options across both garrison and theater environments. DHMSM will focus on replacement of inpatient and outpatient systems, and will encompass deployment of the enterprise EHR to fixed facilities as well as expeditionary components.			
FY 2014 Accomplishments: Program Planning Activities including: • Finalized requirements.			

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defen	se Health Program		Date: February 2015				
Appropriation/Budget Activity 0130 / 2	Project (Number/Name) 444B I Information Technology Dev - DoD Healthcare Management Sy. Modernization (DHMSM)						
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016		
Benefit Analysis, Test Strategy, and Deployment and Suppor	posal (RFP) Packages to insure completeness of the package ority to Process (ATP) for RFP release.						
FY 2015 Plans: Funding not programmed in this program element.							
FY 2016 Plans: Funding not programmed in this program element.							
	Accomplishments/Planned Programs Su	ıbtotals	4.720	_	_		

C. Other Program Funding Summary (\$ in Millions)

			<u>FY 2016</u>	FY 2016	<u>FY 2016</u>					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
• BA-1, PE 0807784HP: Information	24.882	-	-	-	-	-	-	-	-	Continuing	Continuing

Technology Development -

Integrated Electronic Health Record

Remarks

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions.

E. Performance Metrics

Program cost, schedule and performance are measured periodically using a systematic approach per DoD directives and instructions.

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Health Program										Date: February 2015		
Appropriation/Budget Activity 0130 / 2					,				Project (Number/Name) 449A I Virtual Lifetime Electronic Record (VLER) HEALTH			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
449A: Virtual Lifetime Electronic - 2.558 22.352 - Record (VLER) HEALTH						-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The primary goal of the VLER Health initiative is to enable the secure sharing of health information (i.e., demographic and clinical data) between DoD and external Federal and private sector partners which meets Meaningful Use (MU) requirements to improve healthcare quality, safety, and efficiency. By electronically sharing health information using national standards, that information can support tracking key clinical conditions, communicating that information to better coordinate care, and engaging patients in their own care. The VLER Health initiative provides clinicians with the most up-to-date information, potentially reducing redundant diagnostic tests, medical errors, paperwork and handling, and overall healthcare costs. These benefits, in turn, align with the MHS quadruple aim by ensuring that the military force is medically ready to deploy; the military beneficiary population remains healthy through focused prevention; patient care is convenient, equitable, safe, and of the highest quality; and the total cost of healthcare is reduced through the reduction of waste and focus on quality

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Title: Virtual Lifetime Electronic Record (VLER) HEALTH	2.558	22.352	-
Description: Pursue the primary goal of the VLER Health initiative is to enable the secure sharing of health information (i.e., demographic and clinical data) between DoD and external Federal and private sector partners which meets Meaningful Use (MU) requirements to improve healthcare quality, safety, and efficiency.			
FY 2014 Accomplishments: Completed development and test of VLER Health 2.1.0.0 in support of expanding the VLER Health Exchange			
 FY 2015 Plans: Included in DMIX Data Exchange Initial Release Included in DMIX Data Exchange for DHMSM Integration testing Begin collapse of the BHIE DoD Adaptor and VLER DoD Adaptor to a single DoD Adaptor Begin upgrade of VLER DoD functionality limited to eHealth Exchange Gateway, GUI, C32/C62 generation 			
FY 2016 Plans: No funding programmed for this initiative in this program element.			
Accomplishments/Planned Programs Subtotals	2.558	22.352	-

PE 0605023HP: Integrated Electronic Health Record (iEH... Defense Health Program

Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Health Program								Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)			
0130 / 2				PE 0605023HP I Integrated Electronic				449A I Virtual Lifetime Electronic Record			
Health Record (iEHR)						(VLER) HEALTH					
C. Other Program Funding Summa	ry (\$ in Milli	ons)		,				•			
		•	FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete 7	Total Cost
• BA-1, PE 0807784: Integrated	3.900	6.299	-	-	-	-	-	-	-	Continuing (Continuing
Electronic Health Record (iEHR)											
• BA-3, PE 0807784: Replacement/	-	0.938	-	-	_	_	-	-	_	Continuing (Continuing
Modernization, Integrated											
Electronic Health Record											

Remarks

D. Acquisition Strategy

Evaluate and use the most appropriate business, technical, contract and support strategies and acquisition approach to minimize costs, reduce program risks, and remain within schedule while meeting program objectives. Strategy is revised as required as a result of periodic program reviews or major decisions.

E. Performance Metrics

Each program establishes performance measurements which are usually included in the MHS IT Annual Performance Plan. Program cost, schedule and performance are measured periodically using a systematic approach.