

2011 Military Health System Conference

DoD/VA Health Information Technology (IT) Data Sharing to Benefit Our Patients

The Quadruple Aim: Working Together, Achieving Success

Lois Kellett, Joseph Gardner, and Katharine Murray

January 25, 2011



Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 25 JAN 2011	2. REPORT TYPE	3. DATES COVERED 00-00-2011 to 00-00-2011			
4. TITLE AND SUBTITLE DoD/VA Health Information Technology (IT) Data Sharing to Benefit Our Patients		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Military Health System, TRICARE Management Activity, 5111 Leesburg Pike, Skyline 5, Falls Church, VA, 22041		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES presented at the 2011 Military Health System Conference, January 24-27, National Harbor, Maryland					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 39	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Session Objectives



- Upon completion of the presentation, participants will:
 - Discuss the current DoD/VA health data sharing initiatives
 - Identify how providers currently access health data through the Departments' electronic health records
 - Discuss factors influencing the need to broaden data sharing initiatives to include private sector and other agency providers

DoD/VA Data Sharing Stakeholders



- Beneficiaries
- Providers
- Military Services
- Government Accountability Office
- Office of Management and Budget
- Congress
- Executive Branch



Military Health System (MHS)



- Over 9.6 Million Beneficiaries
 - 42% active duty, 58% retirees and dependents
- Direct Care:
 - Over 720 fixed medical and dental facilities
- Purchased Care:
 - Over 350,000 Civilian Providers accept TRICARE



MHS Electronic Health Record (EHR) Footprint (Sustaining Base)



Supporting transient patient populations and transient health care teams

- AHLTA – Worldwide
 - Covers Every Time Zone
 - 9.6 Million Beneficiaries
 - 162 Million Outpatient Encounters
 - 148,000 Additional Encounters/Day
 - 77,000 Active Users
 - White House Medical Unit

- MHS Inpatient Solution
 - 53 Sites (over 86% of DoD Inpatient Beds)
 - Continued Deployment in FY 2011



MHS EHR Footprint (Theater)



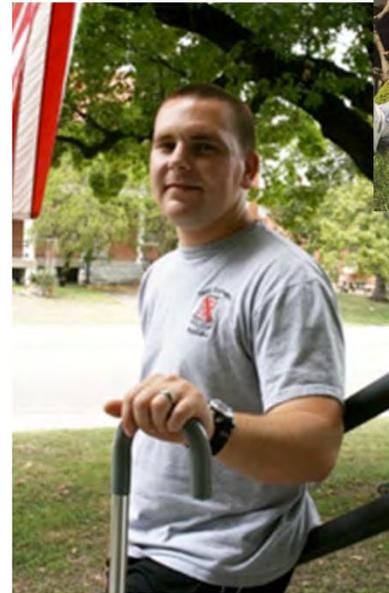
- Operation Enduring Freedom/
Operation Iraqi Freedom
 - Over 3.7 Million Outpatient and 51,000 Inpatient Clinical Encounters captured electronically
 - Over 8.6 Million Orders for Ancillary Services (inpatient and outpatient laboratory, radiology, and pharmacy)
 - Iraq, Qatar, Kuwait, Afghanistan
 - EHR capability on board ships



Department of Veterans Affairs



- Over 8.1 million enrollees
 - Increase of over 105 percent since 1995 (2.5 million enrollees)
- Over 5.7 million patients
 - Older, sicker and poorer patient populations
- Over 1,300 Direct care sites
 - 152 medical centers/hospitals
 - 784 clinics (hospital, community-based and independent)
 - 277 counseling centers
 - 134 nursing homes



Source: VHA Statistics, VHA Policy and Planning, October 7, 2010

Department of Veterans Affairs *(continued)*



- Over 86,000 Health Care Providers
 - 15,000 Physicians
 - 38,000 Nurses
 - 33,000 Allied Health Professionals
 - 10,000 *fewer* employees than 1995
- Affiliations with 127 Academic Health Systems
 - 25,000 affiliated physicians, 36,000 residents and fellows, and 25,000 medical students
 - 114,000 trainees in all disciplines
 - Nearly half of all US health professionals (65% of US physicians and 50% of US psychologists) have had some training in a VA facility
- \$1.7 Billion in Research (Rehabilitation, Health Services, Clinical, and Basic)



Motivations for Sharing Data



- Close proximity or co-located facilities
 - Joint venture sites/local sharing agreements
- Reserve/Guard medical care
 - Care in VA post-demobilization
 - Care in MHS when remobilized
- Service members post-separation
 - Continuity of care
 - Determination of benefits



Point of Separation



305 million messages (DoD to VA) on 5.3 million retired or discharged Service members

- Lab results
- Radiology reports
- Outpatient Rx data
- Allergy information
- Discharge summaries
- Consult reports
- Admission/discharge/transfer information
- Standard ambulatory data record elements
- Demographic data
- Pre-/post-deployment health assessments
- Post-deployment health reassessments*



**Transmitted weekly for individuals referred to VA for care or evaluation*

Shared Patients



Supports care for more than 3.9 million patients to date

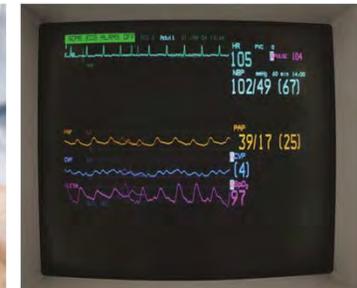
DoD providers access VA data through AHLTA

VA providers access DoD data through *VistA CPRS or VistAWeb

Specialists in VBA access DoD data through *CAPRI

- Allergies
- Outpatient pharmacy
- Demographics
- Inpatient and outpatient lab results
- Radiology reports
- Ambulatory encounter notes
- Procedures
- Problem lists

- Inpatient notes (from DoD Essentris sites)
- Theater clinical data
- Vital signs
- Family history, social history, other history
- Questionnaires



- * VistA – Veterans Health Information Systems and Technology Architecture
- * CPRS – Computerized Veterans Health System
- * CAPRI – Compensation and Pension Record Interchange

File Edit View Go Tools Actions Help

BHIE-AHLTA Screen

ALLE 1988

Folder List

- Desktop
- Notifications (19)
- Appointments
- Telephone Consults (1)
- Search
- New Results (34)!
- Tasking
- Co-signs (4)
- Sign Orders
- Consult Log
- Patient List
- CHCS-I
- EWSR
- VisualDX
- Patient Registries
- Reports
- Tools
- Web Browser
- Order Management
- ALLEN, LAB
- Demographics
- Documents
- Health History
- Problems
- Meds
- Allergy
- Wellness
- Immunizations
- Vital Signs Review
- PKC Couplers
- Readiness
- DD2766
- Patient Questionnaires
- DoD/VA/Theater History**
- Profiles/Restricted
- Lab
- Radiology
- Clinical Notes
- Previous Encounters
- Flowsheets
- Current Encounter
- Screening & Vitals
- Triage

Appointments DoD/VA/Theater History

BHIE Data Viewer Module

Patient Data

 **BHIE-AHLTA**  

[Allergy](#)
[Clinical Notes](#)
[Encounters](#)
[Histories](#)
[Laboratory](#)
[Problems](#)
[Outpatient Medications](#)
[Questionnaires](#)
[Radiology Reports](#)
[Vitals](#)

[Patient Summary](#)

Data

In AHLTA, the user selects “DoD/VA/Theater History” to launch the viewer

Display includes data currently available from Veterans Health, Theater, CHCS Share

BEST_ONE in Blue MTF at 4th Medical Group

Vista CPRS in use by: _____

File Edit View Tools Help

ZZTEST,VADOD ONE Visit Not Selected Primary Care Team Unassigned

000-00 Sep 20 Current Provider Not Selected

VistaWeb Remote Data No Postings

Available Reports

- HDR Reports
 - Dept. of Defense Reports
 - Allergies
 - Expanded ADT
 - Consults (DOD Remote data only)
 - Discharge Summary
 - Histories (DOD Remote data only)
 - Family History
 - Social History
 - Other Past Medical History
 - Laboratory
 - Outpatient Encounter
 - Pharmacy All Outpatient
 - Progress Notes
 - All Problem List
 - Questionnaires (DOD Remote data only)
 - Radiology Report

Histories (DOD Remote data only) Social History [From: Oct 23,2008 to Oct 23,2009] Max/site:101 <<ONLY REMOTE DOD DATA INCLUDED IN RE...

Facility	Date Reported	Finding	Comme...	Status	Date/Time of O	Source
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:32	marital history - wi...		Active	Unknown	
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:32	sexually active...		Active	Unknown	
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:32	social history revi...		Active	Unknown	
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:32	activities of daily li...		Active	Unknown	
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:31	daily coffee consu...		Active	Unknown	
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:31	smoking...		Active	Unknown	
D. D. Eisenhower AMC Ft Go...	09/30/2008 18:31	alcohol...		Active	Unknown	
Madigan AMC-Fort Lewis	09/29/2009 22:31	No current diet ins...		Active	Unknown	/
Madigan AMC-Fort Lewis	09/29/2009 22:28	current diet less th...		Active	Unknown	/
Madigan AMC-Fort Lewis	09/29/2009 22:28	birth control metho...		Active	Unknown	/
Madigan AMC-Fort Lewis	09/29/2009 22:28	birth control not pr...		Active	Unknown	/

Date Range

- Today
- One Week Back
- Two Weeks Back
- One Month Back
- Six Months Back
- One Year Back
- Two Years Back
- All Results
- T-732 to T

MEDCIN Finding ID
122412
Reported By
Unverified (Reported By Patient)
No
Facility: D. D. Eisenhower AMC Ft Gordon GA

Cover Sheet | Problems | Meds | Orders | Notes | Consults | Surgery | D/C Summ | Labs | Reports

In Vista CPRS, the user selects the Remote Data button to launch the Remote Data Viewer, or the VistaWeb button to launch VistaWeb

vistaWEB

Logoff

- [-] Histories and Questionnaires (DoD Remote Data Only) †
- [-] Laboratory
 - [-] Autopsy
 - [-] Blood Availability
 - [-] Blood Transfusion
 - [-] Blood Bank Report
 - [-] Surgical Pathology †
 - [-] Cytology †
 - [-] Electron Microscopy
 - [-] Lab Orders †
 - [-] Chem & Hematology †
 - [-] Microbiology †
 - [-] Lab Summaries
- [-] Anatomic Path Reports
- [-] Medicine
- [-] Orders
- [-] Outpatient Encounters/GAF
- [-] Pharmacy *
- [-] Problem List †
- [-] Progress Notes †
- [-] Other Notes
- [-] Radiology
- [-] Surgery Reports
- [-] Vital Signs † *
- [-] Health Summaries (MIA)
- [-] Health Summaries (BIL)
- [-] Health Summaries (HUV)
- [-] Health Summaries (BRX)
- [-] Health Summaries (SDC)
- [-] Health Summaries (BED)
- [-] Health Summaries (IND)
- [-] Health Summaries (NOP)

Lab Orders

ZZTEST,VADOD ONE (00

VistAWeb Patient Record Screen

This page uses pop-up windows. [Click here for help on enabling pop-ups.](#)

Date Range: Today One Week Two Weeks One Month Two Months Six Months One Year Two Years All Dates

From: (mm/dd/yyyy) To: (mm/dd/yyyy)

Query

[Print Report](#)

Collection Date	Test Name	Specimen	Urgency	Provider	Ordered Date	Accession #	Available Date	Status	Site
12/30/2009 10:46	XX DIFF	BLOOD	ROUTINE	SERBAS,JEOSALINA N	12/30/2009 10:45	091230 HE 8550	12/30/2009 10:52	COMPLETE	NH CAL PENDING
11/24/2009 08:50	DIFF COUNT (BLOOD)	BLOOD	ROUTINE	WADE,C	11/24/2009 08:50	HE 1124 203	11/24/2009 08:53	COMPLETED	INDIAN VAMC
11/24/2009 00:00	PTT-NON THERAPY	PLASMA	ROUTINE	FABIAN,J	11/24/2009 12:08	NONE	UNKNOWN	ORDERED	BILOXI
10/20/2009 00:00	IRON PANEL	SERUM	ROUTINE	GONZALEZ,E	10/20/2009 11:04	NONE	UNKNOWN	ORDERED	BILOXI
10/16/2009 13:46	MRSA PCR SCREEN	NOSE	ROUTINE	ABREU-RUIZ	10/16/2009 13:46	NONE	UNKNOWN	ORDERED	TAMPA
08/28/2009 10:08	C & S	URINE	ROUTINE	GRAVLIN,K	08/28/2009 10:08	MI 09 5659	08/28/2009 10:09	COMPLETED	ANN ARBOR VAMC
08/21/2009 13:16	HEPATITIS A AB,IgM..	SERUM	ROUTINE	DOCTOR,E	08/21/2009 13:16	BILPC 0821 69	08/25/2009 14:46	COMPLETED	BILOXI
08/20/2009 09:05	CBC WITH AUTOMATED DIFF~	BLOOD	ROUTINE	DR,REF	08/20/2009 09:05	090820 HEM 1990	08/20/2009 09:06	COMPLETE	EISENHART VAMC

C&P Exams | 7131 Request | Reports | Admin | Health Summaries | Clinical Documents | **DoD Records****NOTE: DoD data at shared sites is available immediately. All other sites will be available less than a week after discharge.**

Facility	Characteristic (Allergy Reactant)	Type
NH CAMP PENDLETON	PENICILLINS	Allergy
NH CAMP PENDLETON	ZOFRAN	Allergy
NH CAMP PENDLETON	BENZODIAZEPINES	Allergy
LANDSTUHL REGIONAL MEDCEN	BENZODIAZEPINES	Allergy
NH CAMP PENDLETON	CEPHALOSPORINS	Allergy
NH CAMP PENDLETON	TETRACYCLINES	Allergy

Graph Labs

Facility: NH CAMP PENDLETON
Characteristic (Allergy Reactant): PENICILLINS
Type: Allergy
Comments:
Reaction(s): Rash

Start Date:

Jan 6 2009

Stop Date:

Jan 6 2010

**CAPRI Patient Records Screen
– DoD patient data is available
on a separate tab**

Ready.

News

Vista

Computable Data



- Supports interoperability between DoD's Clinical Data Repository (CDR) and VA's Health Data Repository (HDR)
- Standardized, computable outpatient pharmacy and medication allergy data
- Computable data supports real time drug-drug and drug-allergy checks using data from both DoD and VA
 - For shared patients set as “active dual consumers,” data is seen enterprise-wide



AHLTA Medication Profile

DoD/VA ADC
Status Indicator

VA DoD Options X

Search Filter: Outpatient Current

Origin	Medication Name	Sig	Refills	Status	OTC	Last Filled Date	Ordering Provider	Order Start Date	Order Expiration Date	Facility/CHCS Host	Or
DoD	LISINAPRIL, 20MG, TABLET, ORAL	T1 TAB PO QD #90 RF3	3 of 3	Active		06 Oct 2005	GBTETER, G	06 Oct 2005	06 Oct 2006	NMC Portsmouth	05
DoD	THIAMINE HCL, 50MG, TABLET, ORAL	TID	2 of 3	Active		23 Sep 2005	DOCTOR, CHEW/BACCA	23 Sep 2005	23 Sep 2006	NMC Portsmouth	05
DoD	SPIRONOLACTONE, 25MG, TABLET, ORAL	#30 RFD	NR	Expired		31 Aug 2005	GBTETER, G	30 Aug 2005	29 Sep 2005	NMC Portsmouth	05
DoD	CIMETIDINE, 200MG, TABLET, ORAL	TID #30 RF1	1 of 1	Active		25 Aug 2005	GBTETER, G	25 Aug 2005	25 Aug 2006	NMC Portsmouth	05
VA	RETIN-A (TRETINOIN), 0.025%, CREAM(GM)	AAA UD #1 RF1	1 of 1	Expired		Not Recorded		26 Feb 2001	26 Feb 2002	13th & Mission Dom	01
VA	TIAZAC (DILTIAZEM HCL), 120MG, CAPSULE SA, OF	TID #30 UD RF1	1 of 1	Active		Not Recorded		10 Aug 2005	10 Aug 2006	VA Pacific Islands HCS	05
VA	TIAZAC (DILTIAZEM HCL), 120MG, CAPSULE	TID #30 UD RF1	1 of 1	Expired		Not Recorded	LRPROVIDER, ONE	10 Aug 2005	07 Sep 2005	13th & Mission Dom	01
Other	IBUPROFEN (IBUPROFEN), 100MG/5ML, ORAL SUS		1 of 3	Active		Not Recorded	AA2544458	23 Aug 2005	Not Recorded	Not Available	05
VA	FISH OIL (OMEGA-3 FATTY ACIDS), CAPSULE, ORAL	TID #30 UD RF1	1 of 1	Active		Not Recorded		31 Aug 2005	30 Aug 2006	VA Pacific Islands HCS	05
Other	IBUPROFEN (IBUPROFEN), 100MG/5ML, ORAL SUS		3 of 3	Active		Not Recorded		09 Sep 2005	Not Recorded	Not Available	18
VA	VITAMIN A (VITAMIN A), 25000 UNIT, CAPSULE, OR	TID #30 UD RF1	1 of 1	Active		Not Recorded		31 Aug 2006	30 Aug 2007	VA Pacific Islands HCS	05

Origin Column Indicates Source of Data (VA, DoD, Other (PDTs))

Color Indicates Source (Lt Blue = VA, Yellow=PDTs)

Facility/CHCS Host Column displays "Not Available" from PDTs

OTC is an over-the-counter drug.

Allergies: Allergies:

Age: 30yo Sex: F LMP: Not Recorded Pregnant: No

Details

Medication Name	NDC
IBUPROFEN (IBUPROFEN), 100MG/5ML, ORAL SUSP, ORAL, ALPHARMA US, 473 ml BOTTLE	00472-1270-16

Medication:

Sig:

Quantity: 120.0

Refills: 3 Status: Active Order Number:

Refills Remaining: 3 Order Start Date: 08 Sep 2005@2000

Days of Supply: 4 Order Expiration Date: Not Recorded Comment:

Origin: PDTs Last Filled Date: Not Recorded

Facility/CHCS Host: Not Available Event Date: Not Recorded

Dispensing Location: WALGREEN DRUG STORE

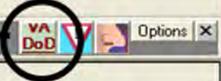
Ordering Provider: AA2544458

Close Detail

Origin, Facility and Dispensing Location Detail

AHLTA Allergy Profile

DoD/VA ADC Status Indicator



- Folder List
 - Desktop
 - Alert Review
 - Appointments
 - Telephone Consults
 - Search
 - Patient List
 - Consult Log
 - Co-signs
 - Sign Orders
 - New Results
 - Reports
 - Tools
 - Web Browser
 - CHCS-I
 - Immunizations Admin
 - GRISCOM, MISS Q
 - Demographics
 - Health History
 - Problems
 - Meds
 - Allergy
 - Wellness
 - Immunizations
 - Vital Signs Review
 - PKC Couplers
 - Readiness
 - Patient Questionnaires
 - Lab
 - Radiology
 - Clinical Notes
 - Previous Encounters
 - Flowsheets
 - Current Encounter
 - Screening
 - Vital Signs Entry
 - S/O
 - A/P
 - Disposition

Allergen	Reaction	Onset Date	Info Source	Entered By	Comments	Origin	Facility/CHCS Host
Cephalosporins	Rash	06 Oct 2005	Patient	GBTESTER, G		DOD	NMC Portsmouth
SODIUM CHLORIDE	Other: SPIN-DIZZIES	15 Jul 2005	Unknown Source of Info	BDRST, SCOTT E	Scott's Test 09/02/2005	VA	Abuquerque Army Hospital
SODIUM ITRATE	Other: SPIN-DIZZIES	15 Jul 2005	Unknown Source of Info	BDRST, SCOTT E	Scott's Test 09/02/2005	VA	Abuquerque Army Hospital
Sulfa-Drugs	Urticaria	06 Oct 2005	Patient	GBTESTER, G	Two and three equals five.	DOD	NMC Portsmouth

Lt Blue Color Indicates Source is VA

Origin Column Indicates Source of Data (DoD or VA)

Allergen: Cephalosporins Origin: DOD

Onset Date: 06 Oct 2005 Entered By: GBTESTER, G

Reactions: Rash

Info Source: Patient Facility/CHCS Host: NMC Portsmouth

Comments:

- Reminders
 - 1 Hour Glucose Tolerance Test (GTT)
 - Amblyopia & Vision Screen
 - Anemia Screen
 - Anti-Tobacco Counseling

Vista/CPRS Medication Alert

File Edit View Act...

Pt Inst Flag Remote Data Available No Postings

Action	Outpatient Medications	Expires	Status	Last Filled	Refills Rem...
	*SIMVASTATIN 40MG TAB Sig: TAKE 1/2 TABLET B *TO LOWER CHOLESTE JUICE*USE TABLET CUT				
	*LISINAPRIL 40MG TAB Q Sig: TAKE ONE-HALF TA BLOOD PRESSURE*USE				
	*LORAZEPAM 1MG TAB Q Sig: TAKE THREE TABLE				

Medication Order

ERYTHROMYCIN TAB.EC Change

Dosage	Complex	Route	Schedule	PRN
250MG		ORAL	Q24H	<input type="checkbox"/>
250MG	0.0364	ORAL	Q24H	<input type="checkbox"/>
500MG	0.0728		Q28D Q2H Q30D	<input type="checkbox"/>

Comments:

Days Supply: 90 Qty (TAB): 90

Patient Instruction: UNTIL ALL ARE TAKEN

Order Checking

CRITICAL drug-drug interaction: ERYTHROMYCIN & SIMVASTATIN (SIMVASTATIN TAB 40MG TAKE 1/2 TABLET BY MOUTH EVERY EVENING FOR 90 DAYS *TO LOWER CHOLESTEROL*AVOID GRAPEFRUIT AND ITS JUICE*USE TABLET CUTTER change from 20 40 mg. [ACTIVE])

CRITICAL drug-drug interaction: ERYTHROMYCIN & SIMVASTATIN (SIMVASTATIN 20MG TAB TAKE ONE TABLET BY MOUTH EVERYDAY IN THE EVENING TO LOWER CHOLESTEROL # 90 RF3[ACTIVE] >> NH Great Lakes IL)

Priority: ROUTINE

MAXIMUM OF 30 DAYS/FILLDO NOT CRUSH****

ERYTHROMYCIN TAB.EC 250MG
TAKE ONE TABLET BY MOUTH EVERY 24 HOURS UNTIL ALL ARE TAKEN
Quantity: 90 Refills: 0 Accept Order Quit

Action	Non-VA Medications	Inpatient...	Stop Date	Status	Location

Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

Wounded Warrior Image Transfer



Digital radiology images and scanned medical records for severely wounded warriors sent from DoD to VA when the decision is made to transfer the patient (inpatient to inpatient)



Data push at time of referral



- Walter Reed Army Medical Center
- National Naval Medical Center
- Brooke Army Medical Center



- Tampa Polytrauma Center
- Palo Alto Polytrauma Center
- Minneapolis Polytrauma Center
- Richmond Polytrauma Center

From 2007 to present:

- Images for more than 335 patients
- Scanned records for more than 420 patients

Image Sharing – Pilot Project



- El Paso imaging demonstration project
 - Radiology images shared between a limited number of DoD and VA facilities and users in a specified geographic region
 - Lessons learned and technology components will be leveraged for enterprise-wide image sharing

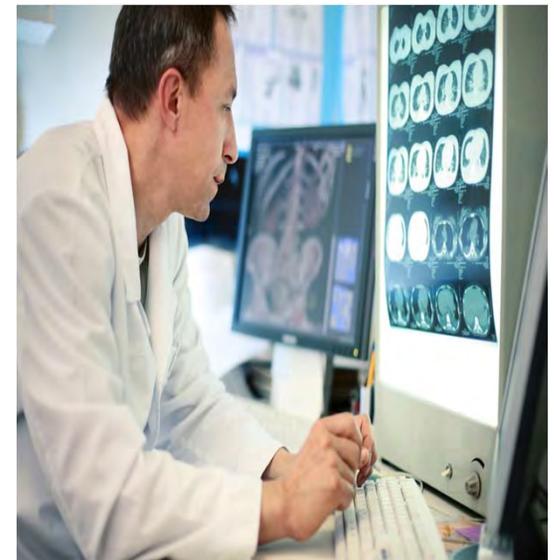


Image Sharing – DoD Future Capability



- DoD Health Artifact and Image Management Solution (HAIMS)
 - Web-based solution
 - Key capabilities: Import, view, manage, edit, register, and store
 - Successfully demonstrated initial capability to share scanned artifacts with VA, in a test environment, in September 2009
 - DoD Limited User Testing began December 2009 at the first site

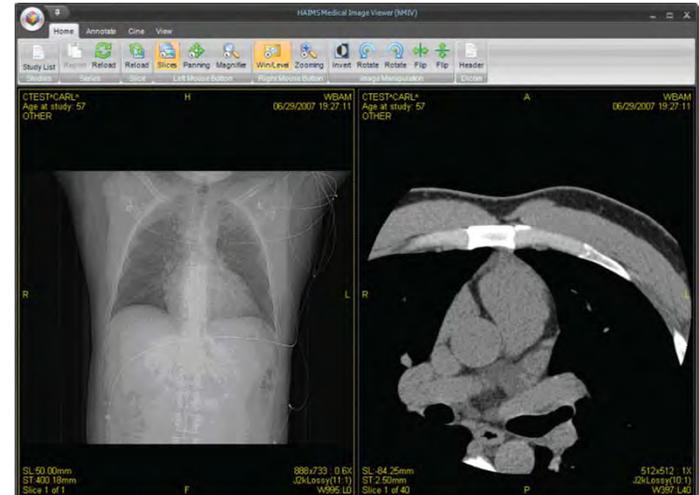
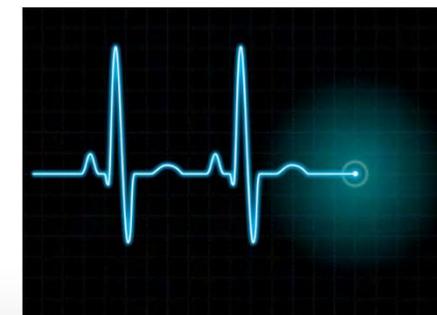
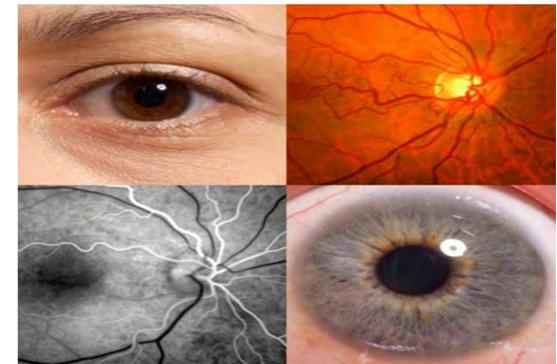
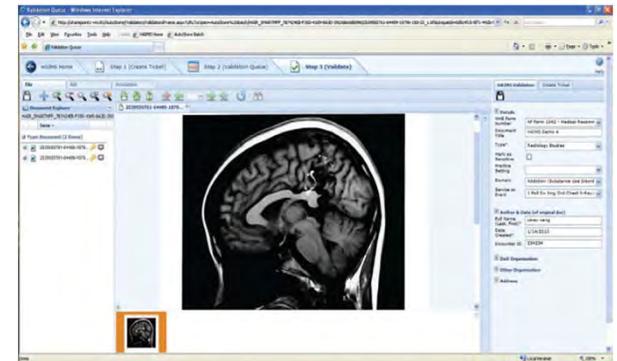


Image Sharing – DoD Future Capability

(continued)



- DoD Health Artifact and Image Management Solution (HAIMS) (continued)
 - Global awareness of and global access to artifacts and images, including:
 - Scanned documents
 - Digital radiographs (X-rays, CTs, MRIs, mammography, and sonograms)
 - Clinical photographs (endoscopy, laparoscopy, retinal scans, and anatomic pathology)
 - Video
 - Cardiographic EKGs and echocardiographs



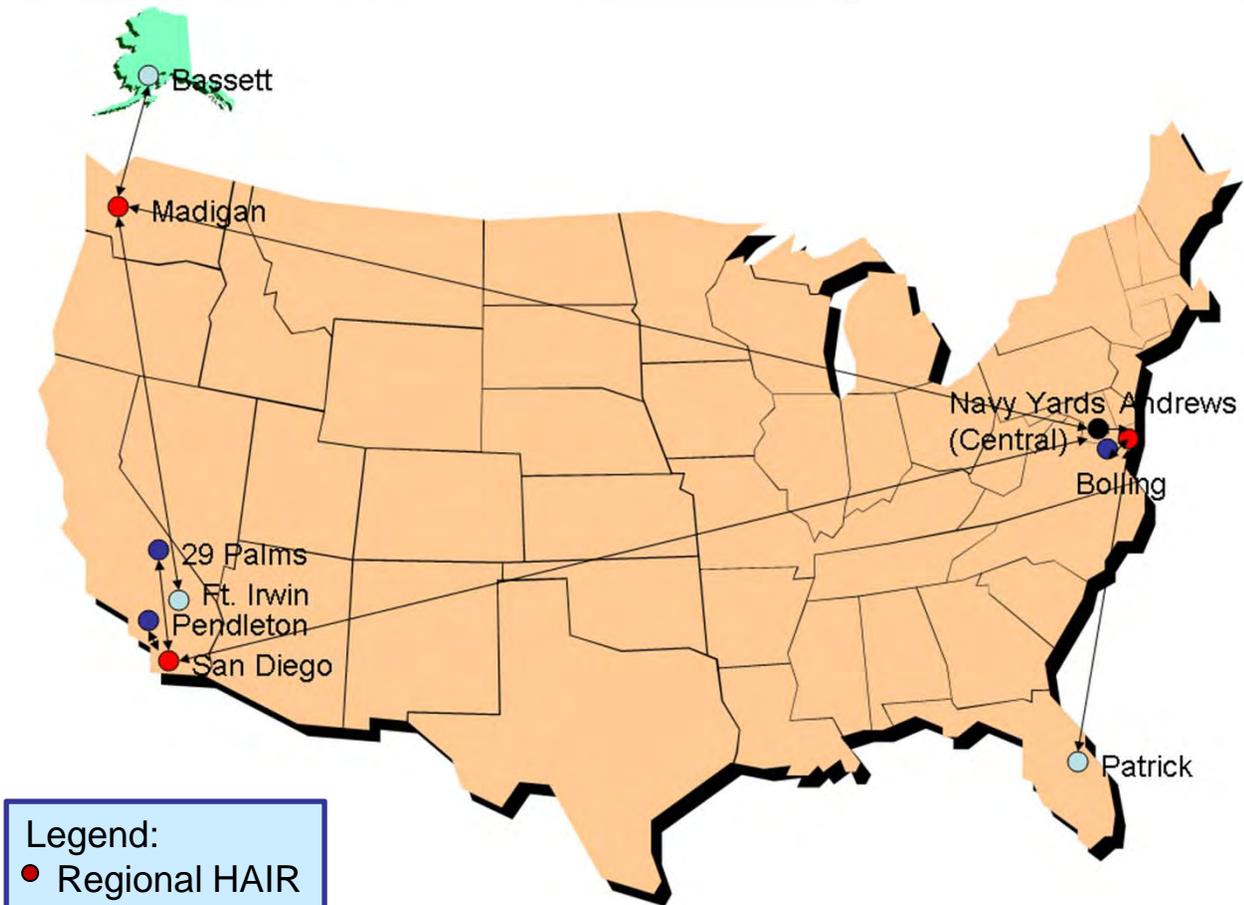
HAIMS Limited User Test Sites



- Army
 - Madigan
 - Large
 - Ft. Irwin
 - Medium
 - Bassett
 - Small

- Navy
 - Balboa
 - Large
 - 29 Palms
 - Medium
 - Pendleton
 - Small

- Air Force
 - Andrews
 - Large
 - Patrick
 - Medium
 - Bolling
 - Small



Legend:

- Regional HAIR
- PACS Adapter
- Web Link
- Central HAIR

- HAIR – Health Artifact Imaging Repository
- PACS – Picture Archiving System

Image Sharing – VA Capability



- VA VistA Imaging System
 - Facilitates clinical decisions
 - Provides clinicians with multimedia component of patient record
 - Images are integrated into patient record
 - Records are available on the clinician's desktop
 - Enables VA image sharing enterprise-wide
 - Clinical images, scanned documents, motion video, electrocardiograms and other non-textual data files
 - VA enhancements will enable view of DoD HAIMS data
 - DoD scanned documents (neuro-cognitive assessment tool data)
 - Radiological images

Image Sharing – VA Capability *(continued)*



- VistARad
 - Over 40 million studies viewed
 - Studies viewed per month: about 550,000
 - More than 140,000-150,000 studies interpreted each month
 - Studies viewed remotely per month: 35,000-45,000
- Clinical Capture and Display
 - 1-1.4 million images captured every month
 - As of October 2010, 60+ million images captured
 - 9-12 million images viewed monthly
 - More than 1.6 million scanned documents captured every month
- TeleReader (Diabetic Retinopathy Screening)
 - 450,115 studies completed (more than 4.0 million images)
 - In October 2010, 12,501 studies were completed

VHA – VistA Imaging



The screenshot displays the VistA Imaging software interface with several windows open:

- Vista Imaging Display:** The main window at the top left, showing a menu bar (File, Options, View, Reports, System Manager, Help) and a toolbar with various icons.
- Vista Imaging EKG Display: MADTL,F:** Two EKG traces are visible. The top trace is labeled "Resting 08/13/1997 09:45:00" and "BAL". The bottom trace is labeled "Resting 07/30/1997 09:01:00" and "BAL". Both traces show waveforms for leads aVR and V4.
- Abstracts: MADTL,F:** A window showing a list of medical abstracts. The first entry is "12 of 12 Images match Filter: * Clinical All". Below this, there are thumbnails for "1 CONSULT MFR NOTE 09/28/200" and "2 OPHTHOLOG OPH 08/29/200".
- Active Problems:** A list of medical conditions including "Diabetes", "Chronic Ischem", "Need For Pro", "Diverticulosis", and "Hemorrhage".
- Full Resolution View: MADTL,F:** A window showing a detailed view of a sigmoid colon diverticula. It includes a toolbar with navigation and zoom controls, and a grid of four images. The top-left image is titled "SIGMOID COLON DIVERTICULA COL 12/24/19". The top-right image is titled "SIGMOID COLON DIVERTICULA COL 03/24/19". The bottom-left image is titled "SIGMOID COLON DIVERTICULA COL 03/24/19". The bottom-right image is titled "COLON 7/28/97 COL 07/28/1997".
- Tools - Help:** A window showing a toolbar with navigation and zoom controls, and a large circular angiogram image. The image is titled "ANGIO VISCERAL SELECT CP [8x880x880]".

Interoperability



- National Defense Authorization Act (NDAA) FY 2008, Section 1635 required DoD and VA to “develop and implement electronic health record (EHR) systems or capabilities that allow for full interoperability of personal health care information by September 30, 2009”
- DoD/VA Interagency Clinical Informatics Board (ICIB) identified high-level interoperability objectives



Interoperability *(continued)*



- ICIB Interoperability Objectives:
 - Expand DoD Essentris (inpatient documentation system) sites
 - Demonstrate the operation of Multipurpose Partnership Gateways
 - Share DoD social history data with VA
 - Demonstrate initial capability for DoD to scan medical documents and share with VA
 - Share DoD periodic health assessment data with VA
 - Share DoD separation physical exam information with VA



What's Next?



- Expand inpatient documentation sharing
 - Continue DoD Essentris deployments in FY 2011
 - Increasing access to DoD inpatient documentation to 90% of total DoD inpatient beds by September 2011
- Continue to expand the document scanning and image sharing capability
 - DoD HAIMS deployment to additional Limited User Testing sites in FY 2011
 - DoD and VA schedule for completing implementation of this capability
- Improve usability and other enhancements as defined by functional users
- ICIB objectives for FY 2011 and beyond



James A. Lovell Federal Health Care Center, North Chicago



Baseline Functional Requirements

- *December 2010*
 - Build a Single Patient Registration process
 - Create Medical Single Sign-On with Patient Context Management
 - Initial Release for Clinical users
 - Follow-up work on administrative users

- *2011 – Single Order Entry process (orders portability) for:*
 - Laboratory and Radiology (March)
 - Pharmacy (December)
 - Consults

PROUD TO PARTNER



EXCELLENCE IN FEDERAL HEALTH CARE!
North Chicago VA Medical Center Naval Health Clinic Great Lakes



A Look to the Future



- DoD and VA currently share significant and unprecedented amounts of health data
- More than half of DoD and VA health care comes from private sector providers
- DoD and VA need access to private sector health documentation to create a true lifetime electronic health care record

A Week in the MHS



- **21,800 Inpatient Admissions**
 - 5,000 direct care
 - 16,800 purchased care
- **1.6 Million Outpatient Visits**
 - 737,000 direct care
 - 876,400 purchased care
- **103,000 Dental Visits**
 - Direct care only
- **3.5 Million Claims Processed**
- **2.48 Million Prescriptions**
 - 914,000 direct care
 - 1.37 million retail pharmacies
 - 200,000 mail order
- **2,380 Births**
 - 1,010 direct care
 - 1,370 purchased care



Average Monthly Purchased Care in VA



- In FY 2009, VA processed a total of 1.7 million purchased line items for non-VA medical care with the following monthly averages:
 - 234 unique patients for pharmacy
 - 11,051 unique patients for inpatient admissions
 - 72,659 unique patients for outpatient visits
 - 3,885 unique patients for dental visits
 - 213 unique patients for child birth delivery



Future State – Where Are We Going?



- On April 9, 2009, President Obama directed DoD and VA to create a Virtual Lifetime Electronic Record (VLER) that:

“will ultimately contain administrative and medical information from the day an individual enters military service throughout their military career and after they leave the military.”



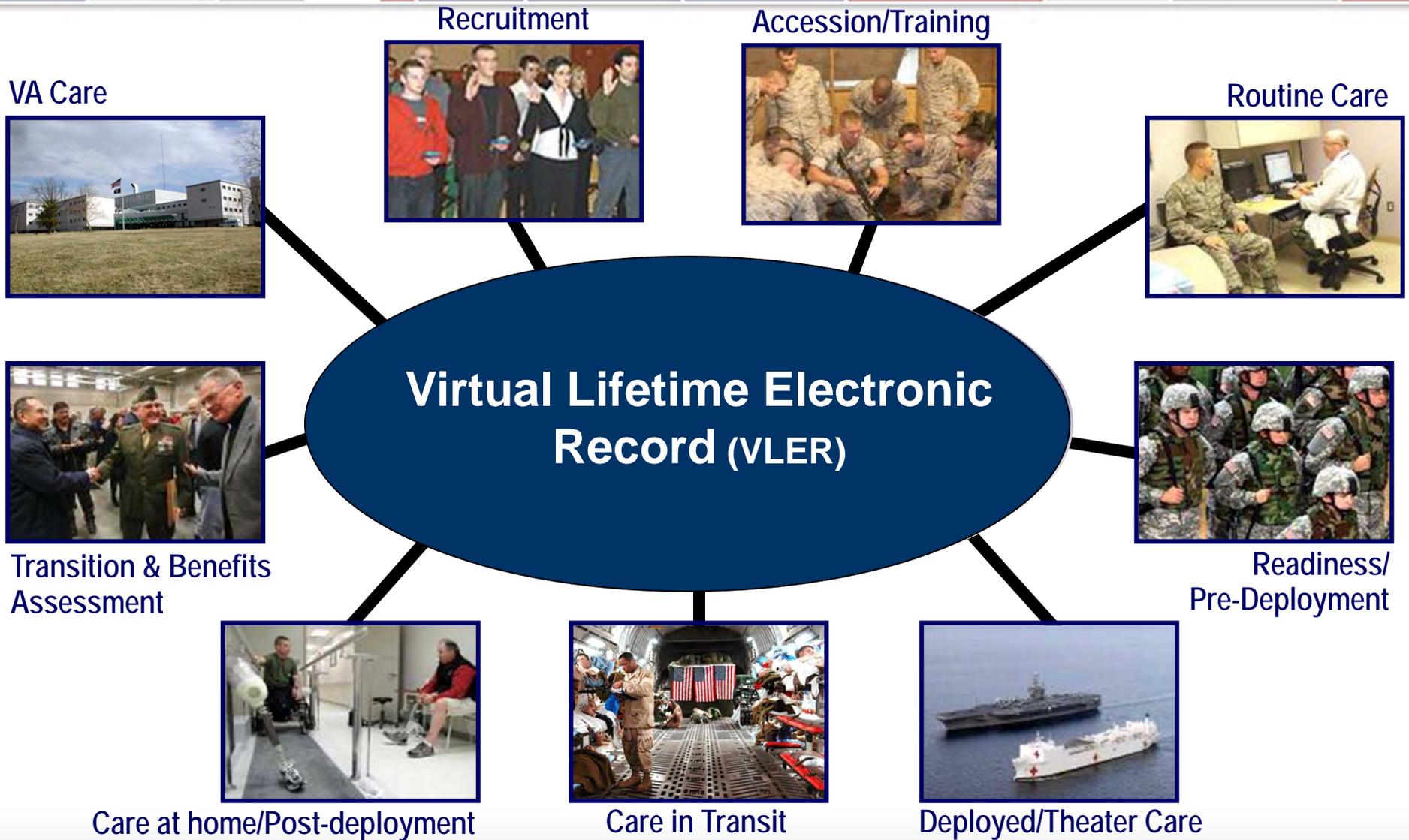
-President Barack Obama

Future State *(continued)*



- The goal of VLER is to provide seamless access to electronic records for Service members and Veterans through a single portal
 - No one should experience delays in access to services they earned while serving their country because of red tape and paperwork
- Success is dependent on the existence of an electronic health record capability in each participating organization. While VLER builds on that capability, the capability is separately developed and funded

Service Member Health Care Life-Cycle



Transition to Future State



Current DoD/VA Health Information Exchange

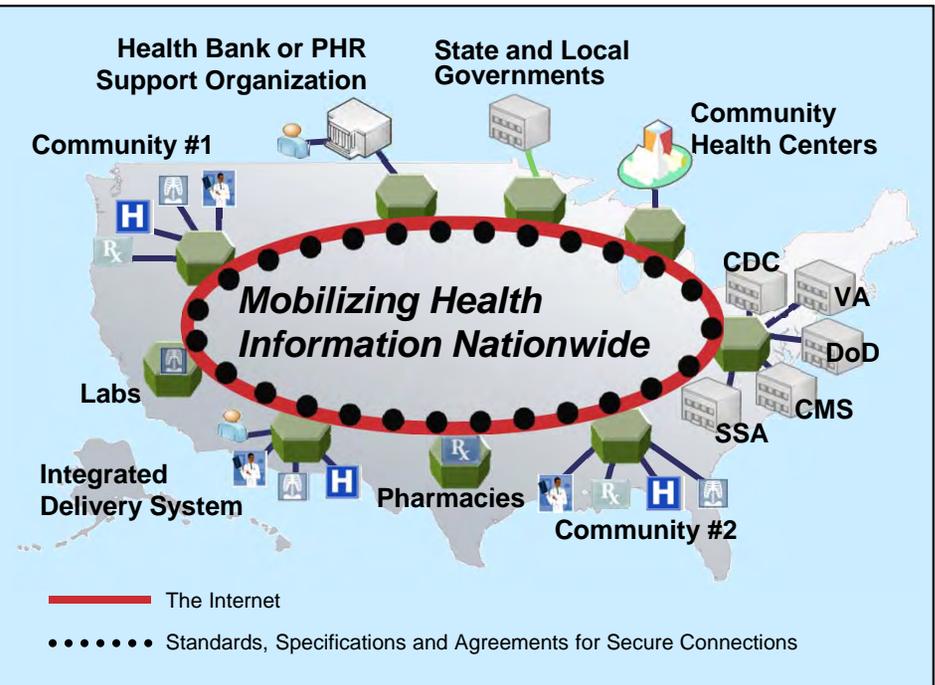
Historical data from 1989 forward, live data flow as of 2002, bidirectional data flow as of 2004, all DoD and VA medical facilities as of July 2007



- Health data on more than 5.3 million Service members
- 3.8 million correlated patients
- 83.9 million lab results
- 13.6 million radiology reports
- 86.4 million pharmacy records
- 101 million standard ambulatory data records
- 4.3 million consultation reports
- 2.8 million deployment-related health assessments on more than 1.2 million individuals

(As of November 30, 2010)

Planned Nationwide Health Information Network



Legend:

CDC – Centers for Disease Control & Prevention

CMS – Centers for Medicare & Medicaid Services

PHR – Personal Health Record

SSA – Social Security Administration



Questions and Contact Information

Lois Kellett
DoD OSD(HA)/MHS/OCIO
Director, Enterprise Relationship
Management

703-681-8836
Lois.Kellett@tma.osd.mil

Joseph Gardner
Deputy Director
VA/DoD Health Information Sharing

202-443-5429
Joseph.Gardner@va.gov

Katharine Murray
DoD OSD(HA)/MHS/OCIO
Enterprise Relationship Management
Chief, Interagency Coordination

703-681-8836
Katharine.Murray@tma.osd.mil