

# 2011 Military Health System Conference

## Big Things on the Horizon for Electronic Health Records and Communication with our Partners

*The Quadruple Aim: Working Together, Achieving Success*

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# Report Documentation Page

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# Agenda



- James A Lovell Federal Health Care Center (JAL FHCC)
- Virtual Lifetime Electronic Record (VLER)
- Electronic Health Records (EHR) Way Forward
- National Health Focus

# JAL FHCC

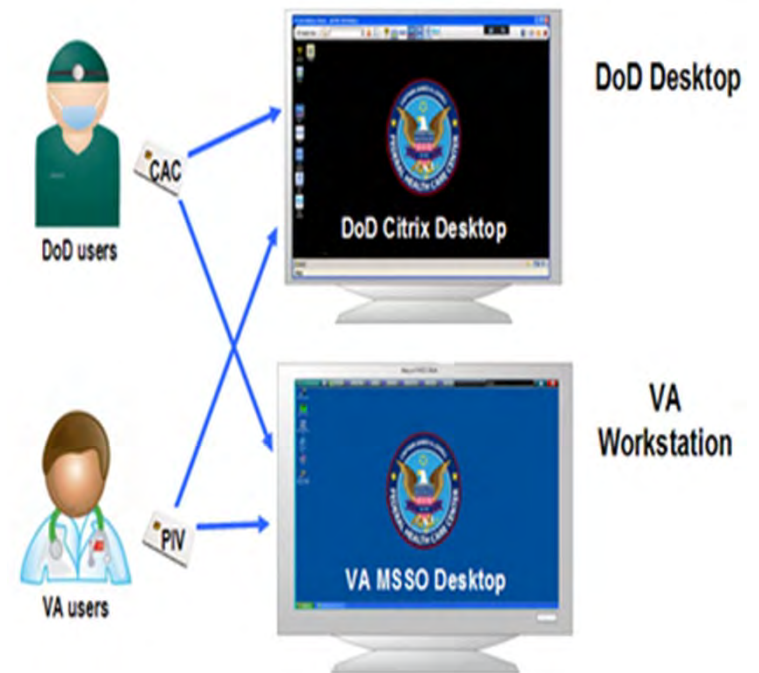


- First single, Fully Integrated Federal Health Care Center Between the VA and DoD
- Designed to improve access, quality, and cost effectiveness of health care delivery to beneficiaries of both DoD and VA

# JAL FHCC Capabilities Delivered



- **Single Patient Registration**
  - Sign on once with a DoD CAC or VA PIV
- **Medical Single Sign-On**
  - Find a patient one time in any application and other applications follow automatically





# JAL FHCC Future Capabilities



- **Orders Portability (OP) for Laboratory and Radiology**
  - View, manage and display in a computable format
  - Display images within either VHA or DoD imaging systems
  
- **OP Pharmacy**
  - Reconcile medication and allergies for all patients; reachable 24/7 for discharge medications
  
- **OP Consults**
  - Will allow consults and referral orders for processing for all patients using either DoD or VA health information system



# JAL FHCC- Screen Shots

Patient information is automatically found & displayed in other applications (context) including VistA & CPRS

The screenshot shows a Citrix desktop environment with several windows open. A yellow arrow points from the top of the desktop to the text above, and another yellow arrow points from the text above to the patient information in the VistA window.

**VistA North Chicago (vista.n.chicago.med.va.gov)**

Diagnosis: Hypertension, Chronic Obstructive Pulmonary Disease, Asthma, Congestive Heart Failure, Aspiration Pneumonia

Pregnancy: Jul 11, 2009  
Advance Directive: Oct 04, 2010  
Advance Directive: Aug 04, 2010  
Advance Directive - Code Status

Active Medications: No Active Medications Found

Clinical Reminders: HOW TO RESOLVE A REMINDER, Medication Reconciliation Review, ELEVATED LDL > 99 (CVD)

Due Date: DUE NOW, DUE NOW, DUE NOW

**CHCS:2w - Reflection for UNIX and OpenVMS**

Scheduled Appointments for ZZTEST,GLOBAL

Press <Return> to choose pre-selected appointment or use the SELECT key to de-select appointment or select an alternate appointment.

Linking of orders provides workload credit to the clinic associated with the appointment.

Date/Time	Clinic/Div	HCP	MEPRS/DMIS	Type	Status	Reason
15Dec@1200	BTFP/200H	QQQCHCSIITESTDOCTOR,	BGAA/0056	ACUT	KEPT	AHLTA
13Dec@1529	BTFP/200H	QQQCHCSIITESTDOCTOR,	BGAA/0056	ACUT	KEPT	AHLTA
05Dec@1152	BTFP/200H	LEE,NORMAN	BGAA/0056	OPAC	KEPT	AHLTA
04Dec@1556	INTM/200H	MALDONADO,FRANK A	BAAA/0056	ACUT	KEPT	AHLTA

**User Utility Menu ...**

Select Rad/Nuc Med Total System Menu Option: patient Profile Menu

Detailed Request Display  
Display Patient Demographics  
Exam Profile (selected sort)  
Outside Files Profile  
Profile of Rad/Nuc Med Exams

Select Patient Profile Menu Option: detailed Request Display

Select PATIENT NAME: zztest,global GLOBAL ZZTEST,GLOBAL 1-1-80 309010  
180P \*\*Pseudo SSN\*\* NO NSC VETERAN  
WARNING : \*\* This patient has been flagged with a Bad Address Indicator.  
Enrollment Priority: GROUP Bg Category: NOT ENROLLED End Date: 01/17/2003

\*\*\* WARNING \*\*\*  
\*\*\* PATIENT ENROLLMENT ENDED EFFECTIVE 01/17/2003 \*\*\*

\* The health record above contains sample test data used for demonstration purposes  
2011 MHS Conference

# JAL FHCC Challenges



- Complexity
  - Systems & Networks
  - Identity
  - Configuration Control
  
- Change Management





# VLER Concept



2010.12.20  
VLER CONCEPT

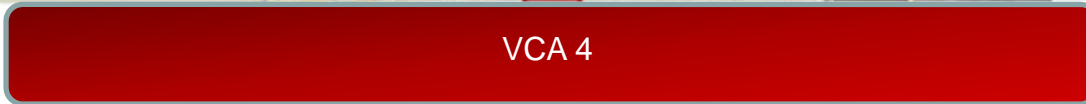


User Community

# VLER Capability Areas & Points of View

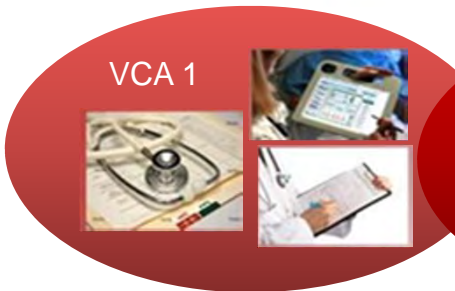


**VCA 4:** Single Virtual Access Point for Health & Benefits: Self Help for Service Members & Veterans



**VCA 2:** Health Data Exchange for Veterans Benefits Administration & Social Security Administration Disability Benefits: Adjudicators Helping Service Members and Veterans

**VCA1:** Foundational Clinical Health Data Exchange via Nationwide HIN: Clinicians Caring for Service Members & Veterans



**VCA 3:** Data Exchange for Housing, Insurance, Education & Memorial Benefits: Benefit Providers Helping Service Members and Veterans



# VLER Phase 1A Pilot Accomplishments



## Tidewater Pilot

- Successful demonstration of capability to exchange data through NwHIN
- Beta testing, HHS CONNECT software
- On-boarding process for admitting new members to NwHIN

## San Diego Pilot

- Demonstrated health information can be exchanged using NwHIN



# VLER Tidewater C32 Data Exchange



MedVirginia  
Continuity of Care Document

NOTE: This C32 may not constitute a complete record.

Summarization of Episode Note  
Created On: October 6, 2010

Patient: CHDRONE CHDRZZZTESTPATIENT Patient ID: 101725718EV295033  
1234 Howard St  
LA JOLLA, CA, 92038  
Birthdate: [REDACTED] Gender: M Marital Status: Married  
Language(s): ENL Religious Affiliation:  
Source: Department of Veterans Affairs

Table of Contents

- [Allergies](#)
- [Problems/Conditions](#)
- [Medications - Prescription and Non-Prescription](#)
- [Vital Signs](#)
- [Lab Results - Chemistry and Hematology](#)
- [Immunizations](#)

Allergies

Allergens	Reactions	Severity	Verification Date	Source	Event Type	Comments
CHOCOLATE	RASH	--	29 Aug 2008	EAST ORANGE VA 52N JERSEY HCS	Adverse reaction to substance	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.
PENICILLIN	DRY MOUTH, URTICARIA	--	14 Jun 2010	RAMPTON (VAMC)	Adverse reaction to drug	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.
ONYXODONE	ANXIETY	--	14 Jun 2010	RAMPTON (VAMC)	Adverse reaction to drug	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.
SHELLFISH	RASH, DIARRHEA	--	23 Sep 2008	SAN DIEGO HCS	Adverse reaction to food	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.
ASPIRIN	RASH, ITCHING OF EYE	--	23 Sep 2008	SAN DIEGO HCS	Adverse reaction to drug	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.
WATERPOX	ITCHING OF EYE, DIARRHEA, SWELLING	--	14 Dec 2008	SAN DIEGO HCS	Adverse reaction to food	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.
PEANUTS	RASH, SWELLING	--	18 Dec 2008	SAN DIEGO HCS	Adverse reaction to substance	This VA Document contains all allergies for the patient, from all VA treatment facilities, but it does not contain allergies that were deleted or entered in error.

\* The health record above contains sample data used for demonstration purposes

# Joint EHR Modernization Objectives



- “EHR modernization efforts provide the opportunity to implement standards-based Health IT solutions that will modernize existing Department EHR capabilities...and (provide) reduced sustainment costs.” \*

***To achieve these objectives, the Departments will widely integrate business requirements, acquisition and technical approaches.***

\*Joint Executive Council and Health Executive Council Report to Congress (RTC) on Defense and Department of Veterans Affairs Medical Information Technology.



# Joint EHR Modernization Objectives

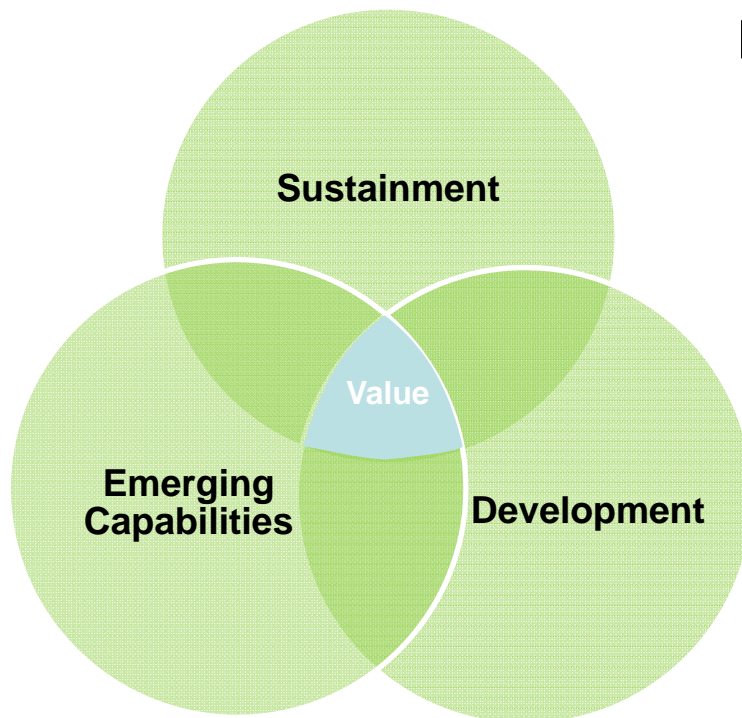


- Both Departments are working toward common objectives:
  - Effectiveness:
    - Provide a patient-centric health care experience
    - Improve the quality of delivered services
    - Ensure interoperability and data sharing between the departments
  - Efficiency:
    - Reduce overall cost of Health IT investments in acquisition, development and sustainment

# EHR Transformation Focus



## Military Health System EHR Efforts



- Clinical Informatics
- System Engineering
- Interagency Synchronization

### Sustainment

- Availability, Usability, Speed
- Establish a reasonable baseline (Theater & Garrison)
- Right people in the right seats
- Patient safety/compliance

### Development

- Engineering & Innovation
- Integration/Interoperability
- Repurposing

### Emerging Capabilities

- Functional & Technical testing labs
- Balance of Theater/Garrison priorities
- DoD/VA synchronization

# Mission Focused EHR Way Ahead Approaches\*

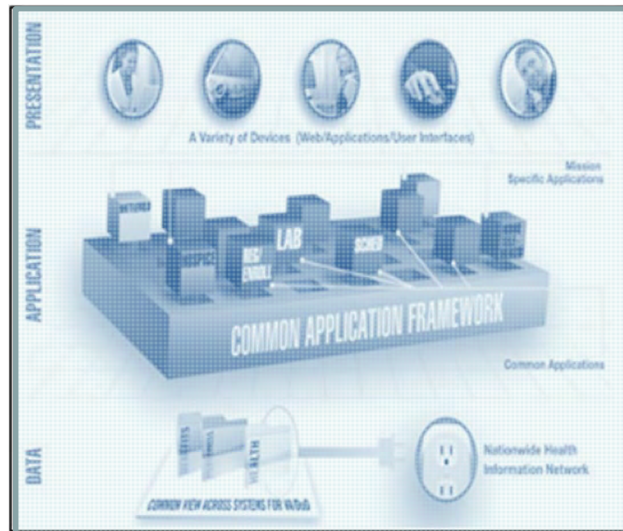


Figure 1: VA EHR Modernization Strategy

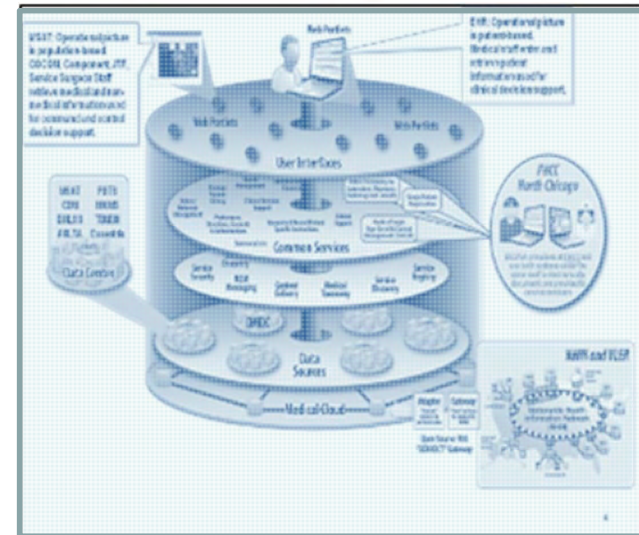
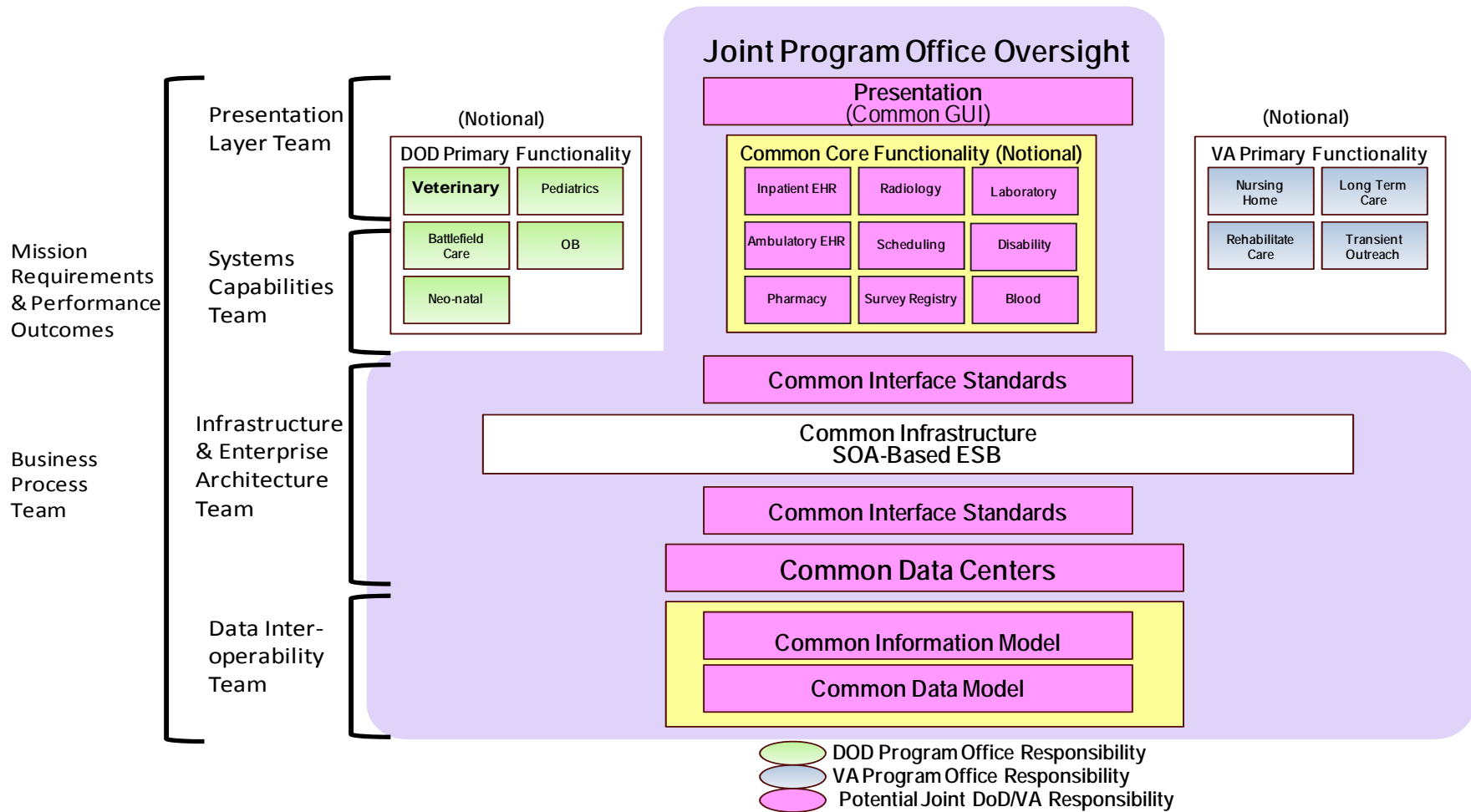


Figure 2: MHS Technical Modernization Strategy

VA Approach	DoD Approach
<ul style="list-style-type: none"> <li>• Employ an iterative, collaborative approach to evolving business processes</li> </ul>	<ul style="list-style-type: none"> <li>• Develop detailed “to be” workflow processes</li> </ul>
<ul style="list-style-type: none"> <li>• Leverage commercial innovation (open source)</li> </ul>	<ul style="list-style-type: none"> <li>• Use commercial off the shelf (COTS) software without modifications where possible</li> </ul>
<ul style="list-style-type: none"> <li>• Provide architecture and data management guidelines (SOA)</li> </ul>	<ul style="list-style-type: none"> <li>• Innovate at applications layer while using core common enterprise services (SOA)</li> </ul>
<ul style="list-style-type: none"> <li>• Build from VistA legacy using new application interface</li> </ul>	<ul style="list-style-type: none"> <li>• Use modular COTS upgrades to transition from legacy</li> </ul>

\* From Joint DoD and VA Health IT Modernization Way Forward briefing (7 October 2010)  
2011 MHS Conference

# Common Design Pattern & Framework



# EHR - Where We Are Now



## **DoD/VA interagency teams (working the “what”):**

- Mission requirements and performance outcomes
- Business processes
- Presentation layer
- Systems capabilities
- Infrastructure and enterprise architecture
- Data interoperability

## **Target outputs for path forward (addressing the “how”):**

- Agreement on a common vision and definition of an interagency EHR
- Produce a Clinical Interoperability Framework & Common Clinical Data Model
- Develop a Common Business Reference Model/Capability Taxonomy
- Establish a prioritized Common Clinical EHR Capability
- Develop a Common User Interface using user/patient centric agile methods
- Establish a common Segment Architecture Framework



# Intuitive Interface



\* The health record above contains sample data used for demonstration purposes

# The Blue Button- VA



UNITED STATES DEPARTMENT OF VETERANS AFFAIRS

VA Home **My healthvet**

May 2010 **Women's Health Month**

VA Facility Locator | About MHV | Help | FAQs | Contact MHV | Search:  **GO**

**HOME** | PERSONAL INFORMATION | PHARMACY | RESEARCH HEALTH | GET CARE | TRACK HEALTH | MHV COMMUNITY

IN CASE OF EMERGENCY | PROFILES | ACCOUNT | HEALTH INFORMATION CARD

### Personal Information

My HealtheVet (MHV) has made it easy to keep track of your Personal Information. MHV is all about you and your health. Part of your personal online health journal is your identification. When you registered for My HealtheVet, you entered important information about yourself. This is where you'll find it, along with other important facts like your login information, blood type and emergency contacts.

<b>In Case of Emergency</b>  Keep your emergency contacts in one place... <a href="#">More &gt;</a>	<b>My Profile</b>  Your name, address and identifying information... <a href="#">More &gt;</a>	<b>Download your Data</b>  Download, print, or share VA health data. It is simple, safe and reliable. <a href="#">More &gt;</a>	<b>My Account</b>  Manage your account, in-person authentication... <a href="#">More &gt;</a>	<b>Change your Password</b>  Change your My HealtheVet password here... <a href="#">More &gt;</a>
--	---	--	--	--

Member Logout

**Logout**

#### Quick Links

- [VA National Suicide Prevention Hotline](#)  
**If you are in crisis call: 1-800-273-TALK (8255)**
- [In-Person Authentication](#)
- [Flu Information](#)
- [My HealtheVet Learning Center](#)
- [VA Mental Health Services](#)
- [View the MHV](#)


View My Links Information (self-entered)  
(Personal Health Journal of )






# The Blue Button- TRICARE


Home   Resource Center   My Profile   Family Profile   Logout




**Welcome to TRICARE Online!**  
TRICARE Online features secure access to beneficiary appointments, prescriptions, and personal health data.

Welcome, [Redacted]

 [Secure Messaging Pilot Program](#)

 [Need Help? MHS Help Desk 1-800-600-9332 \(CONUS\) or 1-866-637-8725 \(OCONUS\)](#)

Looking for information about your benefits? [Visit the TRICARE Beneficiary Site](#)



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**Beneficiary Home**

Your Family's Sponsor is [Redacted] [Help](#)

Name	Date of Birth	Gender	Primary MTF
[Redacted]			

Family Member list last updated: 11/19/10 3:59 PM   [Refresh list of family members](#)

**Appointment Center** [Help](#)

 **Notice:** This site should not be used for emergency medical conditions. In the case of a medical emergency, call 911 or contact your local Emergency Medical Service.

Select Family Member:  [Go](#)

**Book an Appointment for Myself**

Select the visit reason from the list, click on the "View Appointments" button, and follow the steps.

**MTF Site Message:** MTF Specific Appointing Text

Select Visit Reason:  [View Appointments](#)


**View or Cancel Appointments for Myself**

There are no future appointments currently booked.

**Announcements** [view all](#)


- + [Coming soon: TRICARE Online family member booking!](#)
- + [Ensure you have access to upcoming TRICARE Online features!](#)

---

 Accessing your **Personal Health Data**, containing your labs, allergy profile, medication profile, problem list, and encounters.

---

**Refill**

 **Refill** and check status of your prescriptions. Access Mail Order Pharmacy

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**CHART**

 Access **CHART**, the Consolidated Health Assessment Reporting Tool, which combines health assessment and deployment-related questionnaires in one place.

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**eForms**

 Access **eForms** to complete your health-related paperwork electronically, prior to your appointment.



REPORT TO THE PRESIDENT  
REALIZING THE FULL POTENTIAL OF  
HEALTH INFORMATION TECHNOLOGY  
TO IMPROVE HEALTHCARE  
FOR AMERICANS:  
THE PATH FORWARD

Executive Office of the President  
President's Council of Advisors  
on Science and Technology

December 2010



# Wrap-Up



- Expectations for future VLER pilots and the future of the Virtual Lifetime Electronic Record
- Alternatives for the EHR Way Ahead
- Role of patients in future clinical work flow
- National focus on health care