



Virtual Lifetime Electronic Record:

VA's Experience With National Health Information Exchange

Greater Pittsburgh Chapter AAPC
November 20, 2012



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National Health Information Exchange: Why The Delay?

- ▶ “Hurricane Sandy took many lives and caused billions of dollars in damage. But so does a healthcare system that still refuses to embrace interoperability.”

<http://www.informationweek.com/healthcare/interoperability/national-health-information-exchange-why/240044378>

Background Information



What is VLER?

On April 9, 2009, President Obama directed the Department of Defense (DoD) and the Department of Veterans Affairs (VA) to create the Virtual Lifetime Electronic Record (VLER), which:



“... 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

Benefits of VLER Health

- Allows sharing certain parts of the electronic health record between VA, DoD and selected private health care providers over a secure network known as the **eHealth Exchange** (formerly Nationwide Health Information Network (NwHIN))
- Benefits Veterans and Service members who receive a portion of their care from non-VA health care providers
 - Eliminates need to hand-carry health records
 - Allows VA and private health care providers to share access to up-to-the-minute health information
 - Veterans may opt in or opt out at any time



Virtual Lifetime Electronic

Better enable VA and its partners to **proactively** provide the full continuum of services and benefits Veterans have earned **via Veteran-centric processes** made possible by effective and efficient, *standards-based information sharing*.



VA and DoD

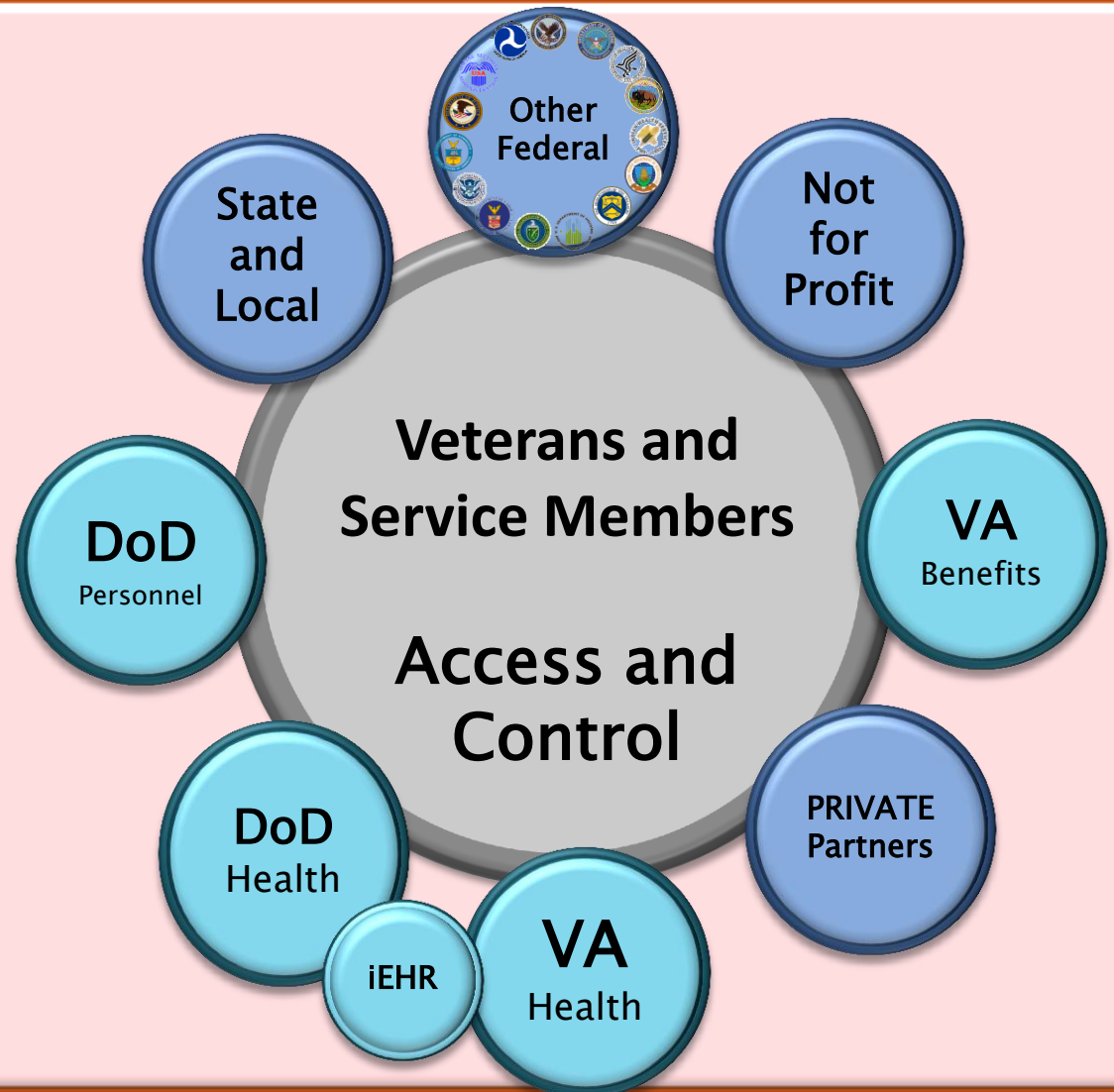


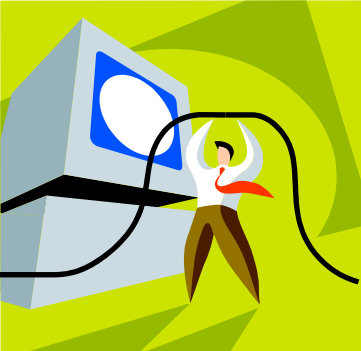
VA and DoD's partners

DoD = Department of Defense

iEHR = Integrated Electronic Health Record

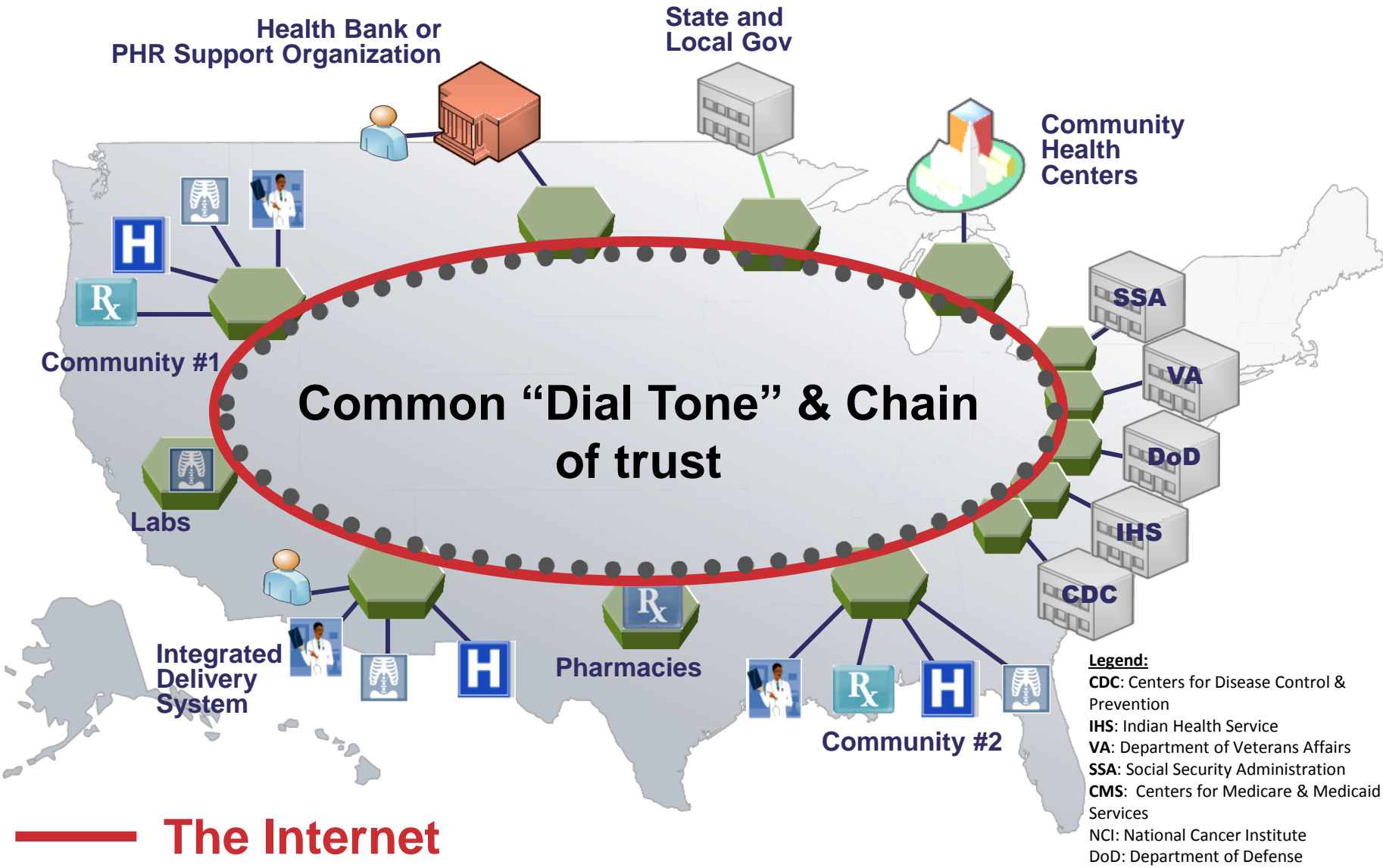
VA = Department of Veterans Affairs





What is eHealth Exchange?

- A program now under Healthway, a non-profit, public-private partnership developed to improve the quality and efficiency of healthcare by establishing a mechanism for nationwide health information exchange
- A common set of standards and specifications that provide the foundation for the secure exchange of health information that supports meaningful use
- Enable data exchange, whether between two different organizations across the street or across the country

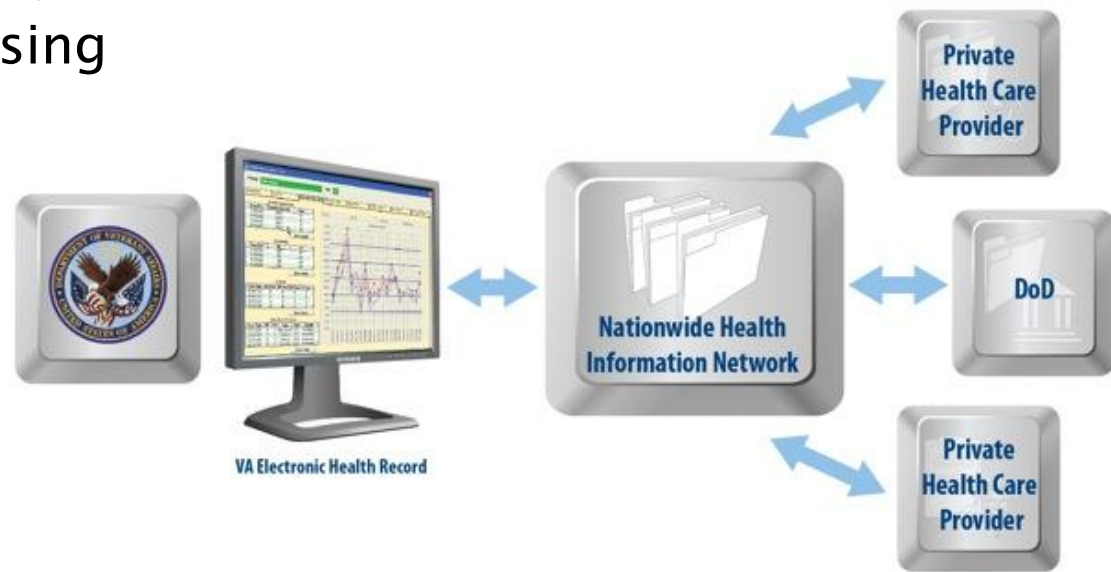


— The Internet

..... Standards, Specifications and Agreements for Secure Connections

eHealth Exchange (Formerly NwHIN)

- eHealth Exchange Direct
 - Trusted Network
 - Point-to-Point “Push” of clinical information using secure email
 - Standard or non-structured notes and reports
- eHealth Exchange
 - Trusted Network
 - Query and Retrieve methodology
 - Standards-based exchange of relevant clinical information



DURSA

- ▶ **Data Use and Reciprocal Support Agreement**
 - Legal agreement to promote and establish trust among multiple participants
 - Codifies common set of expectations into enforceable legal framework
 - Eliminates need for point-to-point agreements
 - Developed in coordination with Office of National Coordinator (ONC) in the US Department of Health and Human Services
 - Part of NwHIN trial implementations
 - “Network”: all of standards, services and policies identified by ONC that enables secure health info exchange via the Internet



Highlights of DURSA

- Applicable law
- Permitted Purposes
- Breach Notification

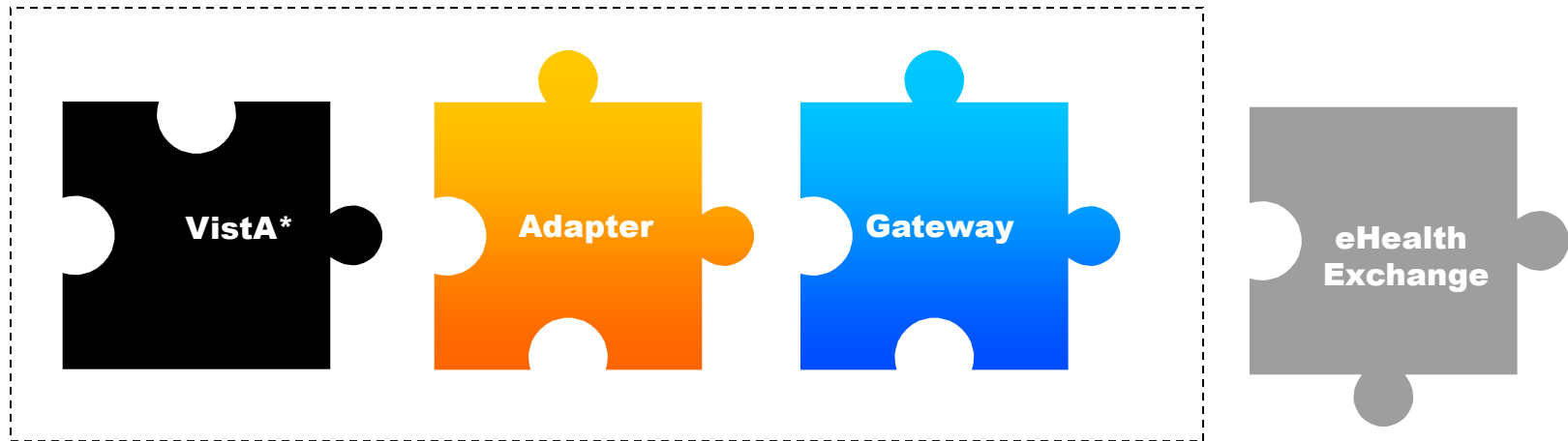


VLER –eHealth Exchange

- Exchange of foundational clinical health data set
 - **VA 2-Way Pilot Sites:**
 - Asheville, NC
 - Richmond, VA
 - Indianapolis, IN
 - Grand Junction, CO
 - Salt Lake City, UT
 - Buffalo, NY
 - Minneapolis, MN
 - Charleston, SC
 - Altoona, PA
 - **VA, DoD 3-Way Sites**
 - Hampton, VA
 - San Diego, CA
 - Spokane, WA
 - Puget Sound, WA



Connecting to the eHealth Exchange

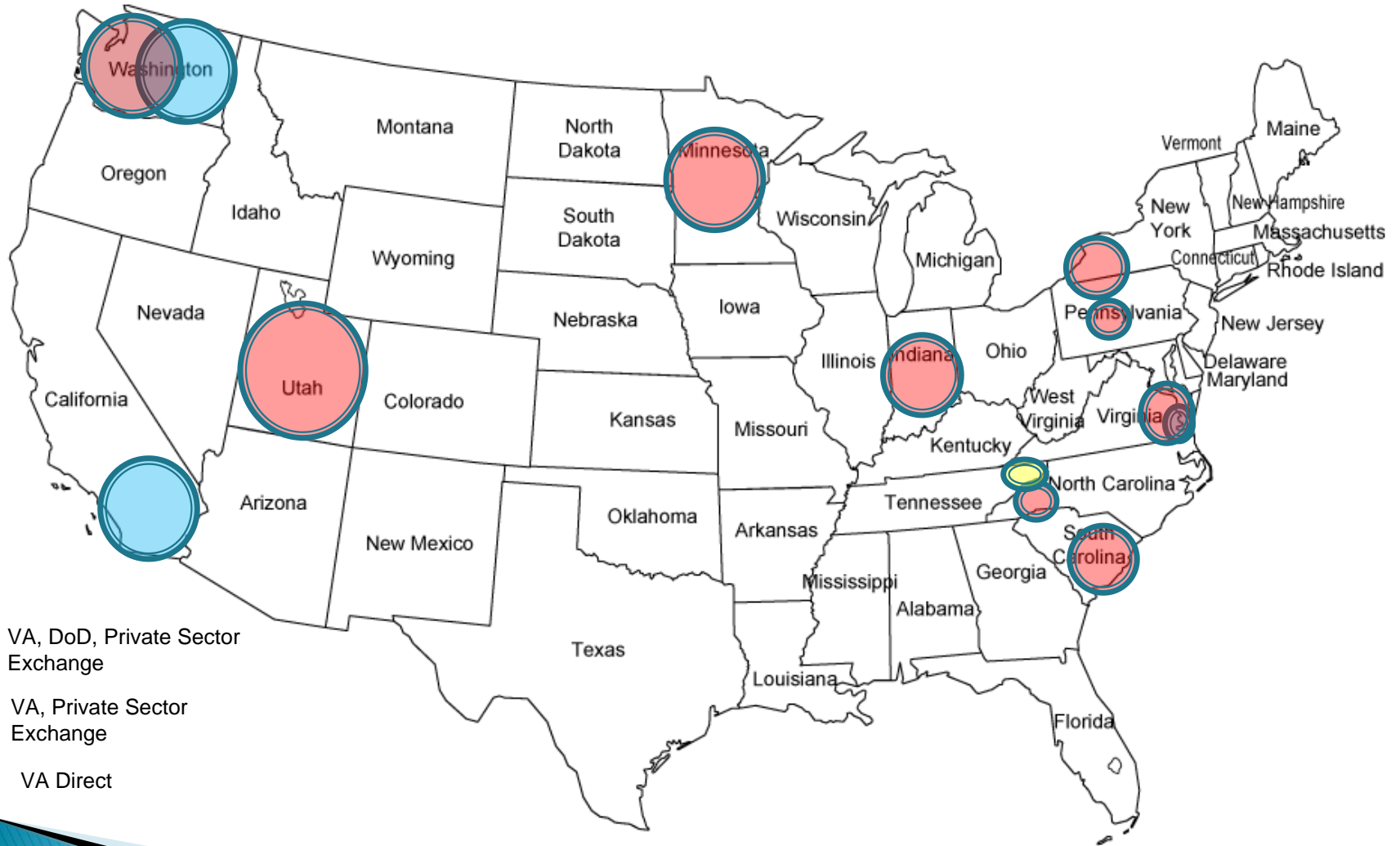


Adapter provides the services required to connect Source System and Gateway

Gateway provides the services required to connect to eHealth Exchange

*VistA = Veterans Health Information Systems and Technology Architecture

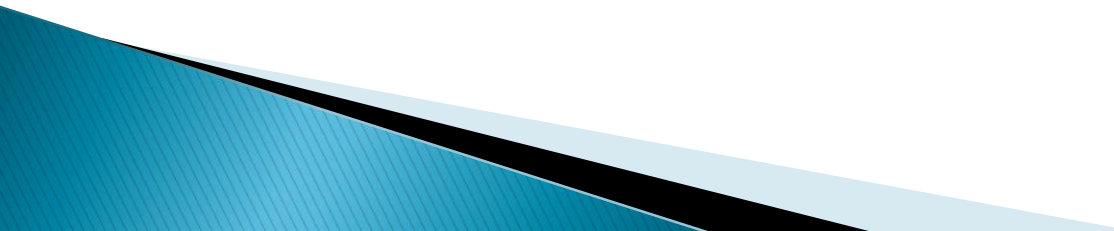
eHealth Exchange and Direct Projects



Role of Health Information Management (HIM)


- ▶ Administrative management of health records is the responsibility of HIM
- ▶ HIM professional is responsible for:
 - Both safeguarding and disclosing, as appropriate, health information according to applicable laws, organizational policies and standards
 - Honoring the patient's right to consent to authorize disclosure or restrict disclosure as permitted
 - Ensuring each request for patient data and health care information has a valid authorization prior to disclosure as required
 - Coordinating disclosures of protected health information (PHI)
 - Applying routine administrative processes to all requests, recording all disclosures, and accounting for any exceptions to routine processing

Patient Authorization Needs

- ▶ VA regulations require a Veteran's authorization to disclose health information pertaining to Title 38 U.S.C. 7332-protected conditions
 - ▶ Disclosing health information to DoD does not require an authorization
 - ▶ Private health partners may or may not require a Veteran's authorization, depending on their organizational policies and state regulations
- 

Authorization – VA Form 10-0485

I request and authorize my VA health care facility to release my protected health information (PHI) for treatment purposes only to the communities that are participating in the eHealth Exchange (formerly NwHIN).

 Department of Veterans Affairs		Request for and Authorization to Release Protected Health Information to Nationwide Health Information Network	
Privacy Act Information: The execution of this form does not authorize the release of information other than that specifically described below. The information requested on this form is solicited under Title 38, U.S.C. The form authorizes release of information in accordance with The Health Insurance Portability and Accountability Act, (HIPAA) 45 CFR Parts 160 and 164, 5 U.S.C. 552a, and 38 U.S.C. 5701 and 7332 that you specify. Your disclosure of the Information requested on this form is voluntary. However if the information containing last four of the Social Security Number (SSN) (the SSN will be used to locate records for release) is not furnished completely and accurately, Nationwide Health Information Network will be unable to comply with the request. The Veterans Health Administration may not condition treatment, payment, enrollment or eligibility on signing the authorization. VA may disclose the information that you put on the form as permitted by law. VA may make a "routine use" disclosure of the information as outlined in the Privacy Act systems of records notices identified as 24VA19 "Patient Medical Record - VA" and in accordance with the VHA Notice of Privacy Practices. You do not have to provide the information to VA, but if you do not the Nationwide Health Information Network exchange will be unable to process your request and serve your medical needs. Failure to furnish the information will not have any affect on any other benefits to which you may be entitled. VA may also use this information on this form to identify Veterans and persons claiming or receiving VA benefits and their records, and for other purposes authorized or required by law.			
Patient Full Name		First:	Middle:
Last: (print)			
Last four digits of SSN: _____			
Requestor Name: _____ VA Approved Nationwide Health Information Network Participants			
Information Requested:			
Pertinent health information from electronic health record.			
I request and authorize my VA health care facility to release my protected health information (PHI) for treatment purposes only to the communities that are participating in the Nationwide Health Information Network (NwHIN). This information may consist of the diagnosis of Sickle Cell Anemia, the treatment of or referral for Drug Abuse, treatment of or referral for Alcohol Abuse or the treatment of or testing for infection with Human Immunodeficiency Virus. This authorization covers the diagnoses and related health information that I may have upon signing of the authorization and the diagnoses and the related health information that I may acquire in the future, including those protected by 38 U.S.C. 7332.			
This authorization will remain in effect for the period of five years. I may revoke this authorization through the eBenefits portal, or in writing at my Release of Information (ROI) unit at the VA health care facility housing my records, at any time, except to the extent that action has already been taken to comply with it. Written revocation is effective upon receipt by the Release of Information (ROI). Re-disclosure of my electronic health records by those receiving the information may be accomplished without my further authorization and may no longer be protected.			
AUTHORIZATION: I certify that this request has been made freely, voluntarily and without coercion and that the information given above is accurate and complete to the best of my knowledge.			
_____		_____	
Signature of Patient		Date	

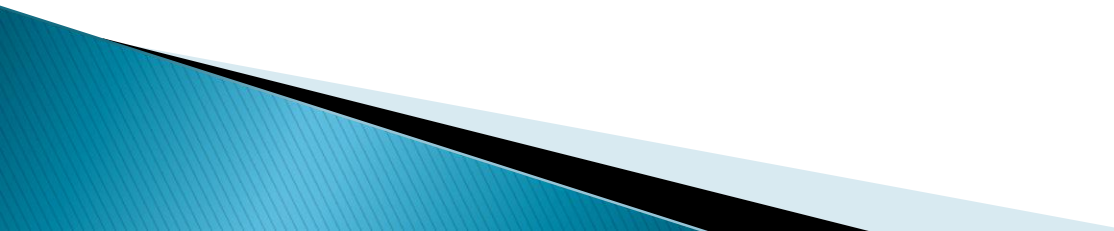
...for the period of 5 years.

Patient Authorization Examples

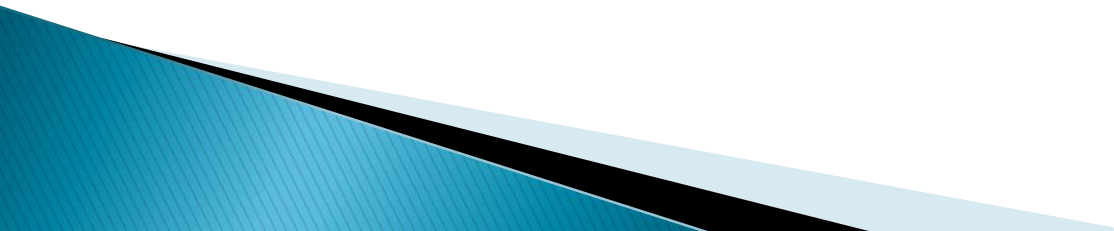
Organization	Consent model	Comments
VA	Opt in	Global to all eHealth Exchange participants, duration=5 years
DoD	Opt out	
Kaiser Permanente	Opt in	Opt-in approach taken for initial San Diego pilot
Utah Health Information Network	Opt in	Emergency case and one time authorization considered
MedVirginia	Opt out	
Inland Northwest Health Services	Opt out	
Multicare	Opt in	
Indiana Health Information Network	Opt out	
North Carolina Health Information Collaborative	Opt out	

NO information is shared until the patient **opts in** to participate
 Information **is** shared unless the patient **opts out**

Pilot Enrollment Process

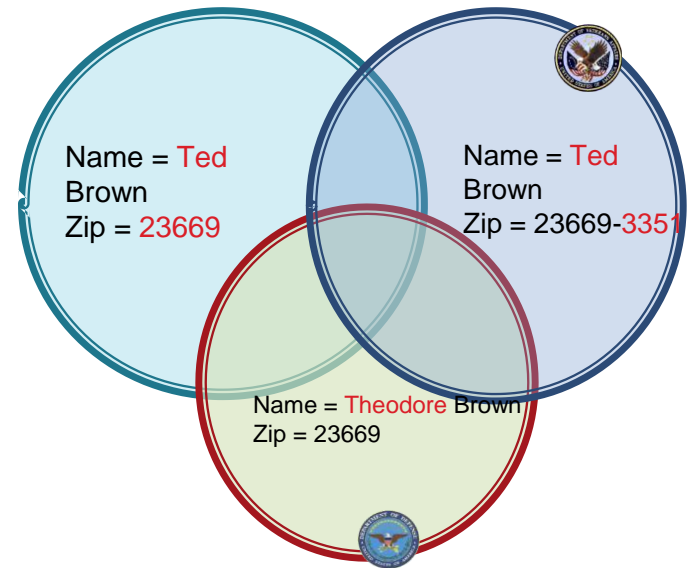
- ▶ Identify shared patients
 - ▶ Invite patients to join or hold Open Enrollment
 - ▶ Receive signed VA Authorization Forms
 - ▶ Validate authorization forms
 - ▶ Opt-in/ Announce using the Veterans Authorizations and Preferences (VAP) System
 - ▶ Store authorization forms
 - ▶ Generate letters and reports
- 

Challenges for VLER Health

- ▶ The pilot phase involves an initial flood of enrollment activities, with “trickle-down” expected
 - ▶ Short term ramp-up versus long-term sustainability
 - ▶ Managing the patient authorization process
 - ▶ System of Records and Retention Requirements
 - ▶ Incorporating non-VA health information without unnecessary use of copy/paste
 - ▶ Moving towards fine-grained restriction capabilities
- 

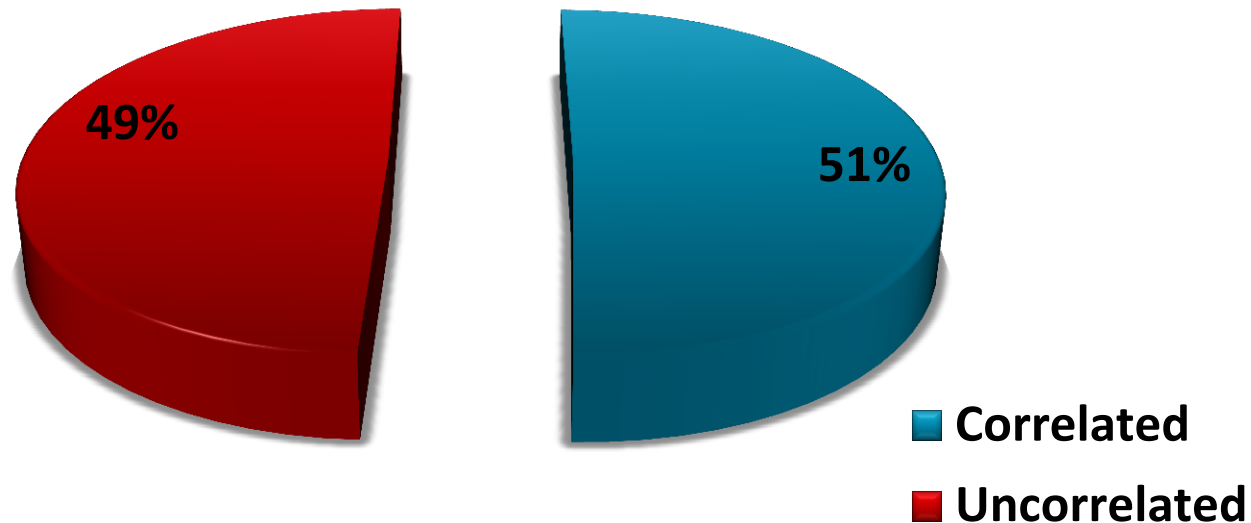
Challenges to Identity Management

- Patient identity format, volatile
- Successful matching based on
 - Full Name
 - Date of Birth
 - Gender
 - Full SSN
- Multiple assigning authorities
- Matching algorithm – deterministic vs. probabilistic
- Announcement strategy
 - Real-time with query for document
 - Ahead of time when patient authorization is received



Challenges to Identity Management

% Correlated vs. Uncorrelated

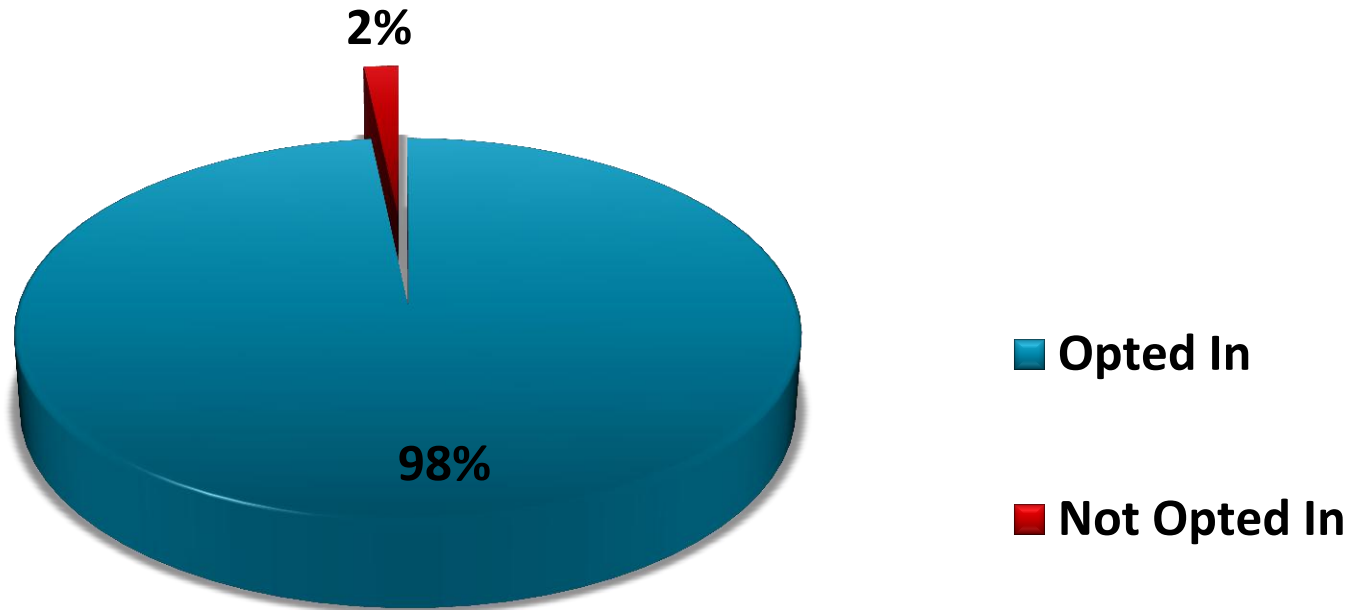


As of June 27, 2012

Our Success

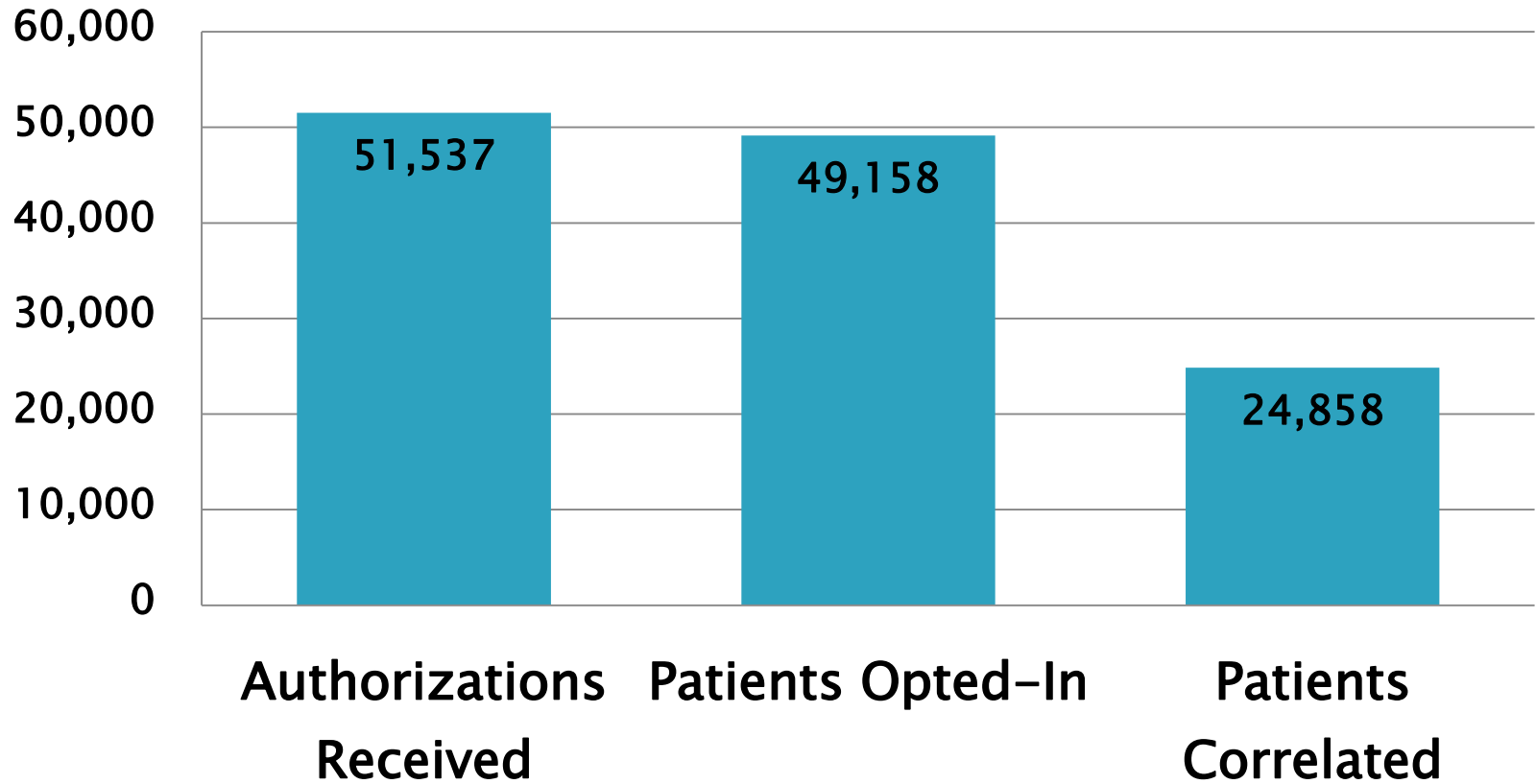
**Total Signed
Authorizations: 51,537**

% of Opted in Patients towards 50,000 Goal



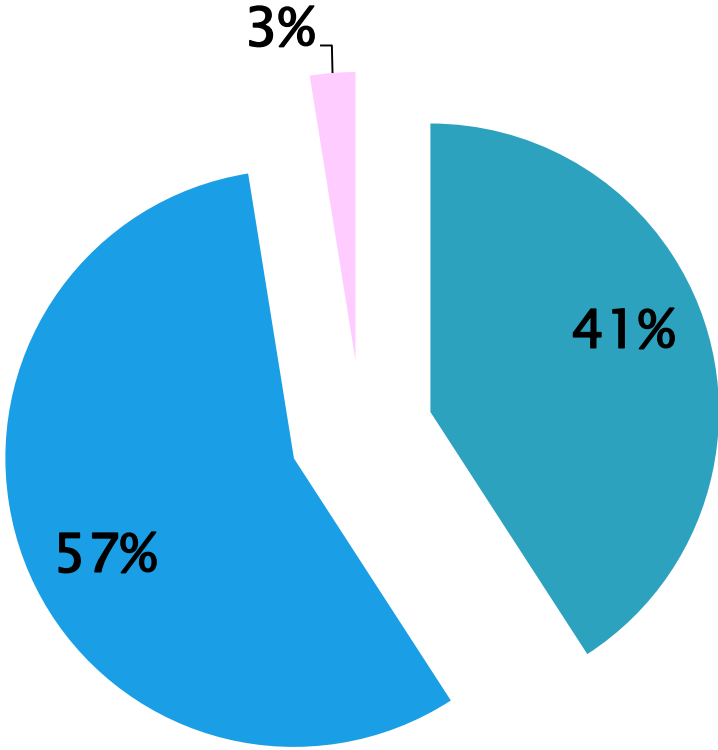
As of June 27, 2012

Our Success



As of June 27, 2012

Recruitment Method Success

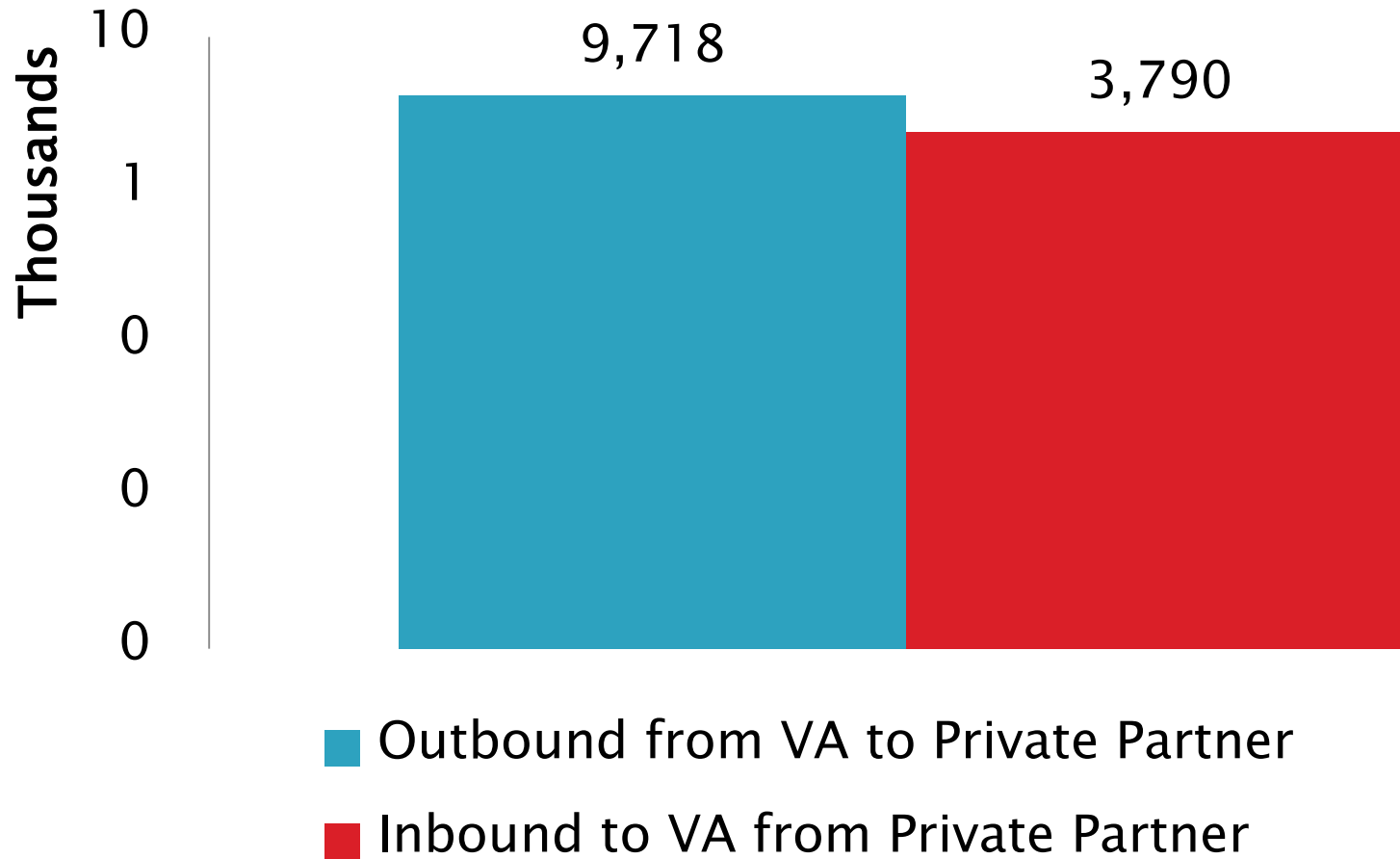


Enrollment Methods

- Mail-in Enrollment
- Walk-in Enrollment
- Online Enrollment

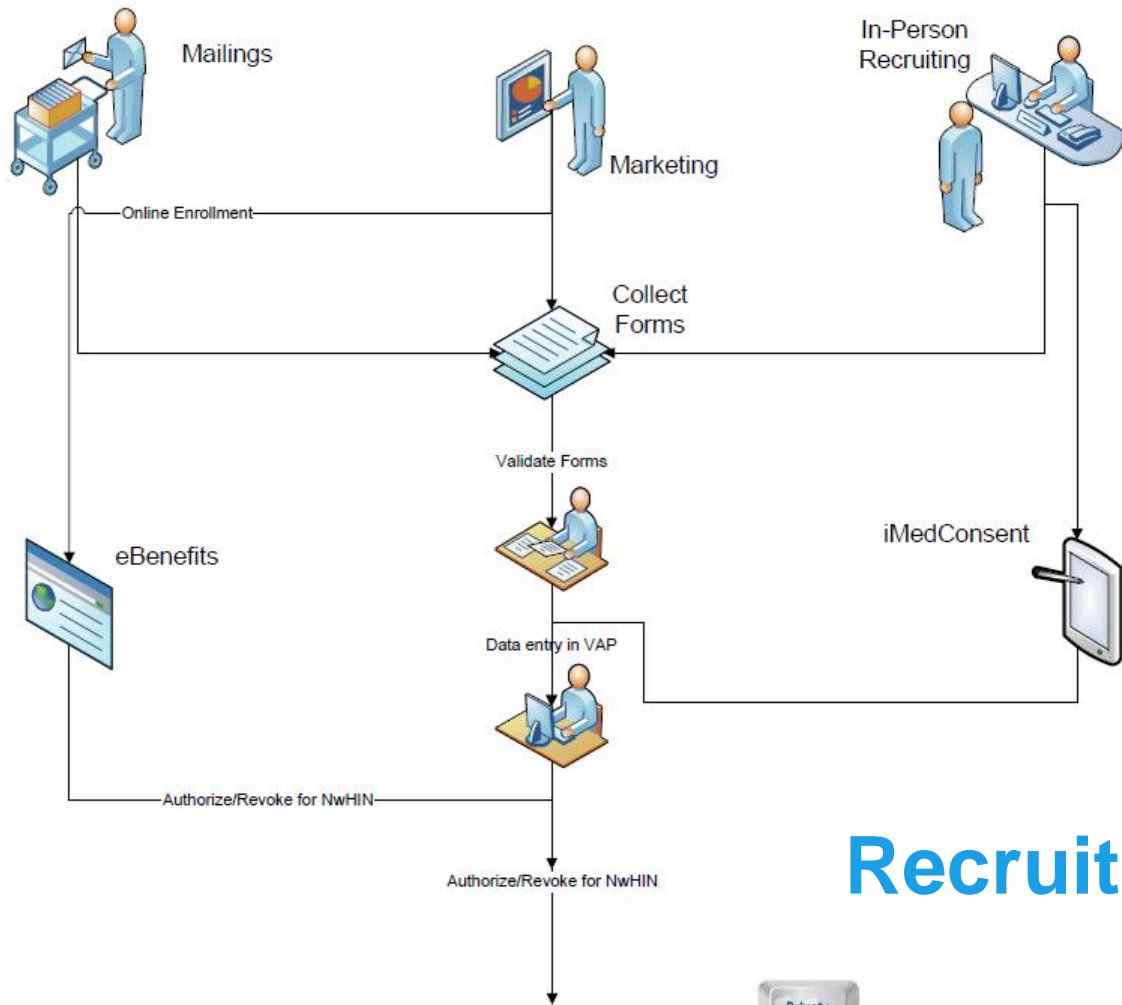
As of June 27, 2012

Our Success – Exchanges

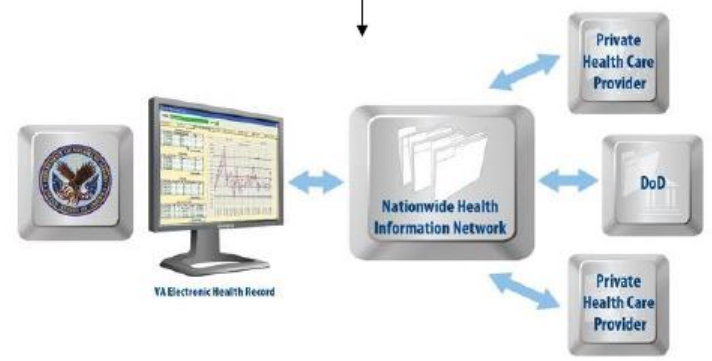


As of June 27, 2012

C32	C62
Person Information	Consults/Referrals
Support	Discharge Summaries
Healthcare Provider	Results of Diagnostic Studies
Information Source	Cardiology Studies
Language Spoken	Obstetrical Studies
Allergies	Gastroenterology Endoscopy Studies
Problems/Condition	Pulmonary Studies
Medications	Ophthalmology/Optometry Studies
Lab Results: chemistry and hematology	Neuromuscular Electrophysiology Studies
Immunizations	Miscellaneous Studies
Vital Signs	Procedure notes
List of encounters	History & Physical notes
List of procedures	Radiology reports
	Surgery reports



Recruitment Methods



Online Enrollment

The screenshot displays the eBenefits website interface. At the top, the browser address bar shows the URL <https://www.ebenefits.va.gov/ebenefits-portal/ebenefits.portal>. The page features a navigation bar with the eBenefits logo and the tagline "My Gateway to Benefit Information". To the right of the logo are "Log in" and "Register" buttons, along with a search bar. Below the navigation bar is a horizontal menu with links for "My eBenefits", "Benefit Links", "Tools", "Apply", "About", and "Help". The main content area includes a section titled "About eBenefits" with a descriptive paragraph. To the right of this text is a large banner image featuring a veteran in a red beret and a military uniform, with the word "PARTNERSHIP." prominently displayed. Below the banner is a "Guide to eBenefits Features" section with buttons for "What's New?" and "Coming Soon". At the bottom of the page, there are several service links: "Account Request Portal (ARR)", "Apply for Veterans' Benefits", "Mobile Payment History", and "TRICARE Online (TCO) Single Sign-On". The browser's status bar at the bottom indicates "Local intranet" and "100%" zoom.

www.ebenefits.va.gov

Veterans Authorizations & Preferences

The screenshot shows a web browser window displaying the Veterans Authorizations and Preferences (AP) login page. The browser's address bar shows the URL "Veterans Authorizations and Preferences L...". The page header includes the VA logo and the text "United States Department Of Veterans Affairs" with the motto "To care for him who shall have borne the battle...". A navigation menu contains links for "VA Intranet Home", "About VA", "Organizations", "Find a Facility", and "Employee Resources". The main content area is titled "LOGIN" and contains the instruction "Enter username and password and click Login." Below this is a "Login Details" section with two input fields: "Username*" and "Password*", each followed by a text box. A "Login" button is positioned below the password field. The left sidebar features the "AP" logo and the text "VETERANS AUTHORIZATIONS & PREFERENCES" and "Build:1.0.0.8".

Veterans Authorizations and Preferences L...

"To care for him who shall have borne the battle..."

United States
Department Of Veterans Affairs

VA Intranet Home About VA Organizations Find a Facility Employee Resources

LOGIN

Enter username and password and click Login.

Login Details

Username*

Password*

Login

AP
VETERANS
AUTHORIZATIONS &
PREFERENCES

Build:1.0.0.8

Retrieving NwHIN Documents from VistAWeb

VistaWeb: Patient Record - Windows Internet Explorer

Logoff

- VTA
- Sites
- Care Team
- Allergies*1
- Appointments
- Patient Information
- Visits/Admissions
- Diabetics
- Consults and Procedures
- Consults (DoD Remote Data Only)
- Discharge Summaries
- Laboratory
- Anatomic Path Reports
- Medicine
- Orders
- Outpatient Encounters/GAF
- Pharmacy
- Problem List
- Progress Notes
- Other Notes
- Radiology
- Surgery Reports
- Vital Signs*1
- Health Summaries (Non-VA)
- Health Summaries (DAYTSHR)

Refresh Patient Data

Pages with HDR data

Pages with NwHIN data

Sites & Notices

medical record

Patient Selection

Site Connection Summary (09/19/2011 09:59)

Data for this patient can be retrieved from the following sites:

Site Name	Patient Name	SSN	DOB	Deceased Date	Sensitivity	Last Seen
Southern California Kaiser Permanente (KP) (NHEIN) Disclaimers			03/03/1960			
Med Virginia - HIE (NHEIN) Disclaimers			03/03/1960			
Department of Defense (NHEIN)			03/03/1960			
Inland Northwest Health Services (INHS) - HIE (NHEIN)			03/03/1960			
Utah Health Information Network (UHIN) - HIE (NHEIN)			03/03/1960			
Indiana Health Information Exchange (IHIE) - HIE (NHEIN)			03/03/1960			
Community Health Information Collaborative (CHIC) - HIE (NHEIN)			03/03/1960			
Multicare Health System (NHEIN)			03/03/1960			
Western New York HealthLink - HIE (NHEIN)			03/03/1960			
DAYTSHR (DAYTSHR)			03/03/1960		Y	07/28/2011
HDR (HDR)			03/03/1960			

Data for this patient cannot be retrieved from the sites shown below due to network or remote system problems. To attempt to reach those systems again, please see the message field.

Site Name	Patient Name	SSN	DOB	Deceased Date	Sensitivity	Last Seen
CHYSHR for NHEIN (CHYSHR)			03/03/1960			07/20/2011
ENROLLMENT SYSTEM REDESIGN (E)						
DAYTDEV (DDEV)						

There is also a stand-alone version of VistaWeb that is not spawned from the CPR2 Tools menu. This version is for users who need to select patients from sites other than their home site. The URL is <https://vistaweb.med.va.gov>.

In case of any problem, please contact your local IRM / Computer support staff or IT Help Desk.

VistaWeb is a product of the Office of Information.

Version 12.0.0.12.0.0.001 Build last updated 9/8/2011

Double dagger indicates non-VA sources of data

Summary of Care Record

Print

Copy to Clipboard

Close

CHDRZZZTESTPATIENT,CHDRONE ()

Kaiser Permanente

Summarization of episode note

Created On: September 28, 2010

Patient:	CHDRONE CHDRZZZTESTPATIENT	Patient ID:	
Birthdate:		Sex:	Male
Language(s):	• English		
Source:	Kaiser Permanente		

Table of Contents

- [Problems](#)
- [Allergies, Adverse Reactions, Alerts](#)
- [Medications](#)

Problems



All current problems will be extracted in this module. Certain problems flagged as behavioral health or substance abuse related may not be exchanged.

Problems - Count (11)	Status	Problem Code	Date of Onset	Provider	Source
PAIN	Active	--	Sep 29, 09	--	--
OBESITY	Active	--	Sep 29, 09	--	--
DYSPNEA	Active	--	Sep 29, 09	--	--
HISTORY OF CANCER OF THE COLON	Active	--	Sep 25, 09	--	--
HYPERTENSION	Active	--	Sep 22, 09	--	--
DIABETES MELLITUS, TYPE 2, CONTR	Active	--	Sep 22, 09	--	--
DIABETES MELLITUS TYPE 2 W/ COMI	Active	--	Sep 22, 09	--	--
DIABETES MELLITUS TYPE 2 W/ COMI	Active	--	Sep 22, 09	--	--
MULTI INFARCT DEMENTIA	Active	--	Mar 15, 07	--	--
SNORING	Active	--	Dec 22, 06	--	--
OBSTRUCTIVE SLEEP APNEA	Active	--	Dec 22, 06	--	--

Allergies, Adverse Reactions, Alerts



All current allergies will be extracted in this module

Allergens - Count (6)	Verification Date	Event Type	Reaction	Severity	Source
WHEAT BRAN	Sep 23, 09	Severity		--	--
AMOXICILLIN	Jan 30, 08	Severity	Skin Rash and/or Hives	--	--

Aggregate View of Data

vista WV

Logoff

- VTA
- Sites
- Care Team
- Allergies**
- Appointments
- Patient Information
- Visits/Admissions
- Dietetics
- Consults and Procedures
- Consults (DoD Remote Data Only)
- Discharge Summaries
- 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
 - Active Outpatient
 - Medications
 - All Outpatient Pharmacy
 - Outpatient Rx Profile
 - Active IVs
 - All IV
 - Unit Dose
 - Med Admin Rx (BCMA)
 - Med Admin Log (BCMA)
 - Herbal/OTC/Non-VA Meds
- Problem List
- Progress Notes
- NBN Documents
- Other Notes
- Radiology
- Surgery Reports
- Vital Signs
- Health Summaries (NFS)
- Health Summaries (NAM)
- Health Summaries (SDC)
- Health Summaries (ILP)

All Outpatient CHDFZZZTESTPATIENT.CHDRONE medical record

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

Date Range: 15 Months Two Years All Results Query

The data is limited with Expiration Date of the drug to the dates specified. To get more data, select a different date range (broader date ranges will take longer to retrieve.)

Date range information for [NBN data](#)

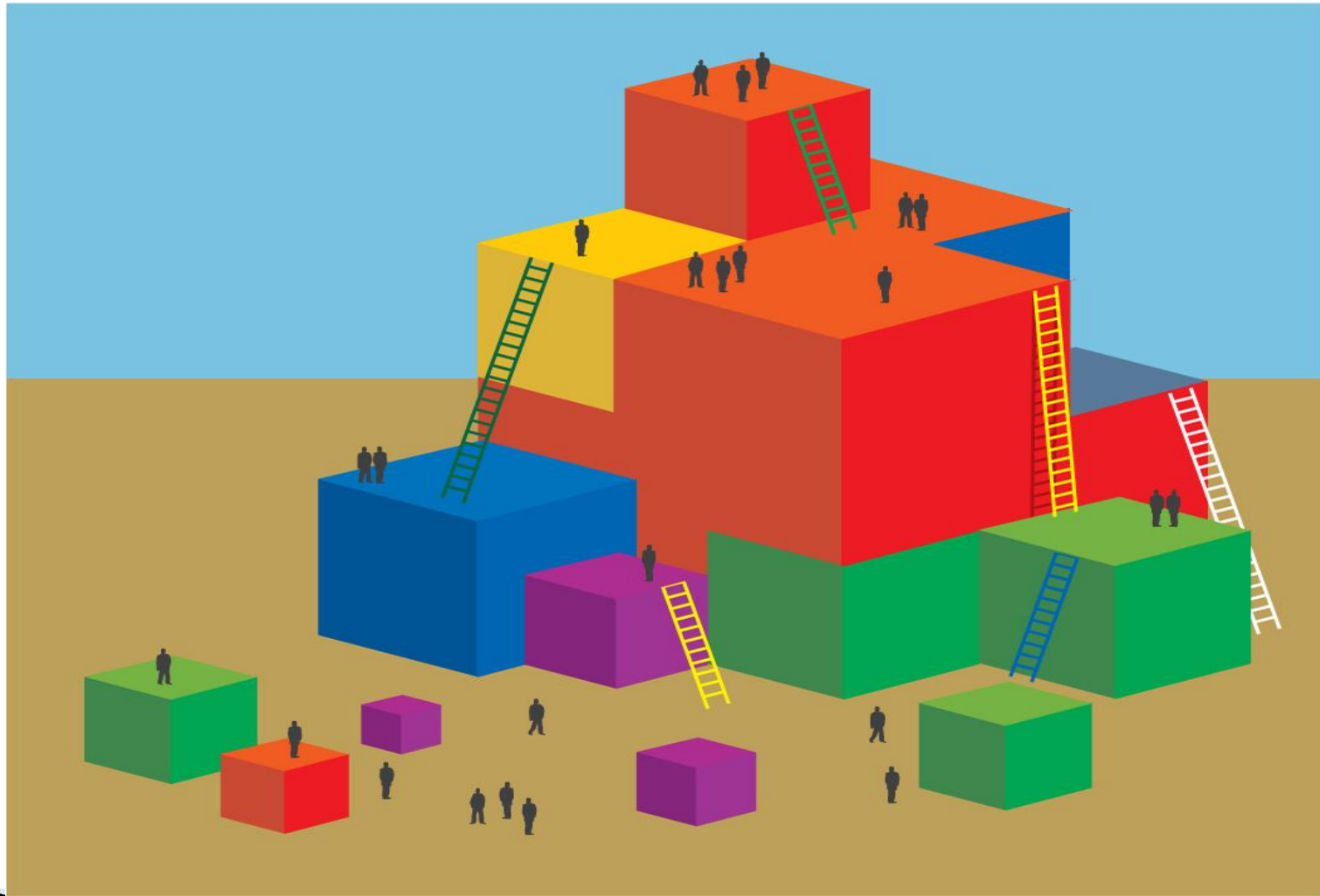
Print Report

Copy to Clipboard

View Details	Medication	Rx#	Status	Qty	Exp/Comp Date	Issue Date	Last Fill Date	Rem	Provider	Cost/Fill	SIG	Site
View Details	Lisinopril		Active			09/28/2010						MedVirginia
View Details	Eucalyptus-Menthol (MALLS COUGH DROPS) 100 Lozenge		Active			05/11/2010					Dissolve 1 drop slowly in mouth, repeat every hour as needed	Kaiser Permanente
View Details	CAPTOPRIL 2500 TAB	500936089	ACTIVE	180	11/24/2010	08/26/2010	08/26/2010	0		4.3	TAKE ONE TABLET BY MOUTH TWICE A DAY FOR BLOOD PRESSURE	EAST ORANGE-VA NEW JERSEY HCS*
View Details	GLYBURIDE 500 TAB	500936090	ACTIVE	180	11/24/2010	08/26/2010	08/26/2010	0		6.3	TAKE ONE TABLET BY MOUTH TWICE A DAY FOR DIABETES	EAST ORANGE-VA NEW JERSEY HCS*
View Details	ALLOPURINOL 30000 TAB	8001442	ACTIVE	90	12/15/2010	12/14/2009	12/14/2009	3		2.3	TAKE ONE TABLET BY MOUTH EVERY DAY FOR REDUCTION OF URIC ACID LEVELS	SAN DIEGO HCS*
View Details	NAPROXEN 50000 TAB	7928687	ACTIVE	180	09/29/2010	09/28/2009	09/28/2009	3		5.9	TAKE ONE TABLET BY MOUTH 2 TIMES A DAY FOR PAIN/ARTHRITIS	SAN DIEGO HCS*
View Details	HECLIZINE HCL 12.500 TAB	3401621	EXPIRED	180	09/13/2010	06/15/2010	06/15/2010	0		6.1	TAKE ONE TABLET BY MOUTH 2 TIMES A DAY	HAJSTON (VASC)*
View Details	FURDAETHAZINE 25000 TAB	3401622	EXPIRED	180	09/13/2010	06/15/2010	06/15/2010	0		61.5	TAKE ONE TABLET BY MOUTH 2 TIMES A DAY	HAJSTON (VASC)*
View Details	TRIAMCINOLONE ACETONIDE 0.025% CREAM	3401623	EXPIRED	80	07/15/2010	06/15/2010	06/15/2010	0		1.2	APPLY A THIN FILM TO AFFECTED AREA 2 TIMES A DAY	(VASC)*

[Back to tool](#)

Next Steps



Contact Information/Questions?

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References and Resources

- ▶ VLER: <http://www.va.gov/vler/>
- ▶ eHealth Exchange: <http://www.healthwayinc.org/>
- ▶ NwHIN Exchange:
http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov_nhin_exchange/1407
- ▶ DURSA: <http://www.legalhie.com/federal-hie-guidance/updated-dursa-for-nhin-released-nov-30/>
- ▶ Affordable Care Act's Impact of Health Care for Veterans, February 22, 2012:
<http://health.universityofcalifornia.edu/2012/02/22/affordable-care-acts-impact-on-health-care-for-veterans/>
- ▶ National Health Info Exchange: Why The Delay?, Information Week, November 5, 2012:
<http://www.informationweek.com/healthcare/interoperability/national-health-information-exchange-why/240044378>

References and Resources

- ▶ State Health Information Exchange:
<http://www.healthit.gov/policy-researchers-implementers/state-health-information-exchange>
- ▶ With eHealth Exchange, We Are Entering a New Era of HIE, Government Health IT, September 4, 2012:
<http://www.govhealthit.com/blog/ehealth-exchange-we-are-entering-new-era-hie>