

PHIN VADS

- Application & Content Overview

August 22nd, 2013

CDC Vocabulary Team

**Division of Informatics Solutions and Operations
(DISO)**

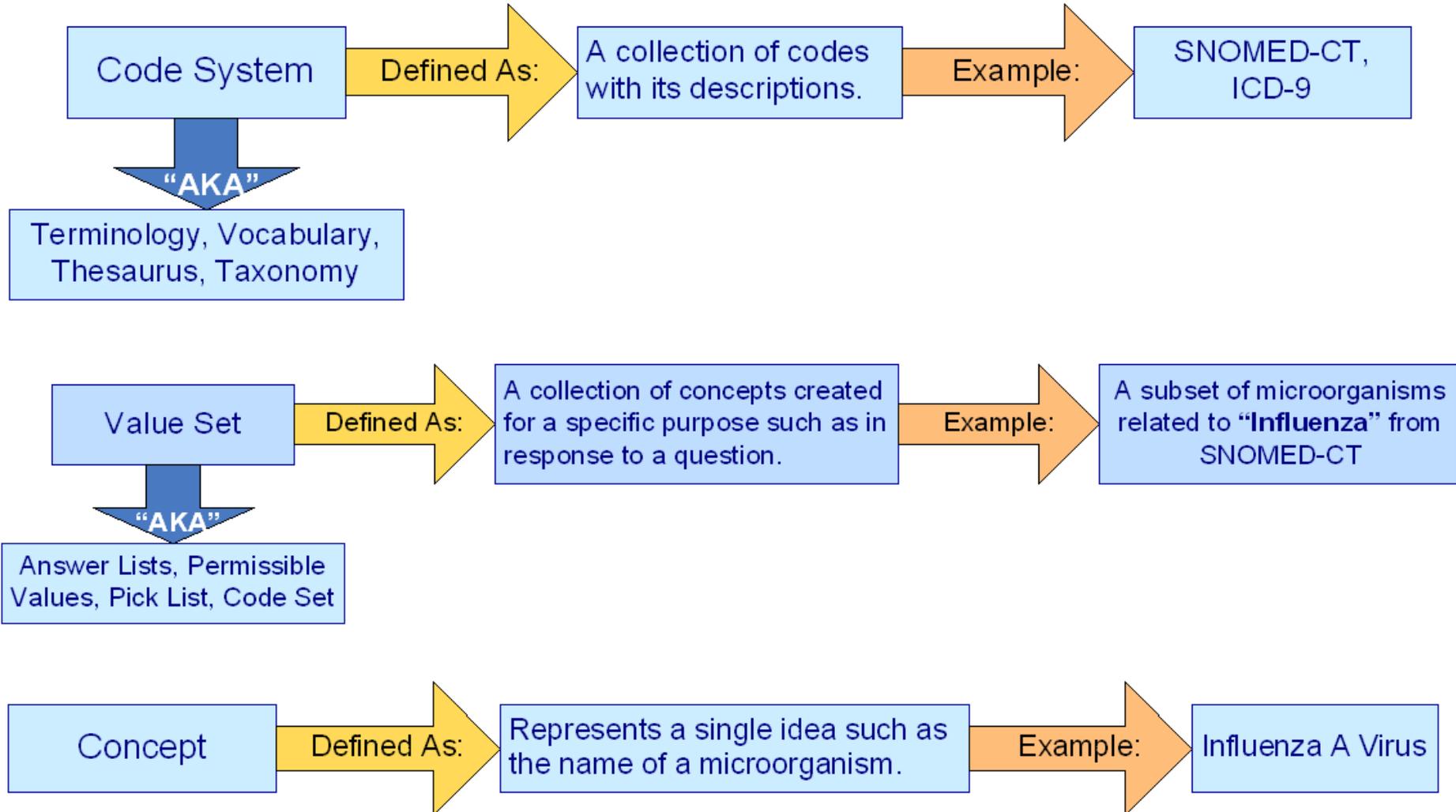




Agenda

- PHIN VADS Purpose and Benefits
- PHIN VADS
 - Vocabulary Basics
 - Web Application / Services
 - Content
- Laboratory Content in VADS
 - Reportable Condition Mapping Table (RCMT)
 - ELR/ PHLIP
 - NHSN - HAI
- Demo

Vocabulary Definitions & Examples





What is PHIN VADS?

- In 2004, CDC developed a web-based enterprise vocabulary system called the Public Health Information Network Vocabulary Access and Distribution System ([PHIN VADS](#)) for accessing, searching, and distributing HL7 messaging value sets used within the PHIN and NHIN.
- Provides all the vocabulary metadata needed for HL7 messaging.
- Promotes sharing and reusing of the value sets.
- Hosts multiple versions of value sets that allow implementers to have access to the current, past and the future versions of value sets and value set collections
- Provides web services (API) that allows HL7 interface engines, medical and public health applications to obtain the value sets as well as validate the vocabulary present in HL7 messages.
- Provides detailed code system metadata for value set concepts such as context, hierarchy, synonyms and alternate codes. This will facilitate the implementation of value sets and improve the quality of local vocabulary mapping to standards.
- PHIN VADS can be accessed at a public web site - [PHIN VADS](#)
- CDC Vocabulary and Messaging team manages the PHIN VADS.



Purpose and Usage of VADS

- Distributes the value sets associated with the public health HL7 messaging (V2.x, V3) & CDA implementation guides.
- CDC as SDO maintains and distributes the code system such as Vaccine names (CVX), Vaccine manufacturers (MVX), Race & Ethnicity, Healthcare Service Locations and Nationally Notifiable Disease/Conditions (NND) using VADS.
- Facilitates the routing and filtering of HL7 messages and can be easily integrated with any medical or public health applications using VADS web services (API)
- Develops & distributes HL7 messaging value sets associated with:
 - 1) Electronic Laboratory Reporting (ELR)*
 - 2) Immunization*
 - 3) Syndromic Surveillance*
 - 4) Public Health Case Reporting
 - 5) Public Health Case Notification (infectious & non-infectious)
 - 6) NHSN Healthcare Associated Infections (HAI)
 - 7) Cancer Registry (Anatomic Pathology Reports)
 - 8) Clinical Quality Measures reportable to public health* (e.g. Diabetes control)

* Meaningful Use Stage 1 measure



PHIN VADS Web Browser

- PHIN VADS web browser is the most commonly used method for browsing, searching and downloading the public health value sets.
- PHIN VADS web site – [PHIN VADS](#)
- Users have an option to download PHIN VADS value sets using Microsoft Excel or tab-delimited text format. PHIN VADS web user interface is compliant with web accessibility section 508.
- PHIN VADS allows the users to bookmark the value sets, code systems, concepts, vocabulary views and groups. PHIN VADS vocabulary view bookmarks are usually included in the HL7 message implementation guide that allows the implementers to access the messaging vocabulary associated with implementation guide easily.
- PHIN VADS can also be accessed via web services or Application Program Interface (API).



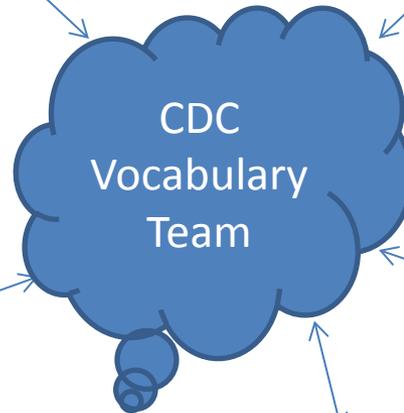
CDC Vocabulary Services Program – Users / Partners outside CDC

Federal Agencies

1. National Library of Medicine (NLM)
2. ONC HHS – S&I, MU
3. Food and Drug Administration (FDA)
4. National Cancer Institute (NCI)
5. Indian Health Services (IHS)
6. Environmental Protection Agency (EPA)
7. Veteran Affairs (VA)
8. Department of Defense (DoD)
9. U.S. Department of Agriculture (USDA)
10. Agency for Healthcare Research and Quality (AHRQ)
11. Centers for Medicare and Medicaid (CMS)
12. Joint Commission
13. National Highway Safety

Organizations

1. College of State and Territorial Epidemiologist (CSTE)
2. Public Health Data Standards Consortium
3. Association for Public Health Labs (APHL)
4. Public Health Informatics Institute (PHII)
5. International Society for Disease Surveillance (ISDS)
6. Health Information Management and Systems Society (ISDS)
7. Integrating the Healthcare Enterprise (IHE)
8. Mayo Clinic
9. American Medical Association (AMA)
10. Institute of Medicine (IOM)
11. National Quality Forum (NQF)



Standard Development Organization (SDO)

1. Regenstrief Institute – LOINC SDO
2. SNOMED IHTSDO – NLM, CAP
3. Health Level 7 (HL7)
4. X12

Vendors

1. EHR – IBM, GE, Cerner
2. Terminology Vendors – Apelon, HL
3. Public Health Surveillance System Vendors – Atlas, Maven
4. HL7 Interface Vendors – Rhapsody

Community of Practice

1. RCMT
2. Vocabulary & Messaging
3. Lab Messaging
4. EpInfo
5. Case Reporting Standardization Workgroup (CRSWg)
6. MU EHR



- Laboratory Content in PHIN VADS:
 - Reportable Condition Mapping Table (RCMT)
 - RCMT provides mapping between conditions and its associated lab test and results.
 - Vocabulary associated with the following lab messaging guides:
 - Public Health Lab Interoperability Project (PHLIP)
 - PHLIP Flu
 - PHLIP Vaccine Preventable Disease (VPD)
 - PHLIP ETOR - Salmonella
 - Electronic Lab Reporting (ELR) - Meaningful Use
 - National Healthcare Safety Network – Healthcare Associated Infection (HAI)
 - Laboratory Identified Organism (LIO)
 - Laboratory Response Network (LRN)



RCMT 101 – Quick Introduction ([link](#))

What are the Reportable Condition Mapping Tables?

The RCMT tables associate reportable conditions with laboratory tests and results that are indicative of those conditions.

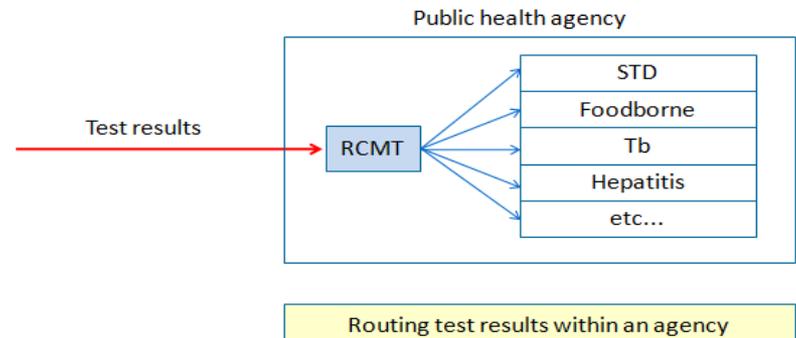
How are they used?

They can be used to filter the output of clinical labs for test results that are of interest to public health.

Which conditions do they include?

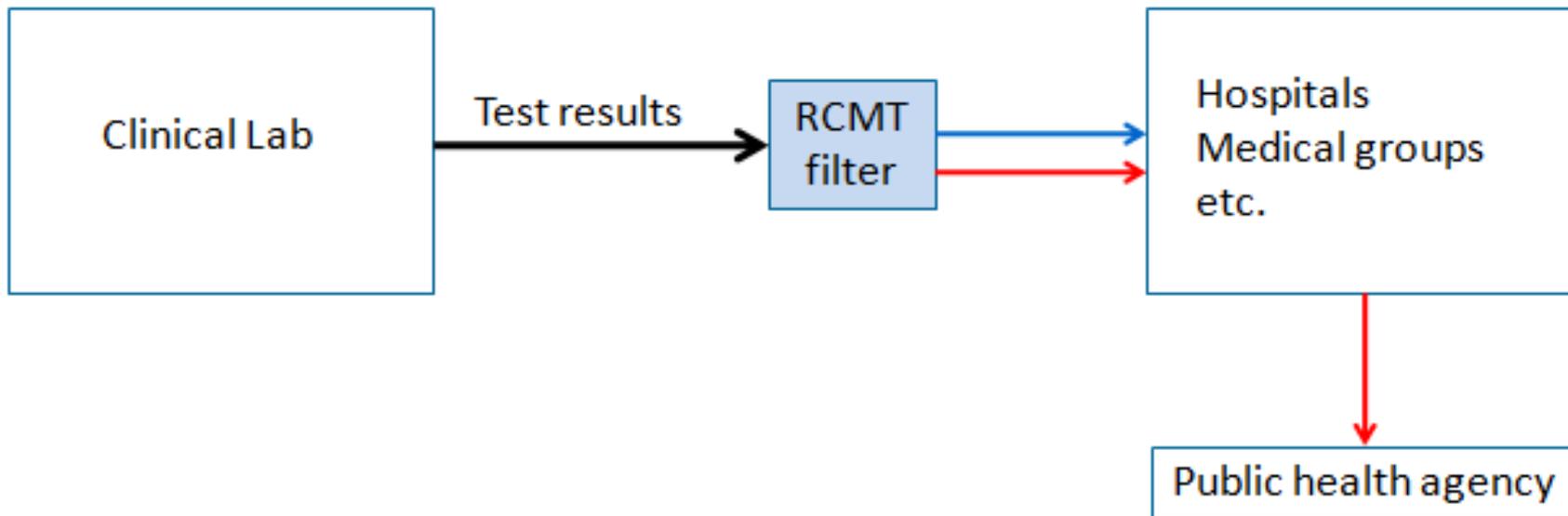
The scope of the RCMTs is all conditions that are:

- nationally notifiable
- reportable at the state level
- reportable in sub-state jurisdictions
- reportable in US territories





RCMT Use: Filtering the output of Clinical Labs (ELR data senders)



RCMT tables can identify tests and results that **may be** of interest to public health.



RCMT Outreach / Acknowledgements

- Who have we reached out to for participation and expertise?
 - CDC Programs (Epidemiologist and Lab Experts)
 - CSTE/CDC Joint ELR Task Force
 - SDO (LOINC, SNOMED, HL7 PHER, National Library of Medicine)
 - National ELR WG
 - CSTE
 - Association for Public Health Laboratories (APHL)
 - Public Health Communities of Practice (VMCoP, Lab Msg CoP, CRSWg, phConnect – PHII)
 - PHDSC
 - CDC PHIN Partners
 - CDC Meaningful Use Advisory Workgroup / MU Community / Surescripts
 - Vendors, Labs, Implementers





RCMT:PDF Format - Recording, Website links

RCMT - Vocabulary Navigation Links - 06282011.pdf - Adobe Reader

File Edit View Document Tools Window Help

15 (15 of 440) 80% Find

Bookmarks

- Table of Contents
- Reportable Conditions - Lab Tests & Results
 - Infectious Diseases or Conditions
 - Amebiasis
 - Lab Test Name (Amebiasis)
 - Lab Result (Amebiasis)
 - Anthrax**
 - Lab Test Name (Anthrax)
 - Lab Result (Anthrax)
 - Arbovirus
 - California Serogroup Virus
 - Lab Test Name (California Serogroup Virus)
 - Lab Result (California Serogroup Virus)

Anthrax

Anthrax is an acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. Anthrax most commonly occurs in wild and domestic mammalian species (cattle, sheep, goats, camels, antelopes, and other herbivores), but it can also occur in humans when they are exposed to infected animals or to tissue from infected animals or when anthrax spores are used as a bioterrorist weapon.

- [CDC.GOV](#)
- [CDC NNDSS Case Notification Definition](#)

- [CSTE Position Statement - Case Reporting Criteria](#)
- [CSTE State Reportable Condition Assessment\(SRCA\)](#)

Note: The SRCA helps fulfill CSTE's charge to provide a complete and accurate list of reportable conditions by state and territory.

- [Lab Tests & Results Vocabulary Forum Discussion \(phConnect\)](#)

- [MedlinePlus](#)

- [CDC Point of Contacts \(Subject Matter Expert\)](#)
Epidemiologist: Sean Shadomy
Lab SME: Rita Trexlar

Public Review / Demo date: 5/5/2011
LiveMeeting Recording Link (select the date 5/5/2011): <https://www.mymeetings.com/nc/join.php?i=RW6571064&p=9992350&t=c>

Vocabulary View (Messaging Guides)

“**Vocabulary View**” refers to a collection of value sets associated with a HL7 messaging guide or CDA. View is also versioned and can be downloaded as a zip file. View can also be accessed using web services.

[All Vocabulary](#) | [Views \(Msg. Guides\)](#) | [Value Sets](#) | [Value Set Concepts](#) | [Code Systems](#) | [Code System Concepts](#) | [Groups](#)





Views (Msg. Guides) (5)

Value Sets (8)

Value Set Concepts (1636)

Code System Concepts (922)

5 Views found



Select All

Clear All

Download Selected

View Name

Version #

- Influenza Summary Case Notification
- Influenza Individual Case Notification
- Influenza Associated Pediatric Mortality Case Notification
- NHSN Patient Influenza Vaccination - Release 5
- PHLIP Flu Lab Report Vocabulary

2
2
2
1
3

Vocabulary Group

A group is a collection of like value sets categorized by a subject or theme. PHIN Vocabulary Groups are used mainly for indexing the value sets in PHIN VADS.

Examples:

(a) The Demographics group will contain all of the value sets related to demographics such as Countries, Counties, Cities, Sex, etc.

(b) The Laboratory group will contain all of the value sets related to Lab tests and results such as specimen or sample type, Hepatitis Lab Tests, Microorganism, etc.

These PHIN Vocabulary Groups roughly follow the scope of the White House E-Gov Consolidation Health Informatics (CHI) domains.

[All Vocabulary](#) |
 [Views \(Msg. Guides\)](#) |
 [Value Sets](#) |
 [Value Set Concepts](#) |
 [Code Systems](#) |
 [Code System Concepts](#) |
 Groups





[View Search Options](#)

[Browse All Groups](#)

Group Name
Anatomy (Body Site)
Clinical Encounter (ADT)
Demographics
Disease / Clinical History / Observation (Finding)
Financial/Billing/Insurance
Immunization (Vaccine)

Group Name
Laboratory Test / Result/ Specimen
Medication (Drug)
Modifier / Qualifier (Coded Answer / Result)
Organism (including Animal)

Group Name
Procedure (Non-Laboratory)
Public or Population Health
Substance (Food, Water) / Device / Object
Units of Measure



PHIN VADS Vocabulary Updates

- Notification about VADS updates
 - E-mail: List Serv (VMCoP, HL7 PHER, PHIN)
 - VADS Online Forum
 - VMCoP monthly meetings
 - RSS Feeds – changes to individual vocabulary
- Frequency
 - Monthly
 - On-demand (e.g. Outbreak or Natural disasters)



Public Health Vocabulary & Messaging Community of Practice (VMCoP)

Current CoPs

Vocabulary and Messaging

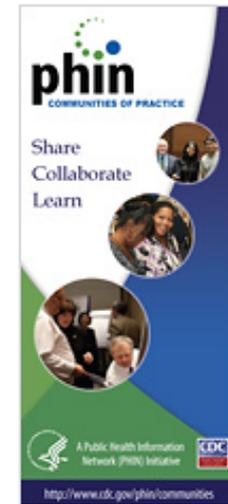
The Public Health Vocabulary Community of Practice (PHVCoP) has facilitated dialogue and problem solving around vocabulary development, usage, and distribution within public health since 2006. PHVCoP members have invited their messaging colleagues to join the community to share ideas, identify collaborative efforts, and begin to develop solutions to solving common public health vocabulary and messaging challenges. The expanded community is called the Vocabulary and Messaging CoP (VMCoP).

Our community currently has an announcement mailing list in addition to collaborating on phConnect. To subscribe, send an email to listserv@listserv.cdc.gov and type the following in the BODY (not the subject line) of the email: SUBSCRIBE VMCoP-PHIN *Yourfirstname Yourlastname*. Please replace the text in italics with your actual first and last name. Do not include any other text in the email (such as a signature) or it will return an error.

You should receive an automated message confirming your subscription. If you do not, please send an email to phin@cdc.gov with the subject line "CoP".

Leads & Council Members	Sundak Ganesan	Ted Klein
Liaison Name and Contact Information	Kim Wilson KJWilson@cdc.gov 404-498-6121	
Meeting Times	Third Tuesday of the month, 3:00-4:30 Eastern	
Meeting Method	Teleconference: Livemeeting is new each meeting and sent out on the Listserv and posted to phConnect.org .	
Collaboration Methods	Uses Listserv, monthly teleconference calls, and phConnect	

Communities of Practice Program
Centers for Disease Control and Prevention
Atlanta, Georgia 30345
404-498-6455
MMabery@cdc.gov



[Download Brochure](#)

VMCoP Website [Link](#)



PHIN VADS Support - phConnect

PHIN VADS online forum URL: [PHIN VADS online forum](#)

E-mail:
phinvs@cdc.gov

PHIN Vocabulary Access and Distribution System (VADS)

Welcome to the PHIN VADS community!

PHIN VADS Application URL – <http://phinvads.cdc.gov>

Please use this forum to discuss about the value set development, implementation and PHIN VADS application. You could post the question in one of the following three discussion threads mentioned below:

- (a) PHIN VADS Content Development & Support
- (b) PHIN VADS Application & Web Services Support
- (c) PHIN VADS Value Set Authoring Tool (UAF)

Contact CDC Vocabulary & Messaging Team for any vocabulary, messaging and PHIN VADS related support at phinvs@cdc.gov

PHIN VADS Application Quick Links:

[PHIN VADS Fact Sheet.doc](#)
[Vocabulary Management and PHIN VADS FAQ.doc](#)
[About PHIN VADS Application](#)
[PHIN VADS Help Manual](#)
[PHIN VADS Developers Tool Kit – Web Services \(CTS / IHE SVS\)](#)
[Representation of SDO vocabulary in VADS](#)

PHIN VADS Content – Bookmarks

- 1. Meaningful Use Measures – Stage 1
 - (1a) Electronic Laboratory Reporting (ELR) to Public Health – HL7 Version 2.5.1
 - (1b) Immunization Messaging – HL7 Version 2.5.1
 - (1c) Syndromic Surveillance Value Sets.doc
- (2) NHSN Healthcare Associated Infections – Release 5 Value Sets.doc
- (3) Browse PHIN VADS value sets by domain (group) such as Demographics, Medication, Lab.
- (4) Browse PHIN VADS value sets by Messaging Guides (views)



Contact / Support for ELR- RCMT

- CDC Vocabulary Team (PHIN Vocabulary Services) E-mail: PHINVS@CDC.GOV
- CDC Vocabulary Server (PHIN VADS) website - [CDC Vocabulary Server](#)
- RCMT discussion thread (forum) – [RCMT discussion thread](#)
- CDC Meaningful Use – meaningfuluse@cdc.gov



Demo

- Demo