Meaningful Use: Impacts on Public Health Electronic Medical Records, Electronic Health Records/ Health and Interoperability Health Information Exchange...

James Daniel, MPH

Public Health Coordinator

Office of the National Coordinator for Health IT

HealthIT.gov

Bryant Thomas Karras MD

State of Washington, Department of Health,

Chief Informatics Officer/ Meaningful Use Coordinator

www.doh.wa.gov/HealthIT

Agenda

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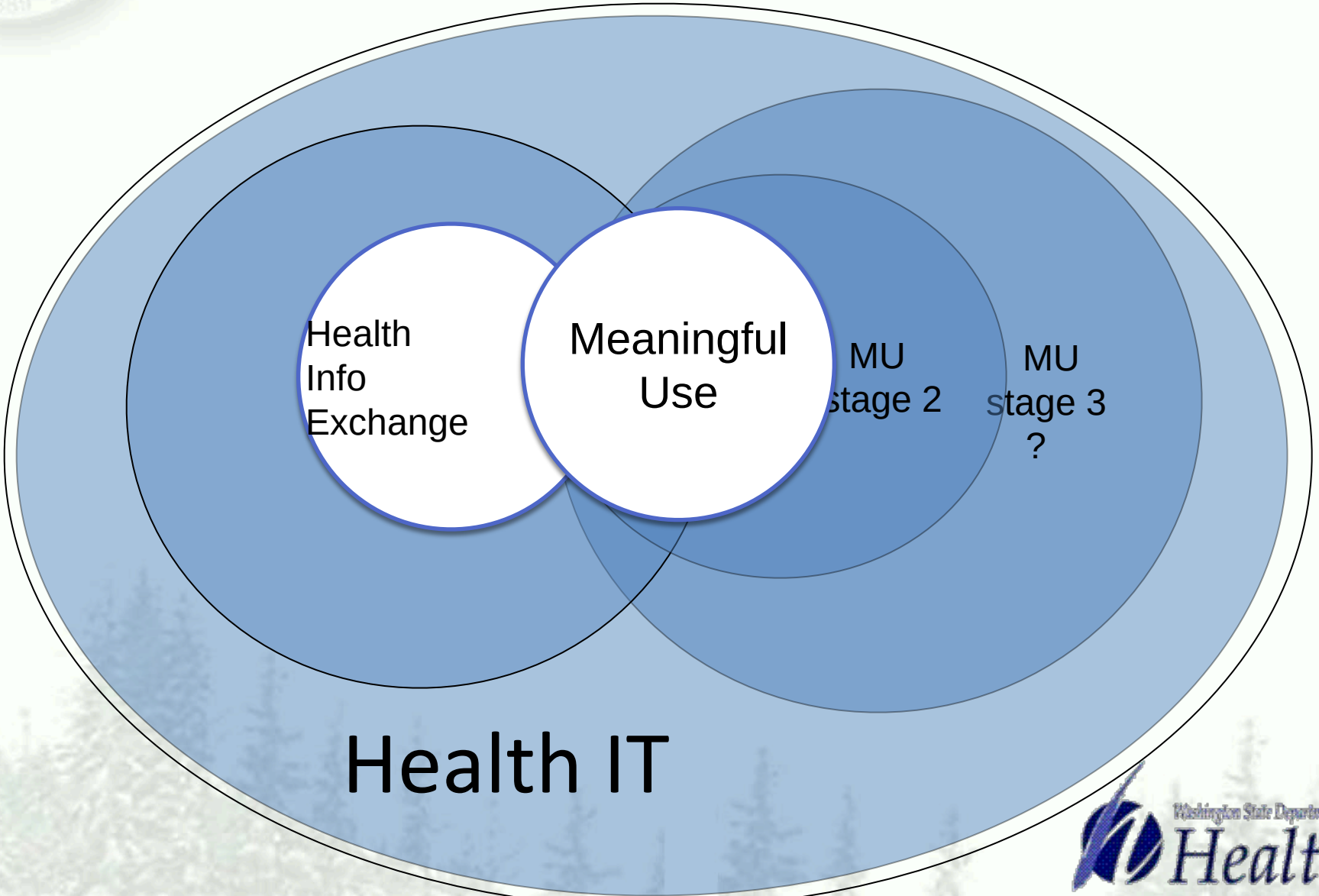
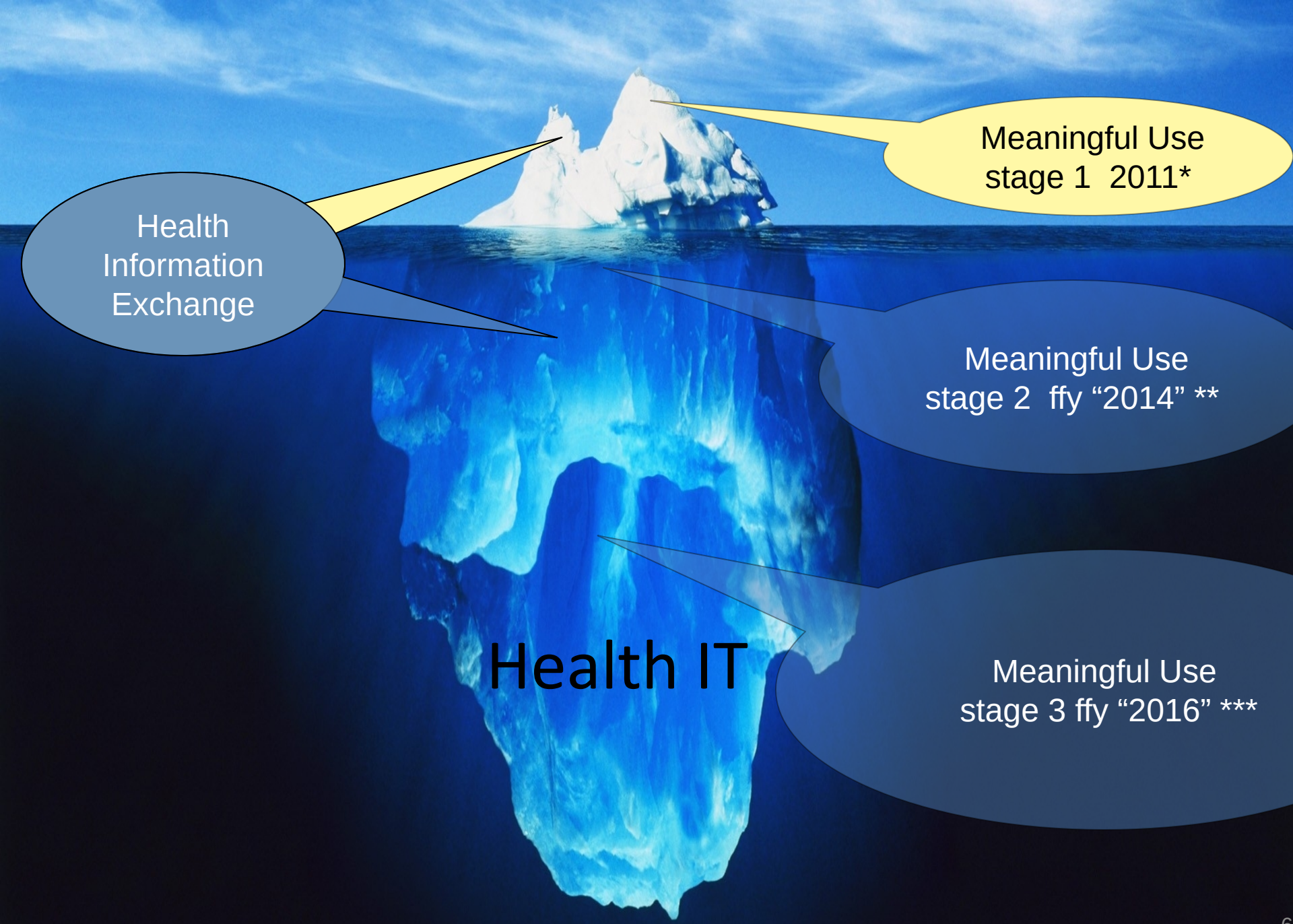
- Review of Meaningful Use and Stage 2 Measures
- Public Health Reporting Requirements Task Force
- ONC GranteesRECs and HIES – how can they help?
- Certification of EHR Products
- Fighting the myth: Public Health isn't ready for MU
  - More $ for Public Health
- Other ONC Initiatives
  - Consumer Engagement
  - Beacon
  - Structured Data Capture
  - Data Access Framework
  - HealthEDecisions
- Stage 3

- Where are we trying to get to with Meaningful Use? a reminder of what started all this.
- Public Health Reporting Requirements Task Force Four Steps to the Process: Declaration of Capacity -> Registration of Intent -> Onboarding -> Acknowledgement
- Some Specifics on Labs, Immunization, and Syndromic Surveillance; National and WV adoption rates
- How can Public Health afford this? CMS "Advance Planning" funds
    - 90% federal match to 10% state funds.
    - on-boarding support and use of HIE
    - lessons learned
- 3 New Standards for the future
    - structured data capture
    - data access framework - query health
    - healthy decisions

TIP OF THE MU DATA ICEBERG (THE WHAT)
HIE IS JUST TRANSPORT (THE HOW)



Washington State Department of Health



Artwork “3D Iceberg” ©2012 Daniel Mueri adapted by Bryant Karras w/ permission

Acronym Soup

ARRA: American Recovery and Reinvestment Act; Health Information Technology for Economic and Clinical Health (HITECH) **'Stimulus Bill'**

HIE: Health Information Exchange*

* Not insurance
not health care reform

MU: Meaningful Use incentive program

CMS: Centers for Medicaid and Medicare Services

EHR: certified Electronic Health Record technology. (sometime abbreviated EMR or cEHRT)

ONC: Office of the National Coordinator for Health IT

WASHINGTON STATE MEDICAID HEALTH IT ROAD MAP

eHealth Collaborative Enterprise

Washington State Health Care Authority

BENEFITS

- Medicaid has fully integrated MHP with real time clinical data
- Medicaid using data for advanced reporting and analytics

- Medicaid integrating real time clinical data in MHP
- MU Providers provide summary of care record when transitioning patient
- Prescribers receive Medicaid medication history via eRX network
- Patient consent process available for data exchange
- Increased usage of OneHealthPort

- Providers report MU clinical quality measures
- Medicaid outlines data sharing requirements with Health Homes
- Medicaid Health Homes prepare to exchange clinical information and referrals with others in their network
- Rx networks prepare for Medicaid medication history
- OHP oversight model for continued access, affordability and security

- Statewide data exchange tool ready
- Transactions ready
- High EHR adoption

2012 — INTEROPERABLE TECHNOLOGY AIU

- ✓ AIU Incentives
- ✓ Prepare state HIE

HERE AND NOW

2013 — DATA CAPTURE AND SHARING MU STAGE 1

- ✓ Identify required clinical data requirements and transaction triggers
- ✓ Health Home HIE readiness assessment and plan
- ✓ MHP Acquisition strategy
- ✓ HIE governance model
- ✓ Medication history exchange plan

2014 — ADVANCE CLINICAL PROCESSES MU STAGE 2

- ✓ Load Medicaid and Medicare data into MHP
- ✓ Consume clinical data into MHP
- ✓ Managed care HIE readiness assessment and plan
- ✓ Medication history out via eRX networks
- ✓ Patient consent policy
- ✓ Analytics Strategy

2015 — IMPROVE OUTCOMES MU STAGE 3

- ✓ Integrate behavioral health and social service data into MHP
- ✓ Medicaid generates clinical transactions
- ✓ Implement analytic reports
- ✓ Implement patient consent strategy
- ✓ Explore patient access/portal

Acronyms

- **HIE**–Health Information Exchange
- **EHR**–Electronic Health Record
- **MU**–Meaningful Use (of health care data)
- **AIU**–Adopt, Implement, or Upgrade(to certified EHR system)
- **MHP** – Medicaid Health Profile

HCA 12-324 (11/12)

HEALTH INFORMATION EXCHANGE INITIATIVES

CMS Medicare and Medicaid EHR Incentive Programs

Milestone Timeline

Fall 2010

Certified EHR technology available and listed on ONC website

Winter 2011

JANUARY 2011
Registration for the EHR Incentive Programs begins

JANUARY 2011
For Medicaid providers, States may launch their programs if they so choose

Spring 2011

APRIL 2011
Attestation for the Medicare EHR Incentive Program begins

MAY 2011
EHR Incentive Payments begin

Fall 2011

NOVEMBER 30, 2011
Last day for eligible hospitals and CAHs to register and attest to receive an Incentive Payment for FFY 2011

Winter 2012

FEBRUARY 29, 2012
Last day for EPs to register and attest to receive an Incentive Payment for CY 2011

2014

Last year to initiate participation in the Medicare EHR Incentive Program

2015

Medicare payment adjustments begin for EPs and eligible hospitals that are not meaningful users of EHR technology

2016

Last year to receive a Medicare EHR Incentive Payment

Last year to initiate participation in Medicaid EHR Incentive Program

2021

Last year to receive Medicaid EHR Incentive Payment

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Federal Commitment $44 Billion for Incentives

Vision of Meaningful Use

"To enable significant and measurable improvements in population health through a transformed health care delivery system."

Key Goals

- -Improve quality, safety, & efficiency
- -Engage patients & their families
- -Improve care coordination
- -Improve population and public health
- -Reduce disparities
- -Ensure privacy and security protections

2011

Capture & Share Data
- -Lab Results Delivery
- -e-Prescribing
- -Claims & Eligibility Data
- -Some Quality & Immunization Reporting

Increases volume of transactions most commonly happening today – Infrastructure

2014

Advanced Care Processes Decision Support
- -Registry reporting / public health reporting
- -Electronic ordering
- -Home monitoring, Continuity of Care summaries
- -Populate PHRs

Substantially steps up exchange – Starts to Aggregate and Apply Data

2016

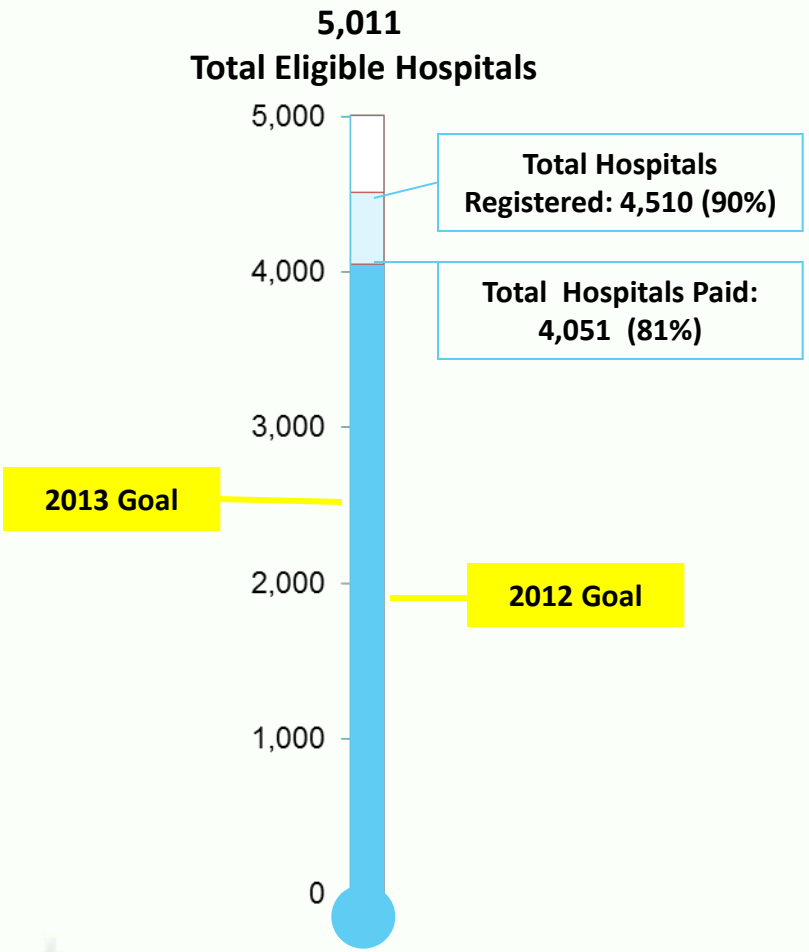
Improved Outcomes
- -Access comprehensive data
- -Experience of Care reporting
- -Medical Device Interoperability

Moves toward relatively routine and regular data exchange – Clinical Management & Performance Improvement

Number of Eligible Professionals Registered and Paid as of July 2013

Source: CMS EHR Incentive Program Data as of 7/31/2013

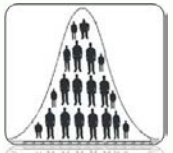
Number of Eligible Hospitals Registered and Paid as of July 2013



Source: CMS EHR Incentive Program Data as of 7/31/2013

Meaningful Use
Population and Public Health Measures for MU Stage I* and II**

- Electronic Reportable Laboratory Results* ** (Hospital Based only)
- Immunization Registry* **
- Syndromic Surveillance* **
- Cancer Cases (Clinic Based only)**
- Other Specialized Registries (Clinic Based only)**



Stage 2 Meaningful Use
Improve Population and Public Health

Objective	Ambulatory Measure	Hospital measure
Immunization Registries	**Ongoing Submission** to Public Health Authority (Core)	**Ongoing Submission** to Public Health Authority (Core)
Reportable Lab Results (ELR)	N/A	**Ongoing Submission** to Public Health Authority (Core)
Syndromic Surveillance	**Ongoing Submission** to Public Health Authority (Menu)	**Ongoing Submission** to Public Health Authority (Core)
Cancer Registries	**Ongoing Submission** to Public Health Authority (Menu)	N/A
Specialized Registry	**Ongoing Submission** to Public Health Authority or National Specialty Society (Menu)	N/A

Public Health Domain	Exchange Standards	Vocabulary Standards
Immunization Registries (IIS)	**Standard - HL7 2.5.1** • HL7 2.5.1 Implementation Guide for Immunization Messaging Release 1.4 - Approved 7/15	HL7 Standard Code Set CVX -- Vaccines Administered, updates through July 11, 2012
Reportable Lab Results (ELR)	**Standard - HL7 2.5.1** • HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 with Errata and Clarifications - Approved 7/15	SNOMED-CT and Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.40
Syndromic Surveillance	**Standard - HL7 2.5.1** • PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Release 1.1 August 2012 (Required for Inpatient and optional for ambulatory) - Approved 7/15 *Note: Ambulatory / In-patient Guide under development*	
Cancer Registries	**CDA** • Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries, August 2012	IHTSDO SNOMED CT® International Release July 2012 and US Extension to SNOMED CT® March 2012 Release and LOINC
Specialized Registries		

Stage 2 MU PH Reporting Requirements Task Force Update

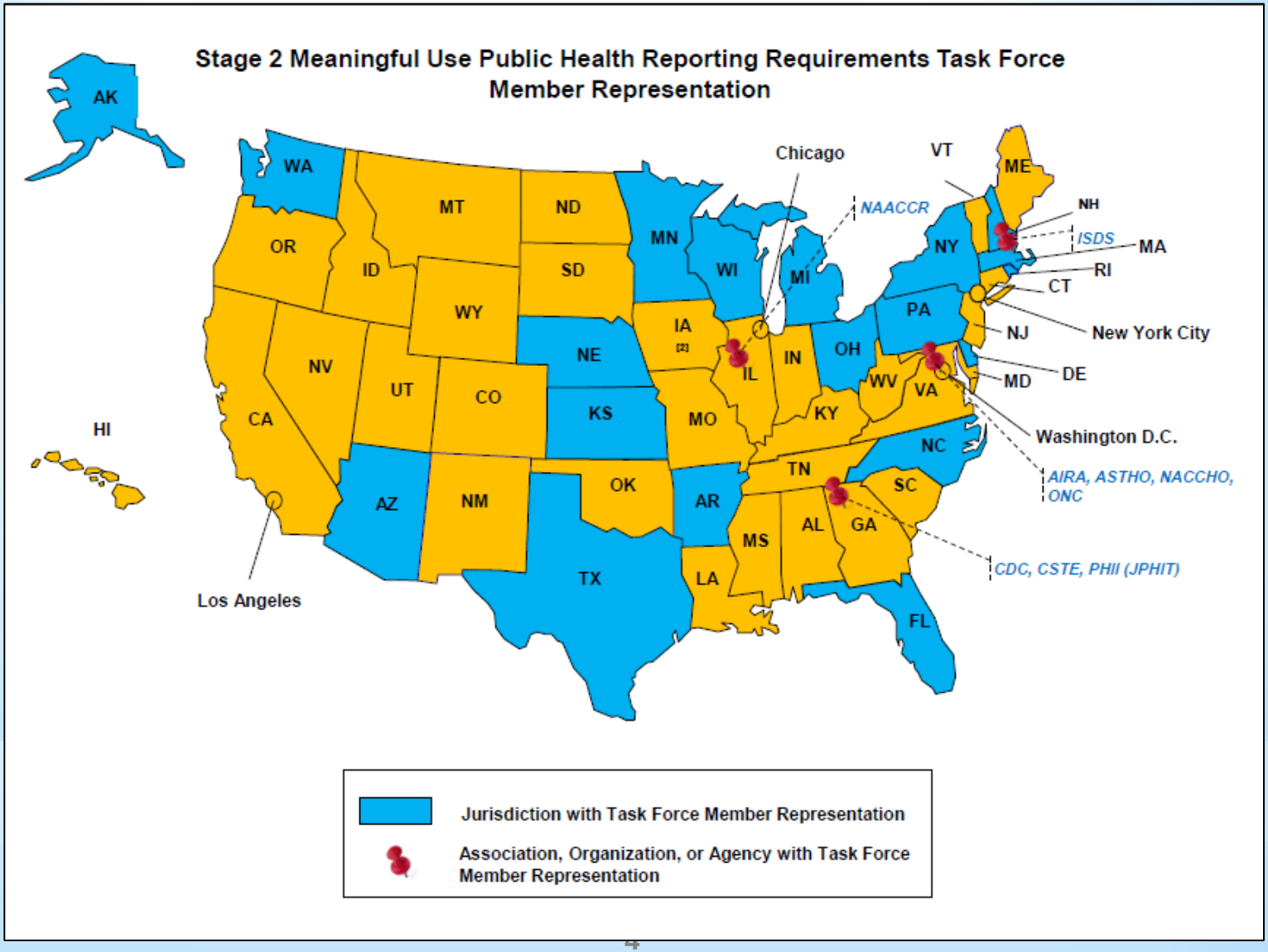
Stage 2 MU Public Health Reporting Requirements Task Force

Formed to discuss and develop consensus guidance around the new processes across domains and across jurisdictions

Representatives from:

- American Immunization Registry Association (AIRA)
- Association of State and Territorial Health Officials (ASTHO)
- Centers for Disease Control and Prevention (CDC)
- Council of State and Territorial Epidemiologists (CSTE)
- International Society of Disease Surveillance (ISDS)
- Joint Public Health Informatics Taskforce (JPHIT)
- National Association of County and City Health Officials (NACCHO)
- North American Association of Central Cancer Registries (NAACCR)
- Office of the National Coordinator for Health Information Technology (ONC)
- Public Health Informatics Institute (PHII)
- State Public Health Agencies
- And Others

Stage 2 MU PH Reporting Requirements Task Force Update



Stage 2 MU PH Reporting Requirements Task Force Update

Stage 2 MU PH Reporting Requirements Task Force

Task Force Focus Areas (Work Lanes)

- Declaration Process
- Business Processes
  - Registration of Intent
  - Onboarding
  - Acknowledgement of ongoing submission
- Transport
- Specialized Registries
- Functional Business Requirements

Inputs to this Task Force include:

- Expanding on work done at the JPHIT Meeting, 10/15-17

Stage 2 MU PH Reporting Requirements Task Force Update

Stage 2 MU PH Reporting Requirements Task Force

High-Level Deliverables:

- Recommendations to CMS for Centralized Repository
- Guidance for PHAs: Declaration of Readiness, Registration of Intent, Onboarding, & Acknowledgement
- Other Guidance: Transport, Specialized Registries, Business Requirements for Registration/On-Boarding Processes

New Public Health Processes for Stage 2 MU

Declaration of Readiness

Who: PHA to CMS
When: Begin in late-summer 2013

Public health agency (PHA) notifies the Centers for Medicare and Medicaid Services (CMS) what public health objectives it can support.

Registration of Intent

Who: EPs and EHs to PHAs
When: Before 60th day of reporting period

Eligible professionals (EPs) and eligible hospitals (EHs) notify PHA in writing what public health objectives they seek to meet.

On-Boarding

Who: EPs and EHs to PHAs
When: Following registration and in response to PHA requests for action

EPs and EHs work with PHAs to establish on-going MU data submission.

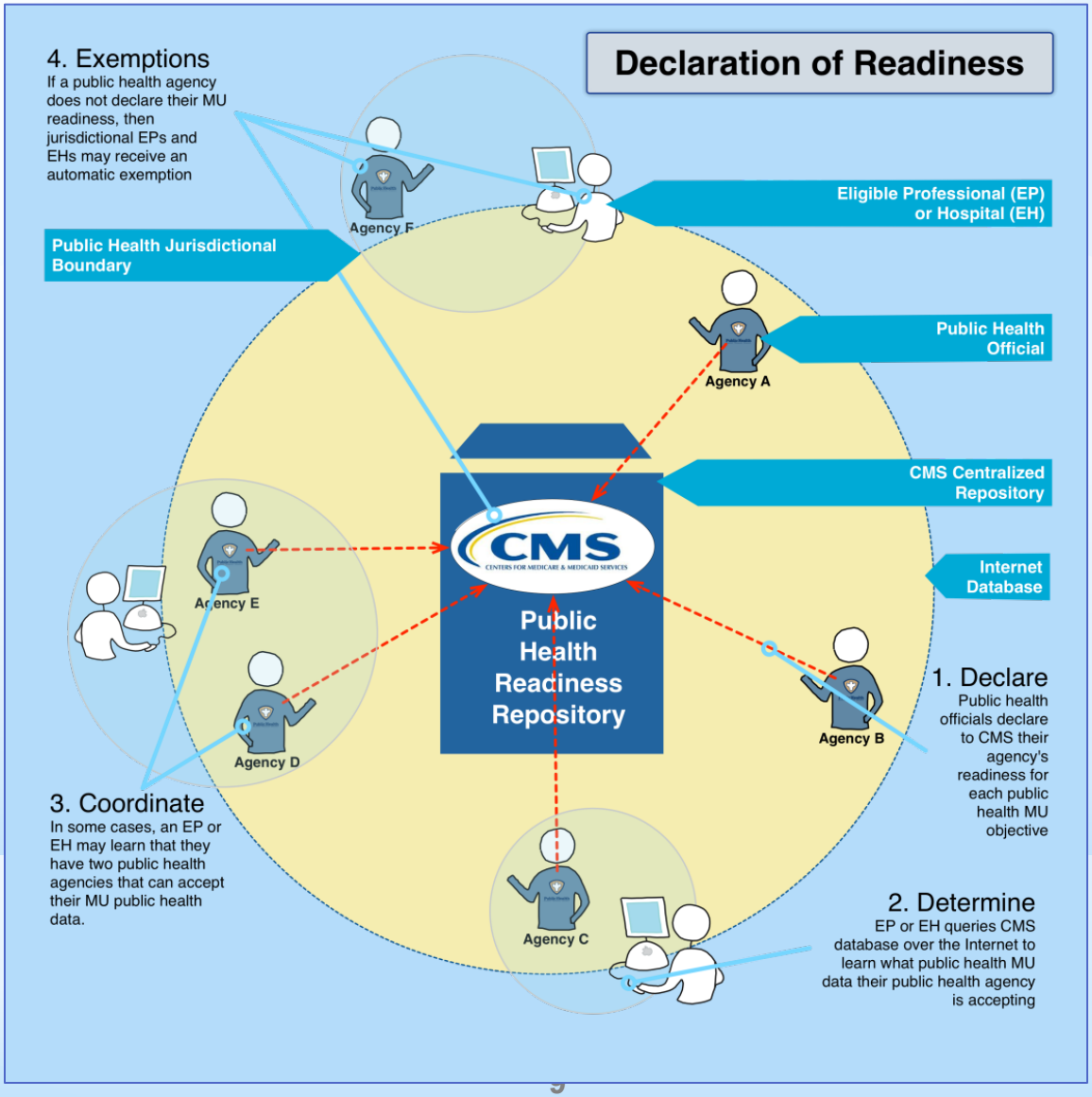
Acknowledgment

Who: PHA to EPs and EHs
When: Upon successful submission of public health MU data to PHA

PHAs affirm that EPs and EHs have successfully submission with a written affirmation. EPs and EHs may use the acknowledgment for MU attestation requirements.

Declaration of Readiness

Stage 2 MU PH Reporting Requirements Task Force Update



Stage 2 MU PH Reporting Requirements Task Force Update

Declaration of Readiness (Centralized CMS Repository)

What this means for PHAs

- PHAs must provide CMS information regarding their capacity to accept electronic data for the MU objectives
  - PHA does have capacity - technical capability and administrative capacity (resources) to enroll and onboard providers
  - PHA doesn't have capacity – Provider can claim exclusion
- PHA must provide information to CMS by deadline
  - Deadline not established yet, but it will be prior to start of Stage 2 MU (10/01/2013 for eligible hospitals)
  - **If PHA doesn't provide information, Providers can claim an exclusion**

Stage 2 MU PH Reporting Requirements Task Force Update

Declaration of Readiness (Centralized CMS Repository)

Stage 2 MU PH Reporting Requirements Task Force

- Provided recommendations for the centralized repository to CMS on 11/13/2012
- Document: "*Public Health Meaningful Use Declaration Process - Requirements and Recommendations*"
  - Included recommendations for:
    - Process Rules
    - Data Elements
    - Functionality

Public Health Meaningful Use Declaration Process - Requirements and Recommendations

The Stage 2 Meaningful Use (MU) Public Health Reporting Requirements Task Force prepared the following requirements and recommendations related to a centralized repository of public health agency capacity. CMS included references to a centralized repository in the Stage 2 Final Rule, including the following:

> *In determining whether the PHA has the capacity, CMS anticipates developing a centralized repository for this information, including a deadline for the PHA to submit information. If the PHA fails to provide information to this centralized repository by the deadline, the provider could claim the exclusion. In the event, that we are unable to develop a centralized repository, providers will make the determination of PHA capacity by working directly with the PHA as is currently the case for Stage 1 of meaningful use.*
> (Source: http://www.gpo.gov/fdsys/pkg/FR-2012-09-04/pdf/2012-21050.pdf Page 54021)

Process Goal

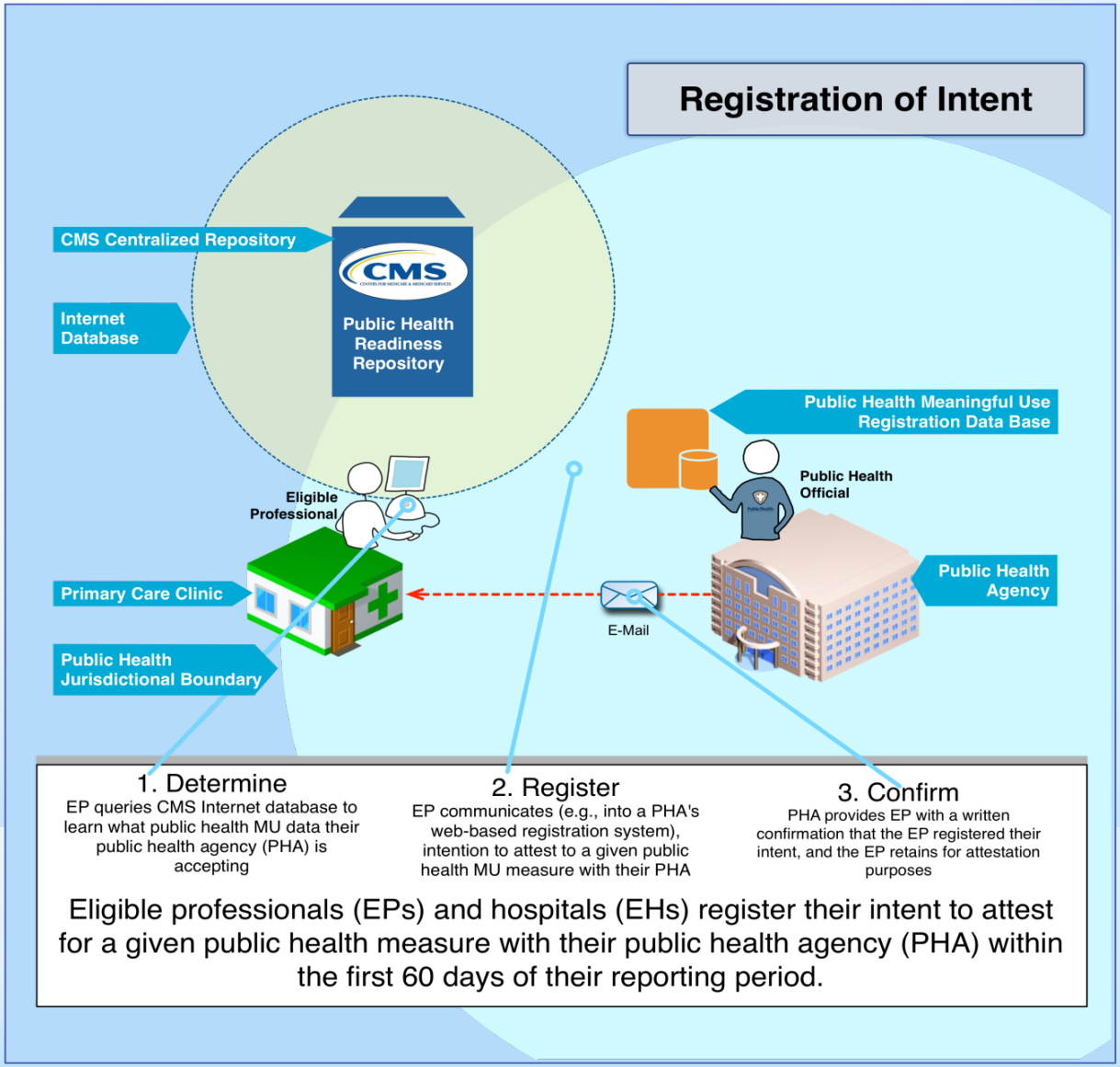
Provide an easily accessible and comprehensive source of public health MU measure information for EPs and EHs to identify participating public health authorities (PHA) and PHAs' requirements.

Entities

- Public Health Authorities (PHA): State, regional, local, and federal
- CMS
- EP/EH
- EHR Vendors

Registration of Intent

Stage 2 MU PH Reporting Requirements Task Force Update



Registration of Intent

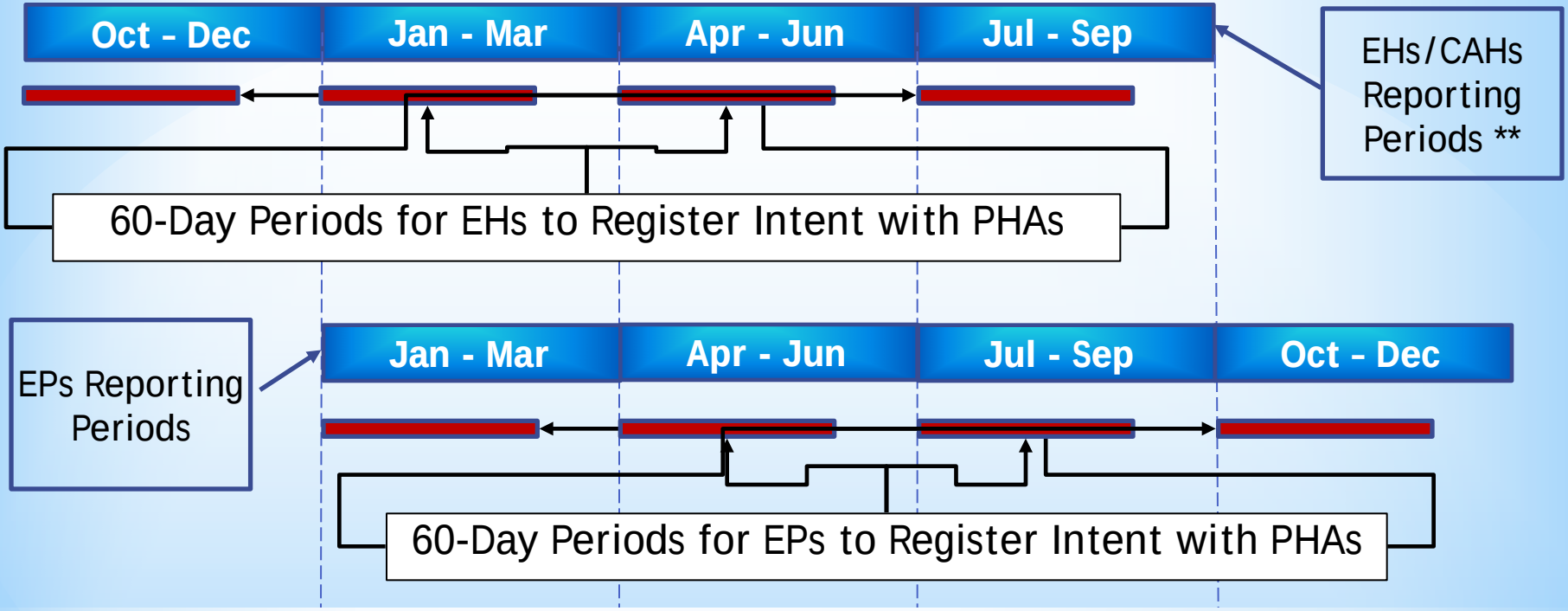
What this means for PHAs

- PHAs must have a process and/or system established to accept provider registrations
  - Determine what information the PHA should capture during registration
  - Method for provider to confirm registration was successful (Provider's documentation for attestation)
- Some PHAs have existing registration systems
  - Modify systems to add support for Stage 2 registration
- PHA registration process ready for start of Stage 2 MU

Stage 2 MU PH Reporting Requirements Task Force Update

Registration of Intent

3-Month 2014 EHR Reporting Periods (Medicare)



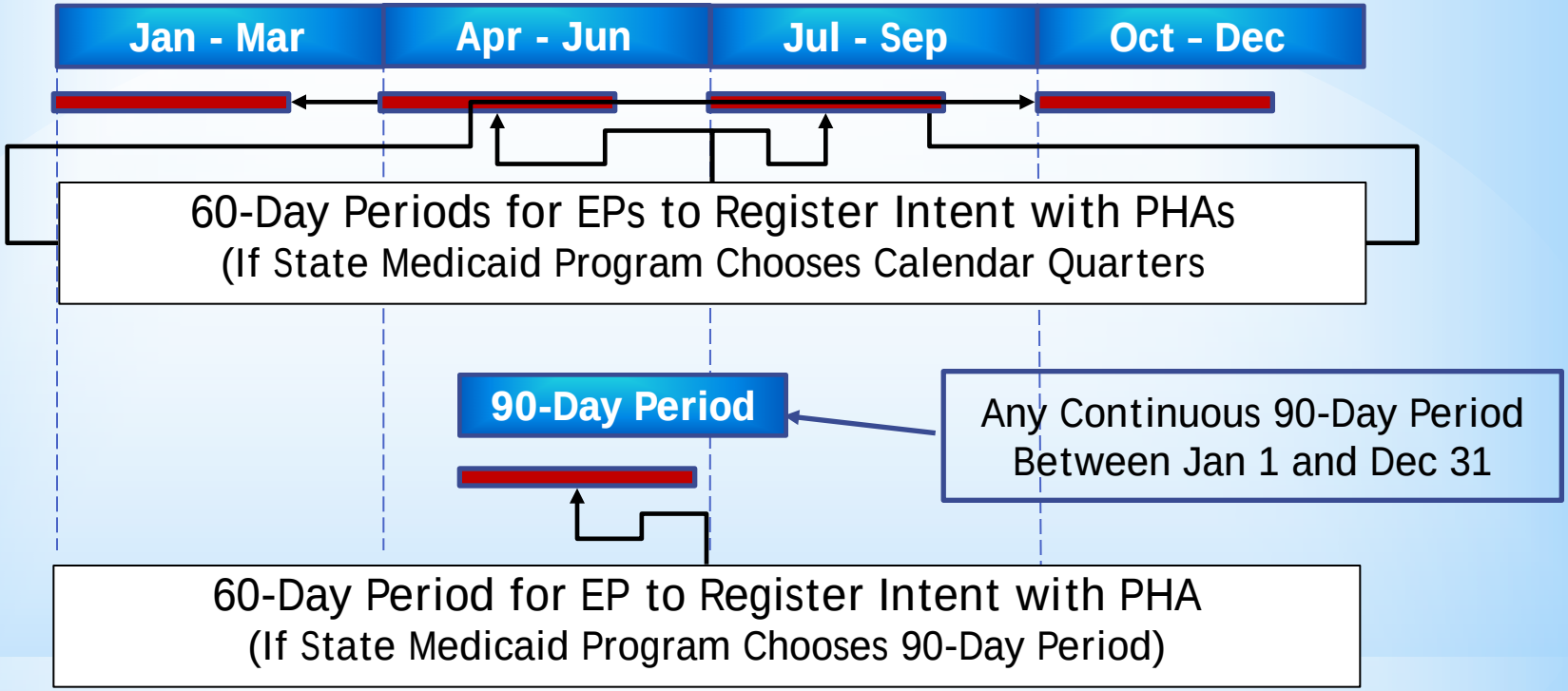
CMS Final Rule: ***http://www.gpo.gov/fdsys/pkg/FR-2012-09-04/pdf/2012-21050.pdf*** *(Page 54021)*
The measure will not be met if the provider—
- Fails to register their intent by the deadline

** EHR reporting periods for Medicare and Medicaid eligible hospitals and CAHs

Stage 2 MU PH Reporting Requirements Task Force Update

Registration of Intent

3-Month or 90-Day 2014 EHR EP Reporting Periods (Medicaid)



Medicaid EPs will attest using an EHR reporting period of any continuous 90-day period between January 1, 2014 and December 1, 2014 as defined by the state Medicaid program, or, if the state so chooses, any 3-month calendar quarter in 2014.

Onboarding

Stage 2 MU PH Reporting Requirements Task Force Update

Onboarding

PHAs will onboard Providers that register their intent to submit data for the MU objectives. Separate onboarding is required for each MU objective.

- PHA prioritize Providers that register
- PHA invites Provider to begin testing and validation
- PHA and Provider engage in data testing and validation
- After successful testing and validation Provider initiates ongoing submission

CMS Final Rule: ***http://www.gpo.gov/fdsys/pkg/FR-2012-09-04/pdf/2012-21050.pdf*** *(Page 54022)*
..... successful ongoing submission as electronic submission of reportable data during the normal course of a provider's operations. This is not to say all data that is reportable is sent to the PHA. A provider who is submitting any reportable data during their normal course of their operations is engaged in ongoing submission.

Stage 2 MU PH Reporting Requirements Task Force Update

Providers Meet the PH MU Measures if:

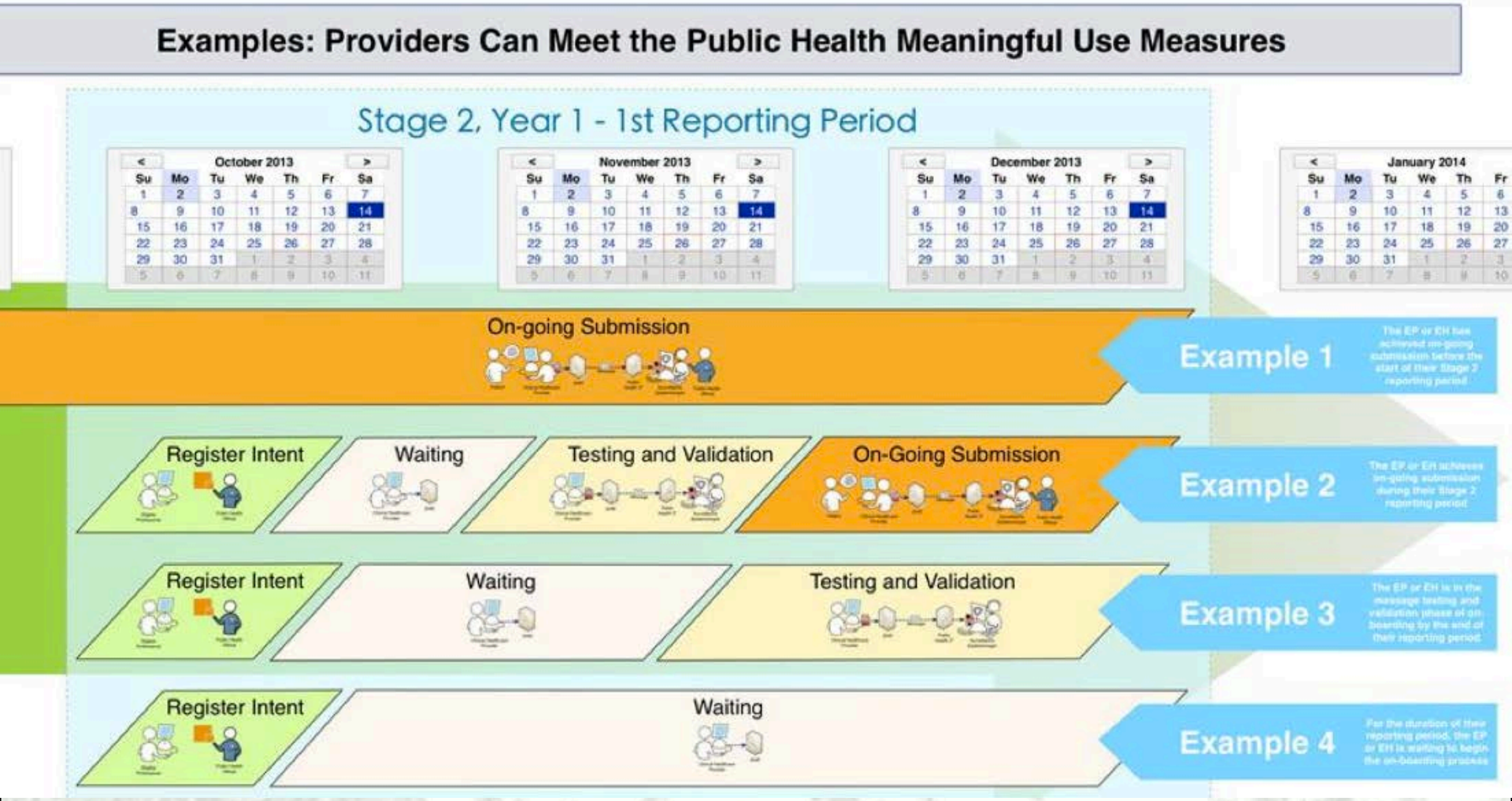
Ongoing submission was already achieved for an EHR reporting period in a prior year and continues throughout the current EHR reporting period using either the current standard or the standards included in the 2011 Edition EHR certification criteria adopted by ONC during the prior EHR reporting period when ongoing submission was achieved.

Registration of intent to initiate ongoing submission was made by the deadline with the PHA or other body to whom the information is being submitted (within 60 days of the start of the EHR reporting period) and ongoing submission was achieved.

Registration of intent to initiate ongoing submission was made by the deadline and the EP or hospital is still engaged in testing and validation of ongoing electronic submission.

Registration of intent to initiate ongoing submission was made by the deadline and the EP or hospital is awaiting invitation to begin testing and validation.

Getting to “On-Going”



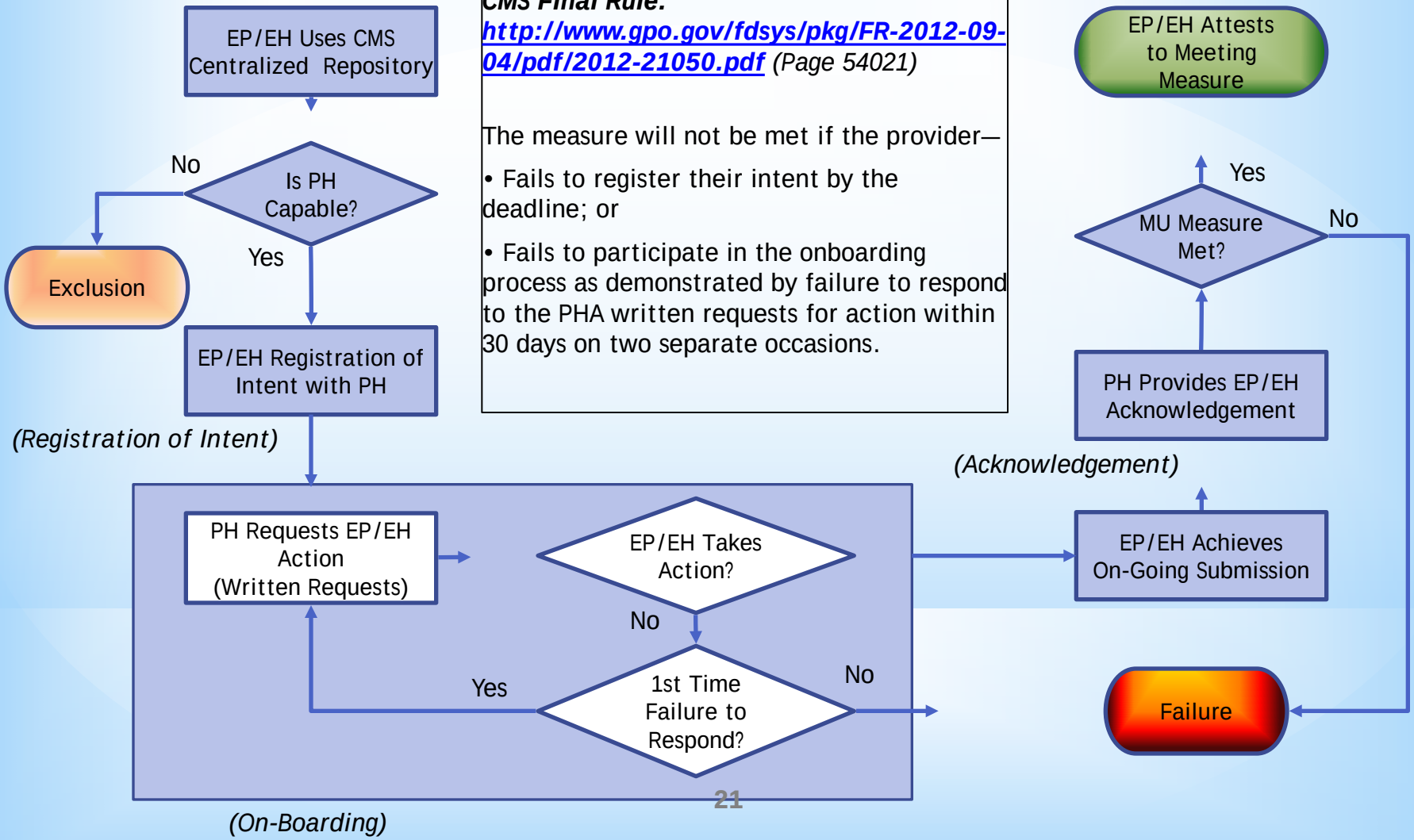
Stage 2 MU PH Reporting Requirements Task Force Update

Providers Fail to Meet the PH MU Measures if:

CMS Final Rule:
http://www.gpo.gov/fdsys/pkg/FR-2012-09-04/pdf/2012-21050.pdf *(Page 54021)*

The measure will not be met if the provider—

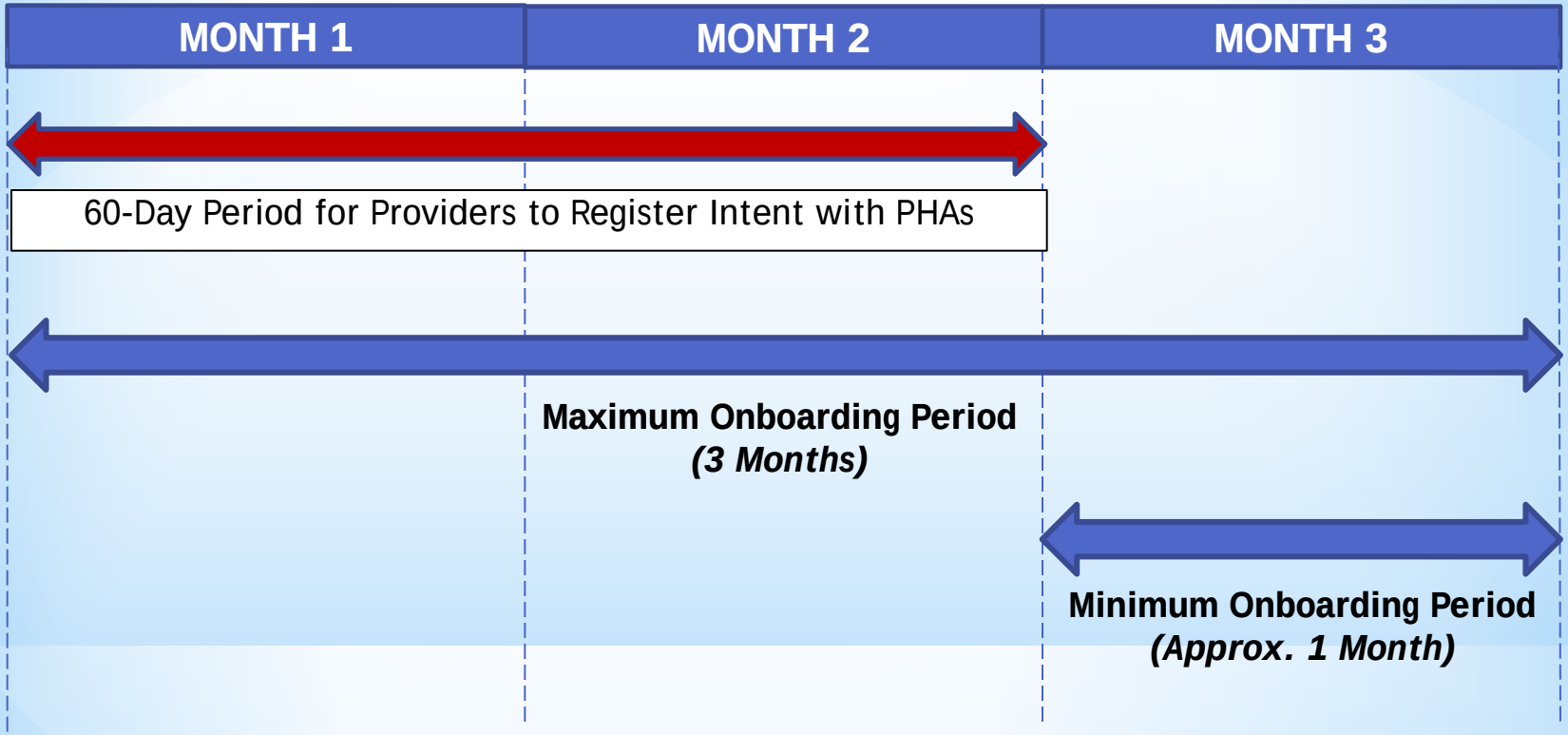
- Fails to register their intent by the deadline; or
- Fails to participate in the onboarding process as demonstrated by failure to respond to the PHA written requests for action within 30 days on two separate occasions.



Stage 2 MU PH Reporting Requirements Task Force Update

Onboarding

2014 EHR 3-Month Reporting Period



Limited timeframe for onboarding during the 1st year of Stage 2

Acknowledgement

Stage 2 MU PH Reporting Requirements Task Force Update

Acknowledgement

PHAs provide written communications affirming Providers are able to submit relevant public health data to the PHA (Provider achieved ongoing submission). The Providers use this written communication to support their attestation.

Examples of written communications include, but are not limited to:

- Email sent to provider
- Letter mailed to provider
- HL7 Acknowledgement Messages from Immunization/Syndromic submissions
- Posting information on PHA website

CMS Final Rule:
http://www.federalregister.gov/a/2012-21050/p-1018

Comment: Commenters suggested that the expectation that public health agencies provide affirmation letters is too restrictive in accomplishing the goal of established a record of communication between the provider and the PHA. They maintain that there are simpler and less burdensome ways such as automated acknowledgment messages from immunization submissions.

Response: We agree that our proposal requiring it must be a letter is too restrictive and revise our expectation to allow for any written communication (which may be in electronic format) from the PHA affirming that the EP, eligible hospital or CAH was able to submit the relevant public health data to the PHA.

Emergency Medical Services (EMS) Systems
Emergency Preparedness
Health Care Reform
Healthcare Professions and Facilities
Best Practices
Data Reporting and Retrieval
Electronic Death Registration System (EDRS)
Electronic Health Records - Meaningful Use
Electronic Laboratory Reporting
Immunization Information System
Syndromic Surveillance
Health Information Exchange
Hospital Employee Compensation
Hospital Financial Reporting
Hospital Inpatient Database (CHARS)
Immunization Information System
Washington Tracking Network (WTN)
Facilities Licensing
Hearings
Medical Marijuana (Cannabis)
Pain Management
Patient Care Resources
Prescription Monitoring Program (PMP)
Professional Resources
Restroom Access
Professions Licensing
Violence Against Women
Coordinated Quality Improvement
Notifiable Conditions
Public Health Laboratories
Public Health System Resources and Services
Rural Health
Tribal Public Health

Meaningful Use

The Centers for Medicare and Medicaid Services (CMS) established an incentive program using American Recovery and Reinvestment Act (ARRA) funds to encourage eligible providers and hospitals to adopt and use certified Electronic Health Record (EHR) technology. One goal of ARRA is to increase the Meaningful Use of EHR technology among medical providers.

Receiving Meaningful Use Incentives

To receive Meaningful Use incentives, participating providers and facilities must meet various operational and public health criteria established by CMS with the Office of the National Coordinator for Health Information Technology (ONC).

Below is a summary of the public health objectives described by Meaningful Use. Please select a public health objective for further information about Washington State Department of Health's activities and on-boarding instructions.

	Public Health Objectives	EH	EP	Requirement
Stage 1	Electronic Laboratory Reporting (ELR)	Must pick 1 of 3	N/A	1 test submission of data
	Immunization Information Systems		Must pick 1 of 2	
	Syndromic Surveillance			
Stage 2	Electronic Laboratory Reporting (ELR)	Required	N/A	Ongoing Submission
	Immunization Information Systems	Required	Required	
	Syndromic Surveillance	Required	Menu Option	
	Cancer Registry Reporting	N/A	Menu Option	
	Specialized Registry*	N/A	Menu Option	

* Washington State Department of Health has not yet officially named any registries for this objective. But we are developing Prescription Monitoring Program as a menu option, more information on this will be available soon. There may be registries outside that agency that submission to which will satisfy this reporting objective.

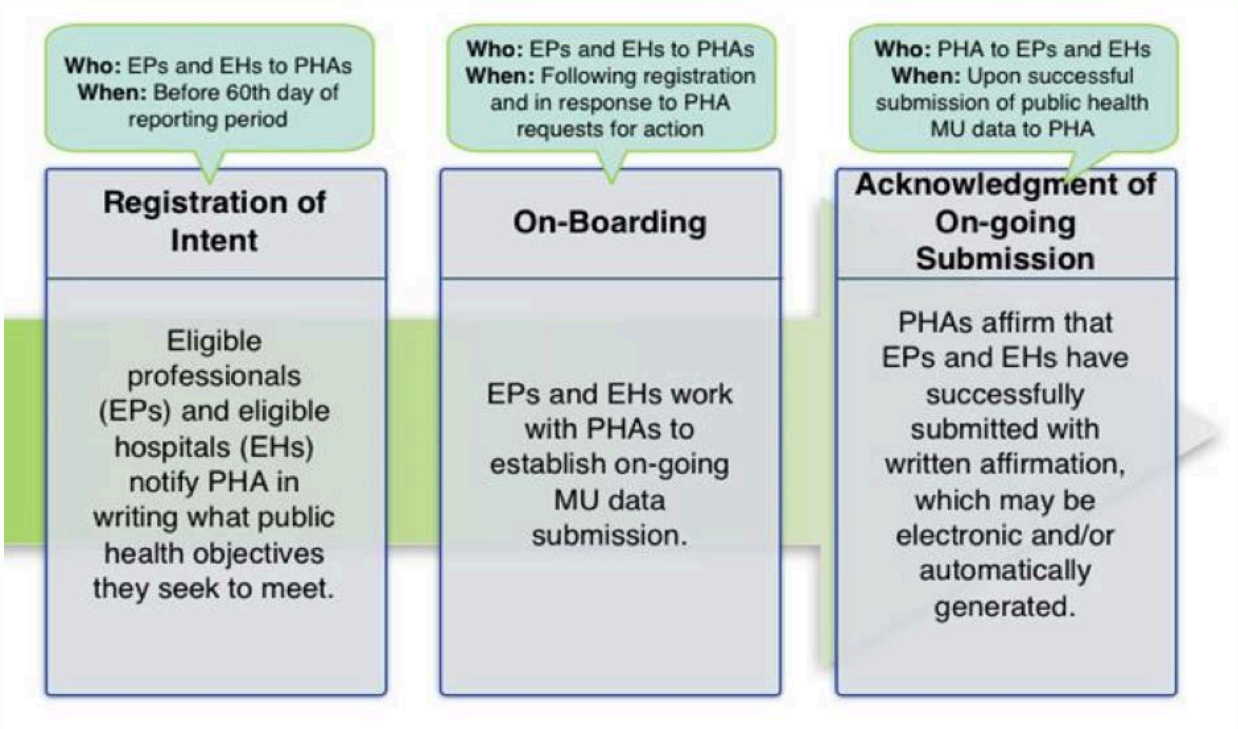
Please report any problems or difficulties to Dr. Bryant Thomas Karras, Washington State Department of Health Meaningful Use Coordinator: bryant.karras@doh.wa.gov or to informatics.csc@doh.wa.gov.

More Resources

- EHR Incentive Programs
- Health IT (ONC)
- Public Health Meaningful Use (CDC)
- Regional Extension Center
- WA EHR Incentive Program
- Washington State HIE

Multi-step process

New process (connecting providers) to DOH…



Step 1 Registration	Eligible hospital notifies public health of interest in submitting electronic laboratory reporting data for Meaningful Use.
Step 2 Pre-Testing	Eligible hospital generates and evaluates electronic laboratory reporting test messages.
Step 3 Testing	Eligible hospital sets up data transport option and submits test messages to public health.
Step 4 Validation Queue	Eligible hospital is placed on a waitlist for validation.
Step 5 Validation	Eligible hospital establishes an electronic data feed to public health, maintains traditional 'paper-based' reporting, and participates in data validation activities.
Step 6 Production	Eligible hospital reports via electronic feed and participates in periodic quality assurance activities.

Registration of Intent

Eligible hospitals starting stage 1 or stage 2 of Meaningful Use after Oct 1 2013 are required to complete the registration form for each state even if they have registered previously. One registration form is required per hospital no later than the 60th day of the start of their continuous 90-day EHR reporting period.

Please note: Eligible hospitals must continue traditional reporting practices (i.e. fax, phone, or mail) during implementation of electronic reporting until they complete all on-boarding and quality assurance processes.

Regional Extension Centers

Paper-Based Practice

Support Network

- **Regional Extension Center**
- **Community College Workforce**
- **Communities of Practice**
- **Health Information Technology Research Center (HITRC)**

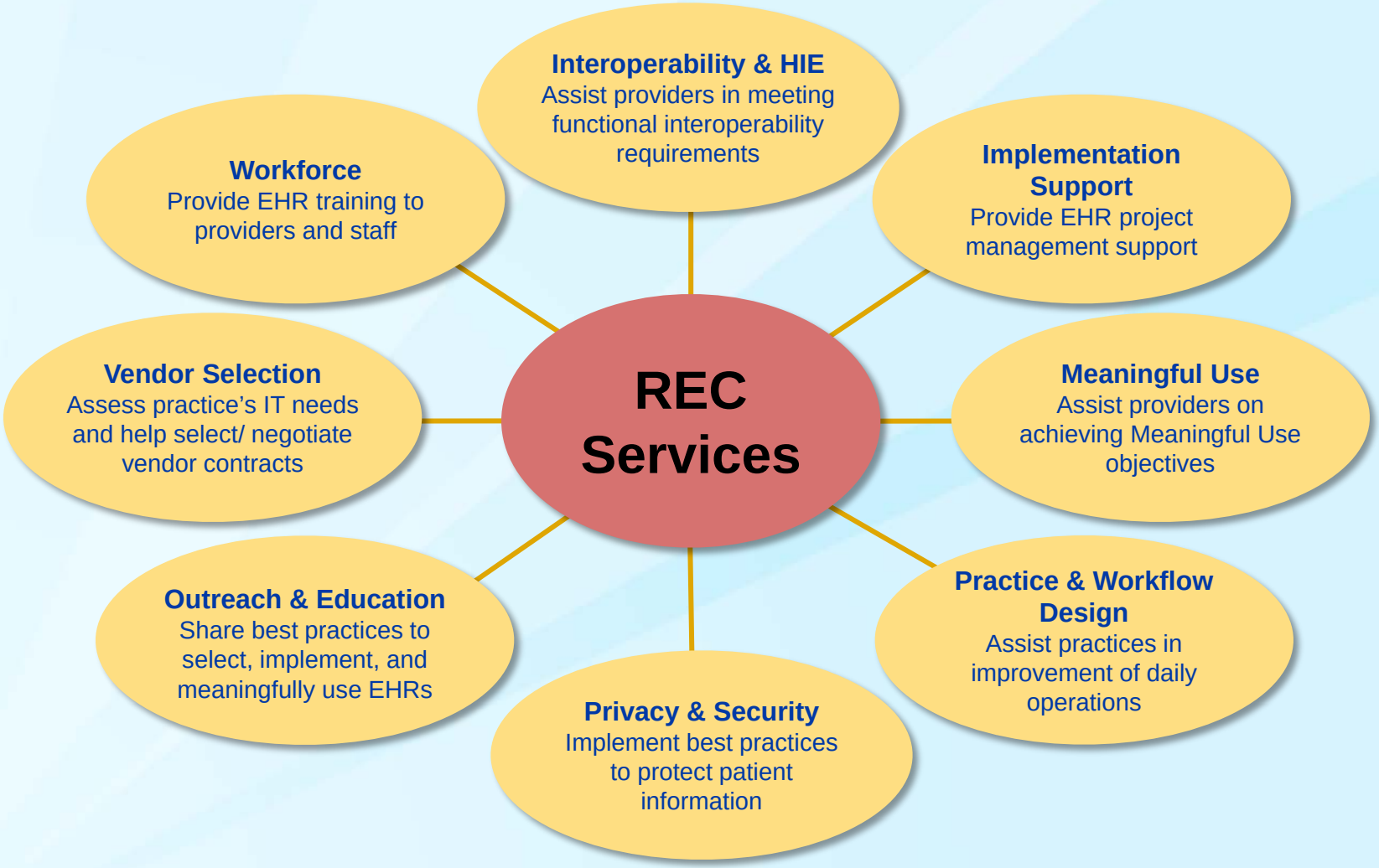
REC-Provider Partnership

Fully Functional EHR

Education and Outreach • Workforce • Vendor Relations • Implementation • Workflow Redesign • Functional Interoperability • Privacy and Security • Meaningful Use

- ↑ **Population Health**
- ↑ **Health Care Efficiency**
- ↑ **Patient Health Outcomes**

RECs Cover the Full Range of Services



Models for RECs to Help Public Health

- **Communication to Providers**
  - Requirements/Process for meeting PH Measures
  - Provider training
- **Vendor engagement**
  - Contract negotiations for PH interfaces
- **Provide access to certified EHR modules**
  - Ohio
- **Provide Transport mechanisms**

Zero Paid Claims

- **The EHR Incentive Programs Stage 1 Rule stated that, in order for a Medicaid encounter to count towards the patient volume of an eligible provider, Medicaid had to either pay for all or part of the service, or pay all or part of the premium, deductible or coinsurance for that encounter. The Stage 2 Rule now states that the Medicaid encounter can be counted towards patient volume if the patient is enrolled in the state's Medicaid program (either through the state's fee-for-service programs or the state's Medicaid managed care programs) at the time of service without the requirement of Medicaid payment liability. How will this change affect patient volume calculations for Medicaid eligible providers?**

State HIE Program Overview

- **Facilitates and expands the secure electronic movement and use of health information**
  - Federal-State collaboration
- **Prepares States to support their providers in achieving HIE MU goals, objectives and measures**
  - Four year program, total funding available $548 million
- **56 states/state designated entities and territories awarded in February and March of 2010**
- **States need an ONC approved State Plan before Federal funding can be used for implementation**

State HIE Program Objectives First Phase Implementation

Ensure ALL eligible providers within every state have at least one option available to them to meet the three program priorities .

- **E-prescribing—the ability to generate and transmit permissible prescriptions electronically (eRx)**
- **Receipt of structured lab results—the ability to incorporate clinical lab test results into EHR as structured data**
- **Sharing of patient care summaries across unaffiliated organizations—the ability for every provider to provide a summary care record for each transition of care or referral**

Models for HIEs to Help Public Health

- **Filtering results**
  - New Mexico ELR
- **Incorporate structured lab results**
  - New Mexico
- **Provide access to certified EHR modules**
  - Ohio
- **Provide Transport mechanisms**
  - Direct (Matches well with needs of Cancer Registries)

Immunization

- Publication Date
  - Published 9/2/2012
- Documents Published with Regulation
  - *HL7 Version 2.5.1-Implementation Guide for Immunization Messaging, Release 1.4 (8/1/2012)*
- Documents Published post-regulation
  - *Conformance Clarification for EHR Certification of Immunization Messaging – (VXU MESSAGES V04 HL7 Version 2.5.1)*

Immunization

- Post-regulatory issues identified
  - Order Group is shown with blank usage and should be RE usage
  - RXA-6 (adminsitered amount)
    - Clarified conformance statement to:
      - If RXA-9.1 is not valued “00” then RXA.6 SHALL BE valued “999”.
      - RXA-9.1 “00” means that the immunization was administered by sender. This is the only time that the amount administered can be known.

Immunization-Scenarios

- Scenarios for Testing
  - Record administration of one immunization to a child
  - Record administration of one immunization to a adult
  - Record one immunization to a child from a historical record
  - Record one immunization to a child who consents to share records
  - Record refusal of immunization for a toddler
  - Record history of varicella for a child
  - Record complete immunization history for a child with both historical records and administered vaccines

Immunization Test Data

- Test Data
  - 1 set of test data for each scenario will be published for comment
  - 3 sets of test data for each scenario will be available for ATCBs

Reportable Lab Results

- Publication Date
  - October 15th, 2012
  - Documents Published with Regulation *Available on the HL7 Site*
  - HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm) (electronic version in PDF) with Errata
- Documents Published post-regulation – CDC.gov
  - ELR 2.5.1 Clarification Document for EHR Technology Certification, July 16, 2012; to be updated with publication of test scenarios

Reportable Lab Results

- Post-regulatory issues identified*
  - OBR.2 (Placer Order Number) Cardinality should be [0..1] instead of [1..1] as published.
  - HD.2 (Universal ID): Comment should read: Must be an OID except for ELR Sending Facility for MSH-4 where a CLIA identifier is allowed, instead of "for ELR Receiver for MSH-3 where a CLIA identifier is allowed."
  - HD.3 (Universal ID Type): Comment should read: Constrained to the value 'ISO' except for ELR Sending Facility for MSH-4 where the value 'CLIA' is allowed, instead of "for ELR Receiver for MSH-4 where the value 'CLIA' is allowed."

*There are additional errata identified. These have been brought to the attention of the HL7 Public Health Emergency Response (PHER) working group in order to ballot and publish a second Errata document.

Reportable Lab Results - Scenarios

Scenario*	Description
1	Final Result, Single Quantitative w/Guardian maximally populated message
2	Final Result, Single Quantitative - ORC segment
3	Prelim, Lab Test with Multiple Organism Results
4	Final Result, Culture Lab Tests Single Organism w/ Susceptibilities
5	Final, Screen and Reflex Result
6	Final, Screen and Reflex Result
7	Final, Single Quantitative Titer Result
8	Final, Single Qualitative Results w/Guardian
9	Final, Multiple Qualitative Results

* Each scenario has 3 stories, representing different disease/conditions

Reportable Lab Results Test Data

- Test Data*
  - 3 sets of test data for each scenario published for comment
  - 3 sets of test data for each scenario available for ATCBs

*Each scenario has 3 stories, representing different disease/conditions and objective that the scenario requires.

PH Readiness

- Challenges to perception of PH Readiness for Stage 1
- How can we better demonstrate PH Readiness and how PH uses the data

EP Improve Care Coordination

Objective	Performance	Exclusion	Deferral
Medication reconciliation	88%	3%	53%
Summary of care at transitions	89%	3%	82%

EP Improve Population and Public Health

Objective	Performance*	Exclusion	Deferral
Immunizations	37%	44%	19%
Syndromic Surveillance	6%	24%	70%

*Performance is percentage of attesting providers who conducted test

EH Quality, Safety, Efficiency, and Reduce Health Disparities

Objective	Performance	Exclusion	Deferral
Problem List	95%	N/A	N/A
Medication List	98%	N/A	N/A
Medication Allergy List	98%	N/A	N/A
Demographics	97%	N/A	N/A
Vital Signs	93%	N/A	N/A
Smoking Status	93%	0.6%	N/A

EH Quality, Safety, Efficiency, and Reduce Health Disparities

Objective	Performance	Exclusion	Deferral
CPOE	85%	N/A	N/A
Advance directives	96%	0.5%	9%
Incorporate lab results	95%	N/A	14%
Drug-formulary checks	N/A	N/A	18%
Patient lists	N/A	N/A	43%

EH Improve Population and Public Health

Objective	Performance*	Exclusion	Deferral
Immunizations	53%	13%	34%
Reportable Lab Results	14%	5%	80%
Syndromic Surveillance	19%	3%	78%

*Performance is percentage of attesting providers who conducted test

How could Public Health Get more $

Other ONC Initiatives

- Consumer Engagement
- Beacons
- S&I Framework Initiatives
  - Structured Data Framework
  - Data Access Framework
  - HealthEDecisions

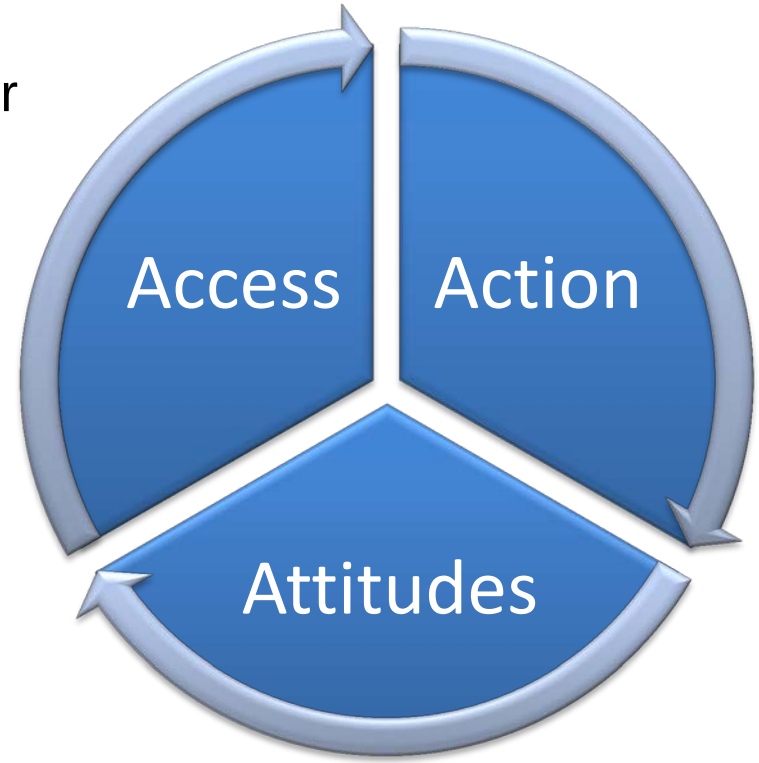
Consumer Innovation Challenge

Putting the I in HealthIT
www.HealthIT.gov

Goal: Collaborate with a vanguard group of State HIE grantees to empower consumers to be partners in their care by implementing innovative approaches to sharing electronic information with consumers and enabling consumer-mediated exchange, through which patients can aggregate, use, and re-share their own information.

The Three A's Approach to Consumer eHealth

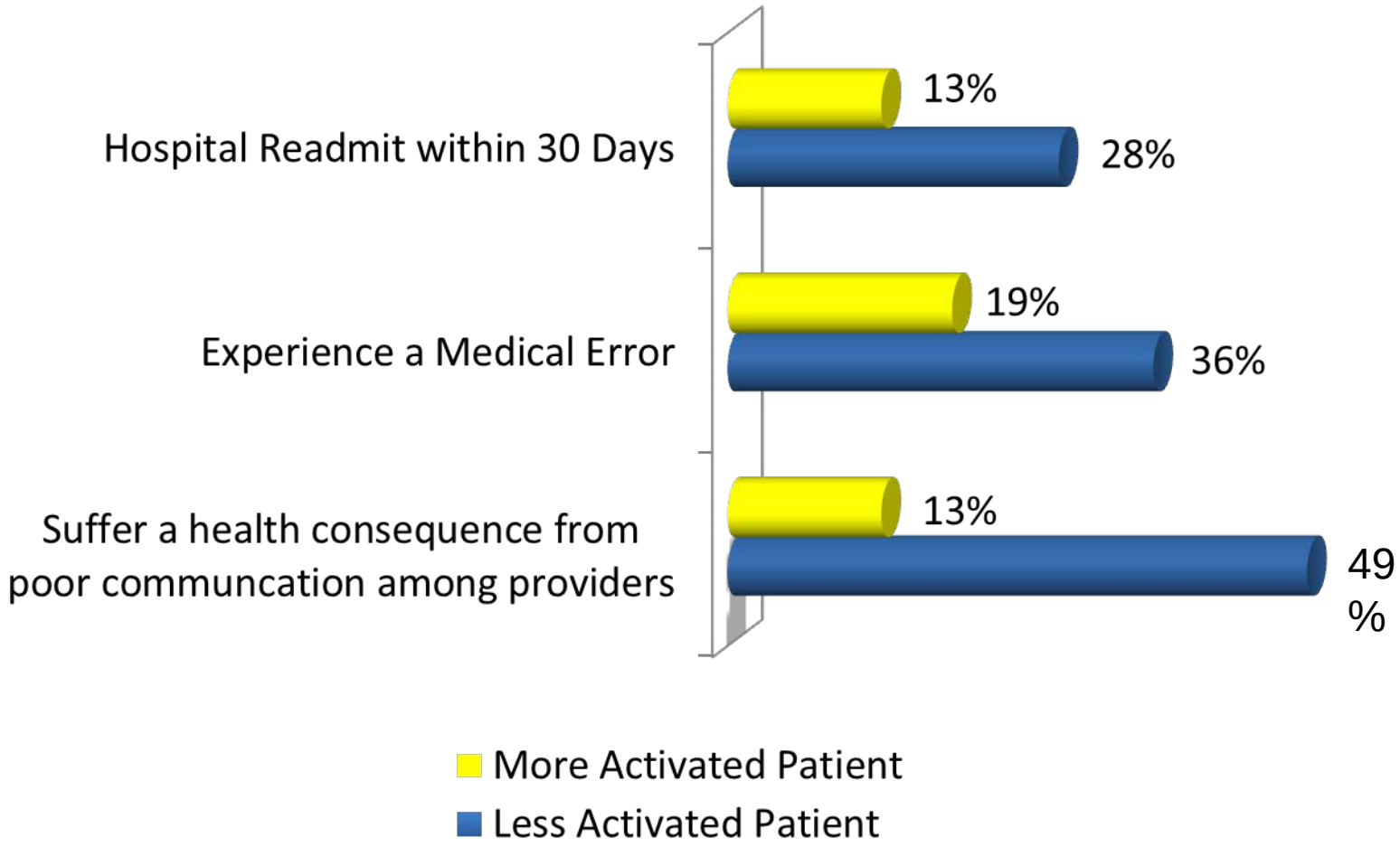
Increase consumer Access to *their* health information



Enable consumers to take Action with *their* information

Shift Attitudes to support patient-provider partnership

Better Engagement => Better Outcomes



Source: AARP Survey of patients over 50 with 2 or more chronic conditions

The Blockbuster Drug of the Century (Aug 28, 2012)

HL7 STANDARDS HEALTH

Engaging Conversations on Healthcare and Technology

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THE BLOCKBUSTER DRUG OF THE CENTURY: AN ENGAGED PATIENT

Tweet 165 | Share 63 | +1 12 | Like 26

August 28th, 2012 by Leonard Kish

Print Friendly

165 Tweet | 26 Like | 12 +1 | 63 Share

Patient engagement continues to be big news. Meaningful Use's Stage 2 final rule has patient and family engagement at its very core. And, based on solicited feedback, the ONC reduced patient engagement measures from 10% to 5%, showing it may be the hardest goal of Meaningful Use to achieve.

So why, oh why, is patient engagement such a big part of MU and the Medicare shared-savings program for ACOs?

All this is so different for healthcare providers. It's like a great restaurant learning that their new business is going to be – in addition to continuing to provide a great in-restaurant experience – teaching people how to cook at home. What? This isn't what we do! It's impossible!

Actually, it's surprising that it has taken us this long to focus on patient engagement because the results we have thus far are nothing short of astounding. If patient engagement were a drug, it would be the blockbuster drug of the century and malpractice not to use it.

Consumer Engagement

- *Immunization Registries* - Enables families to access immunization registries and download or send them to a PHR
- *Blue Button* - Allows consumers to obtain a copy of their health information through a simple web-based download
- *Direct to Consumers* - Encourages patients and their providers to get Direct addresses and for consumers to begin receiving, aggregating and using their health information and sharing it with caregivers and providers
- *Cancer Care Coordination* - Focuses on improving cancer care coordination by sharing electronic health information including radiology images, discharge summaries and medication lists with cancer patients to support more coordinated care, patient engagement and better transitions

Consumer Engagement

- *Immunization Registries* **Indiana** created a consumer portal myVAX that allows patients to access their records in the state immunization registry the Children and Hoosier's Immunization Registry Program (CHIRP). They developed a portal that provides multiple delivery options including an on screen view and download capability via "Blue Button", a CCD export option, and the ability to print out a copy.

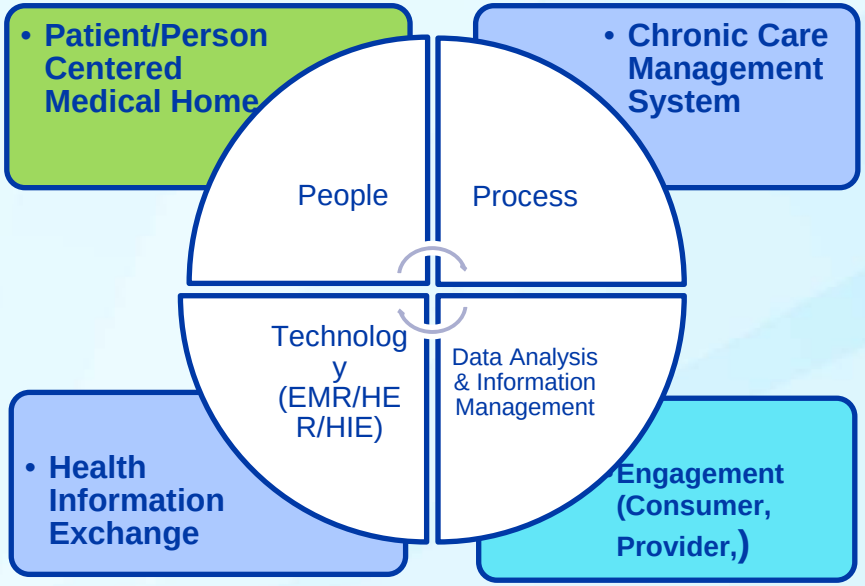
Crescent City Beacon Community

- Greater New Orleans ~1.2 million
- Louisiana Public Health Institute (LPHI) as convening entity – 501 (c)(3)
- Safety Net System based on a network of community health clinics with high adoption of electronic medical records
- Focus on improving chronic disease management due to high prevalence of Diabetes and Cardiovascular disease

Solution Offering And Value Proposition

Care Management & Coordination System

Solution Offering



Value Proposition

Improve Quality

- HEDIS measures for diabetes and cardiovascular

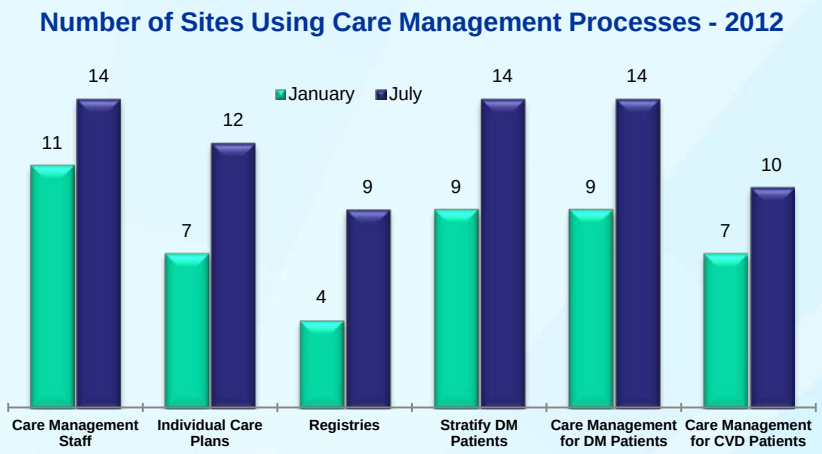
Improve Efficiency

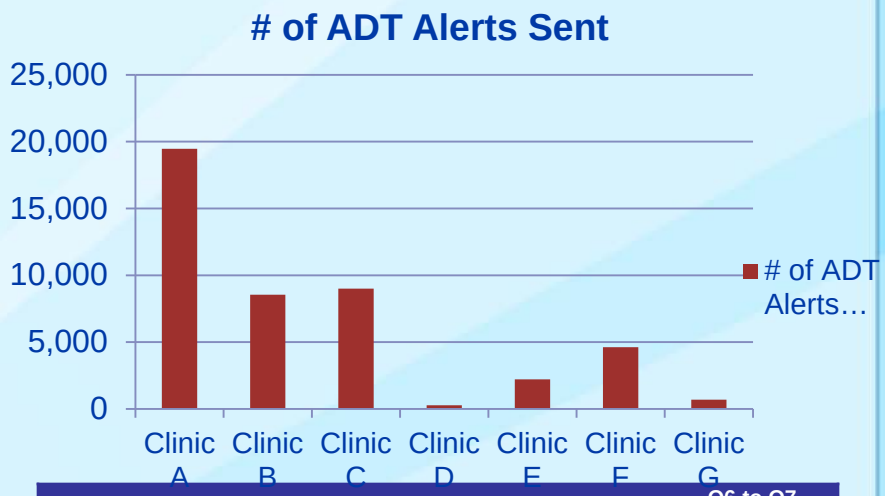
- Reduce hospital readmissions
- Reduce Emergency Room Visits
- Reduce Avoidable Hospital Admissions
- Reduce duplicate testing (e.g. imaging)
- Medication management

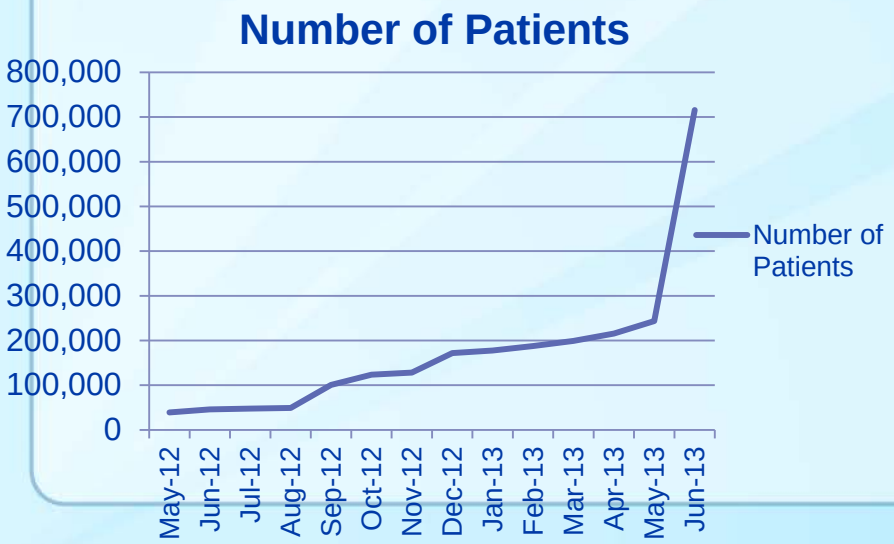
Bend the Medical Cost Trend

- Reduction in per member per month cost

Positive Trends on Adoption & Outcomes







Quality Outcomes	Q6 to Q7 (October 2012)
Diabetes: A1C testing	↑
Diabetes: A1C control (<8.0%)	↑
Diabetes: Lipid testing	↔
Diabetes: Lipid control (<100mg/dL)	↑
Diabetes: Blood Pressure Control (<130/80)	↔
Ischemic Vascular Disease: Blood Pressure Control (<140/90)	↔
Ischemic Vascular Disease: Complete Lipid Profile	↔
Coronary Artery Disease: Drug Therapy for Lowering LDL-C	↑

** All data from QI Outcome Measure Reports*

Crescent City Beacon Community

Emergency Dept. (ED) Notifications . . .

I Love it and so do my colleagues! *The ED notifications have improved our ability to maintain a continuum of care for our patients, especially those with chronic diseases. These notifications provide us with an awareness that we wouldn't have otherwise had.*

Abigail, a RN from Daughters of Charity, shares a ED/IP notification success story.

Now, we do not need to rely on patients to report all of their visits and remember all of the details ***the system does it for them****."*

Standards & Interoperabili ×
wiki.siframework.org/S%26I+Initiative+Overview%2C+Phases+and+Outputs
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Committed Members
Getting Started as a Participant
Community Enabling Toolkit (CET)
April Face-to-Face (F2F) Info
FAQs
Wiki User Guide

S&I Initiative Overview, Phases and Outputs

Edit 0 24 ...

Initiative Overview, Outputs & Phases | Steering & Consensus Process | Community Participation | IPR Policy | Wiki Use Guidelines

initiativeoverview_HL.jpg

The reader is advised to read the S&I Framework Introduction before reading the Initiative Overview, Phases and Outputs.

You may also return to the Community Enabling Toolkit (CET).

1. S&I Initiative

A Standards and Interoperability (S&I) Initiative is a project aimed to solve a particular challenge that hinders interoperability in the healthcare industry. The Initiative organizes work necessary for the development or evolution of S&I Framework deliverables. The Initiative has no formal status outside of that purpose. There are two types of Initiatives within the S&I Framework: Staff Assigned Initiatives and Community Assigned Initiatives.

1.1 Staff Assigned Initiatives

Staff Assigned Initiatives are Initiatives that have formal staff allocations by the S&I Steering Team. The purpose of a Staff Assigned Initiative is to provide additional input and guidance to an area that the Office of the National Coordinator (ONC) and S&I Framework has determined to be an interoperability challenge.

1.2 Community Assigned Initiatives

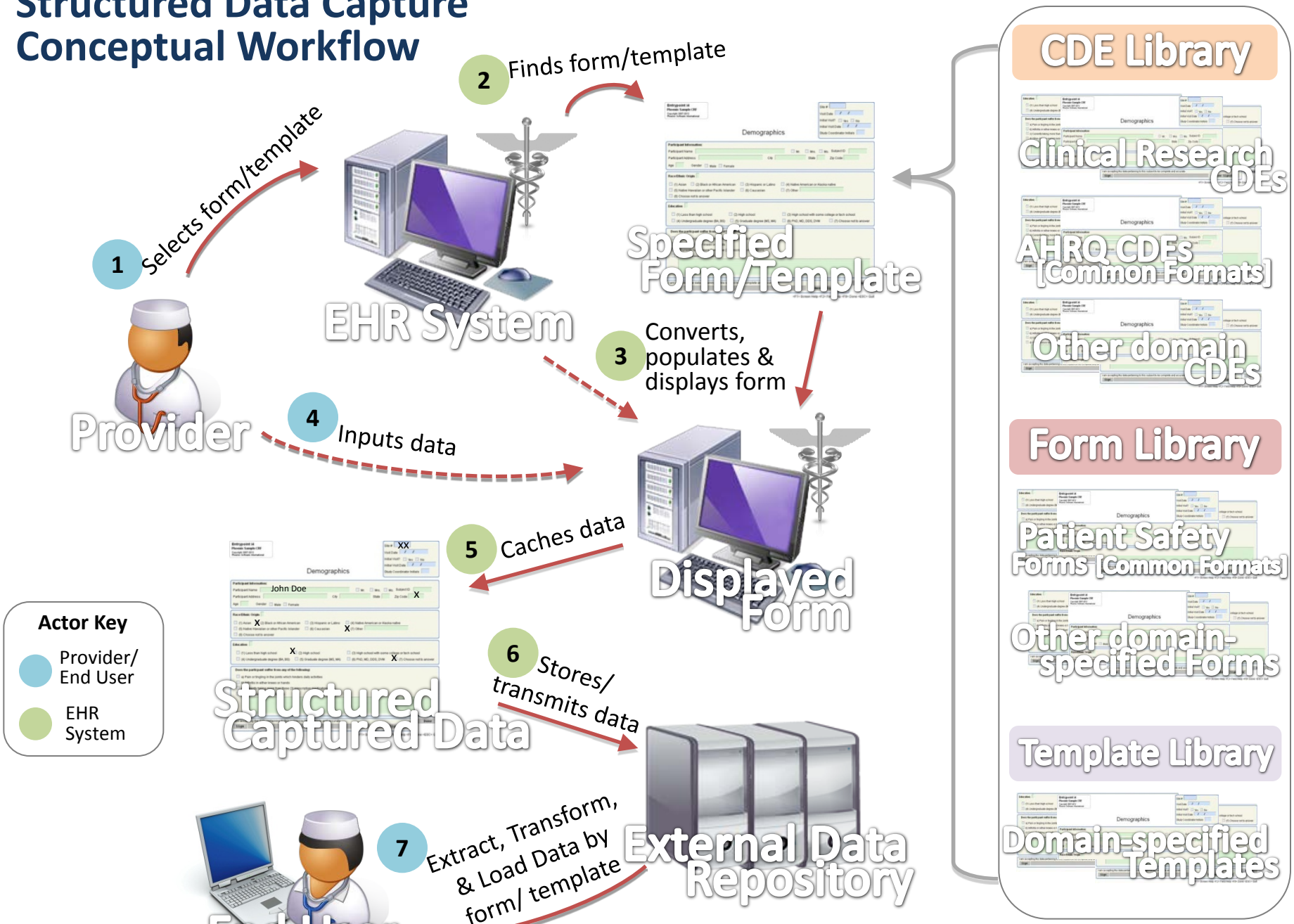
Community Assigned Initiatives are Initiatives that do not have formal staff allocations by the S&I Steering Team.

2. Initiative Terms and Definitions

2.1 Initiative Charters

11:56 PM
11/19/2013

Structured Data Capture Conceptual Workflow



Structured Data Capture Data Architecture

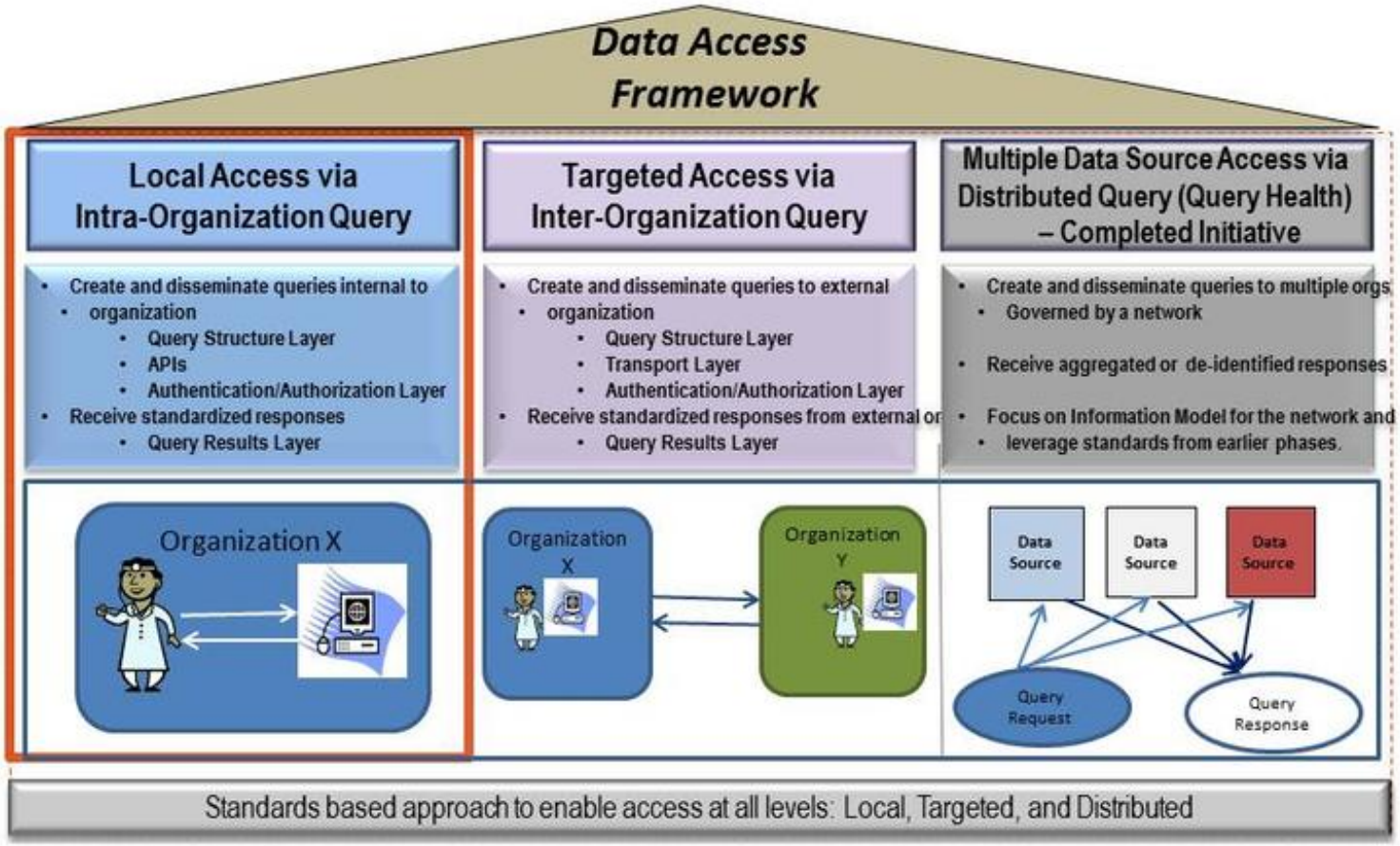
Infrastructure will consist of **four** new standards that will enable EHRs to capture and store structured data:

1. Standard for the CDEs that will be used to fill the specified forms or templates
2. Standard for the structure or design of the form or template (container)
3. Standard for how EHRs interact with the form or template
4. Standard to auto-populate form or template

- Standards will facilitate the collection of data so that any researcher, clinical trial sponsor, reporting and/or oversight entity can access and interpret the data in electronic format
- Will leverage existing standards such as XML and CDISC Retrieve Form for Data Capture (RFD)

Pilots

- Potential Pilots
  - Case Reports (STD, TB, Pertussis?)
  - EHDI
  - EP Cancer Reporting
- Next Steps
  - Common Data Elements
  - Identify Partners/Funding



Note: An organization can be a hospital that is part of larger organization and can also include HIEs, RIOs, other types of organizations etc.

- Transport Layer—establishing a protocol for getting patient data from one place to another. Transport needs could include getting pathology results from a hospital lab to the office of a treating physician or getting immunization records from a clinic to a public health agency.

  Candidate standards include: HTTP, SMTP, Direct, RESTful (IHE mHealth), SOAP (IHE SOAP), MU2 ModSpec RTM
- Security Layer—ensuring that patient data will only be accessible to authorized parties.

  Candidate standards include: TLS+SAML, TLS+OAuth2, S/MIME
- Query Structure—making sure the "question" being asked is phrased appropriately for the data to answer it. "Questions" could include "what were the pathology results of this patient's last test" and "how many immunizations has this clinic provided each month in the past year."

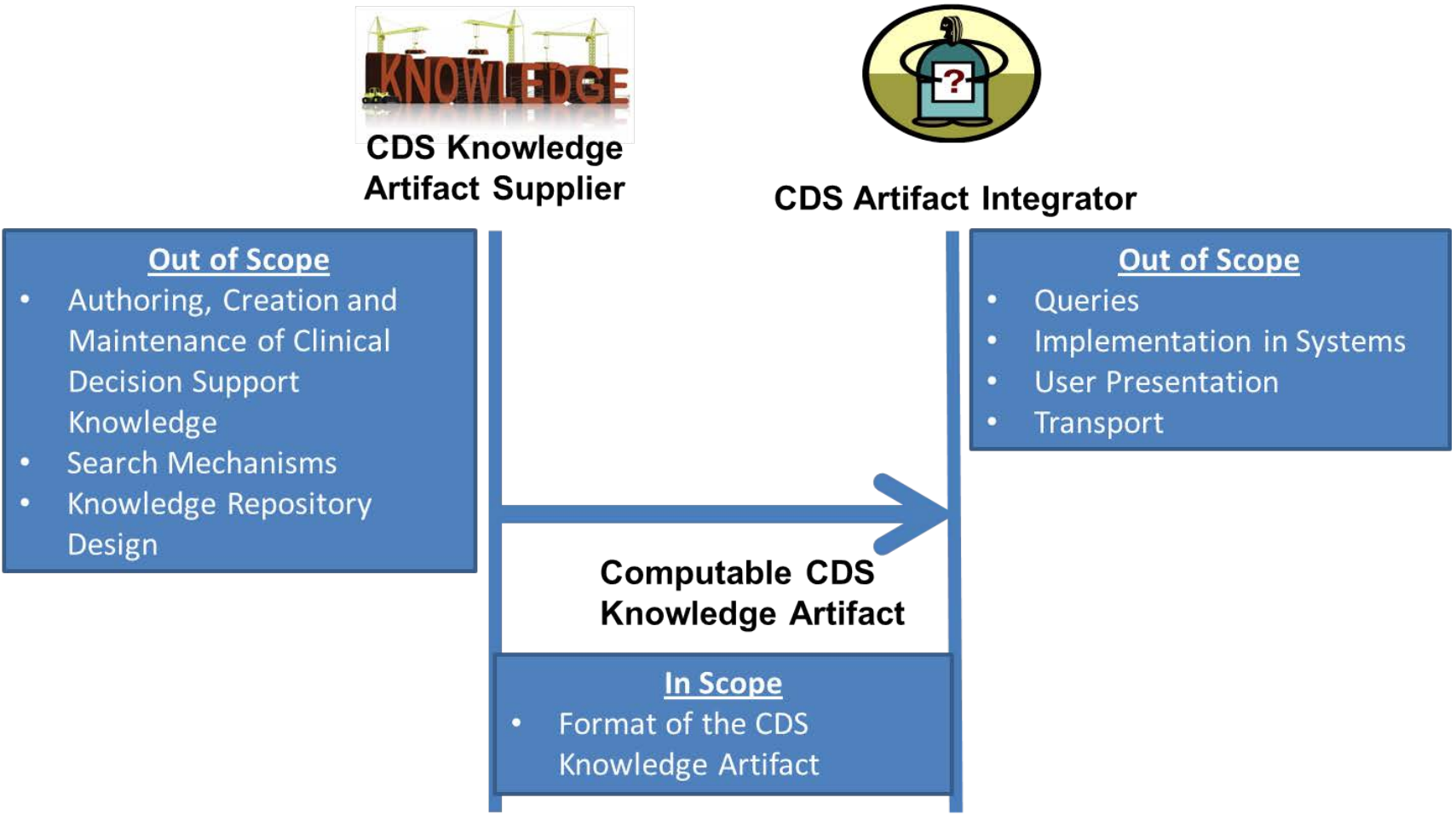
  Candidate standards include: ebRIM/ebRS, HL7 FHIR, HL7 HQMF
- Query Results—appropriately formatting the "answer" to the question posed. Pathology results may need to conform to clinical document architecture, while an answer about immunization counts could be presented as a simple bar graph.

  Candidate standards include: C-CDA; HL7 v2.5.1; QRDA I, II, III
- Data Model to Support Queries—information models that define concepts used in clinical care.

Query Health Pilots

Pilot	Focus	RI Queries	RI Policy Layer	Data Sources	Kickoff
NYC & NYS Depts. of Public Health	Diabetes (NYC) Hypertension (NYS)	i2b2	PMN	RHIOs EHR Vendor	May 2012
FDA Mini-Sentinel	Use of clinical data sources for FDA questions	PMN	PMN	i2b2/Beth Israel	June 2012
CDC	National / regional: - Disease syndromes - Situation awareness	i2b2	PMN	Bio-Sense 2	July 2012
Mass. Dept. of Public Health	Diabetes	PMN	PMN	MDPHNet	July 2012
CQM	Quality Measures	hQuery	PMN	EHR Vendor	August 2012

HeD - Use Case 1



Conceptual Use Case Diagram: CDS Guidance Service Diagram (Use Case 2)

CDS Guidance Requestor

CDS Guidance Supplier

Out of Scope

- Workflow Integration
- User Presentation
- Direct Interaction with the User
- How the Guidance Integrator will utilize the information
- Deciding what guidance is subscribed to

CDS Request
(patient data + context)

CDS Guidance
(guidance + service structure)

Out of Scope

- Authoring, Creation and Maintenanc Clinical Decision Support Knowledge
- Internal Intervention Format of CDS services supplier

In Scope

- **Interface Definitions for Sending Patient Data & CDS Guidance**
  - Patient Data Input to Service
  - Format of the CDS Guidance (output from CDS service)
  - Requirements to Support Service Transactions, Transport & Security

Pilots

- Planned
  - Pertussis reporting triggers
- Potential
  - Trigger SDC Report
  - Trigger Community Resource Referral (in conjunction with SDC)

Opportunity for the public to inform the process

Putting the I in HealthIT
www.HealthIT.gov

- ONC provides support to two Federal advisory committees
  - HIT Policy Committee (HITPC) and HIT Standards Committee (HITSC)
  - Provide a direct means for private and public sector health IT leaders as well as the public to provide input
- HITPC and HITPC workgroup meetings are public
  - The public has an opportunity to comment
  - All meetings are posted on the HealthIT.gov website
- HITPC's Request for Comment (RFC) will signal concepts that may be included in the stage 3 NPRM
- The NPRM provides an additional opportunity for the public to inform the process

Thank You and Questions

HealthIT/

Contact Information:

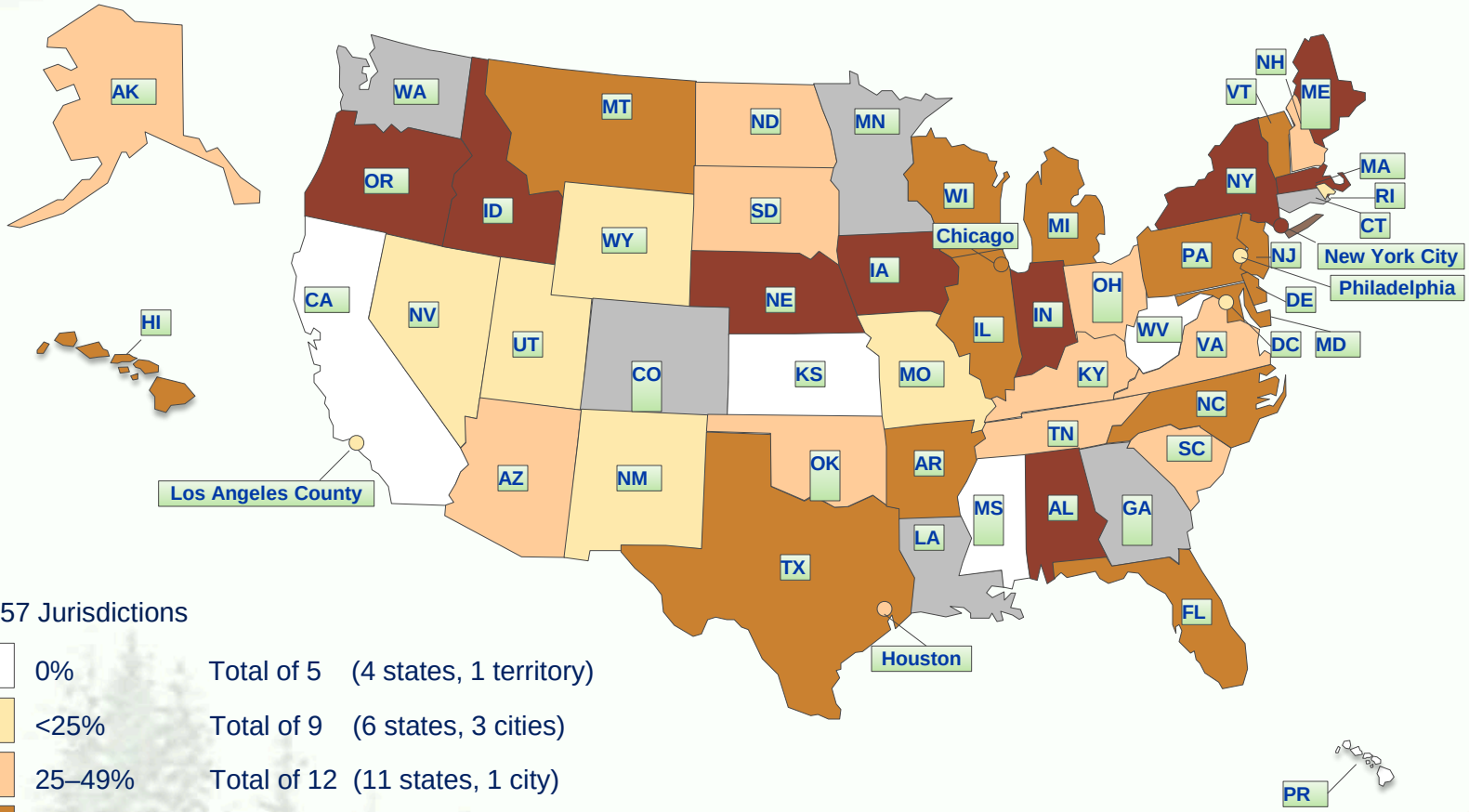
Bryant.Karras@doh.wa.gov

James.Daniel@hhs.gov

Artwork “3D Iceberg” ©2012 Daniel Mueri adapted by Bryant Karras w/ permission

States identities not for public release

% of Lab Report Volume Received via ELR
June 2012



N=57 Jurisdictions

	0%	Total of 5	(4 states, 1 territory)
	<25%	Total of 9	(6 states, 3 cities)
	25–49%	Total of 12	(11 states, 1 city)
	50–75%	Total of 15	(14 states, 1 city)
	>75%	Total of 10	(9 states, 1 city)
	Not Specified	Total of 6	(6 states) (all 6 receive ELR)

Washington State Department of Health

Pennsylvania ELR Profile

The information contained in this profile is a summary of the information you provided the ELR Implementation Support and Monitoring team and the national ELR information collected from all other jurisdictions. The report is divided into several sections

- Jurisdictional summary of all information provided compare to national averages
- Jurisdictional summary of production ELR labs by ELR format and disease category
- Jurisdictional list of ELR laboratories – testing or in production

If you have questions or additional changes to this information after you review the profile, please do not hesitate to contact elrstatus@cdc.gov.

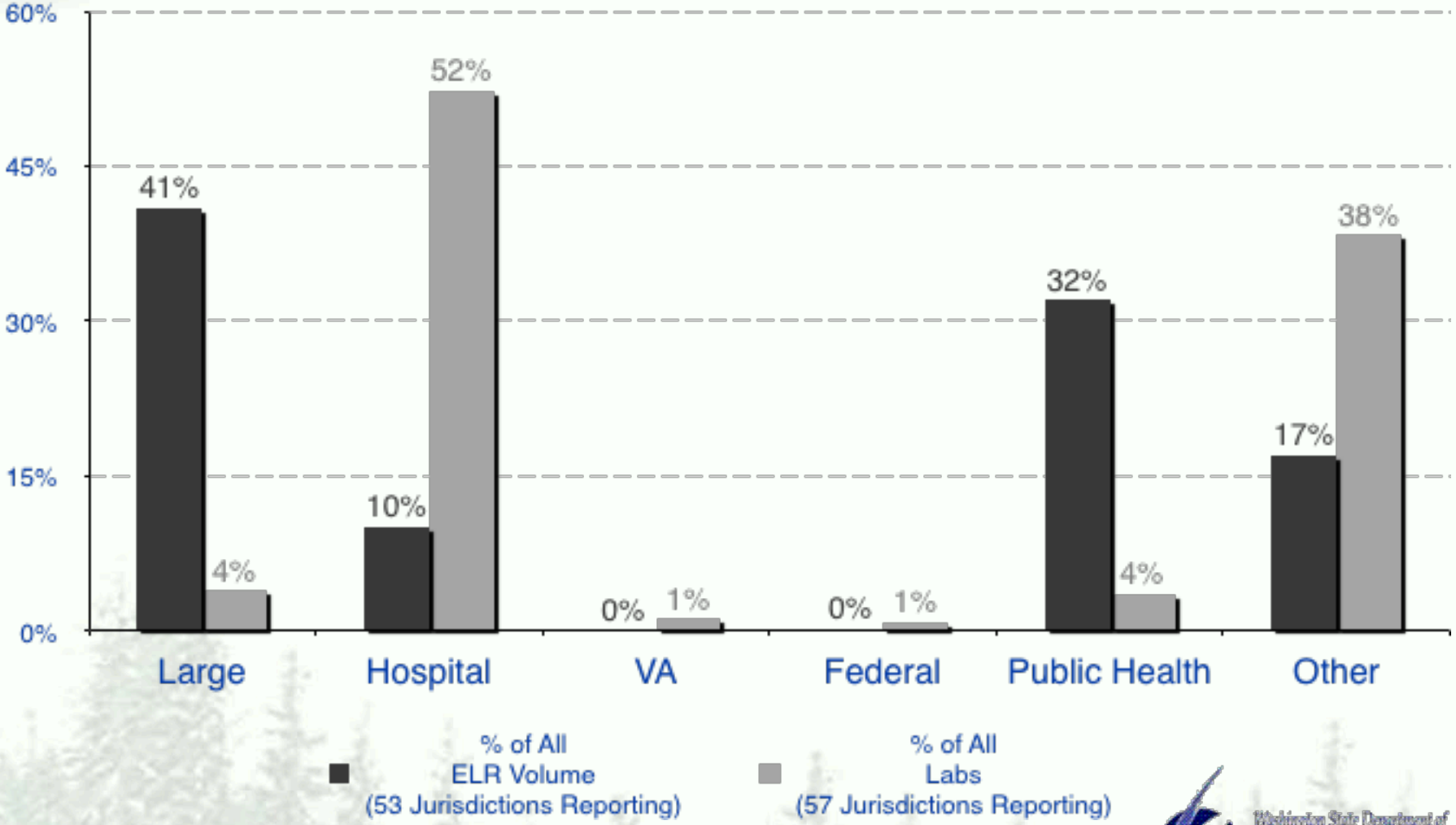
	Jurisdiction	National Averages
Total Labs	473	181
Labs Targeted for ELR	24	93
% of Labs Targeted for ELR	5%	50%
Labs in Production	22	42
Labs in Test	4	4
% of Total Labs in Production	5%	23%
% of Targeted Labs in Production	92%	48%
Total Volume	505,765	214,682
ELR Volume	339,421	134,165
% of Volume Received via ELR	67%	54%
Receiving Production HL7 2.5.1 ELR	No	

	STD		HIV		Hepatitis		Lead/Toxic		Enteric		General		Zoonotic		VPD		Influenza		TB/Myco		Total	
	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs	Vol	Labs
HL7 2.3.1/z	40,137	9	32,656	13	44,473	10	162,938	16	8,626	5	761	5	14,259	7	4,373	5	9,491	10	4,049	4	321,763	18
HL7 2.5.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Production	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Other Format	0	0	641	1	0	0	15,845	4	0	0	0	0	0	0	0	0	0	0	0	0	16,486	4
Web Entry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,052	1	1,052	1
	40,137		33,297		44,473		178,783		8,626		761		14,259		4,373		9,491		5,101		339,301	

Pennsylvania

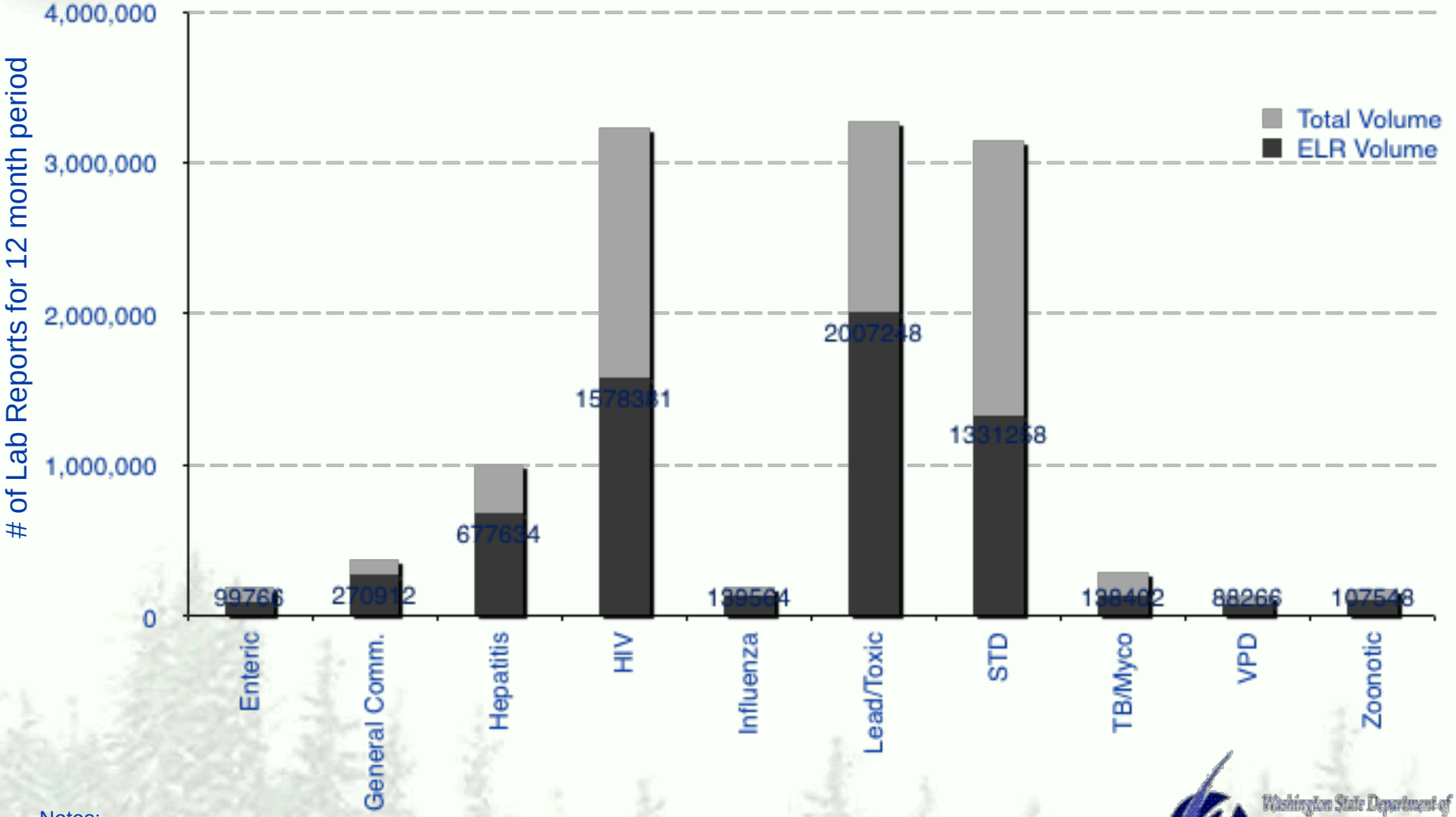
Facility Name	ID	City	Target	Lab Type	Production	Production Format	Volume	Testing	Testing Format
A. E. KIRBY MEMORIAL HEALTH CENTER	PA2	Wilkes Barre	Yes	Other	Yes	HL7 2.3.1/z	29,135	No	
ACL INC - AURORA HEALTH CARE	PA5	West Allis, WI	Yes	Other	Yes	HL7 2.3.1/z	3,765	No	
ARUP	46D0523979	Salt Lake City, UT	Yes	Large	Yes	HL7 2.3.1/z	1,476	Yes	231T
BIOREFERENCE LABORATORIES, INC.	PA58	Elmwood Park, NJ	Yes	Other	Yes	HL7 2.3.1/z	11,351	No	
BROOKVILLE HOSPITAL	PA472	Brookville	No	Hospital	No			Yes	251T
CENTER FOR DISEASE DETECTION, LLC	PA73	San Antonio, TX	Yes	Other	Yes	HL7 2.3.1/z	15,664	No	
DUBOIS REGIONAL MEDICAL CENTER	PA119	Du Bois	No	Hospital	No			Yes	251T
EAST PENN MANUFACTURING COMPANY, INC.	PA122	Lyon Station	Yes	Other	Yes	HL7 2.3.1/z	5,966	No	
ELLWOOD CITY HOSPITAL	PA127	Ellwood City	No	Hospital	No			Yes	231T
LabCorp	34D0655059	Burlington, NC	Yes	Large	Yes	HL7 2.3.1/z	34,081	No	
Mayo Clinic Department of Lab Med Pathology	24D0404292	Rochester, MN	Yes	Large	Yes	HL7 2.3.1/z	7,412	Yes	231T
MEDTOX LABORATORIES	PA262	St. Paul	Yes	Other	Yes	HL7 2.3.1/z	6,374	No	
PA DEPT. OF HEALTH, BUREAU OF EPI, ENVIRONMENTAL HEALTH	PA298	Harrisburg	Yes	Public Health	Yes	Other Forma	1,047	No	
PA DEPT. OF HEALTH, BUREAU OF FAMILY HEALTH	PA299	Harrisburg	Yes	Public Health	Yes	Other Forma		No	
PA DEPT. OF HEALTH, BUREAU OF LABORATORIES	PA300	Lionville	Yes	Public Health	Yes	HL7 2.3.1/z	36,476	No	
PHILADELPHIA CLPPP CLINIC	PA310	Philadelphia	Yes	Other	Yes	Other Forma	5,873	Yes	231T
Quest Diagnostics -	PA473	Erie, PA	Yes	Large	Yes	HL7 2.3.1/z	792	Yes	231T
Quest Diagnostics - Chantilly (Nichols Institute)	49D0221801	Chantilly, VA	Yes	Large	Yes	HL7 2.3.1/z	8,400	Yes	231T
Quest Diagnostics - Horsham	PA352	Horsham, PA	Yes	Large	Yes	HL7 2.3.1/z	120,253	No	
Quest Diagnostics - Pittsburgh	39D0656976	Pittsburgh, PA	Yes	Large	Yes	HL7 2.3.1/z	23,520	Yes	231T
SOMERSET HOSPITAL	PA372	Somerset	No	Hospital	No			Yes	251T
SPECIALTY LABORATORIES	PA373	Santa Monica	Yes	Other	Yes	HL7 2.3.1/z	1,148	No	
THE CHILDREN'S HOSPITAL OF PHILADELPHIA	PA406	Philadelphia	Yes	Hospital	Yes	Other Forma	9,566	No	
THE READING HOSPITAL AND MEDICAL CENTER	PA409	Reading	Yes	Hospital	Yes	HL7 2.3.1/z	8,579	No	

ELR Volume and Total Labs By Lab Type
June 2012



Washington State Department of Health

Volume of Lab Reports and % via ELR, by Disease Category June 2012



Notes:
•47 Jurisdictions reporting

Outcome Measure 2
Number of HL7 Transactions

	Sites w/ Prior HL7 Interfaces			Sites w/o Prior HL7 Interfaces			
	Weekly Avg Pre	Weekly Avg Post	% Increase	Weekly Avg Pre	Weekly Avg Post	# Increase	Met OM2?
A	-	-	-	0	6,441	6,441	Y
B	-	-	-	0	958	958	Y
C	-	-	-	0	50	50	Y
D	109	173	58.7%	0	3,719	3,719	Y
E	428	1277	198.4%	0	9,044	9,044	Y
F	-	-	-	0	3,823	3,823	Y
G	-	-	-	0	9,966	9,966	Y
H	-	-	-	0	17	17	Y
TOTAL	594	2,764	365%	0	32,704	32,704	

Source: Data reported to EHR-IIS Evaluation Online Tool as of July 31, 2012.

Outcome Measure 3

Timeliness

"Increase the number/proportion of practice-based immunization data received and recorded in the IIS within 30 days or less by 25%"

Online Tool Screen Shot - Timeliness

H) FOA Outcome measure 3:

Number of vaccinations for kids at least 4 months of age and under six years of age received by the IIS within days of administration by each provider site *(provide timeliness data for each category)* Guidance

								Proportion of Total Vx Received
a) less than or equal to 1 day								
	Administered:		Historical:		Total:			%
b) greater than 1 day - equal to or less than 7 days								
	Administered:		Historical:		Total:			%
c) greater than 7 days - equal to or less than 14 days								
	Administered:		Historical:		Total:			%
d) greater than 14 days - equal to or less than 30 days								
	Administered:		Historical:		Total:			%
e) greater than 30 days								
	Administered:		Historical:		Total:			%
Totals	Administered:		Historical:		Total:			%

Outcome Measure 3
Timeliness – Administered Vx Only

Grantee	Vx <30d Pre-Enh	Vx <30d Post-Enh	Absolute % Point Change
A	100%	100%	0%
B	99.4%	99.0%	-0.4%
C	-	90.3%	-
D	98.7%	93.2%	-5.5%
E	43.8%	33.9%	-9.9%
F	87.6%	99.2%	11.6%
G	93.1%	60.3%	-32.8%
H	22.2%	57.8%	35.6%

Source: Data reported to EHR-IIS Evaluation Online Tool as of July 31, 2012.