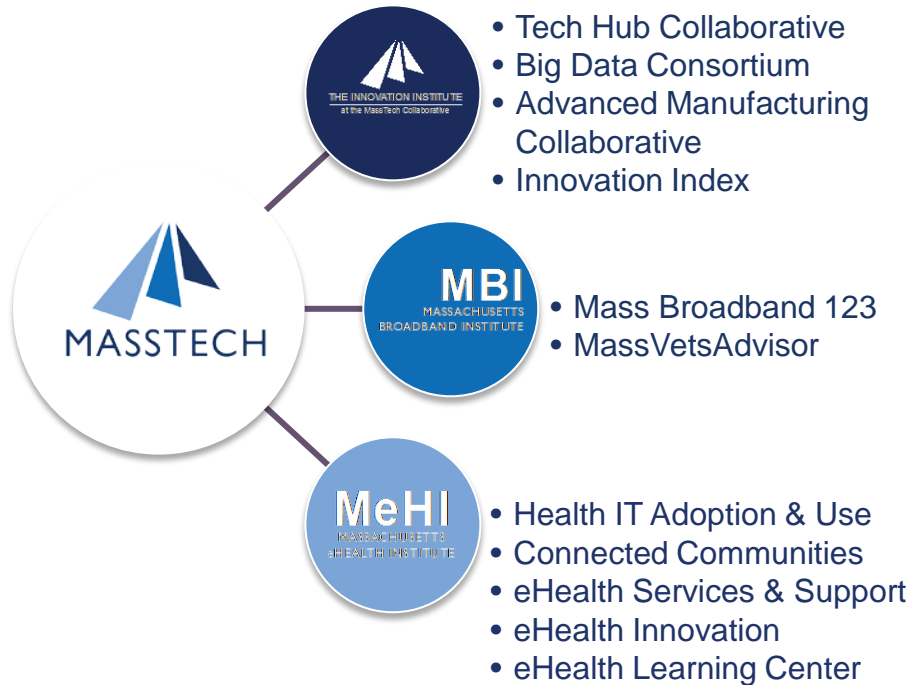


Insights into Massachusetts DPH Registries and Submitting via the Mass HIway

August 14, 2014



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MeHI is a division of the Massachusetts Technology Collaborative, a public economic development agency

MeHI is the designated state agency for:

- Coordinating health care innovation, technology and competitiveness
- Accelerating the adoption of health information technologies
- Promoting health IT to improve the safety, quality and efficiency of health care in Massachusetts
- Advancing the dissemination of electronic health records systems in all health care provider settings

Learning objectives

- Describe the steps to connect to and submit public health data via the Mass HIway
- List the various DPH programs that accept data through the HIway

Agenda

- Review the steps to connect to and submit public health data via the Mass HIway
- Overview of the various DPH programs that accept data through the HIway
- Questions & discussion

Meet the speakers



Sean Kennedy, MPH, MS, PMP

Health Information Exchange Director

Massachusetts eHealth Institute at the Massachusetts Technology Collaborative



Ryan Thomas

Service Manager

Mass HIway Operations Team



Sita C. Smith

Health Information Coordinator

Bureau of Infectious Disease at MDPH

The Massachusetts Health Information Highway

Overview of the Statewide Health
Information Exchange for DPH Submission



www.masshiway.net

Health Information Exchange Overview

Defined Network enabling the secure, electronic transfer of patient information across the care continuum.

Goals Allow providers to easily, efficiently create an updated, comprehensive picture of a patient's health status to:

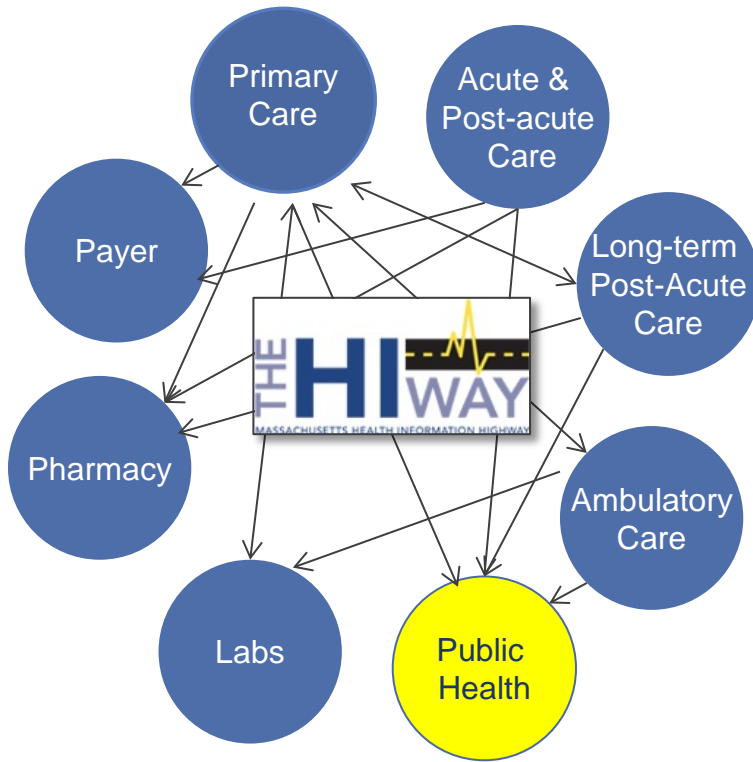
- Improve clinical decision making
- Improve care coordination/transitions and delivery
- Avoid readmission and medical errors
- Enhance communication among the healthcare team
- Increase patient engagement

Benefits Improved operations, reduced administrative costs, streamlined public health reporting, security and safety.

Drivers New pay for quality models, ACA principles, Meaningful Use requirements, patient demand, legislation.

Mass Hlway | Health Information Exchange

The Mass Hlway mission is to deploy a secure electronic HIE that is accessible to all healthcare systems statewide regardless of affiliation, location, size, or differences in technology.



Common Data Exchanged

Medication Lists

Allergies

Lab Tests and Results

Vital Signs

Care Plans and Care Transitions

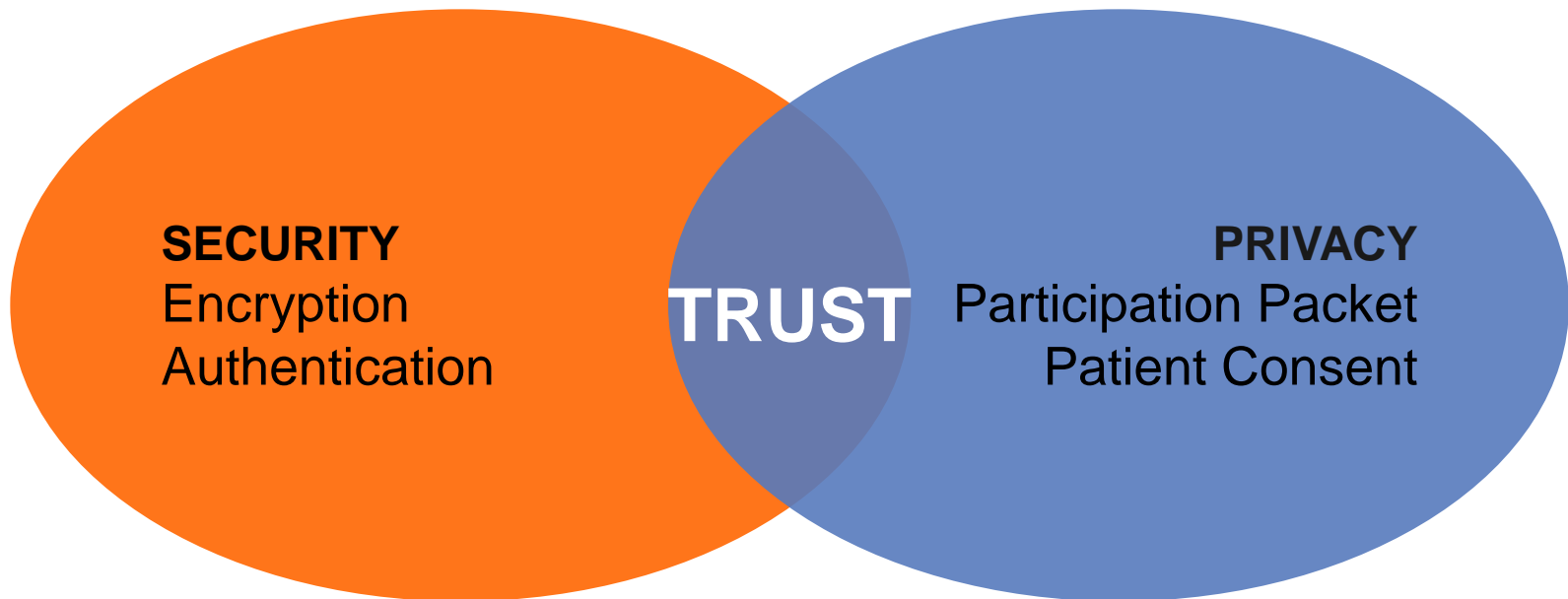
Immunizations and Surveillance Data

Demographics and Social History

Procedures

Diagnostic Codes

The Mass Hlway 'trust fabric' is achieved through the combination of technical security standards + legal policies to which all participants agree.



Mass HIway Planning and Process

Step 1 | Determining Your Use Case: Public Health Reporting

The Mass HIway will be your avenue to submit required and elective reports to the state.

Public Health Nodes On the Mass HIway:

- Immunizations
 - Lab Reporting
 - Syndromic Surveillance
 - Opioid Treatment Program (IEATS)
 - Cancer Registry
 - CLPPP
 - eReferral
- ...More to come!

Step 2 | Enroll

- Organizations must be a legal covered entity or business associate
- Review policies and procedures and rates online
- Complete your participation agreement package including:
 - Participation Agreement
 - Services Addendum
 - Administrator Designation Form
 - Delegated Administration Agreement
 - Access Administrator Agreement
 - W-9
 - Other forms may be required depending on use case
- All documents available at <http://www.masshiway.net/resources/hiwaydocumentation.jsp>

Step 3 | Choosing A Connection Option

Technical Assessment– Discussion with The Mass HIway Ops to determine best connection method for site:

Organizations can connect in three ways:

- Webmail (in development for DPH connectivity)
- LAND Device (enabled for DPH connectivity)
- Direct (enabled for DPH connectivity)

Things to consider:

- Technical capabilities
- EHR Type
- IT staff
- Volume of data

Pros

- ▶ No hardware or software installs at the participant site; no IT staff required
- ▶ Non-technical interface for users; access through web browser
- ▶ Communication functions just like e-mail but is secure through The Mass Hlway

Cons

- ▶ Configuring automatic uploads of clinical information requires expert resources
- ▶ Users manually check for received messages on an e-mail system that is not integrated with their EHR

Recommended for...

Participants without a need to regularly send large volumes of data but who would like to be able to send or receive clinical and patient information securely on an ad-hoc basis.

Pros

- ▶ Supports high-volume and automatic/scripted message and data dropping
- ▶ Multiple options for integrating message transmission into a participant's infrastructure (HTTP POST, Directory drop, and more), creating minimal impact for non-technical users
- ▶ Participant is not responsible for appliance maintenance or installation

Cons

- ▶ LAND appliance is a “black box” and cannot be accessed by participant staff
- ▶ Some configuration of the IT environment is required for messages to reach the LAND, so participant IT support is required until onboarding is complete
- ▶ Installation and/or physical replacement of the box requires Mass Hlway staff to visit the participant site

Recommended for...

Participants who need to regularly send data or are expecting to transmit a lot of messages but who do not have a dedicated IT staff to manage their infrastructure. Also suitable for larger participants with an implemented EHR that is not compatible with the Direct solution.

Pros

- ▶ Interfaces directly with EHR or other message sending software given correct protocols on the participant side
- ▶ Can receive data files and/or messages directly from participants' systems and transmit them automatically with proper setup
- ▶ Can be configured to deliver messages directly to the participant's internal mail system, creating a seamless experience for end users

Cons

- ▶ Established IT infrastructure must be present at the participant site to implement the connection and install the secure certificate(s).
- ▶ Experienced IT staff are required to implement and integrate the connection for use
- ▶ Not all EHRs are compatible with the connection

Recommended for...

Participants who anticipate sending a lot of data or messages on The Mass Hlway and have a compatible EHR and/or a dedicated IT team who can configure existing participant system to interface with the connection.

- Provider directory/connection specific documentation provided to the participant by Mass HIway Ops team
 - Provider/Organizational directory
 - LAND Appliance form
 - XDR URI
- HIway Ops team to provide domains and certificates
 - Direct to participant (Direct)
 - Installed on LAND Device (LAND)
 - Loaded into Webmail (Webmail) Testing Access

Step 4 | Onboarding Continued

- Participants will be given access by the Mass Hlway Ops team to send to the DPH Test Environment for each registry that participant intends to send
- Testing- Participants will follow testing requirements (i.e. Test data vs. Production Data) to the DPH registry test domain, encrypting messages with issued certificate
- Sending of Live Data to Test- Each registry will require a period of Production data sent to test assuring connection and correct formatting
- Production- Once approved by DPH, The Mass Hlway Ops will issue Production domain for DPH Registry in respective form and Participant can send production transactions on an agreed upon time

What does this mean for you? Next Steps

For new DPH submitters:

- Contact DPH registry contacts for the data you are planning to send to get any program specific guidelines on message content and any additional program related onboarding tasks and questions
- Contact the Mass HIway to begin enrollment and onboarding for the transport portion of DPH submissions (contact information on the upcoming slides)
- Contact your EHR vendor to determine their readiness for submission to desired registry, this will aid in the technical assessment as to what the best connection method for your organization

For existing DPH Virtual Gateway submitters:

- Participants can continue to submit to the VG for MU attestation
- Connection options/requirements will vary by program (to be covered in later slides)

Contact and Resources



Contact:
Mass Hiway

1.855.MA-HIWAY (1.855.624.4929) Option 1

masshiway@state.ma.us

www.masshiway.net





The Massachusetts Department of Public Health and Meaningful Use

August 2014

Sita Smith

Massachusetts Department of Public Health

Public Health and MU Stage 2



One of the stated goals of the American Recovery and Reinvestment Act (ARRA), enacted in February 2009, is to increase the Meaningful Use (MU) of Electronic Health Record (EHR) technology among medical providers. The Centers for Medicare and Medicaid Services (CMS) established incentive programs using ARRA funds to encourage eligible professionals (EPs), eligible hospitals (EHs), and critical access hospitals (CAHs) to adopt and use EHR technology.

To receive the EHR MU 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).

Public Health and MU Stage 2



The five public health objectives in Stage 2 MU are submission of electronic data to public health in the context of

- 1) Immunizations – EHs & EPs
- 2) Syndromic Surveillance -* - EHs only
- 3) Electronic Laboratory Reports (EHs)
- 4) Cancer (EPs only) and
- 5) Specialized Registries (EPs only)

EH: Eligible Hospital

EP: Eligible Provider

* Hospital Emergency Departments only

Public Health and MU Stage 2



The Massachusetts Health Information Highway (the HIway)

The HIway is a secure statewide network (Health Information Exchange, or HIE) that facilitates the transmission of healthcare data and health information among providers, hospitals and other healthcare entities.

The HIway has, or will have, nodes for **4 of the 5 core objectives**, as well as nodes for

- 1) Intake Enrollment and Assessment Transfer Service (IEATS)
- 2) Childhood Lead Poisoning Prevention Program (CLPPP)
- 3) E-Referral

These are NOT required for MU compliance



MDPH & the Mass HIway:

Advancing public health in the Commonwealth

These nodes will support and improve the goals of public health by:

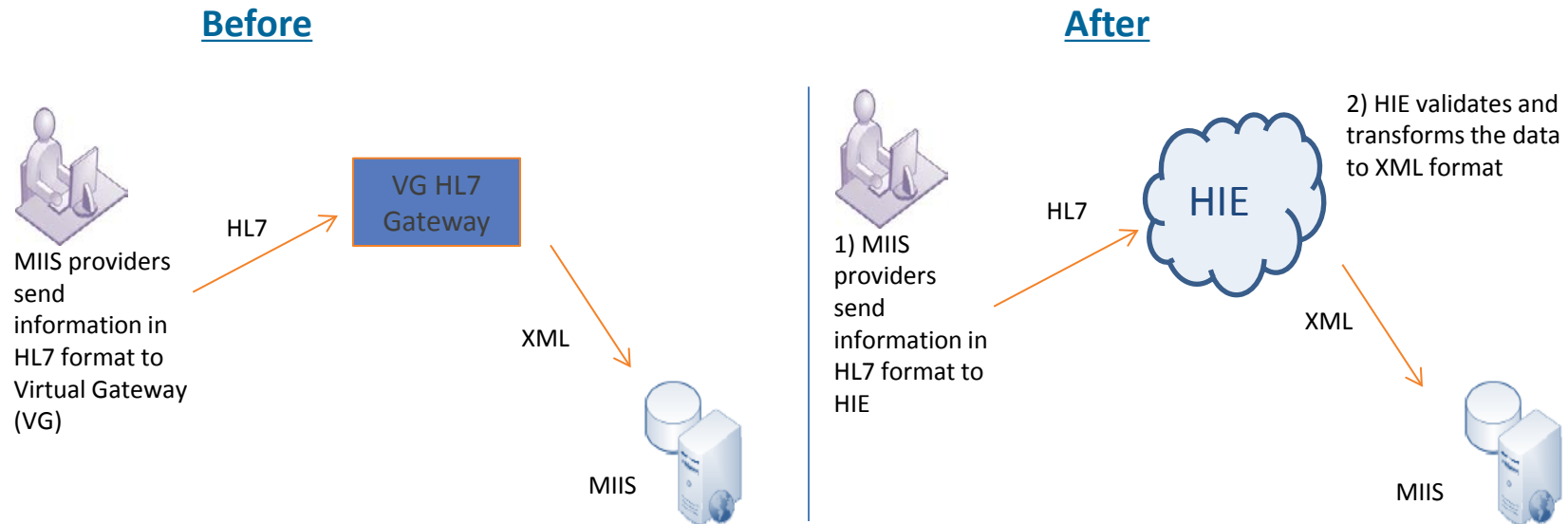
- Enabling electronic reporting of health information
- Minimizing administration & billing challenges
- Helping EPs and EHs attest to Meaningful Use (Stages 1 & 2)
- Assuring fast, secure, uniform, and reliable methods of data communication
- Providing real-time data for program reporting, quality improvement, and evaluation

MDPH and Meaningful Use: Massachusetts Immunization Information System (MIIS)



Objective: Improve record submission process through electronic submission of immunizations. Providers may submit immunization data directly from their EHR rather than manual entry into web interface.

MU Enablement: MU stage 1 & 2 objectives



MDPH and Meaningful Use: Massachusetts Immunization Information System (MIIS)



Benefits:

- Administrative simplification for DPH
- Improved security of data transmission by leveraging complex data encryption and decryption technologies.

Affected Providers:

- 7 Organizations in production
- 10 are in testing phase
- 75-100 orgs need to connect, representing ~1600 providers (estimate 65% of these have Medicaid threshold population to meet meaningful use)

Status:

- Node is in production
- Working with providers and vendors on their technical ability to connect to the Hlway

MDPH and Meaningful Use: Massachusetts Immunization Information System (MIIS)



Challenges:

- Vendor ability to connect to the Hlway did not match initial design causing significant delays in providers' ability to submit data
 - Hlway team has developed interim solution that will make connecting easier

Next Steps:

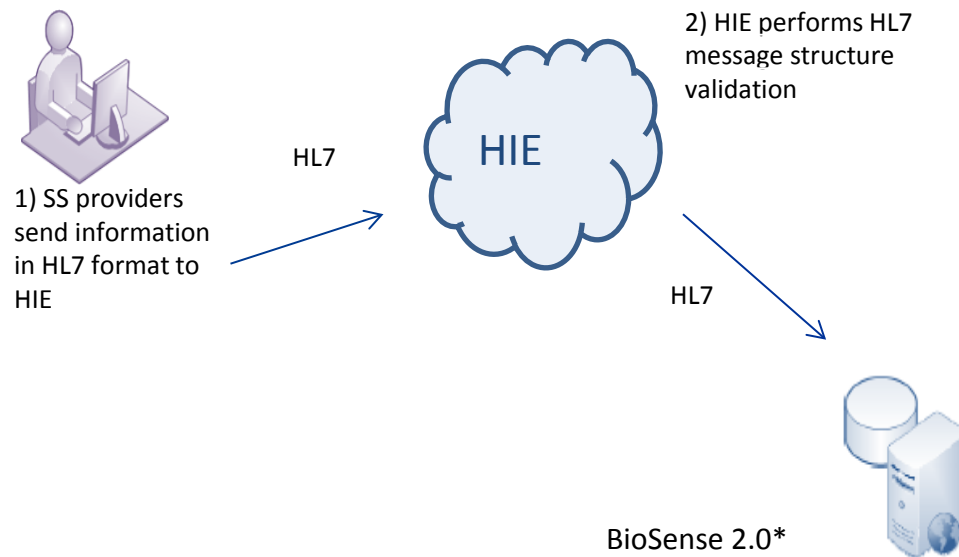
- Deploy Interim Solution to Production
- Continue working with vendors to connect to the Hlway
- Outreach to providers for guidance on MU attestation

MDPH and Meaningful Use: Syndromic Surveillance



Objective: Electronically submit chief complaint data from hospital emergency departments to identify possible clusters

MU Enablement: Supports MU stage 2 objective



MDPH and Meaningful Use: Syndromic Surveillance



Benefits:

- Hlway offers single, secure method for reporting syndromic surveillance data

Eligible Providers:

- 70 eligible hospital emergency departments may send data to BioSense
 - 52 registered intent
 - 36 testing

MDPH and Meaningful Use: Syndromic Surveillance



Challenges:

- Team is working to finalize linkages to BioSense 2.0
- Necessity for validation revisions has delayed on-boarding
- Eligible hospitals may still attest for MU stage 2
 - DPH issued a letter to providers stating that they have met the attestation requirements if they are engaged in testing or are awaiting an invitation to begin testing/validation

Next Steps:

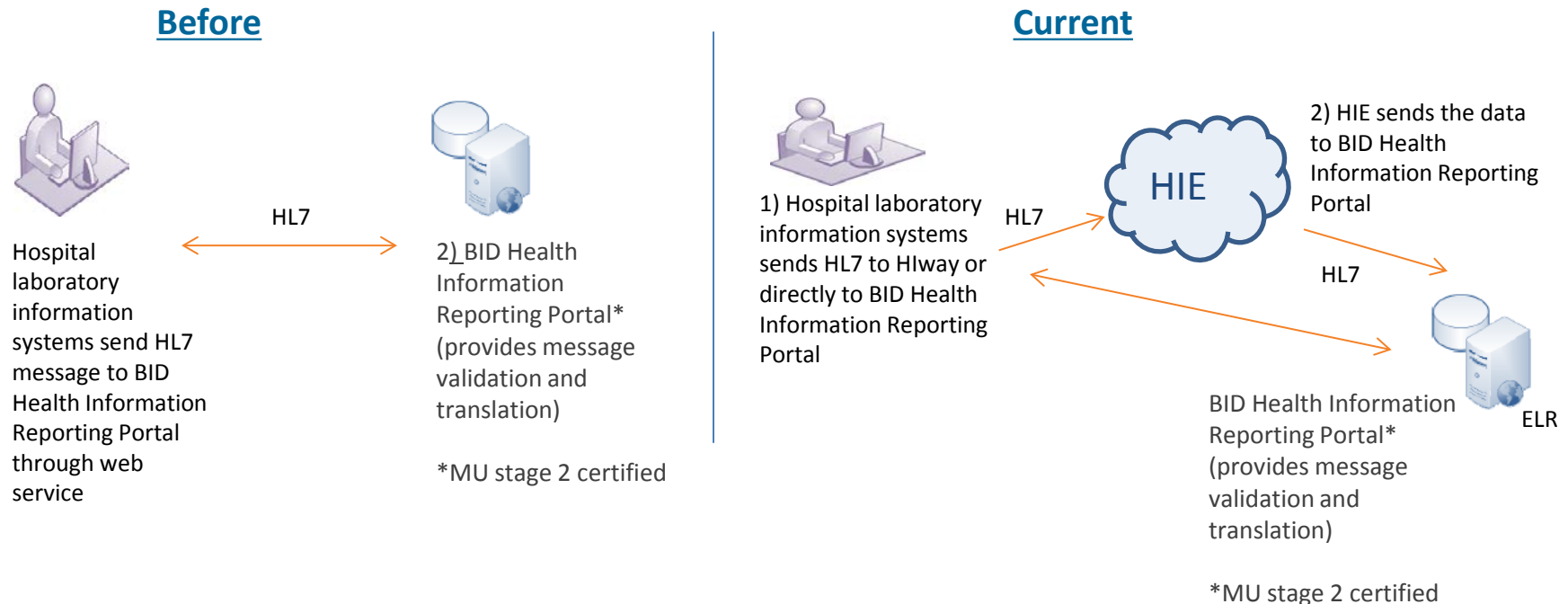
- Establish and test link to BioSense environment (Q3 2014)
- Begin to on-board providers

MDPH and Meaningful Use: Electronic Laboratory Reports



Objective: Continue to securely and electronically receive laboratory reports for notifiable diseases in compliance with state regulations.

MU Enablement: Continue to support MU stage 1 & 2 objectives



MDPH and Meaningful Use: Electronic Laboratory Reports



Benefits:

- Potentially simplifies/rationalizes maintenance for data providers with single method for connecting to all DPH nodes

Eligible Providers:

- Clinical Laboratories in Massachusetts
 - 71 submitting ELR data directly to BID Health Information Reporting Portal
 - 1 organization submitting ELR data via the Hlway (BIDMC)
 - **All** meet MU stage 2

Status:

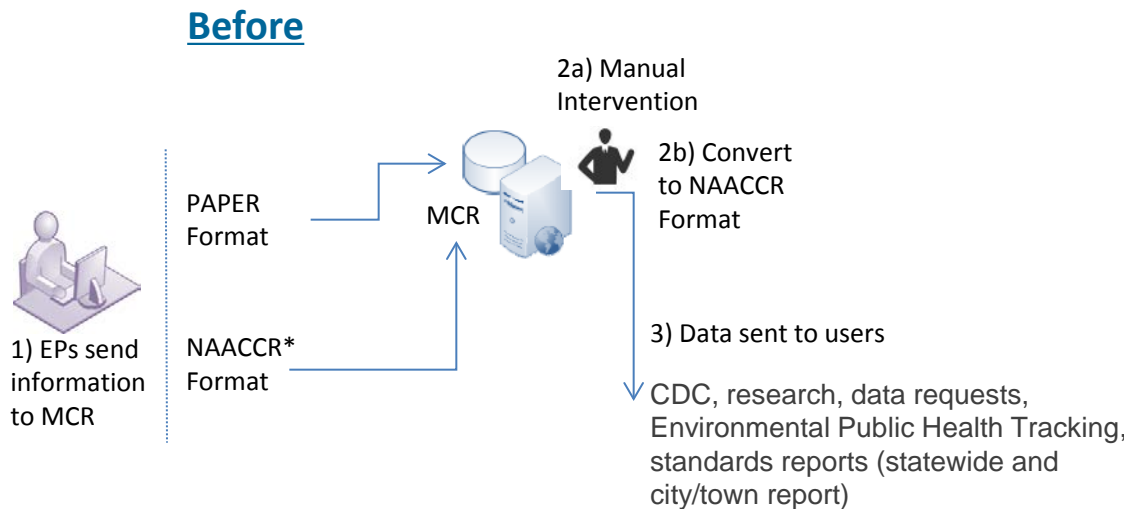
- Node is in production

MDPH and Meaningful Use: Massachusetts Cancer Registry (MCR)



Objective: Provide an electronic means to comprehensively identify and report cancer cases to the Massachusetts Cancer Registry and subsequently to CDC, thus automating the entire process – required mandate in MA. Additionally, provide a means for achieving MU stage 2 menu objective as outlined by CMS

MU Enablement: MU stage 2 menu item

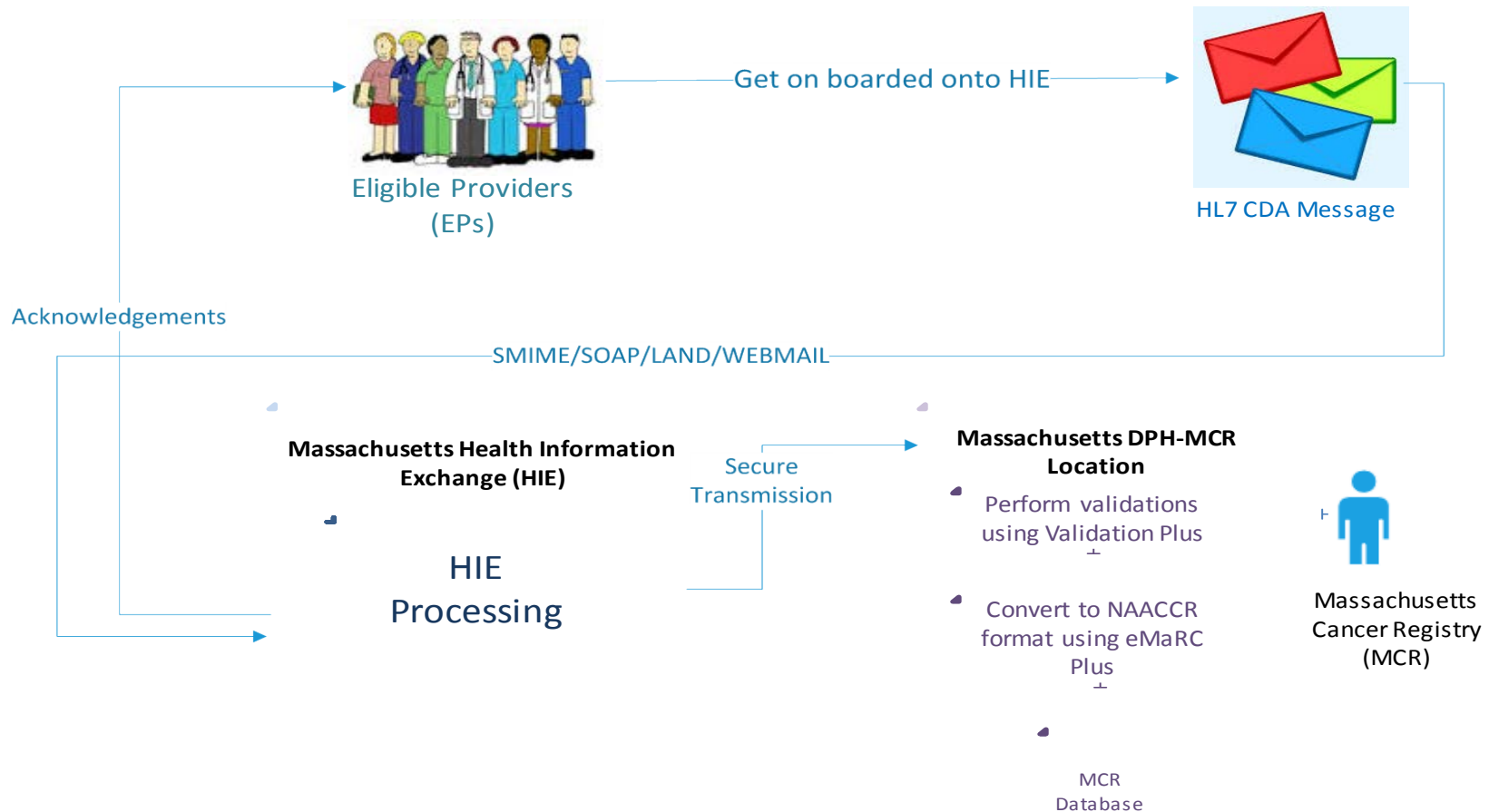


- **Approximately 60,000 admissions**
 - **Consolidated Cases: Approximately 37,000**
- **Approximately 6,000 non-hospital reports**
 - **Admissions 1,316 new non-hospital reports**
- **5 edit sets for daily operations- 500 edits**
- **Additional 175 quality assurance queries**

*NAACCR :North American Association of Central Cancer Registries

**EOHHS Clinical gateway uses CDC's eMaRC Plus software to format the message

MDPH and Meaningful Use: Massachusetts Cancer Registry (MCR)



MDPH and Meaningful Use: Massachusetts Cancer Registry (MCR)



Benefits:

- Facilitates reporting from non-hospital providers (currently received in non-standard formats)
- Ensures completeness of reporting – data verification
- Designed to be secure, automated, unobtrusive to practice operations

Impact on MCR:

- The increasing shift to non-hospital settings for cancer care requires the inclusion of these data to achieve the MCR goal of complete cancer reporting.
- ~6000 cancer cases reported from non-hospital providers in 2011
- Improves completeness, reduces time and effort

Status:

- Node is live

MDPH and Meaningful Use: Massachusetts Cancer Registry (MCR)



Challenges:

- Vendors must be enabled before providers can be onboarded
 - Hlway team is working with Athenahealth to test their solution

Next Steps:

- Assist Athenahealth with outreach and onboarding of their providers
- Outreach to other EMR vendors and smaller providers

MDPH and Meaningful Use: Specialized Registry



- Stage 2 menu item: “the capability to identify and report specific cases to a specialized registry (other than a cancer registry), except where prohibited, and in accordance with applicable law and practice”.
- MDPH BID has designated its disease surveillance and case management system (MAVEN) as a specialized registry
 - 2 organizations (Atrius Health, Cambridge Health Alliance) currently submitting data
 - jointly represent approximately 20% of MA population
 - 1 organization (Massachusetts League of Community Health Centers) in process

Meaningful Use 2 and Public Health Requirements



Data Providers meet Meaningful Use requirements if

They have registered intent to submit data for an objective AND

- 1) They achieve ongoing submission OR
- 2) They are actively engaged in testing and validation with the Public Health Agency OR
- 3) They are waiting for an invitation from the Public Health Agency to begin onboarding

The Agency provides documentation for attestation purposes

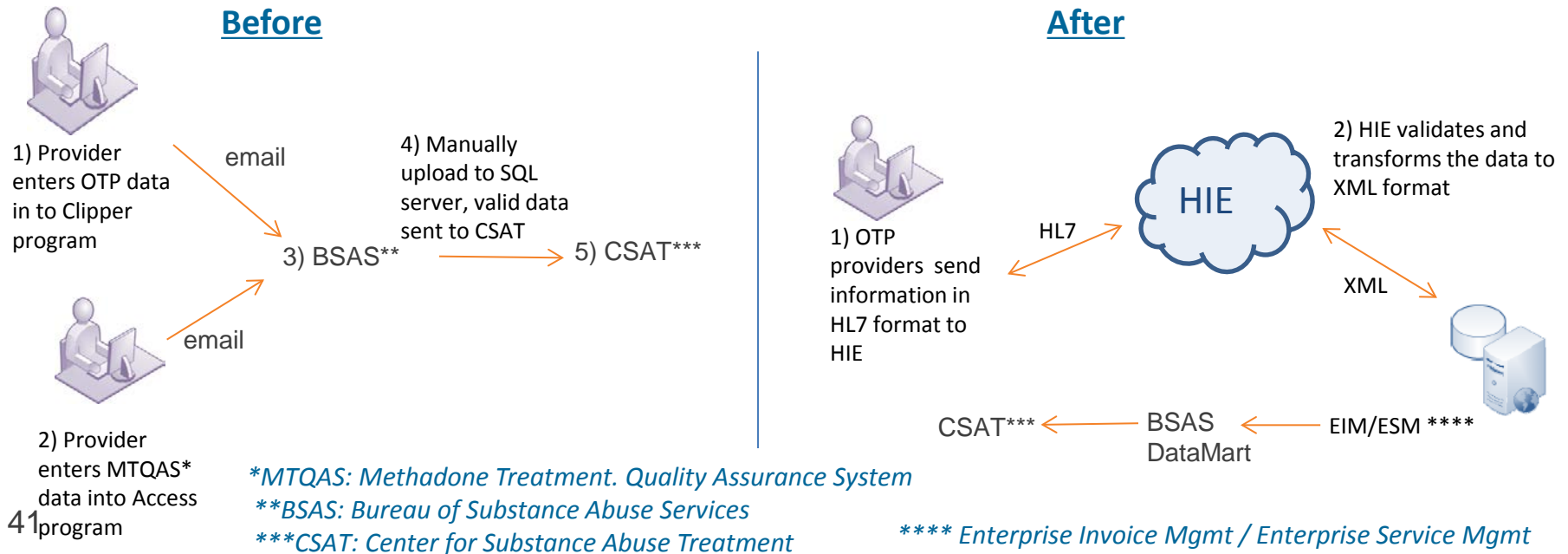
Other MDPH Hiway Nodes:

Intake Enrollment and Assessment Transfer Service (IEATS)



Objective: Implement electronic health information exchange for the collection of provider data to evaluate client outcomes, assure program effectiveness for opioid treatment services and to report National Outcome Measures (NOMS) as required by the Substance Abuse and Prevention Block Grant.

MU Enablement: N/A



Other MDPH Hlway Nodes:

Intake Enrollment and Assessment Transfer Service (IEATS)



Benefits:

- Administration simplification for the Commonwealth with real-time error checking
- Eliminates expensive redundant data that is submitted by providers through outdated systems/hardware

Affected Providers:

- 7 substance abuse treatment organization – 45 service organizations
- 3 vendors representing 44 substance abuse treatment organizations:
 - NetSmart Avatar – 1 provider with 8 substance abuse treatment organizations
 - NetSmart Tier – 2 substance abuse treatment organizations, 1 with 15 eastern MA services
 - Smart Inc – 5 substance abuse treatment organizations, 2 with a total of 23 statewide sites

Status:

- Node is live in production – Bay Cove has sent live transactions
- Working with the vendors to test their connection to the Hlway
- Connecting to Hlway has been challenging for vendors

Other MDPH Hiway Nodes:

Intake Enrollment and Assessment Transfer Service (IEATS)



Challenges:

- Vendors need to modify their EMR to meet state requirements/formats
 - Actively engaged with each vendor to assist in testing their products

Next Steps:

- Work with vendors to finalize their EMRs' ability to connect to the Hiway
- Onboard the providers using the 3 vendor EMRs

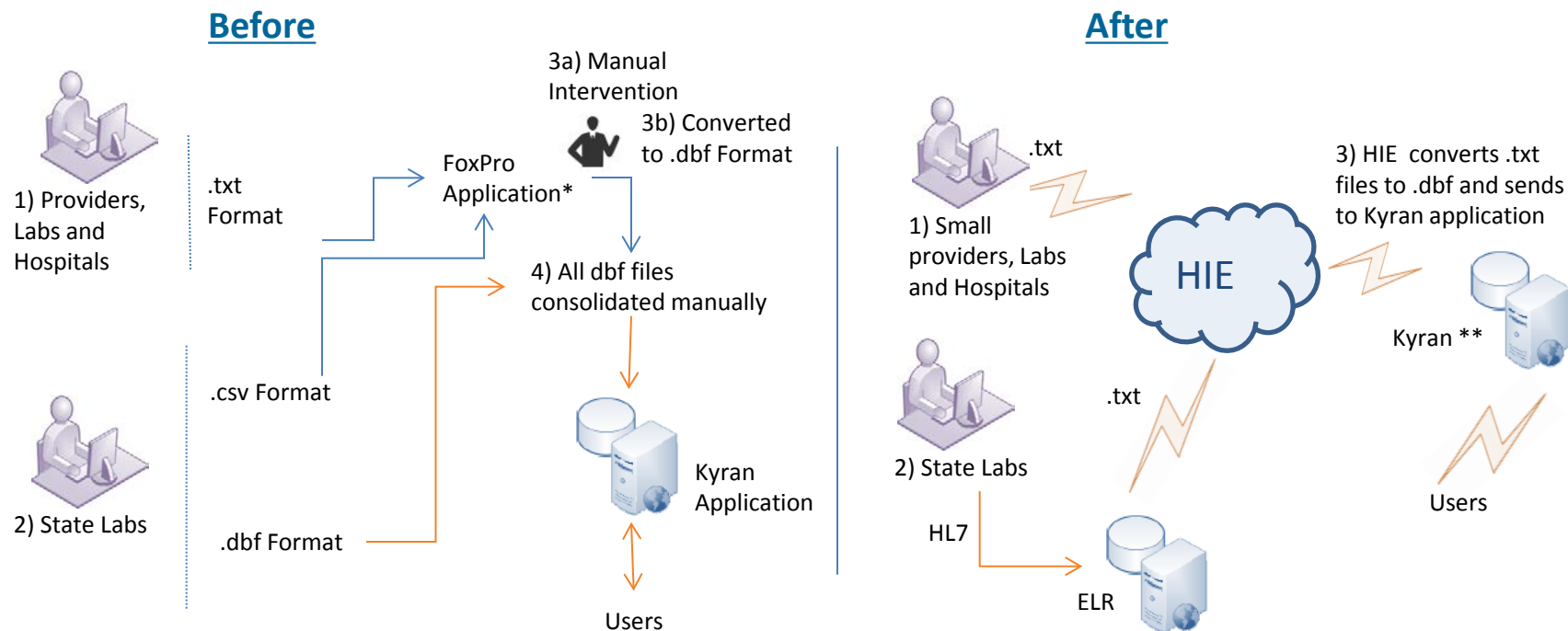
Other MDPH Hiway Nodes:

Childhood Lead Poisoning Prevention Program (CLPPP)



Objective: Provide an electronic means to import lead data from various sources (providers, labs and hospitals) to existing CLPPP application for prevention, screening, diagnosis, and treatment of lead poisoning.

MU Enablement: N/A



44 *FoxPro Application: Program used by CLPPP-DPH to convert .txt and .csv files to .dbf

*Kyran: An application used by CLPPP

Other MDPH HIway Nodes:

Childhood Lead Poisoning Prevention Program (CLPPP)



Benefits:

- Automation of manual processes done by epidemiology staff, reducing rate of errors
- Ease of transmission of data through the HIway for providers, along with electronic acknowledgements of submission

Affected Providers:

- ~60 providers submitting lead data through CLPPP
- State lab submits on behalf of providers as well

Status:

- Node is under a phased development approach, with first phase to be released in June/July and second phase in July/August

Other MDPH Hlway Nodes:

Childhood Lead Poisoning Prevention Program (CLPPP)



Challenges:

- Onboarding the 60 providers submitting to CLPPP
 - DPH will partner Hlway team to work with providers

Next Steps:

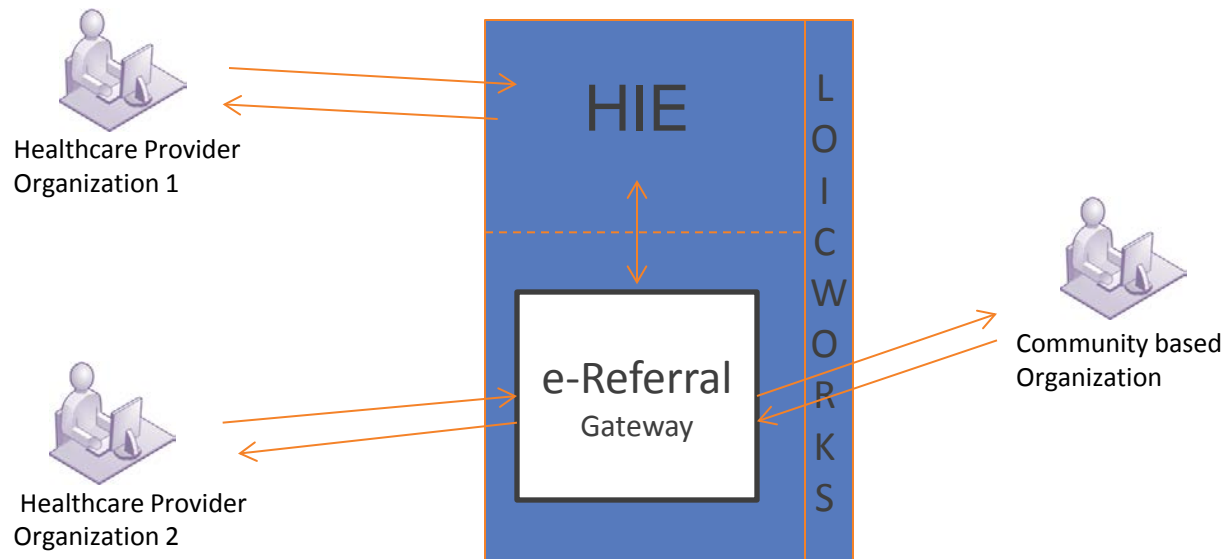
- Develop/Deploy node to Hlway (Q3 2014)
- Outreach to providers to prepare them for submission through Hlway

Other MDPH Hiway Nodes: e-Referral



Objective: To build a system that supports health information data exchange in the form of e-Referrals from healthcare provider organizations to their affiliated community-based organizations.

MU Enablement: N/A



Other MDPH Hiway Nodes: e-Referral



Benefits:

- Implements an innovative program initiated by the DPH to connect Healthcare Provider Organizations (HPO) with Community Based Organizations (CBO), promoting sharing of data
- Transforms the current referral system from paper/fax to an electronic format

Affected Providers:

- CBOs affiliated with HPOs (targeting YMCA, Tobacco Quit Line, etc.)
- HPOs who are actively sending referrals to CBOs

Status:

- Node is under a phased development approach, to be completed over the summer

Other MDPH Hiway Nodes: e-Referral



Challenges:

- Outreach to HPOs and CBOs to make them aware of the program and benefits
- Volume of providers expressing interest

Next Steps:

- Complete development
- Onboard State Innovation Model pilot group of HPOs and CBOs, as well as Prevention & Wellness Trust Fund sites

Future of HIT (& HIE) in Public Health



Continuing to streamline and standardize the way in which public health data are captured and transmitted from the provider community allows MDPH to continue to improve surveillance, evaluate programs, improve public health measures / outcomes and potentially reduce the cost of health care.

- Increased utilization of health data to improve public health
- Improved capacity to support programs & evaluation

Thank you



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<http://www.mass.gov/eohhs/gov/departments/dph/programs/id/isis/meaningful-use-and-public-health-objectives.html>



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NEXT WEBINAR!

Mass Hlway Consent: Operationalizing Opt-in Thursday, September 11 at 12:00pm-1:00pm

The Massachusetts eHealth Institute (MeHI) will address the topic of "opt-in" as it relates to Mass Hlway participation. While Massachusetts legislation requires that patients give their consent to allow a healthcare organization to send their health information over the Mass Hlway, there is not a required process to comply. Join this session for a review of the current community-developed Mass Hlway consent approach and resources, and hear from select Mass Hlway Participants on how they are addressing the "opt-in" requirement. Guest speakers will share different approaches and how they navigated the myriad of technical, policy and procedural challenges they encountered.

Register at mehi.masstech.org/events



at the MasTech
Collaborative

617-371-3999

ehhealth@masstech.org



[@MassEHealth](https://twitter.com/MassEHealth)

www.mehi.masstech.org