The Massachusetts Health Information Highway

Overview, Enrollment, and Onboarding
For healthcare and provider organizations

www.masshiway.net
About Us

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Executive Office of Health and Human Services
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
Outline the steps to connect to the Mass HIway:

- Overview and Benefits
- Use case development
- Determining connection type
- Completing the Participation Agreement
- Onboarding overview
- Q&A
Mass HIway Overview & Benefits
About The Mass Hiway

HIT Council

EOHHS


MeHi

MAEHC

Massachusetts eHealth Collaborative
Mass HIway: Secure, statewide health information exchange (HIE) network.

• Open to Massachusetts-licensed providers, health plans and legal entities, and business associates.

• Limited to exchange of information as allowed by HIPAA.

Goal: To enable secure, electronic information sharing among cross institutional care teams so they can:

• Improve Quality
• Reduce Costs
• Improve Patient Satisfaction

How: Efficient use of a health information exchange can help clinicians stay up to date on a patient so they can make informed decisions.
## HIE Benefit Summary

<table>
<thead>
<tr>
<th>Time Saved:</th>
<th>Cost &amp; Revenue</th>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Documentation</td>
<td>Supply cost savings: • Reduce the need for paper, folders, related administrative costs</td>
<td>Improved quality &amp; coordination</td>
</tr>
<tr>
<td>• Referral &amp; prescription management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Staffing efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to increase patient volume</td>
<td>Discounts on malpractice and liability insurance: • Reduction of injuries or harm</td>
<td>Improved satisfaction</td>
</tr>
<tr>
<td>Increase revenue over same work periods</td>
<td>Reduced transcription costs</td>
<td>Improved management</td>
</tr>
<tr>
<td></td>
<td>Reduction or avoidance of technical costs (ex: reduced interfaces with DPH)</td>
<td>Improved communication &amp; engagement</td>
</tr>
</tbody>
</table>

PHASE 1
Direct Messaging

2012
• State assumes HISP role
• Provider - ‘Directed’ exchange of electronic health information (‘push’) with gold-standard encryption.
• Includes identity & access management, message transformation, certificate repository, Hiway directory.

Launched & Available
October 16, 2012
Golden Spike

PHASE 2
Query + Retrieve

2014
• Query-based exchanged enabled (‘pull’)
• Includes Master Person Index, Relationship Listing Service, Consent database, Medical Record Request service
• DPH Connection for MU2
• Vendor Connections

Soft Launch
January 8, 2014
Commonwealth Interconnected

More at www.masshiway.net
As a health information service provider (HISP), the Mass HIway is a trust community based on technical security standards and legal policies to which all participants agree. The Mass HIway issues certificates, maintains security keys, verifies participant identities, and issues and maintains Direct addresses.
Key Drivers

**Meaningful Use Stage 2** requires electronic exchange (10/13 EH- 1/14 EP).

- DPH Reporting is moving to the Mass HIway:
  - Immunizations (MIIS), Registry submission, Syndromic Surveillance (eligible hospitals only)

Visit mass.gov for more information and contact information:

- Summary Record for Transitions of Care:
  - Can use any HISP to meet measure, but Mass HIway provides appropriate message delivery services and a growing network among different CEHRTs.

**Affordable Care Act** aligns payment with quality over quantity. HIE is a necessary tool and the Mass HIway offers accessible, statewide, low cost option.
Mass HIway supports information transport for patient case management programs.

**Potential impact on quality:**
- Identification and active management of at risk patients
- Increased patient adherence to treatment plans and medication plans

**Potential impact on cost:**
- Increase in near term costs for preventive services, adherence tracking, coaching
- Reduction in costs for avoided readmissions
- Reduction in long term costs for acute events

**Potential impact on patient satisfaction:**
- Increased attention and resources for those that need the most assistance
Mass HIway supports information transport for patient transitions across the care continuum.

**Potential impact on quality:**
- Improved handoffs
- Reduction in errors and adverse events
- Reduced readmissions

**Potential impact on cost:**
- Reduced costs from correcting for adverse events
- Reduced cost from reduction in duplication in tests and procedures
- Reduced costs from avoided readmissions

**Potential impact on patient satisfaction:**
- Safer care - fewer errors and adverse events
- More convenient care – fewer repeat tests and procedures
- Better care – better targeted treatment, improved follow up, and avoided readmissions
Quality Improvement

Mass HIway supports information transport for clinical quality reporting.

**Potential impact on quality:**
- Foundational function for quality improvement programs
- Enables risk based payment programs with threshold measure of clinical quality and bonus payments calculation

**Potential impact on cost:**
- Efficiency in clinical quality reporting - Reduced costs for staff to gather information, calculate measures, and report

**Potential impact on patient satisfaction:**
- Provides information upon which patients may make provider selection decisions
- Provides critical decision making information for promotion of an efficient healthcare marketplace
## Mass HIway In Action

<table>
<thead>
<tr>
<th>Use case</th>
<th>Cumulative total transactions through 11/30/13</th>
<th>Cumulative total transactions through 2/20/14</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Coordination</td>
<td>208</td>
<td>5,343</td>
<td>2469%</td>
</tr>
<tr>
<td>Public Health</td>
<td>52,261</td>
<td>120,839</td>
<td>131%</td>
</tr>
<tr>
<td>Case Management</td>
<td>21,236</td>
<td>29,941</td>
<td>41%</td>
</tr>
<tr>
<td>Quality Reporting</td>
<td>626,908</td>
<td>845,123</td>
<td>35%</td>
</tr>
</tbody>
</table>

- **Over 200 organizations** signed up
- **Over 100 organizations** are live and connected
- Includes hundreds more sites across the state
Health information exchange use in 2.4% of encounters in the ER lowers readmissions by 30% (savings $357,000 in sample)

J. R. Vest et al, Association between use of a health information exchange system and hospital admissions, Applied Clinical Informatics, Vol. 5: Issue 1 2014

http://aci.schattauer.de/en/contents/archive/issue/1824/manuscript/20941.html

Health information exchange tool used in only 1.46% of ER visits avoided 560 duplicate tests and identified 28 cases of drug seeking behavior in 6 month period

T. J. Winden et al, Care Everywhere, a Point-to-Point HIE Tool, Applied Clinical Informatics, Vol. 5: Issue 2 2014

http://aci.schattauer.de/en/contents/current-issue/issue/special/manuscript/21048/show.html
Determining Your Use Case
Determining Your Use Case

• Before enrolling with the HIway, think about how the Mass HIway can suit your business needs by creating a Use Case.

• What is a Use Case?
  o A use case is an easy to understand description detailing the interaction between an actor (human, organization, system) and a system under consideration.
  o For HIway purposes, it identifies a set of ‘trading partners’ and source and destination systems and describes how they intend to use the Mass HIway.
Determined Your Use Case | Benefits

- Use cases are developed with the goal in mind, which makes them a valuable planning tool.

- Identifies the clinical / business need before solution development...mitigating rework and delays

- Facilitates initial scoping, project planning and effort prioritization

- Supports ‘selling’ your request to management – you have done your due diligence to articulate value, not just functionality

- Supports identifying the project team / stakeholders
Determining Your Use Case | HIway Grantee Use Cases

**Send**
- Send Care Summary: 17
- Send Referral Request: 9
- Send Hospital Discharge...: 6
- Send Lab Results
- Send Hospital Discharge...: 
- Medication Reconciliation
- Send Lab and Radiology Orders
- Send Imaging Notifications
- Send Hospital Admission...
- Send enrollment/admission...
- Send ED Admission Notification
- Send CANS Data to MDPH

**Receive**
- Receive Care Summary: 13
- Receive Referral Request: 5
- Receive Discharge Summary: 5
- Receive Lab Results
- Receive Lab Orders
- Receive Imaging Notifications
- Receive Hospital Discharge Notification
- Receive ED Visit Summary
Determining Your Use Case | Generating Stories

Reducing duplication of tests for high acuity cardiovascular patients

Enhancing decision support through 2-way exchange of data

Improving pre-hospital transport & care coordination for the homeless

Reducing readmissions and improve care management for heart failure patients

Improving transitions of care from acute care to SNF and Home Health

Coordinating care plans between a health plan and community health center
Determine Your Use Case | Develop a Use Case

<table>
<thead>
<tr>
<th>Use Case Name</th>
<th>(A brief summary of your use case. Limit to 100 Characters.)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
<th>(What is your end goal? For example, you use the Mass HIway as a component of your Meaningful Use transitions of care solution or your readmission reduction efforts. Be as specific as possible.)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Story</th>
<th>(How do you intend to use the Mass HIway? Describe the steps required to exercise your use case. This should tell the story of how you intend to use the HIway, but also support initial project scoping efforts.)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Actors</th>
<th>(Who are the sending and receiving organizations – the “trading partners”? What data systems are involved, for example: the in-patient or out-patient system, the data warehouse?)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Data to Exchange</th>
<th>(What data and in what format do you intend to exchange? For example, you may want to send a discharge summary or a summary of care record formatted as a CDA, C32, text file or a .pdf.)</th>
</tr>
</thead>
</table>

**Key questions:**

1. Why are you connecting to the HIway?
2. What is the scenario?
3. Who is your trading partner(s)?
4. What systems/data sources are involved?
5. What data is being exchanged?
6. Are you sending or receiving or both?
   - If sending, can you create the data set?
   - If receiving, can you “digest” the data set?
Check if your trading partners are on the Mass HIway at [www.masshiway.net](http://www.masshiway.net). If not, discuss your use case with them and refer them to HIway Ops to get connected.

Engage your clinical and business leaders early.

The Mass HIway is a new tool, so it will take your staff and your trading partners time to get used to and integrate into practice.

You already exchange information for patient care... do you use a fax machine, USB, or US mail? With privacy and security regulations and accounting of disclosures rules, you want protection. The Mass HIway offers your more security to do what you do everyday.

Determining your use case, helps inform choosing your connection type.
Choosing a Connection Type
Choosing A Connection Option

Organizations can connect in one of three ways:
  • Webmail
  • LAND Device
  • Direct

Things to consider:
  • Technical capabilities
  • EHR Type and vendor status
  • 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 HIway

### 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.
<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Supports high-volume and automatic/scripted message and data dropping</td>
<td>▶ LAND appliance is a “black box” and cannot be accessed by participant staff</td>
</tr>
<tr>
<td>► Multiple options for integrating message transmission into a participant’s infrastructure (HTTP POST, Directory drop, and more), creating minimal impact for non-technical users</td>
<td>▶ Some configuration of the IT environment is required for messages to reach the LAND, so participant IT support is required until onboarding is complete</td>
</tr>
<tr>
<td>► Participant is not responsible for appliance maintenance or installation</td>
<td>▶ Installation and/or physical replacement of the box requires Mass HIway staff to visit the participant site</td>
</tr>
</tbody>
</table>

**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.
Mass HIway | Direct

**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 HIway and have a compatible EHR and/or a dedicated IT team who can configure existing participant system to interface with the connection.
## Rate Card

<table>
<thead>
<tr>
<th>Tier</th>
<th>Category</th>
<th>One-time Setup Fee</th>
<th>LAND HIE Services (per node)</th>
<th>Direct (XDR/SOAP or SMTP/SMIME) HIE Services (per node)</th>
<th>Direct Webmail HIE Services (per user)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>Large hospitals</td>
<td>$2,500</td>
<td>$27,500</td>
<td>$15,000</td>
<td>$240</td>
</tr>
<tr>
<td></td>
<td>Health Plans</td>
<td>$2,500</td>
<td>$27,500</td>
<td>$15,000</td>
<td>$240</td>
</tr>
<tr>
<td></td>
<td>Multi-entity HIE</td>
<td>$2,500</td>
<td>$27,500</td>
<td>$15,000</td>
<td>$240</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Small hospitals</td>
<td>$1,000</td>
<td>$15,000</td>
<td>$10,000</td>
<td>$240</td>
</tr>
<tr>
<td></td>
<td>Large ambulatory practices (50+)</td>
<td>$1,000</td>
<td>$15,000</td>
<td>$10,000</td>
<td>$240</td>
</tr>
<tr>
<td></td>
<td>Large TLCs</td>
<td>$1,000</td>
<td>$15,000</td>
<td>$10,000</td>
<td>$240</td>
</tr>
<tr>
<td></td>
<td>ASCs</td>
<td>$1,000</td>
<td>$15,000</td>
<td>$10,000</td>
<td>$240</td>
</tr>
<tr>
<td></td>
<td>Non-profit affiliates</td>
<td>$1,000</td>
<td>$15,000</td>
<td>$10,000</td>
<td>$240</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Small LTC</td>
<td>$500</td>
<td>$4,500</td>
<td>$2,500</td>
<td>$120</td>
</tr>
<tr>
<td></td>
<td>Large behavioral health</td>
<td>$500</td>
<td>$4,500</td>
<td>$2,500</td>
<td>$120</td>
</tr>
<tr>
<td></td>
<td>Large home health</td>
<td>$500</td>
<td>$4,500</td>
<td>$2,500</td>
<td>$120</td>
</tr>
<tr>
<td></td>
<td>Large FQHCs (10-49)</td>
<td>$500</td>
<td>$4,500</td>
<td>$2,500</td>
<td>$120</td>
</tr>
<tr>
<td></td>
<td>Medium ambulatory practices (10-49)</td>
<td>$500</td>
<td>$4,500</td>
<td>$2,500</td>
<td>$120</td>
</tr>
<tr>
<td>Tier 4</td>
<td>Small behavioral health</td>
<td>$25</td>
<td>$250</td>
<td>$175</td>
<td>$60</td>
</tr>
<tr>
<td></td>
<td>Small home health</td>
<td>$25</td>
<td>$250</td>
<td>$175</td>
<td>$60</td>
</tr>
<tr>
<td></td>
<td>Small FQHCs (3-9)</td>
<td>$25</td>
<td>$250</td>
<td>$175</td>
<td>$60</td>
</tr>
<tr>
<td></td>
<td>Small ambulatory practices (3-9)</td>
<td>$25</td>
<td>$250</td>
<td>$175</td>
<td>$60</td>
</tr>
<tr>
<td>Tier 5</td>
<td>Small ambulatory practices (1-2)</td>
<td>$25</td>
<td>$60</td>
<td>$60</td>
<td>$60</td>
</tr>
</tbody>
</table>

* Rates for Direct Messaging Only.
Example Rate Calculations for Direct Messaging

**Tier 1 Hospital**

Connection Method: LAND
Number of nodes: 1
- One time set up fee $2,500
- Annual fee $27,500/ year

Applicable for one legal entity using a single entry to the Mass HIway (node). Messages would be delivered to that one node and the Participant would manage distribution of messages to other sites covered under that legal entity.

**Tier 4 Small Practice**

Connection Method: Webmail
Number of users: 3
- One time set up fee $25.00
- Annual fee $360/ year

User limited to 1GB storage and 10MB message capacity.

**Important!**

Costs do not include modifications to EHR or IT systems.
Participant Types and Agreements
Mass HIway | Participant Types Defined

- **Basic Entity Participant**: Provides a single type of healthcare services.
- **Complex Entity Participant**: Provides continuum of care services.
- **Local HIE**: Provides contractual representation and technical integration services to multiple qualifying entities.
- **Aggregator**: Provides contractual representation for qualifying entities. (e.g. IPA, PHO, ACO)
  - Each sign a Mass HIway Participation Agreement on member behalf
  - Also sign a certificate of authority to transact
- **HISP**: Provides HISP to HISP contractual and technical integration services to multiple qualifying entities. Entity will sign a Mass HIway HISP Participation Agreement.
- **HIE Integrator**: Provides technical integration services to multiple qualifying entities. Entity will sign a Mass HIway Integrator Agreement.
The Participation Agreement includes:

1. **Policies and Procedures**: Outlines conditions and terms that apply to all Mass HIway participants to ensure it’s used in a safe, ethical, lawful matter.

2. **Business Associate Addendum**: Governs the use and disclosure of PHI by the Mass HIway. The Mass HIway is the BA.

3. **Participation Agreement**: Outlines roles and responsibilities of each party and governs general access and use of the Mass HIway.

4. **Service Addendum**: Describes specific services and any applicable terms of use, requirements, policies and procedures specific to those services.

5. **Delegated Administration Agreement**: Details the responsibility of the participant’s Access Administrators to help assign the role.

6. **Access Administrator Designation Form**: Officially assigns the participant’s 2 Access Administrators to manage the Mass HIway account.

7. **Access Administrator Agreement**: Outlines the role so that the designees understand their responsibilities.

8. **W-9**: Identifies the participating organization, used for invoicing.
The Access Administrator:

• Sets up and maintains all Authorized Users
• Manages access
• Trains and educates

1. **Delegated Administration Agreement**: Details the responsibility of the participant’s Access Administrators to help assign the role. The Authorized Signatory signs this to confirm their understanding.

2. **Access Administrator Designation Form**: Officially assigns the participant’s 2 Access Administrators to manage the Mass HIway account. The Authorized Signatory uses this to assign the Access Administrators.

3. **Access Administrator Agreement**: Outlines the role so that the designees understand their responsibilities. The Access Administrators each sign a copy.
Q. Do I need to review with a lawyer?
A. You can, but it’s not necessary. The documents are written to be accessible by an Authorized Signatory.

Q. I have an agreement, would you sign mine?
A. No, the Mass HIway will not sign any contract or agreement.

Q. Can you sign my BAA?
A. No, the Mass HIway has its own, HIPAA compliant BAA.

Can you send me a word version? I want to make changes.
A. The Mass HIway Agreement Package is non-negotiable and will not be changed per any request.

Q. I represent a provider organization, can I sign on behalf of my members?
A. Yes, as long as there’s a clear contractual relationship and BAA between your organization (ex: IPA/ACO/PHO). The Mass HIway would need a list of members and a certification that you can sign on their behalf.
Review and Sign

- Policies and Procedures
- Business Associate Addendum
- Participation Agreement
- Services Addendum
- Delegated Administration Agreement
- Access Administrator Designation Form
- Access Administrator Agreement
- W-9 form

To be reviewed and understood by the Authorized Signatory.

To be reviewed, completed, and **signed** by Authorized Signatory.

To be reviewed **and signed** by the Access Administrators.

Prepare a copy.
Signing Documents

Organization Name: ____________________________

By: ____________________________ Sign here

Name: ____________________________ Print here

Title: ____________________________ Your title

Date: ____________________________ Date of submission

* Let us know if there are any special circumstances when your organization name may not match.
1. Participation Agreement

2. Services Addendum

3. Delegated Administration Agreement

4. Access Administrator Designation Form

5. Access Administrator Agreement (x 2 copies for each)

6. W-9 form*

* If you’re already enrolled with MMAR, scan and email

Scan and email to: masshiway@state.ma.us

Mail original signed copy to:
Gina Ruvido
Assistant to Manu Tandon
EOHHS for the Commonwealth of Massachusetts
100 Hancock Street
Cube 4035; 4th floor
Quincy, MA 02171

* If you’re already enrolled with MMAR, scan and email
What happens next?

• In order to ensure a safe environment, the Mass HIway team verifies all potential Participants before giving access.
• Process uses trusted sources and available state information (e.g. licensing, website)
• Once verification is complete,* you will hear from your Service Manager who will discuss the next steps with you.

* Please allow 2 WEEKS for the verification process.
On-boarding Overview
Preparing for Testing

Once your account is verified:

• Your Service Manager will contact you to perform a technical assessment *(2 weeks)*
• You will receive the Participation Packet
• To move forward with testing, you must complete and return:
  - HIway Directory excel template and forms
  - Connection specific documentation
• When your Service Manager receives the forms, move to on-boarding:
  - Domains and certificates received, LAND installed if necessary
• Move to test

Directory Quick Tip:

The HIway Directory is a “phonebook” that would replace the fax numbers or mailing address of your individual and organizational providers.

When deciding a domain, consider how you want to be seen by the outside world.
Getting Connected

DPH Connection:
• Get access to DPH test environment
• Send encrypted message to test domain with certificate
• Send live data to test domain to confirm connectivity and message format
• Once confirmed, get production domain for DPH registry and transmit

Provider to Provider Connection:
• Send encrypted CCD or ADT to Mass HIway internal inbox
• Validate receipt
• Mass HIway to send message to confirm bi-directionality
• Go live
• Reach out to trading partners to work together to integrate into workflow

Remember:
Enroll with us now to be ready for DPH submission
Mass HIway can help you and your trading partners meet your TOC threshold.
Next Steps

• Review the Participation Agreement now, review takes time

• Talk with your vendor and your HISP, find out the connection status

• Engage more than IT staff in the decision, speak with clinicians and administrators to plan for operations

• Develop a Use Case to determine the value for your organization and scope the effort

• Dedicate a resource to the project to work with the Mass HIway team

• Start thinking about consent by using community resources
Contact:  
Mass HIway  
1.855.MA-HIWAY (1.855.624.4929)  
masshiway@state.ma.us  
www.masshiway.net  
Amy.Caron@state.ma.us  
(p) 617.483.4078

Contact:  
MeHI  
617-371-3999  
www.mehi.masstech.org  
ehealth@masstech.org  
Resources:  
http://mehi.masstech.org/health-information-exchange-0/hie-resources
NEXT WEBINAR!

HIE Perspectives and Understanding National, State, and Local Initiatives
Thursday, June 12 at 12:00pm-1:00pm

Join Sean Kennedy, Director Health Information Exchange, at the MeHI, who will present, HIE facts and figures on national, state, and local initiatives and share perspectives that will help providers better understand the differences and the forthcoming opportunities to improve patient care. The session will also highlight the great HIE work being done by Massachusetts providers.

REGISTER TODAY