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Mr. Steven T. James, House Clerk
Office of the Clerk of the House
Massachusetts State House
24 Beacon St. Room 145
Boston, MA 02133

Dear Clerk James,

On behalf of the Health Information Technology Council (HIT Council), I am submitting the HIT Council 2018 Annual Report pursuant to M.G.L. Chapter 118I, Section 15. This report addresses the general activities of the HIT Council and describes the progress to date in developing and operating a statewide health information exchange with specific focus on activities that contributed to this effort between October 2017 to the end of 2018.

This report gives an update on the progress of the following initiatives:

- Implementation of the regulatory requirement for providers to connect to the HIway
- The HIway Adoption and Utilization Services (HAUS) Initiative
- Development of an Event Notification System Initiative
- Migration of HIway 1.0 participants to HIway 2.0.

If you have any questions please contact the Mass HIway Program Director, Karbert S. Ng, at karbert.s.ng@state.ma.us.

Sincerely,

Lauren B. Peters
Undersecretary for Health Policy
Health Information Technology Council, Chair

Health Information Technology Council

Report to the Massachusetts Legislature

Reporting Period: October 2017 to December 2018

Submitted in February 2019
by the Health Information Technology Council

Table of Contents

Introduction 3
Implementation of Regulatory Requirement to Connect to the Mass HIway 3
Outreach, Education, and Account Management 4
EOHHS Event Notification Service (ENS) Initiative 5
Selection of Direct Gateway Vendor 7
HIway 2.0 7
HIway 2.0 Migration 8

Introduction

The Massachusetts legislature established the Health Information Technology Council (HIT Council) within the Massachusetts Executive Office of Health and Human Services (EOHHS) to coordinate and promote the development of a statewide health information exchange (HIE).[1]

The Massachusetts Health Information Highway, also known as the Mass HIway, is the Commonwealth's statewide, state-sponsored HIE and is operated by EOHHS. The Mass HIway is accessible to all eligible healthcare providers and healthcare organizations regardless of affiliation, location, or differences in technology. The Mass HIway serves as a tool for the Commonwealth's healthcare community to improve care coordination, healthcare quality, and public health reporting.

This *HIT Council Report to the Massachusetts Legislature* fulfills the statutory requirement under M.G.L. Chapter 118I, Section 15 for the HIT Council to file an annual report that: (a) describes the activities of the HIT Council and (b) describes the progress made in developing the statewide health information exchange and recommending legislative action, if deemed appropriate.

This report provides an update on notable accomplishments and activities related to the state's HIE that occurred between October 1, 2017 and December 31, 2018. This report follows the previous report, which covered activities through December 2017.

Implementation of Regulatory Requirement to Connect to the Mass HIway

As set forth in M.G.L. Chapter 118I, Section 7, and as detailed in the Mass HIway Regulations (101 CMR 20.00), healthcare providers in the Commonwealth are required to connect to and utilize the Mass HIway. This requirement is phased in over a four-year period, which progressively encourages use of the Mass HIway for provider-to-provider communications and bi-directional exchange of health information.

In 2018, Acute Care Hospitals were required to submit a Year 2 Attestation Form to the Mass HIway; Large & Medium Medical Ambulatory Practices and Large Community Health Centers were required to submit a Year 1 Attestation Form. These forms detail how each organization met the requirement to connect to the Mass HIway. In May 2018, the Mass HIway released online versions of these forms, the use of which helped increase the efficiency of the attestation process for provider organizations and the HIway. The submission due date for these attestation forms was July 1, 2018.

If an organization had not fulfilled its HIway connection requirement and could not complete the Attestation Form, an authorized representative of the organization was required to send an email to the Mass HIway explaining why the requirement had not been met and the organization's plans for coming into compliance with the connection requirement.

[1] The Massachusetts General Court initially established the HIT Council in 2008, and the Council was reorganized by Ch. 224 of the Acts of 2012, currently codified as M.G.L. c. 118I.

Recognizing that many provider organizations would have questions about the connection requirement, the HIway engaged in several education and outreach activities. These activities included instructional webinars, monthly email newsletters, periodic reminder emails, and conference calls with provider organizations seeking assistance.

Preliminary information regarding attestations submitted by provider organizations was presented to the HIT Council in August. As of October 2018, 155 organizations had submitted attestations. Among these organizations were 64 medium and large medical ambulatory practices (which accounted for 550 sub-organizations and practice locations) and 32 large community health centers (82% of large community health centers in the state). Also attesting were 59 acute care hospitals (88% of acute care hospitals in the state). Throughout calendar year 2018, the HIway continued to analyze these attestations and engage in outreach to provider organizations.

Outreach, Education, and Account Management

EOHHS has signed a new contract with the Massachusetts eHealth Institute (MeHI) to provide outreach and education, account management, and provider consulting services to current and prospective Mass HIway Participants. The selection of MeHI as the new vendor was the result of an open, competitive procurement process that took place throughout Q4 2017 and early 2018. MeHI began providing these services on March 1st, 2018. Prior to this date, these services were provided by the Massachusetts eHealth Collaborative (MAeHC).

MeHI is a well-known, trusted resource in the community and is well positioned to help EOHHS increase adoption of Mass HIway and HIE, increase active use of electronic exchange in clinical practice, measure the impact that health information exchange has on the delivery of healthcare services, and identify potential new services and opportunities in the growing healthcare IT market.

There has been steady progress on the HIway Adoption and Utilization Services (HAUS) initiative. The HAUS initiative is realigning its services to support MassHealth's transition to alternative payment models. The goal of the initiative is to increase use of health information exchange for care coordination purposes and more closely align these services with the real drivers of change in the health IT space—payment reform.

Mass HIway is working closely with MassHealth to understand the health information exchange needs of its ACO participants, including Behavioral Health and Long Term Services and Supports Community Partners (CPs), and Community Service Agencies (CSAs). Services provided under HAUS will include technical assessments, end-to-end management of health information exchange projects among multiple trading partners, workflow support, and overall change management.

EOHHS Event Notification Service (ENS) Initiative

Event Notification Service (ENS) is an electronic tool used in health care. ENS can be used for many healthcare services and a common example is patient admission, discharge, and transfer (ADT) to a hospital or emergency department. ENS provides real time electronic notification to healthcare providers regarding a patient's transition to or from healthcare facilities.

EOHHS has long recognized the benefits of expanded ENS services to all providers to best serve patients across the healthcare continuum. In February 2018, EOHHS issued an RFR to procure a vendor to develop a state-operated ADT repository with an option to operationalize ENS services. Over the course of the procurement, the provider community had made marked advances in the adoption of ENS services.

Assessments of the RFR responses indicated that ENS vendors had significant market penetration with acute care hospitals, in addition to robust adoption by other provider types. Therefore, EOHHS determined that the advances in the marketplace rendered the creation of a state-operated ADT repository and ENS service duplicative.

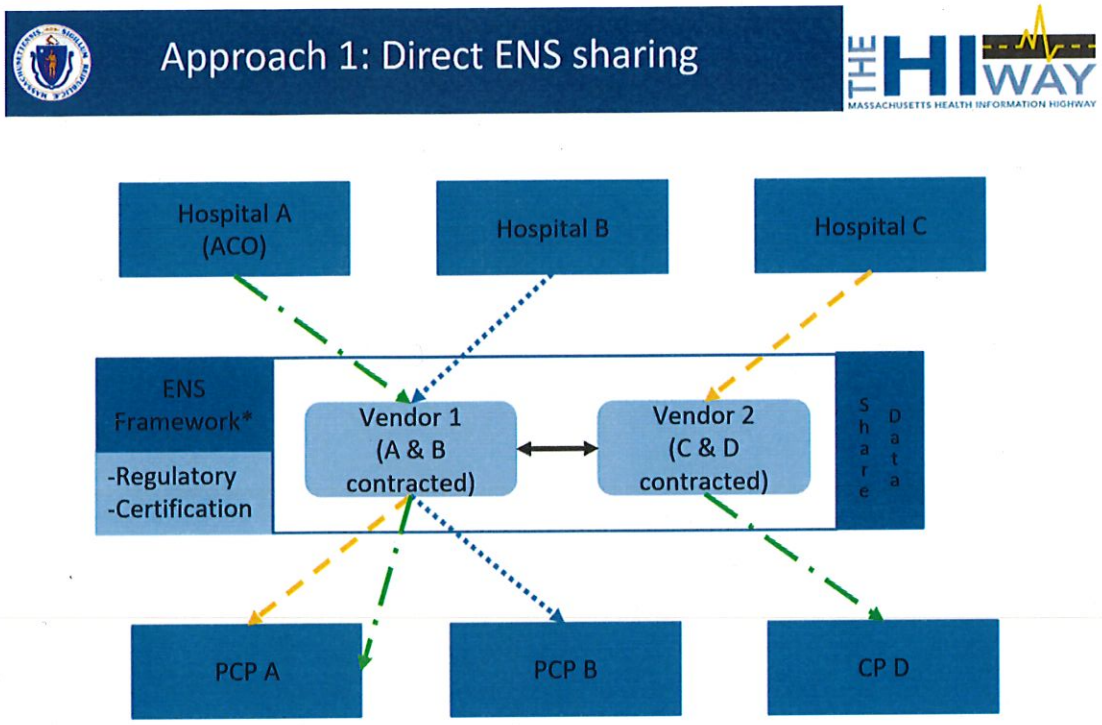
Accordingly, in October 2018, EOHHS withdrew the RFR and issued a new Market-led ENS Initiative RFI. The proposed market-led approach to ENS will leverage existing ENS vendors participating in the marketplace to make ADTs available to all providers on a more expedited timeline.

The market-led ENS approach is premised on establishing a certification process for ENS vendors and a framework that provides the certified vendors access to a universal ADT dataset. This approach aims to enable vendors to further innovate and compete on their services to improve care coordination rather than competing on data acquisition. EOHHS foresees working with all stakeholders and aims to complete the Market-led ENS Initiative later in calendar year 2019.

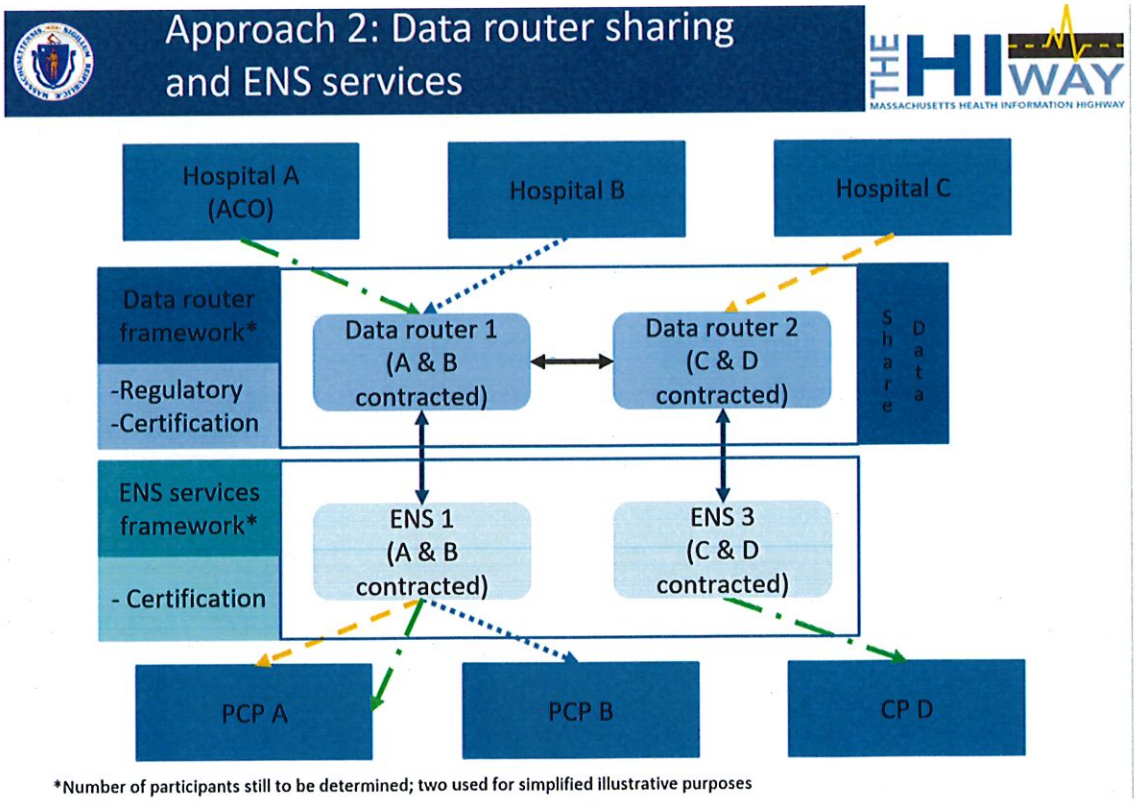
The following are key features to the market-led ENS approach:

- The state will establish a certification process and standards for ENS vendors.
    - State to oversee and monitor certified ENS vendors through certification process and ongoing audits.
    - HIPAA Covered Entity rules and existing Business Associate agreements will govern privacy and security.
    - The state will define common standards for transport (ex. HL7, FHIR) and input standards for ADT feeds.
- Hospitals will be required to submit ADTs to one certified ENS vendor.
- End users of the data (hospitals, PCPs, specialists, SNF, BH CPs, LTSS CPs, etc.) will need to contract with only one vendor to access ENS.
    - Mechanism to solve one vendor recipient access is still to be determined.

Visual example of two potential approaches to market-led ENS services



*Number of vendors still to be determined; two used for simplified illustrative purposes



*Number of participants still to be determined; two used for simplified illustrative purposes

Selection of Direct Gateway Vendor

As a result of a fully open market procurement, EOHHS has selected Orion Health to implement and operate a new Mass HIway Direct Messaging System, also known as "HIway 2.0." EOHHS and Orion Health executed a new contract effective January 1, 2018. HIway 2.0 will use Orion Health's Communicate product, a Software as a Service (SaaS) solution. The Communicate solution meets the following key requirements sought by EOHHS in its procurement:

- Accredited by the Electronic Healthcare Network Accreditation Commission (EHNAC) for participation in DirectTrust
- Supports current standards, making it easier to connect to other systems
- Maintained with regular enhancement releases and product support
- Includes new features and improved functions that are easier to use

HIway 2.0 went live in June 2018. All existing HIway participants are expected to be migrated from HIway 1.0 to HIway 2.0 by June 30, 2019. Significant planning and execution is underway to support the migration process.

HIway 2.0

The new Mass HIway Direct Messaging System, known as HIway 2.0, aligns the Mass HIway with current interoperability conventions, simplifies the connection process, and improves the user experience using the Orion Health Communicate solution. Orion Health Communicate is an EHNAC/DirectTrust accredited, cloud-based, Software as a Service solution that is an ONC 2015 Edition certified Direct Project, Edge Protocol, and XDR/XDM product that enables the Mass HIway to more easily connect to other HISPs and continue to serve as a network of networks across the Commonwealth and other states.

HIway 2.0 new features and improvements:

- Direct Trust Certification: Using DigiCert secure certificates, HIway 2.0 has been accredited by EHNAC to join Direct Trust certified Health Information Services Providers (HISPs). The certification will expand the participant's potential HIE network, as it provides connection to 25 HISPs used by providers in Massachusetts and over 120 accredited HISPs operating nationally.
- Provider Directory: The HIway 2.0 provider directory follows Healthcare Provider Directory (HPD) recommendations. This standardizes and simplifies the upload format to create a more seamless process to exchange health data and expand the directory beyond the state.
- ONC 2015 170.315 Edge Protocol Certification: This certification supports compliance with advanced stages of Meaningful Use (now known as "Promoting Interoperability").
- Native support for multi-recipient messaging is included with the new Connect Device software to improve ease of use.
- Single-use certificate support for all connection types improves security and increases interoperability with other HISPs.

- Familiar User Interface: Webmail and hardware device (LAND) users will see little change from the interface they are currently used to, requiring a minimum of technical intervention, while expanded features will be included.
- Standardized XDR Direct Messaging: HIway 2.0 will more easily integrate with existing EHR systems to handle messaging directly from systems that providers are already using.
- Federal Bridge Certification Authority (FBCA) compliance: HIway 2.0 will now allow message exchange with Federal agencies that require FBCA compliance.

HIway 2.0 Migration

The HIway Operations Team is migrating all HIway participants from the legacy HIway 1.0 to the new and improved HIway 2.0 environment over the upcoming months. As of December 31, 2018, approximately 40% of HIway participants have migrated to HIway 2.0. In order to provide optimal customer support during these migrations, a phased approach is utilized where participants are migrated in groups, referred to as "waves." A key component of the migration process is the identity proofing of all participants. Identity proofing is a way to ensure that messages are delivered to the intended recipient through a chain of verified identities. HIway 2.0 uses a 3rd party to conduct part of the identity proofing process, which requires a notarized form from each HIway participant organization. Participants were encouraged to submit their completed identity proofing form and other forms with technical information by August 31, 2018 and HIway personnel are contacting all participants that did not submit forms by that date for immediate action. HIway 1.0 will be decommissioned after all participant migrations have completed.

HIway 2.0 and Clinical Gateway Node Migration

All Clinical Gateway Nodes have been upgraded to adhere to the latest standards. Below are the migration timeline and activities:

Migrated to HIway 2.0 in the 2nd and 3rd Quarter of 2018

- MCR – Massachusetts Cancer Registry
- CLPPP – Childhood Lead Poison Prevention Program
- PMP – Prescription Monitoring Program (now inactive)
- eREF – eReferral Program (now inactive; to be decommissioned)
- ELR – Electronic Lab Reporting
- MIIS – Massachusetts Immunization Information System
- SYND – Syndromic Surveillance Program

Migrated to HIway 2.0 in the 4th Quarter of 2018

- IEATS (OTP & TB) – Opioid Treatment and Tuberculosis Program
- CBHI – Children's Behavioral Health Initiative

Clinical Node release notes outlined the new, streamlined response messages, which participants see when engaging with the Clinical Gateway as a result of HIway 2.0 Migration.