State Health Information Exchange Program

The Office of the National Coordinator for Health Information Technology

State HIE Bright Spots Implementation Brief

HIE Capacity Building

Spotlight on: **Michigan's Removal of Financial Barriers to Achieve Measurable Results**

February 2013

❖ **The Challenge**

To build from existing HIE investments and services in a manner that supported eligible professional and hospital achievement of meaningful use (MU).

❖ **The Approach**

Michigan provided temporary financial assistance to five sub-state HIE entities, increasing access to core HIE services and assuring that providers have at least one mechanism to meet Stage 1 MU exchange requirements.

❖ **Michigan's Key Takeaways**

- Tie funding to clear requirements, performance goals and metrics associated with the intended outcome (in this case providers' achievement of Stage 1 MU).
- Implement monitoring and collaboration mechanisms for sub-state HIE entities to help them learn from each other and confirm that they are meeting stated objectives and requirements.
- Establish several rounds of funding to allow for the incorporation of promising practices and lessons learned.

In 2006, the Michigan Legislature passed Public Act 137-2006, formally establishing the Michigan Health Information Technology (HIT) Commission as an advisory board to the Michigan Deparment of Community Health (MDCH). As a result of a strategic plan from the Michigan HIT Commision to improve the cost and quality of the state's health care system through health information exchange (HIE) and health information technology (HIT), Michigan distributed $10 million in state appropriated funding to nine medical trading areas to help bolster HIE planning and implementation efforts.

Building upon early experiences of increasing HIE capacity throughout the state, Michigan provided a portion of the funding received from the Office of the National Coordinator for Health IT's (ONC) State HIE Cooperative Agreement to sub-state HIE entities that were fully operational in an effort to support providers' achievement of Stage 1 meaningful use (MU). We highlight Michigan's progress in expanding HIE capacity through the establishment of a clear purpose and expectations for funding recipients, incorporation of lessons learned from previous capacity building experiences, and the use of transparent monitoring mechanisms.

Michigan's HIE Capacity Building Program

Lead Organization	Michigan Health Information Network (MiHIN), the State Designated Like Entity[i]
Type	Sub-state HIE funding/award program
Timeframe	June 2011 – September 30, 2012
Organizations funded	Great Lakes HIE, Ingenium (formerly My1HIE), Jackson Community Medical Record, Michigan Health Connect, Upper Peninsula Health Information Exchange
Award amount	$250,000 per sub-state HIE entity; $1.25 million total
Funding uses	Expansion of various HIE services and infrastructure, including e-prescribing, electronic delivery of lab results, exchange of care summaries, and required reporting to public health; defrayment of costs for Critical Access Hospitals (CAHs) and Federally Qualified Health Centers (FQHCs) to connect to HIE service providers.
Application and approval process	Qualified sub-state HIE entities submitted applications for funding, which were evaluated and compared to specific criteria and then presented to MiHIN's HIT Commission for final approval.
Monitoring	Monthly financial reports; quarterly reports with progress towards milestones

Increasing HIE Capability and Connections

From program inception through December 2012, the Michigan Health Information Network (MiHIN) has distributed $918,000 in funding to the five sub-state HIE entities. The sub-state HIE entities used this funding to augment their technical infrastructure and expand their services. Each sub-state HIE entity now offers key HIE services that support the achievement of Stage 1 meaningful use including the electronic transmission of patient care summaries and the delivery of structured lab results to ordering providers. With the sub-state HIE entities' expanded services and geographic coverage, the number of providers and hospitals sharing health information electronically has steadily increased. As of October 2012, over 6,200 providers[ii] and 55 hospital laboratories are enabled to exchange health information through one of the five sub-state HIE entities, representing a 49.6 percent and 112 percent increase since June 2011, respectively (**Figure 1**). The number of providers and hospitals[iii] able to attest for meaningful use (under the Medicaid EHR Incentive Payment Program) through their participation with sub-state HIE entities has dramatically increased – approximately 2,600 providers and 61 hospitals in the state have successfully attested for Stage 1 meaningful use as of October 2012 (**Figure 2**).

> *"Connecting providers to our HIE infrastructure was by far the best thing that we could have ever done with the funding we received from MiHIN's program. For providers that are currently investing their money in certified EHR software, allowing them to connect to the HIE for free helps them get one step closer to Stage 1 meaningful use."*
>
> Carol Parker, Executive Director, Great Lakes Health Information Exchange

Figure 1. Number of providers and hospital laboratories enabled to exchange health information[iv] via sub-state HIE entities, June 2011 – October 2012

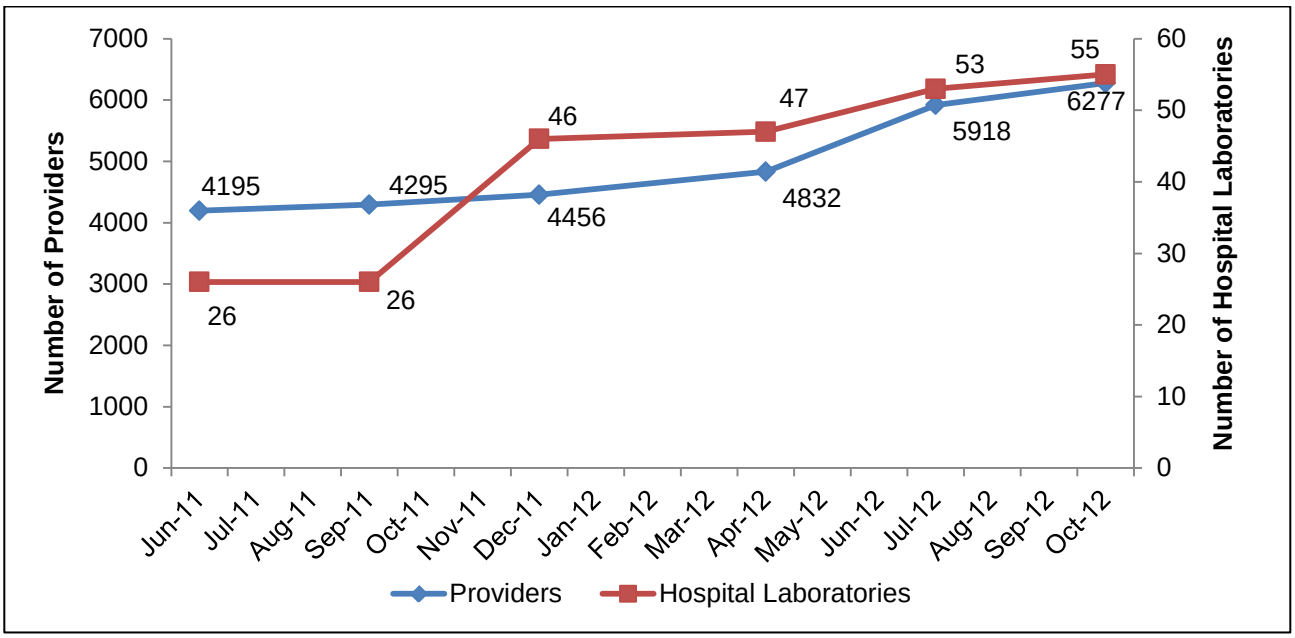
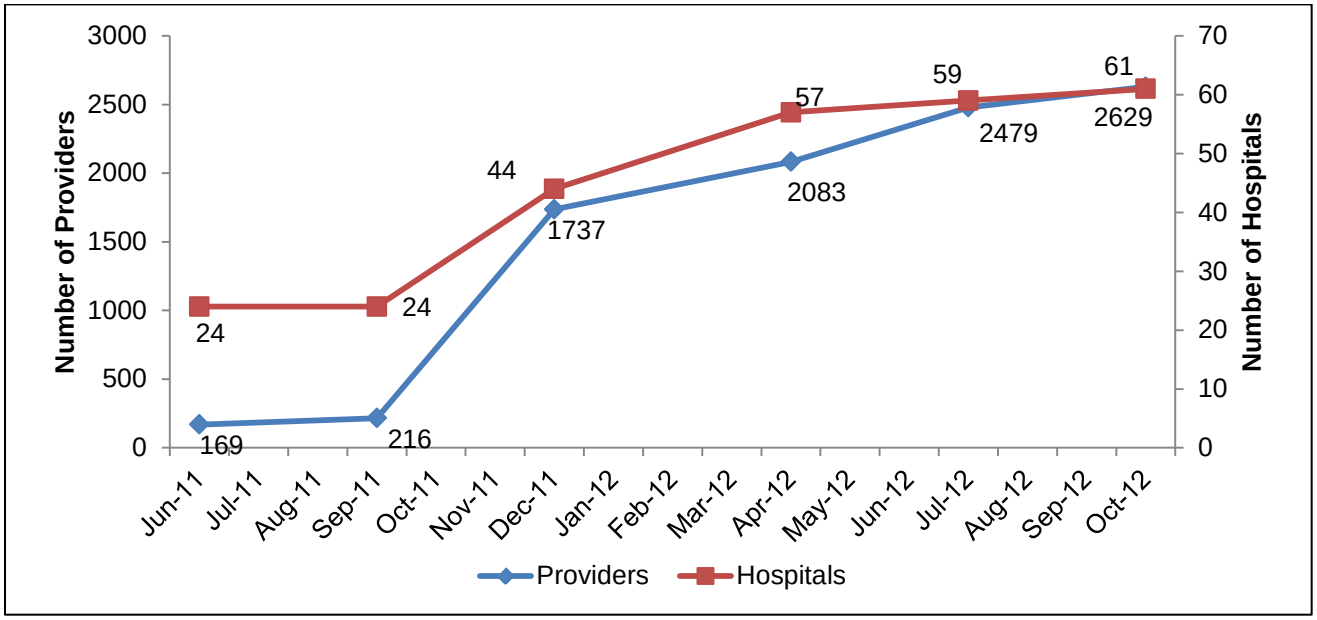


Figure 2. Number of providers and hospitals utilizing sub-state HIE entity capabilities to attest to Stage 1 meaningful use requirements[v] under the Medicaid EHR Incentive Payment Program, June 2011 – October 2012

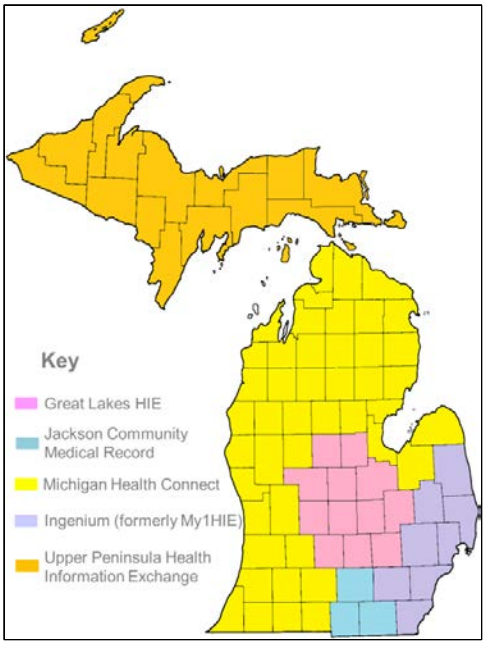


MiHIN has already witnessed success with its initial capacity builder program and hopes to continue that success as it strives to build an interoperable and sustainable HIE environment for the state of Michigan. Providers in geographic areas like the Upper Peninsula that were considered "white space" (having limited or no HIE service capabilities) as recently as 2011, can now exchange health information electronically with other providers. More electronic health information is flowing across the state of Michigan than ever before: at the end of 2012, MiHIN had almost 467,000 transactions for public health reporting.

Starting Out on the Right Foot

MiHIN's achieved success in expanding the services and geographic coverage of its operational sub-state HIE entities through thoughtful planning and coordination, creating a solid framework for the collaborative effort.

Figure 3. HIE Coverage in Michigan[vi]



1. **Identifying the target audience.** MiHIN targeted various operational sub-state HIE entities that had received previous investments from public and private sources. This ensured that every provider would have at least one HIE option to support Stage 1 meaningful use since each medical trading area (MTA) identified in the state was served by at least one of the entities. MTAs, defined as geographically bound spaces where 80% of care is delivered, contain natural referral geographies for HIE. Some sub-state HIE entities, such as Michigan Health Connect (MHC), already had expansive reach and covered multiple MTAs.

   In addition, MiHIN narrowed the applicant pool by clearly defining the funding eligibility criteria for sub-state HIE entities. Within its Shared Services Strategic Plan, MiHIN

included several qualifications across various domains. Examples of criteria for each domain include:

- **Governance** – A governance structure that includes diverse stakeholder groups; policies for transparency and openness
- **Finance** – Provision of an annual report to MiHIN; regular financial contributions to MiHIN (i.e., membership fees)
- **Business Operations** – Commitment to follow national standards for interoperability, privacy and security, auditing, etc.
- **Technical** – Capability to support all MiHIN technical specifications, which align with national standards, and use cases including electronic access to patient data such as lab results, medication history, and patient care summary exchange
- **Legal and Policy** – Compliance with all federal and state privacy and security requirements as documented through written policies and procedures

By establishing clear criteria for sub-state HIE entities, MiHIN defined statewide standards for HIE services, while also increasing the options for providers to meet meaningful use.

2. **Providing flexibility in funding use.** MiHIN understood that sub-state HIE entities might use funding for a wide variety of purposes, including meeting the diverse needs of their stakeholders. As part of their application, each sub-state HIE entity was asked to explain their intended uses for the funding. Applicants described how they would use the funding to assist providers in meeting meaningful use requirements; how they planned to address Stage 1 meaningful use measures; the technology and/or resources they required; and the providers they planned to support in their efforts. MiHIN imposed few constraints for the use of grant funding, but did stipulate that services should support at least one of the following meaningful use requirements: e-prescribing, electronic delivery of structured lab results, or the electronic sharing of patient care summaries among unaffiliated organizations. **Table 1** below highlights each sub-state HIE entity and the services/technologies funded through MiHIN's 2011-2012 capacity building program.

Table 1. Overview of sub-state HIE entity services and technologies funded by the MiHIN Capacity Building Program

Sub-state HIE entity	Funded services and technologies through capacity builder program
Great Lakes HIE (GLHIE)	• Defray connectivity costs for Critical Access Hospitals (CAHs) and Federally Qualified Health Centers (FQHCs) • Subsidies for costs of interfaces between HIE infrastructure and physician practices
Ingenium (formerly My1HIE)	• Expansion of Master Patient Index (MPI) • Expansion of Clinical data repository (CDR) • Exchange of Continuity of Care Documents (CCD) • Establishment of provider portal to access community data • Establishment of bi-directional EHR access
Jackson Community Medical Record (JCMR)	• Upgrade to NextGen and McKesson connectivity software • Report server upgrade • JCMR training and documentation to support expanded capabilities and provider base
Michigan Health Connect (MHC)	• Electronic referrals • Submission of immunization transactions to Michigan Care Improvement Registry (MCIR) • Expand coverage and close gaps in northeast Lower

Sub-state HIE entity	Funded services and technologies through capacity builder program
	Peninsula region
Upper Peninsula Health Information Exchange (UPHIE)	• Expansion of regional Master Patient Index (MPI) • Laboratory results reporting • Exchange of Continuity of Care Documents (CCD) • Submission of Michigan disease surveillance system (MDSS) reportable labs • Submission of immunizations to Michigan Care Improvement Registry (MCIR)

3. **Tying financial support to the achievement of specific milestones.** Rather than distributing funding in one lump sum, MiHIN released funding to sub-state HIE entities upon completion of agreed-upon milestones. In their applications for funding, sub-state HIE entities proposed various milestone activities, along with associated payments and a timeline. This process assured that each sub-state HIE entity considered how it would use the funding while maintaining solvency through the implementation of the program, and anticipating any costs that they might incur, including technology purchases, staff augmentation, and other budgetary considerations. While this process resulted in some level of negotiation with each sub-state HIE entity to agree on payment milestones, the process allowed MiHIN and the sub-state HIE entities to develop a shared vision and clear expectations for the future. Listed below are some examples of approved payment milestones (including the sub-state HIE entity that proposed the milestone):

    - **Great Lakes HIE**: Signed contracts with providers for adoption/subscription to services
    - **Ingenium:** Demonstration of bi-directional interfaces with 15 physician offices (each using various EHR systems)
    - **Michigan Health Connect:** Completion of 10 live office immunization feeds to the Michigan Care Improvement Registry (MCIR)
    - **Upper Peninsula HIE:** CCD exchange between at least one hospital and one physician; population of MPI with feeds from physician practices

Keeping Tabs on Progress

In order for sub-state HIE entities to meet stated objectives and properly utilize federal funding, MiHIN's HIE capacity building program included mechanisms for monitoring, management, and remediation.

1. **Reporting of defined performance measures.** As part of the application for funding, MiHIN required sub-state HIE entities to provide baseline data on various measures tied to specific Stage 1 meaningful use criteria including:
    a. Number of providers and hospitals/health systems utilizing the sub-state HIE entity to exchange structured lab results and Continuity of Care Documents (CCDs)
    b. Number of providers utilizing sub-state HIE entity services overall

    Sub-state HIE entities were required to provide quarterly reports which included updated data for each of these measures. The sub-state HIE entities also provided monthly financial reports which showed how funds were spent. On a more informal level, the five sub-state HIE entities participated in biweekly calls with MiHIN to provide updates, ask questions, or discuss issues.

2. **Implementing a remediation process.** In cases where sub-state HIE entities were unable to reach their agreed upon milestones, MiHIN had a policy to withhold funds from the entity until the specific

goals or milestones were met. Due to natural delays encountered in rolling out the program, MiHIN had to employ this remediation process for four of five sub-state HIE entities that were unable to reach agreed upon milestones per the specified dates set in their contracts with MiHIN.

3. **Providing multiple rounds of grants.** Using guidance from stakeholders, such as members of its Board of Directors and of the Michigan HIT Commission, MiHIN offered only $1.25 million of the $3 million set aside for capacity building efforts during its first round of awards. MiHIN will offer future rounds of funding to all qualified sub-state HIE entities, including those that were not funded by the most recent capacity builder program. By providing multiple rounds of awards, MiHIN is able to document and apply lessons learned and promising practices, which will enable the organization to be judicious with its State HIE Cooperative Agreement funding and to modify future program design, based on the experience gained and measurable results achieved through earlier rounds.

"The Hard Work isn't Over Yet"

MiHIN learned through its first round of capacity building that funding sub-state HIE entities to expand services and coverage areas does not necessarily translate into exchange that traverses organizational, vendor, and geographic boundaries. In fact, without careful attention and advance planning, these kinds of efforts can inadvertently perpetuate and even foster an environment where information cannot be exchanged across HIE entities. MiHIN is applying these lessons to its next round of capacity building work by determining an explicit set of standards and services for which it is willing to fund sub-state HIE entities, including: patient history look-up; HIE terminology mapping; exchange of patient care summaries, particularly Direct messages with HL7 or CDA attachments; and support for health provider directories. MiHIN launched this next phase of HIE capacity building in December 2012

Speaking to future efforts, MiHIN's Executive Director, Tim Pletcher, said: ***"The hard work isn't over yet. The need for HIE capacity within the state exceeds the resources providers have to invest in the technology. We are committed to working with partners in the state—using the capacity building approach and other strategies—to further advance the meaningful use of HIT to improve the cost and quality of health care."***

References and links

To learn more, please contact Tim Pletcher at pletc1ta@cmich.edu and Meghan Vanderstelt VandersteltM@michigan.gov.

And for more information please visit:

- MiHIN Shared Services
- Michigan HIT Commission
- Great Lakes HIE
- Ingenium (formerly My1HIE)
- Jackson Community Medical Record
- Michigan Health Connect
- Upper Peninsula Health Care Network

[i] The Michigan Health Information Network (MiHIN) is the State Designated Like Entity that is funded by the Michigan Department of Community Health.
[ii] The term "provider" includes all types of ambulatory medical providers and specialists.
[iii] The term "hospital" includes all types of hospital, critical access and acute care facilities.
[iv] Data for Figure 1 were taken from the November 2012 Michigan HIT Commission Dashboard, which measured the HIE activity of the six operational sub-state HIE entities (Great Lakes HIE, Ingenium (formerly My1HIE), Jackson Community Medical Record, Michigan Health Connect, Southeast Michigan HIE (not participating in the MiHIN HIE Shared Services capacity builder program), and Upper Peninsula Health Information Exchange) in Michigan as of November 2012. It can be accessed here: http://www.michigan.gov/documents/mdch/11-14-2012_MI_HIT_Dashboard-Final_403917_7.pdf. Information includes receipt of structured lab results, exchange of care summary documents, etc. It does not include the receipt of discrete data.
[v] Data for Figure 2 were taken from the November 2012 Michigan HIT Commission Dashboard, which documents the number of eligible professionals and hospitals that are utilizing sub-state HIE entity capabilities to attest to Stage 1 meaningful use requirements under the Medicaid EHR Incentive Payment Program as of November 2012. It can be accessed here: http://www.michigan.gov/documents/mdch/11-14-2012_MI_HIT_Dashboard-Final_403917_7.pdf
[vi] The sub-state HIE entities depicted in this figure include those that participated in the MiHIN HIE Shared Services capacity builder program.