Preparing for Michigan's Statewide Five-Year Health IT Roadmap

- Environmental Scan Findings
- Roadmap Recommendations

CEDARBRIDGE
GROUP

Michigan
Health
Information
Technology
Commission

Michigan
Department
of Health &
Human
Services

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MDHHS
Michigan Department of
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EXECUTIVE SUMMARY

In late 2019, Michigan Health Endowment Fund (Health Fund), awarded Michigan's Health Information Technology Commission (Commission) and the Michigan Department of Health and Human Services (MDHHS) a grant with the objective of modernizing the state's health information technology (health IT) strategic plan, which was last updated in 2010. The strategic planning process was scoped by CedarBridge Group, a national health policy consulting firm with expertise in health IT and health information exchange (HIE) services. The engagement was originally planned take place over the course of eighteen months in the following phases.

Five Phases to Creating the Roadmap...

Delivery of this report to MDHHS and the Commission will signify completion of the first three phases of the process to develop Michigan's ***Five-Year Statewide Health Information Technology Roadmap and Sustainability Plan,*** with the final phase slated to be completed by December 2021.

During the ***Planning*** phase, leadership and staff of the MDHHS Policy and Planning Administration, Health Fund project officers, officials from the Office of the National Coordinator for Health IT (ONC), representatives of Michigan Health Information and Systems Society (HIMSS), and members of the Commission Roadmap Steering Committee (RSC) worked with CedarBridge consultants to finalize the scope and timeline of the Roadmap process, and to develop methodologies to encourage participation from as many stakeholders as possible in the Roadmap creation.

The next phase, ***Engage and Discover***, involved engaging identified healthcare and social service stakeholders across eleven domains, and documenting current capabilities and the immediate and future needs of a statewide health IT connected infrastructure that will support Michigan's health improvement goals and priorities. As a consequence of the pandemic, the ***Engage and Discover*** activities were expanded to ensure robust stakeholder participation, and the timeline for developing the Roadmap was extended from eighteen to twenty-four months. Three primary modes of virtual discovery were deployed by CedarBridge: interactive online community forums with instant polling capabilities, the use of domain-specific electronic surveys, and the use of video conferencing for interviewing key informants.

The third project phase, ***Analyze and Synthesize***, will be completed upon the presentation of this report to the Commission and MDHHS staff at the May 25th Commission meeting. During this phase, research data collected over a nine-month timeframe from over five hundred individuals representing 210 organizations was organized, studied, and synthesized into the first thirty or so pages of the document, the Environmental Scan Findings Report.

In the findings report, the **current state** of adoption and use of health IT solutions, including but not limited to electronic health record systems (EHRs), and the experience of organizations currently using HIE services is described for Michigan stakeholders across domains, as well as what the **desired future state** would look like for stakeholders over the course of the next five to six years (the approximate timeframe of this iteration of Michigan's health IT strategic plan).

Working from the data, CedarBridge consultants **developed a set of draft recommendations** for consideration by the Commission, MDHHS leadership, Michigan stakeholders, and the public, with proposed incremental strategies and action steps that, if accepted, will be the underpinnings of the plan to be written in the August 2021 timeframe. The CedarBridge Roadmap recommendations, beginning on page 32 of this document, have not been influenced by MDHHS leadership or by Commission members. They are intended to be starting place to inspire further engagement, research, discussion, and ultimately evaluation by the Commission and MDHHS, prior to any decisions on inclusion in the final Roadmap document. This will be the ***Validate and Refine*** phase of the Roadmap strategic planning process, beginning at the Commission's May 2021 meeting and continuing through early August 2021. MDHHS will announce additional activities to be facilitated by CedarBridge Group for soliciting feedback on the Draft Recommendations, and encourages all members of the public, healthcare, and social service stakeholders, elected officials and their policy advisors, staff of state and local government agencies, and business and nonprofit leaders to engage in the discussions. Comments and suggestions can also be sent by email to: miroadmap@cedarbridgegroup.com.

During the months of September- November 2021, the Roadmap will be fine-tuned, and the accompanying sustainability plan will be drafted, reflective of the strategies and action steps adopted by the Commission and MDHHS. The final step in *developing* the Roadmap, ***Finalize and Adopt***, will take place at the Commission's December 2021 meeting, with Roadmap implementation beginning in early 2022.

THE PROCESS

Michigan's strategic plan for health information technology, ***The Conduit to Care Report***, was developed in 2006 under the direction of the Health Information Technology Commission (Commission), newly established at the time. The Report set Michigan on track to be a leader in health IT and HIE strategies with incremental processes to develop a legal, technical, and business framework of shared services for a statewide HIE infrastructure. ***The Conduit to Care Report*** was updated in 2010 to align with requirements and funding mechanisms in the landmark federal legislation contained in the Health Information Technology for Economics and Clinical Health (HITECH) Act, designating Michigan Health Information Network (MiHIN) as the state's provider of HIE shared services.

A decade after the **Conduit to Care Report** was last updated, Michigan Department of Health and Human Services (MDHHS) and the Commission set a priority to update and modernize the state’s strategic health IT plan. MDHHS requested funding to engage consulting resources from Michigan Health Endowment Fund (Health Fund) under their Special Projects and Emerging Ideas Program, and CedarBridge Group was selected for the work. The initiative was announced at the Commission’s November 2019 meeting, and planning commenced soon after for the *Five-Year Statewide Health Information Technology Roadmap* (Roadmap) beginning with an extensive engagement effort and environmental scan of the healthcare and social services stakeholder ecosystems.

Roadmap Planning

Roadmap Imperatives

The Roadmap will align with the Governor Gretchen Whitmer’s 5-Year Priorities for MDHHS by leveraging strategies to:

- Improve maternal and infant health outcomes
- Integrate and share data on social determinants of health to reduce health disparities and social inequities
- Improve data sharing with local communities to respond to lead exposure risk
- Develop robust performance management tools that support the agency's focus on evidence-based decision-making

The Roadmap will establish a framework for clear communication, governance, and central planning to encourage public and private sector organizations to partner on expanding and utilizing previous and future investments made in health information exchange (HIE) and community information exchange (CIE) services. The Roadmap will help ensure HIE/CIE investments meet the needs of stakeholder organizations, and more importantly, the needs of individuals receiving healthcare and/or social services in Michigan, by setting a path to develop strategies that will include the list below.

Inclusive and transparent decision-making processes at the state and local level for organizations providing HIE/CIE services

Oversight and accountability mechanisms to protect publicly funded technology investments

Industry-leading standards for technology and data

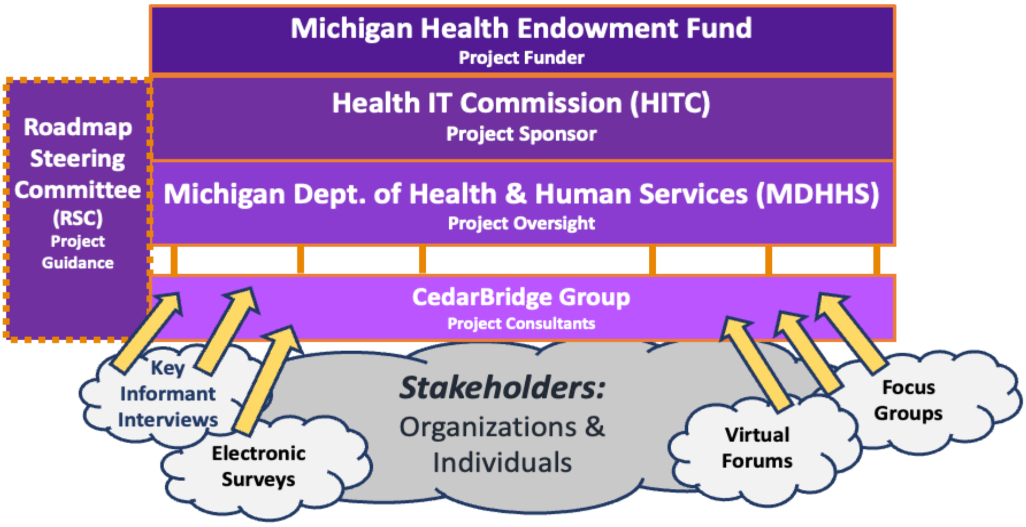
Performance measurement processes for contractors and vendors

Policies to guard against inappropriate use of data and/or insufficient security and privacy measures to ensure data fidelity, consumer trust, and stakeholder confidence in data services supported with taxpayer funds.

Fundamental to the Roadmap implementation strategies will be the expectation for decision-makers to leverage existing investments in health IT infrastructure and HIE tools whenever possible and practical, such as the MDHHS Master Person Index (MPI) and other agency systems and components, the MiHIN Health Directory and Active Care Relationship Service (ACRS) the Population Health Outcomes, and Information Exchange (PHOENIX) data commons at Wayne State University, and other demonstrated technology infrastructure components.

The Roadmap will identify opportunities for improving the health and care of individuals; creating operational efficiencies at government agencies and in private-sector organizations; providing strategies and tactics for spurring innovation through new partnerships; and developing more coordinated planning processes across entities. Longer term, the Roadmap will ensure continued, sustainable progress toward Michigan's goals for improving the health and wellbeing of individuals and communities in Michigan with clearly defined processes for iterative updates, effective use of public and private funding, and continual assessment of outcomes against metrics.

Roadmap Oversight



Michigan Health Endowment Fund

The Michigan Health Endowment Fund considers technology enhancements as one of eight priority areas of focus, making investments in technology-based projects with the potential for system-wide improvement. In 2019, the Health Fund approved the MDHHS grant application submitted by MDHHS on behalf of the Commission to fund the modernization of Michigan's strategic plan for health IT. The Health Fund was actively involved in the scoping and planning process, participated in virtual forums, and has kept pace of the initiative through quarterly progress reports to the Health Fund Program Officer from MDHHS.

Michigan Health Information Technology Commission

The Commission provides an active advisory role in the development of the Roadmap, receiving regular status reports from MDHHS and presentations with interim progress from CedarBridge at each Commission meeting. The Commission chartered the Roadmap Steering Committee, comprised of a subgroup of Commission members to provide more focused and frequent support to the Roadmap project team of CedarBridge consultants and MDHHS staff.

The Commission will receive the draft Roadmap recommendations at its May 2021 meeting, and will be engaged in the process of evaluating, refining, and revising them, with feedback expected from stakeholders and the public through MDHHS engagement activities during the ***Validate and Refine*** phase. In September 2021, the Commission and MDHHS will review the final recommendations from CedarBridge and adopt the Roadmap’s priority strategies and action steps. During October and November 2021, the Commission and MDHHS will review research and analysis prepared by CedarBridge for the Roadmap Sustainability Plan. The Commission’s final approval of the ***Five-Year Statewide Health IT Roadmap and Sustainability Plan*** is expected in December 2021.

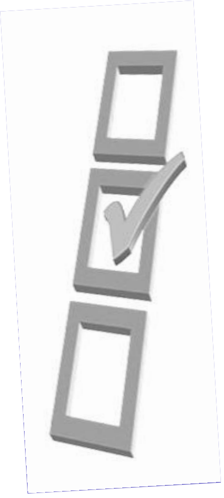
Michigan Department of Health and Human Services (MDHHS)

The staff of Michigan Department of Health and Human Services Policy and Planning Administration provides staff support to the Michigan Health IT Commission, pursuant to Public Act 137, the 2006 legislation creating the Commission. MDHHS provides oversight, guidance, and support to the team of CedarBridge Group consultants; provides agency and interagency leadership and coordination for myriad policy initiatives and requirements of state programs; and serves as liaison to MiHIN and the regional HIE service organizations in Michigan.

Roadmap Steering Committee (RSC)

The Health IT Roadmap Steering Committee was established by the Commission in November 2019 to provide regular and focused support to the Roadmap project team. On February 25th, 2020, Commission approved and adopted its charter. The RSC issued recommendations regarding its role, frequency of meetings and involvement with the consulting team. The RSC affirmed its role as an advisory body of the Commission, and that it would present decisions requiring consideration at public Commission meetings.

The RSC is charged with the following duties:



- ✓ Provide general oversight of the update to the state's strategic plan for Health IT and HIE
- ✓ Provide strategic guidance, resolve issues, and mitigate risks as needed to ensure successful delivery of final products
- ✓ Be change agents, acting as point of contact for the HIT Commission on issues related to communication, milestone completion, policy, and legislation
- ✓ Ensure inclusion of necessary stakeholders in strategic planning process
- ✓ Ensure patient privacy remains a focal point of the roadmap strategy
- ✓ Recommend necessary changes to scope or deliverables to the full Commission

Since April 2020, the RSC has provided guidance and suggestions for the environmental scan process, introductions to key informants, and proposals for increase response rates to the electronic surveys and interview invitations. When adjustments to the project timelines became necessary due to stresses on healthcare organizations and state agencies because of the COVID-19 pandemic, the RSC reviewed and supported adjustments in the strategies for virtual engagement activities, and to the environmental scan timeline.

Environmental Scan Activities

The primary goal of the environmental scan was to engage a broad representation of stakeholders across Michigan's healthcare and community service ecosystem in a comprehensive assessment to gather input in two main categories


Identify Domains
Identify Stakeholders in Domains
Define Scope of Topics
Establish Input Mechanisms
Review Background Documents
Gather Input
Analyze & Synthesize

The ***current state*** of health IT initiatives in Michigan, examining stakeholders' views of HIE/CIE business and technology services, including policies, regulations, sustainability strategies, technical assistance and user education/training needs, communications, and other inputs.

The ***desired future state*** priorities for health IT and HIE/CIE services to meet the needs of Michigan's Health IT Strategic Plan as was done in the 2006 *Conduit to Care Report* and its 2010 update, identifying policies, governance, operational and technical improvements, opportunities for creating efficiencies across entities, and developing innovative partnerships.

Defining Stakeholder Domains & Modes of Discovery

To reflect the diverse and varied perspectives on health IT and HIE services in Michigan, the Roadmap project teams collaborated to develop stakeholder domains representative of sectors and groups within the Michigan healthcare and social service delivery systems. Leaders from government, private sector, nonprofit and community-based organizations were actively engaged in planning discussions around the creation of a modernized Roadmap to inform the prioritization of health IT investments, to support priority use cases, recommend policies, technical assistance, funding and sustainability strategies, and oversight to monitor progress of technology implementation, provide accountability for security and privacy of protected health information (PHI) and other personal data and ensure services are readily available for Michigan healthcare and health-related organizations, and the people they serve.

Stakeholder Domains

- **Ambulatory Provider Practices**
- **Behavioral Health Providers**
- **Social Service Organizations**
- **Consumers**
- **Emergency Medical Services Providers**
- **Health Plans**
- **Hospitals and Health Systems**
- **Long-Term Care Providers**
- **Public Health Agencies**

Dedicated outreach to hundreds of stakeholder organizations across the eleven public and private sector domains took place, inviting participation in the process. Outreach efforts included communications on the MDHHS website, regular email communications from MDHHS and CedarBridge, phone calls to dozens of organizations, and presentations to associations and advisory groups, informing, seeking input, and soliciting partnerships.

Interactive Forums

Sixteen interactive virtual forums were organized by CedarBridge to engage stakeholders across various domains, with two forums hosted on each of the eight topic areas.

The first forum of each topic area was focused on statewide information gathering, and the second interactive forum for each topic focused on regional information. Facilitated discussions with audience participation took place, with instant polling technology and use of the chat function in the online conferencing tool as an additional way to encourage discussion and participation among attendees.

More than three hundred participants attended the virtual interactive forums where they discussed the current state of health IT and HIE in Michigan. Discussions included what is currently working well with Michigan's health IT and HIE service infrastructure, and what types of improvements should be included in the Roadmap such as types of data shared, accessed, and used; issues related to consent, privacy, and security of health IT systems; how to improve the information available at the point of care; and how technology can be leveraged to improve health outcomes and access to care through use of data and analytics for planning, budgeting, actuarial analysis, and quality measurement.

Participants were asked about their desires for the future state of health IT and HIE as healthcare moves more to value-based reimbursement methodologies and population health management.

During each of the sixteen forums, participants contributed thoughts on future state "wish lists" for technology investments; improvements to functionality; priorities for data types and sources; policies and standards; and other actions or supports that would improve the adoption, use, and usability of health IT systems and HIE services in Michigan. An interim report was written by CedarBridge on the virtual forums; it can be found in ***Appendix A***.

Electronic Surveys

Electronic survey responses numbered more than two hundred from stakeholders and organizations throughout the state. Surveys were sent by association partners to their members, to contact lists of MDHHS departments, to participant lists of MiHIN (including Great Lakes Health Connect) and to the personal contacts of RSC members and other individuals who are supportive of the strategic planning efforts. Survey questions included specific questions related to each of the domains listed in Table 1, as well some standard questions across all stakeholder domains. The survey questions focused on how organizations are currently collecting, sharing, and using data related to the individuals and populations they serve, and the types of investments and improvements they would like to see in the next five years, including policies, guidance, technical assistance, regulations, and collaboration. Survey respondents ranked the barriers to adoption of health IT and exchange of data, including lack of interoperability between systems and the need for standards, particularly around collecting information about social determinants of health. Other questions focused on workforce and technical assistance needs, security, and privacy concerns, and managing consent for sharing sensitive or specially protected data. Additional information about the electronic surveys can be found in ***Appendix B***.

Key Informant Interviews

Interviews took place with more than one hundred individuals representing organizations across all identified stakeholder domains serving healthcare and social service needs of Michigan residents. CedarBridge leveraged the professional networks of the Roadmap Steering Committee members, Michigan HIMSS, and MDHHS staff, and turned to statewide provider associations to identify key leaders among their members for interviews. In addition to the stakeholder domains listed above in *Table 1*, interviews were held with community-based social service organizations; public safety representatives; advocacy groups; university officials; Michigan-based health IT vendors; leaders of MDHHS program areas; and HIE service organizations, including several interviews with leadership and staff of MiHIN. Interviews were conducted one-on-one, in small groups, and in focus groups, where representatives and members of healthcare professional associations discussed their organizations' current state and future needs in the way of health IT and HIE services, including members of Michigan Hospital Association, Michigan Provider Organizations (POs), accountable care organizations (ACOs), and large integrated delivery networks (IDNs). A complete list of organizations interviewed can be found in ***Appendix C***.

Additional Outreach and Engagement

In addition to the engagement activities described above, the project teams of MDHHS and CedarBridge presented to and collected information from several other groups during regular association meetings and events. Presentations, discussions, and facilitated focus groups held with groups across Michigan brought informed insights to the environmental scan, including from members of the Lt. Governor's Task Force on Racial Equity; members of the Community Mental Health Association of Michigan (CMHA); attendees of MiHIN Operations Advisory Committee (MOAC) webinars; and the Michigan Council of Tribes, among others.

The virtual technology used by CedarBridge for engaging stakeholders and conducting real-time polling have worked well, however some key stakeholders in Michigan have not had capacity to provide input due to pandemic job responsibilities. After extending the timeframe for the ***Engage and Discover*** phase several times, CedarBridge agreed to temporarily forego important input from some MDHHS administrators and staff managing programs with critical health and social service IT systems and data sets. During a pandemic where Michigan has seen higher than average infection rates and late surges of COVID virus, it is understandable that some of the programs in most need of advancements in their data and technology strategies would be most time constrained. Additional efforts to build deeper understandings of the program requirements, data challenges, workforce needs, and desired functionality of priority IT systems supporting MDHHS programs, prior to finalizing the Roadmap strategies and action steps. Further, because the Roadmap must be maintained as a living document, progress reviews, adjustments, and refinements to the strategies and action steps will be an ongoing process.

Analysis and Synthesis of Information

The initial analysis of the input collected during the interactive online was completed in November 2020 after concluding sixteen online forums. For the other modes of discovery described in the methodology above, data analysis began in February and extended through the submission of this document, as time for stakeholders to respond to electronic surveys and schedule interviews was extended by many weeks beyond the original project schedule. The extensive input from stakeholder forums, surveys, interviews, and focus groups was analyzed by the CedarBridge team, the data has been organized into key themes, and the findings are summarized in the sections below. Survey responses provided more concrete comparisons across stakeholders than the online polling and discussion data from the virtual webinars. The dialogue however, between stakeholders during the virtual forums, and with CedarBridge consultants during the key informant interviews, has been invaluable to interpreting nuanced survey responses.

There are aspects of empirical review in this report, but the environmental scan is not simply a statistical analysis. The number of stakeholders across domains and subjective nature of some data requires stakeholder responses be reviewed in totality to discern where collective statewide experience is prevalent, and where nuanced variations of stakeholders' experiences exist between domains and geographical regions; both can result in valid and important findings.

CURRENT STATE: STAKEHOLDER PERSPECTIVES AND EXPERIENCE

Overview

During the ***Engage and Discover*** phase, stakeholder perceptions were collected across the categories of technology capabilities, data needs and data availability, consent management, workforce needs, workflow considerations, potential policy and regulatory levers, funding needs and gaps, and governance of publicly funded information technology systems.

Health Information Exchange:

Noun or Verb?

When the acronym "HIE" is used in this report, it is as a noun, an organization, a vendor, or a service enabling health information to be exchanged via electronic means.

When the term "electronic health information exchange" is used in this report, it is as a verb, meaning the action of health-related data moving electronically from one system to another, with the receiving system ingesting and displaying the data without significant effort.

"View only" access to data, while better than no access, is not considered to be electronic health information exchange by the authors of this report.

The technology capabilities across healthcare and social service organizations vary widely depending on the size of the organization, the types of services offered, and, in healthcare, by the provider specialties employed by the organization. For those organizations that have made investments in EHRs, practice management systems, and other health IT solutions, there is also wide variation regarding the functionality and ease of use of technology solutions, the technical resources available to troubleshoot issues, and the training and support provided to system users. Access to mobile devices, high-speed broadband service, and dependable internet connections is varied based on the location, size, and type of healthcare or social service organization. These barriers are most acute for rural organizations, creating disproportionate negative economic, social, and health impacts on low-income residents, result of the state's stark "**digital divide**".

The types of data shared between disparate organizations varies as well. Larger organizations with internal technical resources and certified EHR technology have more data—and more data types—from outside organizations because they have more ways to receive data. ONC's 2015 Certification Standards require certified EHR systems have the capability to integrate clinical information (C-CDA documents) into a patient's chart using the Consolidated Clinical Document Architecture. Many organizations comprised of large medical groups, hospitals, and integrated health systems report participation in bidirectional exchange of health information under the provisions of the Health Information Portability and Accountability Act of 1996 (HIPAA) for healthcare treatment, payment, and operations without specific consent. Very few organizations are sharing information on substance use treatment disorder, protected by the federal regulation 42CFR Part 2.

In 2011, the Centers for Medicare and Medicaid Services (CMS) established the Medicare and Medicaid EHR Incentive Programs (now known as Promoting Interoperability Programs), to encourage eligible professionals, eligible hospitals, and Critical Access Hospitals to adopt, implement, upgrade, and demonstrate meaningful use of certified electronic health record technology (CEHRT).

100% of Michigan hospitals

and

83% of Michigan's eligible professionals

have taken advantage of the EHR incentive programs, a critical lynchpin to support the reforms of the 2009 Patient Protection and Affordable Care Act. The move in healthcare from paper charts to standard electronic technology continues to grow, although there are several provider specialties—behavioral health and long-term care providers for example, not deemed eligible for incentive payments by the federal programs. For those organizations, a certified EHR system can be cost-prohibitive; regional economic circumstances and broadband availability also factor into adoption variations between provider types, resulting in disproportionate impacts on rural populations and contributing to health disparities seen in some rural regions of Michigan.

MiHIN serves as the statewide hub for providing connectivity regional HIEs and some national vendors with shared master data management services and enhanced HIE capabilities, also connecting hospitals, clinics, labs, pharmacies, state agencies, payers, community-based organizations, and other entity types.

13 organizations providing HIE services in Michigan are connected to MiHIN as qualified partners, creating additional value to participating organizations by extending services across the statewide electronic communication network in Michigan.

- Administrative Network Technology Solutions
- Great Lakes Health Connect
- Henry Ford Health System
- Huron Valley Physicians Association
- Ingenium
- Jackson Community Medical Record
- Michiana Health Information Network
- Michigan Medicine
- Northern Physicians Organization
- Oakland Physician Network Services
- PatientPing
- Southeast Michigan Health Information Exchange
- Upper Peninsula Health Information Exchange

Environmental Scan Findings by Stakeholder Domains

Hospitals and Health Systems

Large hospital and health systems in Michigan are ubiquitous in their adoption of enterprise-wide instances of electronic health record systems (EHRs). The most common EHR vendors for inpatient settings are *Epic, Cerner, Healthland,* and *MEDITECH.* It is increasingly common for hospitals and integrated delivery systems to have all inpatient, outpatient, emergency department, and local ambulatory primary care and specialty clinics, as well as diagnostic imaging and labs, using the same enterprise EHR system. The critical access and community hospitals in rural Michigan have also all adopted EHRs but are less likely to be using their EHR system to share information externally, other than sending ADT messages to MiHIN for the ACRES™ attribution service.

With the consolidation trend in healthcare however, and many larger systems acquiring community hospitals, skilled nursing facilities, and private practices, it is typical for a system to have several different EHRs in use, likely with a long-term plan for incrementally moving groups to the enterprise EHR solution.

All of the Michigan hospitals and health systems interviewed during the environmental scan and those that responded to the electronic survey reported participation in one or more HIEs, sending admit, discharge, transfer (ADT) messages to MiHIN as an important data feed to help populate the ACRES solution. Several hospital systems reported using national networks (eHealth Exchange, Carequality, and CommonWell) for electronic health information exchange. Stakeholders with organizations using the Epic EHR platform reported leveraging Care Everywhere to exchange information with other Epic provider organizations.

Survey Response
from Ambulatory
Provider to the
question:

“How does your organization receive patients’ clinical data from other providers?”

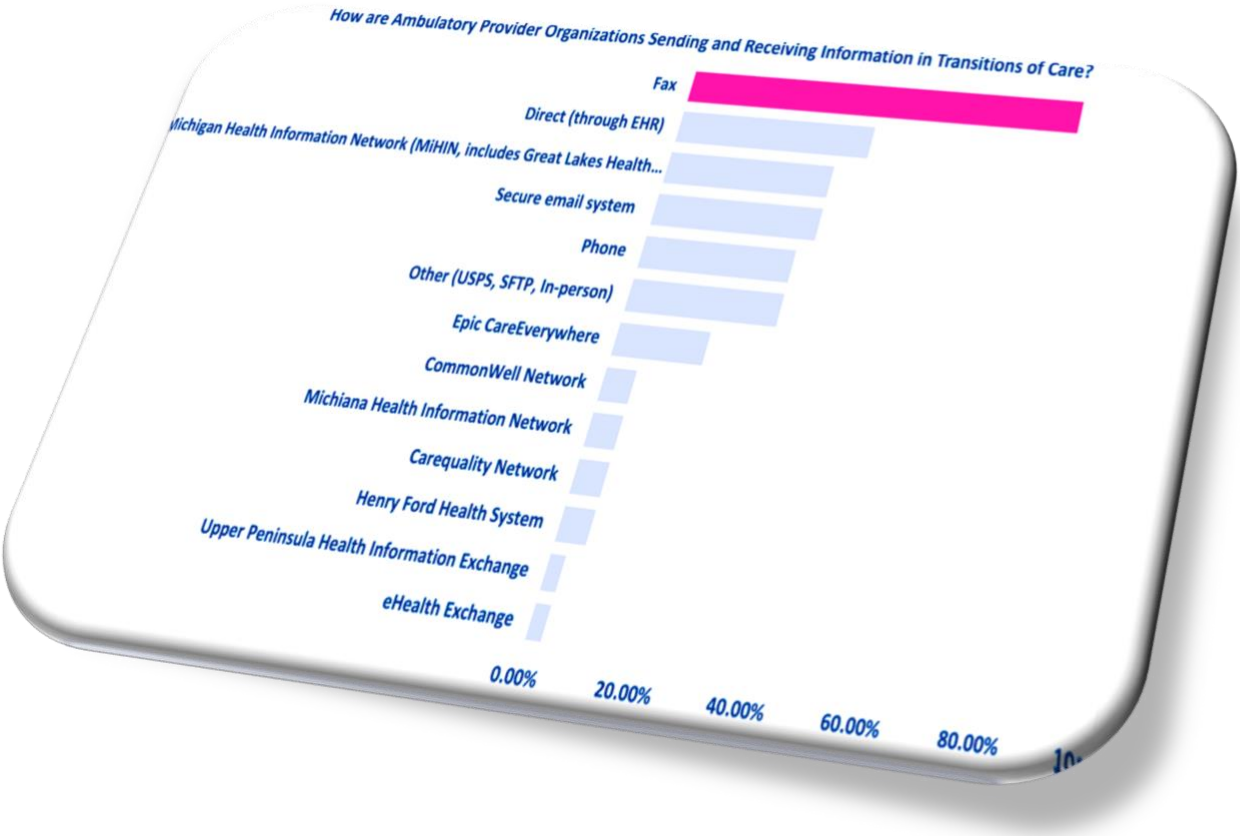
> “We beg,
>
> then we go into some D*MN Epic EHR and print.
>
> Then we trash 98% and keep 2%.
>
> We spend an inordinate amount of time going through this.”

Ambulatory Providers

A large majority of ambulatory provider groups reported having certified EHR technology (83%), and most of have some level of information exchange and interoperability with other providers. Large practices are less likely to be on enterprise-wide system than large hospital systems; some practice groups reported three or more different EHR systems in use. There are wide gaps in the ability to effectively use health IT tools, between large group practices, Provider Organizations (POs), and those in Medicare Accountable Care Organizations (ACOs) versus smaller private practices.

Direct messaging is available for use directly from some EHR systems, but the service is under-utilized because there is not a handy source for the Direct addresses of provider practices. Stakeholder input also indicates many smaller private practices do not have a technology-savvy employee on staff who could take on staff training and support duties, or the legal resources to negotiate multiple data-sharing agreements for the point-to-point data exchange relationships.

MiHIN also supports Direct messaging for provider-to-provider communication between ambulatory clinics. Approximately three-quarters of stakeholders from this sector reported some level of participation with MiHIN (and Great Lakes Health Connect), but only one third of responding stakeholders indicated that data received from an HIE can be integrated into the practice EHR as structured data. The most common barriers to participation were the cost of participation and the cost of modifications to the EHR that would be needed to effectively interface with the HIE.



Large numbers of ambulatory providers are still sending clinical information to other providers via phone, FAX, and secure email when referring a patient.

Even when information is sent electronically between healthcare organizations' EHR systems, many providers report difficulties trying to sift through volumes of meaningless information because the sending EHR system does not organize the information effectively and too much irrelevant information is included to be useful in a timely way for clinical care.

> *"If you can essential information to me as a primary care physician so I don't have to keep calling and looking stuff up that would be great, but I'm tired of the verbosity of records that are available….*
>
> An urgent care clinic will literally send me twenty-five pages of information for a 1cm laceration repair –it's ridiculous!"
>
> **- Primary Care Provider**

Behavioral Health Providers

> "Availability and searchability of physical healthcare data to behavioral health providers is the biggest need for integrated care from the behavioral health perspective."

The behavioral health survey data indicates most behavioral health practices have adopted an EHR system, although few if any are certified to the ONC's 2015 interoperability standards. **Over seventy percent of responding organizations reported using an EHR system** of some type and Michigan-based *PCE Systems* has captured a large part of the behavioral health market. Even with this positive news, none of the forty-one organizations responded affirmatively to the survey question about whether their EHR system is certified by the ONC, and many comments to survey questions were focused on the need for an electronic consent solution and for sustained technical assistance and training in the use of technology systems. Behavioral health stakeholders reported workforce shortages, lack of technical resources or funding, constraints to data sharing due to privacy concerns, and like many other groups in Michigan, limitations due to a lack of reliable internet service in rural areas. It is clear there is a shift underway to include behavioral health providers in value-based healthcare payment arrangements with primary care, which is creating more demand for data and more interest in interoperable systems that share health data bidirectionally with other providers and social service organizations, though Direct messaging and other HIE services.

IN THEIR OWN WORDS…Behavioral Health Survey Responses

"Consent is a major challenge for behavioral health organizations."

"Electronic consent that can be queried is the biggest need that will allow greater publishing of behavioral health data to physical healthcare providers for them to participate in integrated care."

"Regarding 42 CFR Part 2 **we don't want to be casual about confidentiality,** but we want to be focused and clear about when clients want their records shared with other providers."

"Broadband or cell coverage across our county is one of the biggest limitations for clinicians out in the field."

"Many contracted providers do not have the technology or skill set to participate in data sharing."

"Clear definition of regulations and legal requirements, training for Mental Health professionals on what can and cannot be shared is needed across the state. Standardized electronic consent is still absent in many systems, final decisions need to be made on which eConsent will be implemented so EMR vendors can begin work on implementation."

"A universal consent tool would be useful. Clarification from state on sharing behavioral health information as some data has additional sharing restrictions."

Executives of Michigan's Community Mental Health Association (CMHA) and the Prepaid Inpatient Health Plans (PIHPs) were among the attendees of a January 2021 focus group session of over fifty individuals. Two-thirds of whom identified as Chief Executive Officer (CEO), Chief Information Officer (CIO), or Chief Operating Officer (COO) of their organizations.

Insights from Behavioral Health Executive Leadership Focus Group

Michigan would benefit from **integrating CMHCs in shared savings arrangements** with transparent views of physical health cost data.

Extensive training is needed by this stakeholder sector on consent regulations and consent document management

A recurring theme across participant comments was a need for **MDHHS leadership** to promote a shared vision for Michigan's investments in health IT and HIE services, and guidance to organizations and providers around transitioning to more coordinated care models.

Currently, there is **no system to track the availability of psychiatric beds** at any given time.

Some behavioral health providers are reluctant to participate in health information exchange, considering it a **professional responsibility to enforce more restrictive limitations on data sharing than what is permitted under HIPAA.**

Some hospitals do not participate or are only partially participating in sending ADTs for event notifications because of **misperceptions around the legality of sharing behavioral health information** not related to substance use disorder treatment.

Social Service Organizations

Community-based organizations and social service agencies unsurprisingly reported experiencing the greatest challenges of any domain in effectively being able to exchange information electronically with other members of an individual's care team. Some organizations are sharing data through referral resource platforms such as *MiBridges*, operated by MDHHS.

Social service organizations are also very motivated to exchange data with other organizations having important touchpoints to individual and family clients, including education and early childhood data systems, justice system data, housing, transportation, job training and financial assistance programs, child welfare and foster child data, and of course, medical providers and all types of healthcare service providers.

> "…it would be beneficial to have access to an updated care team for an individual that represents all services provided – hospital, ambulatory, community-based, in-home, etc. This care team would show physicians, pharmacies, case managers, home care agencies, health systems, Waiver Supports Coordinators, and other programs or services the individual is associated with."
>
> ---Social Service Organization Executive

The most common barriers to community-wide information exchange are:

- **Negotiating organizational data-sharing agreements**
- **Making sure accurate and up to date consent forms are in place**
- **Lack of interoperability between IT systems**
- **Cost**

Emergency Medical Service Providers

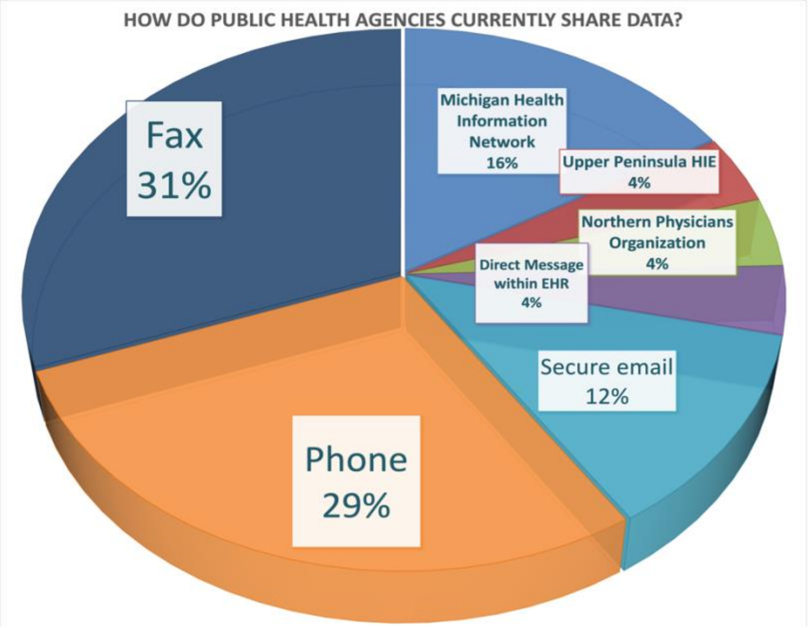
There are over one hundred Emergency Medical Service (EMS) provider agencies in Michigan with statutory reporting requirements to enter information into the Michigan Emergency Medical Information System MI-EMSIS, a state-managed repository developed to assess the need for and quality of emergency medical services across the state. The eighteen EMS software vendors in use by Michigan EMS agencies are configured to support data submission to MI-EMSIS to meet reporting requirements. Unfortunately, conformance to the MI-EMSIS data standards is inconsistent on the part of vendors and the MDHHS Bureau of EMS, Trauma, and Preparedness spends an inordinate amount of time trying to normalize the data and cajoling vendors to improve their products.

MDHHS also supports the Hospital Hub system which provides hospitalists with a PDF summary of the encounter, but doesn't integrate with EHR systems at all. This means that other than verbal reports from EMS personnel at intake, emergency department clinicians have no real-time information available with an emergency transport. EMS responders also have little to no visibility into other systems for clinical information about a patient when responding to a call. Some agencies provide access to records of prior EMS calls, but the data systems are antiquated, and the quality of the information is not considered to be very useful. With few exceptions, they have no access to treatment wishes for life-saving care, such as access to a registry of Advance Directives, Healthcare Power of Attorney forms, and Michigan Physician Orders for Treatment (MI-POST) forms.

The COVID-19 pandemic has had a devastating impact on the local Michigan EMS workforce and also on the state agency staff trying to support the services with inadequate resources and outdated technology.

Public Health Organizations

Public health officials in Michigan provided input to the environmental scan through electronic surveys, key informant interviews, and participation in interactive online forums focused on health IT and HIE conversations.



Two of the sixteen online forums for collecting. Stakeholder input were focused specifically on issues unique to public health, and all responses to the public health domain survey were submitted by executive-level staff members of local public health departments in Michigan. Three quarters of the responding agencies are sending clinical information to one or more HIEs in Michigan; many are sending information electronically directly to other organizations , and all continue to share clinical information via phone, fax, and secure email.

The public health stakeholders report receiving the following data from other organizations: ADT alerts, immunization data, cancer registry data, communicable disease data, social determinants of health (SDoH), race, ethnicity, and language (REaL) data, medication data, lab and radiology reports, and care plans.

Barriers and challenges reported centered on workflows, system integration needs, and not having actionable data for clinical decisions. Less than ten percent have incoming data integrated with their EHR; that number increases to twenty percent if static documents that need to be scanned into an EHR are included. Public health agencies would like to receive more complete reports from other providers, and their top priorities for technology investments would be in analytics tools and aggregated population-level data to measure the costs and value of programs.

Survey responses indicate enthusiasm for Community Information Exchange (CIE) efforts to organize community-based organizations around whole person care coordination, with integration of social data, and closed loop referrals. Public health agency staff report needing connections for accessing information in external organizations across the state, including MDHHS-operated systems, without having to go to several portals to find the right information. There is strong consensus among Michigan stakeholders in the public health realm that expanded telehealth services will continue to be widely used after the pandemic wanes, and that policymakers should make permanent adjustments to telehealth regulations to help address ongoing access issues in healthcare delivery.

Long-Term Care Providers

Input was collected from Area Agencies on Aging (AAAs), health systems that own and operate skilled nursing and rehab facilities, providers of Home and Community-Based Services (HCBS), and Long-Term Care (LTC) facilities of all sizes. Nearly all report having adopted EHRs, though it was not clear from the survey data whether most organizations are using certified systems, or something less functional. Approximately half of the organizations report participating in an HIE; cost of participation and concerns about the expected value for the investment were cited as the primary reasons for those not yet connected to an HIE.

Priorities of the long-term care stakeholders include the creation of a **statewide Advanced Directives and MI-POST registr**y, access to Veterans Administration **(VA) health records**, improved **reporting for quality measures**, improved access to the state's **Prescription Monitoring Program** and a **statewide system with psychiatric bed availability** for placements, in addition to clinical data of all types.

The pandemic hit this stakeholder domain hard. When asked how organizations have adapted, responses included making modifications to patient interactions, the addition of video visits, providing devices to patients including touchless thermometers and wireless nurse call pendants.

> "The more patient-specific information that we can receive in an organized manner that is easy to access & navigate, the better. General information such as "Discharge to home" is not as beneficial as providing the actual address. Specific information, such as the discharge address and more details of where the individual was discharged to, enhances continuity of care."
>
> - Long Term Care Provider

Stakeholders serving aging and long-term care populations would like to receive more training on data exchange options and would like to learn more about how they can participate in HIEs. They think MDHHS and Commission should lead the way on data by setting standards, providing guidance, and making health information exchange a requirement in some circumstances.

Agency Input on Long-Term Post-Acute Care

Personnel managing the state waiver and other programs that fund most the long-term care services for Medicaid and duel-eligible populations shared that they would like to see better integration of systems as well. The agency's internal IT roadmap, currently in the process of being updated, includes integration across systems and with MiHIN. There is agreement with stakeholders regarding the State's leadership role in setting policy and providing guidance for the delivery system and notable that a significant percentage of staff time must be focused on processing claims and making sure payments continue to flow to the providers in a timely fashion.

There is an agency priority on becoming compliant with federal requirements for Electronic Visit Verification (EVV) technology, but more accurate provider enrollment data, and access to medication lists from the pharmacies top the agency's wish list for the future.

Health Plans

Input from Michigan health plans was gathered primarily through key informant interviews. To date, the health plans in Michigan have not formed a collaborative workgroup, learning collaborative, or committee focused on health IT and information exchange, but most of the health plans are currently working with MiHIN and/or regional HIEs on quality improvement projects, and they are all working to advance telehealth and virtual care in partnership with network providers and health systems.

The health plan care coordinators and case managers are users of the HIE platforms, getting health information to create and monitor progress on care plans. Like other stakeholders in Michigan, the health plans rely heavily on ADT information for care coordination, and they echo other stakeholders who commented on the common discrepancies related to the diagnoses in the ADT message – the primary reason for the encounter. At least one health plan is working to address the errors and has developed **a value-based payment initiative specifically to incentivize providers for accurately completing the diagnosis field when coding in their EHR**, in hopes the correct diagnosis would be present in the ADT notifications more often.

Like other stakeholders, health plan executives in Michigan are concerned about the **gaps in reliable high-speed internet** across parts of the state, seeing the digital divide as a barrier to accessing quality care in some communities. One person spoke of the unfortunate consequence resulting from the increased demand for bandwidth to meet the needs of employees working from home and the use of telehealth services during the pandemic, exacerbating the inadequacy of bandwidth to meet the needs of rural communities.

Health plans have relied on the MCIR system (Michigan Care Improvement Registry for immunization information) for years, and more so now for COVID vaccine information. Health plans are also interested in accessing the MiBridges benefit system for improving their efforts around collecting and analyzing SDoH data.

With the end of the HITECH program funding ending on September 30, 2021, and CMS plans to make good on their required "fair share" promise to state Medicaid agencies, requiring cost allocation plans that demonstrate participation by other payers, when requesting federal funding for technology investments to support health information exchange. Some state legislatures have already addressed the issue of funding for HIE services, as a public utility, and others are considering health plan assessments as a funding mechanism for HIE services. A statewide directory of healthcare and social service organizations would be a desirable technology for Michigan from the health plans' perspective, however, without strict requirements of providers to keep their data up to date, there is a lack confidence the investments will be fruitful.

Health plan representatives are committed to collaborating with provider groups and state officials to find common ground on how the state could set up an All-Payer Claims Database (APCD) and a statewide system for quality measure reporting. It is clear the difficulties Michigan stakeholders have experienced in the past, coming to agreements and reaching consensus, will take a higher level of leadership and new trust-building processes, if agreements are to be achieved around shared services, including a statewide directory service.

Consumers

Consumer perspectives were captured during two targeted interactive online forums, from advocacy and consumer-oriented organizations, and from questions asking stakeholders to answer from their own perspective as a patient, a parent, and/or a caregiver. For the most part, consumers only see the portion of information in their record that is captured in the patient portal provided by health systems, clinics, and health plans. Further, consumers are not generally able to access all their health information in once place. They get information on the care received from their primary care providers at that patient portal, and information from other providers, such as an orthopedist or cardiologist from a different portal. Unless the consumer receives all her care within an integrated delivery system or lives in a location with an HIE boasting excellent participation by providers and offering a patient portal, she most likely face obstacles in hunting for information from the organizations providing or paying for care she has received. No one participating in the consumer engagement activities had seen a patient portal or app that keeps track of consent authorizations, in terms of sharing sensitive health data. Michigan's universal electronic patient consent form for behavioral health reportedly has low usage by providers. After a consent form has been signed, permitting information to be shared, there is not currently a way for the consumer to view their authorization form electronically.

Consumers who participated in engagement activities shared their perspectives in three contextual areas of health information technology

- The ability to access their own health information
- Perceptions about providers' ability to access valuable information about their patients
- The ability to provide, review, or revoke an electronic consent authorization (eConsent)

50% of consumers who were interviewed reported having been required to **hand-carry their records from one provider to another** when referred.

42% of individuals interviewed **revealed being unhappy about the lack of control** they have over who views, uses, and shares their personal health information.

86% of the consumer poll respondents **indicated having a virtual healthcare encounter** withing the previous twelve months.

Most consumers expressed confidence in the privacy and security protections put in place by their own provider.

During forum discussions, the prevailing view was that consumers are generally unaware what the law provides them in terms of rights to access and protections of privacy. Consumer advocates called for more transparency regarding how individual data is used and shared, and for clear information to be made available to consumers about how to opt-in and opt-out of electronic health information exchange, and how to revoke or change a prior choice made about data sharing preferences.

The consumer and advocacy stakeholder engagements revealed an increase in remote patient monitoring and the use of wearables since the beginning of the COVID-19 pandemic. In addition, there has been a rapid expansion of the availability of virtual visits and telehealth services, with many states, including Michigan relaxing some of the regulations for telemedicine licensing during the pandemic. Many stakeholders would like to see those rule changes become permanent, in order to expand healthcare access, and to lower the burden for rural residents to travel distances for medical appointments.

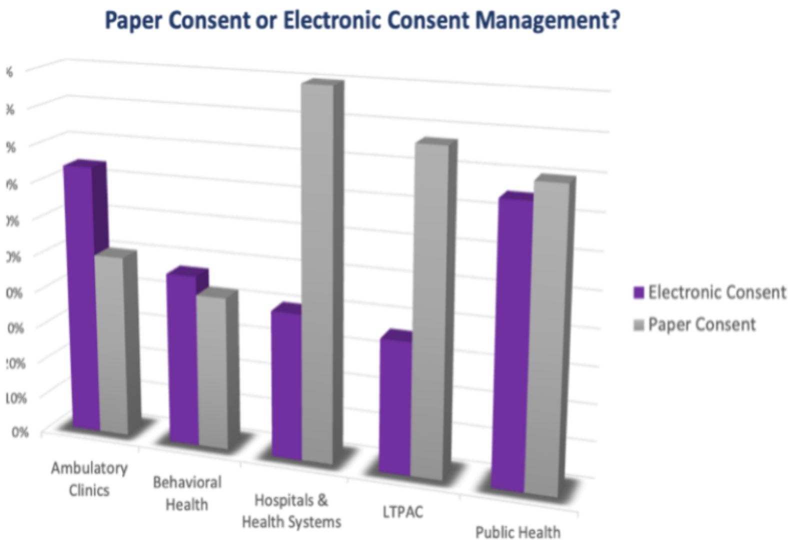
For those individuals caring for a child, partner or parent with special needs, virtual visits were viewed positively, but their ability to access vital information such as lab results, prescribed medications, and notes from a previous visit is inconsistent. Consumers and providers highlighted for elderly patients, or those with dementia, additional assistance is needed to support the patient's understanding of a virtual care experience.

> "A good portion of our population do not have home internet. They do have cell phones, but the data plan for the service is maxed out."
>
> **- Healthcare provider describing technology disparities faced by consumers**

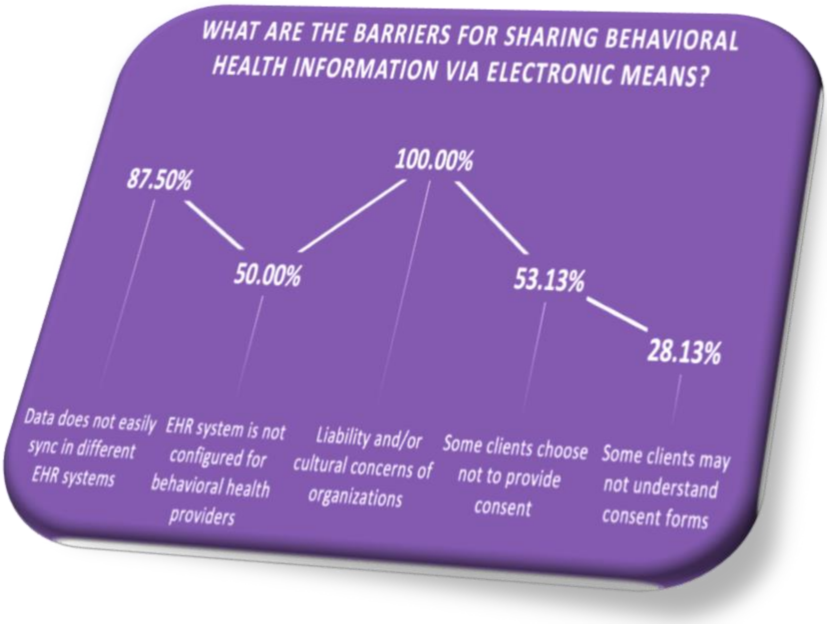
Findings on Across Domains

Specially Protected Health Information and Consent Management

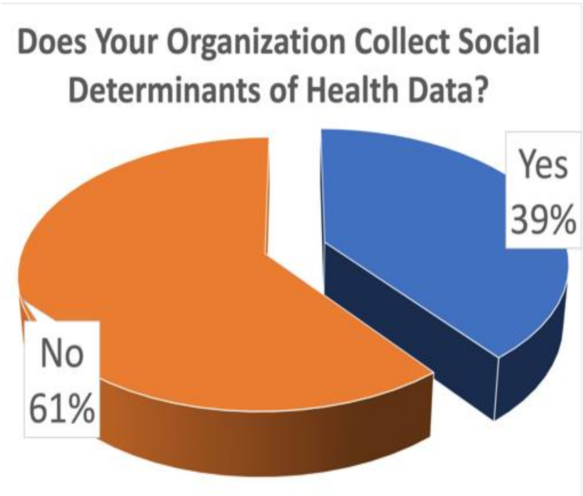
Stakeholder organizations indicated a wide variation in approaches to handling health information subject to special protection under federal and state regulations. Behavioral health and long-term care providers acknowledged that, like other provider types, their organizations are subject to federal privacy regulations related to disclosure of substance use disorder treatment, [42 CFR Part 2](), however some organizations indicated being unsure of the specific requirements for handling disclosures and redisclosures of this sensitive information.



Stakeholders across all domains provided considerable input on the difficulties around collecting and managing individual consent authorizations for sharing sensitive information across healthcare, social service organizations, and government agencies. Organizations reported a variety of experiences; some indicated they do not believe there is an effective way to give clients and patients more choice or control to specify the providers who can access their data, specify purposes for which individuals are willing to share their data, and have a reliable process to revoke a previous consent authorization. A number of organizations shared concerns regarding the potential for risk exposure around consent management; some stated that until a better solution for supporting electronic consent management, their organizations does not share any information that could be considered to be sensitive.



Social Determinants of Health (SDoH)



Addressing disparities in healthcare access and health outcomes, and ultimately achieving healthcare and health equity are high priorities of federal, state, and local government leaders from the White House, all the way down to community-based organizations. Like race, ethnicity, and language data, and like geographic and socioeconomic data, there is a high degree of consensus that screening tools for identifying needs related to social determinants of health are imperfect in design and inconsistently applied.

Stakeholders from every domain reported a need for standard assessment tools and measures, to better understand, and address SDoH and healthcare disparities.

There is strong support across stakeholders and domains for federal or state standards and requirements for data elements, documentation and coding, screening, and assessment tools, and quality measures. Most stakeholders also want to access this data when it is collected by another entity. From a health information technology perspective, stakeholders across domains expressed a preference for seeing these data types pushed to them through an HIE/CIE infrastructure.

The collection of race and ethnicity data is increasing across Michigan healthcare and social service organizations, but the fields or formats used are not standard across IT systems. A common theme heard from stakeholders across domains was the need for standard representation of data elements for collection of this data, as well as the need for collection of primary language (REaL data). A summary table of the various forms in use by stakeholder sectors can be found in **Appendix E**.

Cybersecurity and Privacy Protection

While healthcare and social service sectors were slow to move to electronic recordkeeping in comparison to most other industries, it is clear the federal incentive payments funded through the HITECH Act of the American Reinvestment and Recovery Act of 2009 (ARRA) were an effective stimulus for driving EHR adoption and in in fueling an industry-wide transition from paper to electronic records, with massive amounts of personally identifiable, sensitive data stored in electronic data systems.

Exchanging data between systems in electronic formats and combining data in ever-larger data stores spawn concerns about the privacy and confidentiality of data, and the need for organizations to appropriate resources to ensure appropriate handling of personal information and avoid unintended disclosures of protected health information (PHI) as well as intentional cyber-attacks.

In aggregate, more than a third of stakeholders who provided input on this topic indicated their organization had recently taken steps to improve privacy and security policies around the handling of electronic PHI. A few organizations reported doing this as a routine business activity, some because their organizations were seeing increased risk around data security and privacy, and a few organizations reported a recent event where PHI was unintentionally disclosed inappropriately, or because there had been a breach of an electronic data system where PHI or other sensitive information was stored. The illustration above shows efforts reported by stakeholders to enhance data privacy protection and improve security of information within electronic systems used by their organization.

TECHNICAL SOLUTIONS

- Deploying new firewalls in information technology
- Implementing dual factor authorization for user identity verification
- Adding security to building entries
- Requiring staff to display identification while on company property

PROCESS SOLUTIONS

- Random surveillance of system use by staff and regular audits of system user logs
- Conducting independent risk assessments
- Developing new security plans and adopting new protocols and policies

PEOPLE SOLUTIONS

- Requiring additional HIPAA training for personnel
- Rewarding employees for identifying spearpfishing attempts and for notifying appropriate personnel
- Reviewing organizational policies and protocols on a regular basis with staff

Current Policy Framework

The current policy framework for health information technology, health data collection, and health data sharing or exchange comes from multiple sources. The sources making up the current policy framework for health IT in Michigan were reviewed as part of the Discovery phase of the environmental scan and are summarized in **Appendix F**, along with other background sources used in the development of this report.

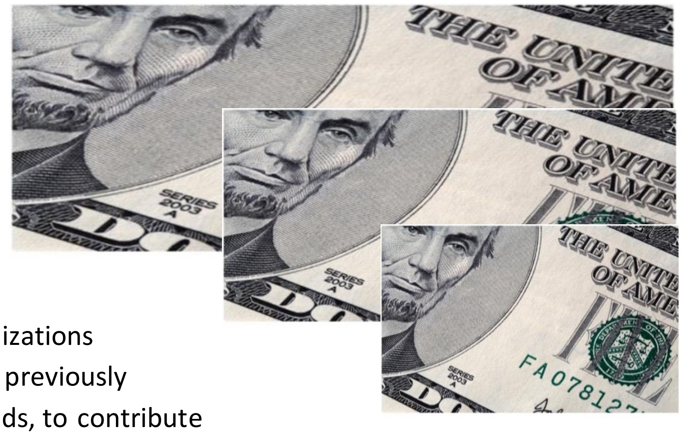
The Michigan Health Information Technology Commission was created by Public Act 137 of 2006. The Commission is housed within the Michigan Department of Health and Human Services. The Commission's mission is to facilitate and promote the design, implementation, operation, and maintenance of an interoperable health care information technology infrastructure in Michigan. The 2006 Conduit to Care Report is Michigan's long referenced strategic plan for health IT and HIE services, with a refresh of this strategic vision done in 2010.

The MiHIN Shared Services Strategic Plan has guided expansion, investment, and policy since 2010. These activities are also informed by regular updates to the Governor's goals for healthcare, MDHHS' strategic goals and quality strategy, the Michigan State Medicaid Health IT Plan (SMHP), and changes in federal regulation.

Funding Considerations

Medicaid services and social services supports for low-income populations, including behavioral health, long-term services and supports (LTSS), and community-based organizations providing social services rely on different federal agencies for funding. When funding comes from state or federal government sources, the funds must be used for purposes compliant with statute and regulations. The HITECH program funding that has covered much of the cost for planning and implementation of health IT and HIE technology solutions in support of Medicaid provider participation is ending on September 30, 2021. From that point forward, state Medicaid programs will need to certify that information technology solutions meet specific outcome metrics to receive cost allocated funding from the federal government.

Guidance from CMS indicates that when an entity outside of a state's Medicaid agency, for example, MiHIN, is contracted to provide health IT services, the Medicaid share of planning, designing, developing, implementing, operating, and maintaining health IT and HIE systems will be based on criteria that includes, among other criteria, calculating a state's eligible Medicaid population as a percentage of the state's total population to determine an allowable percentage of federal funding participation. CMS is encouraging states to require other organizations, particularly health plans and Medicaid managed care organizations benefiting from technology investments previously supported through federal and state funds, to contribute financially as well.



Workforce Considerations

Most of the input received from stakeholders related to Michigan's healthcare and social service workforce falls into two issue areas. One topic area involves the need for technical staffing resources to support state agencies with complex information needs to deliver programs and services, and to measure results. For organizations across all domains that have not adopted EHR or care coordination technology or other health IT tools, and/or have not upgraded outdated technology, the need for tech savvy resources to provide training and support is well documented, especially for small practices.

Also impacting the pace of health IT and HIE adoption is the need for ongoing training and technical assistance support for stakeholder domains known to have high rates of staff turnover, and/or employ older workers such as home health, hospice care, long-term post-acute care, and for entry level staff in any domain, who often have job duties that include data entry into patient/client records, and data exchange for referral management.

Along with the technical readiness of Michigan's healthcare workforce, many stakeholders also vocalized the need for change in the delivery of healthcare and social services. While a few commenters in electronic survey responses questioned whether more information technology would produce better health outcomes or do much of anything to improve healthcare, the vast majority of Michigan stakeholders understand that information technology and health information exchange services are enablers for transformation, and when used effectively, can help improve health outcomes, lower the rate of medical inflation, and reduce the health disparities seen across Michigan's diverse populations.

DESIRED FUTURE STATE – STAKEHOLDER PRIORITIES

Big Picture

During the ***Engagement and Discovery*** phase of the Roadmap planning process, stakeholders shared ideas for **standards**; for creating more **community collaboration**; and for **setting policies and/or taking regulatory actions**, among many other topics. A common theme across multiple domains was the desire for Michigan's elected officials, MDHHS administrators, Commission members, and business leaders across the board, to step up with stronger engagement and leadership on health IT and HIE initiatives.

> "Varying responses today are a symptom of lack of vision. We are all not operating in unison because we are not being led from an entity of authority.
>
> Innovation is great but it would be nice to have one leader saying, "let us all do this"."

> "…where is the singular state level vision that says everyone in Michigan will do these things? I do not want to stifle innovation because local needs are different, but there needs to be that central voice."

Stakeholders expressed urgency and frustration about the need for leadership in establishing **statewide standards** and data exchange requirements, and in structuring more meaningful opportunities for **public/private participation in setting statewide priorities** and strategies for health IT and HIE investments. Many stakeholders indicated willingness to participate in more active roles to implement strategies adopted in Michigan's Roadmap, offering to serve on workgroups or committees that could be set up under the Commission. The recurring **"leadership gap" theme** was often brought up by stakeholders when asked whether there is a state level shared vision for a health IT infrastructure and policy framework to support the health improvement goals of the state. In contrast with the regional initiatives undertaken during the State Innovation Model years, stakeholders are now looking for much more direct, engaged leadership and guidance from their state health officials, with more transparent and collaborative planning and policymaking, and more support from the state in offering **technical assistance, training, and education** to providers and consumers, touting the benefits of health IT and the value of the right information at the right time for improving health outcomes.

> *"Policymakers must start thinking about health data and data sharing in more global terms.*
>
> *When integrated health is the focus, providers need to be able to share data across the board."*
>
> **-Key Informant Stakeholder Comment**

Two seemingly opposing themes were heard repeatedly from stakeholder discussions; on one hand there is excitement and **commitment for whole person coordinated care models** where data will need to be exchanged between healthcare and social service organizations, while simultaneously, many organizations expressed **concerns about resource gaps** for IT improvements needed to coordinate care and services across communities and between diverse organizations. These themes, heard from many stakeholders across Michigan, are important to highlight together. By focusing Roadmap strategies on addressing resources and workforce competencies and investing in technical assistance to support practice design and workflow changes enabled by technology, the system will be more prepared and more successful in adopting whole person coordinated care models across Michigan.

The long-standing **workforce shortages** of practitioners, community health workers, social workers, patient navigators, and other positions in healthcare and social services serving as extenders and coordinators was raised by many Michigan stakeholders as an area of concern. While seemingly unrelated to a health IT Roadmap, in truth, the workforce challenges facing the healthcare and social service industries can be readily improved through technology investments that enable easier exchange of critical information. A deeper workforce of mid-level and non-licensed professionals is needed to deliver interventions addressing social and emotional needs, and to coordinate with healthcare clinicians through interoperable technology will reduce the frustrations and lower the burnout rate of the current workforce.

> “We don’t need more doctors in the country. We need more navigators, social workers, community health workers, and people who can talk to patients about what their individual barriers are to positive health outcomes.”
>
> **- Emergency medicine physician**

It is true for both public and private sectors, when **capital and staffing** are made to ensure technology systems are meeting the business and functional needs of organizations, and **training investments** are made to ensure technology is used effectively, the ongoing operating costs of an entity can be considerably reduced. It is reasonable for investments to be combined with expectations, such as **requirements for the use of health IT and for participation in bidirectional health information exchange.** All Michigan payers—government and commercial—should align such requirements, to prevent a patchwork of policies for organizations to comply with. Health IT vendors, as well as healthcare delivery and social service organizations, should be held to **standards for data conformance and data quality,** with incentives to reward success. For those organizations for which cost is a barrier to using information technology and HIE services, an equitable funding source should be identified by policymakers, to ensure Michigan residents can reap the value these investments promise in improving health outcomes, reducing medical inflation, and lowering the disparities experienced by marginalized populations in communities across the state.

Stakeholder responses to survey questions, quick polls posed during online forums, and the in-depth key informant interviews have been analyzed and synthesized by stakeholder domain, described in more detail, and organized across domains in **Appendix G**.

Key Themes

- **Relevant and easy-to-access clinical information** at the point of care is needed by providers across all stakeholder domains.

- **Accurate and timely information in public health systems** is needed to protect population health and to prepare for future public health emergencies.

- **A statewide directory of social service and** coordination across organizational networks and state programs.

- **Addressing Michigan's digital divide** will also help address disparities in healthcare and social services in rural parts of the state.

- **Other statewide shared services** are desired by many stakeholders.
  - a **statewide master person index** linked to a statewide health and social services directory for **attributions of individuals to care teams.**
  - a **statewide consent management service** to support cross-organizational information exchange; and
  - a **statewide advance care plan registry** to make end-of-life treatment choices known in emergency settings.

- **Funding and technical assistance** must be made available to organizations and communities advancing whole person coordinated care models, to support the technology, workflow, and workforce changes required for integrated healthcare and social services.

- **Engagement of Michigan's top executives** in government and business is essential to ensure successful implementation of the Statewide Five-Year Health IT Roadmap. Leaders should **convene stakeholders in inclusive processes to set priorities and policies** for shared technology investments and **develop a supportive framework** for Michigan healthcare and social service organizations, state and local government programs, communities, families, and individuals to benefit from the value created through the use of information technology solutions and HIE services.

DRAFT ROADMAP RECOMMENDATIONS

It is imperative Michigan’s Roadmap be developed and maintained as a living document with ongoing engagement of diverse perspectives; with public/private involvement in prioritizing the Roadmap activities, setting specific outcome goals, and defining measures to know when goals are achieved; creating workplans with assigned tasks, timelines, and milestones; tracking progress to milestones; and measuring against the outcome goals. The recommendations have been developed to help address the gaps, needs, and common wish list items expressed by stakeholders across the domains in the environment scan. The following recommendations for Michigan’s Roadmap have been developed by CedarBridge Group for consideration by the Commission and MDHHS leadership, with feedback opportunities for stakeholders and the public, prior to finalization of the core strategies, action plans, and milestones of a *Statewide, Five-Year Health IT Roadmap* for Michigan.

Recommendation One

Identify champions and empower leaders from within MDHHS with the skills, passion, and authorities to:

- ⇒ **drive implementation** of the Roadmap and future initiatives involving health IT,
- ⇒ **inspire a shared vision** across Michigan healthcare and social services stakeholders,
- ⇒ **encourage broad participation** in meaningful planning activities**,**
- ⇒ **promote understandings** around the value and importance of ongoing investments in health IT and HIE services,
- ⇒ **convene public and private entities** to evaluate current and future oversight of investments, and their sustainability, and
- ⇒ **lead the implementation of Roadmap strategies.**

Potential Action Steps

Under the auspices of the senior-most leaders within MDHHS and the executive branch of Michigan government, **identify the right leadership at the division level in senior management** who can champion the Roadmap over time. These individuals can serve as internal and external spokespeople for implementation of Roadmap recommendations.

MDHHS leaders and Commission members **convene a small Tiger Team** to review the enabling legislation for the Health Information Technology Commission with the task of evaluating the pros and cons of proposing legislative amendments to the enabling legislation, and making recommendations regarding potential amendments, including but not limited to:

- Potential adjustments in the number of Commission members
- Potential adjustments in the make-up of the Commission membership
- Potential adjustments in the length of Commission terms
- Potential additions in the way of standing workgroups to the Commission
- Potential changes to the Commission’s advisory role
- Potential changes to the duties of the Commission
- Potential changes to the Commission’s relationship to the Legislature, Governor and Lt. Governor’s Offices, and MDHHS executive leadership

Recommendation Two

Work to address Michigan's digital divide with state investments to make affordable high-speed broadband service available in all census tracks of the state.

Potential Action Steps	**Convene a "Broadband for Health" Task Force** comprised of healthcare and business executives, government officials, and civic leaders to make the case for state and local funding to match federal grant opportunities and consider other activities.
	Explore potential regulatory changes to Michigan state statute to reduce barriers for communities in Michigan to invest in municipal broadband networks.
	Consider partnering with the Michigan Department of Education to coordinate "multi-anchor" partnerships between hospitals and school districts or community colleges to attract telecommunication companies and meet requirements of federal grant programs.
	Investigate special funding opportunities to look for ways to accelerate broadband expansion and equipment upgrades such as the FCC's Rural Health Care Program and their Connected Care Pilot Program to make internet access more affordable and accessible for veterans.
	Align with other organizations and elected officials working on strategies for addressing the gaps in broadband across Michigan.

Recommendation Three

Increase the availability of accurate and timely information to protect population health by establishing a public health gateway at MiHIN to support bidirectional exchange of data with the major MDHHS public health data systems.

Potential Action Steps	**Develop legal and funding frameworks** between MiHIN and MDHHS to enable the bidirectional flow of public health system data.
	Create an incremental timeline that identifies prioritization of public health data systems to be on-boarded for bidirectional exchange.
	Provide extensive training and education of local public health agencies and other key stakeholders in a coordinated fashion.
	Monitor, support, and integrate with MDHHS Public Health Division activities to modernize core public health data surveillance systems, funded by the Federal CARES Act and budget allocations from the Centers for Disease Control (CDC) for improving functionality and connectivity of Electronic Case Reporting, Syndromic Surveillance, Vital Records (including a real-time death registry), Notifiable Disease Registries, and Electronic Lab Reporting systems.

Recommendation Four

Develop an **HIE Onboarding and Technical Assistance Program** to support several types of healthcare provider and social services organizations in Michigan with **HIE connections and technical assistance services**.

Potential Action Steps

MDHHS **request grant funding** from the Michigan Health Endowment Fund Special Projects Program to facilitate planning activities for an HIE Onboarding and Technical Assistance Program**.** Potential activities include:

- Developing a **cost/benefit and needs analysis** for use in determining levels of technical assistance and training support needed to support small ambulatory practices; behavioral health provider groups; long-term post-acute care facilities; emergency medical service providers; state and local public health and social service agencies; and community-based organizations, when those organization types are connecting to and using HIE services.
- Research and curate a **compendium of best practices** in providing technical assistance, education, and training to small organizations in the Use of Health Information Technology and Health Information Exchange Services".
- MDHHS and Commission collaborate to **charter an Onboarding Program Workgroup** and to appoint members from diverse stakeholder domains and geographies.
- **Create workplan and schedule meetings** for Onboarding Program Workgroup to review analysis, best practices documents
- **Develop recommendations** on inclusion/exclusion criteria, gating requirements, outcome measures, potential funding sources, and other elements of an HIE Onboarding Program.

MDHHS leadership and Commission review Workgroup recommendations and **finalize an HIE Onboarding Program Plan** to share with Michigan Legislature and Governor's staff for budget considerations.

Recommendation Five

Adopt standards for SDoH-related data fields in social needs assessments for identifying an individual's needs and their health risks related to housing, food security, transportation, childcare, and other social and environmental factors.

Potential Action Step

Charter a workgroup to assess the extensibility of work being done by The Gravity Project, and its sponsor, the Social Interventions Research & Evaluation Network (SIREN), housed at University of California San Francisco (UCSF), for meeting the requirements of Michigan stakeholders across multiple domains, for standard SDoH assessments.

Recommendation Six

Building on previous work done by MDHHS and MiHIN, draft a business case that includes a cost/benefit analysis for the development of ***Statewide Identity Linking and Authorization Services*** (*SILAS*) system comprised of the following systems and services:

1. A ***Master Person Index*** with **demographic data** of individuals who receive healthcare and/or social services in Michigan
2. A ***Health Directory*** with **demographic data** of individuals who provide care and/or social services in Michigan and **administrative and service level data** of organizations providing healthcare and/or social services in Michigan
3. An ***Identity Authentication Service*** for verifying identity of system users
4. A ***Care Team Mapping Service***, attributing individuals receiving care and services to those organizations providing the services
5. An ***"Honoring Choices Service"*** for consumer-related document management, to store and make available with appropriate authorization, those forms related to an individuals' health information, i.e., consent forms, social and health assessment forms, advance directives, medical power of attorney forms, MI-POST forms, etc.

Potential Action Steps

Charter a standing SILAS committee, reporting to the Commission

⇒ **Conduct a cost/benefit analysis** estimating savings potential related to economies of scale and potential for data quality improvement

⇒ **Collaborate with stakeholders** to develop business and functional requirements and success measures for each of the five *SILAS* modules

⇒ **Conduct a Request for Information (RFI)** to assess capabilities and estimate costs

⇒ **Validate concepts with stakeholders** through statewide engagement

⇒ **Develop a phased implementation** strategy with milestones and timelines

⇒ **Consider contracting options and governance needs**

⇒ **Develop Request for Proposal(s)** (RFPs)

NEXT STEPS

The draft environmental scan, findings, and recommendations will be presented to the Commission for feedback and comment at the Commission's quarterly meeting on May 25, 2021. Once any necessary revisions are made based on Commission feedback, the *Michigan Five-Year Health Information Technology Roadmap* project will enter the ***Validation*** phase of the Roadmap planning process.

Stakeholder Feedback Opportunities

During June and July of 2021, CedarBridge will convene and facilitate stakeholder feedback sessions to collect feedback from stakeholders on the environmental scan findings and draft Roadmap recommendations. Online public feedback sessions will be facilitated by CedarBridge to confirm the report is an accurate representation of most stakeholders' current experience with health IT adoption and use, and to gather feedback on the draft recommendations for *Michigan's Five-Year Statewide Health IT Roadmap,* prior to the development of the Roadmap implementation and sustainability plan. The virtual sessions will be held in the June-July 2021 timeframe. The *Environmental Scan Findings and Draft Roadmap Recommendations Report* (this document) will be posted on the Commission webpage for members of the public to provide comments and offer suggestions to, compliant with the Michigan Department of Health and Human Services public comment requirements.

An additional review cycle will take place between CedarBridge and MDHHS for incorporation of any substantive changes to the recommendations, after which CedarBridge and MDHHS will request final acceptance of the recommendations by Commission members at the August 2021 Commission meeting, for inclusion as strategic initiatives in the Roadmap. During the months of September and October 2021, the Roadmap implementation and sustainability plan will be drafted along with the narrative sections of the plan. Additional review discussions with MDHHS and Commission members will take place during the Commission's October and December 2021 meetings; final Roadmap approval is anticipated before the end of the year.

CedarBridge Group will work on close-out activities for the project and prepare a final report to deliver to MDHHS for the Michigan Health Endowment Fund in January of 2022.

Appendix A: STAKEHOLDER FORUM SUMMARY REPORT

CEDARBRIDGE
GROUP

Michigan Five-Year Health Information Technology Roadmap

November 24, 2020

Prepared for the Health Information Technology Commission (HITC) in Partnership with the Michigan Department of Health and Human Services (MDHHS)

by CedarBridge Group LLC

Environmental Scan Findings Report & Draft Roadmap Recommendations

Acknowledgements

CedarBridge Group would like to thank the Michigan Health Endowment Fund, the Michigan Health Information Technology Commission, and the staff of the Policy and Planning Division at the Michigan Department of Health and Human Services for their leadership and diligence in making connections with critical stakeholder groups throughout the state to make this virtual stakeholder forum series possible. Gratitude also goes to the Michigan community members, providers, health professionals, government officials, community organizations, and social service providers for their time and willingness to participate in extended discussions, and for sharing their valuable insights about the State of Michigan's strengths, challenges, risks, and opportunities. Finally, special gratitude goes to those individuals and organizations willing to participate in the midst of providing frontline response and critical services during the COVID-19 pandemic, and to all participants for the work you do to provide life-sustaining services for your state's most vulnerable community members.

Disclaimer

Input collected during the virtual stakeholder forums and conveyed in this report do not necessarily represent the viewpoints of the Michigan Health Endowment Fund, the Michigan Health Information Technology Commission, or the Michigan Department of Health and Human Services. Information communicated by stakeholders in this report are for informational purposes only, and do not compel action on the part of any organizations, agencies, or individuals. Stakeholder input was collected through non-scientific engagement methods and may not constitute a representative sample of the consumer population - or the healthcare, public health, or social services sector(s). Further research is being done by CedarBridge Group to inform Michigan's Five-Year Health IT Roadmap, and drafts will be published for public comment in late spring of 2021 and finalized in the fall of 2021.

Executive Summary

In 2019, the Health IT Commission (HITC) was awarded a grant by the Michigan Health Endowment Fund to engage with Michigan stakeholders and develop a comprehensive Five-Year Health Information Technology Roadmap. CedarBridge Group LLC was selected to facilitate this work due to their expertise in health IT and health policy. In the fall of 2019, plans for in-person community roundtables were modified in response to the SARS-CoV-2 global pandemic to a series of eight virtual discovery forums and eight regional forums, defined in more detail in the body of the report. Virtual forum discussions, facilitated via teleconference and webinar format, were attended by more than 300 stakeholders, and were focused on the following topics:

Reflections on Health IT During a Global Pandemic **Public Health**	*Resident and Advocate Perspectives on Health IT* **Consumer Focused**
Coordinating During Crisis **Emergency Services**	*Bridging the Digital Divide* **Racial Disparities and Social Determinants of Health (SDoH)**
Connecting All Points of Care **Behavioral Health**	*Coordinating Care for the Vulnerable* **Aging and Disability Services**
Using Data to Drive Outcomes **Quality Improvement**	*Giving All Kids a Health Start* **Maternal, Infant and Children's Health**

Findings

The following issues and topics were either recurring themes communicated by multiple stakeholder groups, or key insights into opportunities and risks within the health and social services delivery systems.

Both statewide and targeted local investments in public health IT infrastructure are needed to better address both the current pandemic, as well as future public health threats. These include, but are not limited to, disease surveillance systems, contact tracing systems, and electronic case reporting systems.

Addressing social determinants of health was reported to be a priority for nearly all of the stakeholder groups. Improved screening protocols for identifying clients' social risk factors was a common theme reported by healthcare providers. With these advancements, the delivery system must now focus on standardizing SDoH data and improving coordination through more efficient referral capabilities, preferably using a closed-loop referral platform that allows referring providers to monitor the outcome and status of referrals.

In response to the pandemic, Michigan providers rapidly expanded their use of telehealth and other virtual patient engagement technologies. Telehealth is widely recognized as an essential tool that should continue to expand and evolve.

Rural, vulnerable, and underserved populations are at risk of wider health inequities and racial disparities when they lack consistent access to internet services and cellular phones with data and text messaging. Investments in these tools for underserved communities, as well as education and assistance programs for the aging population and the technology-challenged were identified as key needs.

Access to broadband internet and cellular services continues to be a significant challenge for many rural and underserved urban populations. Michigan has made significant investments in health IT tools, yet many providers and clients lack the ability to consistently connect when needed. Increasing broadband access is a foundational element to expanding the adoption and use of existing tools.

Significant gaps remain in health IT and HIE adoption between larger providers (hospitals, physician groups, health systems, etc.) and smaller independent practices (rural health clinics, behavioral health clinics, long term care facilities, aging and disability services, etc.). Additional education, training, and investments are needed to improve HIE adoption and coordinated data exchange among smaller provider groups.

Introduction - Stakeholder Forums

In 2019, the Health IT Commission (HITC) acknowledged a need to update the "Conduit to Care" strategic plan, Michigan's original health information technology roadmap. To assist in this work, the Michigan Health Endowment Fund awarded the Commission a grant to expand its capability to engage with stakeholders and develop a comprehensive *Five-Year Health Information Technology Roadmap*.

CedarBridge Group was selected to facilitate this work due to their expertise in health IT and health policy and experience facilitating these types of initiative. As the pandemic suddenly hit our nation's healthcare systems in early 2020, the HITC acknowledged updating Michigan's health IT strategy was especially timely, in that the need for actionable data was more critical than ever. With travel and in-person gatherings out of the question for the foreseeable future, CedarBridge modified plans for engaging stakeholders through community roundtables and transitioned to a series of 16 virtual forums to gather insights on some of Michigan's shared priorities for improving care through health IT and more accessible data on patient and population health.

Through September and early October 2020, CedarBridge conducted discovery forums for each of the eight priority topic areas shown in Table 1. Discovery forums were designed to identify major barriers, issues, opportunities, and insights within the topic area relative to health IT adoption and data availability, accuracy, and interoperability. The discovery forums utilized a myriad of tools to illicit input from the statewide audiences, including interactive polling, online chat and Q&A functions, verbal discussions with facilitators and among other audience members, and "*stacking"* (putting "+++" in the chat box to emphasize agreement with a statement another stakeholder has made).

The follow-up regional forums took place during October and early November and utilized the same virtual meeting technology to engage Michigan stakeholders in conversation on their regional perspectives on the major themes identified during discovery forums.

Table 1 - Forum Attendee Statistics

Forum Topics	Discovery Forum Attendees	Regional Forum Attendees
Reflections on Health IT During a Global Pandemic – **Public Health**	48	21
Coordinating During Crisis – **Emergency Services**	26	12
Connecting All Points of Care – **Behavioral Health**	31	26
Using Data to Drive Outcomes – **Quality Improvement**	39	14
Resident and Advocate Perspectives on Health IT– **Consumer Focused**	21	8
Bridging the Digital Divide – **Racial Disparities and SDoH**	42	23
Coordinating Care for the Vulnerable – **Aging and Disability Services**	33	23
Giving All Kids a Health Start – **Maternal, Infant and Children's Health**	24	9

Forum Insights and Findings

Reflections on Health IT During a Global Pandemic – Public Health Forum

The *Reflections on Health IT During a Global Pandemic* virtual forum series was designed to identify information technology needs and gaps related to public health. The major themes and consensus issues that emerged during the discussions are described below.

State Data Sharing for COVID-19 Response and Tracking

While state IT systems for tracking public health are helpful, stakeholders identified areas for improvement for the Michigan Disease Surveillance System (MDSS) and TraceForce, including the need for real-time and geographically targeted data. In addition, improved interoperability between public health agencies and the healthcare delivery system (i.e., clinics, hospitals, labs) was identified as an urgent issue, as was the need for better communication and coordination at the community level between providers, public health agencies and other health and human services providers.

Health IT Investments During the Pandemic

COVID-19 has had a negative impact on healthcare organizations' revenue and hindered the ability for local public health to investment in new health IT tools. As a result, stakeholders are more dependent than ever on existing public health IT systems such as the MDSS and other registries.

> *"We speak of interoperability but often collect different data elements and have to hand enter data from one system into others. Uploading and downloading Excel spreadsheets is not efficient."*

Community Partnerships and Information Sharing

Local communities would benefit from leveraging state systems to receive pandemic-related targeted regional information, along with more transparent resource coordination across the public and private sectors.

Systems for Responding to Outbreaks

Additional tools are needed to effectively manage a COVID-19 outbreak including case management, medical management, and proximity tracing systems.

Stakeholder Suggestions for Five-Year Health IT Plan

1. Additional statewide investments are needed that can be leveraged by local public health agencies with the goal of improving existing systems (e.g., MDSS and TraceForce). In addition, local public health agencies communicated a need for substantial general health IT investments due to historical underinvestment, including funding for health IT personnel.
2. Stakeholders need integrated data reports with targeted regional information from MiHIN.
3. Create regional command centers to address PPE needs, COVID testing/reporting and facilitate better resource coordination across public and private entities.
4. Near real-time laboratory reporting is a critical need, further exacerbated by the COVID pandemic.
5. Create statewide standards for electronic case reporting. Widespread implementation of this capability would improve reporting from providers to public health agencies.

Coordinating During Crisis – Emergency Services Forum

The *Coordinating During Crisis* virtual forum series was designed to identify information technology needs and gaps related to emergency medical services (EMS). The major themes and consensus issues that emerged during the discussions are described below.

Better Coordination Between EMS and Hospitals

Stakeholders desire accurate and timely access to medical information at the time of an emergency. Increasingly, EMS providers are also needing better coordination with mental health and substance use disorder providers.

A Digital Divide Is Impacting Rural EMS Providers

Connectivity to external information sources during emergency response is a significant issue for residents of rural areas due to the lack of reliable internet connectivity and cellular service. Access to patient information is an issue throughout Michigan but is more pronounced in rural areas. Many urban EMS responders are dispatched by hospitals with access to the hospital EHR. Some regional EMS provider systems retain patient information to be available on a subsequent response.

Prioritize Connectivity to Leverage Existing Investments

Most rural-based respondents expressed a frustration with not being able to connect to technical solutions, whether hosted by the state, by local agencies, or by hospitals or health systems.

Stakeholder Suggestions for Five-Year Health IT Plan

1. Funding and support for internet and broadband capabilities in rural areas so that EMS providers don’t lose connectivity while in the field. Investments are needed to expand broadband and cellular network services.
2. Statewide standards are needed for all dispatch centers as it relates to emergency medical dispatch.
3. Need to connect/report to Michigan Emergency Medical Services Information System (Mi-EMSIS).
4. Update the Michigan Physician Order for Scope of Treatment (MI-POST) rules and create protocols for emergency medical services to easily access information.
5. Funding for EMS providers to utilize digital apps for basic reporting from the field to the hospital.

> *“I dream that someday in the future, hospital outcomes will be provided electronically to EMS agencies via linked IT systems that communicate based on patient identifiers....there are significant hurdles regarding sharing confidential information.”*

Connecting All Points of Care – Behavioral Health Forum

The *Connecting All Points of Care* virtual forum series was designed to identify information technology needs and gaps related to behavioral health. The major themes and consensus issues that emerged during the discussions are described below.

Homelessness Data

There are significant gaps in understanding the needs of homeless populations with behavioral health conditions. Care coordination for homeless populations with behavioral health conditions could be improved through data capture and more widespread use of the Homeless Management Information System (HMIS).

> *"[M]y big idea would be to financially, operationally and clinically integrate physician and behavioral health for Medicaid eligibles. Full integration would establish vendors to the state which would hold responsibility for breaking down these barriers."*

Behavioral Health Data Standardization

Work is needed to define common data fields for capturing and sharing information related to mental health and substance use disorders.

Connections to Social Services

There is a need to better incorporate information related to social determinants of health, social needs, history of trauma, and other information likely to be factors for an individual's health and well-being into the behavioral health workflow.

Telehealth

The pandemic has facilitated the use of more telehealth for behavioral health conditions. Use of telehealth has reduced no-show rates and improved providers' ability to coordinate care for vulnerable populations.

Table 2 – Stakeholders' Rank Order Health IT Priorities for Behavioral Health Services

Forum Attendee Poll Question	
List first and second priorities for focusing data and technology efforts in the Five-Year Health IT Roadmap	
Priority Ranking Options	1. Integrating homelessness data
	2. Better defined data standards
	3. Adding connections to social services
	4. Expanding telemedicine in BH
	5. Focus on improving data quality
Highest Ranked Priorities	
1st Place: Expanding telemedicine in behavioral health settings – **88% of Respondents**	
2nd Place: Better defined data standards – **56% of Respondents**	
3rd Place: Focus on improving data quality – **38% of Respondents**	

Stakeholder Suggestions for Five-Year Health IT Plan

1. Telehealth visits sometimes require patients to be treated on-site, which can be a barrier to care in some cases. Ideally, patients would be allowed to access telehealth from their homes with assistance being made available for cultural barriers or technology-related issues.
2. The state could support providers by facilitating the negotiation of a statewide rate for telehealth application costs.

3. Consent remains a barrier. Although the state mandates a universal, statewide consent form[1] (MDHHS 5515) that must be accepted, its adoption is not widespread, in part, because it is not mandatory for entities to use the statewide consent form. Consequently, many organizations are still using their own proprietary consent forms.
4. The state could help through adoption of common standards for data capture and data sharing of mental health information.

Using Data to Drive Outcomes – Quality Improvement Forum

The *Using Data to Drive Outcomes* virtual forum series was designed to identify information technology needs and gaps related to quality improvement efforts. The major themes and consensus issues that emerged during the discussions are described below.

> *"We have the infrastructure and technology in place, but end users need assistance to help small practices with resources with data input and practice transformation."*

Data Extraction

There are significant disparities between large health systems and small and independent practices for their respective abilities to extract data for quality measures. One barrier is the cost imposed by EHR vendors, which disproportionately impacts small practices.

Data Standardization

It is important to have data standardized and for providers to be adequately trained in standard practices for data capture; such work will make data among EHR systems comparable and ultimately, more useful.

Incorporating Non-Clinical Data

As a state, Michigan needs to better integrate social determinants of health data from claims, clinical, and non-clinical sources to facilitate a clearer understanding of patient needs.

Reporting Requirements

Providers reported that supporting multiple reporting requirements imposes an administrative burden.

Table 3 – Stakeholders' Rank Order Health IT Priorities for Quality Improvement Efforts

Forum Attendee Poll Question List first and second priorities for focusing data and technology efforts to improve health outcomes in Michigan	
	1. Affordable data extraction
	2. Common data standards
	3. Addressing reporting requirements
	4. Adding non-clinical data sources
	5. More state-led initiatives and resources

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[1] Michigan Behavioral Health Standard Consent Form: https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2941_58005-343686--,00.html

Priority Ranking Options	6. Focus on improving data quality
Highest Ranked Priorities	
1st Place*:* Focus on improving data quality – **88% of Respondents**	
2nd Place: Affordable data extraction – **50% of Respondents**	
3rd Place*:* Common data standards – **38% of Respondents**	

Stakeholder Suggestions for Five-Year Health IT Plan

1. Incentive funding for small, rural providers to purchase interfaces and other technology solutions that will better support their capabilities for data extraction and data sharing. This includes funding for the IT workforce.
2. Statewide assistance with practice transformation to incorporate best practices and data inputs within their EMRs and workflows.
3. Vendors need to follow common standards for data extraction. From a policy perspective, the state can leverage federal standards such as HL7/FHIR with vendors, and in doing so, reduce the burden on providers.
4. The state and HIEs can work more closely with physicians to determine priority use cases as clinicians can drive adoption more quickly, and drive change management.
5. A single integrated quality reporting system would be extremely useful and is a "phenomenal idea." There are several efforts already under way, but none of them will cut across all payers. A single system would improve data quality and reduce provider burden, especially for the smaller practices.

Resident and Advocate Perspectives on Health IT and Person-Centered Care – Consumer Forum

The *Resident and Advocate Perspectives on Health IT and Person-Centered Care* virtual forum series was designed to identify information technology needs and gaps from a consumer perspective. The major themes and consensus issues that emerged during the discussions are described below.

Equitable Access to Internet Technology for Michigan Residents

Michigan residents encounter challenges to accessing personal health data and virtual health services due to gaps in high-speed internet availability, access to technology, and expanded use of technological devices.

Health Data and Information Available to Residents

Personal health information is available to Michigan payers and providers, but individuals typically must go to multiple patient portals to enter, access, and potentially export their own data. In some cases, individuals may not be granted access to certain portions of their records.

> *"A good portion of our population do not have home internet. Some areas only have satellite internet and it's too expensive. They do have cell phones but the data plan for the service is usually maxed out."*

Provider Access to Electronic Health Data

Michigan residents do not have transparency about when personal information about health and well-being is shared, or how the information may be used. Often, individuals assume more information is available to their care teams than is actually the case.

> *"Personally, I have access to my primary care data, but not much from any specialists. I am not sure how to get all my information in one place to see how it looks together."*

Usability

Multiple technical platforms, patient portals, logins/passwords, and out-of-date information can hinder individual access to electronic health information. Residents/consumers can be frustrated with inaccurate information in multiple places and inefficient ways to manage personal health information and preferences.

Technology to Improve Access to Healthcare Services

Virtual visits are increasing and providing safe, socially distanced methods for individuals to receive healthcare services.

Table 4 – Consumers Rank Order Health IT Priorities for Access to Services and Health Information

<table>
<tr><th colspan="2">Forum Attendee Poll Question
List first and second priorities for focusing data and technology efforts for improving individuals' electronic access to health data</th></tr>
<tr><td rowspan="6"><i>Priority Ranking Options</i></td><td>1. Resident access to ubiquitous high-speed internet (in both rural and urban areas)</td></tr>
<tr><td>2. Email and texting communication between patients/caregivers and care teams</td></tr>
<tr><td>3. Virtual visits for all care types and settings</td></tr>
<tr><td>4. Single portal for consumers to access, update, and manage health information across payers, all providers, care teams, and geography (i.e., out of state)</td></tr>
<tr><td>5. Access to and assistance with tools, such as making online appointments and payments, and understanding the differences in charges and coverage in advance of scheduled procedures</td></tr>
<tr><td>6. Patient-managed data supporting the ability to download health record to a smartphone and share it with other providers</td></tr>
<tr><td colspan="2"><i>Highest Ranked Priorities</i></td></tr>
<tr><td colspan="2"><i>1st Place (tie)</i>: Single portal for consumers to access, update, and manage health information – 75% of Respondents</td></tr>
<tr><td colspan="2"><i>1st Place (tie):</i> Resident access to ubiquitous high-speed internet (in both rural and urban areas) – 75% of Respondents</td></tr>
<tr><td colspan="2"><i>3rd Place</i>: Virtual visits for all care types and settings – 25% of Respondents</td></tr>
</table>

Stakeholder Suggestions for Five-Year Health IT Plan

1. Many patients want to be able to communicate with their providers via text messaging. The Roadmap should educate and clarify standards and criteria for HIPAA-compliant messaging between patients and providers.
2. Generally, patients are not aware of who has access to their data. It was recommended that transparency should be improved for patients to understand who has access to their health information and be able to provide informed consent on who is able to access and share it.
3. More efficient exchange of patient information with primary care providers and onboarding of independent providers onto HIE platforms. More education and training should be provided to primary care providers to support their ability to seek out patient data from other systems and providers.
4. Expand the use of virtual visits, but not at the expense of patient access to in-person office visits when their condition(s) necessitate the need, or when it is preferred.
5. Provide education and assistance to elderly and technology-challenged clients to support their use of telehealth technology.

Bridging the Digital Divide – Racial Disparities and Social Determinants of Health Forum

The *Bridging the Digital Divide* virtual forum series was designed to identify information technology needs and gaps related to addressing racial health disparities and social determinants of health (SDoH). The major themes and consensus issues that emerged during the discussions are described below.

> *"There is a lack of accurate information in documenting race on birth certificates. This is done in the hospital in a variety of formats. The birth certificate is used for studies around maternal and infant health morbidity and mortality."*

Alignment Related to Racial Disparities

In the context of social needs for communities of color, there is a lack of alignment between the myriad of initiatives across the ecosystem. This leads to complexity and confusion and diminishes effectiveness in improving outcomes.

- Workflows and operations
- Data sets and technical systems
- Programs and operations
- Variation between communities

Community Approaches & Data Sharing

A cross-sector, community-wide approach with alignment across SDoH initiatives is needed, including the re-use of data and technology, and ongoing communication of strategic priorities for addressing social determinants of health and health inequities. Sharing data across organizations is already challenging. Connecting EHRs to community data systems, such as the client management systems of social service organizations, is even harder to achieve.

> *"Presently, population health tools are very costly… Suggest the state contract for a population health tool to lower the costs for providers… allow providers to have direct access to their population's health data instead of going through the PIHPs (Prepaid Inpatient Health Plans)."*

Privacy and Consent

Managing consent to ensure patient privacy can be a major barrier to sharing data between healthcare providers and social services organizations. There needs to be focused planning and action to address these concerns to foster interoperability.

Table 5 – Stakeholders' Rank Order Health IT Priorities for Addressing Health Disparities and Social Determinants of Health

Forum Attendee Poll Question List first and second priorities for focusing data and technology efforts to reduce health inequities and address social needs	
Priority Ranking Options	1. More accurate and timely aggregate data and analytics on racial disparities to inform policymaking
	2. Standardized screening and intervention tools
	3. Common data standards for social determinants (e.g. common standard for housing insecurity)
	4. Connecting EHRs to community organization data tools
	5. Electronic referral tools
	6. Resource directory for social service organizations (electronic 211)
	7. Data sharing across different types of social services and healthcare providers
Highest Ranked Priorities	
1st Place*:* Data sharing across different types of social services and healthcare providers – **75% of Respondents**	
2nd Place *(tie):* Common data standards for social determinants – **50% of Respondents**	
2nd Place *(tie):* Connecting EHRs to community organization data tools – **50% of Respondents**	

Stakeholder Suggestions for Five-Year Health IT Plan

1. Oftentimes there is inaccurate race/ethnicity information entered on birth certificates by hospitals. Training on how to retrieve race information and document accurately may help.
2. Allow individuals the option to select how they self-identify their race and ethnicity.
3. Standardize SDoH criteria. Focus on creating community SDoH hubs and electronic health record (EHR) integration.
4. The state should procure and offer a population health tool to lower the costs for providers. Allow providers to directly access population health data instead of going through the Prepaid Inpatient Health Plans (PIHPs).
5. Create transparent methods for stakeholders to see how SDoH interventions by CBOs impact costs.
6. Develop apps/modules to interpret data coming in. It must be meaningful to the clinical person coordinating care and providing treatment.
7. Develop standard consent protocols across all providers. While there is a universal, statewide consent form, it's use is not mandatory. A centralized, electronic consent repository would also provide significant value.
8. Create efficient, timely, and accurate closed-loop referral capabilities.

Coordinating Care for the Vulnerable – Aging and Disabilities Forum

The *Coordinating Care for the Vulnerable* virtual forum series was designed to identify information technology needs and gaps related to services for the aging population and people with disabilities. The major themes and consensus issues that emerged during the discussions are described below.

> *"It would be beneficial to have standard data 'conformance' measures, like we do with the ADT program, either coming from the federal or state level… If we want good quality data for population health…we need the end-users entering the correct data."*

Technology Adoption and Use

Many providers of aging and disability services have not adopted EHR systems and are limited in their use of information technology. Stakeholders in the forum agreed that the value proposition for updated information technology systems and data use has not been clearly and consistently articulated to this sector of the care delivery system.

Population Health Management

There are challenges in sharing information during transitions of care, in coordinating services and healthcare across multiple providers, and in managing populations of high-need individuals.

Incorporating Social Services Data

Incorporating social services and SDoH data into provider workflow would help to improve the provisioning of care for elderly and disabled populations.

Stakeholder Suggestions for Five-Year Health IT Plan

1. A statewide learning network/collaborative is needed for health and social services professionals working in the aging and disabilities field to communicate the value propositions for health IT tools and data sharing.
2. PCPs and hospitals were targeted through the Promoting Interoperability EHR Incentive Program, but there is a need to expand incentivization for technology adoption to aging and disability services, and long-term care providers. These sectors need comprehensive technical assistance throughout the entirety of the process (i.e., understanding technology needs, technology/vendor selection, implementation, incentives).
3. The Roadmap should connect all of the dots for efficient data sharing (stakeholders, IT systems and tools, populations, regions, training, funding), and make IT tools and systems readily available and user-friendly for the providers who can make the greatest impact.
4. MiHIN's Virtual Integrated Patient Record (VIPR) could provide a foundation for a statewide centralized "data lake" which could include SDoH data.
5. Standardize data conformance measures to improve the quality of source data for population health analytics.

Table 6 – Stakeholders' Rank Order of Health IT Priorities on Importance of Data Types to Improve Outcomes for Aging & Disabled

Forum Attendee Poll Question List first and second priorities on importance of the following data types to improve health outcomes for aging and disabled	
Priority Ranking Options	1. ADT data
	2. Social determinants of health data
	3. Eligibility and enrollment data
	4. Aggregate population health data
	5. Advanced directive data
	6. Clinical data not available in ADT messages
	7. Behavioral health data8.Case management data
	8. Family information
Highest Ranked Priorities	
***1st Place**:* Social determinants of health data – **100% of Respondents**	
2nd Place: Aggregate population health data – **50% of Respondents**	
***3rd Place**:* ADT data – **25% of Respondents**	

Table 7 – Stakeholders' Rank Order Priorities for Overall Focus of Health IT Efforts to Improve Outcomes for Aging & Disabled

Forum Attendee Poll Question List first and second priorities for focusing data and technology efforts to improve health outcomes for aging and disabled	
Priority Ranking Options	1. Funding for implementation of EHRs
	2. Access to population health analytics
	3. Access to social history data elements
	4. Telehealth
	5. Access to advanced directives
	6. Closed loop tracking of referral follow-ups
	7. Remote monitoring devices with a dedicated nurse call center
Highest Ranked Priorities	
***1st Place**:* Access to population health analytics – **83% of Respondents**	
2nd Place: Telehealth – **67% of Respondents**	

Giving All Kids a Healthy Start – Maternal, Infant, and Children's Health Forum

The *Giving All Kids a Healthy Start* virtual forum series was designed to identify information technology needs and gaps related to maternal and child wellness and health services. The major themes and consensus issues that emerged during the discussions are described below.

Data Capture for Screening

Caseworkers, case managers, and providers regularly conduct home visits, and routinely use paper assessment forms, laptops, or tablets for data capture. Typically, home visit data, whether recorded on paper or on a computer, requires subsequent data reentry to a centralized data repository due to lack of secure internet connectivity in the client's home, or in the community at large. Organizations may underestimate the availability of broadband or mobile internet connectivity during home visits.

Access to Broadband and Cell Phones

There are basic technology related obstacles to service delivery.

- Access to broadband and/or high-speed mobile internet is a barrier for providers who are traveling to a patient/client's home to provide services, especially in rural areas.
- A lack of financial resources can be a barrier for patients'/clients' having reliable access to the internet.

Referrals to Community Services

While the availability of a closed loop referral system would be ideal, referrals are commonly made through referral directories. As a result, the it's common providers to have no visibility into the disposition of their referrals. Organizations commonly use 2-1-1, Help Me Grow, the Salvation Army "Know Book", as well as their own internal directories, which creates a confusing list of community organizations to try to navigate.

Statewide data systems and resources such as MI Bridges, the Homeless Management Information System (HMIS), and other health information systems are all separate and "siloed" in which only a limited set of people can view available data (i.e., housing units in HMIS).

> *"If you expect a patient/caregiver to take an active role in managing their care, access to the status of referrals and consult requests should be accessible by the patient. This is currently a very difficult and hit or miss process."*

Telehealth

Telehealth could be improved upon to meet the needs of sub-populations by providing a "closed captioning" service, and by providing more assistance to those individuals that need help with technology.

Table 8 – Stakeholders' Rank Order Health IT Priorities for Maternal, Infant, and Child Health Services

<table>
<tr><th colspan="2">Forum Attendee Poll Question
List first and second priorities for focusing data and technology efforts in the Five-Year Health IT Roadmap</th></tr>
<tr><td rowspan="5"><i>Priority Ranking Options</i></td><td>1. Investments in broadband</td></tr>
<tr><td>2. Funding to offset clients' cell phone costs</td></tr>
<tr><td>3. Special functionality for telehealth technology (e.g., closed captioning)</td></tr>
<tr><td>4. Closed loop referral system</td></tr>
<tr><td>5. Creating an electronic system for intake and screening that eliminates manual data entry</td></tr>
<tr><td colspan="2"><i>Highest Ranked Priorities</i></td></tr>
<tr><td colspan="2"><i>1st Place</i><i>:</i> Investments in broadband – 80% of Respondents</td></tr>
<tr><td colspan="2"><i>2nd Place (tie):</i> Funding to offset clients' cell phone costs – 40% of Respondents</td></tr>
<tr><td colspan="2"><i>2nd Place (tie)</i><i>:</i> Closed loop referral system – 40% of Respondents</td></tr>
</table>

Stakeholder Suggestions for Five-Year Health IT Plan

1. Laptops, tablets, and mobile phones with broadband internet access or data plans would aide maternal and infant health providers. Investments to subsidize the costs of broadband access and/or mobile data plans for vulnerable community members.
2. Providers have safety concerns during home visits and would benefit from a digital app for home visitor safety.
3. State's Maternal Infant Health Program (MIHP) database needs significant improvements to reporting capabilities and general updates/upgrades to maintain useability.
4. A recent home visiting needs assessment identified parents' need for apps that provide a directory of community resources, and ability to connect with community resources.
5. Patients/clients must have access to referral and consult status, outcomes reporting, and ability to make the choice on what services and providers they utilize.
6. Statewide resources and data systems should be broadly available to the greatest extent possible for all members of the patient/client care team to access and utilize.
7. Invest in clinical and health IT infrastructure in schools as a common access point in the community for healthcare services, counseling, food assistance, and other social needs.

Appendix B: Electronic Surveys

In an effort to collect stakeholder input, multiple modes of discovery were deployed. The advantage of providing stakeholders multiple mechanisms for sharing their experiences of the current state of health information technology and their preferences and priorities for the future state are:

- Stakeholders at different levels of an organization from staff and management to senior executives may prefer one way, or another, to provide input because of schedules, who they need to consult with internally, or how they best organize their thoughts.
- Interactive online forums were convened with group dynamics and a more public setting as context and have the advantage of participants thoughts and input being prompted by group polling questions and discussion spurred by what stakeholders hear others saying.
- Key informant interviews are private and have the advantage of providing less filtered or prepared responses and also allow for follow up questions based on what is shared, taking the conversation down any number of unanticipated paths.
- Electronic surveys and key informant interviews both provide a private experience with one organization, and sometimes one person, providing the input in a setting that can feel safer to some people due to the interviewer being the only person who hears what is shared.
- Electronic surveys differ from both forums and interviews in that the person completing the survey can consult internally with others or perform research for confirmation of facts in drafting responses to represent their organization, whereas in an interview they are responding via thoughts that occur to them only at the time of the interview.

The electronic survey questions were drafted based on project team experience conducting environmental scans on the subject of health information technology, and other types of environments, in states and organizations across the nation over many years. They were modified for this environmental scan to reflect the current national health IT environment (i.e., policy framework, incentives, available technology, data types and standards, etc.) and based on information specific to Michigan obtained from MDHHS, stakeholder forums, and research conducted on Michigan's current health IT environment published and available at federal and state websites, the websites of stakeholders and vendors, and historical background documents such as the SIM Operational plan, the State Medicaid Health IT plan (SMHP), HITC annual reports to the legislature, and others.

A balance was sought somewhere between asking all stakeholders the same set of questions, making analysis and comparisons across domains more straightforward, and asking different questions specific to each domain to account for the different ways people in different roles and different organizations interact and experience the health IT environment. As a result, some questions were asked of all stakeholders (e.g., *"What kinds of data do you collect?",* and *"What is your role in your organization?")* while other questions were specific to the type of stakeholder responding (e.g., *"Do you use an Electronic Health Record",* and *"Are you subject to 42 CFR, Part 2 related to specially protected health information?").* This provided the project team a way to cover all health IT topics pertinent to a particular stakeholder while permitting comparisons within and across domains as described in the *Environmental Scan and Draft Recommendations* document.

A compromise was also sought regarding the length of electronic surveys. With awareness that the stakeholders in all domains are busy individuals, more so during the COVID-19 crisis than during business as usual, it was desirable to keep the surveys as short as reasonably possible for the best chance of a useful number of responses and still address every essential health IT topic. It was also known that many stakeholders were being surveyed by other entities as part of other projects and information gathering during the pandemic. Indeed, electronic surveys were administered to some domains where the number of responses being returned was low enough that an additional shorter survey containing only the most essential questions was administered to increase the likelihood more people and organizations would complete a survey.

The questions asked were designed to get a clear picture of:

- The tools and technology in use for collecting, storing, using, and sharing electronic health information
- Sources of health information and the methods for accessing, submitting, and sharing data
- Stakeholder perceptions about the shortcomings or drawbacks of the current environment both within and external to their organizations
- Stakeholder perceptions of the current and ideal roles various entities have or should have, such as federal and state government, the legislature, providers, consumers, vendors, oversight and governance bodies and commissions, and other entities
- Stakeholder priorities for investment in the next five years
- Stakeholder descriptions of characteristics of the ideal future state of health IT in Michigan

Distribution of the unique surveys for each domain surveyed was through links posted on MDHHS's website, the HITC, associations representing different stakeholder groups, and through direct email. Stakeholders were provided a link to follow to the web-based survey tool. These methods were chosen in order to distribute the surveys widely, even to stakeholders in various domains the project team may not have been aware of, and because these other entities had lists of contacts and contact information for persons at stakeholder organizations likely to be in possession of knowledge and information about those entity's interactions with health information and health information technology. The number of questions on surveys ranged from eight to thirty-nine questions, depending on the stakeholder domain. Approximately 200 distinct surveys were completed and submitted to the project team with each domain surveyed being represented in the results.

Note: The project team's experience has shown that interactions to get the subjective description of stakeholder experiences with health information technology and data exchange, their pain points related to what works well and what doesn't and their reasons for, and goals, for collection and sharing of data, is the best way to perform the environmental scan. For these purposes, it is preferable to empirical data such as, *the number of consulting and surgical specialist physicians in Michigan who have adopted a certified EHR for meaningful use,* already available from the Office of the National Coordinator (ONC), and other sources of data about tools and technology, numbers of transactions, records, encounters, claims, etc. The electronic surveys administered for this project, therefore are not intended for statistical or other empirical analysis, but rather, as another mode of collection of the kinds of input sought through forums, focus groups, and interviews and, like those other methods serve as a kind of dialogue where questions are answered, and responders frequently had the option of choosing all responses that applied and the option of entering text into fields to collect perceptions and thinking not possible from a multiple choice question.

Appendix C: Stakeholder Organizations and Engagement Type

Stakeholder Organization	Engagement Type
1. Adaptive Counseling and Case Management	Survey
2. Advantage Living Centers	Survey
3. Alcona Citizens for Health, Inc.	Survey
4. Alcona Health Center	Survey
5. Allegan County CMH	Survey
6. Allegan County Community Mental Health	Survey
7. Alternatives for Girls	Survey
8. Area Agencies on Aging Association of Michigan	Interview
9. Area Agency on Aging of Northwest Michigan	Survey
10. Ascension Medical Group	Survey
11. Aspirus	Survey
12. August Optical	Survey
13. AuSable Valley CMHA	Survey
14. Barry County Community Mental Health	Survey
15. BARRY EATON DISTRICT HEALTH DEPARTMENT	Survey
16. Bay County Medical Care Facility	Survey
17. Bay-Arenac Behavioral Health	Survey
18. Beacon Specialized Living	Survey
19. Beaumont Health	Survey
20. Bellaire Eye Center	Survey
21. Benton Harbor Health Center	Survey
22. Blue Cross Blue Shield of Michigan	Interview

	Stakeholder Organization	Engagement Type
23.	**Branch-Hillsdale-St. Joseph Community Health Agency**	Survey
24.	**Bronson Healthcare**	Interview, Survey
25.	**Capital Area Literacy Coalition**	Survey
26.	**Carriage Town Ministries**	Survey
27.	**Center for Health and Research Transformation and Michigan Data Collaborative**	Survey
28.	**Centra Wellness Network**	Survey
29.	**Chelsea Senior Center**	Survey
30.	**Child Care Network**	Survey
31.	**City of Detroit Health Department**	Survey
32.	**CMH Central Michigan**	Survey
33.	**CMHA-CEI**	Survey
34.	**Commission on Aging**	Survey
35.	**Community enCompass**	Survey
36.	**Community Mental Health Association of Michigan**	Interview
37.	**Community Mental Health Centers (multiple)**	Focus Group
38.	**Community Mental Health of Ottawa County**	Survey
39.	**CONSUMER SERVICES INC.**	Survey
40.	**Cook and Hayden Vision Care Center**	Survey
41.	**Corner Health Center**	Survey
42.	**CSI Support & Development**	Survey
43.	**David L. Cooley D.O.P.C.**	Survey
44.	**DEAF C.A.N.!**	Survey
45.	**Detroit Health Department**	Interview

	Stakeholder Organization	Engagement Type
46.	**Detroit Medical Center**	Survey
47.	**Detroit Wayne Integrated Health Network**	Survey
48.	**District Health Department #10**	Survey
49.	**Easterseals Michigan**	Survey
50.	**Ecenbarger Eye Care**	Survey
51.	**Excellence in vision**	Survey
52.	**Fairview Nursing and Rehab**	Survey
53.	**Family Health Care**	Survey
54.	**Family Medical Center of MI**	Survey
55.	**Food Bank of Eastern Michigan**	Survey
56.	**Genesee Health Plan**	Survey
57.	**Genesee Health System**	Survey
58.	**Genesys PHO**	Survey
59.	**Good Shepherd Coalition**	Survey
60.	**Greater Detroit Area Health Council**	Interview, Survey
61.	**Greater Flint Health Coalition (Genesee CHIR)**	Interview
62.	**Greater Lansing Food Bank**	Survey
63.	**HealthCare IT/IS Consulting Group PLLC**	Survey
64.	**HealthSource Saginaw**	Survey
65.	**Heart of Senior Citizens**	Survey
66.	**Helen Newberry Joy Hospital**	Survey
67.	**Henry Ford Health System**	Interview
68.	**Holland Home**	Survey

Stakeholder Organization		Engagement Type
69.	**Hope Landing**	Survey
70.	**Huron Behavioral Health**	Survey
71.	**Huron Valley Physicians Association**	Survey
72.	**Insight Optometry**	Survey
73.	**INTEGRATED HEALTH PARTNERS**	Survey
74.	**Kent County Circuit Court**	Survey
75.	**KMG Prestige**	Survey
76.	**Lapeer CMH**	Survey
77.	**Legal Services of Eastern Michigan**	Survey
78.	**LifeWays CMH**	Survey
79.	**Lighthouse MI**	Survey
80.	**Livingston Pediatric Center**	Survey
81.	**Mackinac Straits Health System**	Survey
82.	**Macomb County CMH**	Survey
83.	**Marlow Family Dental**	Survey
84.	**McKenzie Health System**	Survey
85.	**McLaren Health Plan**	Survey
86.	**McLaren Physician Partners**	Survey
87.	**MDHHS Aging & Adult Services Agency**	Interview
88.	**MDHHS Bureau of Community Action and Economic Opportunity**	Interview
89.	**MDHHS Bureau of EMS, Trauma, and Preparedness**	Interview
90.	**MDHHS Medical Services Administration (Medicaid)**	Interview
91.	**MDHHS Policy and Planning Division**	Interview

Stakeholder Organization	Engagement Type
92. MDHHS Public Health	Interview
93. Meadow Brook Medical Care Facility	Survey
94. Medical Network One	Survey
95. Meridian Township	Survey
96. Metro Health Integrated Network	Survey
97. Michiana Home Care, Inc.	Survey
98. Michigan 211	Interview
99. Michigan Association of Air Medical Providers	Survey
100. Michigan Association of United Ways	Survey
101. Michigan Association of Health Plans	Interview
102. Michigan Chapter American College of Cardiology	Survey
103. Michigan Department of Corrections	Interview
104. Michigan Health and Hospital Association	Interview
105. Michigan Medicine	Interview
106. Michigan Pharmacists Association	Interview
107. Michigan Sheriff's Association	Interview
108. Michigan Works! Northeast Consortium	Survey
109. Mid Michigan Community Action	Survey
110. Mid State Health Network	Survey
111. Midland County Educational Service Agency	Survey
112. MidMichigan Collaborative Care Organization	Survey
113. MiHIN	Interview
114. Momentum Center	Survey

Stakeholder Organization	Engagement Type
115. Monroe County Opportunity Program	Survey
116. MPRO	Survey
117. Munson Health Care	Interview, Survey
118. Munson Medical Center	Survey
119. Muskegon County FOC	Survey
120. Network180	Survey
121. New Paths Inc	Survey
122. Newaygo CMH	Survey
123. North Country CMH	Survey
124. Northern Lakes Community Mental Health Authority	Survey
125. Northern Michigan CHIR	Interview
126. Oakland Community Health Network	Survey
127. Olympia Medical LLC	Survey
128. Ottawa Community Schools Network	Survey
129. Ottawa Department of Public Health	Comment Submission
130. Packard Health	Survey
131. Pathways CMH	Survey
132. PCE Systems	Interview
133. Physician Organization of Michigan ACO	Interview
134. Pine Rest Christian Mental Health Services	Interview, Survey
135. Pioneer Resources	Survey
136. Public Health, Delta & Menominee Counties	Survey
137. Recovery Technology, LLC	Survey

Stakeholder Organization	Engagement Type
138. Region 2 Area Agency on Aging	Survey
139. Region 4 Area Agency on Aging	Survey
140. RELIANCE HEALTH	Survey
141. Robert Jackson	Survey
142. Saginaw Housing Commission	Survey
143. Saline Optometry	Survey
144. Salvation Army	Survey
145. Skiba Vision Center	Survey
146. Society of St. Vincent de Paul - Detroit	Survey
147. South Side Community Coalition	Survey
148. Southwest Michigan Community Mental Health	Survey
149. Spectrum Health System	Interview
150. St Johns Smiles	Survey
151. St. Clair County Health Department	Survey
152. St. Joseph County ISD/EHS	Survey
153. St. Joseph Mercy Oakland Hospital	Survey
154. Sterling Area Health Center	Survey
155. Superior Watershed Partnership	Survey
156. The Disability Network	Survey
157. The Other Way Ministries	Survey
158. The Ottawa County Department of Public Health	Survey
159. The Physician Alliance	Survey
160. The Right Door for Hope Recovery and Wellness	Survey

Stakeholder Organization	Engagement Type
161. The Senior Alliance, Area Agency on Aging 1-C	Survey
162. Thresholds Inc	Survey
163. Traverse Health Clinic	Survey
164. Tri-County Office on Aging	Survey
165. Tuscola County Health Department	Survey
166. University of Michigan Health System	Interview, Survey
167. Upper Peninsula Health Plan	Interview
168. Upper Peninsula HIE	Interview
169. Van Buren CMH	Survey
170. War Memorial Hospital	Survey
171. Wayne State Center for Behavioral Health and Justice	Interview
172. Wayne State Dept. of Emergency Medicine	Interview
173. West Michigan CMH	Survey
174. YWCA Greater Flint	Survey

Appendix D: Glossary of Acronyms and Terms

Term	Definition
42 CFR Part 2	42 CFR Part 2 is a federal regulation that applies to all records relating to the identity, diagnosis, prognosis, or treatment of any patient in a substance abuse program that is conducted, regulated, or directly or indirectly assisted by any federal department or agency, and establishes how consent for those records must be managed.
ACO	Accountable Care Organization. An ACO is a healthcare organization characterized by a payment and care delivery model that seeks to tie provider reimbursements to quality metrics and reductions in the total cost of care for an assigned population of patients.
ACRS	Active Care Relationship Service, a MiHIN service providing data showing attribution of persons to healthcare and community service providers indicating a relationship between the person and the provider of an “active care” nature.
AIU	Adopt, Implement, and Upgrade. Part of the CMS Promoting Interoperability Programs and a process by which professionals, hospitals and critical access hospitals adopt, implement and upgrade health information systems and technology.
Care*e*Quality	Care*e*Quality is a national public-private collaborative that facilitates agreement among diverse stakeholders to develop and maintain a common interoperability framework enabling exchange between and among data-sharing networks. Care*e*Quality is coordinated by The Sequoia Project.
CedarBridge Group LLC	The consulting firm contracted by MDHHS to conduct an environmental scan of health IT in Michigan, develop recommendations for inclusion in the Five-Year Health IT Roadmap, and draft the Roadmap and other deliverables as part of this project.
CEHRT	Certified Electronic Health Record. Software for maintaining patient records certified by CMS as meeting the standards for health information collection, storage, and meaningful use of data and eligible for the EHR incentive program.
CIE	Community Information Exchange, a government, public or private entity providing information exchange services for community service providers that remediate social barriers to good health outcomes and

Term	Definition
	provide services and supports to individuals, families and households who experience those barriers.
CINs	Clinically Integrated Networks. As healthcare systems transition to value-based care, they might reorganize into a clinically integrated network to allow for employed and affiliated providers to jointly negotiate with payers. Development of this kind of network means developing a team of primary care and specialty physicians to actively participate in a streamlined care delivery model.
Closed-loop Referral Platforms	Technology platforms that enable referral tracking for the referral sending organization to find out what happened after a referral is made including referral acceptance, patient contact, receipt of services, especially between healthcare and community-based organizations for the coordination of services that address individuals' social determinants of health.
CommonWell	CommonWell is a non-profit trade association of EHR vendors working to achieve cross-vendor interoperability that assures provider access to personal health information.
Community-based Organizations	Organizations or institutions who are not traditional healthcare providers but whose work intersects with the healthcare system.
CMS	Centers for Medicare and Medicaid Services. CMS is the federal agency within the US Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards.
COVID-19	A respiratory illness caused by a virus named SARS-COV-2, Coronavirus *(Severe acute respiratory syndrome coronavirus 2 of the genus Betacoronavirus)*, one of a large family of respiratory viruses capable of producing severe symptoms and in some cases death, especially in older people and those with underlying health conditions. It was originally identified in China in 2019 and became a pandemic in 2020.
Direct Messaging	Direct messaging is a secure, encrypted web-based communication system for physicians, nurse practitioners, physician assistants, and other authorized users to share protected health information.
eCQM	Electronic Clinical Quality Measures. eCQMs are tools that help measure and track the quality of health care services provided by providers within the healthcare system. To report CQMs electronically

Term	Definition
	from an EHR, electronic specifications must be developed for each CQM. The specifications can be captured or stored in the EHR so that the data can be sent or shared electronically.
eHealth Exchange	The eHealth Exchange, formerly the Nationwide Health Information Network Exchange, is a community of exchange partners (including federal agencies, private healthcare organizations, and HIEs), that share information under a common trust framework and a common set of rules. The Sequoia Project is the non-profit organization under which the eHealth Exchange operates.
EHR	Electronic Health Record. An EHR is an electronic version of a patient's medical history, maintained by a provider over time, which usually includes key clinical data relevant to that person's care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports.
EP	Eligible Professional. In this instance a health professional eligible for the CMS EHR incentive program.
Encounter Alerts	An encounter alert is a notification sent to an attributed provider that a patient has been admitted, discharged, or transferred from a hospital.
q	e-Prescribing is a provider's ability to electronically send a prescription directly to a pharmacy from the point of care.
Health Equity	Health equity is the attainment of the highest level of health for all people. Achieving health equity requires valuing individuals equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.[2]
HIE	Health Information Exchange. The term "HIE" can be used as a verb (the electronic exchange of health-related data) or as a noun (organizations dedicated to the secure exchange of health-related data). HIE organizations (or groups of organizations) are responsible for coordinating the exchange of protected health information in a

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[2] U.S. Department of Health and Human Services, Office of Minority Health. (2011, April). National Stakeholder Strategy for Achieving Health Equity. doi: https://minorityhealth.hhs.gov/npa/files/Plans/Toolkit/NPA_Toolkit.pdf

Term	Definition
	region, state, or the nation. HIEs are also known as Health Information Organizations (HIOs).
HIMSS	Healthcare Information and Management Systems Society, Inc. A non-profit global thought leader supporting the transformation of the health ecosystem through information and technology.
HIPAA	Health Information Portability and Accountability Act. The HIPAA Privacy Rule establishes national standards to protect individuals' medical records and other personal health information and applies to health plans, healthcare clearinghouses, and healthcare providers that conduct certain healthcare transactions electronically. The Rule requires appropriate safeguards to protect the privacy of personal health information and sets limits and conditions on the uses and disclosures that may be made of such information without patient authorization. The Rule also gives patients certain rights over their health information, including rights to examine and obtain a copy of their health records and to request corrections.
HITC	Health Information Technology Commission. Created by Public Act 137 of 2006 and housed within MDHHS. The Commission's mission is to facilitate and promote the design, implementation, operation, and maintenance of an interoperable health care information infrastructure in Michigan and sets policy for Michigan Health Information Technology. As the Michigan Health Endowment fund grantee, oversees MDHHS and the contractor, CedarBridge Group LLC, who make up the Michigan health IT Five-Year Health IT Roadmap project team.
HITECH Act	Part of the 2008 American Reinvestment and Recovery Act of Congress, appropriating funding and enacting federal requirements for Health data standards and exchange.
HIMSS	Healthcare Information and Management Systems Society, Inc. A non-profit global thought leader supporting the transformation of the health ecosystem through information and technology.
HRSA	Health Resources and Services Administration. The federal government agency that provides oversight of safety net providers know as Federally Qualified health Centers (FQHC(>
IDN	Integrated Delivery Network. A network of providers of healthcare and health-related services that includes most or all of the provider types necessary to meet all of a person's needs, and integrated in

Term	Definition
	ways designed to mutually benefit entities who participate in the network. Some providers in the IDN may be owned by others, such as an IDN formed by a hospital and associated physicians, labs, imaging centers, home health, and other inpatient, outpatient, ambulatory, therapists, ancillary providers, and others.
Interoperability	Interoperability refers to the ability for systems to exchange data and operate in a coordinated, seamless manner.
LTPAC	Long-Term Post-Acute Care. Long-term and post-acute care settings include inpatient rehabilitation facilities, assisted living facilities, skilled nursing facilities, nursing homes, and home health agencies, among others who provide care services to patients for an extended period.
MAPS	Michigan Automated Prescription System (MAPS). MAPS is a state-run electronic database used to track the prescribing and dispensing of controlled prescription drugs to patients.
MDHHS	Michigan Department of Health and Human Services. This department of state government established policy and operates the state’s health and human services programs.
MHEF	Michigan Health Endowment Fund, which provided funding through a grant for this project to Develop Michigan’s Five-Year Health IT Roadmap.
MiHIN	Michigan Health Information Network Shared Services (MiHIN) is a public and private nonprofit collaboration dedicated to improving the healthcare experience, improving quality and decreasing cost for Michigan’s people by supporting the statewide exchange of health information and making valuable data available at the point of care.
MPI	Master Patient Index. MPIs store, and cross-reference, unique patient identification for every patient in an HIE or health system.
MSSP	Medicare Shared Savings Program. The MSSP was established by the Affordable Care Act to facilitate coordination and cooperation among providers to improve the quality of care for Medicare Fee-For-Service (FFS) beneficiaries and reduce unnecessary costs. Eligible providers, hospitals, and suppliers participate in the MSSP by creating or participating in an ACO.

Term	Definition
OMB	Federal Office of Management and Budget.
ONC	Office of the National Coordinator, within The Centers for Medicare and Medicaid Services (CMS) is part of the agency that conducts federal rulemaking for Health Information Technology and health data exchange.
PBM	Pharmacy Benefit Manager. A PBM is a third-party administrator of a prescription drug program. PBMs are primarily responsible for developing and maintaining formularies, contracting with pharmacies, negotiating discounts and rebates with drug manufacturers, and processing and paying prescription drug claims.
PCMH	The Patient Centered Medical Home (PCMH) Initiative was the core component of the State Innovation Model (SIM) strategy for coordinated care delivery, focused on developing and testing service delivery models to achieve better care coordination, lower costs, and improved health outcomes for Michiganders. The SIM PCMH Initiative is built upon the principles of a patient-centered medical home that generally define the model regardless of the designating organization. Value is placed on core functions of a medical home, such as enhanced access, whole-person care, and expanded care teams that focus on comprehensive coordinated care.
PD	Provider Directory, MiHIN's database of providers of healthcare and health-related services in Michigan, many of whom participate in health information exchange.
PHI	Protected Health Information. PHI refers to all individually identifiable health information held or transmitted by a covered entity or its business associate, in any form or media, whether electronic, paper, or oral. PHI is protected by the requirements of the HIPAA Privacy Rule.
PO	A Provider Organization. A group of providers of healthcare or health-related services formed for various reasons including but not limited to establishing shared services, negotiating payer contracts, and other services.
Query-based exchange	Query-based exchange is the ability for providers to search for and/or request a patient's health information from another provider.
RSC	Roadmap Steering Committee, a committee formed by the HITC comprised of HITC Commissioners who provide steering to MDHHS

Term	Definition
	who, with CedarBridge Group LLC, the consultants, make up the Michigan Five-Year Health IT Roadmap development project team.
SAMSHA	Substance Abuse and Mental Health Services Administration of the federal government.
SDoH	Social Determinants of Health. Factors in the environments in which individuals are born, live, learn, work, play, worship, and age that affect a wide range of health, function, and quality-of-life outcomes and risks. Examples of social determinants include socioeconomic conditions; access to educational, economic, and job opportunities; public safety; and access to healthcare services.
SSA	Social Security Administration. The SSA is an independent agency of the US government that administers a social insurance program consisting of retirement, disability, and survivors' benefit. The SSA is the largest social welfare program in the US.
Telehealth	The use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.
Whole-Person Care	Whole-person care is the coordination of health, behavioral health, and social services centered around a patient with the goal of improved health outcomes and more efficient and effective use of resources.
VA	US Department of Veterans Affairs. The VA is responsible for providing services to US veterans. The VA provides healthcare services and benefits programs to former military personnel and their dependents.
VBP	Value-Based Payment. Models that aim to drive system change towards greater efficiency and improved health outcomes. In contrast to traditional fee-for-service payment models that are based on the volume of care provided, value-based payment models reward providers based on achievement of quality goals and, in some cases, cost savings.

Appendix E: Current Policy Framework

References to MDHHS Policy Framework Documents

MDHHS State Innovation Model (SIM) ***Operational Plan, Award Year 4***

The SIM Operational Plan contains detailed descriptions of Michigan's state vision and planning for innovation in several areas of health and healthcare, including service delivery and payment models, quality measurement, population health, workforce capacity, healthcare transformation, and others. Among these is the Policy and Operational Area of *Health Information Technology.* Topics addressed include the technology component governance, SIM technology overview, and sandbox use case analytics.

MDHHS Key Goals for Fiscal Years 2020-2025

The ambitious goals in MDHHS' Mission, Vision, and Values include improving maternal-infant health and reducing outcome disparities, reducing lead exposure for children, reducing maltreatment and improving permanency in foster care, expansion of safety net access, protecting the gains of the Health Michigan plan, and addressing food and nutrition, housing, and other social determinants of health, Integrate services including physical and behavioral health, and medical care with long term support services, reduce opioid and drug related deaths, and ensure all administrations are managing to outcomes and investing in evidence-based solutions. Key strategies, processes, and measures are included.

Michigan Primary Care Consortium – May 2017

The Primary Care Consortium planning work included a vision for HIT/HIE driven by the models for transformation and innovation underway in Michigan, including the Community Health Investment Regions (CHIRs, regional collaborations developed under Michigan's SIM grant; the enhanced care coordination and strengthened primary care infrastructure under the Medicaid Managed Care Organizations; Accountable Systems of Care (ASC) and Patient-Centered Medical Homes (PCMH) initiatives; and other alternative payment models (APMs).

MDHHS Comprehensive Quality Strategy, 2020-2023

The MDHHS Comprehensive Quality Strategy provides details on the Medicaid quality programs with five goals, each of which will require health IT systems and access to data. The strategic goals are:

Goal #1: Ensure high quality and high levels of access to care

Goal #2: Strengthen person and family-centered approaches

Goal #3: Promote effective care coordination and communication of care among managed care programs, providers, and stakeholders (internal and external)

Goal #4: Reduce racial and ethnic disparities in healthcare and health outcomes

Goal #5: Improve quality outcomes and disparity reduction through value-based initiatives and payment reform

*Michigan **State Medicaid HIT Plan** Version 1.2*

Published in May 2011 and due for an update. The plan describes the HITC, MiHIN, HIE governance strategies, state health IT systems, EHR adoption, e-prescribing, ARRA projects, the statutory framework for HIE, and ambitious goals for future state of health IT. A revised plan is currently being prepared by MDHHS for submission to CMS.

Background on Expansion of Broadband and High-Speed Internet Access

The National Governor's Association (NGA) published a white paper containing proposed strategies for expanding broadband and high-speed internet access to improve healthcare access and affordability forrural communities across the nation. Access to affordable broadband is a long-standing priority for Governors, to unlock access to telehealth and create other opportunities for transforming healthcare delivery. The COVID-19 pandemic has increased urgency for expansion of broadband. Key strategies include:

- Establishment of robust, cross cutting governance structures
- Initiation of public-private partnerships between state, county, and local governments,and the private sector to kickstart new investments
- Leveraging of anchor institutions and existing infrastructure, including electric utilities toprovide rapid expansion
- Coordination and expansion of affordability programs
- Deployment of innovative procurement strategies
- Identifying funding and financing sources, including leveraging federal funding in the CARES Act

Connected Nation published a policy brief in September 2019 with an update to broadband funding in Michigan. The FCC's ***Connect America Fund*** continues to invest substantial amounts to funding underserved and unserved areas and 26 Michigan counties are sharing $34M over 10 years to bring service to over 21,000 locations across the state.

The ***Connected Nation Michigan*** website contains recommendations for helping communities get connected as part of response to COVID-19, and Michigan has an ***August 2018 Broadband Roadmap*** to increase high-speed, secure, dependable, and affordable broadband based on Governor's Executive Order 2018-2, creating the Michigan Consortium of Advanced Networks (MCAN).

2006 Conduit to Care Report

Michigan's long-referenced strategic plan for health IT and HIE services, last updated in 2010. The report will be a guide and reference for the *Five-Year Statewide Health IT Roadmap*.

2010 State of Michigan MiHIN Shared Services ***Strategic Plan***

The MiHIN Shared Services Strategic Plan was endorsed by the MiHIN Governance Workgroup by unanimous vote on April 22, 2010, and endorsed by the Michigan Health Information Technology Commission by unanimous vote on April 22, 2010. Membership of the Michigan Health Information Technology Commission can be found in the Governance domain section in this Strategic Plan.

Michigan Health Information Technology Commission ***2019 Annual Report***

A 2019 edition of an annual report developed by the members of the Health Information Technology Commission (HITC) detailing the commission's findings and strategic recommendations for the standing committees of the legislature for the 2020 session. The commission unanimously adopted two resolutions to plan for a process to update the 2006 Conduit to Care Report. The commission dedicated itself to the updating the state's HIT strategy and "create a 5-year strategy roadmap." Secondly, the commission affirmed its role as project sponsor to lead the strategy refresh. This annual report also contains updates on the three 2018 topics, and a preview of 2020 HIT commission activities.

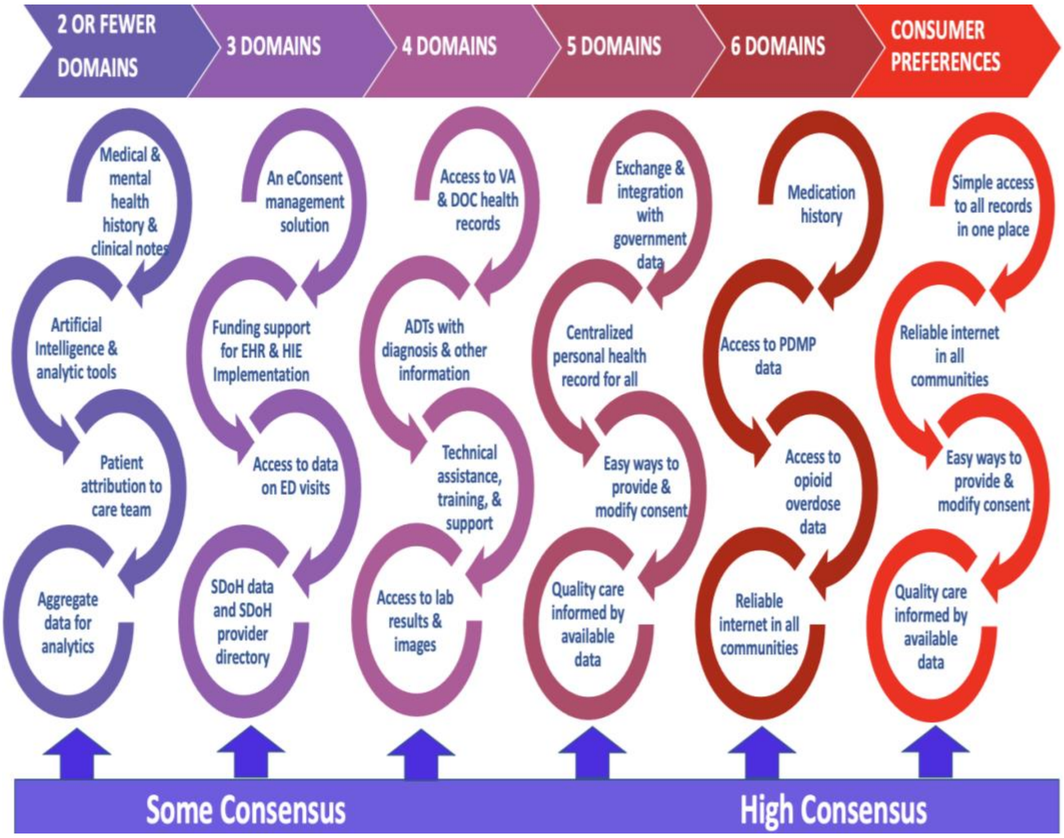
*Documentation from the Office of the National Coordinator (****ONC Health IT Certification Program Overview****)*

The Office of the National Coordinator for Health Information Technology (ONC) operates the ONC Health IT Certification Program (Program) under the authority granted by section 3001(c)(5) of the Public Health Service Act (PHSA) and as defined in the Health Information Technology for Economic and Clinical Health (HITECH) Act. The voluntary Program is a third-party conformity assessment program for health information technology (health IT) based on the principles within the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) framework.

Appendix F: Standards Used to Collect Social Determinants of Health Data

Provider Domain	Standards Currently in Use by Michigan Stakeholders for SDoH
Ambulatory Providers	**Ambulatory provider** stakeholders reported collecting race and ethnicity data via a mixture of internally determined standards and U.S. Department of Health and Human Services (USHDDS) standards.
Behavioral Health	**Behavioral health** stakeholders reported collecting race and ethnicity data using a mixture of internally determined standards; the federal Office of Budget and Management (OMB) standards, USDHHS standards. 45% of stakeholders reported not knowing the standard being used.
Hospitals & Health Systems	**Hospitals and health system** stakeholders reported collecting race and ethnicity data using a mixture of internally determined standards, 0MB standards, and USDHHS standards.
Long-Term Care	**Long-term post-acute care** stakeholders reported collecting race and ethnicity data using a mixture of internally determined standards, 0MB standards, and USDHHS standards. 55% of respondents indicated uncertainty about the standards being used.
Public Health	**Public health** stakeholder organizations reported collecting race and ethnicity data using primarily USDHHS standards, with some using 0MB standards, and a very few reported using internally determined standards. Most public health organizations reported using commonly accepted SDoH screening tools, however it does not appear that one assessment tool is dominant.
Social Service Organizations	**Social services** stakeholder organizations reported collecting race and ethnicity data using standard categories determined by their funding fiduciary; USDHHS standards, 0MB standards, internally determined standards, and school standards were named. 17% of respondents were unsure of the standard used.

Appendix G: Stakeholder Wish Lists



Ambulatory Provider Wish List

- Access to the **"best possible" history of medication data** is a high priority for all stakeholders.
- Providers need more **clinical data** at the point of care, especially **lab results, radiology image, and care summaries** from other providers.
- Better **access to PMP AWARxE**, Michigan's prescription drug monitoring program system, also known as MAPS, and to University of Michigan's System for Opioid Surveillance (SOS). Stakeholders would like to connect through MiHIN to access these services through a single sign-on portal.
- Access to **Veterans Administration** and **Department of Corrections** health records through MiHIN or a qualified partner HIE.
- Support for provider practices to **onboard to HIE services** with MiHIN and/or Qualified Partner organizations. Policymakers and health plans might consider incentive payments for HIE participation and including a quality measure for data sharing in value-based contracts.

Emergency Medical Services Wish List

- **Mobile access** to **medication lists**, **diagnosed conditions**, and information about **severe allergies** would be useful when time is limited in emergency settings. Making the **EMS-entered data in MI-EMSIS available to hospitals and care coordinators** is also a priority, to save time and improve coordination in care transitions.

- **Access to physician orders for life sustaining treatment (MI-POST forms)**, and other **advance care plan documents** through an **online registry** is a high priority to EMS providers (also hospitals and health systems).

Behavioral Health Wish List

- **Access to funding** (in the form of grants, loans, incentive payments, quality payments, other) for behavioral health providers **to adopt EHRs and onboard to HIE services**.
- Access to **more complete clinical information** about individuals, including **social needs assessments**.
- **Technical assistance and ongoing training** in effective use of health IT to support more integrated models of care.
- A **statewide consent management** solution to improve care and reduce risks of sharing sensitive data.

Long-Term Care Wish List

- **More clinical information** about the patients they care for, especially upon intake when patients are transferred from an acute care facility to a long-term care facility.
- **Medications and diagnosis information in ADT messages** from hospitals and emergency departments, lab results and radiology images with reports, care summaries, and access to Veterans Administration health records are all priority data types for providers in this domain.
- **Access to patients' behavioral health information**, **trauma history**, and **social needs assessments** done prior to intake.

Public Health Wish List

- Many data sources and systems were identified as high priorities for this historically underfunded sector of healthcare. More information on patients' **health histories** is desired by public health providers for improving delivery of care and services.
- The pandemic has highlighted the need for more **training and technical assistance** to improve the technology skills of the public health workforce.
- Priorities are **analytic solutions** for measuring population health and additional **aggregated data sources** (population health level).

Hospitals & Health Systems Wish List

- **Expanding broadband** service across Michigan for ubiquitous high-speed internet service will reduce health disparities and save lives in rural communities.
- **Statewide Identity Services** managed as a public utility will lower administrative costs for hospitals and health systems and improve data quality across all systems.
- **Electronic Advance Care Plan Registry and real-time Death Registry** are investments desired at the statewide level.

Social Services Wish List

- Social services and community-based organizations have many priorities in common with provider domains in healthcare; these stakeholders often have more needs for **technology onboarding and training support**.
- **Electronic consent management** is a priority of social services organizations. Stakeholders see opportunities increase confidence in sharing information between organizations, reduce legal and operational barriers to care coordination, and to support client choice around the use of personal data.

Consumers' Wish List

- **More transparency to consumers** regarding how individual data is used and shared by organizations providing or paying for healthcare and social services.
- Make **educational materials with clear information** available to consumers about how to opt-in and opt-out of electronic health information exchange, and how to revoke or change a prior choice made about data use and data sharing.
- A **single patient portal** that can pull the individual records together into a consolidated view.

Health Plan Wish List

- Michigan payers are aligned around setting a Roadmap priority for **improving data quality.**
- The health plans would like for the **hospital** A**DT notifications to include diagnosis and medication information.**
- Health plans are interested in exploring additional **statewide health IT services**; insurers with smaller market share want to be more engaged in planning processes to **ensure investments in shared services will benefit all Michiganders**.