THE Download

A monthly webinar diving into the intersection of healthcare and technology
Michigan Health Information Network
Shared Services (MiHIN) is a non-profit organization that provides technology and services to connect disparate sectors, our stakeholders, to securely, legally and technically share health information.

An unbiased data trustee, MiHIN does not provide health care services, produce health care data or compete in the marketplace.

Instead, we help convene to share vital health information to advance care, better outcomes and lower costs.

Technology is a tool. Humans are the energy! Technology is meant to support the human ability to connect, communicate, and collaborate.
Today’s Agenda

01. Welcome
   Joanne Jarvi

02. MiHIN 101
   Joanne Jarvi

03. Adjourn
   Joanne Jarvi
Communication, the *successful* conveying or sharing of ideas, is more critical than ever.

Every communication involves (at least) one sender, a message and a recipient.

**Data** is not always communicative.

Technological Infrastructure + Human Infrastructure

- **Joanne Jarvi** (Facilitator)
- **Katelyn Lewis** (Webex Chat Moderator)
1. WHY?

2. WHO

3. HOW

4. WHAT

The Group Development Model
(with special thanks to MHEF and MPHI)

Feedback

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WHY?
Data for Good
WHY?
Data for Good

Act
Data Steward
Collaboration
Protect
Every year in the US, an estimated $760 to $935 billion is wasted through overtreatment, poor coordination and other failures, amounting to about a quarter of total U.S. health care spending.

Nationally, an estimated 251,454 people die annually from medical errors.

Adjusted for MI (3.09% of US population) that is 7,768 people a year or over 8 times more people than those who die from car crashes annually in Michigan.
The GOALS of Health Information Exchange

- Reduced inefficiencies
- Improved healthcare access
- Lower healthcare costs
- Better quality of care & health outcomes
- Personalized medicine for patients
Infrastructure, Standards and Guiderails
MiHIN Network is a state-wide digital fabric of TRUST
For WHOM

With WHOM

By WHOM?
The value of HIE cannot be defined solely in terms of benefits accrued to providers or any other single group.

The value of HIE cannot be parceled out in such a minute fashion but must be considered in terms of benefits to all participants in the healthcare system: patients, providers, payers, and communities.

Additionally, HIE requires collaboration among competitors and the healthcare industry has difficulty with this prospect. Other equally competitive industries have managed to survive and thrive with information exchange.

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doi: 10.1136/jamia.2010.003673

Health information exchange: persistent challenges and new strategies
ACRS (Active Care Relationship Service): Its About Making It All Patient Centered

**Objects**
Real-world objects like patients, providers and organizations and abstract concepts like zip codes, dates, risk scores, social needs and many others.

**Relationships**
A logical association between two objects – Provider A cares for Patient B; Patient B lives in Zip Code 49424

**Semantics**
Indicates the meaning of objects and relationships – Provider A has a treatment relationship with Patient B; Provider A is a Primary Care Physician
Brief History: Michigan Health Information Network Shared Services

Federal Office of National Coordinator establishes State Health Information Exchange Cooperative Agreement Program

Michigan forms Health Information Technology Commission, which establishes MiHIN.

Active Care Relationship Service (ACRS) and Admission Discharge, Transfer (ADT) Notifications go live

97% of Admissions Discharge Transfer Notifications statewide sent through MiHIN

Common Key Service introduced for patient matching

131,133,812 cumulative Immunization Queries

Velatura Public Benefit Corporation and Interoperability Institute established

MiHIN completes its corporate affiliation of Great Lakes Health Connect (GLHC)

More than 100 M messages routed through statewide network

More than 1 BILLION messages routed through statewide network
MiHIN Governance Model
BEFORE: Duplication of effort, waste and expense

Michigan’s “network of networks”
Many networks connecting regional health providers

Regional health information exchange

- Patients & Families
- Physicians
- Specialty Providers
- Health Plans
- Medications
- Hospitals & Clinics
- Lab tests & XRAYs

Logos and organizations:
- UPHIE
- Ingenium
- PatientPing
- Community Health Technology Network
- Human Valley Physicians Association
- Oakland Physician Network Services
- Michigan Health Information Exchange

Copyright 2022
Michigan’s “network of networks”

SINCE 2010:
Connect once to access shared services

Regional health information exchange
Michigan’s “network of networks”

TOMORROW: Connect once to access interstate data exchange, leveraged under the ONC Trusted Exchange Framework and Common Agreement

I need the medical history for my new patient!

Out of state health information network
Out of state health information network
Out of state health information network
Out of state health information network
Regional health information exchange
"Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap." The Office of the National Coordinator for Health Information Technology. Final Version 1.0.
HOW does it all work?

HL7 ADTS, CCDAS, ORU, ETC.

data format
It’s not all digitized in healthcare

data complexity
from humans to data warehouses

data definitions
subjective based on source

data structure
structured vs non-structured

location
where is your data?

regulations & requirements
keeping up with the government

LATE BINDING DATA WAREHOUSE

INTERNAL UTILIZATIONS:
HEDIS, RISK ADJUSTMENT, CARE COORDINATION, SDOH, PATIENT HISTORY, MEDICATIONS, ETC.
HOW does it all work?

Connect Department of Health and Human Services and healthcare organizations in Michigan including:
- Health systems, physician organizations, health plans, pharmacies, etc.

Maintain statewide master data sharing infrastructure

Convene stakeholder groups to identify data sharing barriers, reduce provider burdens, engage consumers, and enable population health

Manage statewide legal trust framework

Align incentives and/or regulations to fairly share data and promote data standardization via use cases
Clear Chain of Trust
How the Health Information is Exchanged...

Covered Entity

Trusted Data-Sharing Organization

MiHIN

Trusted Data-Sharing Organization

Covered Entity

Business Associate

Business Associate

Covered Entity
Use Case
One or more scenarios to share specific information

Each use case has its own:
• Purpose
• Type of information exchanged
• Description of interactions between people/systems

Examples of use cases:
• Immunizations
• Admission Discharge Transfer (ADT) Notifications

Each use case may have different:
• Participants/interested parties
• Scenarios for information-sharing
• Rules for using the information
• Technical requirements
• Access restrictions
• Cost recovery fees or charges

Anyone can suggest a use case at https://mihin.org/submit-use-case-idea/
Use Case Factory

How does it work?

Adoption
- Critical Mass

Conceptual
- Define purpose
- Evaluation

Implement
- Production Status
- Metrics

Plan and Develop
- Technical Planning
- Pilot and Refine

Mass Marketing & Outreach
Successful Adoption

Functional Data-Sharing Widget
...onto MOAC and the MiHIN Board

Continuous Improvement.
...Bringing us back to...

Idea with Sponsor
Phase 1

CONCEPTUAL
An Idea with a Sponsor

Current Developing Use Cases
• Alert & Query
• Personalized Medicine
• Intelligent Query Broker

• Use Case Scenarios or Activities
  • Exchanging Lab Orders (technology not there yet)
  • Piloting with State Bureau of Labs on orders and results Consumer Choices
  • ACRS AWARE
  • ADT Privacy Tagging
Phase 2

PLANNING & DEVELOPMENT
Developing the Project

Current Use Cases Supporting Care Coordination
- Imaging
- Advanced Care Documents
- Statewide Telehealth
- Interoperable Referrals

Current Use Cases Supporting Public Health
- Death Notifications (for hospitals)
- Electronic Consent Management Solution (ECMS or Econsent)

Current Use Cases Supporting Quality Information and Administration
- Health Claims

- Use Case Scenarios or Activities
  - Out of State ADT’s
  - Cross Sector Data Sharing: First Responders
IMPLEMENTATION
Ensuring Successful Adoption

Current Use Cases Supporting Care Coordination
• Referrals
• Social Determinants of Health

Current Use Cases Supporting Public Health
• Electronic Case Reporting (eCR)
Phase 4

ADOPTION
Utilization, Demand, and Sustainability

Current Use Cases Supporting Care Coordination
- Admission, Discharge, Transfer Notifications
- Exchange Consolidated Clinical Document Architecture
- Longitudinal Record

Current Use Cases Supporting Public Health
- Health Information for State
- Immunization History Forecast
- Syndromic Surveillance

Current Use Cases Supporting Results Delivery
- Lab Orders-Results (Cancer Notifications, Cancer Pathology, Newborn Screenings, Reportable Labs, Blood Lead, Disease Surveillance)
- Radiology Studies
- Transcribed Document Delivery

Current Use Cases Supporting Quality Information and Administration
- Physician Payer Quality Collaborative (QMI)

Current Use Cases Supporting Network Infrastructure
- Common Key Service
- Active Care Relationship Service
- Health Directory

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The WHAT:
The Use Case determines the Service which can be operationalized by the Solution
<table>
<thead>
<tr>
<th>No.</th>
<th>Service Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>ADT Normalization &amp; Conformance</td>
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<td>2.</td>
<td>Active Care Relationship Service</td>
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<td>3.</td>
<td>C-CDA Normalization &amp; Conformance</td>
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<td>4.</td>
<td>Common Key Service</td>
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<td>5.</td>
<td>Connect to Cancer Registry</td>
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<td>6.</td>
<td>Coordinating the Care Coordinators</td>
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<td>7.</td>
<td>Covid-19 ACRS Batch Reporting</td>
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<td>8.</td>
<td>Death Notifications outbound</td>
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<td>9.</td>
<td>Direct Secure Messaging</td>
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<td>10.</td>
<td>eConsent</td>
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<td>11.</td>
<td>Electronic Case Reporting</td>
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<td>12.</td>
<td>Health Directory</td>
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<td>13.</td>
<td>Immunization for Schools (also known as Consumer Access)</td>
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<td>Immunization Query</td>
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<td>15.</td>
<td>Immunization Submission</td>
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<td>16.</td>
<td>Lab Conformance and Normalization</td>
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<td>17.</td>
<td>Longitudinal Patient Record</td>
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<td>19.</td>
<td>Newborn Screening Login Portal</td>
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<td>20.</td>
<td>Population Health (MDSS, MSSS, ADT/syndromic, CCHD, ORU)</td>
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<td>21.</td>
<td>PPQC (APS Files)</td>
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<td>22.</td>
<td>Public Health Reporting (MCIR: QBP, VXU)</td>
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<td>23.</td>
<td>Radiology Conformance and Normalization</td>
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<td>24.</td>
<td>Receive ADTs from External Facility</td>
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<td>25.</td>
<td>Receive C-CDA from external facility</td>
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<td>26.</td>
<td>Receive Death Notification</td>
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<td>27.</td>
<td>Receive External Lab Results</td>
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<td>Receive External Radiology Results</td>
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<td>29.</td>
<td>Receive Transcribed Documents</td>
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<td>30.</td>
<td>Reportable Labs to State of Michigan</td>
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<td>31.</td>
<td>Send Claims Data for Disease Registries</td>
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<td>32.</td>
<td>Send Ambulatory C-CDA</td>
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<td>33.</td>
<td>Sharing Integrated Care Bridge Record (ICBR)</td>
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<td>34.</td>
<td>Submission of SDOH Screening Forms to Route</td>
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<td>35.</td>
<td>Super C-CDA</td>
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<td>36.</td>
<td>Syndromic Surveillance</td>
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MiHIN Solutions

• MIGateway
  • TOC Viewer
  • Conformance Module
  • SDOH Screening Data

• Referrals Plus

• Care Convene

• Diretto (Direct Secure Messaging)

• Interoperability Station

• Interoperability Land (MELD)

• EDO with Point Click Care
AT SCALE: THE REQUIRED SIZE TO SOLVE THE PROBLEM

OVER 2 MILLION LABS FLOWING INBOUND TO MIHIN (MORE THAN 1 OUTBOUND PER 1 INBOUND APPLIES)

FORECAST THAT CALENDAR YEAR 2023 WE WILL LIKELY HIT A CUMULATIVE TOTAL OF 10 BILLION MESSAGES (WE ARE AT 7.5 BILLION NOW AND WE WENT UP 1.6 BILLION FROM Q3 2021 TO Q3 2022

AN AVERAGE OF ABOUT 7.5M ADTS IN AND 11.5 OUT MEANS THAT ANY WAY THAT YOU COUNT IT – WHEN WE FIND AN ACTIVE CARE RELATIONSHIP THEN WE TYPICALLY FIND MORE THAN ONE. THE SAME IS TRUE OF MEDREC.
Areas of opportunity

**Reduce health disparities and underlying drivers of inequities**, with solutions to bridge the digital divide, and give residents more control over their own health.

**Maximize the impact of public-private partnerships** by creating a statewide plan that can drive joint investments in interoperable HIT.

**Support systems** that address social determinants of health, with screening and referral systems, and integrated health and human services data.

**Expand real-time notifications and data exchange** to improve coordinated care delivery, follow up, and public health response.

**Enhance the use of data to measure performance and drive decision-making** in the public and private sectors, including improving standardization and completeness.

**Streamline activities across the system**, creating tools that reducing duplication of effort for providers and patients, and adopting a “build once” mindset.
High Level Priorities

Key Timelines for Open Data Access

Cures Act EHRs must certify & provide all three CURES Act APIs (consumer, physician, population “bulk”)

December 2022

CMS IP Rule physician fee schedule (final) Providers must adopt the 2015 Cures Update edition for an EHR reporting period in CY 2023

September 2023

Transparency in Coverage information for 500 shoppable services

January 2023

CMS Advancing Interoperability (proposed)

Payers must implement a Provider Access API making claims data available to provider partners

... January 2026

Provider Adoption (Cures Update)

September 30, 2023

Transparency in Coverage Shoppable Service Tool

January 2023 & 2024

Provider Access API and Prior Auth

January 2026

Cures Act (EHR Certification)

December 31, 2022
Interested in working with MiHIN?

The first step is to identify a use case with a manageable scope that can grow incrementally.

Does my organization have health data that other members of the care team would find valuable or vice versa?

Why do I want to share the data?

What is the data going to be used for?

From there, let’s work together to identify policy or governance challenges and figure out how to create a technology solution to enable that data sharing.
Upcoming Engagements

The Download
The Use Case Factory: From Conception to Adoption
Wednesday, February 15 from 10:00am-11:00am

Bits & Bytes
Admission, Discharge, Transfer Notifications (ADT) Use Case
Wednesday, February 22 from 2:00pm-3:00pm

THANK YOU!