Approaches to Provider Directory & Patient Index Solutions

Achieving large-scale statewide integration

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What we are doing at MiHIN

- Improving the healthcare experience for consumers & providers
- Improving quality
- Decreasing cost
- Enabling statewide exchange of health information
- Making valuable data available at the point of care
- For the people of Michigan
Network of Networks:

MiHIN Statewide Shared Services

Federal
Other Data Sharing Organizations
Consumer QOs (more coming)
HIE Qualified Organizations (QOs)
Providers & Health Systems
Sponsored Organizations

PriorityHealth
Meridian Health Plan
aetna
AmeriHealth
TOTAL HEALTH CARE
UPPER PENINSULA HEALTH PLAN
Blue Cross Blue Shield of Michigan

Other PIHPs (10)

Health Plan QOs

MHA Michigan Health & Hospital Association
MEDYEAR

MIHIN

Visa of Life

NoMoreClipboard.com

Virtual QOs

Walgreens
CVS
meijer
Spectrum Health

MSSS State LABS
MI Disease Surveillance System
MDHHS MIHIN Data Hub
MyHealthPortal
MyHealthButton

Immunizations

Data Warehouse

Chronic Diseases

Single point of entry/exit for state

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What’s our Strategy?

1. Welcome and convene all stakeholders to figure out what to do.

2. Get those who pay for or regulate care to incentivize providers to implement priority Use Cases to drive mass adoption.

3. Operate the critical shared infrastructure (legal, technical, and master data management) among all stakeholders.

4. Help doctors & physician organizations reduce burdens, waste, and barriers to change due to non-standardization and bad technology; start safely with public health then the overlap among care coordination, quality assessment, and finally payment reform.

5. Promote the lowest cost & open (DIRECT, FHIR) constrained standards.

6. As required, aggressively execute and innovate versus waiting for the industry, then contribute to the standards development with working code.

7. Prepare for the consumer engagement/empowerment opportunity.
Pivot Point

Burdens
Waste
Resistance to Change

Bad Technology
Lack of standardization
Path Through the Maze

- Public & Population Health
- Care Coordination
- Quality Improvement & Research
- Payment Reform
The Consumer Experience is Here

- Public Health
- Care Coordination
- Payment Reform
- Quality Improvement & Research
Critical Infrastructure Components

- Patient Provider Attribution Service (ACRS)
- Patient Consent Preferences
- Federated Identity Management (Single Sign-On)
- Gateway Services (e.g. XCA)
- Master Person Index + Common Key Service
- Identity Management
- Health Provider Directory

Secure Transport Layer Services and Digital Credentials
Directory Populations

- Provider directory includes Providers, Organizations, Affiliations and their electronic delivery preferences

- Consumer directory includes Consumers (Patients) and their preferences for storing and sharing their PHI

- Active Care Relationships connect them together into care teams

- All resources in same Salesforce instance
  - Provider objects are mostly public
  - Consumer objects are mostly private

- Salesforce data sharing rules preserve security, separation, and access control
Infrastructure to Support Valuable Use Cases

Provider Demographics
- Patient Provider Attribution
- Transitions of Care (ADTs)

Care Coordination Use Cases
- New: Medication Reconciliation
- New: Manage Attributions

Electronic Service Information
- NPPES / NPI Information

Consumer Use Cases
- Manage Care Teams
- Exchange Advance Directives

Quality Measurement Use Cases
- REPORTING
- FHIR APIs
- Directory Services
- FHIR APIs

Workflow & Tracking Use Cases
- Immunization Information Systems
- Program Onboarding

Licensing & Credentials
- NPI / NPI Information

New: Manage Attributions

7+ million unique patient records
6+ million/week
50,000/wk and growing

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1) Patient goes to hospital which sends message to TDSO then to MiHIN
2) MiHIN checks Active Care Relationship Service and identifies providers
3) MiHIN retrieves contact and delivery preference for each provider from HPD
4) Notifications routed to providers based on electronic addresses and preferences
Common Key Service (CKS)

- Provides consistent and reliable patient matching
  - Minimizes mismatches / finds right records
- Links individuals and their health information across multiple organizations, applications and services
- Improves patient safety through higher data integrity
- Reduces workflow significantly in care coordination
- Improves outcomes and reduces cost
- Enables mapping any HIT/HIE endpoint via CKS to State’s Master Person Index (MPI)
- Runs as web service with rich FHIR API for easy integration
- Using 1.4.0 FHIR release (CQF on FHIR Ballot + Connectathon 12 (Montreal) using HAPI-FHIR 1.5-DEV Java Library
CKS assignment workflow for hospitals

1) Patient goes to hospital which assigns MRN and generates ADT message
2) ADT message sent to MiHIN via TDSO for normal routing to ADT receivers
3) MiHIN accumulates A03 inpatient ADT messages which do not have the common keys for a period of time *(will be 100% of the time at first)*
4) MiHIN assembles patient list file and processes it through the CKS
5) MiHIN sends a flat file of A31 messages with the common keys to the hospital to store within their system during testing, moving to real-time over time
6) Hospital can now add common key to future messages for that patient
Quality measures overlap

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<th>Measure Set</th>
<th># of Unique Measures</th>
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<td>27</td>
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<tr>
<td><strong>Overlap</strong></td>
<td><strong>3</strong></td>
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</tbody>
</table>

Overlap: 3
Supplemental Data – Status Quo

Allscripts

NextGen

eCW

Wellcentive

PO 1

PO 2

PO 3

PO 4

HL7 Format

Meridian Format

“Group to BCN” Format

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Gaps in Care Reports – Status Quo

Priority HEDIS Engine

Meridian HEDIS Engine

BCBSM HEDIS Engine

Priority Portal

Meridian Portal

BCBSM Portal

PO 1

PO 2

PO 3

PO 4
Payer Filtering & Routing

All-payer / All-patient Quality Data

MiHIN ACRS

Payer-Filtered Data

Physician Organization

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One format and one location for:
- POs to submit quality measures
- Payers to submit Gaps in Care
- POs to close Gaps in Care
- Discussing FHIR resources for Gaps in Care with HL7, FHIR leadership
PPQC Data Flow

Physician Organizations

Supplemental Data

Close Gaps in Care

Gaps in Care Feedback

MiHIN
ACRS
CKS

Payers

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A Simplified Model for **Send**

- Public Health
- ADT
- Care Summary
- Cat1 Quality Measure
- Labs

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A Simplified Model for FIND

- FHIR
- IHE SOAP
- HL7 2.x QBP

Electronic Health Record(s)

Targeted Query vs RLS

ACRS Enabled Record Locator

ACRS

CKS

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Questions?

THANK YOU

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