

## HIE Study Methodology

February 2018

This study used information collected through a mix of modes, methods and data sources that included:

- Data from Minnesota's e-Health assessments, HIE service providers, grantee reporting, and state-certified health information organizations to describe HIE activity in MN.
- Semi-structured interviews with Minnesota stakeholder organizations.
- Stakeholder engagement meetings.
- Public comment period.
- Literature review to understand sustainability, transaction activity (when available), and legal, financial and regulatory frameworks used in other states, as well as types of HIE participants.
- Literature review of consent models used in other states, specifically to examine the specifications for other states that, similar to Minnesota, impose restrictions beyond federal HIPAA requirements (HIPAA+) and to identify issues that providers and vendors face in managing consent.

The scope of this study focused on HIE related to person and patient data used in clinical care, behavioral health, coordination of care, public health and population health goals for data exchanged between health care providers and organizations affected by Minnesota's Interoperability mandate.

Not in scope:

- Patient data for the purposes of billing and administrative transactions.
- Issues related to the purchase and installation of electronic health record systems across the continuum of care.
- Issues related to effective use of EHRs such as clinical decision support.
- Exchange of individual data within state government programs or within an individual organizational setting (e.g., a health system).

## Minnesota e-health assessment data

Minnesota collects data on e-health adoption, use and health information exchange from a variety of sources, including:

- Data from Minnesota's e-Health assessments of adoption/use of electronic health record systems and health information exchange. Settings surveyed include clinics, hospitals, nursing homes, and local public health departments. Reports and methods are available at <http://www.health.state.mn.us/e-health/assessment/index.html>.
- Required reporting from state-certified health information organizations (HIO) and health data intermediaries. Information on organizations that are connected to an HIO is available at <http://www.health.state.mn.us/e-health/hie/certified/hioconnections.html>.
- Required reporting by organizations that have received grant funding from MDH related to planning for and connecting to an HIO.

## Structured interviews with Minnesota stakeholder organizations

Interviews were conducted with 24 Minnesota health stakeholder organizations in person and by phone from April 13 to June 14, 2017. The names and organizations of the 67 individuals interviewed are listed in Appendix D.

Questions for the semi-structured interviews with key informants were adapted by the project team from Cross DA, Lin SC, Adler-Milstein J. "Assessing payer perspectives on health information exchange." *Journal of the American Medical Informatics Association* 2015;0:1-7. doi: 10.1093/jamia/ocv072. Project staff interviewed Julia Adler-Milstein, then at the University of Michigan, and Joshua Vest of Indiana University before adapting the questions to fit this research effort.

Pretest interviews were conducted with:

- Garrett Black, Blue Cross Blue Shield of Minnesota, 3/6/17
- Mary Thompson, Allina Health, 3/8/17

The interview guide was reviewed by the Steering Team (by email) from 3/10/17 through 3/20/17.

## Stakeholder engagement meetings

Meetings were held with key stakeholder groups to provide expert input and validate study progress. Meetings included:

- Project steering team meetings (5) on: 1/31/17, 5/16/17, 8/29/17, 11/14/17, 12/5/17.

- Minnesota e-Health Advisory committee meetings (8) on: 12/8/16, 2/16/17, 4/27/17, 5/18/17, 8/7/17, 9/7/17, 11/17/17, 12/8/17.
- Minnesota e-Health HIE Workgroup meetings (2) on: 2/7/17, 5/4/17
- Minnesota e-Health Privacy and Security Workgroup meetings (3) on: 7/11/17, 8/18/17, 9/6/17.
- Minnesota e-Health Summit presentation on 6/15/17.
- Discussions with state-certified HIOs (6/28/17), Minnesota's HIE Review panel (6/28/17), and state-certified HIE services providers (7/19/17).
- Discussion with Minnesota Council of Health Plans on 8/14/17.

## Public comment period

Public comment regarding the HIE findings and preliminary recommendations was requested from October 2 to 31, 2017. The public comment document included a narrative background, questions seeking specific input from responders, and instructions for responding. The public comment document is available at <http://www.health.state.mn.us/e-health/hie/study/hiestudy.public-comment-2017-10-02.pdf> and upon request to [mn.ehealth@state.mn.us](mailto:mn.ehealth@state.mn.us). MDH received comments from 101 individuals and organizations. A summary of the responses was presented to the steering team and advisory committee, and used to refine the study recommendations. The comments and summary are available upon request to [mn.ehealth@state.mn.us](mailto:mn.ehealth@state.mn.us).

## Literature reviews

### HIE models

A literature review was conducted with assistance from the Office of the National Coordinator for Health Information Technology under the supervision of subject matter expert Patricia MacTaggart. The review sought to describe sustainability, transaction activity (when available), and legal, financial and regulatory frameworks used in other states, as well as types of HIE participants. The review included Minnesota's border states (IA, ND, SD, WI) and six additional states that have operational exchanges (CO, MA, OH, OR, TX, WA). MDH staff supplemented this work with information from MI and NY based on characteristics of these HIE models.

### Consent models

A literature review of consent models used in other states examined the specifications for other HIPAA+ states and to identify issues that providers and vendors face in managing consent. The review was conducted by staff at the Minnesota Department of Administration, who are used by MDH to provide subject matter expertise on privacy and consent issues.

## Appendix A: Project team

### Minnesota Department of Health

- Karen Soderberg
- Jennifer Fritz
- Marty LaVenture
- Shirley Schoening Scheuler
- Anne Schloegel
- Melinda Hanson
- Bob Johnson
- Diane Rydrych

### Minnesota Management Analysis and Development

- Matt Kane
- Jim Jarvis

### Minnesota Department of Administration

- Stacie Christensen
- Laurie Beyer-Kropuenske
- Taya Moxley-Goldsmith

## Appendix B: Steering team

MDH recruited a steering team of subject matter experts from national contacts and the Minnesota e-Health Initiative. Members of this team advised the project team on study topics, findings and recommendations. Steering team members participated in five meetings, in person or via conference calls, over the course of the study.

The expertise and perspectives of the team members are shown in the table below:

| <b>Expertise:</b>                   | <b>Perspective:</b>                                 | <b>Team Member</b>   |
|-------------------------------------|---|--|
| MN HIE history                      | MN's HIE model; historical perspective on HIE in MN | Alan Abramson, HealthPartners  |
| Legal and patient consent           | MN and Federal laws; patient rights                 | Laurie Beyer-Kropuenske, MN Dept of Admin                                  |
| SIM Multi-Payer Advisory Task Force | Payers; ACOs  | Garrett Black, Blue Cross Blue Shield of Minnesota                         |
| SIM Community Advisory Task Force   | Population health improvement                       | Jennifer Lundblad, Stratis Health  |
| HIE expert                          | Informatics; data use                               | Brian Dixon, Riegenstrief Inst.  |
| HIE research                        | Methods; state models                               | Julia Adler-Milstein, Univ. of Michigan/UCSF<br>Joshua Vest, Indiana Univ. |
| <b>Settings:</b>                    |   |  |
| Hospitals                           | Priority HIE transactions                           | Mark Sonneborn, MN Hospital Assn   |
| Clinics                             | Priority HIE transactions                           | Deanna Mills, FUHN FQHC  |
| Local public health                 | Priority HIE transactions                           | Dan Jensen, Olmsted County   |
| Other non-meaningful use settings   | Priority HIE transactions                           | Todd Bergstrom, Care Providers of MN                                       |
| MN Department of Health             | Health policy                                       | Diane Rydrych  |
| MN Department of Human Services     | Medicaid; public health programs                    | Heather Petermann  |
| MN Department of Commerce           | Regulatory frameworks and concepts                  | Donna Watz, MN Dept of Commerce  |

## Appendix C: Minnesota e-Health Advisory Committee Members, 2016-17

**Alan Abramson**, PhD, *Advisory Committee Co-Chair*, Senior Vice President of Information Systems & Technology and Chief Information Officer, HealthPartners Medical Group and Clinics  
Representing: Health System CIOs

**Paul Kleeberg**, MD, *Advisory Committee Co-Chair*, Medical Director, Aledade  
Representing: Physicians

**Sunny Ainley**, Associate Dean, Center for Applied Learning, Normandale Community College  
Representing: HIT Education and Training  
Co-Chair: e-Health Workforce Workgroup

**Constantin Aliferis**, MD, MS, PhD, FACMI, Chief Research Informatics Officer, University of Minnesota Academic Health Center  
Representing: Academics and Clinical Research

**Laurie Beyer-Kropuenske**, JD, Director Community Services Divisions  
Representing: Minnesota Department of Administration  
Co-Chair: Privacy & Security Workgroup

**Lynn Choromanski**, PhD, RN-BC, Nurse Informaticist, Hennepin County Medical Center  
Representing: Nurses

**Cathy Gagne**, RN, BSN, PHN, St. Paul-Ramsey Department of Public Health  
Representing: Local Public Health

**Maureen Ideker**, MBA, RN, Director of Telehealth, Essentia Health  
Representing: Small and Critical Access Hospitals

**Mark Jurkovich**, DDS, MBA, Dentist, Gateway North Family Dental  
Representing: Dentists

**Heather Petermann**, Division Director, Health Care Research & Quality, Minnesota Department of Human Services  
Representing: Minnesota Department of Human Services

**Marty LaVenture**, PhD, MPH, FACMI, Director Office of Health IT and e-Health, Minnesota Department of Health  
Representing: Minnesota Department of Health

**Jennifer Lundblad**, PhD, President and Chief Executive Officer, Stratis Health  
Representing: Quality Improvement

**Bobbie McAdam**, Senior Director, Business Integration, Medica  
Representing: Health Plans

**Kevin Peterson, MD**, Family Physician, Phalen Village Clinic  
Representing: Community Clinics and Federal Qualified Health Centers

**Peter Schuna**, Chief Executive Officer, Pathway Health Services  
Representing: Long Term Care  
Co-Chair: Health Information Exchange Workgroup

**Jonathan Shoemaker**, Information Services Director of Clinical Application, Allina Health  
Representing: Large Hospitals

**Steve Simenson**, BPharm, FAPhA, President and Managing Partner, Goodrich Pharmacy  
Representing: Pharmacists

**Adam Stone**, Chief Privacy Officer, Secure Digital Solutions  
Representing: Expert in HIT

**Meyrick Vaz**, Vice President, Healthcare Solutions, Optum Global Solutions  
Representing: Vendors

**Cally Vinz**, RN, Vice President, Health Care Improvement Institute for Clinical Systems Improvement  
Representing: Clinical Guideline Development

**Donna Watz**, JD, Deputy General Counsel, Minnesota Department of Commerce  
Representing: Minnesota Department of Commerce

**John Whittington**, South Country Health Alliance  
Representing: Health Care Purchasers and Employers  
Co-Chair: e-Health Workforce Workgroup

**Ken Zaiken**, Consumer Advocate  
Representing: Consumers  
Co-Chair: Consumer Engagement Workgroup

## 2017-2018 Minnesota e-Health Advisory Committee – Designated Alternates

**Karl Anderson**, Global Digital Health Senior Manager, Medtronic

Alternate Representing: Vendors

**Sarah Cooley**, MD, MS, Assistant Professor of Medicine, Division of Hematology, Oncology and Transplantations, University of Minnesota

Alternate Representing: Clinical Research

**Kris Dudziak**, CHCE, Senior Manager Business Operations, Home Care, Hospice, and Geriatric Services, HealthPartners Medical Group and Clinics

Alternate Representing: Home Health

**Oyin Hansmeyer**, Consultant

Alternate Representing: Experts in Health IT

**George Klauser**, Executive Director, Altair-ACO, Lutheran Social Services

Alternate Representing: Social Services

**Sonja Short**, Associate CMIO, Fairview Health Systems

Alternate Representing: Physicians

**Mark Sonneborn**, Vice President, Information Services, Minnesota Hospital Association

Alternate Representing: Hospitals

**Susan Severson**, Director, Health IT Services, Stratis Health

Alternate Representing: Quality Improvement

**Ann Warner**, Manager, Data Engineering, HealthEast

Co-Chair: Health Information Exchange Workgroup

**LaVonne Wieland**, Compliance and Privacy Officer, HealthEast

Co-Chair: Privacy & Security Workgroup

## Appendix D: Structured interviews respondents

### Allina Health

- Stephanie Luthi-Terry, Director of Enterprise HIM Integration
- Careen Martin, Privacy Officer
- Jonathan Shoemaker, Chief Information Officer

### Blue Cross Blue Shield of Minnesota

- Stacia Cohen, Vice President of Medicare Star Center of Excellence and Risk Adjustment
- Eric Hoag, Vice President of Provider Relations

### CentraCare Health

- Lynn McFarling, Chief Medical Information Officer
- Amy Porwoll, Chief Information Officer

### Entira Family Clinics

- Len Kaiser, Chief Administrative Officer
- Grant LaRenzie, Administration Systems Manager
- Dave Thorson, Medical Doctor

### Essentia Health

- Dennis Dassenko, Chief Information Officer
- Michael Whitcomb, Chief Medical Information Officer

### Fairview Health Services

- Alistair Jacques, Chief Information Officer
- Genevieve Melton-Meaux, Chief Data and Health Informatics Officer
- Anna Veeneman, Fairview Physician Associates Network Clinical Services and Care Coordination Manager

### Federally Qualified Health Center Urban Health Network (FUHN)

- Theodore James, Chief Executive Officer, AXIS Medical Center
- Steven Knutson, Executive Director, Neighborhood HealthSource, and FUHN Board Chair
- Deanna Mills, Executive Director, FUHN
- Mary Nesvig, Chief Medical Officer, West Side Community Health Services, and FUHN Board Member
- Patrick Rock, Chief Executive Officer of the Indian Health Board of Minneapolis, and FUHN Board Secretary
- Cheryl Stephens, President and Chief Executive Officer, Community Health Information Collaborative

### HealthEast

- Todd Smith, Chief Medical Information Officer
- Ann Warner, Manager of Data Engineering

HealthPartners

- Alan Abramson, Senior Vice President of Information Systems & Technology and Chief Information Officer
- Kim LeReau, Vice President of Information Systems & Technology Care Delivery Systems

Hennepin County Medical Center

- Nancy Garrett, Chief Analytics Officer

Integrity Health Network

- Lisa Moon, Principal Consultant and Chief Executive Officer of Advocate Consulting

Mankato Clinic

- Cheryl Jones, Director of Health Information, Electronic Health Records, and Quality Resources
- Bob Norman, Director of Information Technology
- Tarah Petersen, Integration Specialist

Mayo Clinic

- Alex Alexander, Senior Project Manager
- Calvin Beebe, Technical Specialist
- Timothy Larson, Nephrology Physician and Associate Professor of Medicine
- Eric Reeve, Operations Administrator
- Eleanor Vita, Family Medicine Physician

Minnesota Community Healthcare Network

- Susan Voigt, Executive Director

Minnesota Department of Human Services

- Heather Petermann, Division Director, Health Care Research and Quality

Medica

- Bobbie McAdam, Senior Director of Business Integration
- Tim Thull, Chief Information Officer
- Sarah Taylor, Senior Director of Healthcare Economics.

PreferredOne

- Tina Armstrong, Senior Manager of Contract Compliance and Regulatory Filings
- Howard Epstein, Executive Vice President and Chief Medical Officer
- Al Heaton, Director of Pharmacy Benefits
- John Hofflander, Senior Vice President and Chief Information Officer
- Colleen Nelson, Assistant General Counsel

- Margareth Ranheim, Director of Provider Analytics

PrimeWest

- Jeramie Harris, Director of Business IT Research and Development
- Jamie Hess, Director of Information Systems & Technology
- Jim Przybilla, Chief Executive Officer

Ridgeview Medical Center

- Gordon Gablenz, Chief Financial Officer
- Tamara Korbel, Director of Management Information Systems
- Mike Lilly, Chief Information Officer
- William Peglow, Director of Provider Engagement
- Bob Stevens, Chief Executive Officer

Riverwood Healthcare Center

- Daryl Kalevig, Chief Information Officer

Sanford Health

- Jan Burnette, Senior Executive Director of Information Technology
- Heidi Twedt, Chief Medical Information Officer

South Country Health Alliance

- Brad Johnson, Chief Medical Information Officer
- Leota Lind, Chief Executive Officer
- Maureen Murray, Director of Health Services
- John Whittington, Chief Information Officer

St. Luke's Health Care System

- Clark Averil, Chief Information Officer
- Suzy Johnson, Director of Medical Records

Winona Health

- Marti Bollman, Vice President of Primary Clinics & Wellness
- Jan Brosnahan, Chief Financial Officer

## Appendix E: Semi-structured interview guide

March 2017

### Background:

The 2016 Minnesota Legislature requested a study to assess Minnesota's legal, financial, and regulatory framework for health information exchange (HIE), including the requirements of the Minnesota Health Records Act. The legislature also asked that the study make recommendations that would strengthen the ability of Minnesota health care providers to securely exchange data in compliance with patient preferences and in a way that is efficient and financially sustainable.

As part of the legislative study, we are interviewing key health care organizations to better understand needs and plans to participate in HIE with providers outside of their affiliated systems. We will, of course, use the information from this interview and others to guide MDH for this legislative study.

The focus of the interview will be to learn, with regard to HIE, what your organization is doing, where you are going with HIE and where Minnesota health care is going, and how we'll get there. For this interview, we are primarily referring to core HIE services to share, aggregate, and consolidate patient information across unaffiliated providers and across EHR systems.

Your participation in an interview is voluntary, of course. The only consequence if you choose not to participate is that we won't have your important input. MDH is working with Matt Kane from the State of Minnesota's Management Analysis and Development (MAD) team. If necessary, provisions in Minnesota's Data Practices Act (Minnesota Statutes §13.64) allow MAD to keep data on individuals private if the information is needed for a report. As the MDH project lead for this report, Karen Soderberg also is attending this interview but will recuse herself for all or part of the interview if your organization prefers to participate without MDH present.

### Definitions

**Health Information Exchange (HIE)** is the electronic transmission of health-related information between organizations according to nationally recognized standards (Minnesota Statute 62J.498, Subdivision 1, paragraph (f)). For this study, HIE refers to core HIE services to share, aggregate, and consolidate patient information across unaffiliated providers and across EHR systems

**HIE governance** refers to the establishment and oversight of a common set of behaviors, policies, and standards that enable trusted electronic health information exchange among a set of participants

**Interoperability** is the ability of systems to exchange and use electronic health information from other systems without special effort on the part of the user and made possible by the implementation of standards.

**Message (or transaction)** is a one-to-one communication between two electronic systems.

See a complete glossary at e-Health Glossary available at <http://www.health.state.mn.us/e-health/glossary.html> for additional definitions.

## What is your organization currently doing?

- 1) Describe your organization's current engagement with electronic HIE efforts in Minnesota. To clarify, we are primarily referring to core HIE services to share, aggregate, and consolidate patient information across unaffiliated providers and across EHR systems.
  - a) To what extent is your organization participating in the Commonwell and Carequality networks, or other national networks?
  - b) What's your level of interest in the state-certified Health Information Organizations - or HIOs - that oversee, govern, and facilitate HIE among providers?
  - c) Is your organization part of an HIO or is it considering joining one?
  
- 2) What do you see as your organization's greatest need for exchanging health information across unaffiliated providers and across EHR systems?
  - a) Using a scale of low, medium, or high, how important is that need to your organization in the context of your other organizational needs and priorities?
  - b) Beyond your greatest need, what other needs does your organization have for exchanging health information?
  - c) What's the sense of urgency for your organization when it comes to HIE across unaffiliated providers and HIE systems?
  
- 3) What are the barriers to greater HIE implementation by your organization?
  - a) More broadly, what factors did – or does – your organization consider when deciding the extent to which it implements HIE – factors that might present benefits or barriers for you?
    - i) 1. Organizational, 2. Governance, 3. Financial, 4. Technical. Others?
  
- 4) How would you rate your organization's stance toward HIE that is shared across unaffiliated providers and across EHR systems? Would it be...  
strong reluctance   reluctance   neutrality   support   or strong support?

## Where are you/we going?

- 5) What is your organization's business case – both for and against – for participating in HIE services across unaffiliated providers and across EHR systems?
  
- 6) How do you expect your organization's involvement with HIE efforts to evolve over the next 12-24 months? 3-5 years?
  - a) Are there specific factors that might cause you to meaningfully alter your involvement?

- b) If you aren't now involved in HIE with provider organizations that use a different EHR vendor platform, do you have specific plans for such involvement?
- 7) From your perspective, what should be the goal in Minnesota for HIE?
  - a) What should we be aiming towards so that we know when to say "we have now achieved optimal HIE capabilities"?
  - b) Where or how can the State of Minnesota assist in reaching the goal?
    - i) What policies, regulations, laws, or other changes would strengthen the use of HIE across MN's health system?
    - ii) Does the State currently present any barriers to reaching the goal?
- 8) Would shared core services – such as ADT alerts, provider directories, or consent management – fill gaps in HIE services for your organization?
- 9) What gaps need to be filled that Epic, Epic's Care Everywhere and/or national efforts such as CommonWell and Carequality do not fill?

## How will we get there?

- 10) How are new models of care delivery impacting your organization's approach to HIE (or how will they)?

E.g., Health care homes; ACOs and ACO-like arrangements; CMS incentive programs such as MACRA and Hospital Value-based Purchasing Program

  - a) Will these new models increase or decrease the need to engage in HIE?
  - b) Can these payment models happen without robust HIE?
  - c) How does claims data come in to play compared to clinician HIE data and how important are these different types of data for the new models?
  - d) What do you see as the future for these (or other) payment models for your organization, or for MN in general?
- 11) What specific actions or roles could lead to greater engagement in HIE by stakeholders, including providers, payers, and government?
  - a) Federal and state government?
  - b) Payers?
    - i) What policy levers would support HIE?
    - ii) What services would entice payers to support HIE?
  - c) Providers/healthcare delivery organizations?
- 12) What is the single, most impactful action MN government could take to promote growth in, and sustainability of, HIE?
  - a) What are the most important recommendations this forthcoming HIE study should make for advancing the secure exchange of data among unaffiliated providers in

compliance with patient preferences and in a way that is efficient and financially sustainable?

- 13) What type of governance structure would allow for agreement on HIE across providers and payers?
- a) What would be a good model to agree on what type of HIE everyone needs to share? E.g., state government, private entity, public-private partnership, or other.
  - b) How would you want your organization to be represented in this governance?
- 14) How should this type of HIE effort be funded?
- a) What financial contributions should various types of HIE participants make toward this model of HIE?
  - b) Should other stakeholders contribute?
  - c) Do you see places within the system now where changes in the HIE environment could yield savings that might be used to help fund broad HIE efforts and efforts to close existing gaps – for non-Epic providers, specialty providers, rural providers, for example?
- 15) Is there anything else related to HIE, your organization, or the role of [providers/payers/others] that you would like to add?

Thank you for your time and expertise!