

Report of the Health Information Technology Standards Workgroup

Background

Effective implementation of health information technology leads to significant improvements in healthcare quality, safety, and efficiency. Minnesota needs a federated technical architecture design and supporting data standards for the sharing of information between health information systems. This is necessary to achieve the goal of interconnecting physicians, clinics, hospitals, nursing homes, public health departments, health plans and other key health care stakeholders. This effort must support regional collaboration, interoperability with the National Health Information Network (NHIN) strategy and other regional health information exchange initiatives as well as coordination of local public health and state government programs.

Purpose

During discussions about *National Goals for Strategic Action*, the steering committee recommended establishing a workgroup to adopt and promote technical architecture and data standards for the sharing of information between health information systems. Adoption of industry based healthcare standards and establishment of local processes for management & control procedures will ensure that a Minnesota Health Information Exchange (MN-HIE) in our state supports stakeholder business requirements while enabling interoperability with other regional and national systems.

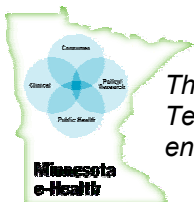
Principles

- MN-HIE will adopt standards implemented by federal government as part of the NHIN to ensure interoperability among stakeholders.
- MN-HIE will use vendor products and technologies that meet federal certification standards.

- Development and implementation of MN-HIE will involve all stakeholders.
- Adoption of standards will be balanced with business and patient care requirements.
- MN-HIE technical design will support a 'consumer-centric' philosophy of healthcare.
- MN-HIE will support clinical, administrative and research functions for both the public and private sector.
- In general, clinical information will be decentralized. The MN-HIE will provide the capability to move and receive data within and across regional information exchanges.
- MN-HIE will support universal access for all stakeholders to input or retrieve appropriate health care related information.
- Patient electronic health information will be kept confidential in accordance with federal and state regulations in matters of privacy and security.

The following are some observations and understandings from the research conducted by the HIT Standards workgroup:

- Architecture strategies deployed by other collaborative initiatives varied significantly.
- Adoption of Electronic Health Records (EHR) systems is uneven among providers.
- The vision of EHR in every healthcare delivery facility remains a key objective, but it is not a requirement to obtain immediate efficiencies in the healthcare system. Incremental steps can be deployed that provide improvement in patient



The Minnesota e-Health Initiative will accelerate the adoption and use of Health Information Technology to improve healthcare quality, increase patient safety, reduce healthcare costs and enable individuals and communities to make the best possible health decisions.

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safety and quality of care along the road to a fully interoperable HIT environment.

- Patient privacy and misuse of information is a great concern among early adopters.
- Standards supporting interoperability are a requirement to enable effective exchange of healthcare information among stakeholders.
- Leadership and collaboration among the private and public sector are needed to successfully prototype regional exchange efforts.
- Differences in state laws regarding privacy may need to be addressed at a federal level.
- Patient identification can be accomplished without the existence of a unique patient identifier if a common method for patient identification is adopted across regional exchanges.

Different Approaches to Architecture

Investigation of various architectures in use today that support sharing of healthcare information resulted in a wide variety of approaches. There are four basic models (with many additional hybrids). They include the following:

1. Common community EHR
 - Single EHR vendor with centralized data repositories
 - Example: United Kingdom model
2. Shared repository of summary EHR data
 - Multiple EHR vendors with a combination of centralized and de-centralized data repositories
 - Example: Indiana Information Exchange
3. Shared access to multiple EHRs
 - Shared access to de-centralized data repositories ('Google' to multiple EHRs)
 - Example: Massachusetts SHARE
4. Shared electronic clinical transactions
 - No formal use of EHR system, but information is shared among healthcare stakeholders
 - Example: Santa Barbara Exchange

Call to Action

The HIT Standards Workgroup recommends the following next steps:

- Complete survey on status of Minnesota EHR adoption and interoperability capability.
- Finalize a recommendation on architecture model.
- Complete analysis of technology requirements for initial set of business opportunities.
- Identify a minimum set of standards to support recommendations on initial set of business opportunities.
- Identify potential technology vendors that can supply necessary services.

Workgroup Members

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