Improving Communications Between Health Care Providers via a Statewide Infrastructure: Utah Health Information Network Clinical State and Regional Demonstration Project

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Organization: Utah Health Information Network
Contract Number: 290-04-0002
Project Period: September 2004 – September 2011, Including No-Cost Extension
AHRQ Funding Amount: $5,000,000
Summary Status as of: December 2010

Target Population: General

Summary: The Utah Health Information Network (UHIN) is a coalition of health care insurers, physicians, hospitals, laboratories, local health departments, health centers, State agencies, and other interested parties that have come together to reduce health care costs and improve the quality of care through the use of electronic data interchange. In 2008, the Utah legislature passed a law that gave the Department of Health (DOH) the authority to adopt standards for exchanging medical data. The DOH decided to leverage UHIN's expertise to exchange clinical data.

This project is one of six Agency for Healthcare Research and Quality (AHRQ)-sponsored State and Regional demonstration (SRD) projects begun in late 2004 and early 2005 to create a State or regional health information exchange. UHIN's goal is to implement statewide information and communication technologies to facilitate the exchange of clinical data among its members. In the early stages of the project, UHIN completed the initial implementation of a statewide clinical health information exchange built upon existing administrative exchange infrastructure and contracts. The first 4 years of UHIN's AHRQ contract were dedicated to building coalitions, developing infrastructure, identifying and engaging in dialogue amongst disparate UHIN partners, developing UHIN self-governance policies and procedures, and determining technological and administrative requirements needed to support the UHIN. The enhanced infrastructure, which allows initial exchange of clinical information through UHIN, is a utility for direct entry of claims, eligibility inquiries, and other health care transactions. When, in 2009, UHIN determined that a comprehensive solution for clinical information exchange was necessary, they contracted with the Axolotl Corporation, a provider of health information exchange services, to provide the technical infrastructure for a clinical health information exchange (cHIE). UHIN will update its electronic commerce agreement and create a cHIE addendum that links the responsibility to comply with liability requirements to ensure proper use of member's clinical data.

Project Objectives:

- Develop a novel exchange of laboratory and prescription drug data among unrelated entities. **(Achieved)**
- Conduct analyses of the role of the Medicaid program. **(Achieved)**
- Provide an evaluation of the project. **(Ongoing)**

- Implement a sustainability model. **(Ongoing)**
- Community implementation of clinical data exchange utilizing the expanded cHIE infrastructure that includes an "Electronic Medical Record Lite," a master patient index, and virtual health records-query functionality. **(Ongoing)**

2010 Activities: Over the course of the year, the cHIE was rolled out to communities across the State. Four data source sites are sending a combination of patient demographics, general and microbiology laboratory results, and transcription and radiology reports. By the end of 2010, data sources were sending more than 140,000 monthly clinical messages to the cHIE. Eleven user sites are set up in production and two different electronic health record (EHR) systems are exchanging information with the cHIE.

Since the beginning of the cHIE, the default consent model has been an "opt-out" model, where, by default, all patients' clinical records in the cHIE are available for query by authorized providers. By the end of 2010, the default consent model was being re-evaluated. Changing the default patient consent model to "opt-in," where, by default, all patients' clinical records are unavailable for query by authorized providers until the patient has consented to allow access, may delay cHIE adoption and implementation because of the time need to collect consent.

AHRQ has granted UHIN a 1-year no-cost extension to complete the second part of the evaluation regarding cHIE adoption and implementation. Most of the evaluation participants have completed an initial baseline workflow analysis prior to their participation in the cHIE. A post evaluation will be completed for these participants in 2011. The evaluation, being conducted by HealthInsight, will determine the cHIE impact to these sites as it relates to workflow and adoption.

UHIN is working with the Veterans Affairs (VA) to exchange continuity of care documentation between the VA and rural hospitals in Utah by connecting UHIN to the National Health Information Network. This pilot should be completed in 2011. After completing the pilot, the ultimate goal is to enable UHIN to become the statewide VA exchange in 2012.

Preliminary Impact and Findings: Utah has relatively high EHR penetration, especially in larger clinics. Many providers have already interfaced their EHRs with hospitals and laboratories, or are in the process of doing so. It is unclear at this time if and when these providers will change to receive their data via cHIE as opposed to their direct interfaces with labs and hospitals.

Providers have expressed the most interest in the ability to query patients' clinical records across various entities. The expected change from an "opt-out" to an "opt-in" consent model will necessitate a significant shift in the cHIE marketing strategy with providers, data sources, and patients.

Several new data sources are contributing information to the cHIE. The consistent implementation of the HL7 Standard across entities can be challenging due to system limitations and interpretation of the HL7 Standard and the standard vocabularies used or not used. The use of UHIN Standards and Specifications found in the statewide implementation guides could provide consistent HL7 messaging across cHIE and will reduce the time needed to map non-standardized data sources. However, full adoption of these standards will require ongoing mapping and will take time.

Strategic Goal: To develop and disseminate health IT evidence and evidence-based tools to support

patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Implementation and Use