

Project Title: A Community-Shared Clinical Abstract to Improve Care
Principal Investigator: Connelly, Donald, M.D., Ph.D.
Organization: Fairview Health Services
Mechanism: RFA: HS05-013: Limited Competition for AHRQ Transforming Health Care Quality through Information Technology (THQIT)
Grant Number: UC1 HS 016155
Project Period: 09/05 – 09/09, Including No-Cost Extension
AHRQ Funding Amount: \$1,482,674
Summary Status as of: December 2008

Strategic Goal: 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: Synthesis and Dissemination

Summary: The goal of this nearly completed project is to improve emergency department (ED) care using a health information exchange (HIE) model. By promoting greater continuity of care, the project hopes to assess the effect of additional clinical information on patients' transitions among the three health care systems participating in the project. Handoffs between medical providers are recognized as a potential source of medical error, and these risks are compounded during emergency visits, when a patient may have to use the nearest available ED rather than their usual source of care. The project's initial goal was to exchange full continuity of care documentation among the participating health care systems in three of their EDs, and the project had been in close communication with these systems' electronic medical record (EMR) vendor about implementing such software. However, due to recent additions to Minnesota privacy law, this goal was deemed currently infeasible by project stakeholders and revised. Instead, ED clerical personnel will prepare patient record abstracts drawn from the ambulatory care EMR and make them available to clinicians in a participating ED; the project, then, will measure what effects this intervention offers and the likely size of the population that would stand to benefit. Although project partners are still interested in advancing the HIE model and applying it to the local area, regulatory changes, as well as the early state of the Minnesota Health Information Exchange (MN HIE), which is to be the health information exchange for the State, have delayed exchange of patient record abstracts beyond the timeframe of this project.

Specific Aims

- Extract and analyze de-identified patient ED visit data from participating facilities in order to determine which populations would be best served by implementation of the HIE. **(Ongoing)**
- Resolve technical and non-technical issues related to the changing legal landscape for medical privacy in Minnesota and the designation of the MN HIE as the State-recognized HIE. **(Ongoing)**
- Implement the HIE technology at participating hospitals, and collect data on the efficacy of the intervention. **(Upcoming)**

2008 Activities: The intervention being evaluated, supplementing normal ED procedure with an additional medical abstract, was developed and approved by all parties.

Preliminary Impact and Findings: Data have been collected from the three EDs for 6,123 patients whose visits had an associated CHF diagnosis code. These patients were divided into those who had EHR-based evidence of previous care in the health system which owned the hospital that housed the ED

(Internal) and patients with no such evidence (External). Investigations have revealed that External patients have more laboratory tests and are more likely to be hospitalized than Internal patients even when adjusting for sex, age and co-morbidities. This supports our hypothesis that patients with more complete clinical data in the EMR experience better outcomes and reduced costs in comparison to patients who do not have such information available.

Selected Outputs

Kijsanayotin B et. al. Improving access to clinical information in an emergency department: A qualitative study. AMIA 2008 Annual Symposium; Washington, DC: 2008 November 8-12.

Theera-Ampornpunt N et. al. Creating a large database test bed with typographical errors for record linkage evaluation. AMIA 2008 Annual Symposium; Washington, DC: 2008 November 8-12.

AHRQ 2008 Annual Conference presentation: Health Information Exchange: Myths, Mirages and Reality ([PowerPoint@ File](#), 1.7 MB; [Web Version](#)).

Grantee's Most Recent Self-Reported Quarterly Status: The evolution of Minnesota privacy law during the course of this grant has led to legal uncertainties regarding HIE. This and the early state of Minnesota's HIE organization have impeded progress with information exchange. This delay has required changes to be made to the project. It is anticipated that all revised aims will be achieved by the end of the no-cost extension in September 2009.

Milestones: Progress is on track in some respects but not others.

Budget: Somewhat under spent, approximately 5 to 20 percent.