

Metro DC Health Information Exchange

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Organization:	Primary Care Coalition of Montgomery County
Mechanism:	RFA: HS05-013: Limited Competition for AHRQ Transforming Healthcare Quality Through Information Technology (THQIT)
Grant Number:	UC1 HS 016130
Project Period:	September 2005 – September 2009, Including No-Cost Extension
AHRQ Funding Amount:	\$1,363,135
Summary Status as of:	September 2009, Conclusion of Grant

Target Population: Low SES/Low Income*, Safety Net, Uninsured

Summary: The project sought to improve medical care for medically underserved populations who require transitions among care providers. This was done by implementing a multi-jurisdictional health information exchange (HIE), linking safety net clinics, hospital emergency departments (EDs), and specialists spanning the Washington, DC metropolitan area. The Metro DC Health Information Exchange (MeDHIX) links the electronic health record (EHR) systems of safety net clinics in the region with each other and with mainstream health care providers, forming a regional community of interest focused on the specific and unique needs of the uninsured population. MeDHIX provides ED clinicians with health information and medication data from the safety net clinics, and provides safety net clinics with similar information from the EDs. This information increases the knowledge base for clinical assessments and medication decisions, with the aims of improving patient safety and quality of care. Additionally, MeDHIX seeks to reduce duplicative laboratory tests and medical procedures and curtail unnecessary ED visits.

Initial evaluative interviews and group discussions documented perceived benefits, barriers, willingness to participate, current EHR use, and desired HIE content and features. Focus groups of underserved patients elicited opinions on risks and benefits of HIE. A model was designed to measure cost and sustainability from potential reductions in ED visits resulting from the adoption of medical homes and open-source HIE.

Specific Aims:

- Implement a sustainable HIE linking the EHR systems of the region's safety net clinics with mainstream health care providers to improve patient care quality, safety, and efficiency for the region's most vulnerable populations, focusing specifically on the unique needs of the uninsured population and safety net environment. **(Achieved)**
- Work with safety net clinic providers, hospital EDs, and specialists that are a major source of care for safety net patients to identify specific data, applications, and use cases that are of the most benefit. **(Achieved)**
- Broadly involve health care organizations, community groups, philanthropies, and governments across the region, focusing on education and outreach about the benefits, risks, opportunities, priorities, implementation strategies, national successes and failures, and the potential for HIE to help bring better, more cost-effective health care to their constituencies. **(Achieved)**

- Engage ethnically, racially, and economically disadvantaged individuals and their representative organizations to better understand the factors that inhibit or promote their acceptance of HIE and the steps that must be taken to maximize trust and mutual benefits. **(Achieved)**

2009 Activities: The original plan for Year 4 was to implement eChart, a Web-based clinical summary of the integrated Community HealthLink Care EHR for use by physicians and specialists at all five Montgomery County hospital EDs. Implementation was delayed at each hospital for different reasons. In one case, it took nearly a year to obtain clearance for shared data access. A second hospital was in the midst of installing a comprehensive hospital information system on a schedule set by a parent organization. A third was evaluating a replacement for their hospital information system and did not have additional resources. Project staff used this delay to assist in opening two new safety net clinics, increasing the number of patients who could participate in the exchange. Montgomery General Hospital registration staff began using the eChart to verify safety net patient eligibility and demographic information. The MeDHIX fax capability was also implemented for specialists to fax consultative reports for inclusion in the EHR.

In a related activity, a new collaborative program was started with all five Montgomery County hospitals and six safety net clinics to identify patients with primary care-preventable ED visits, enroll them in a medical home, compare pre-and post-ED utilization, and identify influencing factors. The MeDHIX eChart is an essential component of this project for identifying safety net clinic patients in the ED and communicating with their clinics. Without it, the project could not have gone forward. The last year of the project focused resources on exploring the technical and operational feasibility of creating and operating a shared data warehouse to support consolidated administrative reporting, clinical quality assurance initiatives, and patient ID card distribution for the Montgomery Cares Safety Net Clinic Program.

Grantee's Most Recent Self-Reported Quarterly Status (as of September 2009): The project successfully created the MeDHIX HIE to link 14 safety net clinics and 40 care sites across three jurisdictions for 110,000 unique patients and 560,000 clinic visits. MeDHIX HIE can be accessed by five community hospitals, the Montgomery County Department of Health and Human Services, and medical specialists treating safety net patients while incorporating differing multi-jurisdictional privacy and confidentiality standards. However, minimal deployment was achieved by the end of Year 4, which delayed HIE evaluation. Factors delaying implementation included legal concerns, shifting hospital priorities, dwindling support for a regional approach, and increased funding for local initiatives.

Impact and Findings: The project team reported many other lessons learned and challenges to EHR and HIE implementation.

Barriers to Implementation and Use of HIE: Barriers to effective HIE among safety net clinics and mainstream health care providers include: competing priorities, a small number of paid staff, a volunteer clinic staff with limited technology skills, technical complexity and high cost of data interchange systems, and privacy concerns.

HIE Governance and Operations: Member hospitals stressed the importance of having a neutral party manage the MeDHIX infrastructure due to concerns about how shared data might be used if a managed by a competitor. Also, there was concern that priorities for system features and operational rules would be determined by the HIE service provider, not partner institutions.

Differences in the Perceived Value of Data: Community hospitals and safety net clinics thought that basic

patient data exchange benefits clinics and ED physicians. ED physicians value a patient's "eChart summary" as a quick guide to potential problems and a source of contact information. Clinic physicians value an electronic discharge summary which raises their confidence that a patient has been seen. Hospital physicians value the ability to refer a patient back to the primary provider to ensure effective followup and to arrange for a medical home for patients who do not have one. The information that seems to be of most value is identification of the patient's care provider, visit history, problem list, allergies, medications, laboratory results, and ED discharge summaries.

Importance of Public Education in Building Support for HIE: Findings from discussions and interviews with community groups and safety net patient focus group suggest that training and education should focus on patients' rights and responsibilities for medical information. Efforts need to be supported by policy, resources, and incentives; confidentiality and security need to be clearly demonstrated; HIE implementation must include standards for recording and classifying medical information in the system; and specific goals should be delineated on what HIE is intended to accomplish and for whom.

More detail on the project findings is included in Dr. Lewis' final report: [Lewis 2009 Final Report](#).

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions, and the electronic exchange of health information to improve quality of care.

Business Goal: Implementation and Use

* AHRQ Priority Population