

Project Title:	Participation by Primary Care Practices in Health Information Exchange (HIE) in Colorado
Principal Investigator:	West, David, Ph.D.
Organization:	University of Colorado, Denver
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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: Although the majority of health care encounters take place in small- to medium-sized ambulatory practices, little is known about what factors influence adoption of community-wide health information exchange (HIE) in these settings. This project aims to assess the perceived benefits and barriers that influence participation in community-wide electronic HIE initiatives, and to evaluate the potential effects of incentives for adoption. For this project, a community-wide electronic HIE initiative is defined as the exchange of electronic health information that includes more than one type of clinical data among multiple stakeholders in a community. A small- to medium-sized primary care practice is defined as a community-based medical practice that provides a full range of primary care services and involves 20 or fewer full-time clinicians. The project is employing a case study approach to collect and analyze qualitative and quantitative data from nine practice sites to evaluate current methods of HIE, motivations for adopting HIE-related functions, barriers to adoption, and the appeal of potential incentives. Three of the practice sites employ no electronic medical records (NO-EMR); two sites employ only electronic medical records (EMR-ONLY); and four sites are involved in the community-wide health information exchange (CW-HIE) program.

Specific Aims

- Develop a report, using published research and commentary, on factors influencing stakeholder participation in community-wide HIE. **(Achieved)**
- Collect and analyze qualitative and quantitative data from nine primary care practices in three categories (“NO-EMR,” “EMR-ONLY,” and “CW-HIE”) to assess perceived benefits of, readiness to engage in, and barriers to HIE participation. **(Ongoing)**
- Based on this analysis, determine the relative strengths and weaknesses of different strategies for encouraging small- to medium-sized practices to participate in HIE. **(Upcoming)**

2008 Activities: The Colorado team conducted a review of the grey literature (reports, conference proceedings, etc.) addressing key issues in the value of HIE, particularly from the perspective of small- to medium-sized primary care practices. The findings are summarized in a report to AHRQ and will be combined with those from a complementary report from the University of Minnesota (based on analysis of peer-reviewed literature) to create a manuscript for publication.

In addition, the Colorado team enlisted nine primary care sites across the State to participate in case studies: three in the NO-EMR group, two in the EMR-ONLY group, and four in the CW-HIE group.

Data collection instruments were developed and refined based on literature review. Telephone interviews were conducted to prepare for on-site data collection in 2009.

Preliminary Impact and Findings: Key issues to be explored have been identified. From the perspective of small- to medium-size practices, potential motivators for adoption include reduced staff time in processing clinical notes and test results, improved timeliness and accessibility of results and reports (resulting in higher-quality, better coordinated care), less office space needed for paper charts, and faster claims processing. Potential barriers included the cost of implementing and maintaining health information technology associated with HIE (including the cost of hardware and software, the need for technical assistance, training costs, and potential loss of productivity during implementation), concerns about privacy and security, and concerns about use of HIE-derived data by other parties (such as health plans). Potential incentives to be explored include providing technical assistance and various monetary incentives.

Because the concept of HIE was new to several practices, it was useful in discussions to categorize several key functions of HIE: clinical messaging (delivery of test results), result lookup (ability to look up test results and reports ad hoc), electronic prescribing, electronic ordering of tests and referrals, and quality reporting.

Selected Outputs

The report “Key Issues in Health Information Exchange in Smaller Practices: Review of the Grey Literature” was submitted to AHRQ.

Materials to be used for telephone and onsite data collection were submitted to AHRQ for review.

A manuscript is in development as a collaborative effort with the University of Minnesota to summarize the findings of both the peer-reviewed and grey literature reviews.

A Final Report and manuscript for peer review are currently under development to disseminate the key findings of the Task Order.