

Project Title:	New Mexico Health Information Collaborative (NMHIC)
Principal Investigator:	Gunter, Margaret J., Ph.D.
Organization:	Lovelace Clinic Foundation (LCF)
Mechanism:	RFA: HS04-011: Transforming Health Care Quality through Information Technology (THQIT)
Grant Number:	UC1 HS 015447
Project Period:	09/04 – 08/08, Including No-Cost Extension
AHRQ Funding Amount:	\$992,377
Summary Status as of:	August 2008, Conclusion of Grant

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 driving vision of this health information exchange (HIE) initiative was the development of a community partnership among providers, patients, payers, employers, and the public sector to change the culture of care from complete dependence to one of patient and institutional accountability, where health care becomes everyone's responsibility, and a true community culture of health is established. The scope of the Agency for Healthcare Research and Quality-funded New Mexico Health Information Collaborative (NMHIC) project was the start-up and development of an HIE network to serve the Albuquerque, New Mexico, area (Bernalillo County) with a rural pilot in Taos, New Mexico. This early geographic scope was informed by the fact that New Mexico is a rural State with one large metropolitan area (Albuquerque), which is the base for the major large health systems and plans that serve the State as a whole. The objective was to provide the foundation for expansion of NMHIC statewide and for eventual operational sustainability. In response to community preferences, a Federated Distributed model for NMHIC was selected in which each provider maintains its own data silo, and the HIE maintains a master list of patients for whom data are available in the different silos; the HIE locates and transfers data between providers and users. The core technical components developed included a master patient index (MPI), a patient referral module, a record locator service, and the software needed to transmit newborn audiology screening results to the New Mexico Department of Health (NMDOH) for one of the Taos pilot HIE demonstrations.

Specific Aims

- Create the community/organizational infrastructure for the health information collaborative. **(Achieved)**
- Establish the initial technology approach and core architecture. **(Achieved)**
- Establish a rural pilot of the HIE. **(Achieved)**
- Evaluate the progress of the HIE. **(Achieved)**
- Position NMHIC for further development and sustainability in the post-project period. **(Achieved)**

2008 Activities: The NMHIC successes in planning, software design, and the Taos pilot projects led to the award of a Federal contract for \$3.5 million from the Office of the National Coordinator for Health Information Technology (ONC) to participate in the Nationwide Health Information Network (NHIN) Trial Implementations. This allowed NMHIC to strengthen its infrastructure rapidly, provide additional network services, and extend these services to more New Mexico hospitals, laboratories, and doctors. In order for NMHIC to become self-sustaining, it must demonstrate that the value of the network services it

offers will more than justify user fees, member subscriptions, and/or annual contributions from the NMHIC stakeholders (providers, payers, employers, and public health) that benefit from these services.

Impact and Findings: The initial evaluation plan included both formative and summative evaluation components, with the summative evaluation focusing primarily on assessing the various impacts of a fully operational HIE. However, data and privacy issues and fiscal constraints resulted in delays in NMHIC's evolution into a fully operational HIE, which did not take place during the 3-year project period. Accordingly, NMHIC's evaluation was largely limited to a formative or process evaluation in which factors that lead to successes and barriers that prevented establishment of an operational HIE were emphasized. The overall conclusion of this evaluation was that achieving and maintaining stakeholder cooperation and trust is a far larger hurdle than technology or even privacy and security considerations in the creation of a regional HIE. Community support and agreement on goals are clearly critical to the likelihood of success. NMHIC technical staff built the electronic means to exchange patient-specific information between practitioners, such as referring patients, sending reports, or receiving results of patient care actions. This functionality was first piloted in November 2006 by Taos medical community practitioners, who used NMHIC to convey referrals within a program for coordinating care of patients with diabetes. NMHIC allowed them to process referrals securely to multiple sites within the community. A second pilot followed planning and exploration discussions with Taos practitioners and the NMDOH. This culminated in pilot testing of NMHIC in February 2007 for personnel at Taos Holy Cross Hospital to transmit normal test results from the newborn hearing screening to the Department of Health. The hearing test results of 40 babies screened in this small rural New Mexico community were transmitted by NMHIC. This process was evaluated by Taos hospital staff, NMDOH, community health care providers, and NMHIC staff in August 2007. Although the process worked satisfactorily, NMHIC connections to patient information at Taos Holy Cross Hospital were not substantial enough in 2007 to save hospital staff time.

Selected Outputs

White RE. Health information technology will shift the medical care paradigm. *J Gen. Internal Med* 2008;23:495-9.

White R, Smith T, Carter S. Using a Regional Health Information Exchange to enhance state mandated newborn hearing screening and intervention. *Academy Health Meeting*; June 2007; Orlando, FL.

Gunter MJ. New Mexico Health Information Collaborative. *The World Health Care Innovation and Technology Congress*; November 2005; Washington, DC.

Gunter MJ, Fields D, Carter S. New Mexico Health Information Collaborative (NMHIC): a unique partnership for New Mexico's healthier future. *11th Annual HMO Research Network Conference*; April 2005; Santa Fe, NM.

Grantee's Most Recent Self-Reported Status: The term of this grant is completed. Although the original project aim of implementing a fully operational HIE by 2008 was not met, community stakeholders have been engaged by the project, and software architecture has been developed, with the expectation of continuing development of the HIE.

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

Budget: On target.