

Project Title: Implementation of Health Improvement Collaboration in Cherokee County, Oklahoma

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Organization: Tahlequah City Hospital

Mechanism: RFA: HS05-013: Limited Competition for AHRQ Transforming Health Care Quality through Information Technology (THQIT)

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Project Period: 09/05 – 09/08

AHRQ Funding Amount: \$1,499,200

Summary Status as of: September 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: Implementation and Use

Summary: The purpose of this study was to implement three related projects using health information technology (IT). The first was to evaluate the possibilities for construction of a widely diverse and inclusive organization to build multiple patient data exchanges for use by providers across Oklahoma. The second evaluated whether a model for prioritizing cost-effective preventive care to shift population health status could be theoretically added to the network. The third examined whether a Web-based system could be built to help the population identify health providers in their area. Consensus models were built using expert groups and consultants to develop all three projects. Clinicians worked collaboratively to develop parameters for the data set that would provide the basic information needed by providers to treat a new patient, as well as any limitations on available data or legal boundaries regarding types of information that can be exchanged in Oklahoma. The project also cultivated resources related to laws and privacy policies including the development of Health Insurance Portability and Accountability Act (HIPAA)-compliant privacy practices, including patient notification, Web portal design, staff education, and patient materials development. The State Health Security and Privacy Taskforce project was helpful in this arena. In addition, the principal author of HIPAA came to Tahlequah in 2005 and met with members to help them understand and become comfortable with HIPAA within the context of patient data exchange. Documents addressing patient privacy issues have been made available through the Web site. An initial patient survey asked participants about the degree of difficulty they had locating providers. The results were surprising: over 60 percent stated they had difficulty finding appropriate services. A Web-based service to find health providers was developed on a statewide basis, supported by 24-hour telephone service. The data set included 18 provider types and was categorized by payment source, location, and business hours.

Specific Aims

- Assess the viability of constructing patient data exchanges in Oklahoma serving a variety of providers and practice types. **(Achieved)**
- Develop a framework for a cost-effective preventive care module to be added to the records in the exchange. **(Achieved)**
- Create and implement a Web-based directory of providers to help patients locate providers in their area. **(Achieved)**

2008 Activities: The health data exchange network, named the Secure Medical Records Transfer Network (SMRTNET), went live in multiple locations. The network is a sustainable way for smaller practices and groups to receive technical assistance with their plans for health information exchange (HIE). The provider directory Web site also went live in 2008.

Preliminary Impact and Findings: By September 2008, SMRTNET had established two operational data exchanges including over one million patients located in 20 of the 77 counties in Oklahoma. Obligations already on the books for the network will have the data system growing to over two million patients, almost 30 million medical records, and approximately 30 percent of the prescriptions filled in Oklahoma by the end of 2008. The clinical taskforce identified demographics, allergies and reactions, diagnoses, procedures, laboratory tests, medications, immunizations, and data needed for up to five prevention services as the basic data set. Services to be offered initially include a community health record and e-prescribing. The SMRTNET Member Agreement is now in service with 17 different entities. The evolution of SMRTNET from a self-contained regional data exchange into a multi-faceted statewide planning and oversight body to help plan, finance, and operate many interoperable data exchanges took place over a long period of time. SMRTNET is intended to be a hub for smaller proprietary networks, as a provider of legal assistance with HIPAA compliance as well as State law, and as a support service that assists in the development of HIEs, especially where funds are limited as most exchanges require \$1.5 million to develop a complete implementation plan. SMRTNET can work with potential members to develop a complete implementation plan at no charge or a very small percentage of the usual amount needed. Using the SMRTNET approach, HIE networks can be developed in a more natural way, from the bottom up, rather than the top down. Using one broadly-managed government-incorporated health authority to build multiple data exchanges quickly and inexpensively on a smaller scale may provide a model that can work in many areas of the country.

An expert taskforce identified five preventive care activities that could be integrated into the system while remaining cost-effective: 1) blood pressure medication, 2) cholesterol-lowering medication, 3) prophylactic aspirin, 4) reduction in drinking by physician encouragement, and 5) smoking reduction through medical office referral. However, because of concerns about the efficacy of emplacing these care activities in a health data exchange system—where, due to interoperability concerns, data actually sent is not robust—the working group decided not to pursue these additions at this time.

The provider directory project has led to a publicly-available product, including over 10,000 providers listed by type, location, payment sources, and special hours. The goal of this system is to provide a public and objective link to locating health care providers. A potentially important finding is that the number of active physicians in Oklahoma appears to be significantly less than publicly estimated. Physicians with addresses listed in the State medical registry outside the State were eliminated; this surprisingly amounted to 40 percent of those registered. This project can be considered a success in that the system works well, provides the necessary provider information, and even gives driving directions and the amount of time it would take to drive to the provider's office. Further, geocoding all the health sites in the State has proved very useful for health planning and the establishment of provider offices. Overall, the project helped develop significant resources that can be leveraged in the future to improve quality of care throughout Oklahoma. The SMRTNET program is sustainable, funded by its partner organizations, and the provider Web site has aggregated information in an accessible and useful way.

Selected Outputs

Available at: Cherokee County Health Services Council. Secure Medical Records Transfer Network Web site. <http://www.smrtnet.org>. Accessed May 2009.

Available at: Cherokee County Health Services Council. OKHealthfinder. <http://www.okhealthfinder.com>. Accessed May 2009.

Grantee's Most Recent Self-Reported Quarterly Status: Although the provider directory Web site has not received large amounts of traffic from patients, it has significant value, and the project is in negotiations with State government and provider entities to incorporate it into their Web sites. The conclusions reached about the value of various chronic care reminders will likely be useful for future planning for systems with this type of functionality, anticipated to occur as the development of electronic health records continues to spread. SMRTNET is a sustainable program and a valuable resource for clinicians interested in beginning electronic health data exchange, particularly those based in Oklahoma.

The interoperable data sharing system is operational in two data sharing networks. These networks include over 18 large data contributors, have separate management boards, and are fully sharing data with one another. Several other networks are under active discussion, and the number of records and patients grows daily as new data are sent into the system. The data sharing agreement which allows providers, hospitals, community health centers, public health organizations, universities, Native American tribes, and mental health clinicians to share data has been reviewed and accepted by over 20 different attorneys from these provider groups. The agreement has also been vetted at the Federal level as part of a template for Federal data sharing in the Indian Health Service. The network is financially self-sustaining without grant or government assistance.

Milestones: Progress is mostly on track.

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