

Grant Outcomes Report

Linking Electronic Medical Records Across Providers in a Rural Region: The Northern Adirondack Health Exchange

Executive Summary:

This \$138,700 grant helped Trudeau Health Systems link local providers' electronic patient medical records together into a Health Exchange. A Health Exchange (the Exchange) allows providers across health care organizations to view and update shared patients' medical records, which allows for more comprehensive patient care. Related health outcome data showing whether the Exchange has positively impacted patients' health is not yet available.

The Problem:

An increasing number of health care providers are implementing Health Information Technology (HIT) systems. To improve health care on an individual and community level, these systems need to be able to communicate with each other to share patient information. Currently, some providers can exchange a limited amount of health data, usually laboratory and radiology results. The Exchange proposed under this grant was designed to enable more comprehensive electronic medical records (EMR) for community members in this rural region—shared records where multiple service area providers could access pre-selected, pertinent patient health information, add information, and use the EMR to treat patients.

Trudeau Health Systems—the area physician-hospital organization that comprises Adirondack Medical Center and more than 90% of the physicians in Adirondack Medical Center's service area—has been collaborating to implement health information technology with area health care providers, and to create a communitywide EMR system. In 2004, Adirondack Medical Center received a Federal Agency of Healthcare Research and Quality health information technology planning grant, which Trudeau Health Systems managed. The Center also received a HEAL New York (Healthcare Equity and Access Law) Phase 1 grant for a portion of the costs to implement EMR in a substantial number of physician

KEY INFORMATION:

GRANTEE

Adirondack Medical Center

GRANT TITLE

Northern Adirondack Health Exchange

DATES

November 2007–October 2009

GRANT AMOUNT

\$138,700

practices of its communitywide electronic medical record system. This NYSHealth grant would enable Trudeau Health Systems, in partnership with Adirondack Medical Center, to complete the integration of the communitywide electronic medical record system. The new system would improve the speed and quality of health care, preventive care and screenings, clinical outcomes, and office efficiency.

Grant Activities and Outcomes:

The overall goal of the grant was to launch a Health Exchange for the northern Adirondack Region, which is defined as the health care community serving Northern Essex and Southern Franklin Counties in New York State. This area is regionally known as the Tri-Lakes Region, which includes the towns of Lake Placid, Saranac Lake, and Tupper Lake. The Exchange, which was primarily funded by NYSHealth, serves to connect various physician practices and hospitals that already have EMR. The Exchange enables these providers to create a comprehensive health record for patients, across all of their organizations. If a patient visits multiple providers, all providers in the Exchange's footprint that treat that patient have access to the same information about that patient. NYSHealth funds were mainly used to purchase and install the software needed to link providers with existing EMRs.

Patient summaries generated by the Exchange comprise contributions from both primary care and specialty providers, including results from laboratory work, radiology, allergies, medications, family history, social history, and immunizations. Health Exchange summaries are updated daily.



The Exchange requires minimal maintenance. Each provider pays a software maintenance fee of \$25 per month, which covers software upgrades and problem troubleshooting with the eClinicalWorks (the software vendor) help desk. A server with a five-year life span is the only hardware required. New York State is encouraging larger Regional Health Information Organizations (RHIO); thus, by the time this hardware needs to be replaced, Trudeau Health Systems anticipates a different solution may exist. The Exchange requires a part-time coordinator to troubleshoot, train staff members, audit the access logs, and monitor patient matching every day. This cost is spread out among the six participating practices: Adirondack Internal Medicine & Pediatrics, Adirondack Medical Center Health Centers, Adirondack Surgical Group, Medical Associates of Saranac Lake, North Country Family Physicians, and Tri-Lakes OB/GYN.

Participation in the Exchange is voluntary for both patients and providers. As of November 2009, 1,602 patients opted into the Exchange and 439 opted out. Providers are using the Exchange summaries to treat patients. Trudeau Health Systems estimates that 21,000 patients might participate in the Exchange—most of these patients will be reached through outreach or provider visits, during which they will be asked if they want to opt into the Exchange. Trudeau Health Systems reaches out to patients through printed materials, the Web, newspapers, and radio spots. One of the most effective ways of enrolling patients is having the providers and office staff members ask patients to opt in. To date, approximately 1% of the potential Exchange members have been encountered through outreach and provider visits. Physicians have been trained about the Exchange and will begin stressing the importance of participation to their patients. Physicians have also been trained about a new medical home pilot. Though the current opt-out rate is higher than anticipated, Trudeau and the Adirondack Medical Center expect it to improve as physicians encourage their patients to participate.

Forty-two providers contribute to the Exchange, including primary care, specialists and mid-level providers. Although it is important for all providers to adopt EMR, it is the primary care providers that have the most potential to impact community health from a public health/preventive care, and case

FUNDING & RATIONALE

The Northern Adirondack Health Exchange was funded under the 2007 Special Opportunity request for proposals. This project presented a special opportunity to improve the efficiency of health information exchange in the Adirondack region of Northern New York. It had the potential to expand the number of primary care providers using the electronic system and increase their efficiency and capacity to share electronic medical records, which could improve the quality care for thousands of residents. The project was also seen as a model that could be replicated in other rural areas of the State.

management standpoint. To that end, 17 of the 19 primary care physicians (family practice, internal medicine, and pediatrics) in the Tri-Lakes area are using EMR and contributing to the Exchange. Their participation is significant because these primary care physicians also specialize in: Cardiology, Allergy/Immunology, Rheumatology, and Dermatology. This includes all providers that implemented EMR through a HEAL 1-funded project.

Two challenges delayed the project by a total of 11 months. First, New York State announced it would issue requirements for uniform consent for health information sharing. The software vendor did not want to sign a contract and commit to a schedule until it could determine whether it would need to make significant changes to comply with the mandated State requirements. The vendor didn't move forward with the contract until August 2008. Second, once the vendor moved forward, software issues were identified in May 2009; this required an additional no-cost extension.

The grant proposal outlined many outcomes for the grant, such as reduced medication interactions and fewer incidents of lost patient data. It is too early to tell if these outcomes have been achieved, as the Exchange had only been operational for six months at report publication. And, while Trudeau Health Systems accomplished the launch of the Exchange, its impact is uncertain.

Lessons Learned:

Trudeau Health Systems and the Adirondack Medical Center share the following lessons from this project:

1. SUBJECT SOFTWARE TO RIGOROUS TESTING BY CLINICIANS BEFORE COMMITTING TO IT.

While the project team did see a demonstration of the software before committing to it, at the time of the demonstration, the software was still in beta testing. Once it was released, it had significant programming issues. The software problems were corrected, but the delay was frustrating for the providers, resulting in negative feelings toward the Exchange.

2. ALLOW TIME FOR TYPICAL IT AND OTHER POTENTIAL DELAYS. Technical issues with the software and new State requirements led to significant delays in the project workplan. More time should have been factored in for potential delays, which tend to occur when IT is involved. One year was not enough time to launch the Exchange and assess its impact.

3. THE EMR AND THE EXCHANGE EXPERIENCES OF THE TRI-LAKES MAY BE UNIQUE TO A RURAL REGION. The health care system within this geographic area creates a close medical community, which allowed Trudeau Health Systems members to: create a communitywide project where

all physicians agreed upon a single EMR vendor; create a central data repository (with separate practice databases as required by law); and implement a Health Exchange by the same software vendor. All of these components allowed for efficiencies, cost savings, and shared resources for the rural practices. This group implementation allowed Trudeau Health Systems to avoid barriers commonly encountered in implementing HIT. It is possible that this model could be used in other rural areas with this type of concentrated medical community.

The Future:

Now that the software is installed, Trudeau Health Systems is assessing its full capabilities. The project team is experimenting with the idea of using powerful business analytic tools, such as IBM's Cognos software, to perform database queries and customize reporting. Cognos would allow physicians and practices to monitor key performance indicators to improve quality, safety, risk, and outcomes for patients through balanced scorecards and safety dashboards.

The Exchange will be a key component to collect data for the Adirondack Medical Home Pilot. The Saranac Lake area, along with Plattsburgh and Glens Falls, is involved in this State-funded pilot. The Adirondack Medical Home Pilot is one of the largest multi-provider/multi-payor pilots in the U.S. An important characteristic of the Medical Home is the use of HIT to track patient outcomes and improve overall health. The group working on the Medical Home Pilot was awarded a HEAL-NY phase 10 grant for \$7,000,000; this grant supports information systems related to the Medical Home project. With this funding, Trudeau Health Systems will be able to make enhancements to the Exchange that improve the software's reporting capability and eventually connect it to Healthcare Information Exchange of New York, a larger RHIO.

BACKGROUND INFORMATION:

ABOUT THE GRANTEE

Adirondack Medical Center was incorporated January 1991 with the consolidation of the General Hospital of Saranac Lake and Placid Memorial Hospital in Lake Placid. Since then it's been serving residents and visitors to the Tri-Lakes region with two hospital sites, three rehabilitation clinics and four primary health clinics. Adirondack Medical Center, a member of Adirondack Health, is licensed for 97 beds at two locations. AMC offers a broad range of inpatient and outpatient medical and surgical services. Its medical staff of 60 doctors, 94% of whom are board-certified, represents 19 specialties.

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