

Chronic Mental Health: Improving Outcomes Through Ambulatory Care Coordination

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Organization:	Southeast Nebraska Behavioral Health Information Network, Inc.
Mechanism:	RFA: HS08-002: Ambulatory Safety and Quality Program: Improving Management of Individuals with Complex Healthcare Needs Through Health Information Technology (MCP)
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Summary: Without electronic communication, behavioral health providers cannot follow the full treatment path of patients with mental health issues as they move between various providers in urban and rural outpatient settings, mental health hospitals, protective custody, and crisis mental health facilities. This project explores how the exchange of health information between rural and urban providers in the behavioral health field can improve ambulatory patient care coordination and safety across treatment settings. Specifically, the project examines provider barriers to technology acceptance in the behavioral health setting, behavioral health care technology acceptance and adoption, and the effects of a health information exchange (HIE) on clinical outcomes.

The development and implementation of a regional HIE in southeast Nebraska will decrease the time it takes for providers to access comprehensive and accurate information, thus creating better access to patient information between and among the provider care team serving an individual with mental illness. This, in turn, will improve continuity of care by providing an electronic link between the multiple service settings that serve Nebraska residents. The provision of basic electronic information to coordinate patient care between behavioral health providers, rural hospitals, and the emergency behavioral health system will improve the long-term health outcomes of individuals with serious, persistent mental illness.

During the first phase of the project, the Electronic Behavioral Health Information Network (eBHIN) team issued a request for proposals, researched vendor qualifications, and ultimately selected products from NextGen Healthcare. At the same time, the research team began to design the HIE and conducted a behavioral health provider survey focused on technology acceptance. In the second phase of the project, the team developed the HIE infrastructure, equipped provider offices with new or updated technology, and provided training to participating providers. In phase three, the team will implement the HIE in 11 organizations at 15 practice settings. Once the environment is established, data will be collected to evaluate how timely access to accurate information might improve the quality of care for those experiencing a behavioral health crisis and who have an immediate need for entrance into the emergency behavioral health care system.

Specific Aims:

- Identify provider barriers to technology acceptance. **(Ongoing)**
- Implement an HIE among three major behavioral health provider facilities. **(Ongoing)**

- Collect data on how timely access to accurate information relates to quality of care. **(Upcoming)**

2011 Activities: System design activities focused on technical and procedural infrastructure development, security compliance, system implementation, and training. Development of the HIE customization from NextGen continued into 2012; however, the study team has been deploying other parts of the system in the interim so that providers will have records to share once the HIE is implemented. The team worked closely with Magellan Community Health and the Nebraska Administrative Services Organization to develop a file transfer process based on clear technical requirements. They also successfully completed a data center security audit. No high vulnerabilities were found. Three medium vulnerabilities were found and addressed immediately. Low vulnerability areas will be addressed through policies and procedures. The team is developing specifications and procedures for secure direct messaging between the NextGen system and the HIE application. By the end of July 2011, the system was live for data entry and data upload at 15 practice sites, including data entry of the shared record, data aggregation, and upload to Magellan. By the end of December 2011, there were 10,000 records in the system. In addition to significant site training efforts, Dr. Baker and her team worked closely on connecting sites to the data center and providing training on the upload process.

Research activities focused on manuscript development, including the dissemination of findings from a statewide survey focused on benefits and barriers to electronic sharing of client information that was sent to all practicing behavioral health providers in Nebraska. An article summarizing these findings was accepted for publication by the *Journal of the American Medical Informatics Association*. An article, [Electronic health records: eliciting behavioral health providers' beliefs](#), presenting findings from interviews with 32 behavioral health providers regarding their beliefs about HIE was published in the *Community Mental Health Journal*. The research team is also preparing to begin two implementation studies that will include surveys of end-users, using the technology adoption model to explore intention-to-use, and looking at actual usage patterns.

As last self-reported in the AHRQ Research Reporting System, project progress and activities are on track. The project budget funds are significantly underspent, as the project team is reserving funds for the impact study. Due to initial project delays in 2009 and the unanticipated amount of time to develop some specifications in 2010, the team is using a 1-year no-cost extension to ensure adequate time for the impact study and subsequent analysis and manuscript preparation.

Preliminary Impact and Findings: Analysis of the statewide survey showed that a majority (67 percent) of providers were positive about the impact of HIE, while the remainder (33 percent) were negative. Most behavioral health providers are supportive of HIE; however, adoption and use may continue to lag behind that of medical providers due to perceived cost and time burdens and concerns about access to and vulnerability of information.

Themes identified through interviews with behavioral health providers included quality of care, privacy and security, and delivery of services. Benefits to quality of care were mentioned by 100 percent of the providers; barriers by 59 percent of providers. Barriers involving privacy and security concerns were mentioned by 100 percent of providers; benefits by 22 percent. Barriers to delivery of services were mentioned by 97 percent of providers; benefits by 66 percent. Eighty-one percent of providers expressed overall positive support for electronic behavioral health records.

Target Population: Adults, Chronic Care*, Mental Health/Depression

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

** This target population is one of AHRQ's priority populations.*