

Project Title: Electronic Health Record Implementation for Continuum of Care in Rural Iowa

Principal Investigator: O'Brien, John, M.B.A.

Organization: Hancock County Health Services

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

Grant Number: UC1 HS 016156

Project Period: 09/05 – 09/08, Including No-Cost Extension

AHRQ Funding Amount: \$1,474,178

Summary Status as of: September 2008, Conclusion of Grant

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Implementation and Use

Summary: The purpose of the project was to implement and evaluate a comprehensive electronic health record (EHR) system to improve quality of care in rural Iowa. This EHR system includes various functionalities, including: computerized physician order entry (CPOE), evidence-based care guidelines, and decision support tools. The project also included implementing a barcoded medication administration (BCMA) system that was integrated with the EHR and electronic medication administration record in order to prevent medication errors. The system connected seven rural Critical Access Hospitals with the same system used by their rural referral hospital, which is part of the fourth largest Catholic health care system in the United States. The project was led by Hancock County Memorial Hospital, a Critical Access Hospital, and six additional Critical Access Hospitals in north Iowa in partnership with Mercy Medical Center-North Iowa; Trinity Health, based in Novi, Michigan; and the University of Iowa Department of Health Management and Policy. As additional funding has been secured to continue work, project researchers are conducting additional interviews and surveys, analyzing data on post-live perceptions, evaluation of readiness activities, and refining post-live support.

Specific Aims

- Complete go-live. **(Achieved)**
- Conduct a post-go-live evaluation. **(Ongoing*)**
- Define and provide post-live support. **(Ongoing*)**
- Conduct end-user training. **(Achieved)**
- Develop hardware and infrastructure readiness. **(Achieved)**
- Increase use of standardized evidence-based care practices. **(Ongoing*)**
- Enhance the abilities of providers to coordinate patient care across the North Iowa network and beyond. **(Ongoing*)**
- Maximize use of clinical expertise and learning within and across network organizations. **(Ongoing*)**
- Produce significant, measurable, and sustainable improvements in patient safety and quality of care, as well as increased organizational and financial efficiencies. **(Ongoing*)**

** Several aims of the grant were not completed prior to 9/30/08, but, as other sources of funding have been secured, these aims are still targeted for completion.*

2008 Activities: While the grant period officially ended in September 2008, work continued toward meeting some unfinished specific aims. In February 2009, all seven sites were making progress in activating BCMA. Key informant interviews for post-go-live evaluation are being analyzed. Post-live support processes are also on track, which will allow essential communications between all sites. Hardware and infrastructure assessments, upgrades, and configurations have been completed.

Preliminary Impact and Findings: Despite some project delays in 2008, as of Spring 2009, all sites are live with BCMA.

Selected Outputs

Hardware reconfiguration has been completed for the device used for the BCMA.

Grantee's Most Recent Self-Reported Quarterly Status: This grant has officially ended, but work has continued into 2009 to achieve original specific aims.

Milestones: Progress is mostly on track.

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