



Meaningful Use Case Study

Citizens Memorial Healthcare—2005 Davies Organizational Award

[Denni McColm](#), CIO

[Davis Award Entry](#)

Meaningful Use Goal

To implement an EHR with the capability to capture quality data and calculate the results for specified clinical quality measures. In 2011, the goal is to attest that data came from the EHR; in 2012, the goal is to submit data directly from the EHR.

Meaningful Use Core Objective and Measure: Quality Measures Reporting

Report ambulatory clinical quality measures to Centers for Medicare and Medicaid Services (CMS) or the states. For 2011, provide aggregate numerator, denominator and exclusions through attestation as discussed in the final rule. For 2012, electronically submit clinical quality measures as discussed in the final rule.

Organizational Snapshot

Primarily serving residents of southwest Missouri, Citizens Memorial Health Care (CMH) is a fully integrated healthcare system, including a 74-bed acute-care hospital and a broad range of services and facilities.

Project Description and Objectives

The EHR project linked 15 physician practices already using an ambulatory EHR into a community-wide EHR. Patient visits from the ambulatory, inpatient, home care and long-term care settings are now combined into one patient-centric view. Care information is maintained electronically; paper medical records are no longer created or maintained in these practices.

Following an initial capital investment, CMH received grants that allowed it to extend and enhance its EHR system and to be well-positioned to meet the ambulatory quality measures goal as defined for meaningful use. A grant from the Agency for Healthcare Research and Quality enabled CMH to address the following objectives for its ambulatory EHR:

- Establish the standardization necessary to capture quality measures data.
- Standardize and integrate data capture for quality of care evaluation into the routine documentation of care.
- Implement an automated system for quality measures data extraction, including valid, reliable reports that provide actionable insight for the measurement and analysis of care.
- Demonstrate the efficiency and accuracy of using data extraction and reporting to perform quality measurement.

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- Address technical, organizational culture and workflow issues associated with quality data capture.

Lessons Learned—Successful Strategies

Capture data for quality measures in structured data fields. Traditionally, much of the data required for quality measures is recorded in narrative, even within an EHR. Capturing data in structured fields enhances—and does not disrupt—workflow for providers.

Standardize systems and processes. During Phase 1 of the project, CMH standardized the documentation systems and processes within the ambulatory EHR so that data required for quality measurement would be available as extractable data elements without compromising physician productivity. CMH standardized provider documentation templates, electronic prescribing and allergies documentation. The health system also established and implemented a claims-coding method to use for CMS' Physician Quality Reporting Initiative (PQRI) reporting. Manual coding using this method would then be compared to automated coding.

During Phase 2, CMH focused on developing a tool for the automated extraction of data relating to the PQRI measures. Next, providers and coders used the claims-coding method for a set of PQRI quality measures. The results of this method were compared to automated data extraction for 62 PQRI ambulatory quality measures.

Automated data extraction is more complete than coders at identifying the eligible populations and more accurate in reporting the quality measure results as recorded in data fields. CMH demonstrated that automated data extraction, analysis and reporting were significantly more complete and accurate than manual coding for quality measures. However, automated data extraction relied heavily on the use of custom documentation queries. One-half of the 62 measures required a custom query for accurate quality measurement. Eleven of 12 additional eligibility requirements required a query, and all quality measure exclusions required queries.

A comprehensive encounter documentation template reduced the workflow impact of the documentation required by additional quality measures. Historically, individual diagnosis or problem-focused templates and template sections had been used. To facilitate quality reporting, CMH developed a comprehensive template to allow providers to document care and quality measures for the top-30 presenting problems. The template serves as an electronic filing cabinet for the pertinent sections and queries for common presenting problems. Sections that are not used are simply not in the final document. This template is especially helpful for primary care providers for whom the range of presenting problems during an individual encounter can be quite varied. CMH developed the new approach due to provider frustration with accessing and juggling multiple templates and template sections during an encounter. With the new template, quality measure fields can be included for multiple measures and diagnoses without negatively impacting provider workflow.

Train and provide methods to help providers be efficient and effective in using the EHR during patient encounters. Additional queries and steps for quality measures have created the perception among providers that there is simply too much to accomplish during a routine patient

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encounter. CMH introduced two methods to assist care providers in using the EHR during patient encounters.

- PatientBridge (MUSE) focuses on enhancing communication between the provider and patient during the patient encounter while leveraging the use of the EHR system.
- The Family Team Care method improves the flow of the visit and redefines the responsibilities of the provider and medical assistant before, during and after the visit.

Speech recognition and other documentation tools help providers document care efficiently and enhance the quality of the information recorded. While quality measures are documented in data or query fields, many CMH providers expressed a desire to maintain some narrative in their documentation. Some providers use speech recognition, typing and even transcription—all merged with query and field-level documentation—to present the “story” or “gist” of the encounter.

Additional Lessons Learned

Custom, structured fields placed within the workflow for measure exclusions are not well utilized. While it seems to make sense to place a quality measure exclusion query that is captured during an exam in the exam section of the documentation workflow, these fields were not well utilized. So, CMH is able to report, but it may be reporting failure to comply with the quality measure more often than is accurate. CMH is adopting a strategy to place the quality measure exclusions with the quality measure action within the EHR to address this issue. For example, if the provider chooses not to prescribe a medication as recommended in a quality measure, the opportunity to identify the exclusion, or reason for not prescribing that medication, is presented along with recommended action. Where CMH has tested this method, documentation has been more complete and accurate.

Conclusion

CMH has gained experience in fully automated quality measurement and reporting and is well positioned to implement the ambulatory quality measures required to demonstrate meaningful use.

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