

Massachusetts Quality E-Measure Validation Study

Principal Investigator:	Schneider, Eric, M.D.
Organization:	RAND Corporation
Mechanism:	RFA: HS07-002: Ambulatory and Safety Quality Program: Enabling Quality Measurement Through Health Information Technology (EQM)
Grant Number:	R18 HS 017048
Project Period:	September 2007 – August 2011, Including No-Cost Extension
AHRQ Funding Amount:	\$995,575
Summary Status as of:	December 2010

Target Population: Adults

Summary: Although the National Quality Forum has endorsed 26 standardized measures of ambulatory care for national priority conditions, measurement of and reporting on the quality of care delivered by office-based ambulatory care physicians has lagged. The implementation of electronic health records (EHRs) could revolutionize ambulatory quality measurement by increasing the validity of clinical measures and reducing the cost and burden of data collection.

This project is evaluating the readiness of structured EHR data to support ambulatory clinical quality measurement. Using the Ambulatory Care Quality Alliance (AQA) ambulatory care measurement set, the study team is comparing quality measures by applying two standard measurement methods: 1) a “hybrid method,” combining claims data with medical record review; and 2) a “claims-only method,” based upon claims data aggregated across commercial health plans and the Medicare program. The project includes primary analyses with formal hypothesis testing and secondary analyses that will help to identify and prioritize high-impact, short- and long-term modifications to community-wide, office-based EHR systems that could support and accelerate the dissemination of ambulatory clinical quality measurement. The data used for this grant are being collected and aggregated as part of the Massachusetts eHealth Collaborative’s (MAeHC’s) community-wide interoperable EHR implementation pilot in two Massachusetts communities. Massachusetts Health Quality Partners is developing EHR-based quality measure specifications and data extraction logic for the AQA ambulatory quality measure set. In addition to the implementation of interoperable EHRs, the Quality and Usage Data Coordinating Center was developed and implemented for selective retrieval, linkage, and storage of patient-level clinical data elements that can be used to calculate clinical quality measure results. The project is using the eClinicalWorks EHR, a Certification Commission for Health Information Technology-certified product.

Specific Aims:

- Recruit a cohort of adult ambulatory patients from two communities that are piloting community-wide implementation of structured EHRs to compare a quality measurement method based on a structured EHR data to a hybrid method involving a combination of aggregated claims data and medical record review. **(Ongoing)**
- Compare a measurement method based on structured EHR data to a claims-only method based on a novel database that aggregates claims data from commercial health plans and Medicare. **(Ongoing)**

2010 Activities: The principal investigator transitioned from the Harvard School of Public Health to RAND Corporation. This transition required RAND institutional review board (IRB) approval, including a data safeguarding plan. The project received final approval from the RAND IRB and expects to proceed with fieldwork as scheduled. Additionally, project staff began coordinating with MAeHC and the pilot communities to contact eligible physicians.

Patient recruitment materials were developed and include a letter to physicians notifying them of the study and to give them the opportunity to opt any of their patients out as necessary; a pre-notification letter inviting patients to participate in the research study, which will be sent with an opt-out form; a formal invitation letter that will be sent with the study consent form and a copy of the survey questionnaire; and a study reminder letter for participating patients.

Data-use agreements were finalized and executed with the two participating health plans. Sample data for the first aim was transferred from the health plans to project staff and was verified, while the measure specifications, which were referred to in the first aim, were defined. For measures in the AQA ambulatory care measurement set, the team will recruit a cohort of adult ambulatory patients from three communities that are piloting community-wide implementation of structured EHRs to compare a quality measurement method based on structured EHR data, to a hybrid method that involves a combination of aggregated claims data and medical record review.

Adults between 18 and 80 years-of-age who are eligible for at least one of the measures (breast-, colorectal, or cervical-cancer screening, influenza or pneumonia vaccination, or tobacco use) will be included. The population eligible for inclusion in these measures will also contain individuals eligible for the other study measures.

Grantee's Most Recent Self-Reported Quarterly Status (as of December 2010): The project is on track, meeting most aims on time and project spending is roughly on target.

Preliminary Impact and Findings: The project does not have any findings to date.

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: Knowledge Creation