

Project Title:	Feedback of Treatment Intensification Data to Reduce Cardiovascular Disease Risk
Principal Investigator:	Selby, Joseph, M.D.
Organization:	Kaiser Foundation Research Institute
Mechanism:	RFA: HS07-002: Ambulatory Safety and Quality Program: Enabling Quality Measurement through Health IT (EQM)
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Project Period:	11/07 – 08/09
AHRQ Funding Amount:	\$997,069
Summary Status as of:	December 2008

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: Synthesis and Dissemination

Summary: This project was initiated in November 2007 and has completed the first third of the grant period. The Intensification Feedback and Outcomes Study involves eight primary care and large medical facilities of Kaiser Permanente Northern California to assess whether the use of systematic feedback on need for treatment intensification in patients with poor control of cardiovascular disease (CVD) risk factors improves risk factor control. Using a cluster randomized trial design, this project is leveraging health information technology, including Kaiser Permanente’s Epic-based Electronic Medical Record (EMR) HealthConnect and the population management software tool used for the PHASE (Preventing Heart Attacks and Strokes Everyday) program, to create and deliver this information to providers about patients at high CVD risk. At intervention facilities, patient-level information is obtained from the EMR on the need for treatment intensification for systolic blood pressure (SBP), low-density lipoprotein cholesterol (LDL-c), and glycosylated hemoglobin test (hemoglobin A1c) and on recent medication adherence. This information is added to the PHASE population management database and fed back through software currently used by the PHASE staff working with primary care providers. Staff at control facilities continue to use the same population management database and software but receive information only on risk factor levels and selected medications. Positive findings should point the way for other systems to achieve an effective means of lowering the occurrence of CVD and will also serve to validate treatment intensification as a new process of care quality metric.

Specific Aims

- Evaluate the effectiveness of measuring, reporting, and feeding back information on the need for treatment intensification in patients at high risk for CVD for improving rates of treatment intensification and for reducing levels of poorly controlled SBP, LDL-c, and A1c. **(Ongoing)**
- Evaluate the impact of the intervention, compared to current population management practice, on total numbers of patient contacts, outpatient visits, and costs of care in relation to improvements in risk factor control. **(Ongoing)**
- Evaluate the effect of the intervention on physician and staff perceptions of the value (effectiveness and efficiency) of the population management program for high risk patients. **(Ongoing)**

2008 Activities: The project began implementing the intervention in July 2008 to allow the sites time to complete their own organizational goals. During the first half of the year, the project team convened

monthly advisory meetings with key stakeholders to plan the intervention, prioritize site outreach activities, improve understanding of staff needs in terms of information, and tailor the feedback messages that will be delivered about patients' need for treatment intensification. Since July 2008, the intervention has been in place. Data are extracted from the EMR, analyzed, and entered into a database linked to the PHASE patient management tool to provide the staff with new information about which patients require treatment intensification. The information in the database is refreshed once a month, and patients are prioritized based on whether they have higher values and therefore are at higher risk. Following the launch of the intervention, the project team met with staff at the sites to facilitate use of the intervention. The project continues to pull preliminary data and is developing the appropriate analysis to evaluate the impact of the intervention, compared to current population management practice, on total numbers of patient contacts, outpatient visits, and costs of care in relation to improvements in risk factor control. A set of pre-intervention and post-intervention interviews were conducted at the four intervention sites and the four control sites. Post-intervention interviews were also conducted at an additional three facilities to further inform the project on what was occurring regionally. The purpose of these interviews was to evaluate the effect of the intervention on physician and staff perceptions of the value (effectiveness and efficiency) of the population management program for high-risk patients. The project anticipates completing the intervention in early 2009.

Preliminary Impact and Findings: Preliminary data from the first 2 months of the intervention period suggest that intervention facilities have slightly higher rates of treatment intensification than the control facilities; however, it is too early to state whether these differences will be statistically significant. A second finding pertains to program efficiency. Approximately half of the patients eligible for the intervention were being contacted by PHASE staff. These patients do have higher rates of intensification, suggesting that the lower than expected contact rates with patients may be impacting the intervention's overall effectiveness.

Selected Outputs

None Available.

Grantee's Most Recent Self-Reported Quarterly Status: There is a slight delay across the project's milestones due to the decision to introduce the intervention in June 2008 versus the original date of January 2008. The project is somewhat under spent by approximately 5 to 20 percent due to the delayed start for implementing the intervention. Full use of the budget is expected by completion of the project.

Milestones: Progress is mostly on track.

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