

Harnessing Health Information Technology for Self-Management Support and Medication Activation in a Medicaid Health Plan

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Organization:	University of California, San Francisco
Mechanism:	RFA: HS07-007: Ambulatory Safety and Quality Program: Enabling Patient-Centered Care Through Health Information Technology (PCC)
Grant Number:	R18 HS 017261
Project Period:	September 2007 – August 2011, Including No-Cost Extension
AHRQ Funding Amount:	\$1,130,769
Summary Status as of:	December 2010

Target Population: Adults, Diabetes, Elderly*, Low Literacy, Low SES/Low Income*, Medicaid, Medically Underserved, Medicare, Racial or Ethnic Minorities*, Safety Net, Uninsured

Summary: The Self-Management Automated Real Time Telephone Support (SMART-Steps) Program enhances an automated telephone self-management (ATSM) support system to provide ethnically diverse, publicly-insured patients who have diabetes with surveillance and education, and to prioritize additional telephone care management through questions on patient behavior. This work builds on a previously-funded Agency for Healthcare Research and Quality (AHRQ) project by implementing modifications to adapt the program for sustained use. Through a randomized controlled trial, the project team is examining the effects of the intervention among SMART-Steps Program participants from the San Francisco Health Plan (SFHP), a Medicaid plan using a quasi-experimental study design. Enrolled patients are randomized to the ATSM-only group (SMART-Steps ONLY), the ATSM-plus group (SMART-Steps PLUS), or the usual care comparison group, that will subsequently receive ATSM-only or ATSM-plus services. In the SMART-Steps ONLY model, patients will respond to a rotating set of questions on self-care, psychosocial aspects of care, and receipt of preventive services. Patients with an answer that is “out of range” on an item receive an immediate automated health education message. Patients with an answer “significantly out of range” receive the automated message plus a followup person-to-person call from an SFHP care manager. In addition to those services, the SMART-Steps PLUS model has supplementary phone communications from the ATSM care manager to the patient triggered by data derived from pharmacy claims and a diabetes registry. These calls provide further education about medication adherence based on clinical criteria developed by a clinical advisory board.

The team is conducting patient surveys to analyze outcomes such as perspectives on the structure of their care and the interpersonal processes of care. To analyze patient safety, the team is exploring characteristics of adverse events: triggers, frequencies, their nature, preventability or ability to be ameliorated, and clinician awareness. To analyze effects of the intervention on relevant metabolic and clinical process and outcome measures, the team is using electronically-available clinical and administrative data.

Specific Aims:

- Measure the effects of a Medicaid health plan-directed ATSM on patient-centered outcomes among ethnically-diverse health plan enrollees with diabetes. **(Upcoming)**

- Explore whether combining ATSM with an additional patient-directed health information technology innovation—a medication activation communication strategy triggered by pharmacy claims data—yields differential effects on patient-centered outcomes compared to ATSM alone. **(Upcoming)**
- Quantify and characterize patient safety events triggered and/or identified through active surveillance among ATSM participants. **(Upcoming)**
- Measure differences in the frequency and nature of patient safety events among participants receiving ATSM-only versus ATSM-plus medication activation. **(Upcoming)**
- Explore the effects of ATSM interventions on Healthcare Effectiveness Data and Information Set (HEDIS)-relevant metabolic and clinical process and outcome measures when compared to usual care. **(Upcoming)**
- Explore whether ATSM-plus medication activation is superior to ATSM-only with respect to HEDIS-relevant metabolic and clinical process and outcome measures. **(Upcoming)**

2010 Activities: The SFHP continued to enroll health plan members in the SMART-Steps Program to work toward the goal of 500 diabetic participants. A total of 347 Cantonese-, English-, and Spanish-speaking participants enrolled in SMART-Steps as of December 31, 2010. Subsequently, 334 enrollees agreed to partake in the University of California, San Francisco (UCSF) evaluation of SMART-Steps: 167 Cantonese-, 104 English-, and 63 Spanish-speaking participants. Of these, 268 baseline interviews (80 percent) are complete. A total of 249 first-time follow-up interviews are complete (75 percent), with the remaining participants scheduled. Furthermore, 96 of 128 eligible participants (75 percent) completed their second interview. To date, recruitment is behind schedule. To mitigate this, the recruitment center has added additional evening recruitment sessions. Participant data are entered into a UCSF computer-assisted telephone interview instrument to enable real-time reporting of recruitment efforts, and preliminary cross-sectional interim analyses.

The team is working closely with SFHP outreach and care management staff in a consultative and supportive role. Support has included: monitoring quality assurance of care manager efforts; facilitating communication between SFHP staff and community provider sites; ensuring accurate interpretation of daily and weekly data reports; and promoting secure monthly data exchange between the Community Health Network diabetes registry and the SFHP staff to allow SFHP to identify potentially-eligible SFHP members. The team is also monitoring the fidelity of the participant randomization process, the wait-listing procedures intrinsic to the quasi-experimental design, and the care management protocols.

Dr. Schillinger's team plans to perform detailed analyses of the claims-based data collected by SFHP to enable development of consistent methods to accurately characterize measures related to monthly refill nonadherence. This will enable future analysis of the effects of the SMART-Steps PLUS medication intensification arm relative to the SMART-Steps ONLY arm. The team also plans to perform real-time assessments of potential and actual adverse events identified through the surveillance function of the SMART-Steps program, to enable the future analysis of the effects on patient safety of the SMART-Steps PLUS medication intensification arm relative to SMART-Steps ONLY arm. They will also begin a pilot process related to root cause analysis work that will be undertaken with a subset of SMART-Steps patients and primary care physicians. The team has now initiated data analysis to determine best measures for fidelity assessment.

Grantee's Most Recent Self-Reported Quarterly Status (as of December 2010): SMART-Steps enrollment is behind schedule and as a result, the project is significantly under spent. The grantee has received a no-cost extension and intends to meet the target recruitment goal. The grantee is collaborating with the external call center to improve recruitment and is working in close consultation with AHRQ on plans for completion of the project.

Preliminary Impact and Findings: This project has no findings to date.

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

* *AHRQ Priority Population*