

Project Title:	Tailored DVD to Improve Medication Management for Low Literate Elderly Patients
Principal Investigator:	Lapane, Kate, Ph.D.
Organization:	Virginia Commonwealth University
Mechanism:	RFA: HS07-007: Ambulatory Safety and Quality Program: Enabling Patient-Centered Care through Health Information Technology (PCC)
Grant Number:	R18 HS 017281
Project Period:	09/07 – 09/10
AHRQ Funding Amount:	\$1,199,014
Summary Status as of:	December 2008

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

Summary: This project is testing the hypothesis that information gathered from electronic medication history records as well as qualitative and quantitative feedback from elderly patients can be used to develop tailored patient education DVDs and print materials for low-literate audiences to improve shared decisionmaking, patient-clinician communication, and self-management of chronic conditions. Based on the information collected, the team is developing both paper-based and tailored DVD content for low-literate patients that illustrates the principles of medication adherence and provides guidance on medication use so that they can better adhere to complex drug regimens.

The study, approximately mid-way through its progress, is a formative evaluation in which activities are focused on collecting qualitative and quantitative information in the development of tailored, valuable, and reliable content. To achieve this, the project held a series of focus groups with patients, providers, and caregivers; evaluated electronic prescription data from Surescripts and other sources of data such as Medicaid, the National Health and Nutrition Examination Survey (NHANES), and other publicly available databases; and conducted telephone surveys with a cross-section of the population. This mixed-method approach towards collecting information was intended to ensure that a representative variety of data is analyzed in the development of the final product.

After collecting the information from these diverse sources, the project team is developing the DVD and print content based on the input they obtained. Once the materials are sufficiently formalized, there will be another round of qualitative interviews to obtain feedback on the developed materials from the groups intended to be end-users of the product. After confirming the materials with these additional focus groups, the project will pre-test the DVDs and print materials in a live environment. The team will engage four practices in the study and follow 25 patients within each practice, collecting and analyzing information such as demographics, social support, medication profiles, medication management issues, stage of readiness to change, self-efficacy, self-reported adherence, and adherence measures based on electronic medication history, as well as a series of clinical process measures. The intervention will include surveys of both patients and providers, as well as audio taping of the clinical encounter.

Specific Aims

- Develop algorithms to identify potential medication management issues based on community pharmacy-generated electronic medication history of elderly persons in Census areas with high concentrations of minorities and poor people. **(Achieved)**

- Develop tailored print materials based on electronic medication history to assist geriatric patients in adhering to complex medication regimens. **(Ongoing)**
- Develop tailored instructional videos which focus on improving the geriatric patient's role in patient-provider communication regarding medication issues and adherence to medication regimens. **(Ongoing)**
- Pre-test these interventions with versions in English and Spanish as part of a feasibility study within physician offices likely to service low-literate geriatric patients. **(Upcoming)**

2008 Activities: The project team developed protocols, recruited participants, and conducted a series of patient and caregiver focus groups with the intervention's targeted populations. The team has collected and analyzed qualitative information from the focus groups, as well as quantitative data from Surescripts electronic prescription records, Medicaid claims data, and public databases such as NHANES. Preliminary findings from these analyses indicated that patients exhibit both intentional and non-intentional medication adherence, which pre-existing surveys did not capture. Based on this, the team developed questions to differentiate intentional vs. non-intentional adherence issues, as well as activities patients engage in to aid their adherence efforts. The team conducted a survey of approximately 300 elderly persons to confirm the findings from their qualitative focus groups.

Based on the project team's analysis of the focus group feedback, survey results, prescription records, and quantitative data, the team has developed the themes for three of the DVD's tailored segments: patient empowerment; tips for adherence to medication regimens; and tips for talking with your doctor or health care providers. The project team has written scripts, filmed, edited, and developed the DVD content for these three themes in both English and Spanish. The team has preliminarily developed content for two additional DVD segments: diabetes and depression. They are continuing to generate ideas for new DVD segments and are planning another round of focus groups to provide feedback on their preliminary materials.

Preliminary Impact and Findings: Analysis of the results from patients and caregivers provided insight on how people interact with and value the information received from their pharmacist.

Selected Outputs

Recruitment fliers for patient and caregiver focus groups (English and Spanish).

Consent forms for patients and caregiver focus groups (English and Spanish).

Demographic forms for patient and caregiver focus groups (English and Spanish).

Scripts for patient and caregiver focus groups (English and Spanish).

Codebooks for analysis of patient and caregiver focus groups.

Audio Clips from focus groups to be used as educational tools.

AHRQ 2008 Annual Conference presentation: Use of Mixed-Method Designs To Inform Patient-Centered Tools To Improve Medication Management ([PowerPoint® File](#), 1.4 MB; [Web Version](#)).

Grantee's Most Recent Self-Reported Quarterly Status: The project was under spent owing to issues related to transfer of the Principal Investigator from Brown University to Virginia Commonwealth University. They were unable to initiate one of the subcontracts in a timely fashion. They have since worked on implementing the work within Virginia Commonwealth University restrictions and, as such, should be on track.

Milestones: Progress is mostly on track.

Budget: Significantly under spent, more than 20 percent.