

Project Title:	Using an Electronic Personal Health Record to Empower Patients with Hypertension
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Organization:	Medical College of Georgia
Mechanism:	RFA: HS07-007: Ambulatory Safety and Quality Program: Enabling Patient-Centered Care through Health Information Technology (PCC)
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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: The project, approximately mid-way through its scheduled duration, examines the feasibility, acceptability, and impact of an electronic personal health record (ePHR) for patients with hypertension. The project is using the Cerner PY-275131IQ Health ePHR under the Medical College of Georgia (MCG) Health brand name *My HealthLink*. To foster personal wellness and chronic condition management, *My HealthLink* allows consumers to log entries into their ePHR, track progress against their customized care plan developed by their provider, complete health assessments, securely communicate with their provider, access health education content, and check for interactions between medications.

The project team has included patients and families in the design of the ePHR to incorporate the experiences, perspectives, and insights of patients and their family members. The team enrolled patients from the MCG Medical Center and conducted two iterative pilot beta tests to test the modified ePHR. Each beta-test session had participants use the ePHR for 2 weeks. Subsequently, the project team has been conducting acceptability interviews and identifying themes from the feedback received. Throughout this process, the project team is working with the Cerner IT group to modify the ePHR. Once the modifications suggested by the beta-test participants have been fully incorporated, the project team will conduct a clustered, randomized, controlled trial to compare a group using *My HealthLink* with those receiving usual care. The team will evaluate the effectiveness of *My HealthLink* through questionnaires and biological measurements, including outcomes of: patient activation and perception of care; biological markers, specifically blood pressure, body mass index, and lipid levels; collaborative patient-physician communication; congruence of medication treatment with guidelines; and frequency of use of medical services. The team will also evaluate physician and staff perceptions of the ePHR and toward patient- and family-centered practices via surveys and in-depth interviews.

Specific Aims

- Improve the application of patient- and family-centered care (PFCC) elements in an existing ePHR system. **(Achieved)**
- Implement and test the effectiveness of the revised ePHR, *My HealthLink*, with patients being treated for hypertension by a team of physicians, mid-level practitioners, nurse clinicians, and support staff in two ambulatory settings. **(Ongoing)**
- Monitor the shift in provider and support staff awareness and incorporation of PFCC concepts as a result of the implementation of the ePHR. **(Ongoing)**

2008 Activities: The project team has completed the two waves of beta tests. To accomplish this, the patients used the ePHR for 2 weeks, performing tasks assigned to them by the project team. The researchers then conducted in-depth interviews with the patients, revised the ePHR based on their feedback, and conducted another beta-test round using the same procedures. To collect feedback from a broader group of patients, the team held a national patient conference call to uncover themes pertinent to further enhancement of the ePHR. After a detailed analysis of the patients' feedback, the team worked collaboratively with Cerner personnel to prioritize, evaluate, and implement the appropriate changes.

In addition, the project team conducted a focus group with physicians to collect their insight on the intervention protocols and tool itself. To engage providers in the intervention, the team held meetings, Web conferences, and live demonstrations for physicians, nurses, faculty, and staff on topics such as study design, introduction to the ePHR, and workflow. To engage physicians further in anticipation of the intervention, physicians at the intervention sites were shadowed during their rounds by an ePHR expert to answer questions and solicit feedback on the best ways to incorporate the new technology into their workflow.

Other project activities completed in 2008 include an institutional survey designed to measure perceptions of PFCC among members of the MCG Health System via a simple random sample. Additionally, the project team developed various instructional materials, including the user manual, brochure, and public computer access map. In their recruitment efforts, the team has developed the recruitment protocols, conducted randomization of the physicians (serving as clusters within which the patients are nested), and began subject enrollment.

Preliminary Impact and Findings: No impacts or findings have yet been reported.

Selected Outputs

Institutional PFCC survey: measures perceptions of patient and family-centered care.

Internet Accessibility Questionnaire: measures computer experience, access, and Internet usage.

ePHR Tri-Fold: a tutorial highlighting the portions of the ePHR expected to have the highest utilization rate.

Public Access Computed Map: a map with public libraries and other locations that provide free Internet computer access to the public.

ePHR User Manual: an owners guide to *My HealthLink*, including screen shots and detailed instructions.

AHRQ 2008 Annual Conference presentation; Sept. 7-10; Bethesda MD.: Design of Patient-Centered Care Health IT: Patient Advisor Involvement in ePHR Design and Outcomes Research ([PowerPoint® File](#), 3.2 MB; [Web Version](#)).

Grantee's Most Recent Self-Reported Quarterly Status: About 65-80 percent of the project's milestones are being met, but there is a viable plan for achieving the others. Enrollment of subjects under Aim 2 began roughly 6 months later than anticipated due to the need for extra time to make the product changes requested by the two patient advisors. Enrollment plans have been adjusted in discussion with the AHRQ project officer with the intent of continuing to enroll subjects beyond the initially planned time period. Other than this delay, the project is on track. The project is significantly under spent because, initially, spending for salaries was slightly behind schedule, and a consulting invoice was paid later than anticipated. The project's current spending is approaching the original budget plan.

Milestones: Progress is on track in some respects but not others.

Budget: Significantly under spent, more than 20 percent.