

Electronic Health Record Usability Toolkit

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Target Population: General

Summary: While health information technology (IT) systems are expected to significantly reduce medication errors, studies have found that issues with usability can actually facilitate errors or decrease the efficiency gains made possible by health IT. While electronic health records (EHRs) might be an improvement over their paper predecessors, studies reveal that many of today's systems scatter important data that clinicians need for a single-patient encounter.

A project team comprised of staff from Westat's Center for Health IT, the School of Nursing at Duke University, the Center for Health Information and Decision Systems at the University of Maryland at College Park, and the American Academy of Family Physicians will design, develop, test, and disseminate a toolkit with which health care organizations—specifically primary care practices—can assess the usability of EHR systems. Audiences for the toolkit also include health IT vendors and certification organizations. Development of the toolkit will increase attention to the importance of EHR usability and help promote design of systems that better support proper diagnosis, identification of high-risk patients, tracking of patient health parameters over time, and population health management.

A background report will identify and assess a range of usability methods, metrics, and instruments, and will provide specific recommendations to include in the toolkit. A preliminary EHR usability toolkit will then be developed based upon these recommendations and subsequently tested in nine primary care practices with nine EHR systems developers, and in one EHR certification organization. The findings from these pilot tests will inform a final version of the toolkit before it is disseminated.

Project Objectives:

- Develop background report. **(Ongoing)**
- Develop and refine a toolkit for primary care clinicians that supports rapid yet meaningful usability evaluations of EHR systems. **(Upcoming)**
- Disseminate the toolkit to increase awareness about the importance of EHR usability, to promote use of evidence-based usability evaluation methods, and to stimulate collaboration among entities developing and implementing EHR systems. **(Upcoming)**
- Inform EHR accreditation efforts on usability, including those by the National Institute of Standards and Technology. **(Upcoming)**

2010 Activities: Activities focused on conducting the initial kickoff call between the Agency for Healthcare Research and Quality and the project team; as well as developing the work, project, and compliance plans. In addition, the expert panel and workgroups were established and have begun convening meetings via

Web-enabled teleconferences. The five topic areas on which workgroups have been established are: 1) approaches to assessing usability; 2) toolkit development approaches; 3) evaluation of the proposed toolkit throughout its development cycle; 4) assessment of the testing plan and results; and 5) dissemination plans. Lastly, the project team began developing the background report.

Preliminary Impact and Findings: This project has no 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