



AHRQ's Health IT Program

Establishing a Health IT Usability and Accessibility Research Agenda

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Why Focus on Usability / Information Design?

- Recommendation from IHI to make health IT valuable for Primary Care
- Viewed as key to adoption, safe & effective use and innovation
- Many gaps in knowledge (that private sector isn't filling)...

Research At HHS

What is AHRQ's "Space?"



NIH

Biomedical
research to
prevent,
diagnose and
treat diseases



CDC

Population health
and the role of
community based
interventions to
improve health



AHRQ

Long-term and
system-wide
improvement of
health care quality
and effectiveness



Establishing a Health IT Usability & Accessibility Research Agenda

- Consumer Health IT
- Professional Use of Health IT
- Importance of Addressing Both Domains

Select Health IT Projects and Research Activities

Consumer Health IT Projects

- Barriers & Drivers to the Use of Health Information Technology by the Elderly, Chronically Ill, and Underserved
- Developing Interactive Applications to Enhance Patient-Clinician Communication
- Active Aging Research Center



Select Health IT Projects and Research Activities

Professional Use of Health IT

- EHR Usability Policy Recommendations
- EHR Usability Research Recommendations
- EHR Vendor Processes
- EHR Usability Evaluation Toolkit





Barriers & Drivers to the Use of Health Information Technology by the Elderly, Chronically Ill, and Underserved

- Systematic evidence review (Oregon EPC-11/08)
- Interactive consumer health technologies
 - Actively engage patients in their health care
 - Potential to foster self-care & health mgmt
- Populations of Interest
 - Elderly and functionally elderly
 - Chronically ill or disabled (chronic condition, impairment, activity limitation,



Developing Interactive Applications to Enhance Patient-Clinician Communication

- Enabling Patient-Centered Care through Health IT (PCC) grant initiative
 - Funded by AHRQ in 2007
 - Part of Ambulatory and Safety Quality Program
- Consists of 16 grants focused on:
 - patient self-management,
 - patient-clinician communication,
 - shared decision-making, and/or
 - patient and/or clinician access to medical information
- Variety of technology platforms / approaches used:
 - Clinical Decision Support
 - Telemedicine
 - Personal Health Record
 - Multimedia content



Active Aging Research Center

- New 5 yr / \$10M research effort focused on health IT and older adults
- Purpose of grant:
 - Carry out community-based participatory research on the use of IT to improve the health status of, and health-related services provided to, older adults
 - Multidisciplinary, multi-project health services research program
 - Three broad strategic themes:
 1. Extend independence and functioning and reduce unnecessary health care utilization by older adults;
 2. Place the individual and families at the center of expanded and more efficient service delivery networks; and
 3. Development of innovative approaches to translate evidence generated in the first two thematic areas into practice.



Professional Use of Health IT

Electronic Health Record Usability: Evaluation and Use Case Framework (10/9)

- Synthesizes literature and best practices on usability of EHRs
- Provides a set of use cases to evaluate information design in primary care IT systems.

Professional Use of Health IT

Electronic Health Record Usability: Interface Design Considerations (10/9)

- Formed expert panel
- Provides recommended actions to support the development of an objective EHR usability evidence base
- Policy recommendations to systematically improve the usability of EHR systems

Participant	Affiliation
Mark Ackerman, PhD (Presenter)	University of Michigan, School of Information, Associate Professor; Department of Electrical Engineering and Computer Science, Associate Professor
Daniel Armijo, MHSA (Presenter)	Altarum Institute, Information & Technology Strategies, Practice Area Leader
Clifford Goldsmith, MD	Microsoft, Eastern US Health Plan Strategist
Lee Green, MD, MPH (Presenter)	University of Michigan, Department of Family Medicine, Professor & Associate Chair of Information Management; Great Lakes Research Into Practice Network, Director; Clinical Translation Science Program in the Michigan Institute for Clinical and Health Research (MICHHR), Co-Director
Michael Klinkman, MD, MS (Presenter)	University of Michigan, Department of Family Medicine; University of Michigan Depression Center, Director of Primary Care Programs
Ross Koppel, PhD	University of Pennsylvania Sociology Department, Professor; University of Pennsylvania School of Medicine, Affiliate Faculty Member
David Kreda	Independent Computer Software Consultant
Donald T. Mon, PhD	American Health Information Management Association, Vice President of Practice Leadership; Health Level Seven (HL7) EHR Technical Committee, Co-chair
Catherine Plaisant, PhD (Presenter)	University of Maryland, Human Computer Interaction Laboratory, Institute for Advanced Computer Studies, Associate Director
Ben Shneiderman, PhD (Panel Chair)	University of Maryland, Department of Computer Science, Professor Human-Computer Interaction Laboratory, Institute for Advanced Computer Studies, Founding Director
Andrew Ury, MD	(At the time of the meeting) McKesson Provider Technologies, Chief Medical Officer
James Walker, MD	Geisinger Health System, Chief Health Information Officer
Andrew M. Wiesenthal, MD, SM	Permanente Federation, Associate Executive Director for Clinical Information Support
Kai Zheng, PhD (Presenter)	University of Michigan School of Public Health, Assistant Professor; University of Michigan School of Information, Assistant Professor; Medical School's Center for Computational Medicine and Biology (CCMB); Michigan Institute for Clinical and Health Research (MICHHR)
Michael Zaroukian MD, PhD	Michigan State University, Professor and Chief Medical Information Officer; Sparrow Health System, Director of Clinical Informatics and Care Transformation, EMR Project Medical Director.



EHR Vendor Usability Processes

- What are vendors doing?
- Interviews with 9 certified EHR vendors
- Summary of findings
- Recommendations for improvement
- Available on AHRQ NRC



EHR Usability Evaluation Toolkit

- Synthesizes available guidelines into objective usability rules
- Develops a toolkit for evaluating primary care EHR usability
- Tests toolkit in practices, vendors, certification body
- Disseminates tool

Conclusion

- An area of interest for AHRQ and ONC
- Usability is a key to adoption, safe & effective use and innovation
- Usability of Health IT for people both as patients & professionals



...On with the Panel

■ Panelists

- Kristen Werner, Altarum Institute
- Lee Green, MD, University of Michigan