The Role of Health IT in Comparative Effectiveness

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Agency for Healthcare Research and Quality

Health Information Technology Symposium
Massachusetts Institute of Technology

Cambridge, MA – July 2, 2009
The Measure of Progress
Challenges and Opportunities

- Growing concern about health spending; about $2.3 trillion per year
- Large variation in clinical care
- Uncertainty about best practices involving treatments and technologies
- Pervasive quality, safety, and equity issues
- Using health IT to improve research and care
- Rewarding the ‘leading edge’ and bringing others along
The Role of Health IT in Comparative Effectiveness

- AHRQ’s Roles & Resources
- AHRQ & Comparative Effectiveness Research
- Health IT & Comparative Effectiveness Research
- A Look Ahead
- Q&A
AHRQ’s Mission

Improve the quality, safety, efficiency and effectiveness of health care for all Americans
AHRQ Priorities

Patient Safety
- Health IT
- Patient Safety Organizations
- New Patient Safety Grants

Effective Health Care Program
- Comparative Effectiveness Reviews
- Comparative Effectiveness Research
- Clear Findings for Multiple Audiences

Ambulatory Patient Safety
- Safety & Quality Measures, Drug Management and Patient-Centered Care
- Patient Safety Improvement Corps

Medical Expenditure Panel Surveys
- Visit-Level Information on Medical Expenditures
- Annual Quality & Disparities Reports

Other Research & Dissemination Activities
- Quality & Cost-Effectiveness, e.g. Prevention and Pharmaceutical Outcomes
- U.S. Preventive Services Task Force
- MRSA/HAI
AHRQ FY 2009 Funding

- $372 million
  - $37 million more than FY 2008
  - $46 million more than the president’s request

- FY 2009 appropriation includes:
  - $50 million for comparative effectiveness research, $20 million more than FY 2008
  - $45 million for health IT
The American Recovery and Reinvestment Act of 2009 includes $1.1 billion for comparative effectiveness research:

- AHRQ: $300 million
- NIH: $400 million (appropriated to AHRQ and transferred to NIH)
- Office of the Secretary: $400 million (allocated at the Secretary’s discretion)

Funding for health IT, prevention and other areas could have implications for the Agency.
The Recovery Act calls for establishment of an incentive for providers who become "meaningful users" of electronic health records.

A Federal Health IT Policy Committee workgroup is developing criteria for a definition of meaningful use.

The focus: quality outcomes, health status and cost control.

http://healthit.hhs.gov
Meaningful Use: AHRQ’s Role

- AHRQ provides Federal partners with the best available evidence on how proposed criteria for meaningful use might help to achieve the ultimate goal of high quality, high value health care
  - AHRQ grantees and contractors have been significant contributors to the public discussion on meaningful use
  - The Agency also participates in internal Federal discussions about meaningful use
Recovery Act Timeline: AHRQ

February 17: The American Recovery and Reinvestment Act of 2009 is signed into law

March 19: The Federal Coordinating Council for Comparative Effectiveness Research is established

April

June 30: Due date for IOM submission of a list of national priority conditions*

July

May 1: Due date for Agency wide and program-specific Recovery Act plans

July 30: AHRQ to submit FY ‘09 Operations Plan

October

November 1: AHRQ FY ‘10 operations plan due

December 31, 2010: All Recovery Act funding to be obligated

2009 January April July October 2010

* Stakeholder input required
Federal Coordinating Council Members

- Anne Haddix, CDC
- Thomas Valuck, CMS
- Peter Delany, SAMHSA
- Carolyn Clancy, AHRQ
- Deborah Hopson, HRSA
- David Hunt, ONC
- James Scanlon, HHS
- Elizabeth Nabel, NIH
- Garth Graham, Office of Minority Health
- Jesse Goodman, FDA
- Michael Marge, Office on Disability
- Neera Tanden, HHS
- Joel Kupersmith, VA
- Michael Kilpatrick, DoD
- Ezekiel Emanuel, OMB
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## A. Evidence synthesis (EPC program)
- Systematically reviewing, synthesizing, comparing existing evidence on treatment effectiveness
- Identifying relevant knowledge gaps

## B. Evidence generation (DEcIDE, CERTs)
- Development of new scientific knowledge to address knowledge gaps.
- Accelerate practical studies

## C. Evidence communication/translation (Eisenberg Center)
- Translate evidence into improvements
- Communication of scientific information in plain language to policymakers, patients, and providers
New Priority Conditions for the Effective Health Care Program

- Arthritis and non-traumatic joint disorders
- Cancer
- Cardiovascular disease, including stroke and hypertension
- Dementia, including Alzheimer Disease
- Depression and other mental health disorders
- Developmental delays, attention-deficit hyperactivity disorder, and autism
- Diabetes Mellitus
- Functional limitations and disability
- Infectious diseases including HIV/AIDS
- Obesity
- Peptic ulcer disease and dyspepsia
- Pregnancy including pre-term birth
- Pulmonary disease/Asthma
- Substance abuse
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<td>Weill Medical College - Cornell</td>
<td>Therapeutic medical devices</td>
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Evidence-Based Practice Centers

- Created in 1997; promotes evidence-based practice and decision-making
- Generate comparative effectiveness reviews on medications, devices and other interventions
- User-driven, with public and private-sector partners

- Blue Cross and Blue Shield Association, Technology Evaluation Center (TEC), Chicago, IL
- Duke University, Durham, NC
- ECRI, Plymouth Meeting, PA
- Johns Hopkins University, Baltimore, MD
- McMaster University, Hamilton, Ontario
- Oregon Evidence-Based Practice Center
- RTI International-University of North Carolina at Chapel Hill, NC
- Southern California Evidence-based Practice Center-RAND, Santa Monica, CA
- Tufts University-New England Medical Center, Boston, MA
- University of Alberta
- University of Connecticut
- Minnesota Evidence-based Practice Center
- University of Ottawa
- Vanderbilt University
DEcIDE Research Network

*Network of institutions and partner organizations with access to de-identified data of 50 million patients; generates evidence and analytic tools in practical, accelerated format*
Translates knowledge about effective health care into clear, actionable summaries to assess:

- Treatments
- Medications
- Technologies

Develops information summaries for 3 key audience groups:

- Consumers
- Health care providers
- Policymakers
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As with comparative effectiveness research, health IT is a useful tool in a much larger toolkit – it is necessary, but not the solution. With regards to comparative effectiveness research, health IT can play pivotal roles. For example:

- Information gathering – technology has the potential to enable studies to be completed much, much faster
- Dissemination – Results about new findings can be widely distributed very quickly
AHRQ Health IT
Research Funding

- Long-term agency priority
- AHRQ has invested more than $260 million in contracts and grants
- More than 150 communities, hospitals, providers, and health care systems in 48 states

AHRQ Health IT Investment: $260 Million
AHRQ Health IT Initiative

- State and regional demonstrations
- Grants
- Privacy and security solutions for Interoperable Health Information Exchange
- ASQ initiative
- E-prescribing pilots
- Clinical decision support demonstrations
- Technical assistance for Medicaid and CHIP agencies
Established in 2004
Central national source of information and assistance for advancing health IT goals
Maintains operation of health IT Web site
Direct technical assistance to AHRQ grantees
Repository for lessons learned

http://healthit.ahrq.gov
First synthesis of existing evidence on factors influencing the usefulness, usability, barriers and drivers to use, and effectiveness of consumer applications.

- The top factor associated with use by patients was the perception of a health benefit.
- Patients prefer systems tailored to them that incorporate familiar devices.
Issue Papers

- Substantive reports of issues, challenges and lessons learned from grantees
- Executive summaries list the grantees being evaluated and describe key points and challenges faced during implementation
- Topics include Bar-Coded Medication Administration, Regional Health Information Organizations, Long-term Care, and the Rural Underserved
AHRQ’s Patient Safety and Health IT E-Newsletter

February 28, 2009, Issue No. 51

Quote of the Month

“We are excited about this project, which will spread the knowledge that we learned in one of AHRQ’s initial patient safety research projects. This new project will help hospitals in their ongoing efforts to provide the patients they serve with the safest, highest quality care possible.” (For more information on activities from AHRQ’s new project to help reduce central line-associated bloodstream infections in hospital intensive care units, go to [link].)

Carolyn M. Clancy, M.D., Director, AHRQ

Today’s Headlines:

1. 10-State project to study methods to reduce central line-associated bloodstream infections in hospital ICUs
2. New drugs first increased to $100 million for contracts to support AHRQ’s National Resource for Health Information Technology
3. Educating patients before they leave the hospital reduces readmissions, emergency department visits and nursing home admissions
4. New reports on health parity, medication administration, and implantable medical device order safety now available
5. AHRQ awards contract to develop criteria to assess the evidence base for patient safety practices
6. Materials from AHRQ’s recent Technical assistance conference on health IT funding opportunity announcements
7. Latest issue of PRISM is available online
8. Special AHRQ-funded journal issue examines impact of health IT on child health
9. Call for nominations for 2009 John M. Eisenberg patient safety and quality awards program
10. AHRQ on the patient safety and health IT professional libraries—some useful collections

1. 10-State Project to Study Methods to Reduce Central Line-Associated Bloodstream Infections in Hospital ICUs

As part of an AHRQ-funded project, hospital associations in 10 States have been selected to participate in a program to test methods of reducing central line-associated bloodstream infections in hospital intensive care units (ICUs). The States are California, Colorado, Florida, Massachusetts, Nebraska, North Carolina, Ohio, Pennsylvania, Texas, and Washington. In addition, the California Hospital Patient Safety Organization, the North Carolina Center for Hospital Quality and Patient Safety, and the Ohio Patient Safety Institute will participate in the project. The hospital associations and patient safety groups were chosen to participate based on their capability and infrastructure to implement the same protocols being tested in the project. In addition, they provide a broad geographic representation. Last October, AHRQ awarded a 3-year, $3 million contract to the Health Research & Educational Trust, an affiliate of the American Hospital Association, to coordinate the project. The project will continue the work that originated at the Johns Hopkins University School of Medicine in Baltimore and was later implemented statewide in Michigan by the Johns Hopkins Quality and Safety Research Group and the Michigan Health & Hospital Association. The project will implement a comprehensive, evidence-based patient safety program across the 10 States to help prevent infections related to the use of central line catheters. Select to read our press release announcing participating States or our earlier press release on the award of the contract.
Support for Clinical Decision-Making at the Point of Care

Electronic Preventive Services Selector (ePSS)

- A quick hands-on tool designed to help primary care clinicians identify screening, counseling and preventive medication services appropriate for patients
- Available both as a PDA application and Web-based tool
- Based on current USPSTF recommendations, can be searched by specific patient characteristics

www.ePSS.ahrq.gov
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Evidence of Progress

- **Wal-Mart**
  - Plans to sell EMRs to doctors

- **Geisinger Health Systems**
  - Building the capability to push specific types of information to select patient populations

- **Marriott**
  - Launched a preventive health campaign to help address multiple languages and diverse backgrounds of employees
Distributed Network Prototypes* for Population-Based Studies

- **Aim:** to develop a federated network prototype that supports secure analyses of electronic information across multiple organizations to study risks, effects and outcomes of various medical therapies.

- The long-term goal is a coordinated partnership of multiple research networks that provide information that can be quickly queried and analyzed:
  - **Model 1:** Colorado DEcIDE center with American Academy of Family Practice will develop the “Distributed Ambulatory Research Network” (DARTNet) using electronic health record (EHR) data from eight organizations representing over 200 clinicians and over 350,000 patients.
  - **Model 2:** HMO Research Network (HMORN) DEcIDE will develop the “Virtual Data Warehouse” to assess the effectiveness and safety of different anti-hypertensive 5.5 to 6 million individuals cared for by six health plans.

*AHRQ Centers for Outcomes and Evidence*
The “3T’s” Road Map to Transforming U.S. Health Care

- **T1**
  - Key T1 activity to test what care works
  - Clinical efficacy research

- **T2**
  - Key T2 activities to test who benefits from promising care
  - Outcomes research
  - Comparative effectiveness research
  - Health services research

- **T3**
  - Key T3 activities to test how to deliver high-quality care reliably and in all settings
  - Measurement and accountability of health care quality and cost
  - Implementation of interventions and health care system redesign
  - Scaling and spread of effective interventions

Improving quality by promoting a culture of safety through Value-Driven Health Care

Information-rich, patient-focused enterprises

Evidence is continually refined as a by-product of care delivery

Information and evidence transform interactions from reactive to proactive (benefits and harms)

Actionable information available – to clinicians AND patients – “just in time”
According to Yogi Berra

“If you don't know where you are going, you might wind up someplace else.”
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