Building A Multi-Purpose Network for Enhanced Use of Health Information

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Comparing Evidence: Medical vs. Semiconductor Research

"When I was doing semiconductor device research, it was expected that I would compare my results with other people's previously published results and that I would comment on any differences. But it seemed to be different in medicine.

"Medical practitioners primarily tended to publish their own data; *they often didn't compare their data with the data of other practitioners, even in their own field*, let alone with the results of other types of treatments for the same condition."

Intel co-founder and prostate cancer patient Andy Grove
Forbes 5/13/96

Current Challenges

- Concerns about health spending – about $2.3 trillion per year in the U.S. and growing
- Pervasive problems with the quality of care that people receive
- Large variations and inequities in clinical care
- Uncertainty about best practices involving treatments and technologies
- Translating scientific advances into actual clinical practice and usable information both for clinicians and patients

Agenda

- The Growing Role of Comparative Effectiveness Research
- Translating Science Into Real-World Applications
- Where to From Here?

Comparative Effectiveness and the Recovery Act

- 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)

Federal Coordinating Council appointed to coordinate comparative effectiveness research across the federal government

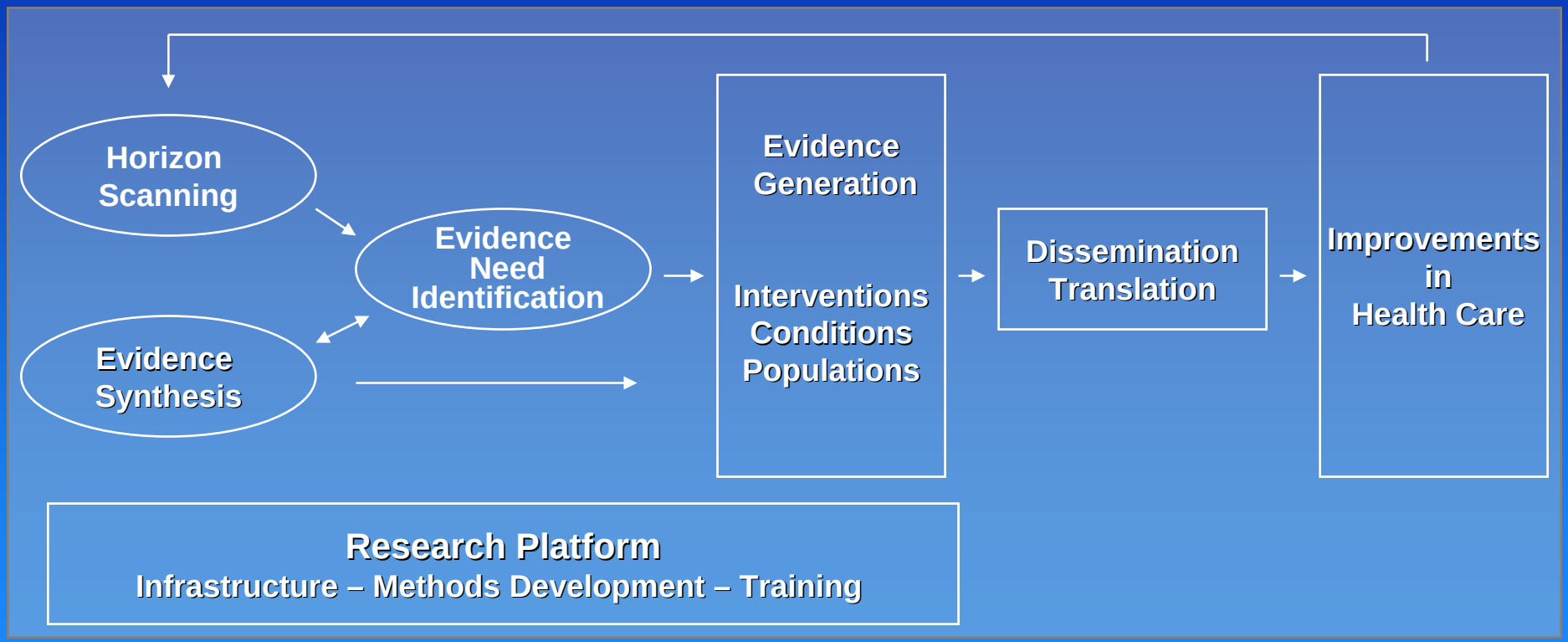
IOM's 100 Priority Topics

- *Initial National Priorities for Comparative Effectiveness Research (June 20, 2009)*
  - A starting point for a sustained effort to conduct comparative effectiveness research, with priorities evolving as progress is made
  - Topics in 4 quartiles; groups of 25, with the highest priorities in the first quartile:
    - Dissemination and translation techniques to promote the use of CER by patient, clinicians, payers and others
    - Comprehensive care coordination programs
    - Interventions to reduce health disparities

Report Brief Available At ***http://www.iom.edu***

HHS Framework for CER

Stakeholder Involvement and Input Are Key



The OS Recovery Act CER funds, with support from AHRQ and NIH, will strengthen the research platform and accelerate dissemination and translation of CER findings into health care practice improvement

Office of the Secretary's Spend Plan for Recovery Act CER Funding

- Designed to complement AHRQ and NIH activities
  - **Data Infrastructure:** Identify unique high-level opportunities to build the foundation for sustainable CER infrastructure to fundamentally change the landscape
  - **Dissemination, Translation and Implementation:** Innovative strategies that go beyond evidence generation and lead to improved health outcomes
  - **Priority Populations and Interventions:** Coordination of efforts across multiple activities to include subgroups that traditionally have been under-represented in research activity

Specific Investment: Data Infrastructure (Example)

- Distributed Data Research Networks
  - Three EHR-driven distributed research networks
  - Includes linking clinical and administrative data to investigate comparative effectiveness of medications, treatments and strategies to improve health outcomes
  - Funding to be used for infrastructure support and to test the ability of the networks to answer relevant CER questions
  - To be coordinated with health IT investments

AHRQ Operating Plan for Recovery Act's CER Funding

- **Stakeholder Input and Involvement:** To occur throughout the program
- **Horizon Scanning:** Identifying promising interventions
- **Evidence Synthesis:** Review of current research
- **Evidence Generation:** New research with a focus on under-represented populations
- **Research Training and Career Development:** Support for training, research and careers

Translating the Science into Real-World Applications

- Examples of Recovery Act-funded Evidence Generation projects by AHRQ:
  - Clinical and Health Outcomes Initiative in Comparative Effectiveness (CHOICE): First coordinated national effort to establish a series of pragmatic clinical comparative effectiveness studies
  - PROSPECT: Up to five awards for the creation or enhancement of national patient registries, with a primary focus on the 14 priority conditions
  - DEcIDE Consortium Support: Expansion of multi-center research system and funding for distributed data network models that use clinically rich data from electronic health records

Citizen Forum on Effective Health Care

- Supporting AHRQ's long-term commitment to bridging the gap between research and practice:
  - Formally engages stakeholders in the entire Effective Health Care enterprise
  - A Workgroup on Comparative Effectiveness will be convened to provide formal advice and guidance

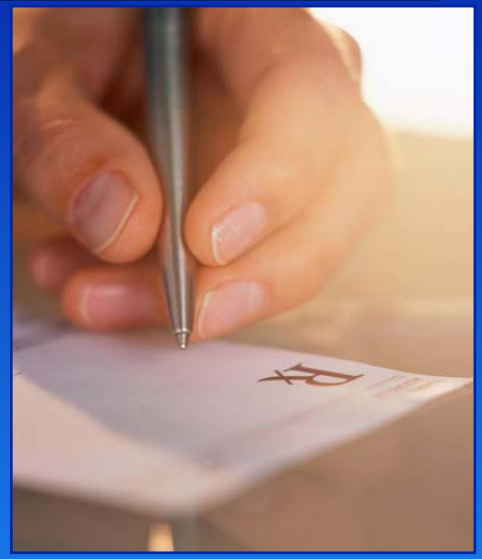
Distributed Network Prototypes for Population-Based Studies

Existing AHRQ-Funded Projects

- Federated network prototypes that support secure analyses of electronic information across multiple organizations to study risks, effects and outcomes
- Long-term goal: 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
    - The "Distributed Ambulatory Research Network" (DARTNet) using EHR data from eight organizations representing more than 200 clinicians and more than 350,000 patients
  - Model 2: HMO Research Network (HMORN) DEcIDE
    - The "Virtual Data Warehouse" to assess the effectiveness and safety of different anti-hypertensive 5.5 million to 6 million individuals cared for by six health plans

MEADERS

Medication Error and Adverse Drug Event Reporting System (MEADERS)



- Designed to help clinicians in small practices quantify medication errors and ADEs
- Web-based system for documenting and reporting in ambulatory settings (an 'in-house' version requires no internet connection)
- Information fed back to practices for QI purposes
- Voluntary and confidential
- Option to file reports with FDA
- Field tested in PBRNs

Where to From Here?

- Identify synergies – methods and infrastructure – between CER and post-marketing surveillance: identification of signals and investigations of causes
- Clarify governance of different applications / uses of a learning health care system
- Identify incentives for participation*
- Anticipate unanticipated consequences

Thank You

AHRQ Mission

To improve the quality, safety, efficiency, and effectiveness of health care for all Americans

AHRQ Vision

As a result of AHRQ's efforts, American health care will provide services of the highest quality, with the best possible outcomes, at the lowest cost

www.ahrq.gov

ENGELBERG CENTER for Health Care Reform at BROOKINGS

Sentinel Initiative Public Workshop

Monday, January 11, 2010