



**Strategic Action in Health Information Technology:  
Why the Obvious Has Taken So Long**

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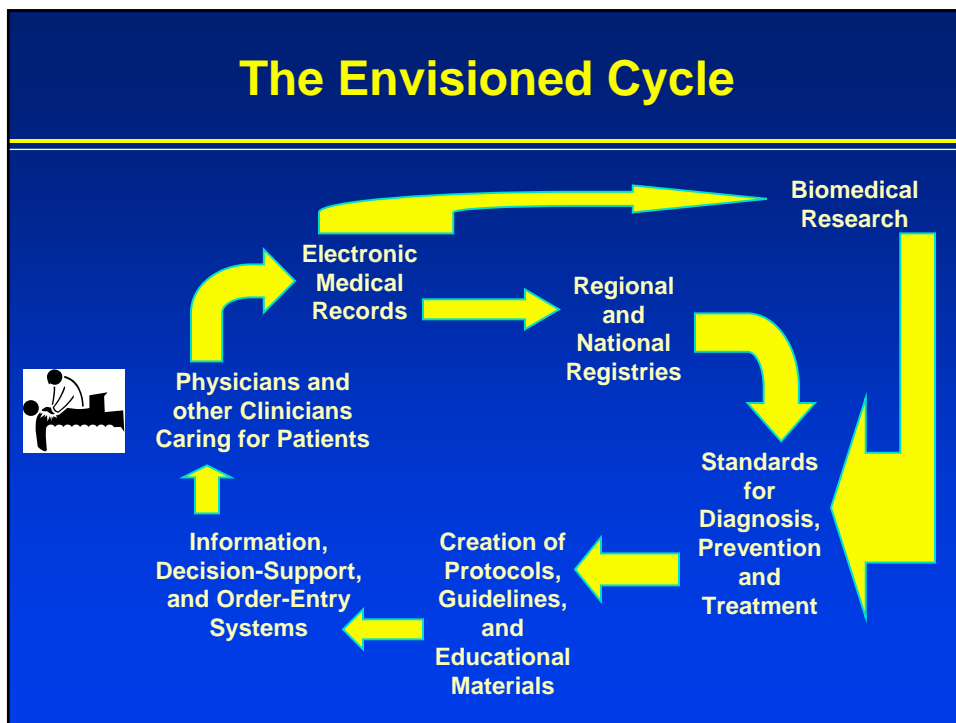
The HIT Symposium  
Massachusetts Institute of Technology  
Cambridge, Massachusetts  
July 17, 2006



## Personal Experience

- Academic pursuit of research and education in biomedical informatics
- Clinical practice of general internal medicine in academic teaching setting
- The hard questions when I returned to my laboratory after six hours in my clinic....

## The Envisioned Cycle





## What stands in the way?

What do we know about the barriers to achieving the vision?

### Barriers to Effective Use of Information Technology in Health Care

- Cultural
  - The technology has never been fully embraced
  - Seen as support activity, outside the usual foci of biomedical science
  - Poor appreciation of IT as a strategic asset
    - » IT leadership often not at the table for day-to-day strategic planning
  - Concerns that IT systems provide more of a threat than a protection for data confidentiality compared to traditional paper-based practices



## Barriers to Effective Use of Information Technology in Health Care

- Cultural (more)
  - Technical challenges (and need for ongoing research) often poorly understood
  - Fears of depersonalization of health care
  - Often viewed as a distraction from organization's (or practitioner's) primary goals
  - Reluctance to learn new skills in an area that seems foreign

## Barriers to Effective Use of Information Technology in Health Care

- Making the business case
  - IT generally has had a poor track record in health care
  - Problems often blamed on the technology itself, rather than on the implementers, implementations, and available fiscal resources
  - Those asked to invest are too often not the principal fiscal beneficiaries



## Barriers to Effective Use of Information Technology in Health Care

- **Making the business case (more)**
  - Purchasers of health care IT are often poorly prepared to make appropriate decisions
    - » Buyers generally are not the users
    - » Users tend to be poor consultants in the process
  - IT viewed as a cost center
    - » Measuring benefits, and agreeing on metrics, can be challenging
    - » IT poorly integrated into cost (and reimbursement) models for health care financing

## Barriers to Effective Use of Information Technology in Health Care

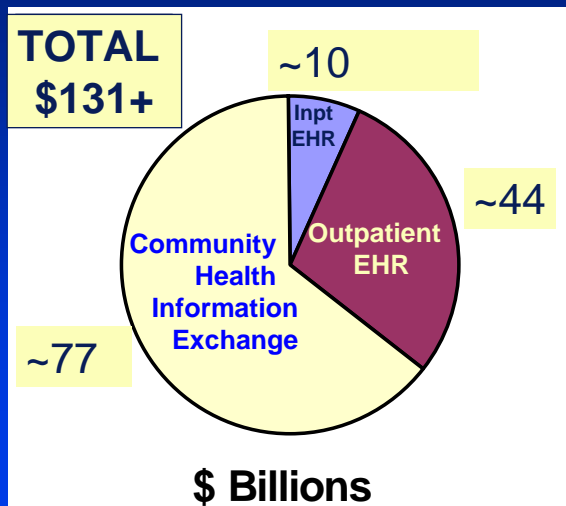
- **Structural issues**
  - Fragmented health care system
  - Historically poor incentives for IT investment, especially among providers
  - Health care organizations are complex social environments
    - » Many IT users do not work for the organizations that provide the systems for them



## Barriers to Effective Use of Information Technology in Health Care

- Structural issues (more)
  - Too few individuals trained to work effectively at the intersection between biomedicine and IT
  - Inadequate participation of the health care community in evolving IT industry standards
    - » Community generally has no choice but to adopt what is provided by others
  - Resulting challenges to integration within organizations and between institutions

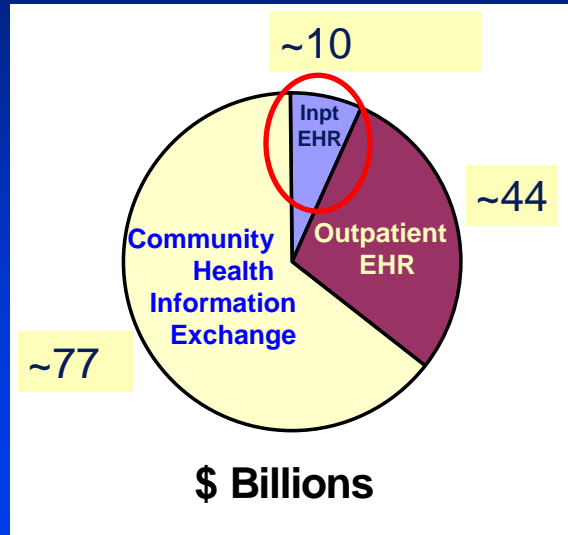
## Health IT's Net National Savings



Source: Center for Information Technology Leadership, Partners Health Care, Harvard (2003)

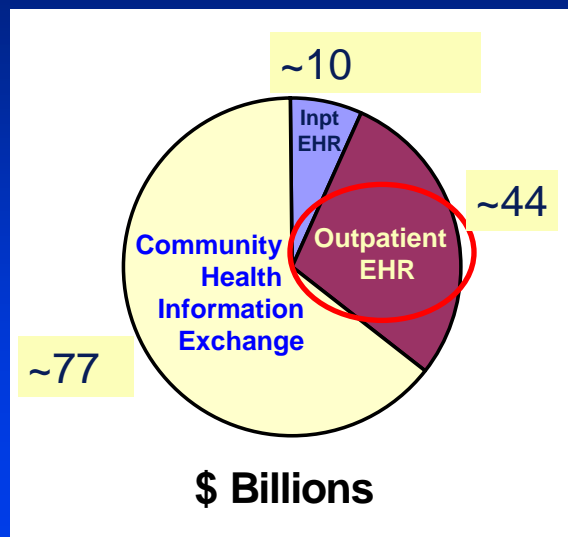


## Inpatient EHR



- Benefits go to hospital
- Larger hospitals are investing (a bit)
- Capital is obstacle for small & rural institutions

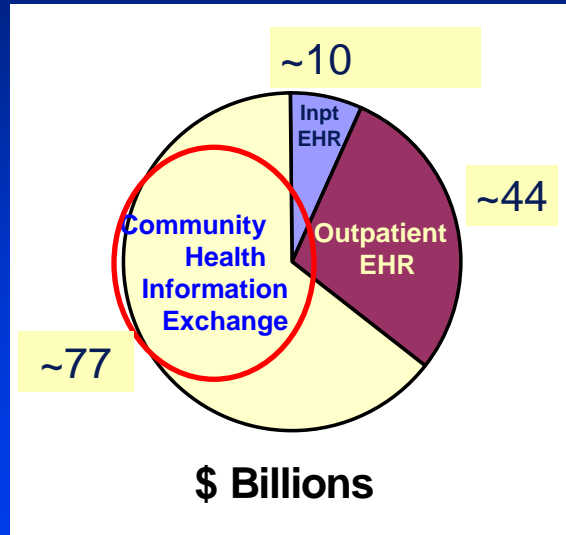
## Outpatient EHR



- Benefits go to payer
- No business case for physicians (especially small practices)
- Suitable incentives needed



## Community Health Information Exchange



- Substantial benefits to all
- First mover disadvantage
- Seed funding needed
- Focus of current Federal initiatives

## Climate for Change

- Consumer activism
  - Increasing use of the Web by patients
- HIPAA
  - Data standards
  - Privacy and Security

Facilitating role of the Institute of Medicine and the National Research Council





**Institute of Medicine**

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## Climate for Change

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- Awareness of medical errors and the role of IT in support of quality

### Institute of Medicine



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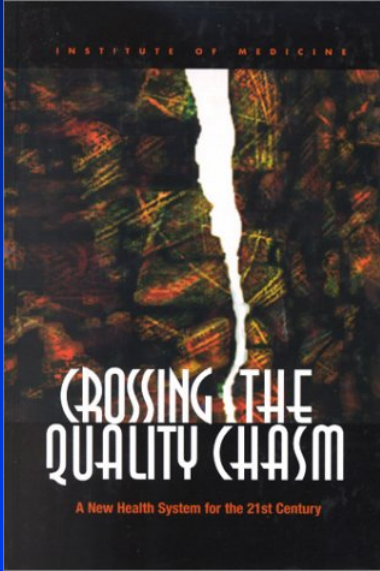
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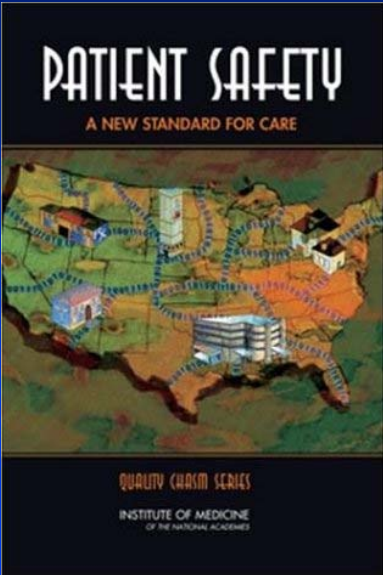
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**“The committee believes that establishing this information technology infrastructure [NHII] should be the highest priority for all health care stakeholders.”**

Committee on Data Standards for Patient Safety  
 (Executive Summary)



## Climate for Change

- Consumer activism
  - Increasing use of the Web by patients
- HIPAA
  - Data standards
  - Privacy and Security
- Awareness of medical errors and the role of IT in support of quality
- Report to NIH proposing the Biomedical Information Science and Technology Initiative (BISTI Report)
- Recent flurry of reports urging DHHS and Congress to take action

**“We may well soon lag other nations in the use of IT in health care.”**

Uwe E. Reinhardt, Ph.D.



## What Is Happening Abroad?

- Major investments in IT infrastructure
  - e.g., Singapore, Malaysia, Hong Kong
- Placement of record systems in clinicians' offices
  - e.g., UK, Netherlands
- National health information technology ministries (with budgets)
- Single-payer health care systems with strong incentives for centralized records and coordination

## Creation of ONCHIT

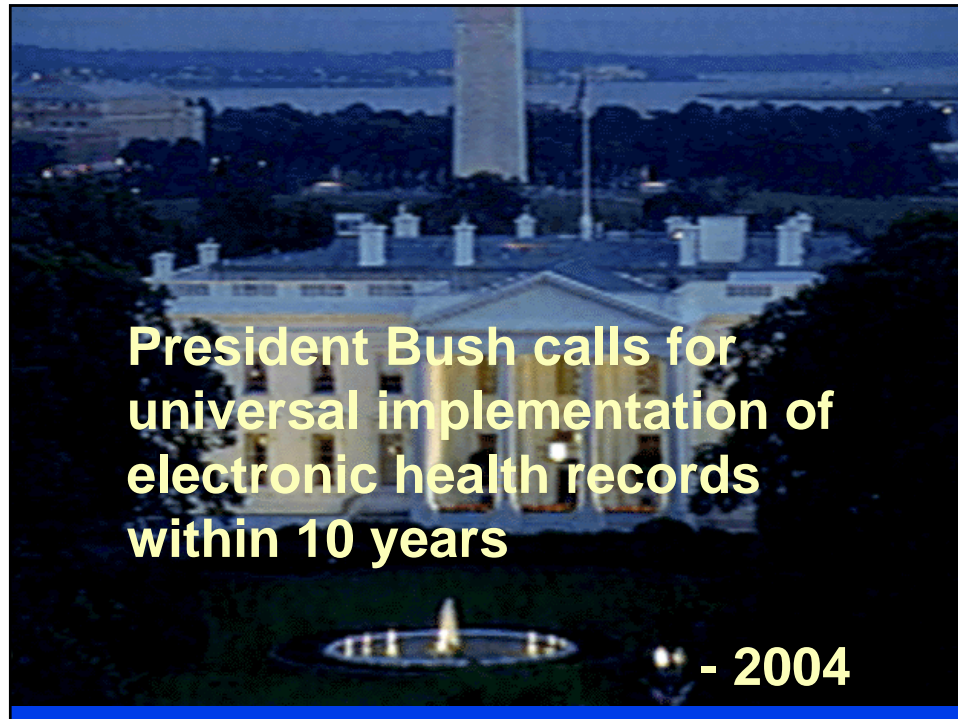


News Release

FOR IMMEDIATE RELEASE  
Thursday, May 6, 2004

Secretary Thompson, Seeking Fastest Possible Results, Names First Health Information Technology Coordinator

HHS Also Announces Milestones in Developing Health IT



## Recent Events

- Major confirmatory reports and recommendations
  - Connecting for Health (e-Health Initiative and Markle Foundation)
  - Commonwealth Fund
  - American College of Physicians
- Pay-for-performance adds to the motivation for provider organizations and individuals to invest
- Pertinent legislation in both House and Senate
- Strong support from DHHS (Secretary Thompson, and now Secretary Leavitt)





## Looking Ahead

- The future vision, although appealing and widely shared, requires major cultural change, financial investment, and logistical planning
- The competitive nature of the medical marketplace, coupled with fiscal pressures on providers and health systems, means that leadership for regional and national coordination will need to come from elsewhere – and likely from governments
- The effort is worthwhile. We are poised to achieve today what has been sought and anticipated for at least three decades.

## Reference

- Shortliffe EH. Strategic Action in Health Information Technology: Why the Obvious Has Taken So Long. *Health Affairs* 2005;24(5)1222-1233.

*Today the United States is poised to achieve what has been sought and anticipated for at least three decades.*