TODAY’S AGENDA

• The Problem
• The Role of Health IT
• The Barriers
• Response and Results
  • Privacy and Security
• Current challenges
A FAMILIAR STORY: A BROKEN SYSTEM

COST
• $Billions in unnecessary and wasteful spending
• Overuse puts patients at risk, drains resources, and makes healthcare less accessible and less effective

QUALITY
• Despite rapid advances, thousands of patients die each year from medical error

COVERAGE
• 51 million uninsured; many more underinsured
THE ROLE OF HEALTH INFORMATION TECHNOLOGY
MOVING PAST HIPPOCRATES

Information is the *lifeblood* of medicine

We manage information as *Hippocrates* did in 400 B.C.

Health IT is the *circulatory* system of modern health care
HOW I LEARNED TO PRACTICE MEDICINE
HOW MY CHILDREN WILL PRACTICE MEDICINE
MORE PRACTICALLY

Electronic Health Record
Electronically capturing and processing information about patients

Health Information Exchange
Exchanging health information

Clinical Decision Support
Improved care decisions
HEALTH INFORMATION EXCHANGE (HIE)

- Vocabulary Standards
- Document / Message Standards
- Directories and Certificates
- Delivery Protocols
- Security and Trust Relationships
INFORMATION EXCHANGE IS A TEAM SPORT

• The health care community needs to work together socially, economically and politically to create HIE

• The problem is not software, but humanware: competition, mistrust, and the lack of a business case for HIE
MAJOR BARRIERS TO PHYSICIAN EHR ADOPTION

<table>
<thead>
<tr>
<th>Percent of physicians reporting a “major barrier”</th>
<th>Have an EHR</th>
<th>Do not have functional EHR</th>
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<tbody>
<tr>
<td>Lack of capital</td>
<td>44%</td>
<td>67%</td>
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<tr>
<td>Uncertainty of ROI</td>
<td>29%</td>
<td>51%</td>
</tr>
<tr>
<td>Finding a system that meets your needs</td>
<td>36%</td>
<td>54%</td>
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<tr>
<td>System becoming obsolete</td>
<td>24%</td>
<td>45%</td>
</tr>
<tr>
<td>Capacity to implement</td>
<td>24%</td>
<td>39%</td>
</tr>
<tr>
<td>Loss of productivity</td>
<td>37%</td>
<td>41%</td>
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MAJOR BARRIERS TO HOSPITAL EHR ADOPTION

Figure 1. Major Perceived Barriers to Adoption of Electronic Health Records (EHRs) among Hospitals with Electronic-Records Systems as Compared with Hospitals without Systems.

Hospitals with electronic-records systems include hospitals with a comprehensive electronic-records system and those with a basic electronic-records system that includes functionalities for physicians’ notes and nursing assessments. P<0.01 for all comparisons except physicians’ resistance (P=0.20). IT denotes information technology, and ROI return on investment.

THE FEDERAL GOVERNMENT’S RESPONSE: HITECH ACT

• Part of American Recovery and Reinvestment Act of 2009 (ARRA)

• Addresses major barriers to adoption, and much more
  • Money, market reform
  • Technical assistance, support/workforce shortages
  • Health information exchange
  • Privacy and security
Meaningful use framework

- Rewards the effective (meaningful) use of certified EHRs

Key provisions

- Clinicians: $44,000 / $63,750 over 5-10 years
- Hospitals: $2 million bonus plus per DRG payments
- Penalties after 2015

Total

- $9-27 billion over 10 years
MEANINGFUL USE
REGISTRATION AND ATTESTATION

• Registrations as of end of March 2012:
  • More than 225,765 providers have initiated the registration process
  • New registrations at > 10,000/month

• Meaningful use attestation became possible mid-May 2011
  • As of March 2012:
    • $4.5 billion in payments to 76,612 providers
    • 73,945 are eligible professionals
    • 39,539 of the eligible professional are physicians
STAGE 2 PROPOSED RULE: A STEP UP THE ESCALATOR

- More HIE: must transfer information at transitions in care.
- More CDS: at least five applications.
- More quality measures.
  - (EPs=12 and EH=24)
- More CPOE.
- Continuing to stretch, but (hopefully) not break providers as we get more value from EHRs
ONC PROGRAMS REGARDING TECH ASSISTANCE AND HIE / INTEROPERABILITY

Technical Assistance
- 132,000 primary care providers enrolled with the Regional Extension Centers as of March 2012

Workforce Training
- >9,000 community college trainees (1/12)
- ~600 post-grad/masters trained (2/12)

State Health Information Exchange
- 56 states and territories with HIT coordinators and operational plans

Interoperability
- Over 1,700 certified EHR products on the market conforming to standards
UNITED STATES EHR ADOPTION

Percent of Office-Based Physician Practices With at Least a “Basic” Electronic Health Record (2008-2011)

Hospital Adoption of At Least A Basic EHR: 2010-2011

PRIVACY & SECURITY AS A FOUNDATION

Health IT Outcomes

Privacy & Security
How much do you agree or disagree with each of the following statements?

Widespread adoption of electronic health record systems will lead to even more personal information being lost or stolen than we have now.

How much do you agree or disagree with each of the following statements?

The privacy of personal medical records and health information is not currently well protected by federal and state laws and organizational practices.

PRIVACY & SECURITY:
FEDERAL GOVERNMENT’S ACTIONS TO DATE

• Prevent sharing of health information without consent

• Strengthen communications about breaches

• More enforcement

• Expand patient rights to access their information

• Chief Privacy Officer
FAIR INFORMATION PRACTICES

1. Individual access
2. Correction
3. Openness and transparency
4. Individual choice
5. Collection, use and disclosure limitation
6. Data quality and integrity
7. Safeguards
8. Accountability
INDIVIDUAL CHOICE

• Individuals should be provided a reasonable opportunity and capability to make informed decisions about the collection, use and disclosure of their individually identifiable health information.
PATIENT’S MEANINGFUL CHOICE

1. Made with advance knowledge/time
2. Not used for discriminatory purposes or as condition for receiving medical treatment
3. Made with full transparency and education
4. Commensurate with circumstances for why individually identifiable health information is exchanged
5. Consistent with patient expectations
6. Revocable at any time
• Passed on March 21st, signed on March 23rd

• Will provide coverage to 32 million more people, more than 94% percent of Americans

• Will lower health care costs over the long term, reducing the deficit by $143 billion over the next ten years, $1.2 trillion in the following 10 years

• *Dozens of references to using health IT to improve value, enhance quality*
CURRENT CHALLENGES

• Health information exchange
  • Interoperability
  • Governance
  • Privacy and Security

• Improving the usability of electronic health records

• Addressing and reducing disparities

• Incorporating health IT into medical professional development
TECHNOLOGY ADOPTION

WILL THE STETHOSCOPE EVER COME INTO GENERAL USE IN CLINICAL MEDICINE?
A STRONGLY NEGATIVE VIEW EXPRESSED IN 1821

John Forbes (1787-1861) in the preface to the first edition of his translation of Laënnec’s *De l’auscultation médiate*, published in 1821, was guilty of one of the most famous false prophecies in medicine. He wrote of the newly invented stethoscope:

> That it [the stethoscope] will ever come into general use, notwithstanding its value, I am extremely doubtful; because its beneficial application requires much time, and gives of trouble both to the patient and the practitioner; and because its whole hue and foreign, and opposed to all our habits and associations. It must be confessed something even ludicrous in the picture of a grave physician formally listening the tube applied to the patient’s thorax, as if the disease within were a living being.

This paragraph was omitted from subsequent editions.

Noted by T. E. C., Jr., M.D.
QUESTION AND ANSWER