The Electronic Health Record: What It Means and Why It Matters

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At the end of this session you should be able to:

- Describe the present status and expectations of the Electronic Health Record (HER)
- Describe the future of the EHR and its expected impact on health care
- Identify opportunities for better health, better outcomes, and lower costs when the delivery system is supported by electronic health information exchange
Connected from Anywhere???

But we're not in some far-flung corner of the globe—We're right here, online!
2004 and 2007 - President Bush signed Executive Orders outlining his goals for an Electronic Health Record

- Incentives for the use of health information technology
- Position of National Health Information Technology Coordinator
- Vision for a nationwide interoperable health information technology infrastructure
- Requiring Federal Agencies administering or sponsoring a Federal Health Program adopt and operationalize the use of HIT

2009 - President Obama weeks into his term reinforced that all U.S. residents have electronic health records by 2014 through another Executive Order

ARRA through the HITECH Act funded the initiatives
The Office of the National Coordinator for Health Information Technology

ORGANIZATIONAL CHART

National Coordinator

- Office of the Chief Scientist
- Office of Economic Analysis and Modeling
- Office of the Chief Privacy Officer
- Office of the Deputy National Coordinator for Operations
- Office of the Deputy National Coordinator for Programs and Policy

- Office of Communications
- Office of Oversight
- Office of Mission Support
- Office of Grants Management

- Office of Policy and Planning
- Office of Standards and Interoperability
- Office of Provider Adoption Support
- Office of State and Community Programs

Last updated: January 13, 2011
ONC HIT Mission

- Promote development of a nationwide Health IT infrastructure that allows for electronic use and exchange of information

- Provide leadership in the development, recognition, and implementation of standards and the certification of Health IT products;

- Health IT policy coordination

- Strategic planning for Health IT adoption and health information exchange

- Establish governance for the Nationwide Health Information Network.
Graphic A: Federal Health IT Strategy Map

2011 - 2012: Data Capture and Sharing
- Accelerated adoption
- Data capture and exchange

2013 - 2014: Demonstrate Health System Improvement
- Widespread adoption and data exchange
- Process Improvement

2015+: Transform Health Care and Population Health through Health IT
- Demonstrated improvements in care, efficiency, and population health
- Breakthrough examples of delivery and payment reform

Beyond 2015: Transformed Health Care
Enhanced ability to study care delivery and payment systems
Empowered individuals and increased transparency
Improved care, efficiency, and population health outcomes

STRATEGIC GOALS
- Achieve Adoption and Information Exchange through Meaningful Use of Health IT
- Improve Care, Improve Population Health, and Reduce Health Care Costs through the Use of Health IT
- Inspire Confidence and Trust in Health IT
- Empower Individuals with Health IT to Improve their Health and the Health Care System
- Achieve Rapid Learning and Technological Advancement

Federal Health IT Strategy
Medicare and Medicaid EHR Incentive Programs

Standards and Certification Efforts

Regional Extension Center Program

State Health Information Exchange and Nationwide Health Information Network

Beacon Communities Program
Electronic Health Record
- The EHR represents the legal patient record created in hospitals and ambulatory environments that is the data source for the EHR. An EHR is generated and maintained within an institution, such as a hospital, integrated delivery network, clinic, physician office, or homecare agency to give patients, physicians and other health care providers, employers, and payers or insurers access to a patient's medical records across facilities and can also be referred to as an EMR CPR, EPR, and if maintained by the patient, a PHR.

Interoperability
- Ability for diverse systems and organizations to work together, including the ability to exchange information and use the information that has been exchanged.

CCR/CCD
- Continuity of Care Record/Document – an XLM markup standard intended to specify the encoding, structure and semantics of patient summary clinical document for exchange. Wikipedia July 2010
Final rule for certifying entities announced in July
- Entities will begin the application process to be recognized by the ONC
- Entities will demonstrate their ability to assess/test application adherence to the qualifying EHR standards
- Six named ONC Approved Testing Bodies (ONC-ATB), including CCHIT, Drummond, InfoGuard and others

Currently ONC Certification is not yet defined for Long Term Post Acute Care (LTPAC)

Requirements to support interoperability and meaningful use of the EHR increase in future years
Moving Forward

2010 – 2013
Rules, Regulations & New Funding

2014 – 2016
Mandates, Pilots & Exchanges

2017+
New Normal
How EHRs Work
Meaningful Use Defined

- CPOE (for Medications)
- Drug to Drug and Drug to Allergy interaction checks
- Demographics, gender, race, ethnicity, DOB, preliminary cause of death
- Problem List
- Medication list
- Medications allergy list
- Vital Signs

- Clinical Decision Support
- Calculate and transmit CMS quality measures
- Electronic copy of health records
- Electronic copy of discharge instructions
- Clinical Summaries
- Exchange key clinical information
- Privacy and Security
Why Meaningful Use Matters

- Automation of individual care settings
  ➔ You can’t share what you don’t have

- Incentives to drive adoption of setting specific applications
  ➔ Systems can only help when they are used

- Connectivity between stakeholders
  ➔ Interoperability between disparate systems is key

- Automation of workflow and processes
  ➔ What you do with the available information is what matters, “meaningful use”

- Transforming the role of patients
  ➔ It’s about them – get them involved
- Consolidated Health Informatics (CHI) Initiative for federally required Patient Assessment standards:
  - Clinical LOINC®

- Endorsed Vocabulary Content:
  - International Classification of Functioning, Disability and Health (ICF) for the functioning and disability domains
  - SNOMED-CT for exact and “usefully related” content matches

- HL7® (Health Level Seven®), Version 2.4 and higher messaging and Clinical Document Architecture (CDA)

- RxNorm – Standardized nomenclature for drugs and drug delivery devices
<table>
<thead>
<tr>
<th>AHIC Data Element</th>
<th>Definition</th>
<th>Data Type</th>
<th>Selected Standards</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing/Triage Notes</td>
<td>Text string written by nurse or healthcare partner [may have implications for security and privacy]</td>
<td>String</td>
<td>This HITSP Interoperability Specification will use the CHI recommended SNOMED CT as a reference terminology to communicate interoperable information among and between systems, with the HITSP Interoperability Specification Pre-condition that the sending and using systems must use formal coded nursing terminologies such as the Clinical Care Classification (CCC) System and the Omaha System that are integrated in SNOMED CT.</td>
<td>Passed as observation tagged with LOINC code: ‘34120-6’ INITIAL EVALUATION NOTE*LN’</td>
</tr>
</tbody>
</table>
The Omaha System (Martin, 2005)

Problem Classification Scheme
- has 4 Domains
  - Environmental
  - Psychosocial
  - Physiological
  - Health Related Behaviors

Problem Rating Scale for Outcomes
- has 3 rating scales
  - 1=lowest, 5=highest

Intervention Scheme
- has 4 levels
  - Client Specific Information
  - Target (75)
  - Category (4)

Problems (42)
- actual/potential/health promotion
- individual/family/community

Definitions
- have unique

Signs and Symptoms

services
- that address each

assessments and outcomes
- Knowledge
- Behavior
- Status

related to each of the

used for documenting

standardized terms
- which are

codes

consists of
Embrace the HIT/EHR movement and educate your leaders

- Monitor activities in your state and get involved
- Evaluate your strategic plan
- Assess your resources
- Identify and keep in communication with partners
  - Example – joint grant application with a key referral source(s)

How Health Care needs to Respond
Evaluate your software vendor’s ability to partner with you to achieve your strategies and goals.

- How are they positioned currently?
- Do they have a clear vision of where their products are going? Does their vision match your vision?
- Do they have the ability to execute on their plans?
- Will they meet the standards and certification requirements necessary to support interoperability implementation?
- What is their timeline and how does it match up with yours?

When should health care providers begin taking these actions?
- NOW – the ‘New Normal’ is on its way!

What Steps You Take?
- Resources – people and technology
- Communications
  - Internal – employees, management, Board
  - External –
    - actual and potential partners,
    - state HIT governing groups & initiatives,
    - state and national associations,
    - software vendors

Expect Challenges!
Rapid Pace of Change

- How do you keep abreast of the rapid technology changes and sort out which ones are important?
- How do you develop internal technological expertise to keep pace with rapid change?
- How do you keep staff and partners informed of and embracing the changes?
- How do you prioritize decisions about new opportunities?
Evaluating your risk of not being an early EHR adopter. Consider:

- Your state HIT plan
- Your current and desired market position
- What your competition is doing
- The expense

Balancing the sense of urgency with the need for good planning

Expect Challenges!
Solidifying and expanding referral base through early participation in health data networks

Efficiencies & cost savings realized from electronic data exchange vs. paper pushing

Quality of care improvements

And Opportunities...
Questions and Answers
- The Omaha System [http://www.omahasystem.org](http://www.omahasystem.org)
- Health Information Technology Standards Panel [http://www.hitsp.org](http://www.hitsp.org)
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