Towards a Nationwide Health Information Network: Where Should We Be in 2014?

Anna O. Orlova, PhD
Johns Hopkins Bloomberg School of Public Health
Lecture Outline

- National initiatives
- Public health and HIT adoption
- From public health reporting to bi-directional data exchanges
Section A

National Initiatives
Signed May 27, 2004

The premises: to develop and nationally implement an interoperable health IT (HIT) infrastructure that:

- Ensures that appropriate information to guide medical decisions is available at the time and place of care
- Improves health care quality, reduces medical errors, and advances the delivery of appropriate, evidence-based medical care
- Reduces health care costs resulting from inefficiency, medical errors, inappropriate care, and incomplete information
The President’s Executive Order (EO) 13335

- Promotes a more effective marketplace, greater competition, and increased choice through the wider availability of accurate information on health care costs, quality, and outcomes
- Improves the coordination of care and information among hospitals, laboratories, physician offices, and other ambulatory care providers through an effective infrastructure for the secure and authorized exchange of health care information
- Ensures that patients’ individually identifiable health information is secure and protected
The President’s Executive Order (EO) 13335

- The EO established the Office of the National Coordinator for Health Information Technology (ONC) within HHS
On July 21, 2004, ONC announced the decade of health information technology for “delivering consumer-centric and information-rich health care”

The vision is to build a National Health Information Network (NHIN) of regional health information exchanges formed by health care providers who will utilize electronic health record systems

- The original term National was changed to Nationwide in January, 2006

Vision for 2014

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RHIOs as NHIN Components

- RHIOs enable exchanges
- Seamless transfer of medical information
- Individual authorization of information transfer is an essential requirement
Emerging data shows the value that standardized health information exchange will provide to all stakeholders:

- Health care purchasers and payers
- Hospitals and other health care providers
- Laboratories
- Practicing clinicians
- Public health

Why Are We Building a NHIN?

- Consumer-centric health care
  - Empowerment of consumer involvement in health care

- Strengthening health information privacy, security
  - Consumer controls on privacy and security
  - Higher risks and opportunities for control in an ever increasing electronic health information environment

- Enhancing public health and population health
  - Improving public health’s roles of surveillance, prevention
  - Improving interface of clinical care and public health

- Expanding/improving health literacy and education
  - Accelerating health knowledge diffusion
  - Improving translation of knowledge into practice

NHIN Focus

- Adoption of interoperable health information technology and infrastructure to support the electronic exchange of clinical information

- New terms and entities
  - *Interoperability*
  - *Standards harmonization and testing*
  - *Product certification*
  - HIEs, HIT, EHRs, PHRs, RHIOs, NHIN
Core Definitions

What Is Interoperability?

- “The ability of different information technology systems and software applications to:
  - Communicate
  - Exchange data accurately, effectively and consistently
  - Use the information that has been exchanged”

Source: National Alliance for Health Information Technology. (July, 2005).
“Consensus Conventions for the Use of Key HIT Terms” Project—ONC/HHS, 2008.
## Records Terms

<table>
<thead>
<tr>
<th>Electronic Medical Record</th>
<th>Electronic Health Record</th>
<th>Personal Health Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization.</td>
<td>An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.</td>
<td>An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.</td>
</tr>
</tbody>
</table>

Source: National Alliance for Health Information Technology. (April 28, 2008). *Report to the Office of the National Coordinator for Health Information Technology - Defining Key Health Information Technology Terms.*
### Network Terms

<table>
<thead>
<tr>
<th>Health Information Exchange</th>
<th>Health Information Organization</th>
<th>Regional Health Information Organization</th>
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<tbody>
<tr>
<td>The electronic movement of health-related information among organizations according to nationally recognized standards.</td>
<td>An organization that oversees and governs the exchange of health-related information among organizations according to nationally recognized standards.</td>
<td>A health information organization that brings together health care stakeholders within a defined geographic area and governs health information exchange among them for the purpose of improving health and care in that community.</td>
</tr>
</tbody>
</table>

Source: National Alliance for Health Information Technology. (April 28, 2008). *Report to the Office of the National Coordinator for Health Information Technology - Defining Key Health Information Technology Terms.*
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<thead>
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<th>RHIO</th>
<th>HIE</th>
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<tbody>
<tr>
<td><em>Entity</em> that governs the interoperable</td>
<td><em>Activity or process</em> that moves health-</td>
</tr>
<tr>
<td>exchange of health information</td>
<td>related data</td>
</tr>
<tr>
<td><em>Entity</em> that defines and has the authority &amp;</td>
<td>Agreed upon set of interoperable standards,</td>
</tr>
<tr>
<td>responsibility for establishing and</td>
<td>processes and activities needed to implement</td>
</tr>
<tr>
<td>enforcing information sharing policies and</td>
<td>information exchange</td>
</tr>
<tr>
<td>procedures</td>
<td></td>
</tr>
<tr>
<td>Exchanges clinical information and can</td>
<td>Exchanges clinical or administrative</td>
</tr>
<tr>
<td>exchange administrative information</td>
<td>information</td>
</tr>
<tr>
<td>Participants are geographically defined</td>
<td>Participants may be geographically defined</td>
</tr>
<tr>
<td></td>
<td>or be non-geographic communities of affiliation.</td>
</tr>
<tr>
<td><em>Mission</em> is to improve quality, safety,</td>
<td><em>Purpose</em> is to exchange information</td>
</tr>
<tr>
<td>efficiency of healthcare for communities in</td>
<td></td>
</tr>
<tr>
<td>which it operates</td>
<td></td>
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<tr>
<td></td>
<td>Exchanges information among organizations</td>
</tr>
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<td></td>
<td>that operate independently of each other</td>
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</table>
The American Recovery and Reinvestment Act of 2009 authorizes the Centers for Medicare & Medicaid Services (CMS) to provide reimbursement incentives for eligible professionals and hospitals who are successful in becoming “meaningful users” of certified electronic health record (EHR) technology.

These incentive payments begin in 2011 and gradually decrease.

Starting in 2015, providers are expected to have adopted and be actively utilizing a certified EHR in compliance with the “meaningful use” definition or they will be subject to financial penalties under Medicare.

Source: Meaningful Use.
Building an NHIN: National Initiatives

- **Meaningful use of health IT**

- **HITECH programs**

- **Privacy and security and health IT**
Building an NHIN: National Initiatives

- Standards and certification
  - [Link](http://healthit.hhs.gov/portal/server.pt?open=512&objID=1153&parentname=CommunityPage&parentid=67&mode=2&in_hi_userid=11113&cached=true)

- Certification and testing
  - [Link](http://healthit.hhs.gov/portal/server.pt?open=512&objID=1745&parentname=CommunityPage&parentid=11&mode=2&in_hi_userid=10741&cached=true)
Implementing Meaningful Use of Health IT

- **Staged approach**

**Goal:**
This is part of an evolutionary path
There will be incremental growth
All journeys start with a few steps

**Stage 1**
- ePrescribing
- Lab results into EHRs
- Send clinical summary to providers and patient
- Public health reporting
- Quality reporting (2012)

**Stage 2**
- Patient PHR access
- ePrescribing refills
- Electronic summary record
- Receive health alerts
- Immunization information

**Stage 3**
- Access comprehensive patient data
- Automated real-time surveillance

**2011-2012**
Current CMS NPRM

**2013-2016**
Future CMS rule

**2015-2016**
Future CMS rule

Implementing Meaningful Use of Health IT

- The following public health programs are included in the Meaningful Use of Health IT—Stage 1 (2011):
  - Laboratory data reporting to public health agencies
  - Immunization data reporting to public health agencies
  - Syndromic surveillance data reporting to public health agencies

IF

- Public health agencies can electronically receive them ...

HITECH Programs

The Health Information Technology for Economic and Clinical Health (HITECH) Act programs are designed to:

- Provide the assistance and technical support to providers
- Enable coordination and alignment within and among states
- Establish connectivity to the public health community in case of emergencies
- Assure the workforce is properly trained and equipped to be meaningful users of EHRs
HITECH Programs

- State Health Information Exchange Cooperative Agreement Program
- Health Information Technology Extension Program
- Strategic Health IT Advanced Research Projects (SHARP) Program
- Community College Consortia to Educate Health Information Technology Professionals Program
- Curriculum Development Centers Program
- Program of Assistance for University-Based Training
- Competency Examination for Individuals Completing Non-Degree Training Program
- Beacon Community Program
Coordinated attention at the federal and state levels is needed both to develop and implement appropriate privacy and security policies.

Only by engaging all stakeholders, particularly consumers, can health information be protected and electronically exchanged in a manner that respects variations in individuals’ views on privacy and access.

Standards and Certification of Health IT Products

- **Initial Set of Standards and Certification Criteria Interim Final Rule (IFR):** an initial set of standards, implementation specifications, and certification criteria for complete EHRs and EHR modules for adoption by the HHS secretary.

- **Certification Programs Notice of Proposed Rule Making (NPRM):** a defined process to ensure that EHR technologies meet the adopted standards, certification criteria, and other technical requirements to achieve meaningful use of those records in systems.
Certification and Testing

- Certification of Health IT will provide assurance to purchasers and other users that an EHR system, or other relevant technology, offers the necessary technological capability, functionality, and security to help them meet the meaningful use criteria established for a given phase.

How Does all this Work?

“Meaningful User of Certified EHR Technology”

- Meaningful Use Regulations
- HIT Certification Programs Regulations
- HIT Standards & Certification Criteria Regulations

Correlated

http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11673_911192_0_0_18/CertificationNPRM_webinar032510.pdf.
Public Domain.