National Perspective on Interoperable Health IT

Internet2 Health Network Initiative

April 30, 2009

Charles P. Friedman, PhD
Deputy National Coordinator
Office of the National Coordinator for Health Information Technology (ONC)
Agenda

• The Winds of Change: people and resources
• The 2008 Health IT Strategic Plan: an enduring vision
• The Nationwide Health Information Network (NHIN): toward nationwide interoperability
“To lower health care cost, cut medical errors, and improve care, we’ll computerize the nation’s health records in five years, saving billions of dollars in health care costs and countless lives.”
“To increase the effective use of electronic health systems, private and public agencies and groups must accomplish, at a minimum, the following tasks:

1. Get doctors, hospitals, and other health care providers to acquire and use electronic health records.

2. Get those electronic health records to "talk to one another" by becoming interoperable.

3. Get providers to use EHRs to improve quality and efficiency in the provision of health care services.”

(The Federal Role in Promoting Health Information Technology, Commonwealth Fund, 2009)
American Recovery and Reinvestment Act (ARRA)

TITLE XIII—HEALTH INFORMATION TECHNOLOGY

SEC. 13001. SHORT TITLE; TABLE OF CONTENTS OF TITLE.

(a) SHORT TITLE.—This title (and title IV of division B) may be cited as the “Health Information Technology for Economic and Clinical Health Act” or the “HITECH Act.”

OFFICE OF THE SECRETARY

OFFICE OF THE NATIONAL COORDINATOR FOR HEALTH INFORMATION TECHNOLOGY

-INCLUDING TRANSFER OF FUNDS-

For an additional amount for “Office of the National Coordinator for Health Information Technology”, $2,000,000,000, to carry out title XIII of this Act, to remain available until expended: Provided, That the funds may be used to support the implementation of the Medicare and Medicaid Electronic Health Record Incentive Programs.
Some HI-LITES of HITECH

• ONC in statute with defined functions
• $300M for sub-national health information exchange
• Six grant programs authorized
• Incentives to providers and hospitals who are meaningful users of health IT (estimated cost: $17.2 Billion)
• Enhanced privacy and security provisions
Grant Programs in HITECH

- Enterprise Integration Centers
- Infrastructure Funding
- Implementation Assistance (Regional Centers)
- Grants to states to promote health IT
- Grants to states for loans
- Education of health professionals
- Education of health IT workforce
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Health IT – Role in Health and Care Transformation

Individual and Population Health & Well-being

Health Care Transformation
(Higher Quality, More Efficient, Patient-Focused)

Population Health
(Public Health, R&D, Quality Improvement, Emergency Preparedness)

Health IT solutions must support the needs of BOTH “perspectives”
The ONC-Coordinated Federal Health IT Strategic Plan: 2008 - 2012

• Released June 2008
• Lays out the health IT agenda: the Collaboration
• 5-year plan: 2008 - 2012
• Two goals, eight objectives, 43 strategies
  – Measure for each objective
  – Milestone for each strategy
• Details current activities of Federal agencies
• Explicitly referenced in the HITECH Act
• To be updated
What ONC Coordinates: A Public and Public-Private Collaboration

- **HHS Initiatives**
  - FHA
  - CMS
  - HRSA
  - OMH
  - FDA
  - AHRQ
  - ASRT
  - OCR
  - SAMHSA
  - NIH
  - ASPE
  - IHS
  - CDC

- **State Initiatives**
  - State’s HIE
  - HISPC
  - State Alliance for eHealth

- **Other Federal Agency Initiatives**
  - EPA
  - OPM
  - NASA
  - DOJ
  - IRS
  - NSF
  - DOT
  - DOI
  - SSA
  - DOE
  - OAS
  - PHEP
  - OMB
  - DOS
  - FCC
  - DOA

- **Public/Private Initiatives**
  - AHIC
  - HITSP
  - CCHIT
  - NHIN
  - NeHC

**What ONC Coordinates:** A Public and Public-Private Collaboration

**Federal Health Architecture**

**Department of Health & Human Services**
Office of the National Coordinator for Health Information Technology

April 30, 2009

Internet2 Friedman
"The Plan" – Goal One

Enable Patient-focused Health Care

Enable the transformation to higher-quality, more cost-efficient, patient-focused health care through electronic health information access and use by care providers, and by patients and their designees.
“The Plan” – Goal Two

Improve Population Health

Enable the appropriate, authorized, and timely access and use of electronic health information to benefit public health, biomedical research, quality improvement, and emergency preparedness.
The “How” of the Plan

Governance

- Privacy, Security and Other Health IT Policies

Standards in Health IT Products

Adoption of Interoperable Health IT

Nationwide Health Information Network
The Essential Role of Interoperability

• Goal 1 (health care): A complete patient record can be assembled anywhere
  – Avoids duplication of tests
  – Avoids adverse drug events

• Goal 2 (population health): Population health requires information to flow from a collection point

But…

• The business case for providers to facilitate electronic information flow is weak.

• It is a “public good”
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The Nationwide Health Information Network

Health Bank or PHR Support Organization

State and Local Gov

Community Health Centers

Community #1

Integrated Delivery System

Labs

Community #2

Pharmacies

The Internet

Mobilizing Health Information Nationwide

Standards, Specifications and Agreements for Secure Connections
NHIN = Technology + Sociology

- A set of standards-based **specifications** for communicating between participants on the NHIN
- A **trust fabric** that allows for secure exchange of health information that respects individual choice. This includes:
  - Membership services ensuring only trusted entities participate
  - Certification ensuring interoperability between entities
  - Legal agreements protecting patient privacy and security
- A **governance model** that structures and defines activities, roles and responsibilities of all participants
- **Member entities** bound by NHIN mission & governance model
The NHIN is the network that ties other health networks together in a common, interoperable infrastructure.
NHIN Roadmap

**Phase 1**
- Prototype Architectures

**Phase 2**
- Trial Implementations

**Phase 3**
- Path for Production

**2007 Focus**
- Evaluated technical approaches
- Demonstrated four prototype architectures

**2008 Focus**
- Formed NHIN Cooperative
- Implemented Core NHIN Services and selected Use Cases with test data
- Completed 2 Public Demonstrations

**2009 Focus**
- General Production Readiness
- Limited production
- Governance
NHIN Cooperative Participants

- CareSpark
- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare and Medicaid Services (CMS)
- Cleveland Clinic
- Community Health Information Collaborative (CHIC)
- Delaware Health Information Network (DHIN)
- Department of Defense (DoD)
- Department of Veterans Affairs (VA)
- HealthBridge
- HealthLINC (Bloomington Hospital)
- HealthLink RHIO (Wright State University)
- Indian Health Service (IHS)
- Kaiser Permanente
- Long Beach Network for Health (LBNH)
- Lovelace Clinic Foundation (LCF)
- MedVirginia
- New York eHealth Collaborative (NYeC)
- National Cancer Institute (NCI)
- National Disaster Medical System (NDMS)
- North Carolina Healthcare Information and Communications Alliance (NCHICA)
- Regenstrief Institute (Indiana University)
- Social Security Administration (SSA)
- West Virginia Health Information Network (WVHIN)
Phase 2: NHIN Trial Implementations Milestones (2008)

The NHIN Cooperative
- Specified, built, and tested NHIN components
- Developed trust agreement

- 09/23/2008: Successful live technology demonstration of core capabilities
- 11/14/2008: Complete specifications and testing of 7 priority use cases
- 12/15-16/2008: Demonstrations at NHIN Public Forum
Phase 3: 2009 Limited NHIN Production Pilot

- Authorized release of information to Social Security Administration for processing disability claims
- Initial NHIN production pilot participants
Interoperability at Work: Months to Weeks (to Days?)

Claimant Allegation of Pancreatic Cancer

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<tr>
<th>Medical Reports</th>
<th>Medical Evidence</th>
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<tr>
<td>• HCPCS: S8037 Magnetic resonance cholangiopancreatography (MRCP)</td>
<td>• HCPCS: S8037 Magnetic resonance cholangiopancreatography (MRCP)</td>
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<td>• ICD-10: C25.4 Malignant neoplasm of Pancreas</td>
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<td>• ICD-9: 51.10 Endoscopic retrograde cholangiopancreatography (ERCP)</td>
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<td>• ICD-9: 211.7 Islets of Langerhans (islet cell tumor)</td>
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<td>• ICD-9: 99.25 Injection or infusion of cancer chemotherapeutic substance</td>
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<td>• ICD-9: 92.23 Radioisotopic teleradiotherapy</td>
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<td>• CA19-9: 110 U/ml</td>
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<td>• CA19-9: 112 U/ml</td>
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<td>• Chemotherapy drugs gemcitabine (Gemzar) NDC: 00002-7501-01</td>
<td>• Chemotherapy drugs gemcitabine (Gemzar) NDC: 00002-7501-01</td>
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Electronic data allows for automated screening for approval, review, or further development.

SSA Medical Listings
Pancreatic Cancer
Diagnostic Codes
- ICD-9: 157.4
- ICD-9: 211.7

Data drives to faster decisions

- Patient Benefits
- Provider Benefits
- Industry Benefits
- Agency Benefits
NHIN Connect

The CONNECT Initiative provides tools to enable organizations to connect to the NHIN

Federal Health Architecture multi-agency initiative

**The Gateway**, which implements the core services defined by the NHIN

**Enterprise Service Components**, which provide robust tools for specific functions

**The Software Development Kit (SDK)**, which enables developers to customize the Gateway and add or replace enterprise service components
For More Information:

http://healthit.hhs.gov
Outtakes

- Goal of an electronic health system by 2014
- Rooted in 2008 Strategic Plan
- Places ONC in statute
- ~$19 Billion Authorized
  - $2 Billion for programs
  - ~$17 Billion for payment incentives
- Advisory committees on policy and standards
- Major section on privacy and security
Payment Incentive Programs

- Medicare and Medicaid channels
- Tied to “meaningful use” (to be defined)
- Begin in 2011 and continue for 5 years
- Amount determined by formula
- On Medicare side, maximum of \(~$44K\) per physician over five years

(Also reimbursement penalties for non-users beginning in 2016.)
Key Privacy Provisions

- Breach notifications – for protected health information
- Accounting for disclosures if a Covered Entity uses an EHR
- Prohibition on the sale of EHR data or protected health information without authorization
- Patient’s right of access to certain information in electronic form
- Limitations on sale of health data
Two Federal Advisory Committees

- **Health IT Policy Committee**
  - Development and adoption of a nationwide Health IT infrastructure
  - Recommendations on specific areas of standard development
    - Privacy protection technologies
    - HIT infrastructure
    - Certified EHR use

- **Health IT Standards Committee**
  - Recommend Standards to ONC
    - Harmonization, pilot testing, consistency
  - Stakeholder Forum
    - Development, harmonization, recognition of standards, implementation specifications, certification criteria
Standards and Adoption Process

• **Not later than December 31, 2009**, the Secretary shall...adopt an initial set of standards, implementation specifications, and certification criteria”

• **90 days after receipt of standards** – Secretary and Federal agencies shall jointly review and determine whether or not to adopt
  – Those already adopted through the existing process “may be applied towards meeting the requirement.”