eHealth Priority Areas in USA (National HIT and NIH Initiatives)

(MAN/ICC2009)

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Tsong-Ho Wu, Ph.D.
Telcordia Technologies
twu@research.telcordia.com
Outline

- US Government-Initiated eHealth Priority Areas
  - Electronic Health Record (EHR)
  - E-infrastructure for Healthcare
  - Clinic Decision Support
- National Health Information Technology (HIT) Initiative (004-2013) & Priorities
  - Use Cases from American Health Information Community (AHIC)
- NIH eHealth Highest Priority Areas
  - under American Recovery & Reinvestment Act (ARRA) 2009
- IEEE/UN Foundation Humanitarian Technology Challenge Project for Global Health in Developing Countries
- Information
Provider asks if there are records for his/her patient

Responds with location of any records of interest

Publishing Application registers indexes of patient records

Application asks for and receives records

Requested records are sent

Publishing Application may push report-specific data

End-Point System Reporting Router

De-Identified Data

De-Identified Data: - Alerts - Reports

Clinic Decision Support (CDS)

National Health Information Network (NHIN)

Information Transfer

SEND

Get and EXCHANGE

FIND

Reporting Router

De-Identified Data

CMS Plans

QIOs Plans


Health Information Technology (HIT) Initiative + NIH Grand Challenges (ARRC)
National HIT Initiative (2004-2013)

- Health IT initiative is a US national priority with targets to reduce the cost by 10% every year and better care quality (US alone spent about US$2 Trillion in 2006 with a significant increasing rate (6-8%) every year)
  - The Office of the National Coordinator’s (ONC) primary goal is for most Americans to have electronic health records that will realize the benefits described above by 2014
- Key initiatives already underway include, but are not limited to:
  - **Interoperability**
    - Interoperability standards at the federal level so information exchange through the use of EHRs and EHR-to-PHR information exchange can happen reliably and securely
    - The Nationwide Health Information Network (NHIN) based on “Network of Networks” model is being developed to provide a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare.
  - **Adoption**
    - Supporting a process for certifying EHRs to assure that they meet specific criteria for critical functions and security, and ultimately incorporate the federally recognized standards to achieve interoperability
  - **Privacy and Security**
    - Promote a collaborative approach to crafting solutions that maintain the privacy and security of patient information while enabling appropriate exchange, access, and use of electronic health information
  - **Collaborative Governance**
    - Federal Health Architecture (FHA) guides interoperability, adoption, and collaborative governance for the exchange of electronic health information, and ensure the privacy and security of health information
AHIC Use cases (2006-9)
NIH-ARRA Highest Priority Challenges Topics

- 15 priority challenges topics are selected under American Recovery & Reinvestment Act of 2009 (>\$200M for FY2009-2010)
- eHealth is listed as Topic 10 (Information Technology for Processing Health Care Data)
  - Cyber-Infrastructure for Health: Building Technologies to Support Data Coordination and Computational Thinking
  - Engineering improved quality of health care at a reduced cost
  - Develop data sharing and analytic approaches to obtain from large-scale observational data, especially those derived from electronic health records, reliable estimates of comparative treatment effects and outcomes of cardiovascular, lung, and blood diseases
  - Informatics for post-marketing surveillance
  - Advanced decision support for complex clinical decisions
  - Adapt existing genetic and clinical databases to make them interoperable for pharmacogenomics studies
  - Information Technology Demonstration Projects Facilitating Secondary Use of Healthcare Data for Research
  - Innovative information and communication technologies to enhance capabilities of U.S. institutions in global health research and research training.
Information

- **Health IT Initiative**
  - [http://healthit.hhs.gov/](http://healthit.hhs.gov/)

- **NIH Highest Priority Challenge Topics**

- **IEEE/UN Foundation Humanitarian Technology Challenge Project for Global Health in Developing Countries**