Public Health Benefits of Electronic Health Records

Presented by Mary Shaffran
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Key Capabilities of an Electronic Health Record (EHR)

- *Longitudinal collection* of health information
- *Immediate electronic access* to person- and population-level information
- *Knowledge and decision support* that enhances the quality, safety, and efficiency of patient care
- *Efficient processes* for health care delivery

Source: *2003 Institute of Medicine Letter Report: Key Capabilities of an Electronic Health Record System*

Functions and Uses of EHR Systems

- Direct Patient Care
- Reporting
- Reimbursement
- Credentialing
- Auditing
- Legal
- Quality Assurance
- Medical Error Prevention
- Public Health Needs
- Research
- Education

Source: *HL7 EHR System Functional Modal and Standard: Draft Standard for Trial use, Release 1.0, August 2003*

Why is this vital for public health?

- **Timely information**
  - Accelerates dissemination of information
  - Prevents spread of disease
  - Enhances preparedness
- **More comprehensive information**
  - Improves interventions and communication
  - Informs research
- **Better integrated information**
  - Unifies surveillance architectures

Benefits for Public Health Leaders

- Expedite tracking and reporting of diseases
- Transfer patients
- Track environmental and occupational related accidents
- Recognize and understand trends
- Develop demographic data

Benefits for Public Health Leaders

- Push the standards
- Improve ability to share data between systems
- Integrate data
- Maximize resources/reduce cost
- Develop new or renewed partnerships

Benefits for Public Health Leaders

- Connect systems and registries
- Exchange information with *all* clinical partners
- Enhance detection and preparedness
- Overcome preventable information gaps

On Partnerships

-- From Amy Zimmerman in Rhode Island

- **Registries and RHIO's**
- Partners?
- Competitors?
- Who Knows?

You choose!!!!

Benefits for Clinical Care

- Bi-directional information exchange
- Connectivity of systems and registries
- Outbreak detection/preparedness
- Prevention of information gaps

Views from Public Health Leaders

"The faster health care providers adopt electronic health records for use in day to day care, the quicker we will be able to get a handle on unnecessary care, medical errors, and disease surveillance as well as a host of population health measures that we currently capture through delayed sampling techniques such as surveys and administrative data."

"All this while saving providers time and money. Convening and advancing this effort should be among the top priorities of every state health officer in the country." – Scott Williams, Executive Director, Utah Department of Health

Views from Public Health Leaders

"If we could create an electronic health record for all Americans, it would enable public health to take "electronic snap shots" of the nation's health. This aggregate data would help us understand more about what's happening right now, and would greatly improve our ability to communicate ways that people could live healthier lives." – Steven Hinrichs, Director, Nebraska Public Health Lab, University of Nebraska Medical Center

Views from Public Health Leaders

"*Public health laboratories generate the data needed to make critical health decisions. Electronic health records will speed laboratory reporting, thereby improving treatment*" – Scott Becker, Executive Director, Association of Public Health Laboratories

Barriers and Solutions

- Privacy issues
- Centralized vs decentralized systems
- Developing standards vs getting it going
- Public engagement
- Funding
- Architecture
- Access

Current Efforts Involving Public Health

- **Connecting Communities for Better Health**

  Public Health involved in 4 out of 9 demonstration projects — Indiana, Santa Barbara County, Tri-Cities TN-VA, Wisconsin

- **AHRQ State and Regional Health Information Technology**

  Over 100 demonstration grants and 5 major implementation contracts — Colorado, Indiana, Rhode Island, Tennessee, Utah

Source: State and Regional Demonstrations in Health Information Technology: Transforming Healthcare Quality Through Health Information Technology (THQIT), http://www.ahrq.gov/research/hitfact.htm

Public Health and the AHRQ Contracts — Colorado

Project: Denver Health – exchange of data between hospitals

- Public Health letter of support
- Public Health and awardee involved in electronic lab reporting, web-based systems disease reporting, and TB tracking

Public Health and the AHRQ Contracts — Rhode Island

Project: Create, implement and evaluate a master patient index

- Public Health heavily involved
- Phase I – provides identifies patient, then accesses individual databases
- Phase II – data is viewed in one uniform way

Public Health and the AHRQ Contracts Funding — Indiana

Project: Develop a health information exchange

Implement a state-wide public health surveillance network

Involves Public Health, led by Indiana University

Public Health and the AHRQ Contracts — Tennessee

Project: State and regional demonstrations in health information technology

State-based data sharing and interoperability service connecting the health care entities in three counties.

Public Health and the AHRQ Contracts — Utah

Project: Expand current statewide network for the electronic exchange of patient administrative and clinical data.

Public Health heavily involved.

"*Just as important as these technical developments will be implementing detailed change management strategies among the network of users and policy makers in the general public.*"

General Trends

- Collaboration at high levels of leadership
- Experience working together toward common theme
- Integration projects
- Phased, but aggressive approaches

Example of Strong Leadership — Rhode Island Quality Institute

Board of Directors

Chairman: Lifespan Corporation - George Vecchione

Vice Chairs: Public Health - Patricia Nolan, MD, Care New England - John Hynes, Esq.

Blue Cross/Blue Shield of RI - James Purcell

President: RI Quality Institute - Laura Adams

Source: Amy Zimmerman Presentation: *From Registries to RHIOs*, ARIA Annual Meeting, 2004

How will we get there?

- Base architecture on practical experience as well as capacity for future use
- Shared plans and experiences, plan together, build together
- Communicate benefits across sectors
- Creation of “widespread trust in the privacy of health information exchange”
- Public Private Partnerships
- Funding

Additional Resources

HHS Framework for Strategic Action

http://www.hsrnet.net/nhii/materials/strategic_framework.pdf

Connecting for Health...A Public-Private Collaborative
Preliminary Roadmap for Achieving Electronic Connectivity in Healthcare

www.connectingforhealth.org/resources/cfh_roadmap_final_0714.pdf

eHealth Initiative Resource Center

http://ccbh.ehealthinitiative.org/

Public Health Data Standards Consortium – Ad Hoc Task Force on Electronic Health Record – Public Health

http://phdatastandards.info/about/committees/ehrph.htm

Thank You!

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