Using Electronic Medical Records: National and Local Perspectives

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Topics

- Some definitions
- Overview of National Initiatives
- Trends in Physician Use of Electronic Medical Records (EMR)
- Immunization Registries and RHIOs

From CPR to EHR: Alphabet Soup

Past

CPR: **Computer-based patient record**. Defined by the IOM as a longitudinal record that captured paper-based information in image form.

Present

EMR: **Electronic Medical Record**. Typically owned by a single provider organization, the EMR captures and manages patient data that *originates in electronic form*.

Future

EHR: **Electronic Health Record.** True lifetime medical record, *owned by the patient* who grants access to providers as needed.

Overview of National Initiatives

National Health Information Infrastructure: 2002-2003

- A Health Information Technology (HIT) initiative set forth to deliver consumer-centric and information rich healthcare to improve the effectiveness, efficiency and overall quality of health and health care in the United States.
- A comprehensive knowledge-based network of interoperable systems of clinical, public health, and personal health information that would improve decision-making by making health information available when and where it is needed.
- The set of technologies, standards, applications, systems, values, and laws that support all facets of individual health, health care, and public health.

Overview of National Initiatives (continued)

National Health Information Network

- 2002-2003: NHII laid the conceptual foundation
- Winter/Spring 2004: President Bush declares need for interoperable EHR within 10 years
- May 2004: National Coordinator appointed; ONCHIT established
- July 2004: "Framework for Strategic Action" released
- *Now the fun begins…*

Overview of National Initiatives (continued)

Framework for Strategic Action:

1. Inform clinical practice through EHR adoption
2. Interconnect clinicians for secure, timely data exchange and the National Health Information Network
3. Personalize care through consumer-centric initiatives
4. Improve population health through better surveillance, monitoring, and research

Overview of National Initiatives (continued)

What's happened since?

- Establishment of national organizations (EHR Collaborative, eHealth Initiative) and adoption by virtually all national medical and HIT organizations
- Several major national and regional conferences and meetings
- Early Regional Health Information Organizations (RHIOs) are identified
- Sept. 2004: Agency for Healthcare Research and Quality (AHRQ) awards $139 million in contracts and grants to promote the use of HIT
- Nov. 2004: ONCHIT Request for Information (RFI) on National Health Information Network (NHIN)
- *RHIOs seem to be popping up everywhere…or are they?*

Overview of National Initiatives (continued)

What is a RHIO anyway?

- No single definition – in the eye of the beholder
- A collaborative organization focused on health data exchange
- Primarily driven by the private sector, but often has public health involvement (and may be driven by the public sector)
- Usually focused on clinical data exchange, but may focus on health services data in addition or instead
- Can span a metropolitan area, region, or a state
- Hard part is setting up the governance and managing the organizational relationships
- Solving technology challenges follows from that

It's About Interoperability!

HIMSS Definition:

The ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of healthcare for individuals and communities.

Barriers to RHIO Development

- Financial – Need strong business case
- Standards – Not fully developed
- Identification – No national patient identifier
- Authentication – Of participants
- Organizational – Public-private boundaries
- Vocabulary and Terminology – Language
- Technology – Limited interoperability

Enablers of RHIO Development

- Interest and Momentum – Is it enough?
- Standards – March continues on
- Public Health Expertise – Leverage possible
- The Internet – Pervasive and ubiquitous

Trends in Physician Use of EMR

Trends in Physician Use of EMR

- Center for Studying Health System Change: 74% of physicians in practices has IT support for 5 critical functions (2001)
- Forrester Research: EMR sales to physician practices will increase from $816 million in 2003 to $1.4 billion in 2008 with spending in small physician practices increasing from $366 million to $829 million.
- Coalition of medical associations (April, 2004): "A standardized electronic health record, adapted to the specific needs of family physicians and the patients they serve, will constitute the central nervous system of the New Model practice"
- AAFP Survey (March, 2005): Cost of EMRs fell in 2004, but not low enough

Trends in Physician Use of EMR

- The National Alliance for Primary Care Informatics is an evolving, coordinating group of primary care organizations committed to the development and implementation of a national strategy for the use of information technology and management in primary care.
  - American Academy of Pediatrics
  - American College of Physicians
  - American Medical Informatics Association
  - American Nurses Association
  - National Organization of Nurse Practitioner Faculties
  - North American Primary Care Research Group
  - Society of General Internal Medicine
  - Society of Teachers of Family Medicine

Trends in Physician Use of EMR

- Kaiser Permanente has already gone live with its far-ranging electronic medical record project. Kaiser Permanente HealthConnect is now online in the 8-million member health plan's Hawaii region.
- The Indian Health Service is scheduled to complete development and start deployment of their Electronic Health Record with the system scheduled to be fully implemented by 2008.
- Georgia Healthcare System (GHS), a statewide organization comprised of 78 community health centers, has signed a $1.47-million contract to provide electronic medical record software to 14 GHS locations.

Immunization Registries (and RHIOs)

Immunization Registries

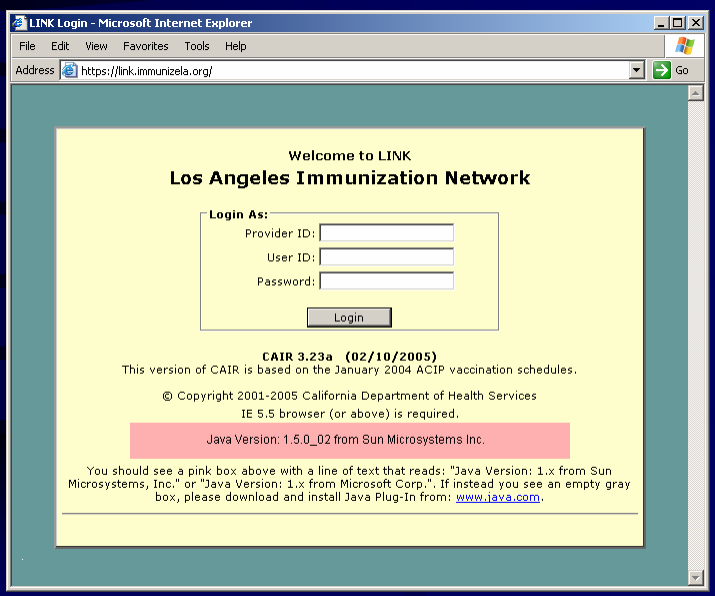
CDC Definition:

Immunization registries are confidential, computerized information systems that record, store, and provide access to children's immunization records.

Immunization Registry Benefits

- Help control outbreaks by identifying children at risk
- Can increase staff productivity and save money
- Raise immunization rates by identifying children in need of immunizations
- Help schools ensure compliance
- Provide reminder/recall to parents
- Facilitate population surveillance

Los Angeles Immunization Network -- Home - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://www.immunizela.org/
Go
Los Angeles Immunization Network (LINK)
Sunday
May 8th
...for healthy children and families
Home
LINK Users
Providers
Community
Contact Us
LINK
Welcome to LINK...
What is LINK? The Los Angeles Immunization Network (LINK) is an Internet-based system used by providers and other approved agencies in Los Angeles County to track the immunizations of their clients. LINK is a partnership between the Los Angeles County Department of Health Services, the City of Pasadena Public Health Department and the City of Long Beach Department of Health and Human Services. Most counties in California and all 50 states are developing similar immunization tracking systems, often called "immunization registries" and Healthy People 2010 has set a national goal of enrolling 95% of children from birth through age five in an immunization registry.
What is LINK's Goal? The goal of LINK is to improve the tracking and delivery of immunizations in Los Angeles County. LINK keeps a person's immunization record in one place, even if they see many providers. Providers can then access LINK to see the updated immunization record, which makes it easier for them to know when a person needs immunizations and which immunizations they need. By keeping records up-to-date, LINK can help to prevent over and under-immunization as well as missed opportunities for immunization. Making sure that people are immunized helps prevent diseases within our community.
Home | LINK Users | Providers | Community | Contact Us


LINK Login - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address https://link.immunizela.org/
Go
Welcome to LINK
Los Angeles Immunization Network
Login As:
Provider ID:
User ID:
Password:
Login
CAIR 3.23a (02/10/2005)
This version of CAIR is based on the January 2004 ACIP vaccination schedules.
© Copyright 2001-2005 California Department of Health Services
IE 5.5 browser (or above) is required.
Java Version: 1.5.0_02 from Sun Microsystems Inc.
You should see a pink box above with a line of text that reads: "Java Version: 1.x from Sun Microsystems, Inc." or "Java Version: 1.x from Microsoft Corp.". If instead you see an empty gray box, please download and install Java Plug-In from: www.java.com.

The Problem
Challenges to Registry Use:

- Double entry of data
- Confusing array of computer systems and applications
  - Many commercial players
  - Varied functionality and scope
- Data fragmentation across systems
- Uneven deployment within an organization
- Closed networks
  - Bound by technology or policy
  - Inhibits record sharing beyond the site or organization

The Opportunity

- Registries, like RHIOs, promote interoperability
- EMRs support chart-compliant documentation of immunization records- better than billing records
- EMRs may be able to eliminate double data entry
- EMRs already using and expanding use of HL7
- EMRs can provide access to Registry data without introducing a new application to the user.
- EMR-Registry partnerships for shared development and registry promotion

Possible EMR-Registry Interoperability Strategies

1. Simple Records Exchange
2. Records Exchange with Registry Access
3. Records Exchange with Registry Features
4. System Integration
5. Collaborative Development

What Can an Immunization Information System Contribute to a RHIO?

- "Quick start" by leveraging existing activities
- Data, including consolidated data
- Expertise: de-duplication, database management, web applications, data exchange including HL7
- Existing relationships with many relevant stakeholders: providers, hospitals, payers, professional associations
- Governance: experience in negotiating and implementing data sharing agreements
- Childhood health data somewhat more contained and manageable than adult health data

Implications for Action

- Need to promote physician participation in local registry projects
- Need to compare level of sophistication of EMRs in a jurisdiction with a registry project's own feature set.
- Over time, EMRs will increase in degree of penetration and functionality.
- Need to survey providers to determine if there is leverage in enabling interoperability with a few common EMRs.
- Need to stay involved in national initiatives and advocate for public health's and child health's perspectives.

Selected Sources

- AIRA: http://www.immregistries.org/
- CalRHIO: http://www.calrhio.org/
- Connecting for Health (Markle Foundation): http://www.connectingforhealth.org/
- eHealth Initiative: http://www.ehealthinitiative.org/
- LINK: http://www.immunizela.org/
- ONCHIT: http://www.hhs.gov/healthit/