

MCHB/DSCSHN May 2005 Webcast

Ready or Not: The Role of Public Health in Regional Health Information Organizations

May 18, 2005

Public Health's Role in Health Information Exchange

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Connections Webcast



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Exchanging Person-Centric Health Information

- NHII to NHIN and RHIO's
- NCVHS – "Information for Health" 1999
 - 2000 to 2004 – focus on key issues (architecture, privacy, governance, etc.)
 - May 2004 –
 - ONCHIT created
 - Markle/RWJF – Roadmap for Health
 - eHealth Initiative CCBH
 - Regional Health Information Organizations

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What is a RHIO?

- Organization that links providers for purpose of exchanging person-centric information relevant to an individual's health
- Inherently local, established around a medical trading area
 - Built around existing care and referral relationships
 - Builds on existing trust relationships
 - Must establish mutual benefit

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Public Health: Chicken Soup for RHIO's?

Where does public health fit in this picture?

- IOM – ‘what we, as a society, do collectively to assure the conditions in which people may be healthy.’
- Public health informs, regulates and, at times, coordinates efforts.
- Public health increasingly provides information and knowledge to other agencies.
- Public health has an obligation to protect and promote the health of all citizens.

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Current State of Public Health Information Exchange

- Long history of gathering and exchanging data with health care providers
- HRSA/MCHB grants to promote integration of child health systems
- HRSA – eHI CCBH grants
- CDC PHIN and related grants promoting interoperability

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Current State of RHIO's

- In place and functional
 - INHS
 - IHIE
- In early deployment
 - Santa Barbara County Care Data Exchange
 - UHINClinical
- Planning stage and early implementation
 - Rhode Island (RIQI)
 - Colorado (COHIE)
 - Tennessee

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RHIO – What is it?

- A concept yet to be well defined
- Possibly multiple things
- Must have:
 - Governance
 - Technology architecture
 - Data use agreements
 - Financial and business model

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Issues to be resolved

- Is this all about B2B or the consumer or the community?
- Sustainable model? How to exchange the unvalued asset we call information?
- Which partners are essential?
- Free is not cheap enough
- Who serves as trusted neutral party able to manage community-wide collections of patient information?

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Public Health Benefits

- More timely and complete receipt of disease reports
- Faster transmission of better information to public health case managers (e.g., communicable disease control, newborn screening follow-up)
- Easier identification and analysis of gaps in preventive health services

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Public Health Challenges

- Stable participation
 - Leadership
 - Vision / politics
 - Funding
 - Quality data
- Potential conflicts with regulatory roles
- Consequences of failed participation

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Ready or Not: The Role of Public Health in Regional Health Information Organizations - Public Health Data Organization for Knowledge Management



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May 18, 2005



Topics of Discussion

- Definitions
- RHIO/business model
- Thoughts behind the development of the Indiana Operational Data Store
- Data quality
- Knowledge Management impact on the public health/RHIO partnership



What Drives RHIOs

- Reduced cost from electronic transactions
- More complete and timely information for the clinician
- Business model



Potential Areas of Public Health Added Value

- Reduced cost through electronic reporting of public health events
- More enhanced information especially for vulnerable populations
- Allows community-based interventions with proper analysis of the collected data
- Public health messaging to clinicians for improved prevention activities during the health encounter



What Does Public Health Need in Place to Interface with RHIOs?

- Understand the value that you bring to the table
- Trustworthy data steward
- Data storage
 - Identification of primary events
 - Data validation
 - Data enhancement
- Community focus
 - Reporting
 - Decision support



Knowledge Management

- Knowledge is information in context*
- Knowledge management is an organization's or community's planned approach to collecting, evaluating, cataloging, integrating, sharing, improving, and generating value from its intellectual and information-based assets*

* "Knowledge Management for Public Health Professionals", ASTHO



Knowledge Management Impact on Public Health Policy

- Health policy developed by information gained through data integrated from multiple program areas
- Community health improvement
- Environmental health
- Engaging the public
- Decision support systems



Core Components of Knowledge Management

- Nature of the organizational structure
- Condition of the content of the organization
- Processes that are used to collect, manage, and disseminate information
- Technology infrastructure



A Brief Project History for Indiana

- Pilot project for the Birth Defects Registry
- Development of a Child Health Profile linking births, deaths, and hospital reported birth defects



Health Informatics Policy

- Goals
 - Improve health quality of the community
 - Improve efficiency
 - Case identification/Public health surveillance
 - Public health policy development
 - Improve information dissemination



Identification of Primary Events

- Develop a person- or case- centric public health data system?



PMI/Case Comparison

- Person
 - Population demographics
 - Location
 - Time
 - Links to many data sources
- Case
 - Location
 - Time
 - Links to fewer data sources



Data Structure

- Master Person Index
 - One-to-one events
 - Birth
 - Death
- Case-centric events
 - Location and time
 - One-to-one or one-to many
 - Environmental test
 - Individual lab test with no ID



Data Schema

- Primarily a PMI
- When needed, case-centric data are included
 - Case-centric data are linked to individuals by location and time
 - Events used for case identification that do not include a person ID, are generally linked to an individual during case management



Data Integration

- Matching
 - Linking
 - Merging



Validation

- Multiple step process
- Verify that the data entered was entered as written
 - What is written may not be correct
- Duplicates
 - Finding
 - Fixing
- Changing business rules



Data Stewardship

- Process to manage the data
- Business rules
 - Automation
 - Intervention



Information Dissemination

- Web based systems for information dissemination
- Easy point of entry
- Meaningful information display



Reporting with Integrated Data

- Reproducing current reports does not add value by it does help validate data integrity
- New reports need a community, agency-wide approach to develop

Traditional Areas of Public Health Value

- Birth defects
- Quality Indicators
- Medicaid
- Case Identification
- Overall data quality
- Immunizations
- Lead data reporting

Summary

- The PMI enables population-based analysis of data through the aggregation of individual events
- Public health needs to be a “world-class” customer to partner with RHIOs
- Data integration inherently provides knowledge management solutions for the community

Public Health's Role in Health Information Exchange

Rhode Island's Experience

RI's Health Information Technology Project

PHII Webcast May 18th, 2005

Presented by
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Rhode Island Department of Health
RI HIT Project Manager

Health Care Landscape in RI

- 2 State Agencies with health responsibilities (Health, Human Services)
- No local or county health departments
- 3 major health insurers
- 2 major hospital systems
- 15 Hospitals (7 are independent)
- 3 very large group practices
- 1 Quality Improvement Organization (QIO)
- 1 Medical school & Public Health program

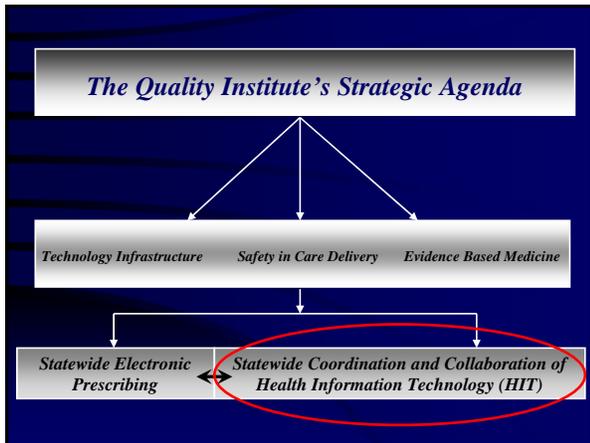
Development of Rhode Island Quality Institute (RIQI)

RIQI's Mission:

A collaboration among hospitals, health care providers, insurers, consumers, business, academe and government for the purpose of improving health care quality, safety and value in Rhode Island.

RIQI Guiding Principles

- Collaboration—first and foremost
- Real improvement is required
- Win-win for all participants
- Focus on system improvements that none of individual entities can achieve alone
- Senior Leader participation



- ### Collaboration between RIQI and The Department of Health
- Director of Health on RIQI Board of Directors
 - RIQI & KIDSNET get to know each other meet - Spring 03
 - KIDSNET Links RIQI with NHII- Summer 03
 - RIQI pilots SureScripts-2003
 - RIQI sponsor LHII forum -Spring 04
 - RIQI develops AHRQ Planning grant-Spring 04
 - HEALTH approached to submit AHRQ state demonstration project

- ### Core Functions of RI's AHRQ HIT Project
- Create a Master Patient Index: central database which identifies where patient has information stored
 - Allow data from various sources to be viewed in an integrated and uniform manner
 - Allow data from various sources to be integrated into EHRs, & allow EHR data to be shared with others
 - Allow consumers to control the access to their data
 - Provide decision support (immunization algorithm, etc)
 - Create the ability to utilize the data for public health purposes: evaluation, surveillance, research,etc

Current Role of RI Department of Health in AHRO HIT Project

- Serve as a facilitator, help define role of community partners including the public (consumers)
- Provide project management, administrative support,
- Establish a governance structure for the AHRO project that can evolve into governance for the RIHO
- Serve as a data sharing partner;
- Carry out legislative strategy for pooling and disseminating funds to support HIT effort

Facilitate and Define Community Roles

- Technical Assistance and Coordination with other Health Information Technology (HIT) efforts within the state (RI Quality Institute)
- Health care provider engagement, training and participation (QIO, Quality Partners of RI)
- Consumer outreach, education and engagement (Subcontractor TBD)
- Technical design and development of the MPI (Subcontractor TBD)
- Well-defined and rigorous evaluation (Brown University)

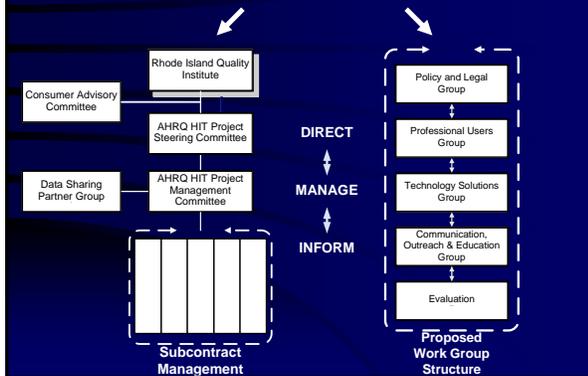
Provide Project Management and Administrative Support

- Provide Core Staff- Project Director, Project manager, Chief of Public Health Informatics, consultants (project management support & solution architect)
- Access to other critical staff resources: State CIO, State Division of Information technology, Legal counsel, etc
- Administrative and procurement, subcontracting processes (can be a liability as much as a resource well)

Establishing a Governance Structure

- Governing Council: RIQI Board of Directors
- Steering Committee: Administered by the RIQI
- Management Committee- HEALTH and subcontractors
- Working groups (technical, legal and policy, users, communication, education and outreach, data sharing partners, evaluation)
- New Consumer Advisory Committee of RIQI

Project Governance & Structure



Serve as a data sharing partner

- RI Department of Health 's KIDSNET
- RI Department of Health's Clinical laboratory system
- Lifespan's Lifelinks
- SureScripts - electronic information exchange between physicians and pharmacies;
- Rhode Island Health Center Association's patient registry and data warehouse
- East Side Clinical Laboratory's web-based reporting system
- Medicaid (evaluation only)

Proposed Data Elements

Proposed Core Data Elements:

- Childhood Health: lead, newborn screening, newborn hearing, immunizations
- Laboratory: Clinical Lab tests
- Pharmacy: Prescription medications
- Utilization: Hospitalization, ER use, some ambulatory use (health center and outpatient clinic)
- Allergies: medication only

Future Data enhancements: radiology, EKG, all allergies, other relevant clinical data such as height, weight, blood pressure, adult immunizations, etc...

Provide Legislative strategy for Pooling Funds

Health Care Information Technology and Infrastructure Development fund:

- Administered by the Department of Health
- Funds are to be used for efforts which develop, maintain, expand, improve HIT infrastructure & assist facilities and providers adopt HIT.
- Requires a Advisory committee
- Fund can accept grants, bequests, donations, gifts, services in kind, bonds, state or insurer appropriations
- Funds can be expended through contracts, loan or grants

RI Department of Health Role as compared to others: A True State wide Effort

- RI Department of Health:
 - Focusing on developing statewide infrastructure and interoperability
- RIOI:
 - Provide Governance, foster collaboration, coordinate efforts for statewide HIT efforts
 - Electronic Prescribing
 - Reduce Barriers to EHR adoption (group purchasing)
 - Develop Business model
- Quality Partners of RI (QIO):
 - EHR adoption: sponsored Vendor Fair, DOQ-IT
 - Provider Engagement for MPI – professional users group, workflow redesign, implementation and training and support

What Public Health and ICHIS can offer RHIO's

Expertise and Experience in:

- Design/development of health data integration
- Matching records and de-duplication
- Understanding Provider enrollment and engagement
- Confidentiality, Security, State laws, Data sharing policies
- Consumer engagement, consenting process
- Data capture and data quality controls
- Support and ongoing maintenance needs of systems
- Data standards, PHIN
- Data transfer policies and issues
- Populating Immunization data into EHR's

What RHIO's can offer Public Health

- Increase ability to collect & store aggregate and individual level data
- Populate demographic & other public health data for ICHIS,
- Promote uniform way to share data with broader set of users: push the standards
- Promote use of EHR's and its connectivity with PH reporting systems (send & receive PH data)
- Provide single method for sharing data with users
- Improve ability to share data between registries
- Ability to look at person's health data in combination with other health care data
- Resources & Cost sharing; New Partnerships

When is the Right Time for Public Health to get Involved?

- ACT NOW even if the "payoff" and benefits appear to be down the road
- Foundations need to be built; clinically driven initially
- Need to consider now: current and future use of data, privacy, policies for use & misuses, data ownership, business case, realignment of incentives and funding streams
- Public Health has lots to offer and Gain!

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