The Future of Public Health Registries: Integrated Child Health Information Systems

PHDSC
Washington DC
November 13, 2008
Topics for discussion

- What are the drivers for integrating CHIS?
- What are barriers to integration?
- What is the state of current integration efforts?
- What are current imperatives for public health in interoperability and integration?
Why integrate?

“To facilitate assessment and promote provision of appropriate services, support surveillance and other public health purposes, and help ensure an optimal healthy start and improve the health of all children.”

A Framework for Integrated Child Health Information System
PHII, 2005
Why integrate?

- Improved care/service delivery
  - More complete information available at time of service/referral/assessment.
  - Earlier identification of co-morbidities/risk factors
- Improved data quality
  - More accurate and complete demographic information
- Improved efficiency
  - Reduced duplicate data entry
Defining Integration

- Integration refers to providing a range of information to the end user in a simple, comprehensive format so he/she can more readily take all indicated actions.
- Integration relates to the end user, not to the background machinery.
- Integration can be achieved by linking information from different systems, by establishing a comprehensive “integrated” system, or a mix of these approaches.
Issues in Integration

• Policy
  – Varying privacy laws and regulations
  – Data sharing agreements
  – Data stewardship

• Data quality
  – Matching records without an MPI
  – Conflicting demographic data

• Financial
  – Who pays?
Level of Reported Integration (N=39)

- Already Integrated Some or All CHIS: 46%
- Planning to Integrate in Next Year: 20%
- Planning to Integrate in Next Three Years: 26%
- Not Integrated or Planning to Integrate in Next 3 Years: 8%

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Integration Status of Specific Programs (N=31)

- **EHDI**: 42% Already integrated, 16% Next Year, 32% Next Three Years
- **Immunization**: 39% Already integrated, 13% Next Year, 26% Next Three Years
- **Vital**: 39% Already integrated, 13% Next Year, 26% Next Three Years
- **Newborn**: 32% Already integrated, 16% Next Year, 36% Next Three Years
- **Birth Defects**: 23% Already integrated, 10% Next Year, 29% Next Three Years
- **WIC**: 13% Already integrated, 19% Next Year, 26% Next Three Years
- **Lead**: 13% Already integrated, 10% Next Year, 26% Next Three Years
- **EIP**: 7% Already integrated, 10% Next Year, 26% Next Three Years
- **EPSDT**: 7% Already integrated, 13% Next Year, 10% Next Three Years

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Does the Organization Have a Strategic Plan for Integration of CHIS? (N=29)

41% Yes
38% No
21% Don't Know
Among the 11 respondents who reported having a strategic plan for integration of CHIS, the plan was described as:

- Department-specific (27.3%)
- Program-specific (27.3%)
- Existing in multiple divisions (but not organization-wide) (27.3%)
- Organization-wide (18.2%)
Internal Factors Influencing the Decision to Integrate CHIS (N=31)

- Improve Program: 83.9%
- Improve Follow Up: 80.6%
- Improve Assessment: 74.2%
- Improve Data: 71.0%
- Leadership Support: 67.7%
- Reduce Duplicate Data: 64.5%
- Funding Available: 64.5%
- Policy Development: 41.9%
- Technical Improvements: 35.5%
- Organizational Changes: 25.8%
External Factors Influencing the Decision to Integrate CHIS (N=31)

- Grant Received: 61.3%
- Stakeholder Desire: 48.4%
- Fed Grant Requirement: 32.3%
- Clinician Desire: 29.0%
- HIE Established: 19.4%
- Budget Appropriation: 9.7%
- Preparedness: 9.7%
- Political Influence: 3.2%
- Regulations: 3.2%
## Funding Sources Used to Initiate Integration of CHIS (N=14)

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>SSDI</td>
<td>57.1%</td>
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<tr>
<td>MCH Block Grant</td>
<td>57.1%</td>
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<tr>
<td>CDC EHDI</td>
<td>42.9%</td>
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<tr>
<td>HRSA EHDI</td>
<td>21.4%</td>
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<tr>
<td>317 PHS Fed Grant</td>
<td>14.3%</td>
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<tr>
<td>Medicaid Match</td>
<td>7.1%</td>
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<tr>
<td>State Appropriation</td>
<td>7.1%</td>
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<tr>
<td>Preparedness Grant</td>
<td>7.1%</td>
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<tr>
<td>Private Foundation</td>
<td>7.1%</td>
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</tbody>
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Funding Sources Used to Sustain Integration of CHIS (N=14)

- SSDI Block Grant: 57.1%
- CDC EHDI: 35.7%
- State Appropriation: 28.6%
- HRSA EHDI: 21.4%
- 317 PHS Fed Grant: 7.1%
- Medicaid Match: 7.1%
- Preparedness Grant: 7.1%
- Private Foundation: 7.1%
Imperatives for public health registries

- Certification of public health information systems
  - CCHIT certification criteria for EHR-IIS interoperability
    - *Will all IISs be ready by 2010?*
- Interoperability with EHRs and HIEs
  - Need to think of registries as having multiple service modules (SOA)
- Enterprise Architecture/agency-wide plans
  - Messaging, security, supported platforms

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What’s needed

- Agencies to see themselves as information brokers
- EA plans
- Workforce training
- Pilot on matching records (if not done already)
- Legal review
- Learn from others
- Federal policies that support integration
Where are we today?
PHII Activities

• Connections Community of Practice
  – Seeing a trend away from integrating for public health purposes toward integrating for private providers

• Newborn Screening
  – Business Process Analysis
  – HL7 implementation guide

• Business Case Model