Interoperability Models in an Integrated Child Health Information System

2022 Data Modernization Workshop
Thursday Campfires Session
May 26, 2022

Agenda

- Background: Immunization Registries, Integrated Child Health Information Systems, and KIDSNET

- Integrated Child Health Information System interoperability models

- DMI Considerations from the Integrated Child Health Information System Experience

Background: Immunization Registries and Integrated Child Health Information Systems

❑ Immunization information systems (IIS)
  o confidential, population-based systems
  o collect and consolidate immunization data in a given jurisdiction
  o provide actionable information for clinical and public health decision making. (Source: CDC)

❑ Integrated Child Health Information System
  o similar to IIS, but scope is child health data more broadly
  o with a focus on the provision of timely and appropriate preventive health services and follow up

Background: KIDSNET

Statewide integrated child health information system and immunization registry (RICAIR) operated by the Rhode Island Department of Health (RIDOH) since 1997.

❑ Immunization
❑ Newborn Screening
   o Vital Records / Newborn Developmental Risk
   o Critical Congenital Heart Disease (CCHD)
   o Blood Spot Screening
   o Hearing Screening (EHDI)
❑ Lead Screening
❑ Women, Infants, Children (WIC), Early Intervention (EI), Family Visiting, Cedar Family Centers, Head Start, Child Outreach, Asthma
❑ Birth Defects Reporting
❑ Newborn Diagnostic Referrals and Reporting

Integrated Child Health Information System interoperability models

❑ Shared data & infrastructure:
   o Demographics
   o Consent
   o Data Quality
   o Data Standards
   o Interfaces
   o Security, Access Control and User Management
   o Data Sharing Agreements

Integrated Child Health Information System interoperability models

❑ Program data – different levels of participation:
- **Host the entire program**
  - *Example: EHDI*
- **Aggregator/hub**
  - *Examples: Immunization, CCHD*
- **Data Repository**
  - *Examples: WIC, EI*
- **Hybrid**
  - *Examples: Home Visiting, Child Outreach*

DMI Considerations from the Integrated Child Health Information System Experience

- ❑ Shared demographics and consent well-suited for population-based registries
- ❑ Rising tide lifts all boats: Data quality, interfaces & services, FHIR

- ❑ Different levels of data & interoperability standards across programs
- ❑ Transaction-oriented system vs. query-oriented system
- ❑ Data quality challenges across interoperability models

Thank you!

For More Information or Questions…

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