Agenda

- Introduction
- About OCHIN
- Vaccination support in EHR
- Immunization Information Systems (IIS) Integration
- Technical Challenges
- Next Steps
- Pearls of Wisdom
Introduction – Current State of IIS Data Exchange

• IIS are capable of receiving immunization information directly from immunization healthcare providers

• Ability to transmit data from IIS to other information systems is not as widely available

• Bidirectional connections between IIS and the EHR helps providers consolidate records, ensure timely immunizations by providing information to clinical decision support tools, and allow them to operate more efficiently

Introduction – Problem

• Vaccines are among the most cost-effective clinical preventive services

• Significant progress has been made in improving pediatric immunization rates, adult immunizations have received comparatively less attention
  – Access to vaccine supply, immunization insurance coverage and reimbursement, data integrity, and policies around reporting and consent

• Adult immunization rates in the United States remain well below Healthy People 2020 goals with substantial racial and ethnic disparities
  – Adults accounted for 99% of vaccine-preventable deaths with over 50,000 adults dying each year in the United States from vaccine-preventable diseases (National Foundation for Infectious Diseases, 2012)
Introduction – Opportunity

• Bidirectional IIS connections...
  – Benefit the medically underserved patient populations that are...
    • less likely to have continuity in provider/care;
    • more likely to have language and health literacy barriers; and
    • more likely to suffer from poor health overall
  – Reduce the challenges and time spent for primary care providers to receive information about patient immunization history and status

About OCHIN

• One of the nation’s largest Health Center Controlled Networks

• Supporting 451 organizations located in all 50 states with 10,000 clinicians serving 20+ million patients

• Provide EHR/IT, analytics, billing, quality improvement, and consulting services

• Customers primarily include Federally Qualified Health Centers (FQHCs), Rural Health Centers, County Health Depts, and nonprofit clinics
About OCHIN

- OCHIN Epic (97 Organizations)
- OCHIN NextGen (72 Organizations)
- Oregon Medicaid Meaningful Use Technical Assistance Program (OMMUTAP) (163 Clinics)
- OCHIN Billing Services (24 Organizations)
- OCHIN Broadband Network Services (53 Organizations)
- Acuere QOL (Organizations in 19 States)
- OCHIN Research (20 Active Partnerships)

This map is a representation of the overall products and services provided to OCHIN members and their clinics. This information indicates the states in which member organizations are based, though they may also operate in additional states.

Patient Profile (CY2016)

Federal Poverty Level
- 100% and below (47%)
- 101-150% (22%)
- 151-200% (17%)
- Over 200% (4%)
- Unknown (10%)

Insurance Status
- Medicaid (18%)
- Medicare (15%)
- Private (9%)
- Grant/Other Public (1%)
- Uninsured (57%)

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Influenza Immunization Performance Across OCHIN

- US Average
  - 2013-14: 46.2%
  - 2014-15: 47.1%
  - 2015-16: 45.6%
  
  Per www.cdc.gov/flu/

- Healthy People 2020 Goal: 70%

Vaccination Support in EHR

- Decision support at Point of Care
  - Health Maintenance Topics
  - Best Practice Alerts

- Monitoring/Reporting Performance
  - Provider, location, organization levels

- Communication with state registries
  - Automatic submission of administration information
  - Bidirectional querying for previous administration information
IIS Integration

16 states live with immunization interfaces:
- Alaska
- California
- Florida
- Georgia (bidirectional)
- Indiana
- Massachusetts
- Minnesota
- Montana
- Nevada
- New Mexico
- Ohio
- Oregon (bidirectional)
- Texas
- Utah
- Washington (bidirectional)
- Wisconsin

- Upcoming bidirectional enhancements (Summer 2017):
  - California
  - Massachusetts
- Bidirectional scoping in Progress:
  - Montana
  - Wisconsin

IIS Integration – Why Bidirectional?

- Considerations for medically underserved patient populations:
  - Improve continuity of care with more complete documentation
  - Minimize need for patient to remember/communicate medical history
  - Improve health through administration of all necessary immunizations

- Considerations for resource use and cost:
  - Duplication of administration
  - Waste of provider and staff time
IIS Integration – Moving to Bidirectional

- Decreasing time spent by primary care providers to receive information about the large number of immunizations happening in other settings — Employer, pharmacy, school, church, etc.

- OCHIN working with CDC and National Association of Community Health Centers (NACHC) to address challenges and improve bidirectional IIS exchange

Technical Challenges – Industry

- Variation in capability among IIS systems
- Variation in format/process among capable IIS systems
- Backlogs to enroll for connection and testing
- Complex to implement
- Costs associated to develop (and license) interfaces
Technical Challenges – OCHIN’s Experience

• Query and response processing
  – How to display in the EHR
  – Mapping to internal codes, registry codes, and CDC codes had to be standardized

• Patient matching
  – IIS does not return result if single patient is not identified

• Chart reconciliation
  – User must follow appropriate workflow to bring IIS record of immunization into the EHR or the process will be repeated at each visit

Technical Challenges – Querying Multiple Registries

• Filtering logic to query IIS systems based on various locations pertaining to the patient
  – point of care
  – patient’s address
  – place of birth
  – prior known addresses

• Becomes more important as bidirectional interfaces proliferate

• May create greater challenge for patient matching
Looking to the Future

Next Steps for OCHIN

• Continue to build out bidirectional query/result IIS interfaces with new states

• Ensure reconciliation process works with new interfaces

• Work with Epic to test and validate filtering logic

• Work with IIS that are newly implementing bidirectional exchange
  – Leverage testing and workflow experience with other IIS
Pearls of Wisdom

• A national IIS must be implemented; or uniform standards for bidirectional IIS interfaces are necessary to streamline adoption and improve patient and population health

• Patient charts are only as accurate as the end user makes them; automatic versus manual IIS query

• Accurate mapping is critical for success and must be done in advance of implementing query functionality

Thank You!

Ben Pierson
Program Manager
Health Information Exchange
piersonb@ochin.org