Immunization Registry Reporting in Community Health Centers

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About OCHIN

- One of the nation’s Largest Health Center Controlled Networks
- Provide EHR/IT, analytics, billing, quality improvement, and consulting services
- Customers include primarily Federally Qualified Health Centers, Rural Health Centers, County Health Depts, and nonprofit clinics
About OCHIN

- 95 member organizations across 18 states nationwide
- Approximately 500 clinic locations
- Approximately 4,000 primary care providers
- 900K unique patients and 3.2M visits in 2015

Patient Profile (CY2015)

Federal Poverty Level
- 100% and below
- 101-150%
- 151-200%
- Over 200%
- Unknown

Insurance Status
- Medicaid
- Medicare
- Private
- Grant/Other Public
- Uninsured
Influenza Immunization Performance Across OCHIN

- US Average
  - 2013-14: 46.2%
  - 2014-15: 47.1%
  - 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 Immunization Information System (IIS) registries
  - Automatic submission of administration information
  - Bidirectional querying for previous administration information
Bidirectional IIS Information Exchange

Importance of Bidirectional IIS Exchange in the CHC Setting

• Considerations for medically underserved patient populations:
  – Less likely to have continuity in provider/care
  – More likely to have language and health literacy barriers
  – More likely to suffer poor health overall

• Considerations for resource use and cost
  – Duplication of administration
  – Waste of provider and staff time
Bidirectional IIS Exchange at OCHIN

- Out of 900k unique patients, 200k had influenza immunization at visit to OCHIN clinics in 2015 (22%)
- Challenging for primary care providers to receive information about the large number of immunizations happening in other settings
  - Employer, pharmacy, school, church, etc.
- 200k influenza administration records sent to IIS systems from OCHIN
  - Zero results back outside OR in 2015

Technical Challenges

- 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
Implementation Aspects of Bidirectional IIS Exchange

- OCHIN with CDC and National Association of Community Health Centers (NACHC) to address challenges and improve bidirectional IIS exchange
  - Create/transmit query and process/display response
  - Patient matching and chart reconciliation
  - Determining which IIS system(s) to query

Initiating IIS Query and Display Result

- OCHIN’s Epic EHR provides ability to query IIS directly from patient encounter
- 30 seconds or less to process and return a list of immunizations records for patient
- Available for PoC IIS in Oregon; Washington and Georgia in final testing ad set to deploy soon
Bidirectional Result Limitations

- IIS does not return results if its matching cannot limit to a single patient
- Without reconciliation into patient chart, process must be repeated at each visit
- Limited to IIS for the point of care only
  - Patient may have results in other IIS systems

IIS Immunization Record Reconciliation

- Permanently associating returned records with patient chart
- Results must be matched/verified by EHR to ensure they file to correct record
- Individual immunization results must be reconciled with existing records to avoid duplication
- Currently in testing
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

Querying Multiple Registries

- Current status: Working with EHR Vendor (Epic), awaiting development of their proposed solution

- Need for this logic is a good problem to have
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 systems newly implementing bidirectional exchange
  – leverage testing and workflow experience with other IIS
How Can CDC Help CHCs?

• Continue working with NACHC, OCHIN, and other partners in the safety net.

• A national IIS registry would greatly simplify and streamline immunization tracking in a way that state and regional IIS systems cannot.

• Barring that, more uniform standards for bidirectional IIS interfaces would streamline their adoption and improve patient and population health.

Thank You!

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