Partnerships for Care: Integration of HIV Data to Improve Data to Care Activities in Massachusetts

Hannah Rettler and Sophie Lewis
MA Department of Public Health
Bureau of Infectious Disease and Laboratory Sciences
At the conclusion of this presentation, the participants will be able to:

• Summarize the P4C program in Massachusetts

• Recognize lessons learned from the process of building Health Information Technology (HIT) and informatics capacity

• Utilize recommendations to other jurisdictions interested in pursuing similar goals
P4C In Massachusetts

• Increase the number of people living with HIV who know their status
• Identify and locate individuals out of care (OOC) and support their re-engagement back into care
• Develop partnership between clinics and field epidemiologists
• Offer partner services to newly diagnosed individuals
• Leverage support from P4C and HRSA SPNS funding to enhance HIV Care Continuum monitoring and response for PLWHA in Massachusetts
Novel use of EHR data

Building capacity to enhance use of data from EHR through:

- existing mechanisms for data collection and automated reporting
- surveillance systems to triage data for collection, response, analysis, and application of clinical and surveillance data
- production of patient level HIV care continua
Community Health Centers

Hospitals & other Clinical Providers

State Public Health Lab

Reference & Clinical Labs

DRVS
- Central data repository for CHCs
- Nightly feed from EHRs

ESPnet
- Case reporting of notifiable diseases
- Query clinical data from EHR

MAVEN
- Tuberculosis
- Refugee and Immigrant health
- HIV
- STI and Partner Services
- General Epi and Vaccine Preventable Diseases
- Cluster/Outbreak response
- Foodborne Illness
- Rabies consults
- Aggregate Influenza Surveillance
- VAERS

Health Resources and Services Administration

Centers for Disease Control
### Event Summary

#### Basic Information
- **Event ID:** 100027710
- **Event:** Human Immunodeficiency Virus
- **Person:** Test Patient  
  Birth Date: 01/01/1987  (Female)
- **Investigation Status:** Open
- **Linked Events/Contacts:** 1 linked event(s)/contact(s) (View)

#### Attachments
- 0 attachment(s) ([Add](#))

#### Notifications
- Event Date: 11/16/2015
- Event Status: Suspect
- Event Type: Report
- **Patient Summary**
- **Address Summary**
- **Link Type Summary**

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### Question Packages

<table>
<thead>
<tr>
<th>Question Package</th>
<th>Person</th>
<th>Event ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>01. Administrative</td>
<td>Test Patient</td>
<td>Test Patient</td>
</tr>
<tr>
<td>02. Demographic</td>
<td>Test Patient</td>
<td>Test Patient</td>
</tr>
<tr>
<td>03. Clinical</td>
<td>Test Patient</td>
<td>Test Patient</td>
</tr>
<tr>
<td>04. Field Investigation</td>
<td>Test Patient</td>
<td>Test Patient</td>
</tr>
<tr>
<td>05. Risk History</td>
<td>Test Patient</td>
<td>Test Patient</td>
</tr>
<tr>
<td>06. Provider/Patient Interaction Log</td>
<td>Test Patient</td>
<td>Test Patient</td>
</tr>
</tbody>
</table>
Data collected to monitor HIV Care Continuum

<table>
<thead>
<tr>
<th>HIV CARE CONTINUUM MEASURES</th>
<th>DATA ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV positivity rates</td>
<td>Number of unique patients screened for HIV and those with positive HIV test stratified by health center, date, race, sex, age, housing status and insurance type</td>
</tr>
<tr>
<td>Diagnosed with HIV</td>
<td>Date of HIV test, type of HIV test, physician reported diagnosis</td>
</tr>
<tr>
<td>Linkage to care</td>
<td>Date of diagnosis, date of CD4 and viral load tests, date of HIV medical care visits, date of field epidemiologist engagement, time lapse between diagnosis and linkage to care</td>
</tr>
<tr>
<td>Engaged or retained in care</td>
<td>Date of diagnosis, date of CD4 and viral load tests, date of HIV medical care visits, date and outcome of field epidemiologist engagement, methods of retention in care, time lapse between diagnosis and care engagement</td>
</tr>
<tr>
<td>Prescribed antiretroviral therapy</td>
<td>Antiretroviral therapy prescriptions and date of prescription</td>
</tr>
<tr>
<td>Virally suppressed</td>
<td>Quantitative viral load laboratory results</td>
</tr>
</tbody>
</table>
P4C Protocol: Identifying Out-of-Care Individuals

**MDPH Surveillance Data**
No CD4 of VL in 180 days (90 days new dx)

**Clinic – Appointment Data**
No provider visit in 180 days (90 days new dx)

**MDPH Data Reconciliation to Identify Potentially OOC**
(By surveillance and/or clinic data)
Determine and exclude:
1. In care at collaborating clinic
2. Deceased
3. Out of jurisdiction
4. Changed providers
5. Incarcerated

If not excluded, assume out-of-care → reconciliation with clinic

**MDPH Clinic Data Reconciliation Conference**
(Assume out-of-care patients)
Exclude:
1. Visit scheduled within 270 window
2. Recent visits (during 30 day lab period)
3. Exclude “well” patients (i.e. stable)
4. Provider exclusion

**“Truly” Out-of-Care Patients (“Line List”)**
OOC patients assigned to field epidemiologists for re-engagement
Lessons Learned:
#1 High variability in data structure within and across EHRs

- Risk reduction counseling
- Housing Status
- Country of birth
- Income
- Health Insurance
- HIV risk exposure

- [List of risk factors and patient report]
Lessons Learned:
#2 Utilizing clinical visit data to identify HIV care visit

The current 042-044 series of codes has been replaced with a single code, 042, for HIV disease.

2015 ICD-9-CM Diagnosis Code 042

Code 795.8 has been deleted and a new code, 795.71, Inconclusive serological findings for Human Immunodeficiency Virus (HIV), has been created.

A new code, V08, has been created for asymptomatic HIV infection.

Use additional code to identify HIV-2 infection (079.53), if present.

2016 ICD-10-CM Diagnosis Code B20

Provider A

"Primary care visit"

Provider B

"HIV Specialty Care Visit"
Lessons Learned:
# 3 Unforeseen transition to new EHR vendor

Centers switched EHR vendors during project period

Initial mapping efforts complete

Unanticipated mapping efforts between new EHR and DRVS
Recommendations

Clear communication

Start small

Push for standardization
Summary

Novel use of EHR data

- Massachusetts is enhancing technology to support HIV Care Continuum monitoring and response for PLWHA

Lessons learned

- Where and how data are recorded and consistency of collection is highly variable
- Challenging to use codes to distinguish a primary care visit vs. an HIV care visit
- Anticipate changes in EHRs

Recommendations

- Communication
- Start small
- Push for standardized designs and protocols
Acknowledgements

P4C Participating Community Health Centers

Massachusetts Department of Public Health

Harvard Medical School / Harvard Pilgrim Health Care Institute

Atrius Health

Commonwealth Informatics

Mass League of Community Health Centers
Special Thanks

The Partnerships for Care work is made possible by grant number NU62PS004512 from the Secretary’s Minority AIDS Initiative Funding to Increase HIV Prevention and Care Service Delivery among Health Centers Serving High Prevalence Jurisdiction through the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration, Bureau of Primary Health Care (HRSA BPHC). The views expressed in this presentation are those of the authors and no official endorsement by the CDC, HRSA BPHC, or the Federal Government should be inferred.

The SPNS HIT work is made possible by grant number H97HA27536 from the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), HIV/AIDS Bureau’s Special Projects of National Significance Program. The views expressed in this presentation are those of the authors and no official endorsement by the Health Resources and Services Administration, the U.S. Department of Health and Human Services, or the Federal government is intended or should be inferred.
Questions?