Matching Medicaid Data

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Outline

• Overview of NY EMA Ryan White Part A (RWPA)
• Data Sources
• Medicaid Match Process and Results
• Example of Early Application
• Next Steps
Overview: NY EMA Ryan White Part A (RWPA)

- **Part A**: emergency assistance to areas hardest hit by epidemic
  - New York City Department of Health and Mental Hygiene (DOHMH) is the grantee for Ryan White Part A (RWPA) in the New York Eligible Metropolitan Area, or ‘EMA’ (NYC and Tri-County area)
    - Clients: > 16,000 HIV-positive individuals served in grant year 2015
      - DOHMH contracts with ~90 service delivery agencies
      - The local program is used to cover ~14 service categories, which predominantly focus on providing supportive services
Overview: NY EMA Ryan White Part A (RWPA)

• **Service Categories:**
  - AIDS Drug Assistance Program (ADAP)
  - Case Management (non-Medical)
  - Clinical Quality Management Activities
  - Early Intervention Services
  - Food Bank/Home-Delivered Meals
  - Harm Reduction Services
  - Health Education/Risk Reduction
  - Housing Services
  - Legal Services
  - Medical Case Management (including Treatment Adherence)
  - Mental Health Services
  - Medical Transportation (Tri-county only)
  - Oral Health Care (Tri-county only)
  - Psychosocial Support Services
<table>
<thead>
<tr>
<th><strong>Electronic HIV/AIDS Reporting System (eHARS)</strong></th>
<th><strong>Electronic System for HIV/AIDS Reporting and Evaluation (eSHARE)</strong></th>
<th><strong>Salient Interactive Miner (SIM)</strong></th>
<th><strong>Program Collaboration and Services Integration (PCSI)</strong></th>
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<tbody>
<tr>
<td>- Mandatory reporting (New York State law)</td>
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<td>- Population-based, most complete source of laboratory test data (CD4 and viral loads)</td>
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<td>- Reporting system for HIV services contracts including RWPA, and RSR</td>
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<tr>
<td>- Captures client demographics, enrollments, services (individual and group), referrals, assessments, and some clinical outcomes</td>
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<tr>
<td>- Medicaid managed care encounters and fee-for-service claims data</td>
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<tr>
<td>- Includes data on enrollments, laboratory, and pharmacy services utilization (including ART prescriptions)</td>
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<tr>
<td>- Matched data from across DOHMH programs on HIV, viral hepatitis, STIs, TB, diabetes, and vital statistics</td>
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<td>- Allows for basic assessment of co-occurring conditions over extended periods of time</td>
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• **Timeline**
  – Spring 2014
    • Access to de-identified NYS Medicaid claims data
  – Fall 2014
    • Access to Protected Health Information (PHI) data

• **Requirements**
  – Participation in SIM’s training course
    • 2 or 3 days training on how to use the system
  – Review of Data Exchange Application and Agreement (DEAA)
    • Use cases from bureaus and programs
    • List of approved individuals for DOHMH
    • Distribution guidelines on materials produced using Medicaid data
  – Review of Medicaid data privacy

• **Data sharing intent**
  – Improve services and the health of Medicaid recipients
  – Reduce costs
Matching NYC Medicaid Data to eHARS

• Objective
  – To integrate data in SIM and eHARS, in order to examine healthcare coverage, enrollments and services among people living with HIV (PLWH) in NYC

• Collaboration between HIV Surveillance, Prevention, Care, and Housing Services
  – Match conducted by Data Support Unit (DSU) within BHIV
Steps Used to Prepare Pre-Match File


2. Exported Data in Batches from SIM

3. Imported all Files into SAS

4. Cleaned Data

5. De-duplicated by Primary Medicaid ID

6. Created Final Dataset in Requested Format
• Deterministic matching process
  – Comparison of unique identifiers

• Used a set of 36 keys based on combinations of first name, last name, date of birth and social security number
  – Match Starting with key 1, each Medicaid record was compared to each eHARS record.
    – If it was a match, the second record was compared against all records in eHARS using key 1. If not, it was evaluated on subsequent keys until it was determined to be a match or not.
    – This process was repeated until the last set of Medicaid and eHARS records were compared.
<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Full LAST NAME + first 6 letters of FIRST NAME + full DATE of BIRTH (DOB)</td>
</tr>
<tr>
<td>2</td>
<td>First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + full DOB</td>
</tr>
<tr>
<td>3</td>
<td>Letters 2-7 of LAST NAME + first 6 letters of FIRST NAME + Full DOB</td>
</tr>
<tr>
<td>4</td>
<td>First 2 letters of LAST NAME + first 3 letters of FIRST NAME + full SOCIAL SECURITY NUMBER (SSN) + full DOB</td>
</tr>
<tr>
<td>5</td>
<td>Full LAST NAME + first 3 letters of FIRST NAME + full DOB</td>
</tr>
<tr>
<td>6</td>
<td>Letters 3-5 of LAST NAME + first 3 letters of FIRST NAME + full DOB</td>
</tr>
<tr>
<td>7</td>
<td>First 4 letters of LAST NAME + first 4 letters of FIRST NAME + full DOB</td>
</tr>
<tr>
<td>8</td>
<td>First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + month and year of DOB</td>
</tr>
<tr>
<td>9</td>
<td>First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + day and year of DOB</td>
</tr>
<tr>
<td>10</td>
<td>Full 8 digits of SSN</td>
</tr>
<tr>
<td>11</td>
<td>First 5 letters of LAST NAME + first 4 letters of FIRST NAME + month and year of DOB</td>
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<tr>
<td>12</td>
<td>First 3 letters of LAST NAME + first 3 letters of FIRST NAME + month and year of DOB, switching the first and last name</td>
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<tr>
<td>13</td>
<td>First 3 letters of LAST NAME + first 3 letters of FIRST NAME + day and year of DOB, switching the first and last name</td>
</tr>
<tr>
<td>14</td>
<td>First 4 letters of LAST NAME + first 4 letters of FIRST NAME + month and day of DOB, switching the first and last name</td>
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Summary of Medicaid-eHARS Matches

STEP 1

36-key deterministic match

Matches on Keys 1-10
Matches on Keys 11-14
Matches on Keys 15-36

STEP 2

Check for SSN differences between preliminary matches

Matches on Keys 1-10 with no non-matching SSN*
Matches on Keys 11-14 with no non-matching SSN*

STEP 3

Check for gender differences between preliminary matches

Matches on Keys 1-10 regardless of gender differences
Matches on Keys 11-14 if no gender differences

*Non-matching SSNs are those with >4 digits different from one non-missing SSN to another non-missing SSN.

Indicates confirmed matches
Results of Medicaid and eHARS and eSHARE Data Match

- Initial match of NYC Medicaid (enrolled 01/2012 – 12/2014) and HIV Registry (PLWH alive as of 01/01/2012) with eSHARE (served 01/2012 – 12/2014) shows:

  - Medicaid: 4.9 million enrollees
  - HIV Surveillance Registry: 127,850 persons
  - 59,500 NYC Medicaid recipients in Surveillance Registry
  - 24,590 NYC RWPA clients
  - 21,200 HIV-positive NYC RWPA clients in Medicaid

Note: This analysis was performed by DOHMH and the conclusions are those of DOHMH and not necessarily of the New York State Department of Health (NYSDOH).
Example of Early Application: Overlap of Populations Retained in Care, 2012-2014

Having evidence of at least two HIV care visits at least 3 months apart during a 12-month period.

Note: This analysis was performed by DOHMH and the conclusions are those of DOHMH and not necessarily of the NYSDOH.
Next Steps

• Examine fuller picture of public services received to support HIV-related health
  – Estimate uptake of PrEP among HIV-negative Medicaid enrollees using diagnoses from eHARS with prescription data from the SIM
  – Assess the impact of specific packages of health services (with comparisons of Ryan White only, Ryan White plus Medicaid, and Medicaid only) on HIV care continuum outcomes
  – Merge eHARS, HCV surveillance, and eSHARE data with Medicaid
    – Highlight areas of the HCV care continuum where services could be improved
  – Enhance DOHMH’s ability to track engagement in HCV medical care for enrollees co-infected with HIV and HCV
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