Developing an Interagency Data Linkage Project:

Linking NJ County Jail Recent Release Data to NJ SUDORS

New Jersey Violent Death Reporting System (NJVDRS)
Overdose Data to Action (OD2A)/NJ SUDORS
Center for Health Statistics, NJDOH
Why the interest in data linkages?

- Answer questions your data alone cannot
- End-product often greater than the sum of its parts
- Brings together siloed data for greater understanding of complex events
- Data on similar events or outcomes from more than one source can be evaluated or validated
- Add geographic, economic, community data to provide context to analyses
- Follow individuals through different systems over time
- Applicable in public health, research, evaluation, surveillance...
How a linkage project develops

- Two external stakeholders, interconnected needs
  - County jails with pre-release MAT programs want to measure effectiveness, make adjustments based on data
  - NJ Division of Mental Health and Addiction Services provides grants to county facilities to begin implementing pre-release MAT programs, want to evaluate program outcomes and efficacy
  - *Both need access to NJDOH death/hospitalization data*

- NJDOH Opioid Response Coordinator is OD2A PI
  - Linkage to medical examiner data suggested, but ME office short on capacity, data analysis staffing
How a linkage project develops

...and NJ SUDORS data was suggested instead

**County Jails**
People with OUD treated prior to release with MAT in county facilities
At risk of non-fatal OD, death, loss to follow-up

**Medical Examiner**
People who died from drug overdose in NJ
Recent Release may be captured in narrative
Post-mortem toxicology

**NJ SUDORS**
People who died from drug overdose
Recent Release captured as a discrete variable
Additional death cert data, plus out-of-state deaths

Recent releases who die from overdose will appear in all three systems
How a linkage project develops

- **NJ SUDORS data**
  - Has data on relevant outcomes (drugs involved, manner)
  - Contains identifiers from all data sources stored on secure local servers (aliases, misspellings, hyphenated names)
  - Additional data from State electronic death file on NJ residents who die out of state (NJ borders NY, PA, and DE)
  - Contains data on extended demographics, life situations, and OD circumstances that better characterize the death
  - “Recent release from an institution” is a discrete variable, so SUDORS staff can test completeness and validity

- **NJ SUDORS Strategy Lead is also the NJVDRS PI**
  - Analytical capacity to link to suicide, homicide
STATUS

• Nobody has actually seen each other’s data yet

• NJVDRS/SUDORS data dictionary and coding manual shared with DMHAS and county facilities

• Facility data collected initially for their internal purposes

• Additional linkage to UB data for non-fatal overdoses

• Questions still exist, but there is real excitement about working together on a unique, high impact project
STATUS

• Agencies still determining *how* to work together
  • Trust is paramount to successful collaboration
  • IRB, Data Use Agreements, statutory limitations/restrictions
  • Who should be the lead agency?
  • What does data flow look like? Who gets record level data? Who gets summary statistics?
  • Setting expectations
    • What do you NEED TO KNOW?
    • What would you LIKE TO LEARN?
    • Are activities limited by time, funding, staffing?
  • Expect the unexpected
Data linking strategies and challenges

• Using county jail and/or state prison data
  • Data may be messy, duplicated, incomplete
  • Names may be aliases, inconsistent across incarceration episodes, change over time
  • Dates may have predictable data entry “keying” errors
    • “05/02/1970” vs “05/05/1970” may be a “fingernail error”

• Data structure may be analogous to
  • Medicaid data (people in/out of eligibility during a calendar year)
  • UB data (people may have multiple ED or inpatient visits, across facilities, insurance coverage, transfers between facilities)
Data linking strategies and challenges

Example

Previous NJ linking projects with death data and/or hospital data have shown that for persons who are not infants

*Last Name, First Name, Date of Birth alone is a strong identifier but still may need Probabilistic ("fuzzy") matching to find target*

Very important because they may be the only variables the data have in common

<table>
<thead>
<tr>
<th>Data Source</th>
<th>First Name</th>
<th>Last Name</th>
<th>DOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Examiner</td>
<td>Hank</td>
<td>Rollins</td>
<td>3/17/1966</td>
</tr>
<tr>
<td>NJ SUDORS</td>
<td>Henry</td>
<td>Rollins III</td>
<td>3/17/1969</td>
</tr>
<tr>
<td>Hospital/UB</td>
<td>Henry</td>
<td>Rolins</td>
<td>3/17/1969</td>
</tr>
<tr>
<td>Jail/Prison</td>
<td>Henry aka Hank</td>
<td>Rollins</td>
<td>6/17/1969</td>
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</tbody>
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Any Questions?

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