Replicating the Alaska Longitudinal Child Abuse and Neglect Linkage Project: The Oregon Connection

Safe States, 2019
Atlanta Georgia
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• Background
• Cohort Methodology
• Oregon replication status
Motivation for methods and project

Cohort development

• Longitudinal data needed to study maltreatment over time
  • Maltreatment as an exposure results in multiple negative outcomes, as an outcome has multiple risk factors…complex
  • Expand information from birth certificate
  • Measure incidence

Replication project

• External validation
• Comparative assessments
  • Establish replication protocol to ensure comparability
  • Clearly document process
• Pooled analyses
Involvement with Child Welfare (Child Protective Services - CPS)

Report

Screen-Out

Screen-In (Investigate)

No Abuse or Inconclusive

Substantiation

No Removal

Removal
Estimating Child Maltreatment

Annual Prevalence:
Proportion of children who are involved with child protection during a given year

Cumulative Incidence (Incidence Proportion):
Probability of being involved with child protection over a given period of time.

Estimating Cumulative Incidence:
Linkage of entire birth cohorts with state child protection records:
- Accurate population level estimates
- Instrumental in expanding our knowledge

Key limitations:
- Predictive value of information on the birth certificate is limited
- Resource intensive to manage and maintain linkage processes
- Challenging to standardize between states
Pregnancy Risk Assessment Monitoring System (PRAMS)

- 47 States Currently Participate
- Randomly samples:
  - ~1/6 of all live births in Alaska
  - ~1/10 live births in Oregon
- Administered 2-6 months after birth
- Weighted to represent the entire birth cohort
- Mail with phone follow-up
- Core questions (used by all PRAMS programs)
- IRB (Federal and local)
Cohort Design

**Phase 6 PRAMS Survey**

- **2011 PRAMS Cohort**
  - PRAMS + CUBS
  - CPS
  - PFD + Mortality

- **2010 PRAMS Cohort**
  - PRAMS + CUBS
  - CPS
  - PFD + Mortality

- **2009 PRAMS Cohort**
  - PRAMS + CUBS
  - CPS
  - PFD + Mortality

**Year**

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Children Ages 0-9

- Reported ~1 in 9
- Screened In ~1 in 14
- Substantiated ~1 in 66

Among children born in Alaska during 2009 - 2011 (N = 33,417)
2009 Cohort Comparison: Proportion Reported / Substantiated Before Age 5

Weighted PRAMS estimates are nearly equivalent to full birth cohort linkage observation.
Publications

4 more articles currently under review, 1 of which was accepted for publication this week.
# Oregon Replication Project

## Why Oregon?
- Health Authority and OHUS-PSU connection
- State demographic similarities
- Proximity
- PRAMS follow-up survey
- Different governmental structure

## Costs and connections
- GRA project
  - The good and bad of this approach
- Two funding sources:
  - Doris Duke Charitable Foundations (30k)
  - Mathematica (60k)
- Limited infrastructure needed
Process

- Establishing relationships (~1 year)
  - First establish contact with PRAMS coordinator
    - Connect with Vital Records through them
  - Initial connection with Child Welfare director, then “other” key point person

- MOU/DUA (~1 year)
  - Lots of particulars
  - Oregon had a process, Alaska did not.

- Submit to IRB (~3 months)

- Dependent MOU/IRB
Next steps

• Finalize last MOU with child welfare and then ICS
• Work with child welfare to develop query and create data file
• Send PRAMS listing to ICS to limit and link files to produce unique linkage ID’s, and full 2009 birth cohort
• Obtain ID’s and corresponding data elements from CPS, PRAMS, and Vital records.
• Conduct analyses
  • First internal validation for 2009 cohort
  • Second external validation with Alaska estimates.
  • Conduct comparative analyses and pooled assessments
Infrastructure

Pentaho  MySQL  R
http://dhss.alaska.gov/dph/wcfh/Pages/mchepi/ALCANlink/default.aspx

https://ak-mch-epi.shinyapps.io/ALCANLink/
Thank You

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http://dhss.alaska.gov/dph/wcfh/Pages/mchepi/ALCANLink