

# Child Maltreatment Incidence Data Linkages

## Project Overview

Accurate and ongoing surveillance of the incidence of child maltreatment and related risk and protective factors can help to inform policy and programs as well as shape prevention and intervention efforts. One promising approach to capturing this information is by linking local, state, or federal administrative records, such as those from child welfare, health, social services, education, public safety, and other agencies.

The [Child Maltreatment Incidence Data Linkages](#) (CMI Data Linkages) project identified 5 sites using linked administrative data to examine child maltreatment incidence and related risk and protective factors. The project is supporting those sites as they *enhance* their existing linked administrative data by:

- Using innovative methods to link/analyze administrative data;
- Linking novel administrative data sources; or
- Scaling or replicating an existing data linkage or analysis approach in a new geographic area or jurisdiction.

CMI Data Linkages provides sites with access to experts to help address challenges and supports a collaborative cross-site learning network that facilitates communication and information sharing.

Through the design and execution of a cross-site feasibility study, the CMI Data Linkages project aims to:

1. Examine the factors (including state and local context, resources, organizational capacity, peer support, training, and existing infrastructure) that promote or impede the enhancement or scaling of existing administrative data linkage and analysis practices related to child maltreatment; and
2. Determine the availability and quality of information on child maltreatment incidence and associated risk and protective factors that can be gleaned from linked administrative data.

CMI Data Linkages aims to inform the Administration for Children and Families (ACF) about the feasibility of leveraging administrative data linkages to better understand child maltreatment incidence and related risk and protective factors.

The CMI Data Linkages project is funded by ACF's Office of Planning, Research, and Evaluation (OPRE) in partnership with the Children's Bureau (CB) and is conducted by Mathematica and partners at Washington University in St. Louis.

## Site Selection

Participating sites were selected using the following criteria:

- Alignment with CMI Data Linkage project objectives
- Access to and quality of administrative data
- Experience conducting research with administrative data
- Proposed enhancement
- Organizational leadership and capacity
- Ability to conduct the proposed project in the specified time frame
- Interest in undertaking the project
- Willingness to assist with dissemination and communication
- Variability in contextual factors

### 1. Understanding the effect of the opioid epidemic on child maltreatment

**Contact:** Joseph Mienko, Ph.D., M.S.W., Senior Research Scientist, Partners for Our Children; [mienko@uw.edu](mailto:mienko@uw.edu); (253) 514-3632

**Partners:** Washington Department of Children, Youth, and Families; Washington Department of Health and Social Services

The current opioid epidemic may be increasing the incidence of child maltreatment and contributing to increased caseloads in child welfare systems. This project will examine the associations among multiple indicators of child maltreatment, child welfare system involvement, and individual- and community-level risk factors from several data sources across Washington.

#### Data sources

- Washington Department of Children, Youth, and Families Child Protective Services records
  - Washington Department of Health birth, hospitalization, and death record
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### 2. Replicating the ALCANLink Methodology in Oregon

**Contact:** Jared Parrish, Ph.D., Senior Epidemiologist, Alaska Division of Public Health; [jared.parrish@alaska.gov](mailto:jared.parrish@alaska.gov); (907) 269-8068

**Partners:** Alaska Division of Public Health; Oregon Health Authority; Oregon Health and Science University

The Alaska Longitudinal Child Abuse and Neglect Linkage (ALCANLink) approach uses a population-based mixed-design strategy to integrate two sets of data: (1) those births that were sampled and mothers who subsequently responded to the Pregnancy Risk Assessment Monitoring System survey and (2) child welfare and other administrative data. Alaska is partnering with Oregon to replicate this methodology and to estimate and compare, the cumulative incidence to first report, screen-in, substantiation, and removals by age 9.

#### Data sources

- Vital records data from the Oregon Health Authority
  - PRAMS data from the Oregon Public Health Division, Maternal and Child Health
  - Child welfare data from the Oregon Department of Human Services, Children, Adults, and Family Division
  - Center for Health Statistics
  - ALCANLink
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### 3. Examining child maltreatment reports using linked county-level data

**Contact:** Brenda Smith, Ph.D., Associate Professor and Ph.D. Program Director, University of Alabama; [BSmith2@sw.ua.edu](mailto:BSmith2@sw.ua.edu); (205) 348-6528

**Partners:** None

This project examines how risk and protective factors relate to child maltreatment reports at the county level across the nation. The project will link county and state-level data from the National Child Abuse and Neglect Data System (NCANDS) to county- and state-level data from US Census, Bureau of Labor Statistics, Center for Disease Control, National Center for Health Statistics, and other sources. The project aims to explain widely varying state- and county-level maltreatment rates and to develop valid ways to operationalize county-level child maltreatment risk.

## Data sources

- NCANDS
  - U.S. Census (Small Area Income and Poverty Estimates; American Community Survey; population estimates; County Business Patterns)
  - U.S. Bureau of Labor Statistics
  - U.S. Department of Agriculture survey (Map the Meal Gap)
  - Small Area Health Insurance Estimates
  - U.S. Centers for Disease Control and Prevention’s WONDER mortality data
  - National Center for Health Statistics natality files
  - American Medical Association/Health Resources and Services Administration Area Health Resources File
  - Centers for Medicare & Medicaid Services provider identification file
  - Behavioral Risk Factor Surveillance System
  - Child Welfare Information Gateway’s State Statute Series
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## 4. Using hospital data to predict child maltreatment risk

**Contact:** Emily Putnam-Hornstein, Ph.D., Director, Children’s Data Network; [ehornste@usc.edu](mailto:ehornste@usc.edu); (917) 282-7861

**Partners:** Rady Children’s Hospital–San Diego; Centre for Social Data Analytics at Auckland University of Technology

This project will test the predictive value of integrating hospital data with vital birth records, statewide child protection, and vital death records to identify children who may be at an elevated risk of maltreatment. The project will validate a statewide predictive risk model by determining the extent to which children identified to be “at high-risk” of maltreatment are also at elevated risk of injury, poor health outcomes, and mortality in childhood. The project will also use machine learning methods to train probabilistic algorithms for linking hospital-system data to other administrative data sources. These data linkages aim to better characterize the demographics and public service trajectories of Rady Children’s Hospital patients.

## Data sources

- Rady Children’s Hospital patient records
  - California Department of Public Health statewide vital birth and death records
  - California Department of Social Services statewide child protection records
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## 5. Methods to estimate the community incidence of child maltreatment

**Contact:** Emily Putnam-Hornstein, Ph.D., Director, Children’s Data Network; [ehornste@usc.edu](mailto:ehornste@usc.edu); (917) 282-7861

**Partners:** UC Berkeley California Child Welfare Indicators Project

The goal of this project is to develop a framework for an administrative record-based methodology to estimate the true number of children who are victims of abuse or neglect in a community. Designed and tested using data from California, the goal would be to outline a methodology that could be generalized to other states, and would produce estimates inclusive of both children who are identified as victims of abuse or neglect in a given year, as well as those who are victims, but do not come to the attention of CPS. The CDN will work together with the CMI Data Linkages cross site learning network to identify potential methodologies for achieving these goals.

## Data sources

- California Department of Public Health statewide vital birth and death records
- California Department of Social Services statewide child protection records

To learn more about CMI Data Linkages, please visit: <https://www.acf.hhs.gov/opre/research/project/child-maltreatment-incidence-data-linkages-cmi-data-linkages>

Project Contacts:

Matthew Stagner, project director ([mstagner@mathematica-mpr.com](mailto:mstagner@mathematica-mpr.com))

Jenessa Malin, ACF project specialist ([jenessa.malin@acf.hhs.gov](mailto:jenessa.malin@acf.hhs.gov))

Christine Fortunato, ACF project officer ([christine.fortunato@acf.hhs.gov](mailto:christine.fortunato@acf.hhs.gov))

This Project Overview was written by Julia Lyskawa, Nickie Fung, and Rebekka Nickman of Mathematica.

