Summary of Findings from the ALCANLink Project

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Contents

Abstract

The ALCANLink project started with a group of Alaskan children whose mothers responded to the Pregnancy Risk Assessment Monitoring System (PRAMS) survey over a three year period shortly after they were born. Every year, project analysts check to see whether any of the children have been reported to child welfare or receive services from other public programs. As the children get older, we are able to calculate the percentage of children in each age group who have ever been involved with child welfare during their lifetime ("cumulative incidence").

Using these data, we are able to explore information on pre-birth factors from their mothers' PRAMS responses that increase or decrease the chance a child is reported to child welfare, as well as the early childhood family context of Adverse Childhood Experiences. This work has provided clear evidence for the need for early and continued efforts to prevent child maltreatment before birth and throughout childhood.

Recent Analysis Results:

Lifetime Incidence:

1. Among children born in Alaska, before their 10th birthday:
    - 38% (±4) experienced at least one report of alleged harm to OCS.
    - 31% (±3) experienced at least one report of alleged harm to the Office of Children's Services (OCS) that was screened in for evaluation.
    - 13% (±2) experienced at least one report of alleged harm to OCS that was screened in for evaluation, and substantiated.
    - 7% (±1) experienced at least one report of alleged harm to OCS that was screened in for evaluation, and substantiated.
2. National comparisons of the cumulative incidence are not available. However,
    a. After accounting for differences in population structure (race composition), relative to California, children born in Alaska have a 10% increased risk in being reported for maltreatment.
        i. This adjusted relative increase appears to be in part due to an elevated risk detected among the Alaskan Asian/Pacifica Islander group compared to California's.
    b. A synthetic cohort estimated that nationally the cumulative incidence. These researchers estimated that by age 10, ~27% of children born in the U.S. will experience at least one investigated report of alleged harm, and ~9% substantiated.
    c. Based on rough comparison to all children born in the U.S., those born in Alaska may be ~15%, and ~44% more likely to experience an investigated report of harm and confirmed report respectively, by their 10th birthday.

Adverse Childhood Experiences (by age 3):

1. By age 3, nearly 1 in 4 children born in Alaska will experience at least 2 ACEs.
2. There was a stepwise association between number of household dysfunction stressors and risk of higher ACE score.
3. On average, reporting 4+ pre-birth household dysfunction components was associated with an ACE score over 4 times that of those reporting 0 components.
4. Homelessness was associated with the greatest increase in ACE score (RR=3.0).

Change in Household Stress Load:

1. The more household dysfunction components a mother reports during pre-birth and early childhood increases risk of OCS contact.
2. When the number of household dysfunction components decreases from pre-birth to early childhood, it is protective against OCS contact.

3. Certain high risk household dysfunction components, such as homelessness, tend to cluster together with other dysfunction components.
4. Among low risk families, increasing the household stress load significantly increases the risk of a birth child being reported to OCS. However, among high risk families adding additional stressors has little impact, yet reducing them significantly reduces the risk of future OCS contact.

Child Sexual Abuse among Indigenous People

1. The relationship between being Indigenous and OCS contact for sexual abuse is attenuated by 60% when adjusting for modifiable risk factors.
2. Maternal substance use during pregnancy is the biggest attenuating factor in the relationship, and maternal Medicaid coverage was the second biggest attenuating factor.
3. Maternal Native status becomes insignificant in predicting OCS sexual abuse reports when adjusting for modifiable risk factors.

http://dhss.alaska.gov/dph/wcfh/Documents/mchepi/CSA%20Final%20Draft.pdf

Education:

64% of children born in Alaska scored Below/Far Below Progressing (BP/FBP) on the 3rd grade reading (PEAKS) assessment

1. Living in a rural setting (78% vs 56%), being born to mother with <12 years education (86% vs 60%), and born to a teen mom (79% vs 60%) all significantly increase the probability of poor reading performance.
2. Children born to mothers reporting Marijuana use during pregnancy are 1.3 times as likely to score BP/FBP on the 3rd grade PEAKS reading assessment.
    a. Poor Maternal mental health and Maternal intimate partner violence (IPV) also increase the probability of poor reading performance.
3. 90% of children born to mothers who experienced homelessness before and/or during pregnancy scored BP/FBP on the 3rd grade PEAKS assessment.
4. Three-quarters of children born to mothers reporting they couldn't pay bills during the 12 months before birth scored BP/FBP on the 3rd grade PEAKS assessment.
5. Children born to mothers on Medicaid were over 3 times as likely to have scored BP/FBP on the 3rd grade PEAKS assessment.

Peer Reviewed Publications:

Time to Event:

Austin AE, Parrish JW, Shanahan ME. Using time-to-event analysis to identify preconception and prenatal predictors of child protective services contact. Child abuse & neglect. 2018 Aug 31;82:83–91. https://doi.org/10.1016/j.chiabu.2018.05.025

1. The average age of first OCS contact is 2 years old.
2. Significant predictors include: low socioeconomic status, maternal smoking during pregnancy, unmarried mother, urban residence, lower maternal education, maternal experience of intimate partner violence, Alaska Native/American Indian race, greater number of living children, greater number of stressful life events, and younger maternal age at childbirth.
3. Incidence of OCS contact in Alaska is higher than in other states.

Intimate Partner Violence:

Parrish JW, Lanier P, Newby-Kew A, Arvidson J, Shanahan M. Maternal intimate partner violence victimization before and during pregnancy and postbirth child welfare contact: a population-based assessment. Child maltreatment. 2016 Feb;21(1):26–36. https://doi.org/10.1177/1077559515616704

1. Children born to mothers reporting pre-birth IPV are nearly five times as likely to have OCS contact by age 2 compared with children born to women who don't report pre-birth IPV.
2. The protective effects of graduating high school are lost when a women reports pre-birth IPV.
3. Regardless of race, age, marital status, or prenatal substance use, pre-birth IPV is a strong predictor of future OCS contact.

OCS Trajectories:

Austin AE, Gottfredson NC, Zolotor AJ, Halpern CT, Marshall SW, Naumann RB, Shanahan ME. Trajectories of child protective services contact among Alaska Native/American Indian and non-Native children. Child Abuse & Neglect. 2019 Sep 1;95:104. https://doi.org/10.1016/j.chiabu.2019.104044

1. Native children experience: low/no OCS contact (75%), continuous OCS contact (20%), or early and decreasing OCS contact (5%).
2. Non-native children experience: no OCS contact (81%), low and increasing OCS contact (10%), early and rapidly declining OCS contact (6%), and high, decreasing OCS contact (3%).

3. Among both AN/AI and non-Native children, maternal substance use during pregnancy was the strongest predictor of AN/AI child membership in the continuous OCS contact class and non-Native child membership in the low increasing OCS contact class.

Risk/Protective Factors:

Austin AE, Gottfredson NC, Marshall SW, Halpern CT, Zolotor AJ, Parrish JW, Shanahan ME. Heterogeneity in Risk and Protection Among Alaska Native/American Indian and Non-Native Children. Prevention Science. 2020; 21(1):86–97. https://doi.org/110.1007/s11121-019-01052-y

1. We identified two groups among AN/AI children:
    a. A high risk/moderate protection (29.1%) group
        i. Risks include low socioeconomic status, maternal depression, parental incarceration, intimate partner violence, and OCS contact
        ii. Protective factors include: regular father figure involvement, reading by parents, family meals
    b. A low socioeconomic status/high protection (70.9%) group
        i. Risk factors include: low socioeconomic status
        ii. Protective factors include: regular father figure involvement, reading by parents, family meals, and interactions with peers
2. We identified two groups among non-Native children:
    a. A moderate risk/high protection (32.9%) group
        i. Risk factors include: low socioeconomic status, maternal depression
        ii. Protective factors include: regular father figure involvement, reading by parents, family meals, and interactions with peers
    b. A low risk/high protection (67.1%) group
        i. No risk factors
        ii. Protective factors include: regular father figure involvement, reading by parents, family meals, and interactions with peers

Risk Factors for Child Maltreatment:

Parrish JW, Young MB, Perham-Hester KA, Gessner BD. Identifying risk factors for child maltreatment in Alaska: A population-based approach. American Journal of Preventive Medicine. 2011 Jun 1;40(6):666–73. https://doi.org/10.1016/j.amepre.2011.02.022

1. Risk factors included: young maternal age, low maternal education, maternal experience of domestic violence and sexual assault, unmarried, maternal substance abuse, 2+ children, medically vulnerable, on public aid, and Alaska Native
2. These risk factors have an additive effect on risk of OCS contact

Risk/Protective Factor Predictors:

Austin AE, Gottfredson NC, Zolotor AJ, Halpern CT, Marshall SW, Parrish JW, Shanahan ME. Preconception and Prenatal Predictors of Early Experiences of Risk and Protection Among Alaska Children. Maternal and Child Health Journal. 2020; 24(1):82–89. https://doi.org/10.1007/s10995-019-02823-3

1. Among AN/AI children, predictors of membership in the high risk, moderate protections cluster included: maternal partner and financial stress, education <12 years, and substance use
2. Among non-AN/AI children, predictors of membership in the moderate risk, moderate protections cluster included: maternal partner stress, education <12 years, substance use, younger age at child birth, and a greater number of children

Risk/Protective Factor Outcomes:

Austin AE, Gottfredson NC, Marshall SW, Halpern CT, Zolotor AJ, Parrish JW, Shanahan ME. Patterns of Risk and Protective Factors Among Alaska Children and Differential Associations with Indicators of Maternal and Child Wellbeing. Child Development. 2020 (published first online). https://srcd.onlinelibrary.wiley.com/doi/abs/10.1111/cdev.13356

1. Among AN/AI children, children in the high risk, moderate protections cluster were more likely to have developmental risk and their mothers were less likely to feel comfortable asking for help or to know where to go for parenting information.
2. Among non-AN/AI children, children in the moderate risk, moderate protections cluster were more likely to have developmental risk, and their mothers were less likely to feel comfortable asking for help.