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Spending on Public Benefit Programs and Exposure to Adverse Childhood Experiences

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Spending on Public Benefit Programs and Exposure to Adverse Childhood Experiences

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Disclosure

- Authors have documented no financial relationships to disclose or Conflicts of Interest (COIs) to resolve.
- This presentation will not involve discussion of unapproved or off-label, experimental or investigational use.

Background

- Adverse childhood experiences (ACEs) are associated with poor health outcomes during both childhood and adulthood.
- Lower socioeconomic status is strongly associated with ACEs.
- Programs with the capacity to reduce poverty may help prevent ACEs exposure.

Objectives

- Primary Aim: To determine the association between spending on anti-poverty programs and cumulative exposure to ACEs among children.
- Secondary Aims:
 - Examine associations by spending on individual categories of anti-poverty programs.
 - Sensitivity analysis of only children 0-8 years of age

Methods

- Primary Exposure: median annual spending (state + federal) per person living in poverty during 2010-2017.
 1. Cash, housing, and in-kind assistance
 2. Housing infrastructure
 3. Childcare assistance
 4. Refundable Earned Income Tax Credit (EITC)
 5. Medical Assistance Programs

Methods

Primary Outcome:
state-level percentage
of children <18 years
having ever been
exposed to ≥ 4 ACEs

2016-17 National Survey of Children's Health (NSCH)

To the best of your knowledge, has (CHILD) EVER experienced any of the following?

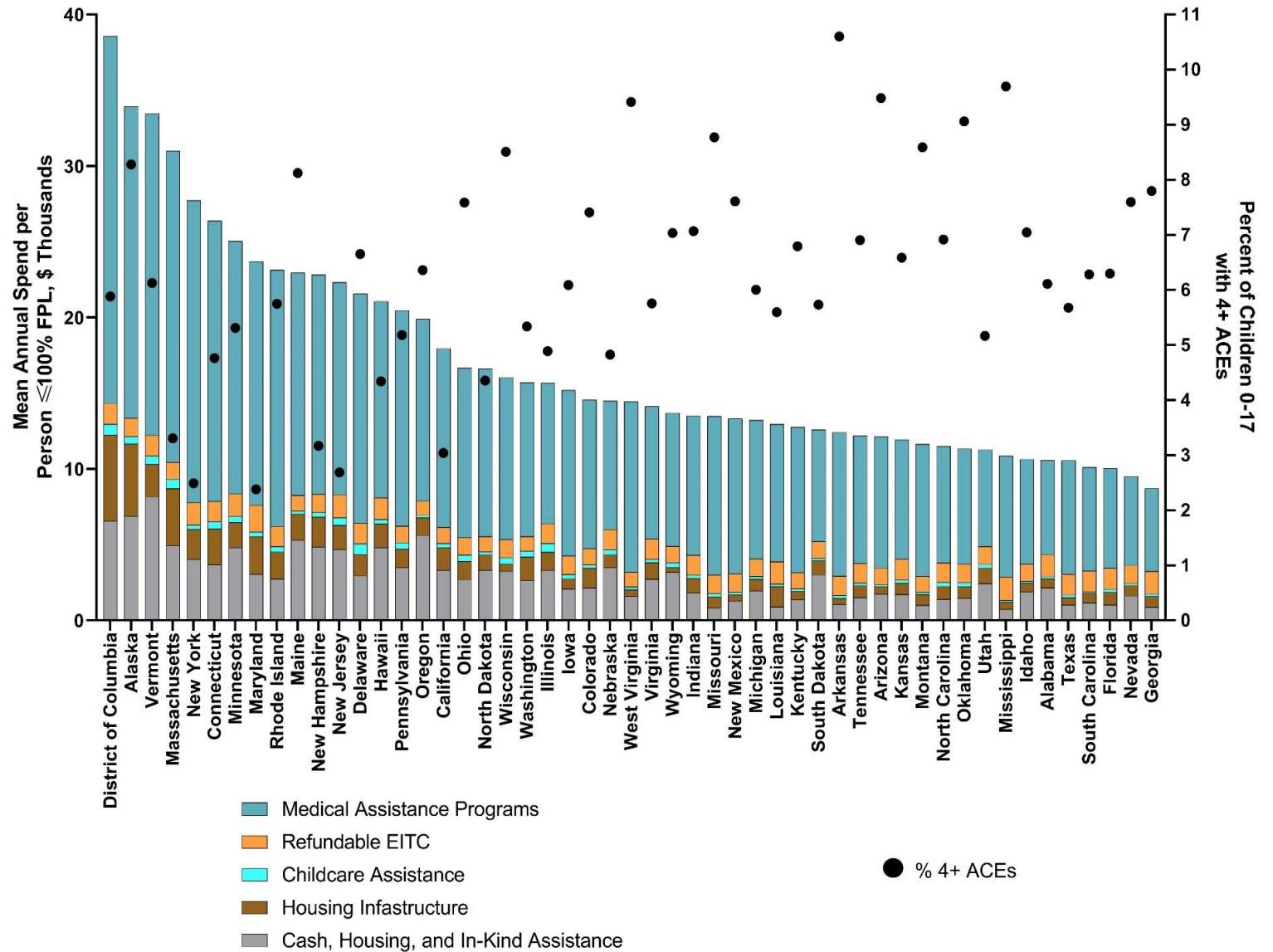
1. Hard to get by on family's income-cannot afford basics
2. Parent or guardian divorced or separated
3. Parent or guardian died
4. Parent or guardian served time in jail
5. Saw or heard parents or adults slap, hit, kick, or punch one another in the home
6. Was a victim of violence or witnessed violence in his or her neighborhood
7. Lived with anyone who was mentally ill, suicidal, or severely depressed
8. Lived with anyone who had a problem with alcohol or drugs
9. Treated or judged unfairly because of his or her race or ethnic group

Analytic Plan

- Pearson correlations
- Linear regression models adjusted for states' racial and ethnic demographics

Results

- Median of 6.3% of children with exposure to ≥ 4 ACEs
- Spending from each state correlated with exposure to ≥ 4 ACEs
 - $r = -0.41$ [95% CI: -0.62, -0.15, $p = 0.003$]



Spending & ACE Exposure

- Association between median annual spending on benefit programs and the % of children reporting as having ever experienced ≥ 4 ACEs

Variable	All children 0-17 years	p
Average annual spending per person $\leq 100\%$ FPL, \$ thousands		
All categories of spending	-0.11 (-0.18, -0.04)	0.01
Cash, housing, and in-kind assistance	-0.49 (-0.79, -0.18)	<0.01
Housing infrastructure	-0.65 (-1.17, -0.12)	0.02
Childcare assistance	-4.25 (-7.57, -0.92)	0.02
Refundable Earned Income Tax Credit (EITC)	-4.03 (-7.9, -0.15)	0.047
Medical Assistance Programs	-0.15 (-0.27, -0.04)	0.01

Beta coefficients (95% CI). Adjusted for each state's racial and ethnic demographics

What It Means

- If states spend an additional \$1,000 per person living in poverty annually on benefit programs
 - 11% fewer children may have accumulated 4 or more ACEs
 - About 496,379 fewer kids might avoided accumulating a high ACE burden

Sub-Analysis

- Only children 0-8 years of age
- Focus on children who could have only been exposed to ACEs during the time we had spending data.
- Results very similar to main analysis.
 - All spending: β coefficient = -0.09 [95% CI: -0.16, -0.02]; $p= 0.02$
 - Housing infrastructure and refundable EITC were no longer independently associated with cumulative ACE exposure.

Limitations

- Cross-sectional
- Unmeasured confounding: complex relationships between poverty, benefit programs and individual ACEs.
- Associations, not causation

Conclusions & Implications

- Increased state and federal spending on public benefit programs was associated with fewer children having a significant ACE burden (exposure to ≥ 4 ACEs).
- Investment in public benefit programs not only decreases poverty but may also have further reaching effects on child health and well-being.
- Economic burdens associated with ACEs might offset some of the costs of public benefit programs.



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