



The Kids Aren't Alright. Adverse Childhood Experiences and Opportunities to Forge a Healthier Future

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SHADAC Webinar
Noon Central Time, Thursday, April 24, 2025

Presenter



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Background on Adverse Childhood Experiences (ACEs)

What are ACEs?

Adverse childhood experiences (ACEs) are stressful or potentially traumatic events that occur during a person's childhood (i.e., before age 18) that may have negative short- and long-term effects on physical and mental health, as well as associated components of well-being, such as socioeconomic position.

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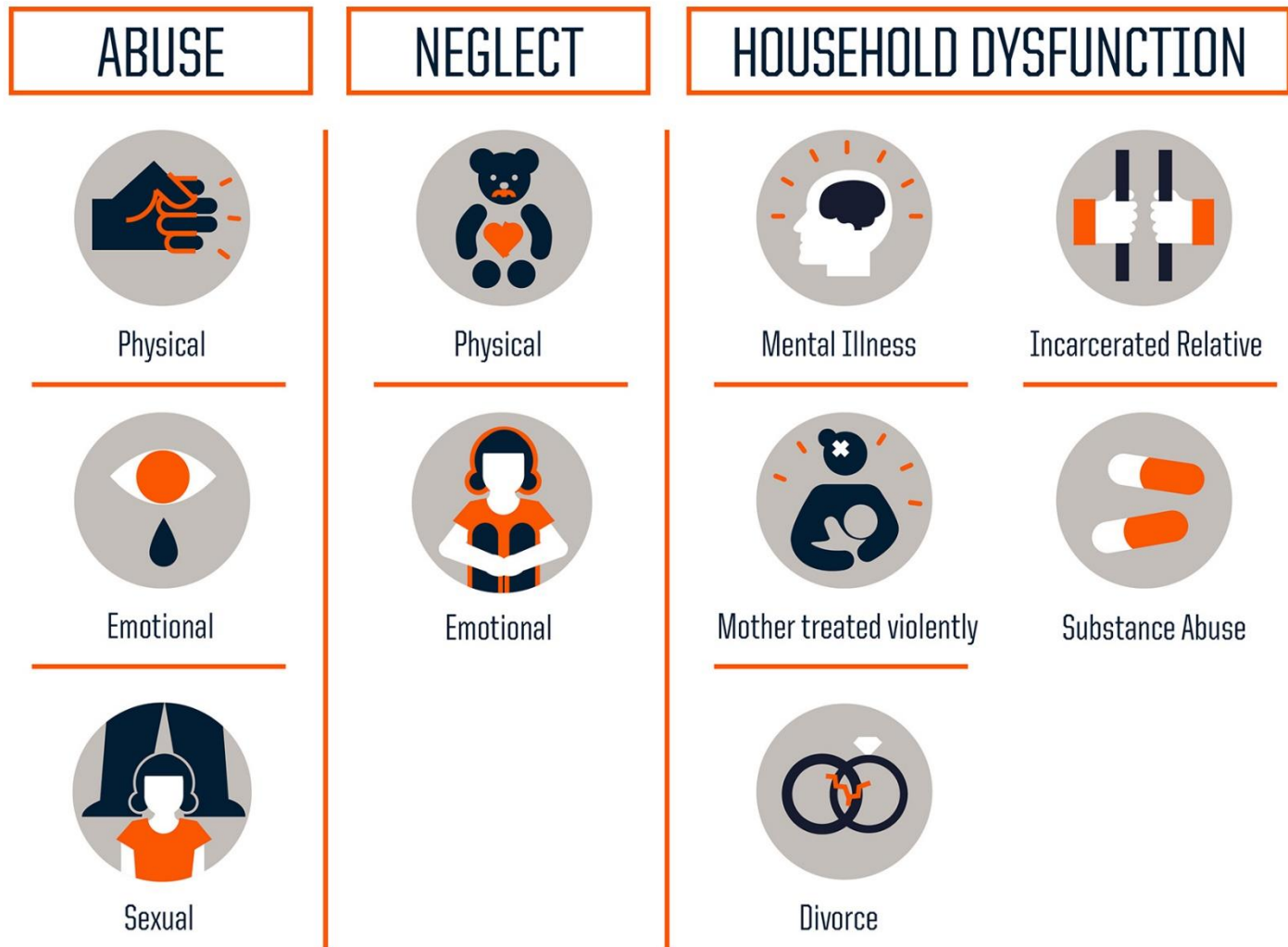
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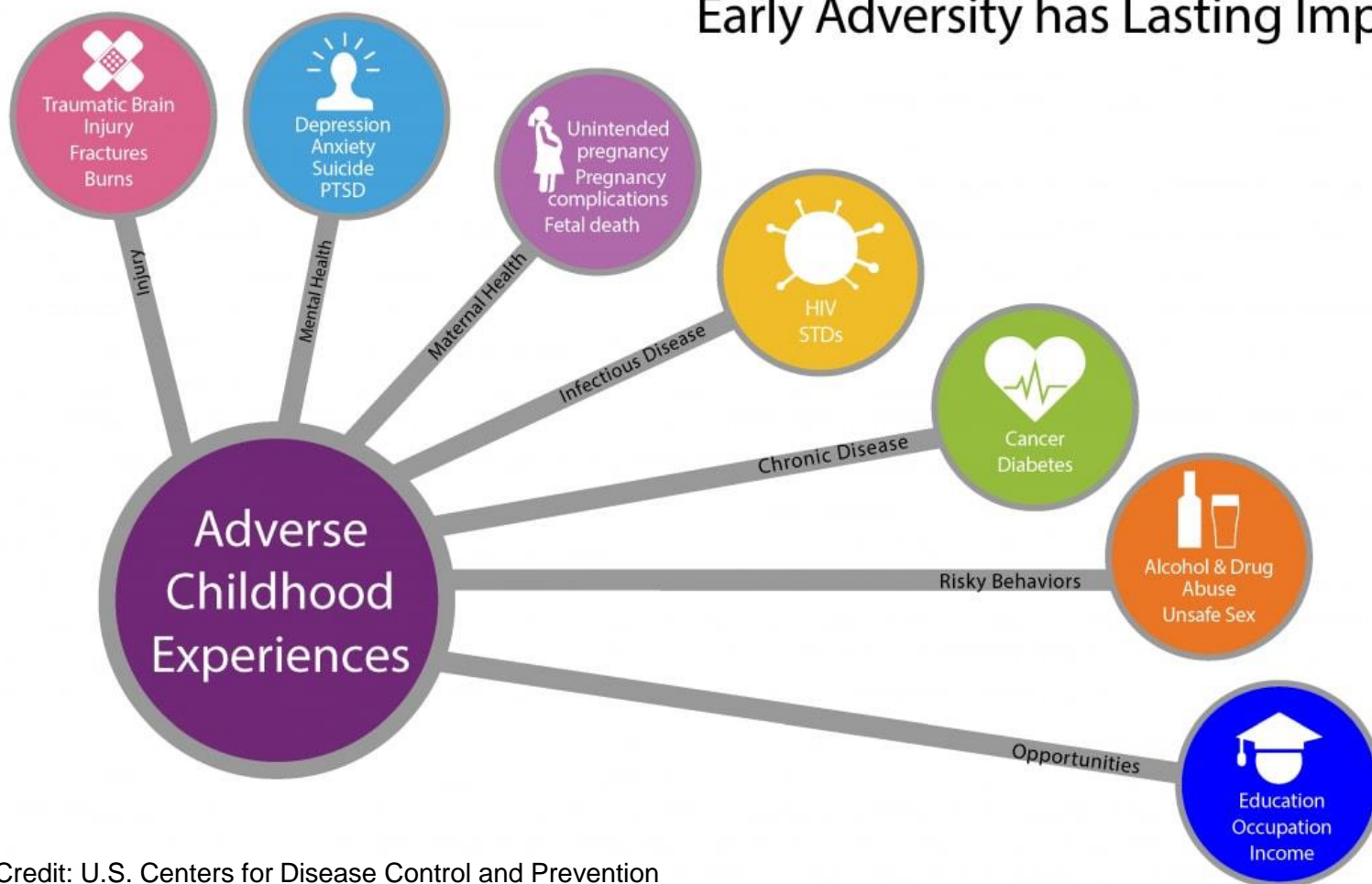
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What do we mean by “adverse” experiences?



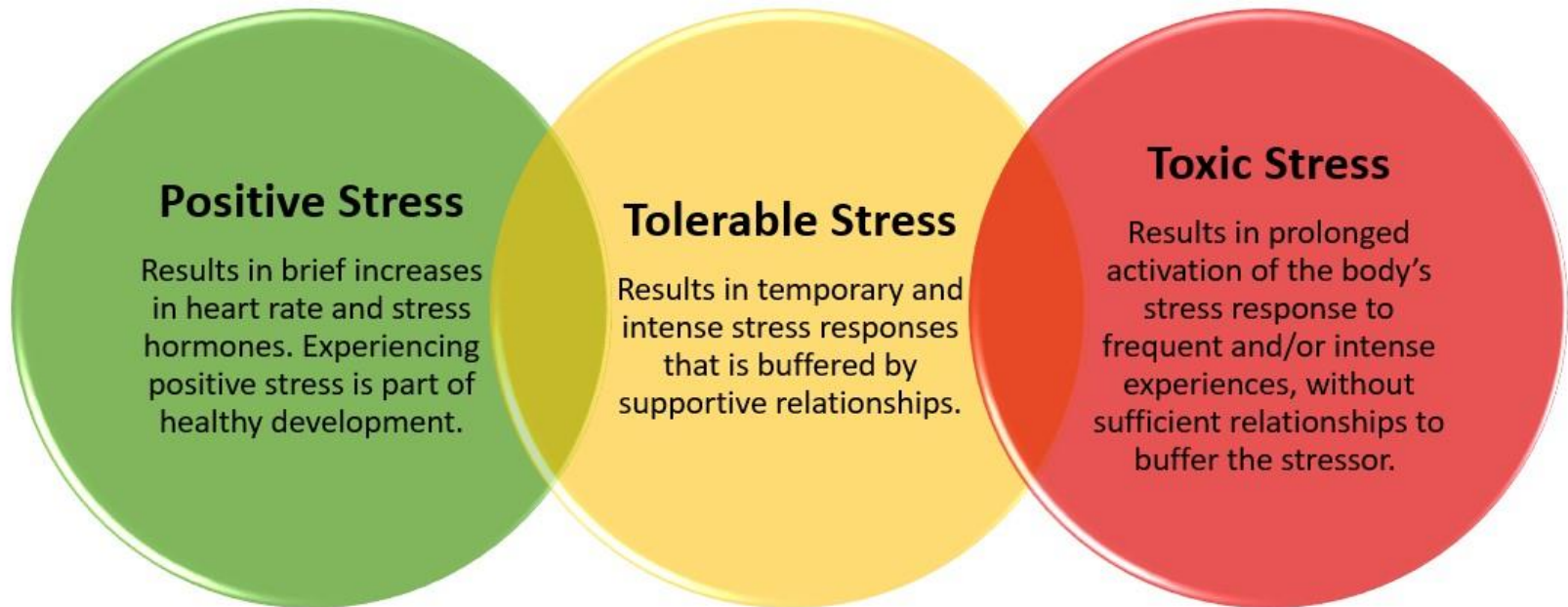
Health consequences of ACEs

Early Adversity has Lasting Impacts



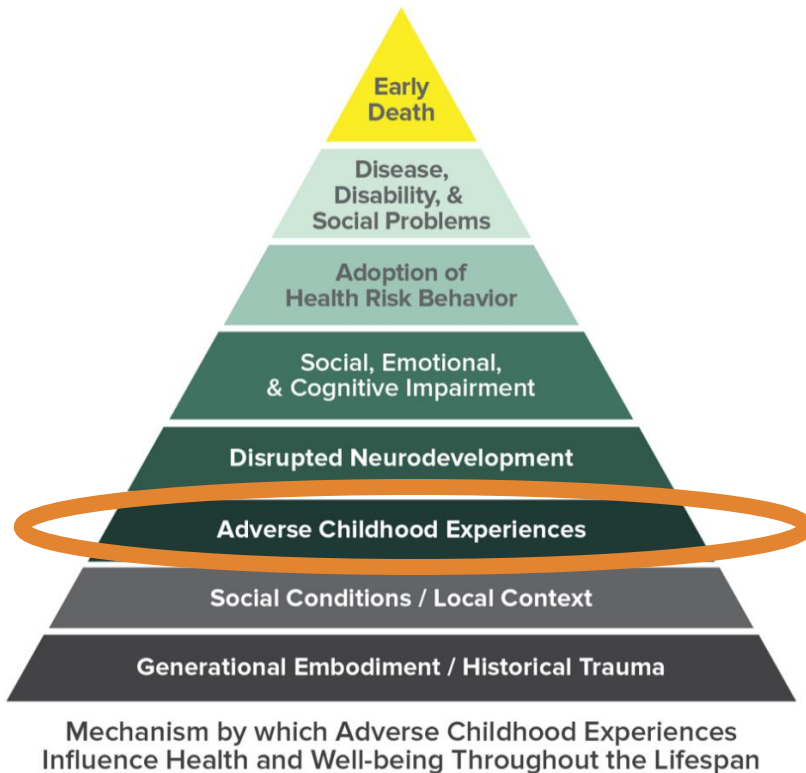
Credit: U.S. Centers for Disease Control and Prevention

But how might ACEs harm our health?



Credit: Minnesota Department of Health

A *behavioral*-heavy model of ACEs impacts



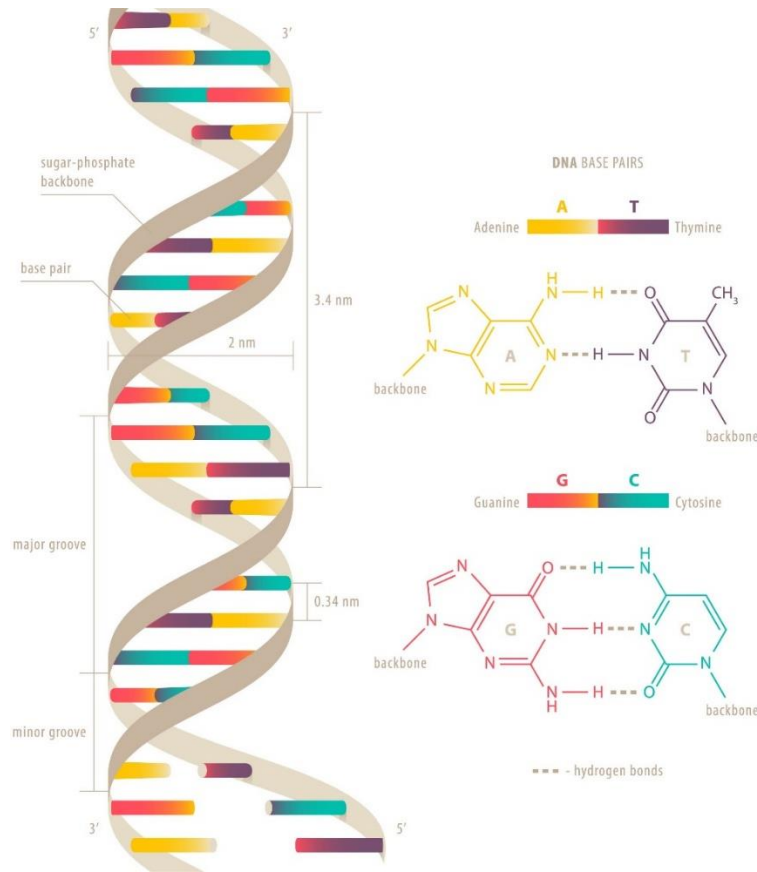
Credit: U.S. Centers for Disease Control and Prevention

Stress triggers behavioral risks

Exposure to toxic stress and trauma can cause nervous system dysregulation, with cognitive and behavioral effects.

- [Evidence-based therapies \(e.g., cognitive and dialectical behavioral therapy\)](#) based on the idea that maladaptive patterns of emotion and thinking – often learned in response to adverse experiences – harm people’s health
- [Substance use may be a form of self-medication](#), in which people use alcohol, tobacco, and illicit substances to “treat” distress

A *biological*-heavy model of ACEs impacts



Biological effects of stress

Neurodevelopmental: Evidence indicates that ACEs can interfere with healthy childhood brain development.

- Numerous studies have found that people exposed to maltreatment as kids exhibited differences in brain structure and functions.

Epigenetic alterations: Exposure to extreme stress in humans is associated with changes in DNA methylation. For instance:

- Offspring of people exposed to extreme mental and physical stress can experience epigenetic alterations and higher rates of chronic diseases and mental illness.

Estimates of ACEs prevalence

Data and definitions

Definitions and associated challenges

Key challenge to ACEs estimates:

There is no single, consensus definition to what constitutes adverse childhood experiences.

More Commonly Included	Less Commonly Included
Abuse <ul style="list-style-type: none">• Physical, psychological, sexual Neglect <ul style="list-style-type: none">• Physical, emotional Family instability and volatility <ul style="list-style-type: none">• Serious mental illness, substance abuse in the household• Domestic violence Parental separation <ul style="list-style-type: none">• Divorce, death, incarceration	Socioeconomic hardships <ul style="list-style-type: none">• Food insecurity, housing instability and homelessness Community safety <ul style="list-style-type: none">• Neighborhood violence Victimization <ul style="list-style-type: none">• Bullying, victimization via criminal violence Severe illness (or death) <ul style="list-style-type: none">• Personal, parental, other household members

ACEs definition for *our study*

National Survey of Children's Health

Parent / guardian responses to questions on the following topics:

Socioeconomic deprivations

Difficulty covering basics, such as food and housing, on the family's income

Parental separation

Parent or guardian divorced or separated; parent or guardian died; parent or guardian served time in jail or prison

Exposure to violence

Saw or heard parents or adults slap, hit, kick, punch one another in the home; was a victim of violence or witnessed violence in neighborhood

Household mental illness / substance abuse

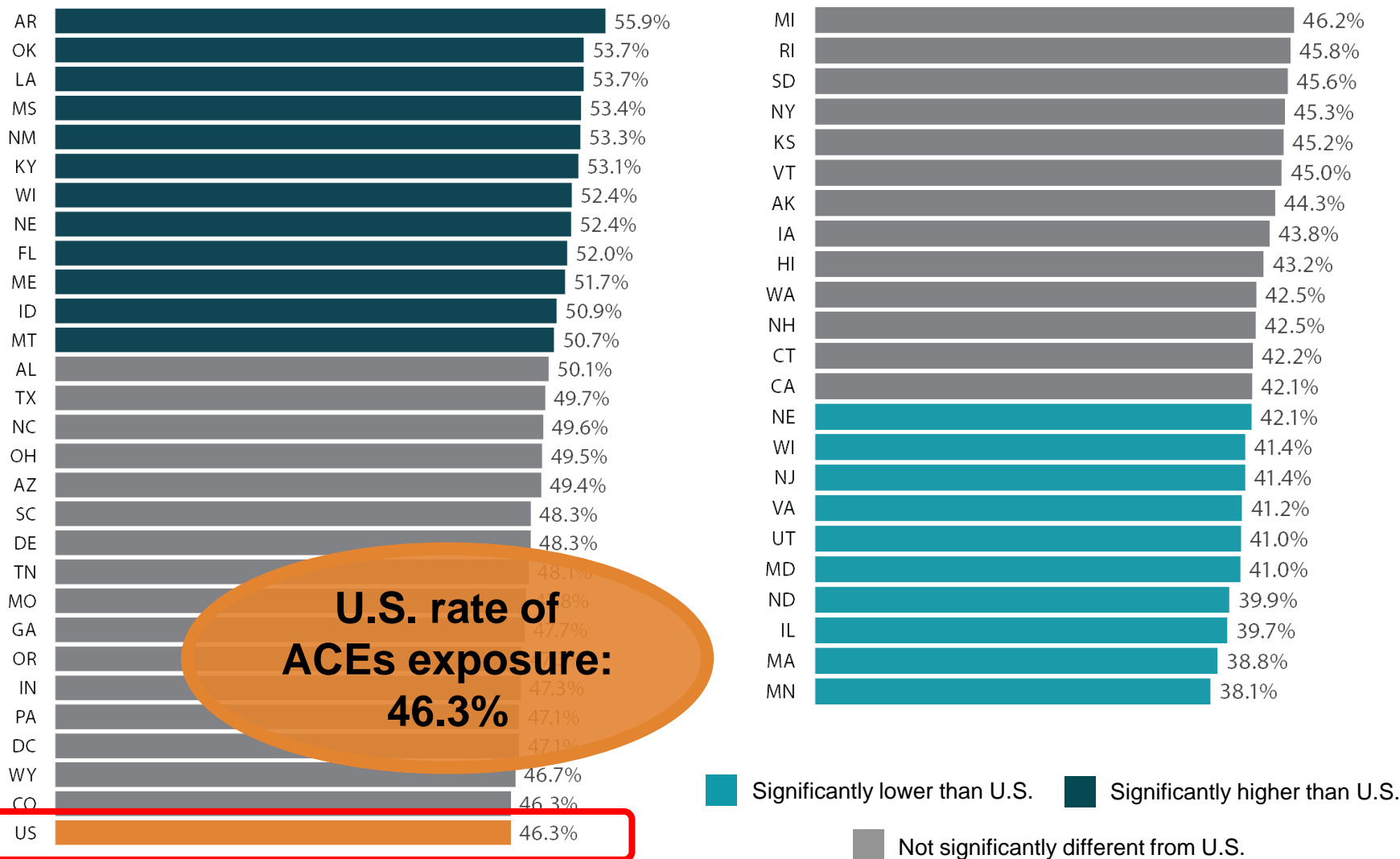
Lived with anyone who was mentally ill, suicidal, or severely depressed; lived with anyone who had a problem with alcohol or drugs

Exposure to racism

Treated or judged unfairly due to race/ethnicity

Prevalence of Exposure to ACEs, 2016-2019

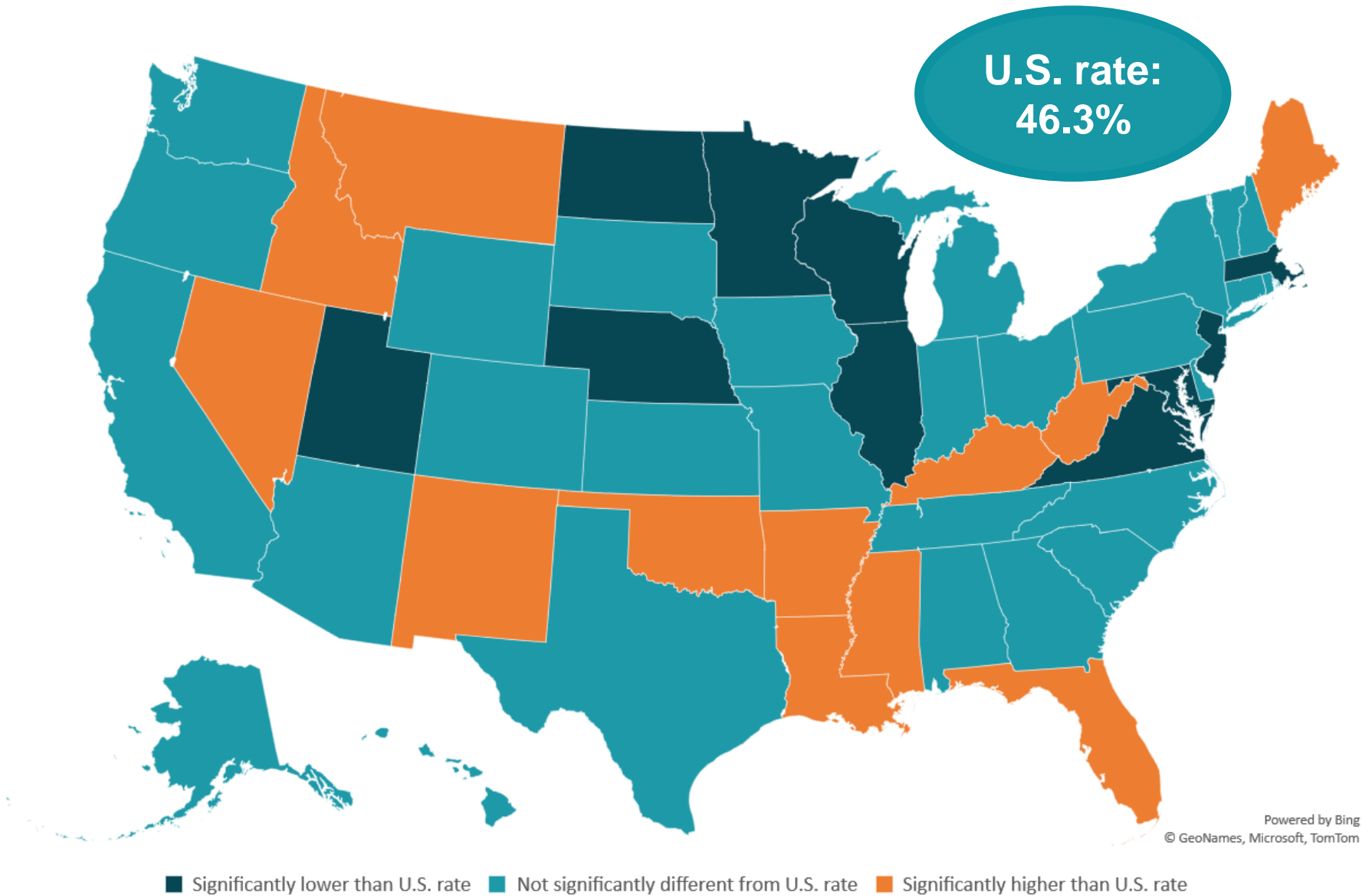
Figure 1. Percent of children with one or more adverse childhood experiences by state, 2016-2019



Long description can be found in the 'ACEs Among the States' section of [this issue brief](#).

Source: SHADAC analysis of National Survey of Children's Health
 Note: Colors represent statistically significant difference from U.S. rate at the 95% confidence level.

Map: Prevalence of Exposure to ACEs, 2016-2019



Long description can be found in the 'ACEs Among the States' section of [this issue brief](#).

State Rates of Child Exposure to ACEs

Five Highest Rates:

State	Rate
Arkansas	55.9%
Oklahoma & Louisiana	53.7%
Mississippi	53.4%
New Mexico	53.3%
Kentucky	53.1%

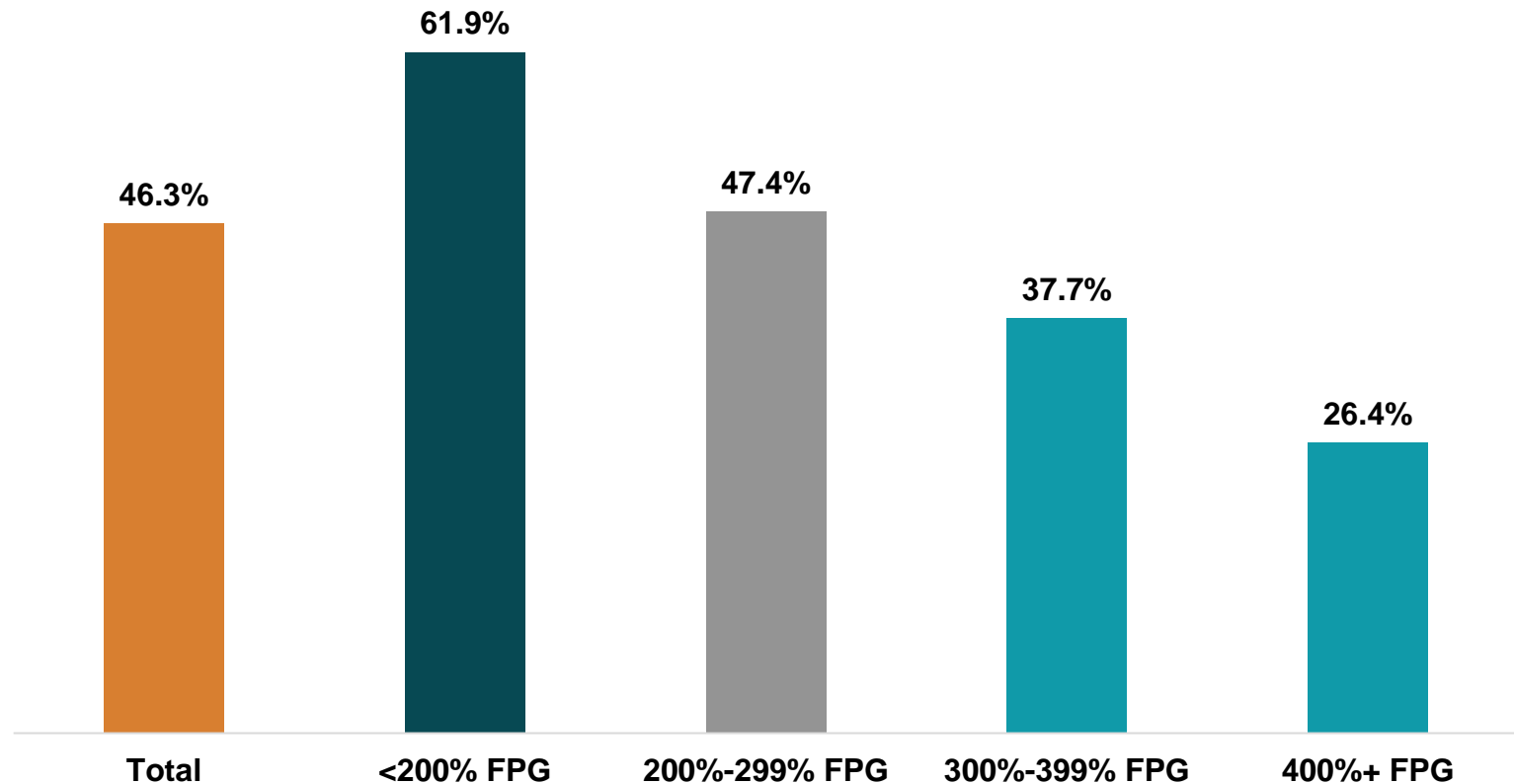
Five Lowest Rates:

State	Rate
Minnesota	38.1%
Massachusetts	38.8%
Illinois	39.7%
North Dakota	39.9%
Maryland & Utah	41.0%

Higher Child Poverty

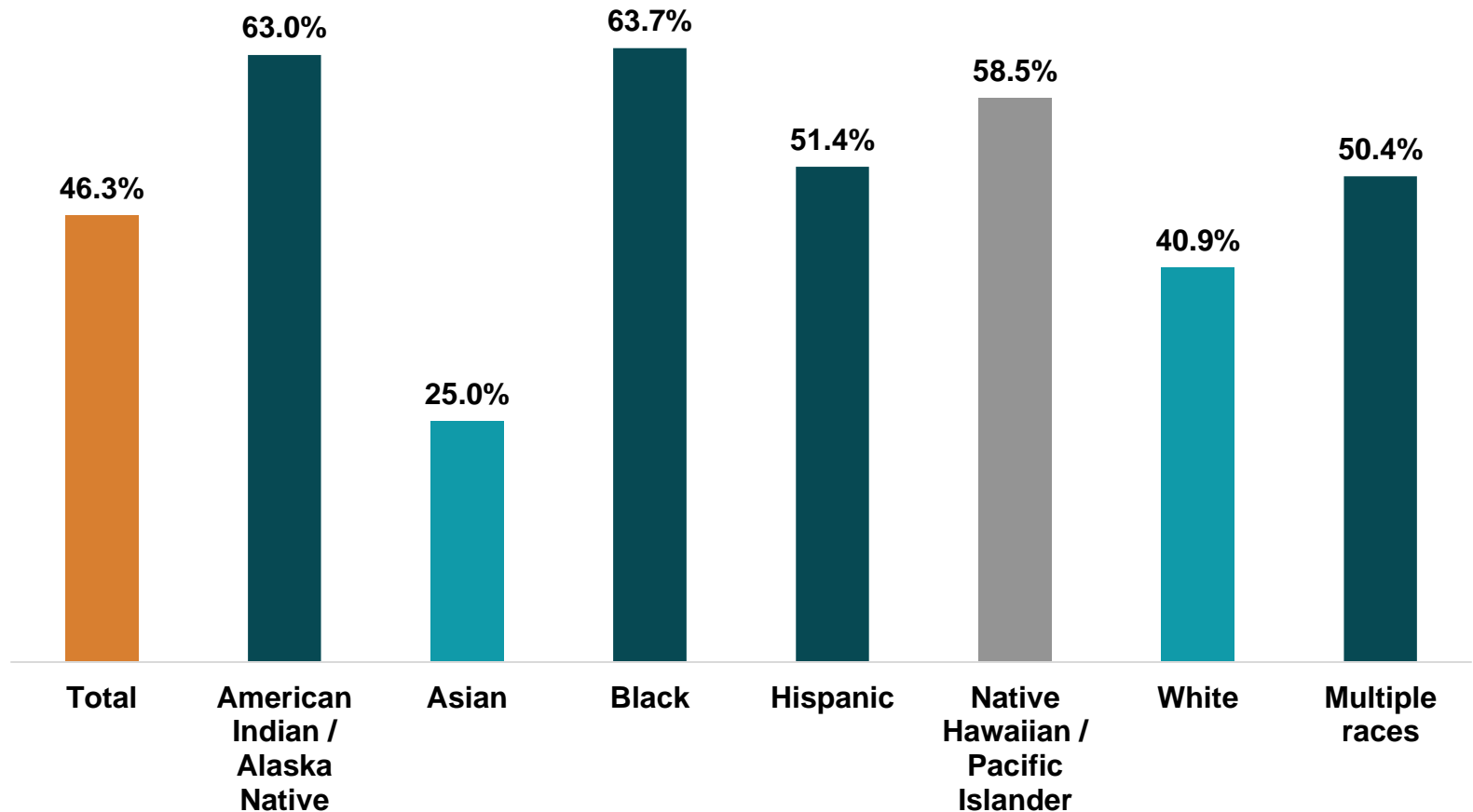
Lower Child Poverty




Children with one or more ACEs by income, 2016-2019



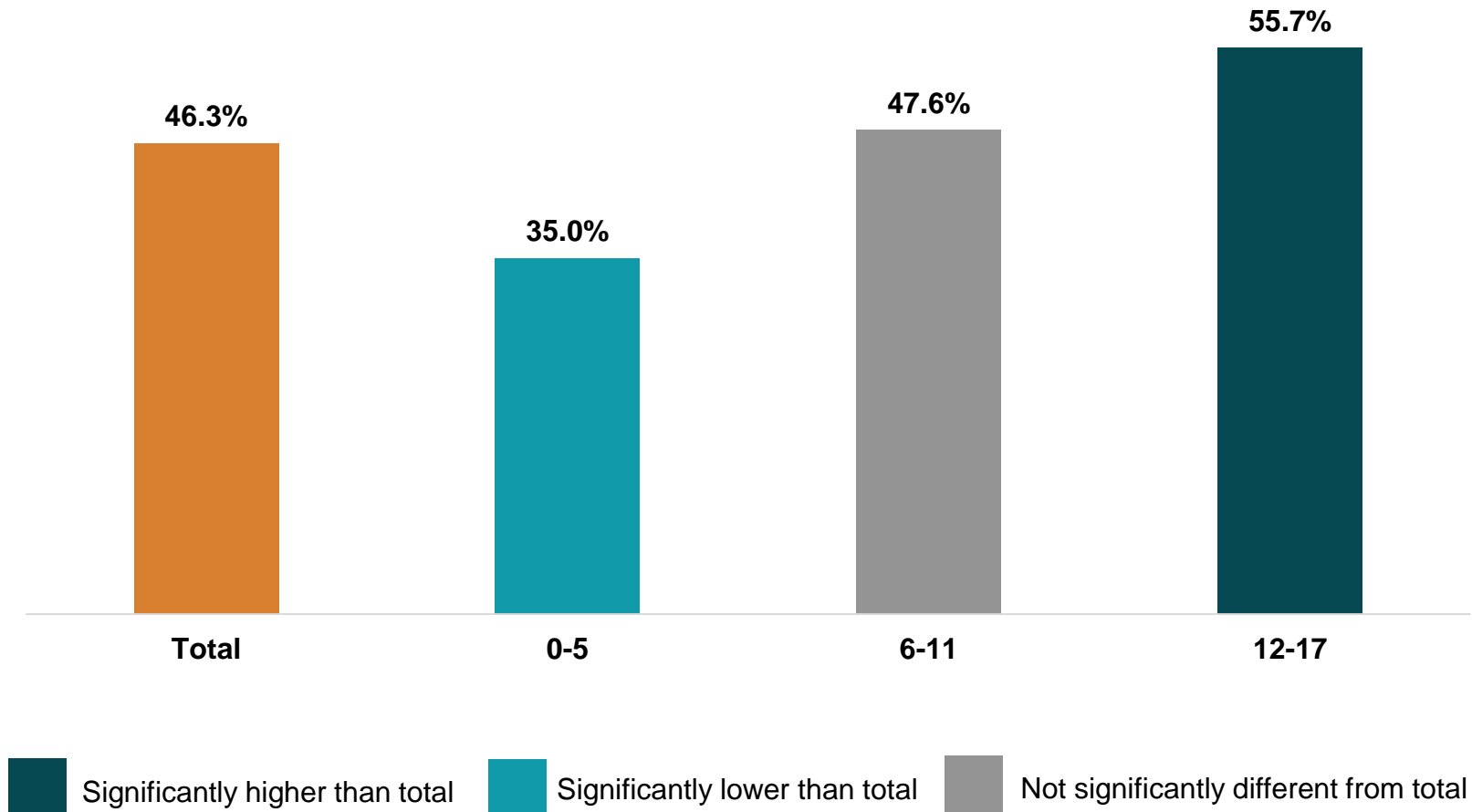
Significantly higher than total Significantly lower than total Not significantly different from total

Children with one or more ACEs by race and ethnicity, 2016-2019

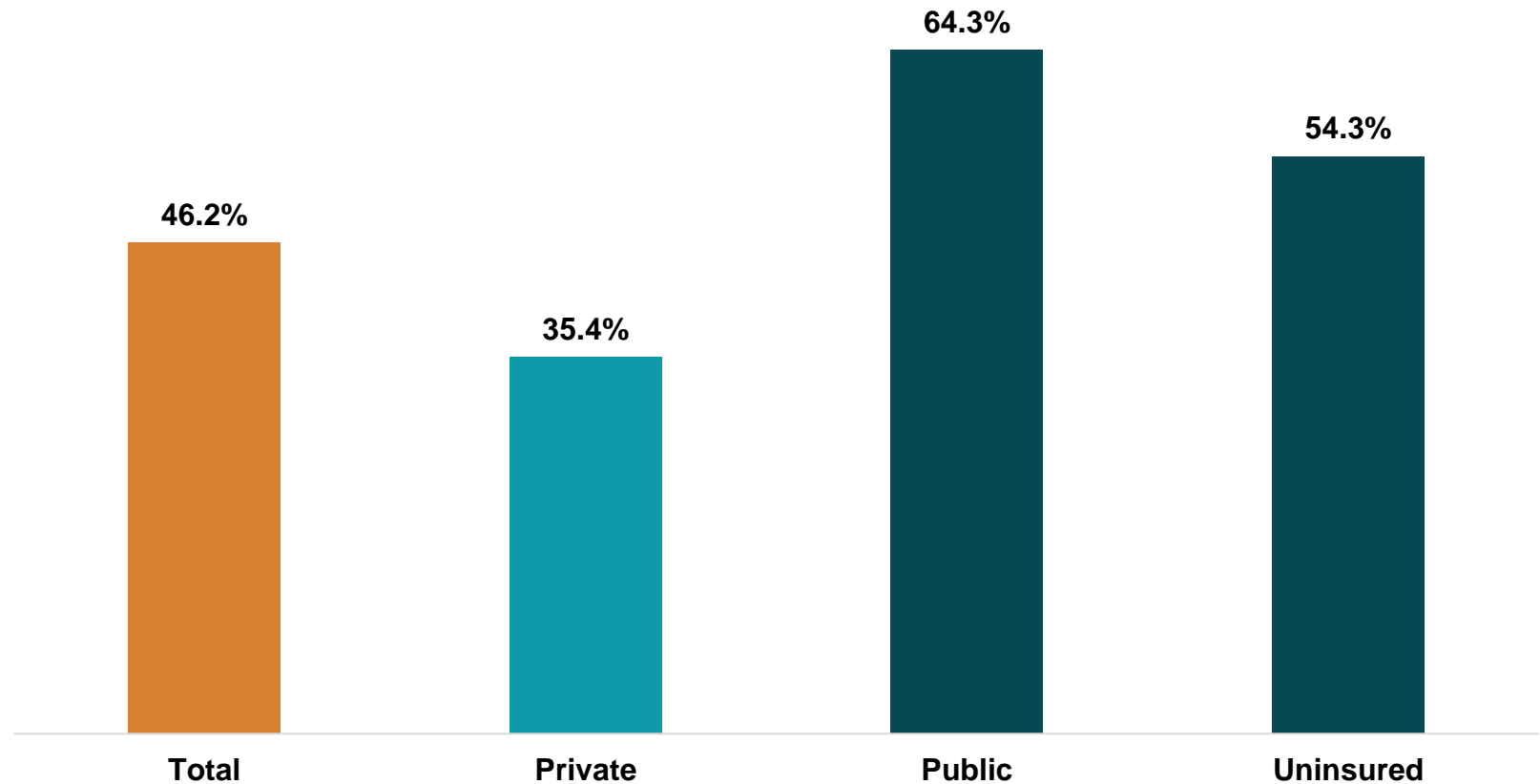


 Significantly higher than total  Significantly lower than total  Not significantly different from total

Children with one or more ACEs by age, 2016-2019




Children with one or more ACEs by health insurance coverage, 2016-2019




Significantly higher than total Significantly lower than total Not significantly different from total

Issue Brief



STATE HEALTH ACCESS DATA ASSISTANCE CENTER



Robert Wood Johnson Foundation

FEBRUARY 2023

The Kids Aren't Alright. Adverse Childhood Experiences and Implications for Health Equity

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Summary

Using data from the National Survey of Children's Health, this brief investigates the prevalence of adverse childhood experiences (ACEs) and disparities in ACEs exposure by children's race, family income, age, and health insurance coverage. These disparities have deep implications for health equity due to related research showing that ACEs exposure is associated with increased risk for numerous short- and long-term health impacts, varying from mental health and substance use disorders to heart disease and cancer.

As a companion piece to this brief, SHADAC developed state-level data tables of ACEs prevalence by race and ethnicity, family income, age and health insurance coverage status.

Introduction

A growing body of research shows that traumatic experiences in childhood can affect a person's health well into adulthood. These traumas come in many forms, including loss of a parent due to death, incarceration or divorce; emotional, physical or sexual abuse or neglect; and exposure to violence in the household or community. While these experiences may sound extreme, such adverse childhood experiences, or ACEs, are far from rare. In fact, using a relatively limited definition of ACEs, this analysis found that roughly half of U.S. children are exposed to potentially traumatic experiences.

While the widespread nature of ACEs is concerning enough on its own, data on their prevalence also reveal deep disparities in children's exposure to childhood trauma. For instance, children from households with lower incomes are more than twice as likely to be exposed to ACEs compared to their peers from households with higher incomes. Understanding those disparities may be crucial to advancing health equity due to research evidence showing linkages between ACEs and long-term health status.

To illustrate the scale of the challenge, this brief examines the prevalence of ACEs for children across the United States by race and ethnicity, household income, age, and health coverage status. In [accompanying data tables](#), SHADAC presents state-level estimates of ACEs by these same demographic subpopulations. Together, by identifying disparities in the prevalence of ACEs, these resources highlight the potential for improving health equity by tackling the issue of childhood trauma.

Background

The immediate health toll of adverse childhood experiences may be the most evident and easily identified. A child who experiences abuse or loss of a parent may be at risk of immediate repercussions to their mental health, such as depression or anxiety.¹ In addition to the near-term toll on children's wellbeing, though, there is increasing evidence that exposure to traumatic experiences can also influence their long-term physical and mental health as they age—contributing to an immense public health burden for the U.S. population.

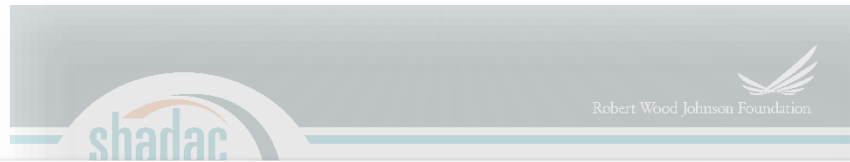
Studies have indicated that the trauma associated with ACEs may prompt coping responses that carry serious health risks, including tobacco use, heavy drinking and unprotected sex.^{2,3} Evidence also has linked exposure to ACEs with increased risk for longer-term behavioral health conditions both during youth and into adulthood, including depression, anxiety and substance use disorders.^{1,3,4} Moreover, recent research has focused on the concept of "toxic stress" and the potential for ACEs to produce systemic inflammation throughout the body, possibly helping to explain the relationship between ACEs and various other health conditions, including heart disease, diabetes and cancer.⁵ Notably, studies consistently find a dose-effect relationship with ACEs, meaning that exposure to one traumatic childhood event may slightly increase someone's risk of health impacts, but exposure to multiple traumatic events is associated with an even larger risk of health problems.

State Health Access Data Assistance Center

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“Children from households with lower incomes are more than twice as likely to be exposed to ACEs compared to their peers from households with higher incomes.”

Data Tables




	Total population		Age 5 or younger			Age 6 to 11			Age 12 to 17		
State	Rate	State vs U.S. % difference	Rate	State vs U.S. % difference	Subpop. vs total pop. % difference	Rate	State vs U.S. % difference	Subpop. vs total pop. % difference	Rate	State vs U.S. % difference	Subpop. vs total pop. % difference
United States	46.3%	—	35.0%	—	-11.3% *	47.6%	—	1.3%	55.7%	—	9.4% *
Alabama	50.1%	3.8%	37.0%	2.0%	-13.1% *	53.8%	6.2%	3.7%	61.2%	5.5%	11.1% *
Alaska	44.3%	-2.0%	23.1%	-11.9% ‡	-21.2% *	49.1%	1.5%	4.8%	60.8%	5.2%	16.5% *
Arizona	49.4%	3.1%	44.4%	9.4%	-5.0%	39.4%	-8.3%	-10.0% *	62.5%	6.8%	13.1% *
Arkansas	55.9%	9.6% ‡	40.6%	5.7%	-15.2% *	55.6%	8.0%	-0.3%	70.9%	15.3% ‡	15.1% *
California	42.1%	-4.2%	33.1%	-1.8%	-9.0% *	45.7%	-1.9%	3.6%	46.7%	-9.0% ‡	4.6%
Colorado	46.3%	0.0%	36.0%	1.0%	-10.3% *	47.0%	-0.6%	0.7%	55.5%	-0.2%	9.2% *
Connecticut	42.2%	-4.1%	38.3%	3.3%	-3.9%	40.0%	-7.6% ‡	-2.2%	47.9%	-7.8% ‡	5.7%
Delaware	48.3%	2.0%	37.1%	2.1%	-11.2% *	52.1%	4.4%	3.8%	55.5%	-0.2%	7.2% *
District of Columbia	47.1%	0.8%	32.3%	-2.7%	-14.8% *	55.9%	8.3%	8.8%	60.9%	5.3%	13.8% *
Florida	52.0%	5.7% ‡	36.9%	2.0%	-15.1% *	52.5%	4.8%	0.5%	65.1%	9.4% ‡	13.1% *
Georgia	47.7%	1.4%	29.3%	-5.7%	-18.4% *	46.5%	-1.2%	-1.2%	62.1%	6.4%	14.4% *
Hawaii	43.2%	-3.1%	37.1%	2.1%	-6.1%	40.6%	-7.0%	-2.6%	53.6%	-2.1%	10.4% *
Idaho	50.9%	4.6% ‡	38.4%	3.4%	-12.5% *	54.6%	6.9%	3.6%	58.9%	3.2%	8.0% *
Illinois	39.7%	-6.6% ‡	24.9%	-10.1% ‡	-14.8% *	44.1%	-3.5%	4.4%	48.6%	-7.1% ‡	8.8% *
Indiana	47.3%	1.0%	33.6%	-1.4%	-13.7% *	49.8%	2.2%	2.5%	58.3%	2.6%	11.0% *
Iowa	43.8%	-2.5%	34.4%	-0.6%	-9.4% *	37.6%	-10.0% ‡	-6.2%	58.0%	2.3%	14.2% *
Kansas	45.2%	-1.1%	31.0%	-4.0%	-14.2% *	47.6%	-0.1%	2.4%	56.8%	1.1%	11.6% *
Kentucky	53.1%	6.8% ‡	42.5%	7.5%	-10.6% *	54.2%	6.6%	1.1%	63.1%	7.4% ‡	9.9% *
Louisiana	53.7%	7.4% ‡	36.7%	1.7%	-16.9% *	58.3%	10.7% ‡	4.6%	64.7%	9.0% ‡	11.0% *

including tobacco use, heavy drinking and unprotected sex.²³ Evidence also has linked exposure to ACEs with increased risk for longer-term behavioral health conditions both during youth and into adulthood, including depression, anxiety and substance use disorders.^{13a} Moreover, recent research has focused on the concept of “toxic stress” and the potential for ACEs to produce systemic inflammation throughout the body, possibly helping to explain the relationship between ACEs and various other health conditions, including heart disease, diabetes and cancer.²⁴ Notably, studies consistently find a dose-effect relationship with ACEs, meaning that exposure to one traumatic childhood event may slightly increase someone’s risk of health impacts, but exposure to multiple traumatic events is associated with an even larger risk of health problems.

State Health Access Data Assistance Center

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State Health Compare ACEs Data

DATA ANALYZED BY 

STATE HEALTH COMPARE

[Explore Data](#)[About](#)

[✉ Email](#)[🖨 Print](#)[📄 Download Data](#)

Percent of children with adverse childhood experiences (ACEs)

Map

Rank

Trend

Bar

Table

BREAKDOWN

Total

TIMEFRAME (SELECT 1)

2021-2022

NUMBER OF ACEs (SELECT 1)

2 or more ACEs

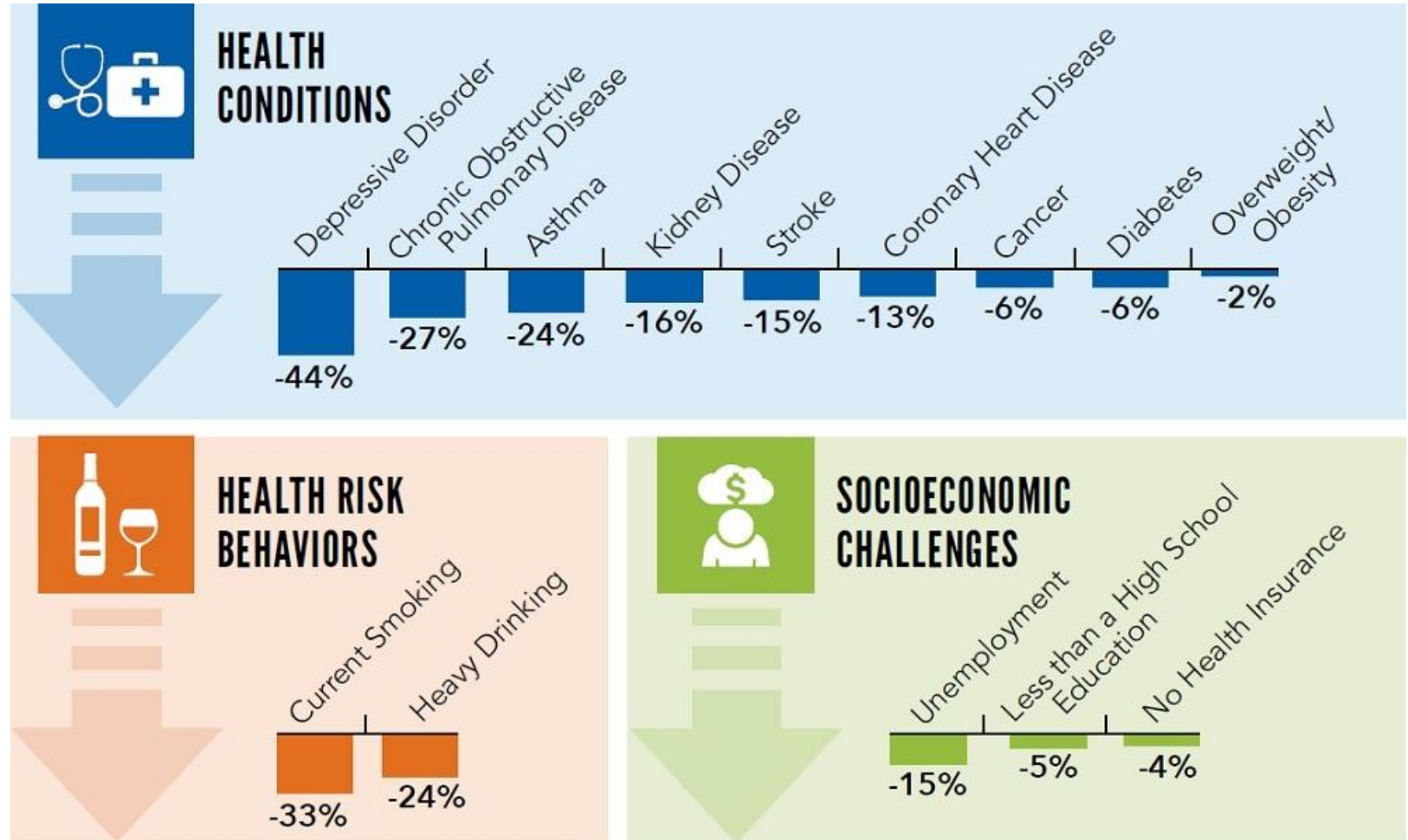
DATA TYPE

☒ Percent

Public health and policy implications

Prevention of ACEs and mitigation of their harm

Reduce ACEs burden to improve well-being



Credit: U.S. Centers for Disease Control and Prevention ([long description](#))

Mitigating ACEs as a health equity strategy

If ACEs harm children's health in the short- and long-term, and exposure to ACEs is disproportionately common among marginalized and oppressed communities, couldn't mitigating ACEs be an early intervention strategy for enhancing health equity?

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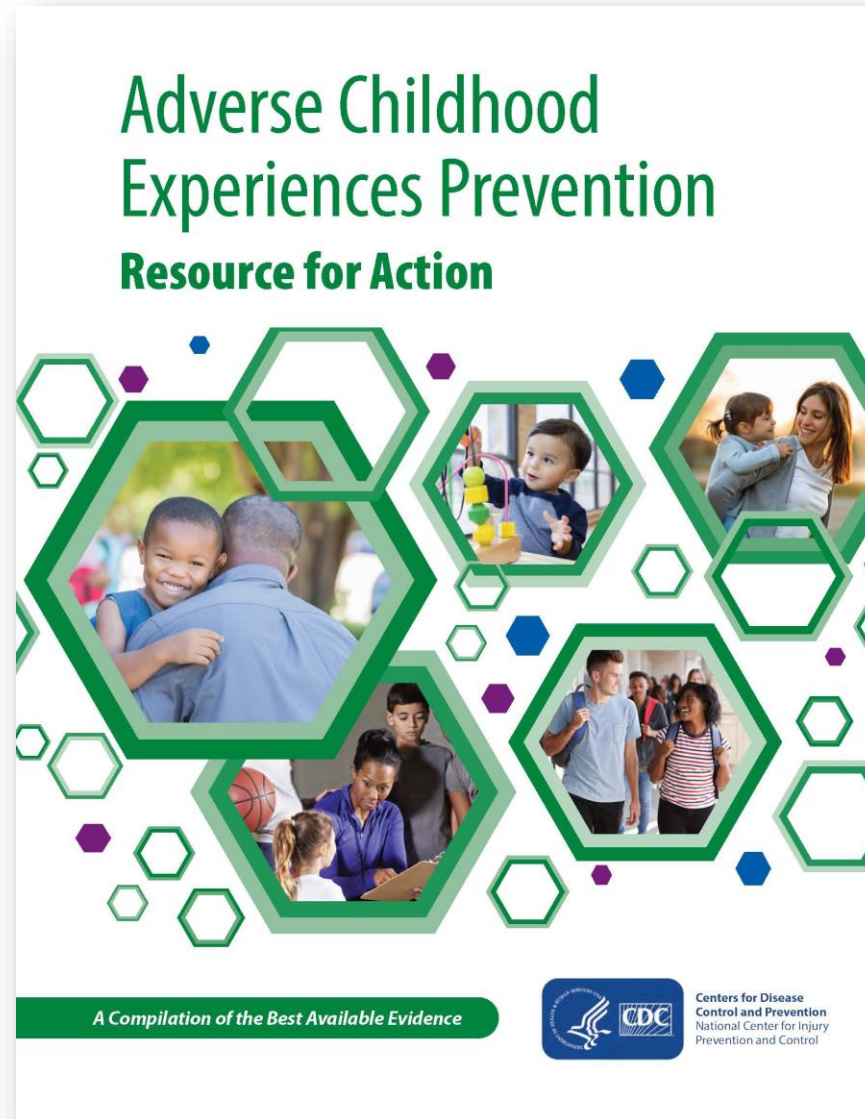
ACEs be an early intervention strategy for enhancing health equity?

Mitigating ACEs as a health equity strategy

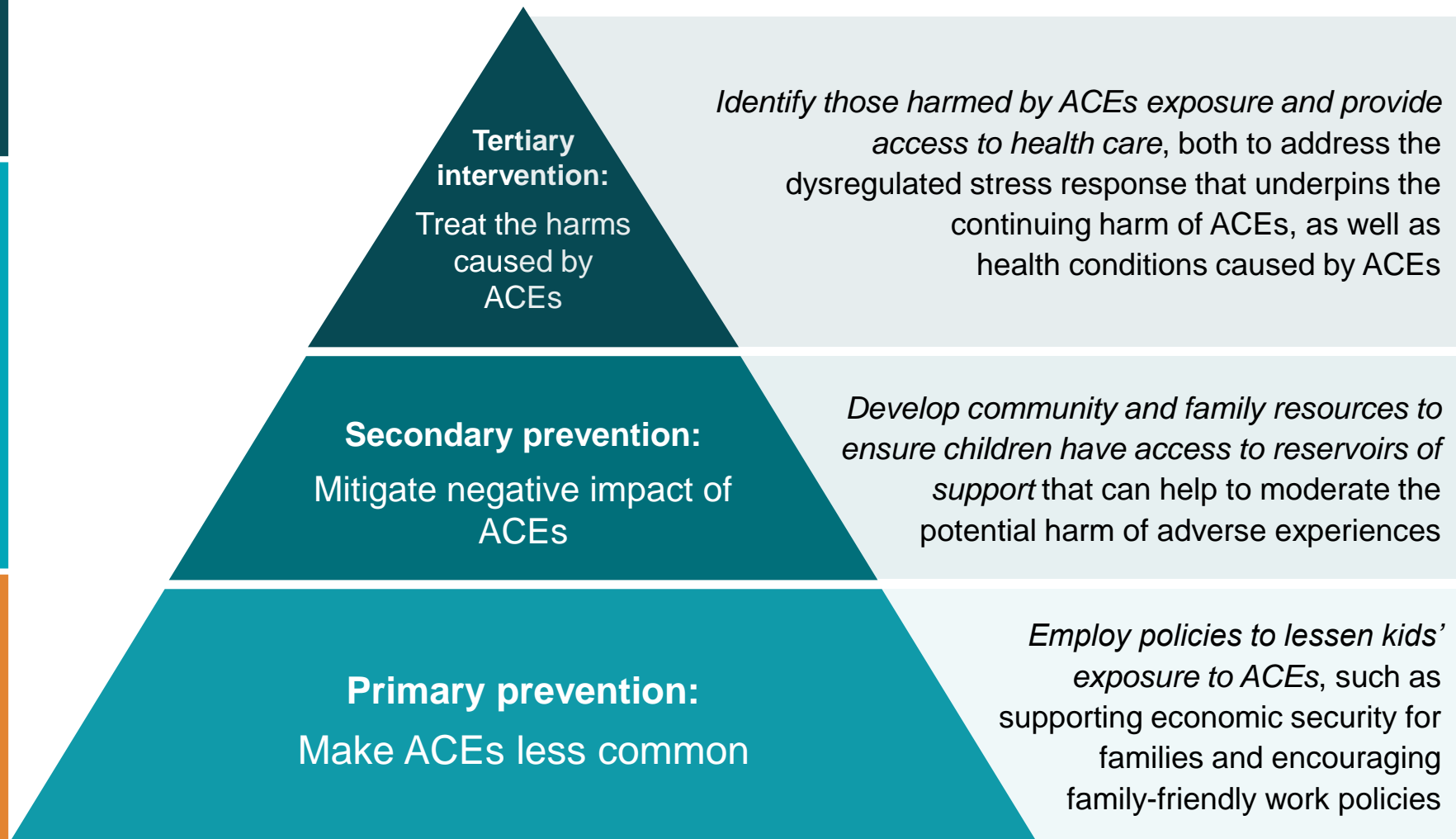
If ACEs harm children's health in the short- and long-term, and exposure to ACEs is disproportionately common among marginalized and oppressed communities, couldn't *mitigating*

ACEs be an early intervention strategy for enhancing health equity?

Resource: Adverse Childhood Experiences (ACEs) Prevention Resource for Action, U.S. Centers for Disease Control and Prevention



Addressing the problem of ACEs



Thank you!

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State Health Access Data Assistance Center (SHADAC)
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