



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.

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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.^{4,5,6} 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.⁷ 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.

But the relationship between childhood trauma and subsequent health consequences need not condemn people to poor health. If traumatic childhood experiences are indeed triggers for a wide range of diseases, then that discovery poses a unique opportunity to improve people's health and quality of life through public health strategies. Similar to how germ theory opened the door to a range of strategies to combat infectious disease—from scientific triumphs such as vaccines and antibiotics to more mundane but profound interventions such as handwashing—the concept of ACEs could provide a framework for new strategies to improve individual and population health. For instance, policymakers could take steps to reduce the prevalence of ACEs and to mitigate the harm of ACEs using strategies recommended by the U.S. Centers for Disease Control and Prevention (CDC), such as improving social and economic supports for families; ensuring access to high-quality child care and early childhood education; and providing access to physical and behavioral health care.⁸ The apparent connection between ACEs and long-term health also reinforces the urgency of growing calls to enhance access to mental health care in the U.S., potentially acting as a strategy for ameliorating the health burden of childhood trauma.

Measuring ACEs

Before presenting our analysis, it is important to recognize the inherent challenges in measuring adverse childhood experiences. One critical challenge is the lack of a consensus definition of what constitutes ACEs; there is no single, comprehensive list of experiences that should be considered childhood trauma.⁹ While there is broad agreement that some experiences—such as child abuse and neglect—qualify as potentially traumatic, the details in definitions can differ in important ways. One recent study on ACEs noted that “(p)articularly glaring omissions from most lists of ACEs are experiences of discrimination, exposure to natural disasters, financial hardship, residential instability and forced migration, exposure to victimization or witnessing violence outside the home, and death/illness of parents.”¹⁰ That issue stems in part from ACEs being a relatively recent concept, so research into the specific relationships between childhood experiences and health impacts is still developing. Another issue is that human experiences can be so varied, so any list of potential ACEs is certain to be incomplete because children face such dramatically different life experiences. For instance, some definitions of ACEs acknowledge the potentially traumatic toll of parental separation due to incarceration, divorce or death, but they seldom consider the similar experience of parental separation due to deportation among immigrant families.¹¹

Another major challenge to measuring ACEs is the collection of data. Researchers could design a purpose-built survey to ask people about exposure to ACEs, but even with unlimited resources, such an approach would entail trade-offs. For instance, to collect data on children's exposure to ACEs, one could survey parents, but they may have incomplete knowledge or be reluctant to report some forms of traumatic experiences; or one could survey the children themselves, but some of those domains may be inappropriate to ask of young children, or they may also be reluctant to report some forms of trauma. Another approach could be to survey adults about their experiences as children, but that approach may also face some of the same limitations of reluctance to report some forms of trauma, and adults may simply not recall traumatic experiences that occurred decades ago. And by surveying adults about their own traumatic experiences as children, those data would by nature be retrospective—telling us little about the prevalence and types of ACEs among today's children, which may change over time.

Recognizing those trade-offs, our study used data from the National Survey of Children's Health (NSCH), a longtime data collection initiative of the Centers for Disease Control and Prevention (CDC), which is based on interviews with children's parents or guardians. We combined data from multiple years of the survey (2016-2019) to enhance our ability to produce reliable estimates at the state level and for smaller demographic groups. While the NSCH does not include questions relevant to all commonly identified forms of childhood trauma, we produced our estimates of ACEs using questions based on multiple domains that were addressed by the survey questions, recognizing that this results in a likely underestimation of the prevalence of ACEs.

For our analysis, we counted a child as having exposure if they had one or more of the following ACEs based on the survey results:

- Difficulty covering basics, such as food and housing, on the family's income
- Parent or guardian divorced or separated; parent or guardian died; parent or guardian served time in jail or prison
- 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
- Lived with anyone who was mentally ill, suicidal, or severely depressed; lived with anyone who had a problem with alcohol or drugs
- Treated or judged unfairly due to race/ethnicity

ACEs Among the States

Our analysis found that traumatic childhood experiences are common, even using the relatively limited set of defined ACEs available in our data source. At the national level, almost half of children (46.3%) had exposure to at least one ACE.

“ Nearly half of U.S. children are exposed to potentially traumatic experiences. ”

While there was some variation at the state level, the range was relatively narrow—less than a 10 percentage point difference on either side of the U.S. rate. At 38.1%, Minnesota children had the lowest rate of exposure to at least one ACE, whereas children in Arkansas had the highest rate at 55.9% (Figure 1).

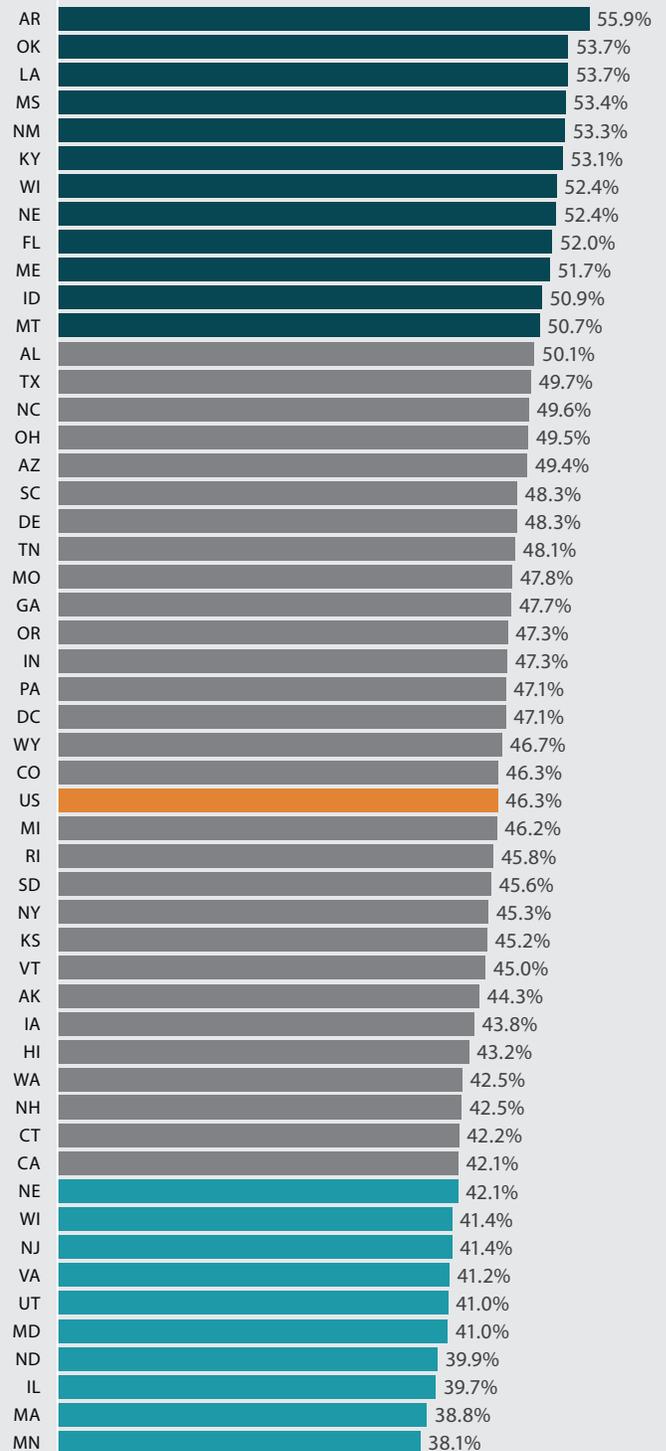
Through statistical testing, our study also found that most states had rates of ACEs exposure that were not significantly different from the U.S. rate. Only 12 states had rates significantly higher than the U.S. rate of 46.3%, and 10 states had rates significantly lower than the U.S. rate.

Race and Ethnicity

In contrast to little variation from the national rate across the states, we found much wider differences in exposure to traumatic childhood experiences by race and ethnicity. Asian children had the lowest reported exposure to ACEs, at 25.0%, whereas Black children had the highest rate of ACEs exposure, at 63.7%, followed closely by American Indian and Alaska Native children, at 63.0%. Each of those was significantly different from the total population rate of 46.3% (Figure 2).

Hispanic children and children of multiple races also had ACEs exposure rates that were significantly higher than the total population rate, at 51.4% and 50.4%, respectively. At 40.9%, White children had a rate of ACEs exposure that was significantly lower than the total population rate. Meanwhile, Native Hawaiian and Pacific Islander children’s ACEs exposure rate of 58.5% was not significantly different from the total population rate.

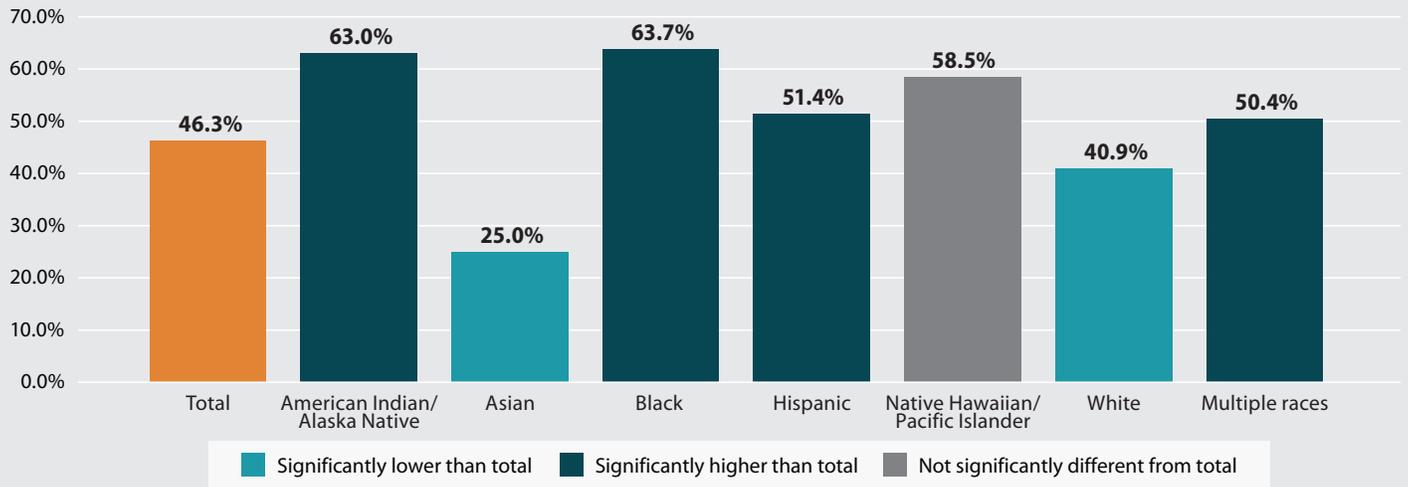
Figure 1. Percent of children with one or more adverse childhood experiences by state, 2016-2019



Legend:
■ Significantly lower than U.S.
■ Significantly higher than U.S.
■ Not significantly different from U.S.

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

Figure 2. Percent of children with one or more adverse childhood experiences by race and ethnicity, 2016-2019



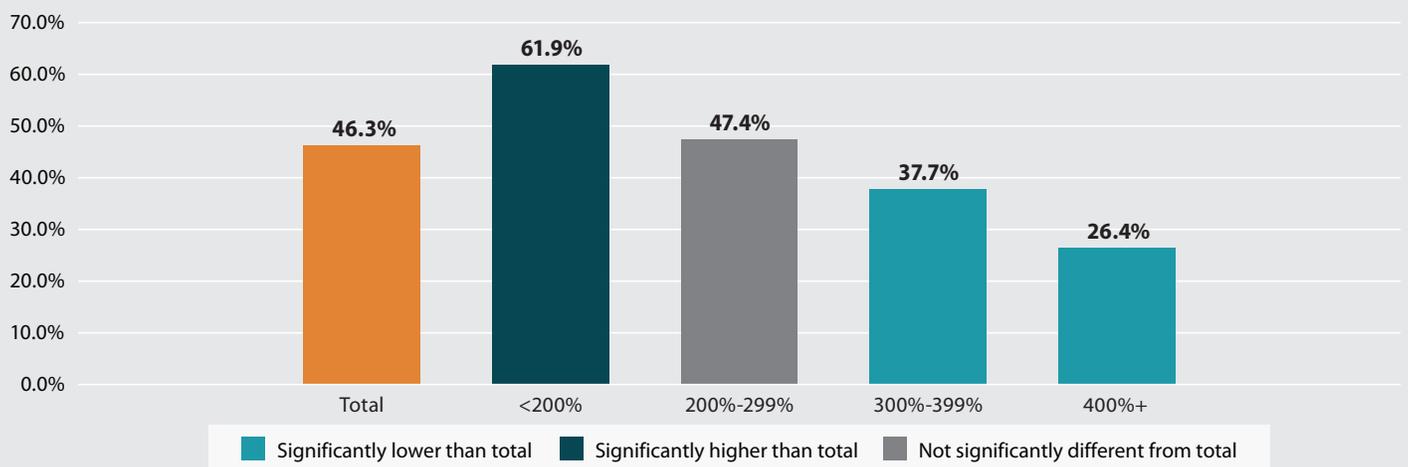
Source: SHADAC analysis of the National Survey of Children's Health
 Note: Colors represent statistically significant difference from total population rate at the 95% confidence level.

Income

Examining ACEs prevalence by income reveals a clear pattern: Exposure to traumatic childhood experiences is less common among children from families with higher incomes, as measured by household income as a percentage of Federal Poverty Guidelines (FPG).

More than half of children from families within the lowest income category (less than 200% of FPG) reported an ACEs exposure, at 61.9%—the highest rate among this demographic breakout (Figure 3). Meanwhile, only about one quarter of children from the highest income families (400% FPG or higher) had exposure to ACEs, at 26.4%. Each of those was significantly different from the overall rate of ACEs of 46.3%.

Figure 3. Percent of children with one or more adverse childhood experiences by income, 2016-2019



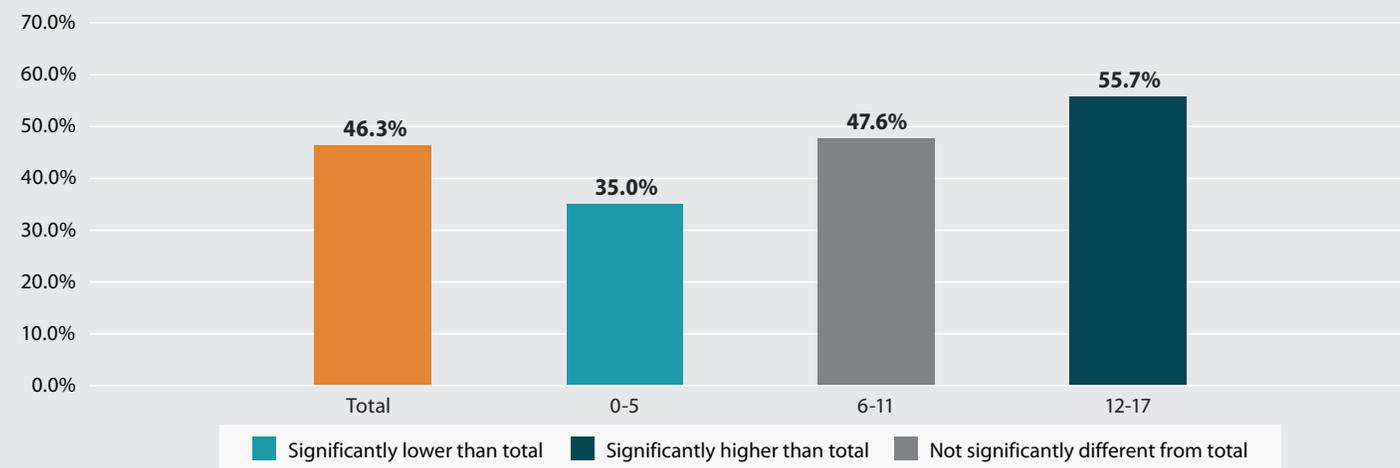
Source: SHADAC analysis of the National Survey of Children's Health
 Note: Colors represent statistically significant difference from total population rate at the 95% confidence level.

Age

Unsurprisingly, since older children have had more time to accumulate exposure to ACEs, rates of traumatic childhood experiences increase with age. However, ACEs were still relatively common even among the youngest children in our analysis.

Roughly one-third of children age 5 or younger had exposure to ACEs, which was the lowest by age category, at 35.0% (Figure 4). By contrast, more than half of adolescents age 12-17 had exposure to traumatic childhood experiences, at 55.7%. Each of those was significantly different from the overall rate of 46.2%.

Figure 4. Percent of children with one or more adverse childhood experiences by age, 2016-2019



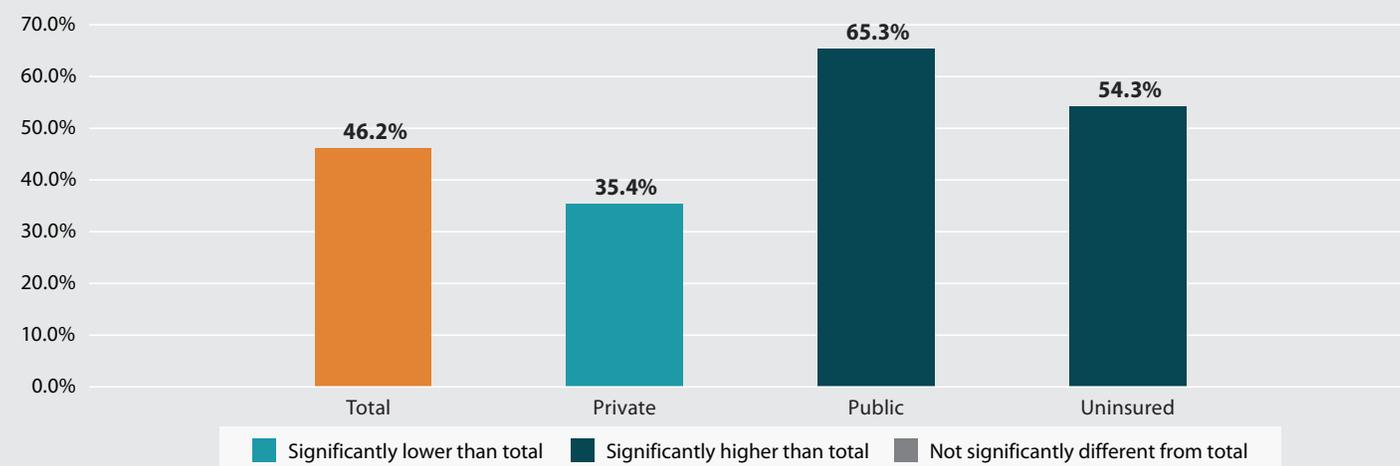
Source: SHADAC analysis of the National Survey of Children's Health
 Note: Colors represent statistically significant difference from total population rate at the 95% confidence level.

Health Insurance Coverage

Rates of ACEs exposure by health insurance coverage type also illustrated clear disparities. Children with private health insurance coverage, typically employer-sponsored insurance obtained through their parents' jobs, had lower rates of exposure to traumatic childhood experiences than children with public coverage (e.g., Medicaid), at 35.4% compared to 65.3%, or kids without any insurance, at 54.3%. This pattern is likely closely related to the one found in our analysis of ACEs by income level, as higher-paying jobs are more likely to come with health coverage benefits than lower-paying jobs.

“Uninsured children with ACEs exposure may be less likely to have their immediate needs identified and addressed.”

Figure 5. Percent of children with one or more adverse childhood experiences by health insurance coverage, 2016-2019



Source: SHADAC analysis of the National Survey of Children's Health
 Notes: Colors represent statistically significant difference from total population rate at the 95% confidence level.
 Due to missing data, the total rate of ACEs exposure by health insurance coverage differs slightly from other measures.

Conclusions and Discussion

Our analysis of adverse childhood experiences found that exposure to potentially traumatic experiences is common, affecting nearly half of U.S. children. While the prevalence of ACEs is troubling on its own, a growing body of research links childhood trauma such as ACEs to long-term health burdens. Millions of Americans suffer from health conditions—such as mental illness, heart disease and diabetes—that are associated with ACEs exposure.¹² And the U.S. is grappling with shocking death tolls from drug overdoses and overconsumption of alcohol—substance use problems also associated with ACEs.^{13,14} The adverse relationship between traumatic childhood experiences and potentially related health problems thus raises concerns for public health, but also suggests opportunities. Namely, reducing the prevalence of ACEs could improve Americans' overall health. Limiting the prevalence of ACEs and intervening to mitigate their harm would not be a simple or quick endeavor, but evidence is mounting that it could pay dividends through a healthier and more-productive population—and almost certainly a happier one.

Though ACEs are disturbingly widespread, we also found distinct disparities in their prevalence. By race and ethnicity, American Indian and Alaska Native children and Black children had the highest rates of ACEs exposure, while Asian children and White children had the lowest. Those patterns are almost certainly influenced by disparities we also found in ACEs exposure by household income, in which data show that children from families with the lowest incomes have the highest rate of exposure to traumatic childhood experiences; data from the U.S. Census Bureau show that American Indian and Alaska Native people and Black people have the highest rates of poverty, while Asian people and White people have the lowest rates of poverty.¹⁵ Those intertwined relationships—race and ethnicity with ACEs and income with ACEs—suggests that efforts to support family incomes and reduce child poverty could reduce the prevalence of traumatic childhood experiences and potentially pay long-term dividends in better health for the U.S. population.

Beyond the relationship between income inequality and levels of poverty experienced by certain racial and ethnic groups, different forms of racism also likely influence the disparities in ACEs that we found in our analysis. Our definition of ACEs includes people reporting unfair judgment or treatment due to their race, a direct measure of racism. But there are other ways that systemic racism surely influences other ACEs. For instance, redlining and other forms of official and unofficial housing discrimination have contributed to persistent racial segregation that can leave Black people, Latino people and other marginalized people with limited housing options—often in neighborhoods with poorer infrastructure, higher rates of violent crime and other risk factors. Another often-cited example of systemic racism in the U.S. are disparities in the criminal justice system, such as laws that have imposed higher criminal penalties for illicit drugs with higher rates of use in Black communities (e.g., “crack” cocaine) than for essentially identical forms with higher rates of use in White communities (e.g., powder cocaine). Those inequities influence higher rates of incarceration among Black people in the U.S., contributing to ACEs in the form of parental separation.

Another finding with key public health implications were the disparities we found in ACEs exposure by children's health insurance coverage type. While about one-third of children with private health insurance had exposure to ACEs, the rate was almost double that for children with public coverage, such as Medicaid or CHIP. The high prevalence of ACEs among children with public coverage illustrates an opportunity for the health care system to improve children's lives by intervening in the cycle of traumatic childhood experiences developing into health problems. For instance, state Medicaid programs could require health care providers to screen child beneficiaries for ACEs, and providers could refer children with exposure to traumatic experiences to mental health professionals or to services or programs aimed at alleviating those experiences, such as connecting food-insecure families to food pantries or the Supplemental Nutrition Assistance Program (SNAP).

“ The U.S. could reduce inequities at the same time as it improves the health and quality of life for the overall population. ”

Children without health insurance also had high rates of ACEs exposure—more than 50%. That is especially concerning because health insurance acts as a gateway to the U.S. health care system. Consequently, uninsured children with ACEs exposure may be less likely to have their immediate needs identified and addressed by a health care provider, raising the specter that they could be disproportionately likely to see their traumatic childhood experiences harm their long-term health. The dual consequences of potentially undetected ACEs and far-reaching negative health effects reinforce the importance of continuing to work toward increasing the rates of U.S. children with health insurance so that all children have the chance to grow into healthy and productive adults.

Other strategies for addressing ACEs as a public health threat could draw on related research. Policies aimed at supporting families—such as ensuring access to high-quality child care and early childhood education, and economic supports to ensure parents can meet their families' needs without interminable hours at numerous jobs—could enhance children's access to caring, always available adults, a factor that research has shown to reduce some of the deleterious effects of ACEs.^{16,17} Given the necessary resources and tools, schools could also play a critical and larger role in preventing the harm of childhood experiences by integrating social-emotional learning and related strategies to enhance children's own skills for developing resiliency, another factor that studies show can protect against ACEs developing into traumatic experiences that can harm people's long-term health.^{18,19} The potential for the effectiveness of those and similar strategies is reinforced by data showing that ACEs are higher among older children—or that they tend to accumulate as kids get older. If ACEs can be prevented or if children can be fortified with tools and supports to help them cope in healthy ways with traumatic experiences when they are younger, the harm those ACEs have the potential to cause might be avoided or mitigated.

Ultimately, the data from our analysis on disparities in ACEs, combined with research evidence on the association between ACEs and various physical and mental health conditions, suggests a unique opening to advance health equity. By employing strategies to reduce the prevalence of ACEs and providing families and children with tools to mitigate the impact of potentially traumatic experiences, the U.S. could reduce inequities at the same time as it improves the health and quality of life for the overall population.

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