Moving Upstream: Confronting Racism to Open Up Children's Potential

This brief is a snapshot of current knowledge on this topic based on studies from the social and biological sciences. It is not an exhaustive review of all related research, nor a comprehensive set of policy recommendations. Its content was excerpted and adapted from "Early Childhood Adversity, Toxic Stress, and the Impacts of Racism on the Foundations of Health," by **Jack P. Shonkoff, Natalie Slopen, and David R. Williams** (*Annual Review of Public Health*, 2021). Additional research findings, particularly in the biological sciences, are currently the subject of an ongoing inquiry by the National Scientific Council on the Developing Child and will be reported in future Center publications.

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The connection between experiencing significant adversity or trauma early in life and being at greater risk for diminished well-being into the adult years is well documented by extensive research.[1,2] In addition to the widely known effects of excessive stress in the early childhood period on school readiness, educational achievement, later economic productivity, and strong communities, it also can lead to higher rates of chronic physical and mental health problems across the lifespan.[3] More important, *most adverse early experiences, exposures, and conditions are preventable.* The existing science is clear and pushes us toward fresh thinking about how to reduce the substantial human and economic costs of significant adversity early in life.

Some population groups, such as families with young children, experience distinctive challenges in life. Adding to the sources of stress felt by all caregivers, many families of color experience other substantial burdens: unequal treatment in health care, education, child welfare, and justice systems; entrenched barriers to economic advancement; and frequent indignities resulting from cultural racism.[4] Yet these stress-inducing experiences are not inevitable. Current policies that expand access to high-quality medical care and early childhood programs provide important benefits for individual children and families. But to reduce persistent inequalities at a population level, they must be augmented by a more intentional, "upstream" focus on a broader range of socioeconomic conditions and policies. These include more equitable access to assets and opportunities in education, employment, housing, health-promoting environments, and wealth creation, among others.[5] Improving the life prospects of all children and families—and building a sustainable society in which everyone thrives—will require new policy approaches to confront and dismantle the structural inequities that undermine the well-being of over-burdened families living in under-resourced communities.

Many interventions that build resilience in children and caregivers facing adversity (e.g., evidence-based home visiting, therapeutic foster care) can lead to better *individual* outcomes—and well-established public health policies (e.g., food assistance, lead screening, or regular blood pressure checks) can reduce *population*-level inequalities.[6] But reducing health disparities also requires *targeted* strategies that address the social inequities that have historically

limited opportunities for certain groups.[7] In order to design such targeted approaches, it's important to understand how different types of disadvantage, whether from neighborhood disinvestment, personal discrimination, or unequal treatment in the justice system—and their cumulative burden—affect young children and their families. With this goal in mind, the deeply embedded, structural inequities associated with systemic racism require focused attention.

How Racism Gets Under the Skin and Inside the Body

Extensive research on the association between significant adversity in childhood and disparities in lifelong health has consistently demonstrated that the greater the *number* of risk factors, the greater the likelihood of poor outcomes. Decades of research have also documented how racism in particular—whether overt or invisible to those who are not affected directly—can negatively influence the well-being of children and families. Science is now helping to explain these effects and point to solutions.

Defining Racism

INSTITUTIONAL/STRUCTURAL:
Inequities embedded within social, political, and economic systems such as housing, justice, labor, education, health care, and immigration

CULTURAL: Ideologies embedded in the language, symbols, media, and assumptions of the larger society

INTERPERSONAL: Individual experiences of bias or discrimination during everyday social interaction

First and most important, it's about racism, not race. Building on the breakthrough discoveries of the Human Genome Project, researchers in the biological and social sciences have reached a clear consensus: There is no evidence that the groups we commonly call "races" have distinct, unifying genetic identities.[8] In fact, there is more genetic variation *within* what we think of as races than there is *between* groups. Despite associations with surface characteristics like skin color, there are no clear boundaries where one racial category begins and another ends. *Ancestry*—a person's direct line of descent—is connected to genetic inheritance based on generations of common geographic roots, but distinctions by race are an arbitrary social construct that changes over time with societal influences. Therefore, well-documented "racial disparities" in health outcomes undoubtedly have multiple causes that are not genetically determined. The leading suspects are the adversities of deeply embedded structural and cultural racism, interpersonal discrimination, and the inequities in public systems discussed below.[9]

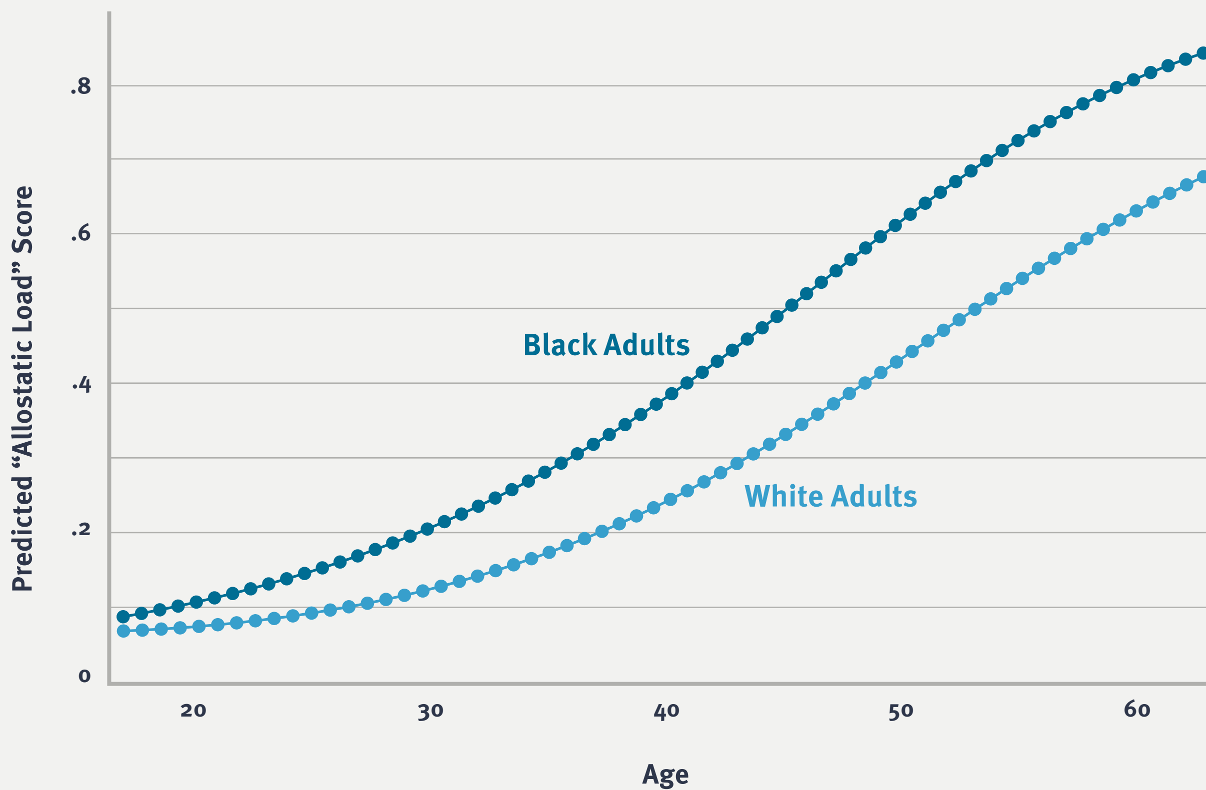
Excessive stress is a likely pathway. The body responds to adverse experiences and exposures by activating the stress response, popularly known as "fight or flight." This response is protective and can even be lifesaving in an acute situation, but when activated at high levels for long periods, it can become what is known as *toxic stress*, which can have a significant wear-and-tear effect on children's developing brains and other biological systems (e.g., immune and metabolic[1]). A growing body of evidence suggests that the need to cope continuously with the burdens of structural racism and everyday discrimination can be a potent activator of that kind of persistent stress response, and the cumulative burden over time compounds the daily experience (see figure 1 on the next page).[10,11] Each individual responds to adversity differently, so poor outcomes are not inevitable, but they are more likely if overburdened families and communities are unable to provide consistent, supportive relationships and relief from sources of constant stress.[3]

Chronic inflammation can disrupt the function of organ systems. When the stress response is activated, the immune system responds by sending immune cells to their "battle stations" to fight off invaders (e.g., potential infection). This process is called inflammation, and in the short term, it helps defend against illness and heal wounds. But persistently elevated inflammation puts highly activated substances in constant contact with multiple organs, which can disrupt their function over time.[3] For some individuals, this can produce lasting changes in biological systems that increase the risk of later impairments in both physical and mental health, such as obesity, diabetes, heart disease, depression,[3] and even preterm births.[12] Preventing or mitigating the causes of excessive inflammation early is likely to reduce the personal burdens of chronic illness and societal burdens of costly medical care later.

FIGURE 1

A Higher Burden of Stress

"Allostatic load" is the term used for the physiological burden imposed by stress: the combination of the substances the body releases in response to stress and the effects that result from the release of these substances, e.g., blood pressure, cholesterol level, blood sugar levels, and obesity. Allostatic load scores were calculated using 10 of these biomarkers. Higher allostatic load scores at earlier ages are an indication of premature "weathering" of the body's systems due to stress. Both Black men and women have higher mean allostatic load scores than do White men and women at all ages, equivalent to as much as 10 years of aging. Although people in poverty in both racial categories have higher scores than their nonpoor counterparts, higher poverty rates do not account for the Black–White difference in allostatic load.



Source: Geronimus, A.T., Hicken, M., Keene, D., & Bound, J. (2006). "Weathering" and age patterns of allostatic load scores among blacks and whites in the United States. *American Journal of Public Health, 96*(5), 826–833. https://doi.org/10.2105/AJPH.2004.060749

Unhealthy environments are another likely pathway. Our bodies absorb and adapt to our physical and social environment, so when that environment is seriously compromised or threatening it can affect our organs and disrupt their functioning. For example, zoning regulations and civic underinvestment have historically concentrated toxic environmental exposures—including air pollution, heavy metals (e.g., cadmium, arsenic, lead), contaminated water, and pesticides—in neighborhoods populated predominantly by people of color with low income. As a result, these exposures are experienced at disproportionately higher levels by Black women than White women and are associated with increased risk of poor pregnancy outcomes.[4] Multiple studies have shown that predominantly Black neighborhoods have less access to—and pay more for—healthy foods.[13] Living in such "food deserts" contributes to poorer nutrition and higher rates of obesity and diabetes. Limited open spaces and facilities for recreation, along with concerns about personal safety, can also discourage physical activity.[14]

How Racism Creates Conditions That Harm the Well-Being of Children and Families

Race-based discrimination is deeply embedded—and often invisible to those who are not affected by it directly—within social, political, and economic systems and institutions, such as housing, labor markets, the justice system, immigration policies, education, health care, and the media, among others.[15] This complex web of economic policies, zoning regulations, social misperceptions, and historical legacies results in persistent barriers and unequal opportunities that affect the healthy development of children in multiple ways—and they can be changed. Below are just some of the most well-researched ways in which structural racism affects prenatal health and the well-being of young children and their families.

Segregated neighborhoods. Residential segregation by race—whether through historical housing policies or economic inequalities—persists throughout the United States, with significant differences in neighborhood quality, living conditions, exposure to environmental toxins, and access to opportunities.[15,16,17,18] Discriminatory lending policies and designation of certain neighborhoods as "high risk" has had an intergenerational impact on home ownership (and its disproportionate contribution to wealth accumulation), business investment, and social mobility.[19] An increasing body of research is documenting how this affects opportunities for children and families.

- Longstanding institutional neglect and disinvestment in poor, segregated communities contribute to low-quality housing, underfunded schools (which depend on local real estate taxes), and weakened community and neighborhood infrastructures that diminish interpersonal relationships and trust among neighbors. These conditions are more likely to exist in neighborhoods that include large percentages of Hispanic and Black residents than those lived in by mostly White residents.[13]
- In the 100 largest metropolitan areas in the United States, almost two-thirds of all White and Asian-American children live in high or very high opportunity neighborhoods (based on an index of 29 indicators of educational, health, and social/economic resources) compared to 19% of Black, 23% of Hispanic, and 29% of Native American children. This compares to two-thirds of Black, 58% of Hispanic, and 53% of Native American children who reside in low or very low opportunity communities.[20]
- Segregation makes it harder for families to improve their circumstances (and life prospects for their children) by reducing access to quality early childhood services, elementary and high school education, after-school services, preparation for higher education, and employment opportunities.[21]
- Segregation adversely affects both access to medical care and the quality of care received. Across multiple types of diagnostic and treatment interventions, Black people and other racialized groups receive fewer procedures and poorer quality medical care than White people. Medical facilities in largely segregated, lower socioeconomic neighborhoods are more likely to have less financial stability, less access to diagnostic imaging equipment, and higher barriers to recruitment and retention of specialty physicians.[22]

Interpersonal discrimination. Experiencing racial bias or animosity is frequently associated with lower self-esteem, diminished psychological well-being, increased problems related to pregnancy outcomes, and higher levels of alcohol consumption, depressive symptoms, and obesity.[23] Increased reports of discrimination have been associated with higher rates of preterm delivery and babies with very low birth weight.[24] A study of Black and Latina urban, teen mothers found that everyday discrimination reported during pregnancy predicted greater separation problems and negative emotions in their children at 6 months and one year of age.[25] While these studies identify *associations* between discrimination and poor outcomes—which is not the same as a confirmed *cause*—increasing research is focusing on how discrimination triggers biological reactions inside the body. One such study found that discrimination experienced by mothers was associated with increased indicators of inflammation *in their children* aged 4-9 years.[26]

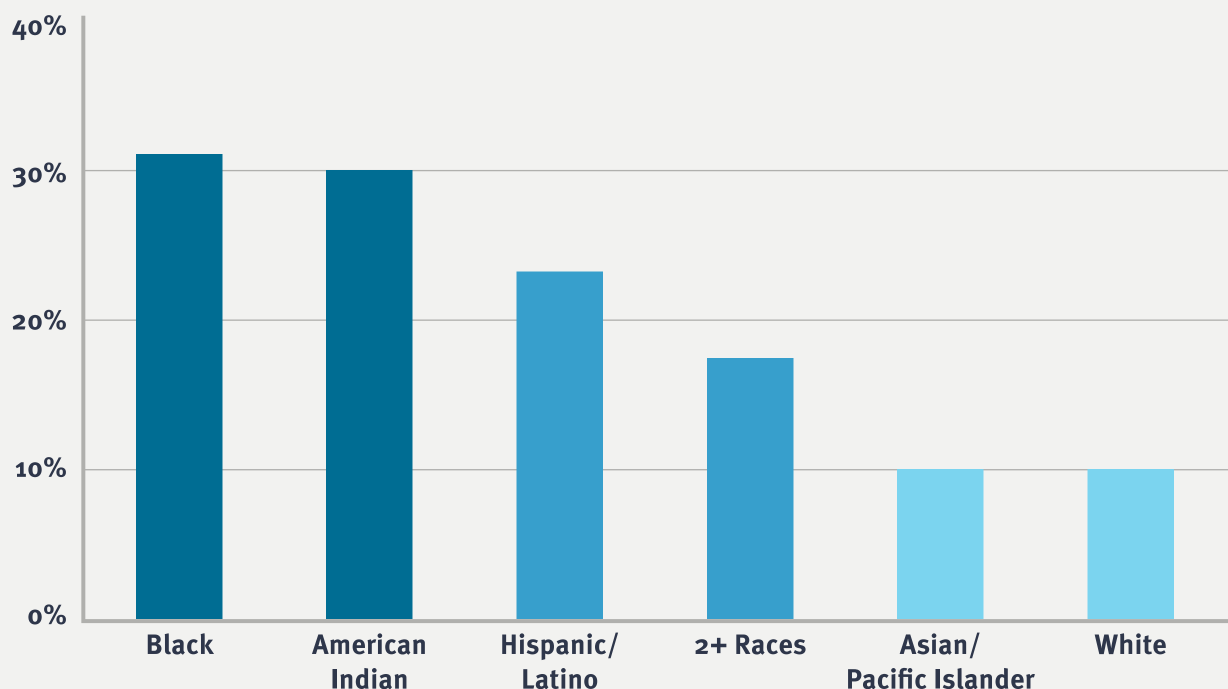
Financial stress and loss of loved ones. Among the most common items on conventional inventories of stressful life events are financial difficulties and the loss of a loved one. The financial strain of poverty is significantly more common among Black (31%), Hispanic (23%), and American Indian (30%) children relative to non-Hispanic, White children (10%)

(see figure 2).[27] Relationship losses—and the resulting financial challenges—due to incarceration are disproportionately felt by families of color compared to White families (see below), as is the death of a loved one due to poorer living and working conditions, earlier onset of disease, and higher rates of premature mortality.[28,29] The fact that Black families experience more deaths of loved ones across the life course—a trend significantly worsened and laid bare by the COVID-19 pandemic—constitutes an added burden of stress and a major loss of the supportive relationships that can buffer the effects of adversity on health.

FIGURE 2

US Children in Poverty by Racial Category

The 2019 share of children under age 18 who live in families with incomes below the federal poverty threshold (e.g., $25,926 per year for a family of 4).



Source: KIDS COUNT Data Cent. 2020. Children in poverty by race and ethnicity in the United States. Data from U.S. Census Bureau, Am. Community Survey 2019, Annie E. Casey Found. KIDS COUNT Data Cent., Baltimore, MD.

Incarceration. Since the 1970s, rates of incarceration in the United States have increased dramatically. Significant disparities in surveillance, prosecution, and sentencing have driven a tenfold increase in the risk of incarceration for Black men compared to White men.[30] Considerable evidence indicates that adult incarceration affects the health and well-being of children and their families, including economic instability and adverse influences on prenatal health, infant and child mortality, obesity, poor self-reported health in childhood and young adulthood, unhealthy behaviors and mental health problems, and poorer school outcomes.[31] It has been estimated that mass incarceration of adults has increased racial disparities in *children's* behavioral and mental health problems by 15-25% for externalizing problems and 24-46% for internalizing problems.[31] Exposure to high levels of police incidents, which are significantly higher in neighborhoods with predominantly Black residents, is also associated with higher rates of preterm births.[32] A study that examined police killings of unarmed Black people (2013–2018) found that states with more of these had higher racial disparities in premature deliveries.[33]

Cultural racism. Negative stereotypes and images of stigmatized racial groups, which are deeply embedded in the language, symbols, media, and "taken-for-granted" assumptions of the larger society,[21] normalize and reinforce the ideology of racial inferiority and can initiate and sustain both institutional and individual discrimination. Some research indicates that cultural racism contributes to bias in how students of color are treated in school, beginning in the early childhood years. For example, Black preschoolers are 3.6 times more likely than their White peers to receive one or more suspensions. Accordingly, although Black children make up 19% of the preschool population, they are almost half (47%) of the preschoolers suspended one or more times. There also appears to be gender bias, as boys are suspended three times more often than girls.[34]

Immigration policy. Anti-immigrant initiatives trigger hostility that can lead to perceptions of vulnerability, threat, and psychological distress among individuals who are targeted directly as well as those who are affected indirectly, including children. For example, a study of Latinos in 38 U.S. states found higher rates of mental health impairments in areas with more exclusionary policies.[35] Another study following a federal immigration raid at a meat-processing plant in Iowa found higher rates of low-birthweight infants born to Latina mothers in the year after the raid compared to the previous year, with no effects found for other ethnic groups.[36] Other emerging evidence suggests that anti-immigrant, anti-Hispanic, anti-Muslim, and other racist rhetoric and policies may also negatively affect birth outcomes[37,38] as well as child and adolescent health.[39,40]

Addressing the Source by Going Upstream to Policy

A range of approaches to reducing the health-threatening effects of cultural racism, residential segregation, and the unequal economic and educational opportunities available in some places compared to others have been studied and show evidence of positive impacts on child outcomes. Other proposals have been less well-studied but deserve a closer look and more rigorous investigation. For example, policies that create new economic drivers and support wealth creation through zones of opportunity and investment—especially those co-created with community leaders—are promising ideas worthy of further examination. Below is a brief overview of a selection of the most well-studied programs.

Strengthen policies that provide economic support. In 2019, the National Academies of Sciences, Engineering, and Medicine released ***A Roadmap to Reducing Child Poverty***,[41] a report commissioned by Congress that identified evidence-based programs and policies for reducing the number of children living in poverty. The report found that: (1) increases in the Earned Income Tax Credit (EITC) have improved child educational and health outcomes; (2) the Supplemental Nutrition Assistance Program (SNAP) has improved birth outcomes as well as many important indicators of child and adult health; and (3) expansions of insurance coverage for prenatal health care and medical services for infants and children have led to substantial improvements in child and adult health, educational attainment, employment, and earnings. Two program and policy packages stood out in the Roadmap report for their ability to meet its mandated 50% reduction in child poverty. The first increases housing voucher levels and SNAP benefits; the second combines a child allowance, a child support assurance program, and the elimination of immigrant restrictions on benefits.

Invest in place-based interventions. These intensive, long-term efforts to improve opportunities in a designated community are typically cross-sector, sustainable collaborations that are specific to the identified setting and designed to address community-driven objectives. There are many examples of this approach, including Purpose-Built Communities,[42] Promise Neighborhoods,[43] and Magnolia Place,[44] but few have been evaluated rigorously for their specific impacts on young children. In two high-poverty neighborhoods in Cincinnati, Ohio, a child health equity effort pursued through the All Children Thrive Learning Network (ACT) fostered multisector collaboration, including housing, social work, community services, and health care, and was able to decrease child hospitalizations by 20% in just three years.[45] The Harlem Children's Zone (HCZ), which was launched as an intensive, community-level initiative in New York City's Harlem neighborhood in the 1990s,[46] has conducted an evaluation of its education components. Among HCZ's findings, graduates of the preschool program were reported to be fully prepared for kindergarten[47] and attending Promise Academy charter school helped close racial gaps in academic achievement[48,49] as well as reduce teenage pregnancy and incarceration.[44]

Take steps to reduce cultural racism. To reduce the burdens of structural inequities on families or to mitigate their effects on the health and development of children of color, it will be essential to confront the burdens of cultural racism.[20,21] This critical challenge will require a range of multifaceted, cross-sectoral efforts to generate, implement, and evaluate potential solutions. While programs designed to reduce stereotype threat and improve a sense of belonging among older children and adolescents have shown promise, a recent review of programs designed to reduce racial or ethnic prejudices through increased contact among groups concluded that racial prejudice is more difficult to reduce than other types of bias.[50] Another review of multiple studies speculated that programs designed to promote "cultural competence" might be strengthened by antiracist training that specifically challenges discrimination and biases.[51] Other studies suggest that *age matters.* Preschool children have been shown to already display racial bias and discriminatory behavior,[52,53] and interventions asking children aged 4-6 to *imagine* contact with other groups have produced a larger reduction of prejudice than with adults.[54] Given the likelihood that early childhood is an ideal time to prevent or minimize racial biases before they become engrained[55,56,57]—and evidence suggesting that antibias instruction in a school setting can be effective[58]—many early childhood experts emphasize the importance of anti-bias education in child-care settings.[59,60,61]

The Present Opportunity: A Sense of Urgency to Confront Inequities

There is no question that people of color have experienced disproportionate economic and health-related harm from COVID-19.[62] This knowledge has focused much-needed attention on persistent racial and ethnic inequities in day-to-day social contexts and experiences (e.g., overcrowded housing, front-line service jobs, unequal treatment in the health care system) that compromise both physical and mental well-being. These disparities have also highlighted that several chronic health conditions associated with increased risk of more severe illness and even death from COVID-19 infection (e.g., obesity, hypertension, heart disease, diabetes) are also more prevalent among Black adults.[3] The fact that these conditions have their roots in the physiological consequences of excessive adversity early in life has received relatively little attention, and cries out for focused action.

The scientific evidence is clear and growing. Structural, cultural, and interpersonal racism impose unique and substantial stressors on the daily lives of families raising young children of color.

The scientific evidence is clear and growing. Structural, cultural, and interpersonal racism impose unique and substantial stressors on the daily lives of families raising young children of color.[63] Understanding how these stressors affect child health and development provides a compelling framework for new ideas about how communities, policies, programs, and funding streams might confront and dismantle these inequities and build a stronger future for us all.

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