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for every child

# AN OUNCE OF PREVENTION

## *Addressing Disparities in Child Well-being*

MAY 2025

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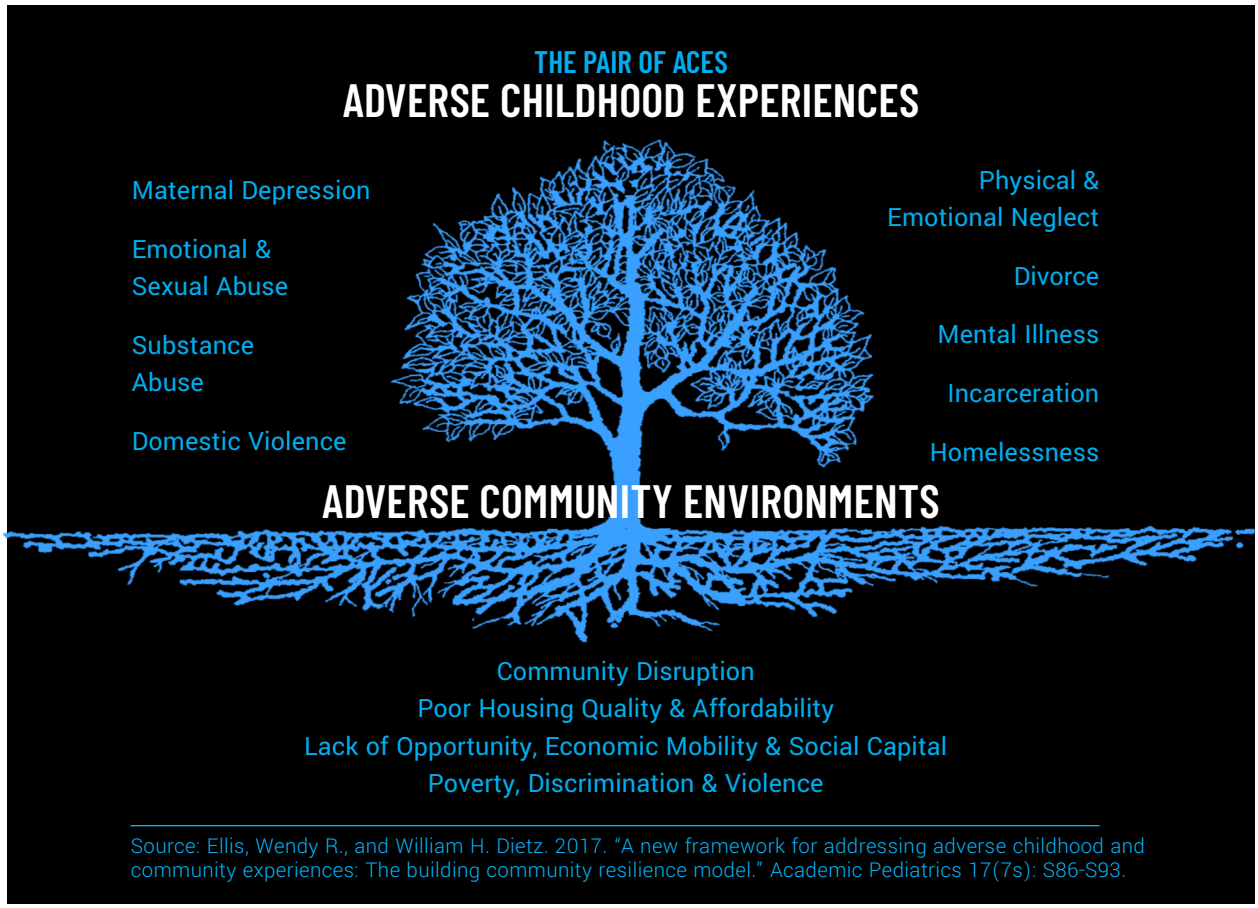
# EXECUTIVE SUMMARY

The United States (U.S.) is a country of disparities that impact the lives of children. Differences in the health and well-being of children in the U.S. exist based on who they are and where they live. Child deaths in the U.S. tells a tale of unequal childhoods. Rates of infant mortality, which refers to the deaths of children under age 1, are nearly 20% higher in rural America compared to urban areas.[1] America's high rates of infant and child mortality stand out globally as the only high-income country on earth where child mortality rates are increasing rather than decreasing.

The UNICEF Report Card 19: Child Well-Being in an Unpredictable World analyzed child well-being across high-income nations, including child physical health, mental health and skill building. To capture a glimpse at the well-being of the world's children, the report measures mental health through suicide rates and a survey asking children how satisfied they are with their lives. Physical health was measured using data on child mortality and the percent of children that are overweight or obese. Lastly, skill building assessed academic testing scores and surveys on children's social skills. The U.S. stands out among peer countries with very high levels of childhood overweight and obesity, increasing child mortality and considerable disparities in how the COVID-19 pandemic impacted academic testing scores among high- and low-income students.

This report takes a closer look at disparities in the health and well-being of American children, with a look at the physical and mental health of children and the academic achievement of children across regions in the U.S. Where a child grows up greatly affects their health, happiness and education. Importantly, health, happiness and education are interconnected. Children that struggle with their physical and mental health are at high risk of falling behind in school.

A major contributor to poor physical and mental health in children is what research has termed "Adverse Childhood Experiences" or ACEs. ACEs describe a range of events and environmental factors that contribute to poor mental and physical health, and lead to poor outcomes as an adult. Recent research has contributed to a broader understanding of ACEs to expand beyond adverse experiences in the family such as abuse or substance abuse, to include environmental factors such as violent crime and community poverty. Broadly, rural children experience higher rates of ACEs than urban children.[2] Although rural children have higher rates of ACEs, rural children also have higher rates of "Positive Childhood Experiences", or PCEs. PCEs describe healthy, positive events and habits in childhood that contribute to healthy mental and physical health, and positive outcomes in adulthood. Despite higher rates of ACEs in rural children, rates of poor mental health are slightly lower in rural children, possibly linked to higher levels of PCEs.




Source: Ellis, Wendy R., and William H. Dietz. 2017. "A new framework for addressing adverse childhood and community experiences: The building community resilience model." Academic Pediatrics 17(7s): S86-S93.

Overall, American children show very high levels of poor physical and mental health. High rates of children with poor physical and mental health, in combination with overall shortages in pediatric care providers, suggest a preventative upstream approach to improve mental and physical health would provide an impactful solution.

The old adage "an ounce of prevention is worth a pound of cure" may be a viable solution to the disparate challenges facing U.S. children. School-based prevention of poor physical and mental health provides children with the well-being they need to focus and learn in school, increasing academic success rates.

The Whole School, Whole Community, Whole Child (WSCC) model outlines an approach to education that encompasses mental and physical healthcare in schools to care for children- meeting children where they are to provide the support they need. Similar models exist across a number of successful, impactful childhood programs.[3] Incorporated in the WSCC model is a two-generation approach to education that works with parents and caregivers to stabilize families and provide children with the support they need to learn. Programs, such as the Harlem Children's Zone, Promise Neighborhoods and the Head Start program integrate support for families into whole child education. Within these programs, initiatives include doctors and dentists providing healthcare screenings for every child in schools, social workers that work with students and families to support the mental health of children and community-based programs to distribute fresh food in communities with limited access to grocery stores.

The results of a whole child approach to education are astonishing. In education programs with whole child approaches, graduation rates soar to 90%-100%, standardized testing scores close the achievement gap between racial minority and majority students and college acceptance rates reach 90%-100%.[4] Despite the promise of prevention, many schools in America lack access to physical and mental health in schools. An estimated 14 million children in America attend schools with no counselor, nurse, psychologist or social worker.[5] Establishing a comprehensive support system in the U.S. that will ensure the health and well-being of America's children is essential to support the academic success of children. Although tailored solutions are needed in many areas, national policies that align with the following recommendations provide solutions in both urban and rural contexts:

1. **Support families to promote the mental health of children.** To improve the mental health of children, invest in the well-being of families. Investing in families reduces exposure to ACEs and improves child mental and physical health, as well as the economic independence of families. Long term, investments in children and families yield substantial returns for the national economy as children mature into productive adults. Poverty reduction programs, pre- and postnatal home visiting and paid parental leave provide examples of successful investments to support families and children.

2. **Provide whole child education.** Take a whole child approach to education through the WSCC model, which advocates for adding physical and mental healthcare into schools and working with families to provide children with the stability they need to learn. Existing examples include Head Start, the Harlem Children's Zone and Promise Neighborhoods and have all demonstrated positive impacts on child health and education.

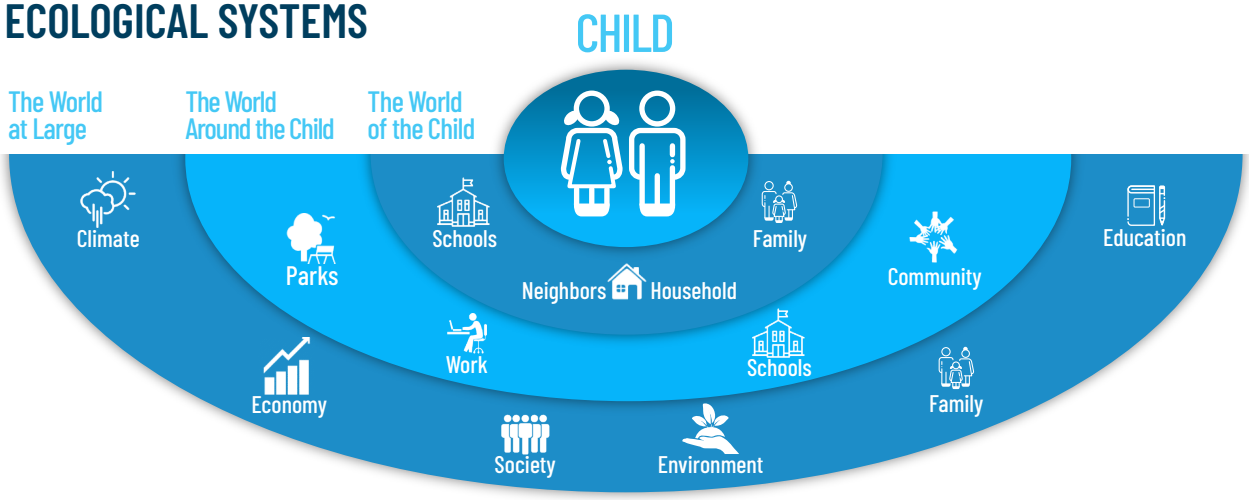
3. **Expand Medicaid access in states that have not done so already.** Medicaid expansion increases access to mental and physical healthcare in low-income families, providing essential care for children and families.

# BACKGROUND

The health of children in the United States (U.S.) is shaped by the context in which they live and learn. This context includes many facets: geography (rural/urban), poverty, region, gender, race/ethnicity, demographics, economic and social environments, as well as public policies.[6] Considerable geographic disparities in child health have been previously documented in children's physical, mental and academic achievement.[7] The COVID-19 pandemic disrupted services and access to care and education, which has exacerbated trends already occurring.[8] Although public debate around the impact of the COVID-19 pandemic on children has pushed a narrative that the pandemic created disparities across groups of children, most disparities in childhood started long before 2020. Understanding the causes of disparate childhoods throughout the U.S. is essential to creating tailored solutions.

This report examines child well-being within the child's family and community. Children are nestled within families, which are nestled within communities, and those communities shape how children grow, learn and play and which challenges children face along the way.[9] This report will seek to understand differences in the challenges that children experience within their communities. Across the U.S., many communities may face similar challenges with different causes, such as difficulty accessing pediatric mental healthcare which stems from long waits to access mental health providers in urban areas versus the lack of mental health providers in rural areas.[10] There is value in going beyond exploring disparate rates of struggle for children across the U.S.; understanding the causes of disparities in well-being across different communities is essential for creating impactful solutions.

## ECOLOGICAL SYSTEMS



# DEFINING RURAL AND URBAN

At a basic level, geographic differences across the U.S. can be divided into urban and rural. There are multiple ways to define urban and rural in the U.S., with reports describing the challenges, as well as the implications of simplified geographic definitions. Unfortunately, simple geographic lines may not accurately describe nor include all people within the region.[11] For the purposes of this report, rural and urban will be measured using the U.S. Federal Government Office of Management and Budget's definition, which categorizes counties as either metropolitan or urban if the county has a population cluster with 50,000 people or more, and micropolitan or rural if the county does not, with micropolitan defined as a rural county that includes between 10,000 and 50,000 residents.[12] The varying definitions of rural and urban can impede accurately describing the variation in rural and urban child well-being, so all efforts are made to keep this as consistent as possible. For most of the report, due to data constraints, we are unable to describe areas within rural and urban areas, such as suburban areas, which are located on the periphery of urban centers.

Urban areas in this report include the diverse range of urban communities across the U.S. This captures an array of communities including areas with a high density of poverty, areas of predominantly immigrant residents and the many other diverse communities that make up the urban landscape. When possible, this report highlights specific disparities within urban communities, such as those found in areas of high concentrations of poverty. National or aggregate data on many urban sub-communities is limited, therefore specific city-by-city analysis may be necessary to fully capture the experiences of diverse urban communities.

Rural areas in this report include areas that are frontier and remote, with three frontier area levels, with level 1 meaning 60 minutes or more from urban areas of 50,000 or more people.[13] Roads to frontier areas may be difficult to travel on, which is why these areas are discussed in terms of drive time and not just mileage. Rural federal policy circles have long wanted the definition of frontier, as otherwise it can be difficult to articulate how difficult it may be for some rural residents to access primary or specialty care.[14]

# TRIBAL HEALTH AND HEALTH IN THE U.S. TERRITORIES

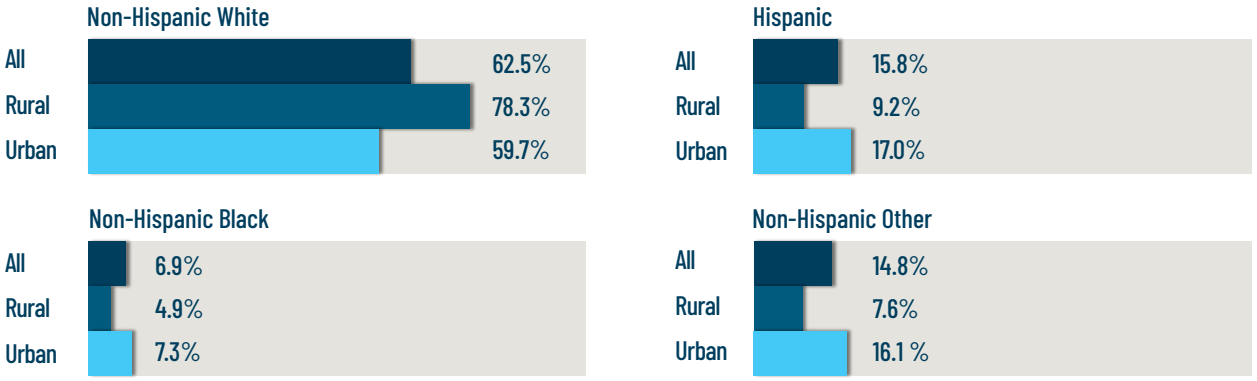
This report would be remiss without including information on children and their caregivers residing in tribal communities across the U.S. and in the U.S. territories. While there is limited data on residents residing in tribal communities, research has found that American Indian and Alaska Native populations have a lower life expectancy than the general U.S. population, and that numerous factors contribute to poorer health status and higher rates of chronic conditions. The factors that contribute to poorer health among American Indian and Alaska Natives have included reduced healthcare access, lower quality housing, higher poverty rates and reduced access to both clean water and grocery stores.[15] American Indian and Alaska Native populations have higher death rates of nearly every chronic condition compared to all other races.[16] Many of these same issues are also present in the five occupied U.S. territories of Guam, Puerto Rico, American Samoa, the U.S. Virgin Islands and the Northern Mariana Islands. Data on the health and well-being of residents in the occupied U.S. territories are limited; however, where data exists, it is clear children in the U.S. Territories are struggling. Puerto Rico has the highest child poverty rate in the U.S. at 57.6% compared to the child poverty rate of 13.7% in the U.S. overall.[17] American Samoa has one of the highest rates of childhood obesity on earth with an estimated 32.5% of boys and 25.7% of girls classified as obese.[18] In U.S. territories, both urban and rural areas often struggle, due to the remoteness of the islands.[19]

# DEMOGRAPHICS OF RURAL AND URBAN CHILDREN

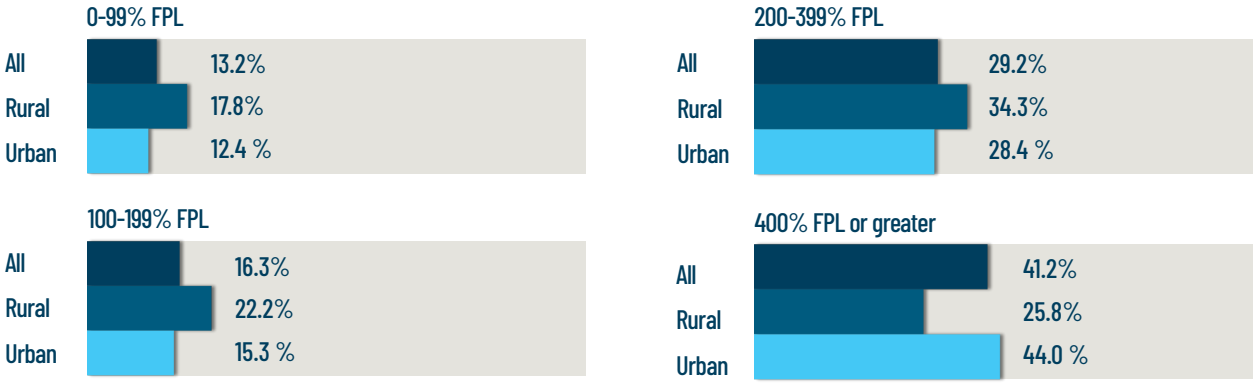
Based on the 2020 census, there are nearly twelve million children residing in the rural United States, with nearly one-third (32.5%) of rural children representing a racial/ethnic minority population.[20] A larger proportion of rural children reside in persistent poverty counties than urban children, with rural households having lower rates of educational attainment and lower income than urban households.[21] Thus, rural children are insured at higher percentages than urban children by government funded health insurance including Medicaid and the Children's Health Insurance Program (CHIP), where recipients must be low-income to qualify for these benefits.[22]

Over eighty percent of children in the United States reside in urban areas.[23] Compared to rural children, urban children are much more racially and ethnically diverse and far less homogenous.[24] Urban children have lower rates of poverty than their rural counterparts. In 2019, 11 urban counties had child poverty rates of 40% or higher, compared to 129 rural counties.[25]

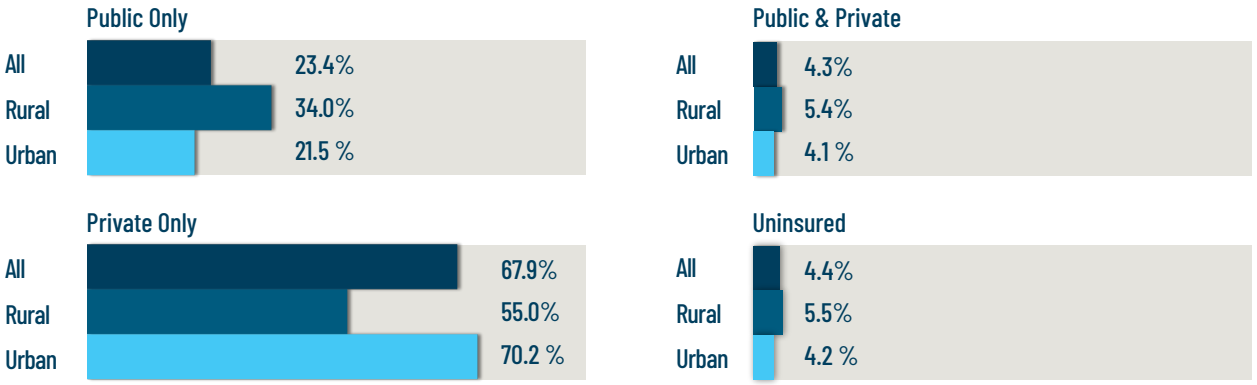
## RACE/ETHNICITY OF CHILD




## FEDERAL POVERTY LEVEL | AGES 0-17




## HEALTH INSURANCE

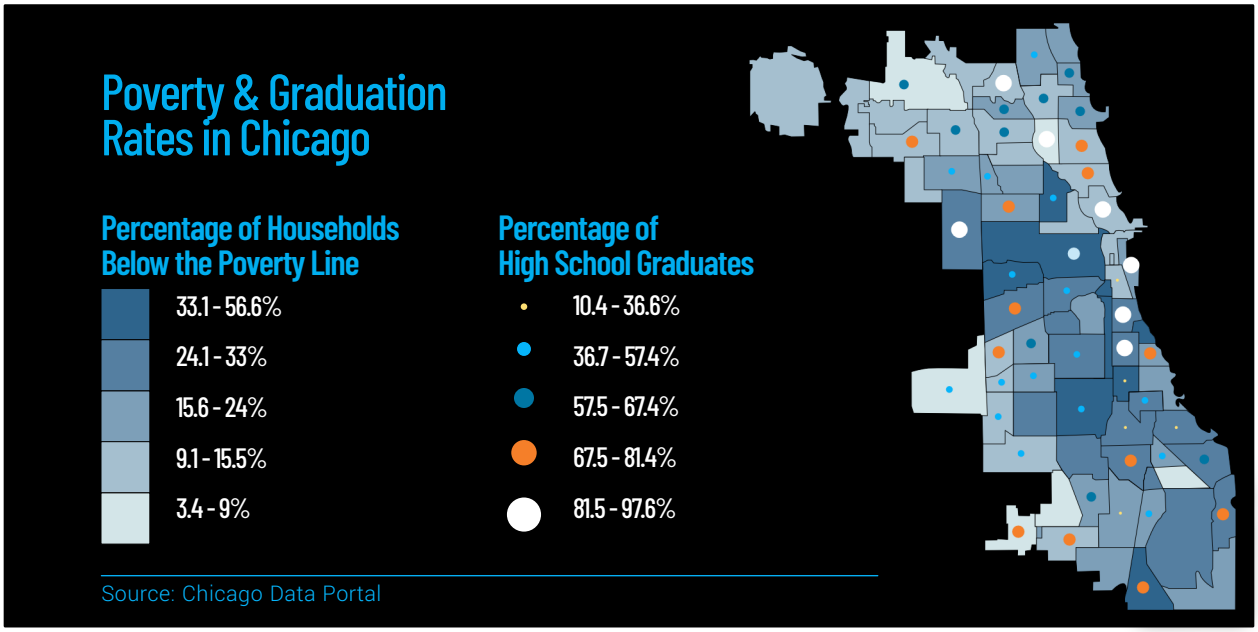



Source: National Survey of Children's Health, 2021-2022 Cohort

# EDUCATION

Schools are often an integral part of the community, with prior research demonstrating that investments in school have an impact on increased educational attainment and wages into adulthood.[26] Funding composition varies greatly between rural and urban schools, making it difficult to disentangle school funding at a national level.[27] Some rural schools may be more likely to rely on state and federal funding sources, and less likely to rely on property taxes to fully fund their schools than urban schools.[28] Rural schools have also been more affected by school consolidation trends, where smaller schools merged with each other or a larger neighbor to increase the student population size, than urban schools.[29] However, this can vary greatly by residential location, as many urban schools serving low-income communities often face just as many challenges. The demographic make-up of both rural and urban schools also varies widely by location, with race, ethnicity, language and migration patterns affecting areas of the country differently.

On aggregate, rural schools have some of the highest graduation rates with 90% of students graduating on time compared to 82% of urban students, but again, this can vary widely by location and region.[30] This points to the fact that unique risk factors may contribute to the differences in school success between rural and urban children. The rate of youth disconnection, the measure of young people who are not pursuing education or are employed, is higher in rural areas than in urban areas nationally.[31] Yet, rural education may play a critical role in addressing local workforce needs, with school counselors helping to guide students and coordinate educational and workforce training.[32]



Across rural and urban areas, one consistent predictor of educational attainment is poverty. In both low-income rural areas, and low-income urban areas, schools with high concentrations of poverty show lower graduation rates. On average, across the U.S., roughly 87% of students complete high school within 4 years, however that rate decreases to 81% for low-income students and drops further to 68% for students experiencing homelessness.[33]

Across the country, consistent disparities in education outcomes exist between high-income communities and low-income communities.[34] This disparity is stark in urban areas where high income communities may exist side-by-side with low-income communities, and children served by the same school district may exhibit vastly different educational outcomes. Low-income, urban communities, often referred to as the "inner-city" exhibit elevated levels of poverty, scarce community resources and low graduation rates. However, when supportive resources are integrated into schools and communities, even within the inner-city, graduation rates increase.[35] Importantly, children exist within a community that influences how children grow, learn and play. When communities lack appropriate supportive resources, as is often the case in inner-city communities, academic achievement suffers. The U.S. government acknowledged the value of supportive communities through the Promise Neighborhoods Initiative launched in 2010. The Promise Neighborhoods Initiative was modeled after the Harlem Children's Zone, which sought to support children from birth to college by integrating supportive resources into a small community inside the Harlem neighborhood of New York City. The result was astonishing, with graduation rates that vary between 90%-100% depending on the year, standardized testing scores that closed the achievement gap between racial minority students and majority students and 90%-100% college acceptance rates for children graduating from the Harlem Children's Zone Promise Academy—all within a low- income inner-city community.[36]

Prior to entering the K-12 education system, investing in early childhood education for children from infancy to age five has considerable benefits for children and the community.[37] Prior work from the Russell Sage Foundation has found that publicly funded early childhood education, such as the Head Start program has been more prominent in non-metro areas than metro areas, with a lower proportion of rural children attending private early childhood centers and lower levels of nonprofit funding in rural areas, compared to children residing in urban areas.[38] This highlights the reach of public investment in early childhood into rural regions of the country where child care can be scarce, and families may be forced to rely on unlicensed, unstable and unsafe child care.[39] Safe and stable early childhood education has demonstrated impacts in improving high school graduation rates, decreasing criminal activity, increasing college attendance and increasing earning potential as children grow into adulthood.[40]

Central to programs like Head Start, the Harlem Children's Zone and Promise Neighborhoods is the whole child model of education. These programs incorporate two-generation approaches to education that integrate care for children's physical and mental health into their schooling, while also supporting parents and caregivers. The U.S. Centers for Disease Control and

Prevention have outlined a framework for education that acknowledges the vital role of schools within communities to provide holistic child-centered approaches to physical health, education and mental health. The Whole School, Whole Community, Whole Child (WSCC) framework[41] outlines ten components to child centered education:

- Physical education and physical activity
- Nutrition environment and services
- Health education
- Social and emotional climate
- Physical environment
- Health services
- Counseling, psychological, and social services
- Employee wellness
- Community involvement
- Family engagement

When schools serve as a "one stop shop" for child health, well-being and learning, children thrive. Integrating physical health and mental health into schools, through inviting local service providers into schools and investing in family engagement improves child outcomes. Free school lunches for all and no-cost books and textbooks are another way to reduce barriers to education. The Head Start Program provides one well-researched example of the life-long impacts of the WSCC model. Head Start's two-generation, whole child approach to stabilize families and provide a healthy environment has demonstrated benefits for children.[42]

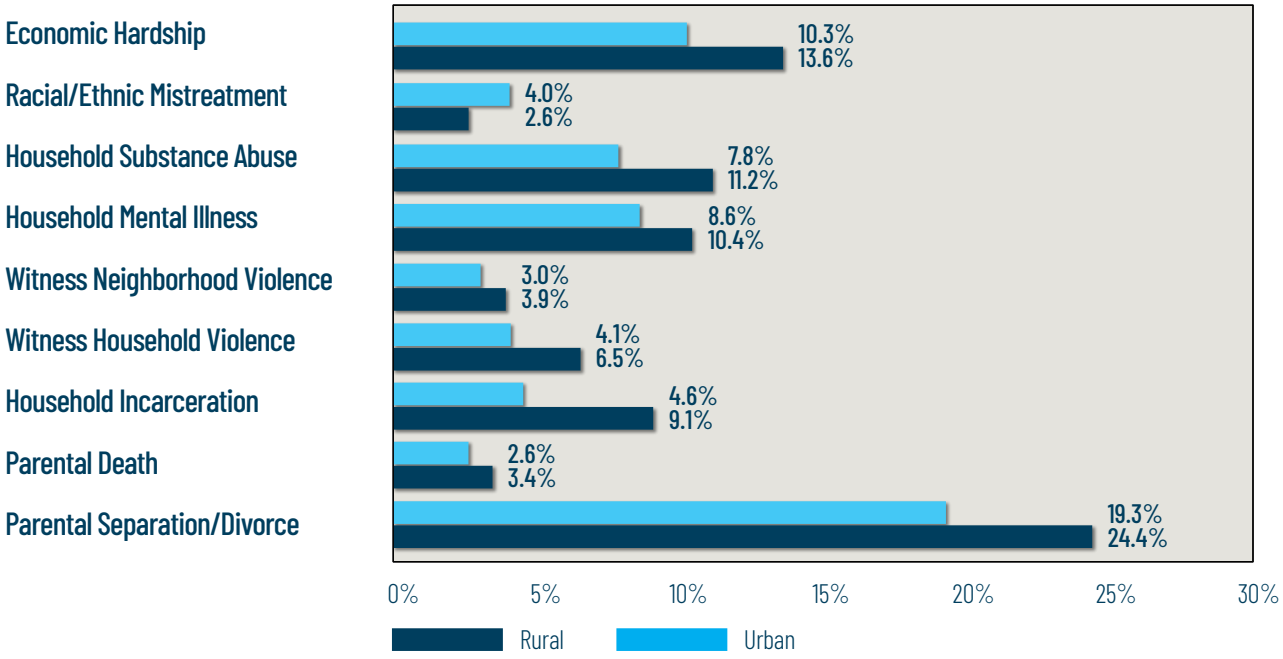
# CHILDHOOD EXPERIENCES AND MENTAL HEALTH

Urban and rural children experience unique risks and protective factors because of their environments. Adverse childhood experiences (ACEs) refer to events that occur during childhood and adolescence that can be traumatic, including various types of abuse, neglect and household dysfunction.[43] Previous research on ACEs focused heavily on events and circumstance within the family, however, in the past two decades, experts have begun to understand that ACEs incorporates community and environment. The newer understanding of ACEs, known as the Pair of ACEs model, combines family adversities, such as divorce or family violence, with community adversities, such as discrimination or neighborhood violence.[44]

The impact of ACEs can be far-reaching, with research demonstrating associations between ACEs and poorer mental and physical health, as well as risky behaviors, into adulthood.[45] Researchers have begun to examine the economic burden of ACEs, due to the increase in mortality and morbidity and the resulting loss of productivity, finding that the national economic burden associated with ACEs exposure is substantial.[46]

## ADVERSE CHILDHOOD EXPERIENCES BY TYPE

Among Children Ages 0-17

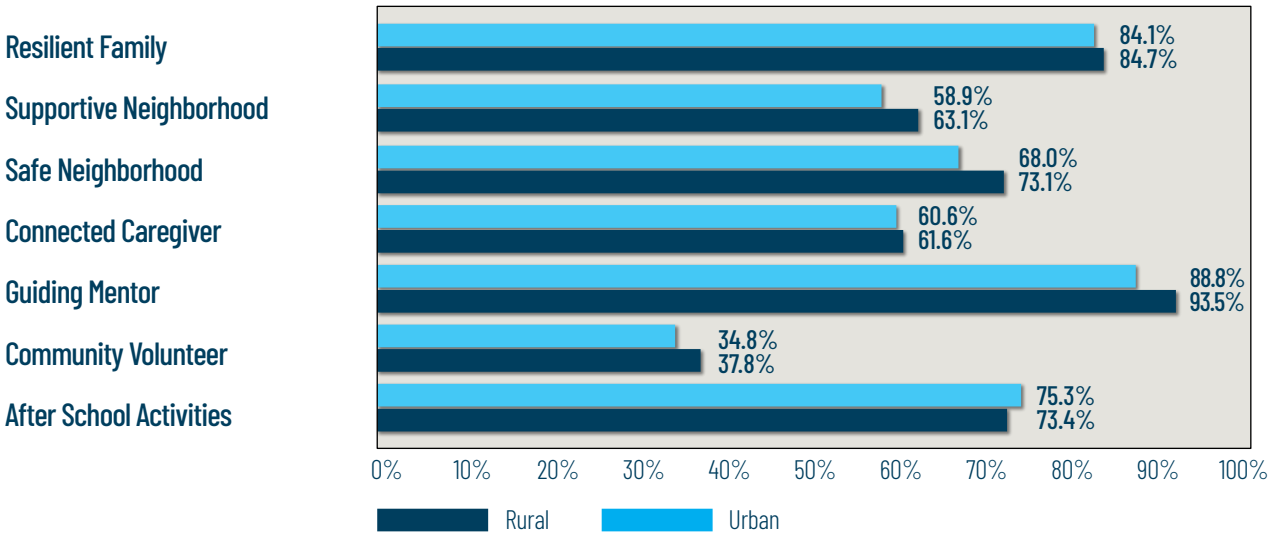



Source: National Survey of Children's Health, 2021-2022 Cohort

More recent research has examined the role of positive childhood experiences (PCEs) in a child's life, which include having a mentor, healthy peer-to-peer relationships, healthy caregiver interactions and growing up in a safe and supportive environment to foster healthy growth and development.[47] Positive childhood experiences may mitigate or moderate the effects of ACEs and potentially reduce the risk of poor physical and mental health outcomes.[48] High rates of PCEs in rural children may contribute to resilience in childhood, serving as a protective factor against ACE's. Supportive programs aimed at increasing and expanding PCEs may increase resilience and positive adult outcomes for children at elevated risk of exposure to ACEs.

## POSITIVE CHILDHOOD EXPERIENCES BY TYPE

Among Children Ages 6-17



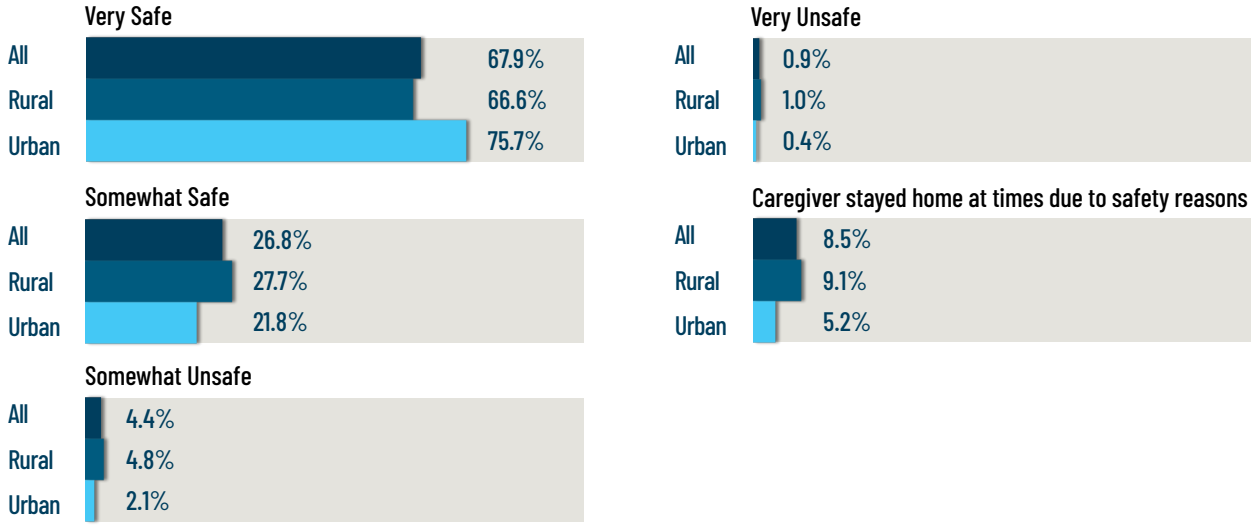

Source: National Survey of Children's Health, 2021-2022 Cohort

Perceptions of neighborhood safety also varied by rurality. When asked if adults perceive their neighborhood as safe, a lower percentage of rural residents reported feeling safe in their neighborhood than urban residents (66.6% vs. 75.7%). A larger proportion of rural residents reported that a caregiver stayed home during certain times due to safety reasons than urban residents (9.1% vs. 5.2%). It is worth noting that the perception of a "neighborhood" may differ for urban and rural residents, as urban residents may consider a small area to be their "neighborhood" whereas rural residents may consider a larger area when asked about their "neighborhood".

Perceptions of crime matter to residents, even if crime rates are not increasing, people may still feel unsafe.[49] For example, although overall crime rates are higher in urban areas, per capita crime can be higher in some rural areas, which can contribute to the perception that crime is higher and subsequent stress or anxiety about safety. The perceived lack of safety leads to increases in poor mental health for both caregivers and children.

## NEIGHBORHOOD SAFE FROM CRIME

Among Children Ages 0-17




Source: National Survey of Children's Health, 2021-2022 Cohort

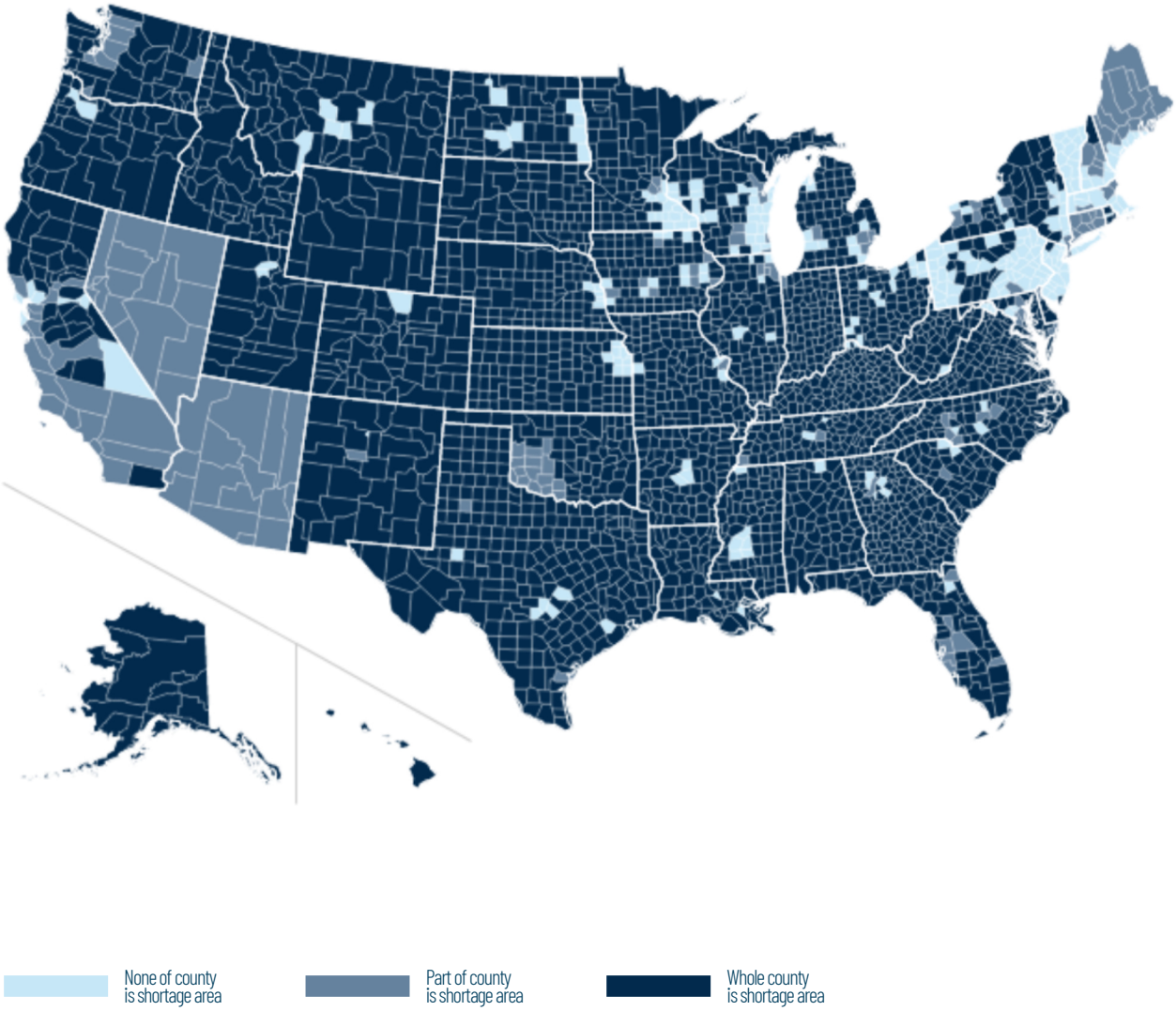
The ACEs and PCEs presented in this report provide reason to anticipate disparities in mental health between urban and rural communities.[50] Yet, there were not substantial rural-urban differences in anxiety or depression among adolescents (aged 12-17; 20.9% vs. 20.7%, 21-22 National Survey of Children's Health (NSCH)) or autism/autism spectrum disorder (11.2% vs. 10.7%, 21-22 NSCH). Rural children were slightly more likely to be diagnosed with attention deficit hyperactivity disorder (ADHD) than urban children (11.2% versus 10.7%, 21-22 NSCH).

In both urban and rural communities, accessing specialized pediatric mental healthcare remains a challenge. Urban communities may have a larger number of pediatric mental healthcare providers, but families often struggle with long wait times to access care because of the large populations of children.[51] In rural communities, pediatric mental health resources are often extremely limited, leaving families with nowhere to turn when children require mental healthcare. Investment in mental health services in rural areas, even if it means accessing behavioral health services through telehealth, could improve mental health outcomes in rural children and adolescents through adulthood.[52] However, telehealth alone is unable to address the national shortage of pediatric mental health professionals.

Importantly, mental healthcare for children and adolescents must remain accessible to youth. Providing mental health support in places and times where children are, such as schools, can remove barriers to accessing care, such as transportation and caregiver's work schedules. School support services, such as school social workers, school-based counselors and peer-support groups, provide a viable solution in both urban and rural communities. Unfortunately, when school budgets shrink, support services, such as social workers and counselors, are often the first group to be cut. Experts recommend one school social worker per 250 students.[53] The most recent national estimates of school mental health professionals find an average of 1 school social worker per 360 students and 1 school psychologist per 1,065 students.

This number varies by state and school district, but consistently remains well above the recommendation to adequately meet the needs of children.[54] This equates to over 14 million children in America attending a school with no counselor, nurse, psychologist or social worker.[55]

## MENTAL HEALTHCARE PROVIDER SHORTAGE AREAS




Source: Health Services and Resources Administration, 2024

# POSITIVE PARENTING TO IMPROVE CHILD'S MENTAL HEALTH

An essential component of promoting resilience and well-being in children comes from supportive relationships with caregivers. As described in the UNICEF Report Card 19, parent-child relationships have a strong impact on child outcomes.[56] Supporting parents and caregivers to allow caregivers to meet the needs of children is paramount. Disparities exist between the levels of parenting support, with 82.1% of rural children having caregivers who report having someone that they could turn to for day-to-day emotional support with parenting or raising children, compared to only 77.7% of urban children (21-22 NSCH). Children that receive supportive, attentive care from a trusted adult are more likely to have positive outcomes as they grow, but caregivers must have the support they need to provide that necessary care.

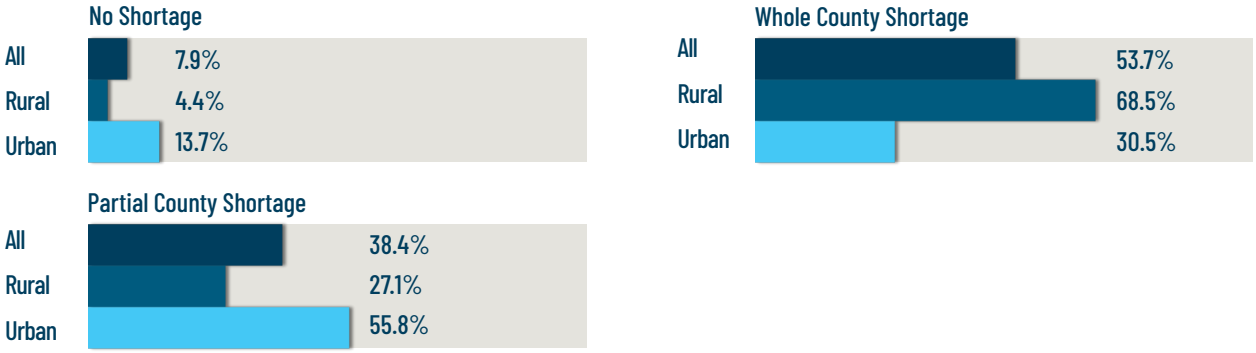
For preschool aged children, positive parenting practices such as interactive caregiving practices have been shown to improve healthy social emotional development in children.[57] Earlier research has found that caregiver interaction can be particularly important when time and money may be scarce, with children residing below the federal poverty level less likely to be read to every day or sung and told stories to every day.[58] For urban and rural children, caregivers are rising to the challenge and meeting the needs of children. There were no differences found by rurality in children being read to (94.4% in rural vs. 94.6% in urban; 21-22 NSCH), being sung and told stories to (96.7% vs. 96.7%; 21-22 NSCH) and eating a daily meal together (96.9% vs. 96.7%; 21-22 NSCH). However, these early childhood interactions may be more limited when parents lack access to paid parental leave. Early parent-child bonding is an essential bedrock of parent-child relationships and has been linked to later mental health and resilience[59], and that irreplaceable time can be interrupted when parents are forced to return to work too soon.

# PHYSICAL HEALTH

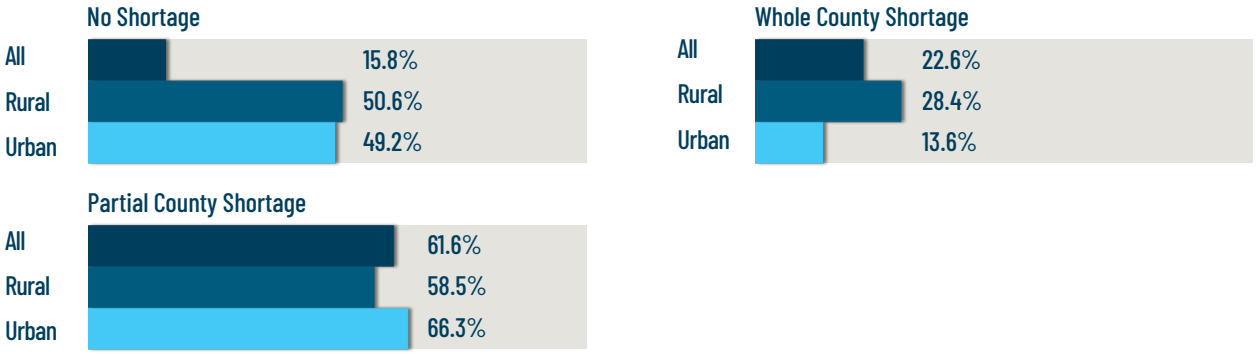
As reflected in the UNICEF Report Card 19, American children are falling behind their global peers in physical health.[60] The U.S. is a notable outlier in pediatric obesity and child mortality. Only one country in the UNICEF Report Card 19 had higher rates of pediatric obesity than the U.S., Chile.[61] The U.S. remains the only high-income country on earth in which child mortality is on the rise instead of declining. Examining why these issues are so stark in the U.S. and the potential policy solutions is a monumental task, however, when looking at disparities across regions of the country a few things stand out such as access to preventative healthcare, access to healthy food, nutrition education and gun violence as a contributor to mortality.

Access to healthcare in the U.S. is often a combination of physical access and health insurance. Provider shortages in rural areas may increase the challenges in accessing preventative care for rural residents, particularly when families must travel considerable distances to access care, whereas urban areas may struggle with high demand and long wait times. Health insurance also provides a barrier to care for children, with the rates of uninsured children at their highest among low-income urban children at 7.6% and rural children at 5.5% (21-22, NSCH).

## 2024 MENTAL HEALTH PROVIDER SHORTAGES

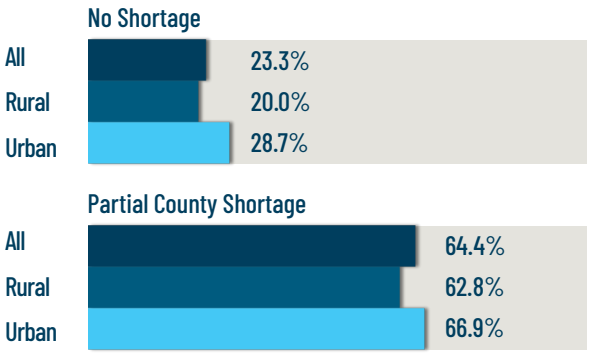


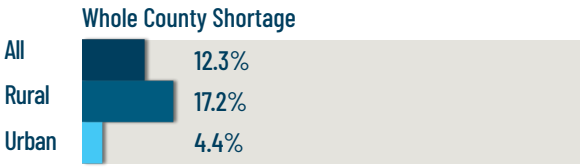

## 2024 PRIMARY CARE PROVIDER SHORTAGES




Source: Health Services and Resources Administration, 2024

## 2024 DENTIST SHORTAGES







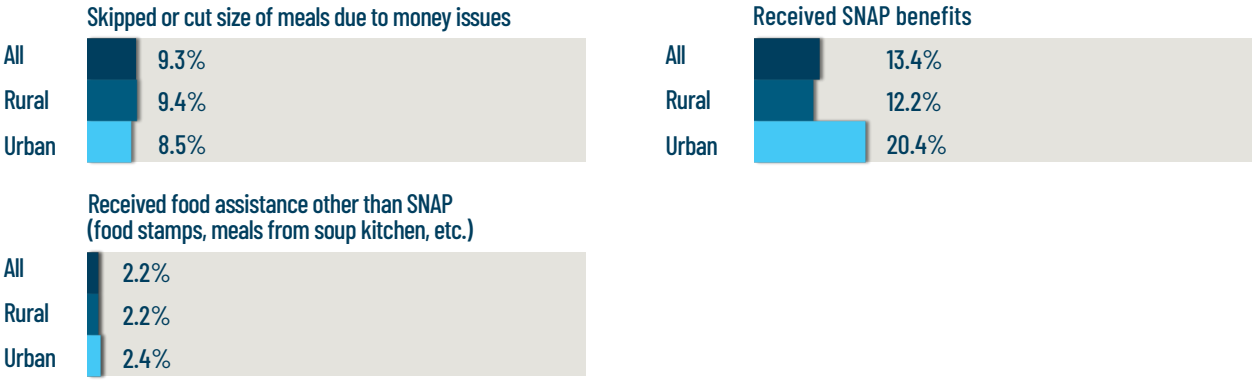
Source: Health Services and Resources Administration, 2024

# DRIVERS OF PEDIATRIC OBESITY IN U.S. CHILDREN

As described in the UNICEF Report Card 19, access to healthy and nutritious food is likely a key driver in rates of pediatric obesity.[62] Despite public discourse highlighting physical activity as a solution to pediatric obesity, global analysis presented in the UNICEF Report Card 19 finds little evidence to support a causal relationship between physical activity alone and pediatric obesity.[63] It is more likely that the causes of soaring rates of pediatric obesity are complex and multifaceted, making policy solutions challenging.

There is likely a link between access to healthy food and pediatric obesity. Much of rural America and low-income urban areas are known for being a food desert, an area with limited access to fresh and affordable foods. Food deserts are particularly prevalent in areas of high concentrations of poverty such as the inner-city and areas with low population density, such as rural areas and Tribal Reservations.[64] Food insecurity and difficulty accessing healthy foods have been previously shown to increase the risk of chronic disease and poor physical health.[65] Children that are food insecure and/or living in food deserts are more likely to rely on affordable, ultra processed foods. Reliance on ultra processed foods in childhood has been intricately linked with an increased risk of obesity in childhood and an increased risk of continued obesity into adulthood.[66]

## 2022-23 FOOD SECURITY (AGES 0-17)




Source: Survey Income and Program Participation, 2022-2023 Cohort

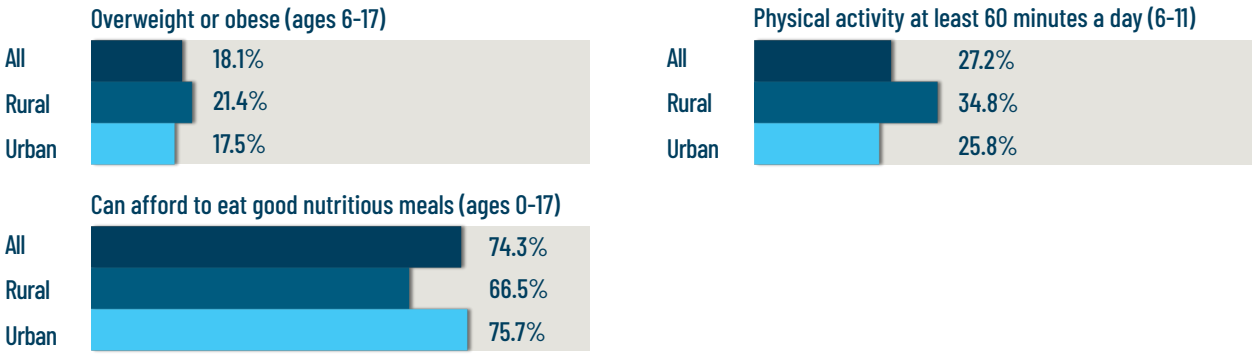
In 2023, 15.4% of households in nonmetropolitan areas experienced food insecurity, compared to 14.7% of households in 2022.[67] However, rates of food insecurity vary considerably within urban and rural areas. For example, in America's rural regions, the largest Tribal Reservation, the Navajo Nation, reports an estimated 76.7% of households are food insecure.[68] Within low-income communities in urban centers, there are high rates of food insecurity, such as North

Philadelphia where 36.9% of households are food insecure.[69] A larger proportion of rural children skipped or cut meals due to money issues than urban children (9.4% vs. 8.5%, 22-23, Survey Income and Program Participation (SIPP)). However, rural residents are less likely to receive Supplemental Nutrition Assistance Program (SNAP) benefits than urban residents (12.2% vs. 20.4%, 22-23, SIPP). This indicates a likely coverage gap that is most pronounced among rural households who may need but not receive food assistance.

Aligned with research presented in the UNICEF Report Card 19, overweight and obesity trends among children in the U.S. highlight the importance of healthy food.[70] However, children in food deserts are less likely to be able to access and afford healthy, nutritious food. This highlights the importance of emphasizing nutrition to combat the growing childhood obesity epidemic in the U.S. Although exercise and physical activity are undoubtedly important for the overall health and well-being of children, emphasis on physical activity alone as a solution to the pediatric obesity epidemic in the U.S. is likely misguided.

Successful initiatives to combat childhood obesity have been integrated into schools to reach the maximum number of children. Initiatives that focus on access to healthy food in the community, nutrition education for the whole family, fitness and cooking classes and using schools to distribute healthy food to families have shown to reduce pediatric overweight and obesity by 12.2% in just two years.[71]

## MEASURES OF OVERWEIGHT/OBESITY, AFFORDABILITY OF NUTRITIOUS FOODS, AND PHYSICAL ACTIVITY AT LEAST 60 MINUTES A DAY, AMONG CHILDREN.




Source: National Survey of Children's Health, 2021-2022 Cohort

The U.S. has not yet reached the Healthy People 2030 goal of 18.4 deaths per 100,000 children, with 2021 data demonstrating an overall mortality rate for 19.3 per 100,000 for urban children and 27.6 per 100,000 for rural children. Data from 2018-2021 demonstrates that overall child mortality is on the rise. Since 2017, the U.S. has become an outlier among peer countries as the only country where child mortality is increasing. Causes of child mortality in the U.S. change as children grow older. In early life, child health and well-being are very closely linked to maternal health. In the first year of life, the leading causes of death for infants includes birth defects, preterm birth, low birthweight and sudden infant death syndrome.

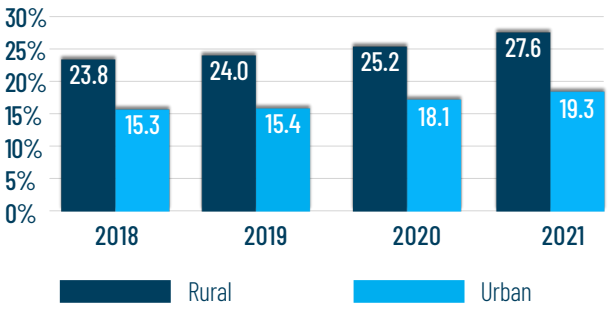
Although the causes of many of these tragedies are unique and at times, not well understood, existing research points toward the value of prenatal and postnatal care and education to prevent infant deaths.[72]

As children age, research has demonstrated that motor vehicle crashes were previously the main cause of death, with rates of motor vehicle deaths significantly higher for rural children than urban or suburban children.[73] However, in 2020 firearms became the leading cause of death in children aged 1-19, with number of firearm deaths among children being driven by high rates of homicides in urban areas rather than suicides.[74] In urban areas of the U.S., pediatric firearm homicides rates are significantly higher than rural areas, whereas rural areas tend to have significantly higher pediatric firearm suicide rates.[75] Overall, urban-rural trends in pediatric firearm deaths may not fully capture those nuances of homicides vs. suicides, and the unique solutions to each problem. Given the severity of rates of pediatric firearms deaths in the U.S., tailored solutions for each community may be beneficial to address the issue rapidly and effectively.

It is important to note that the U.S. stands out among peer countries in the high levels of access to firearms. When considering suicide as a metric of mental health, access to the lethal means to commit suicide must be considered, thus suicide rates alone should not be conflated with rates of poor mental health. When access to firearms is high, youth experiencing suicidal thoughts are more likely to have access to lethal means to commit suicide. Suicidal ideation and attempts are extremely hard to quantify at the population level, yet, suicide completions are higher when gun access is higher, which is common in rural areas. Thus, promoting suicide gun safety toolkits is paramount to protecting children who may be experiencing an acute mental health crisis.[76]

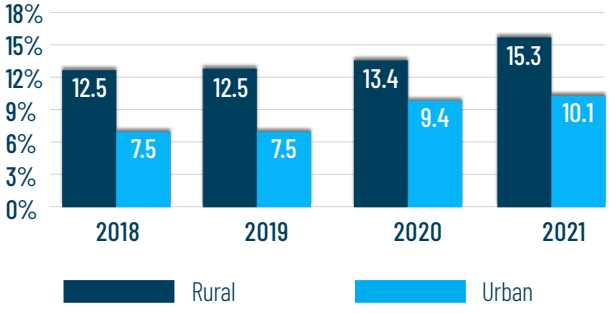
## OVERALL MORTALITY

per 100,000 Children and Adolescents Ages 0-19,
By Rurality of County of Residence, 2018-2021



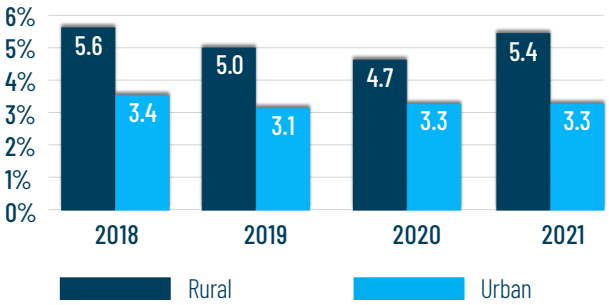

## FIREARM & MOTOR VEHICLE MORTALITY

per 100,000 Children and Adolescents Ages 0-19,
By Rurality of County of Residence, 2018-2021



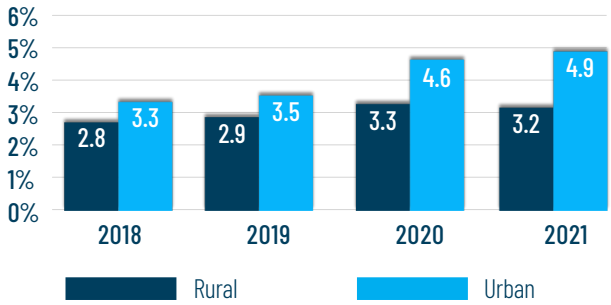
## SUICIDE MORTALITY

per 100,000 Children and Adolescents Ages 0-19,
By Rurality of County of Residence, 2018-2021




## HOMICIDE

per 100,000 Children and Adolescents Ages 0-19,
By Rurality of County of Residence, 2018-2021



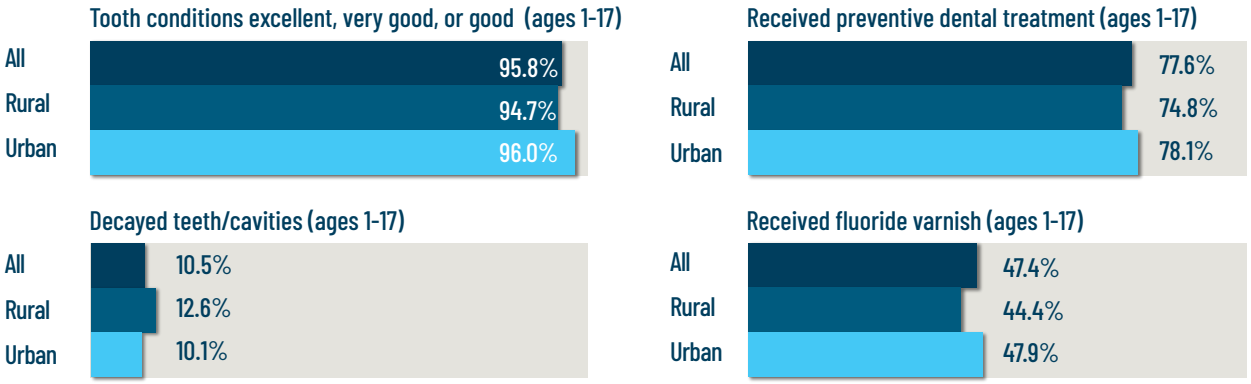

Source: Data from Centers for Disease Control and Prevention, 2018-2021

# ORAL HEALTH

Oral health is influential for the quality of overall health, cardiovascular health and maintenance of chronic conditions, such as diabetes.[77] Unfortunately, nuanced data on access to oral healthcare in communities across the U.S. is limited and often only divided in broad urban and rural categories. In both rural and urban areas, providers are less willing to treat Medicaid patients, as lower reimbursement rates from Medicaid or CHIP leave many providers unwilling to accept children with Medicaid as their primary insurance.[78] In recent years, this has resulted in the integration of oral health into primary care, with pediatricians or family medicine providers integrating oral health services, such as fluoride varnish and dental sealant, into primary care for children.[79]

Oral healthcare infrastructure, critical for timely receipt of both preventive and restorative dental care, is not equitably distributed in the U.S., with large swathes of the country, particularly residents in rural and high poverty communities, residing in dental health professional shortage areas (HPSA).[80] Rural communities, beyond experiencing higher rates of dental HPSAs than urban communities, also lack transportation to get to a provider, with a larger distance to travel to care, and higher rates of poverty which may result in difficulty finding a provider to treat, even when a provider is located.[81]

## MEASURES OF TEETH CONDITION, TOOTH DECAY, RECEIPT OF PREVENTIVE DENTAL TREATMENT, AND FLUORIDE VARNISH AMONG CHILDREN




Source: National Survey of Children's Health, 2021-2022 Cohort

# POLICY RECOMMENDATIONS

## THE WHOLE CHILD APPROACH TO EDUCATION TO IMPROVE HEALTH AND ACADEMIC OUTCOMES

Integrating child health, including oral health, behavioral health and physical health, into schools is one way to improve health and academic outcomes. For all schools, urban and rural, investing in supportive services within schools is an essential component of providing for the health and education of children. The demonstrated impacts of programs like the Harlem Children's Zone show the dramatic improvements that can be made when education encompasses the whole child. Rates of school drop-out exemplify the value of supporting the whole child, as children who have dropped out cite overlapping stressors outside of school, such as pregnancy or teen childbirth (42.2% of students that have dropped out), the need to support family (20% of students that have dropped out) and/or employment (49.5% of students that have dropped out).[82]

Aligned with the Centers for Disease Control and Prevention Whole School, Whole Community, Whole Child (WSCC) framework, incorporating support for physical health, mental health and academic success in schools provides children and families with the essential tools to succeed in school. Models for the WSCC framework within schools already exist and have shown impact in urban, rural, inner-city, Tribal and other regions across the U.S. through programs such as the Head Start preschool program, the Harlem Children's Zone and the Promise Neighborhoods Initiative. Importantly, the WSCC model of education should begin in early childhood. Early investments in children provide long term returns in the life of the child and for the broader community.[83]

Integrating physical healthcare and health education into schools provides an avenue to address the pediatric obesity epidemic in the U.S. through prevention. Research-based recommendations by multiple health and nutrition associations in the U.S. emphasize the importance of comprehensive health and nutrition education in schools to address preventable health conditions in children, such as pediatric obesity.[84] Currently, an estimated 90% of U.S. schools provide some level of nutrition education in schools,[85] but many fall short of the recommended holistic approach including nutrition education and promotion, food and nutrition programming on school campuses, school-home-community partnerships to promote healthy nutrition outside of schools and nutrition-related health services in schools. Furthermore, programs like Head Start have incorporated free healthcare screenings into schools. By providing free preventive healthcare screening in schools, children can access

essential healthcare without barriers. Programs like Head Start also demonstrate how to operate a whole child model of education in a cost-effective way. Although costs vary from state to state, Head Start generally budgets roughly $13,249 per student per year whereas the national average budget of kindergarten through 12th grade education in the U.S. is roughly $17,277 per student per year.[86] Although a simple one-to-one comparison in cost between Head Start and K-12 public education cannot be made as these systems differ significantly, it is worth noting that whole child education need not be conflated with an inefficient use of public resources.

Beyond the health of children, providing adequate support for education in schools requires communities to address access to broadband for all families. Broadband access is essential to a 21st century education. Not only will children require technology skills to secure employment as they grow into adulthood, but studying, writing and researching requires broadband access. However, broadband access is often limited in many rural areas of the U.S., which became increasingly evident during the COVID-19 pandemic when many schools turned to online education.[87] Expanded broadband accessibility in rural areas has been a need identified for rural communities throughout the U.S.[88] Although rural children report lower rates of access to an internet enabled device for learning, the issue is also present in urban communities. When asked if children have access to an internet enabled device for learning at home, 80.0% of rural households said yes, whereas 90.1% of urban households said yes.[89] Although there is a disparity in broadband access nationally, if every child in the U.S. is to access the essential education and skills for the 21st century, every child must have access to broadband and online learning tools that meet children's linguistic, cultural and learning needs.

## INVESTING IN FAMILIES TO IMPROVE CHILD MENTAL HEALTH THROUGH PREVENTION

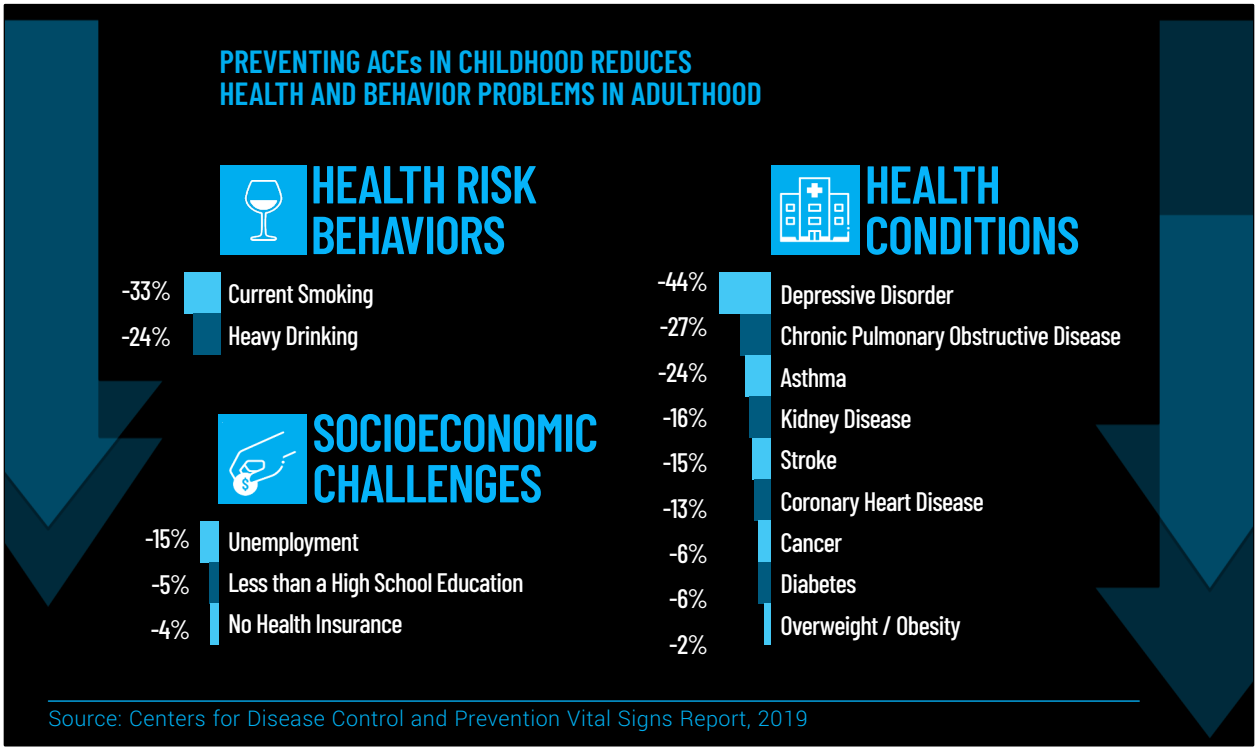
Improving the mental health of children is a salient and urgent need across the country. While improved access to care is a clear and obvious solution, aims to provide one-on-one mental health services to every child that struggles with their mental and emotional well-being may be unrealistic. Prevention through supporting healthy families may be a more attainable solution. Healthy families provide children with strong relationships with adult caregivers, promote positive parenting practices and reduce exposure to Adverse Childhood Experiences, which promotes healthy and resilient mental health in children.[90]

The well-being of caregivers and children are interconnected, with numerous models and frameworks identifying that parental stress results in poorer child outcomes.[91] Additionally, family parenting programs and efforts to improve parent and child interaction, such as the Federal Maternal Infant Early Childhood Home Visiting Program (MIECHV) and the Head Start program provide evidence that investing in caregiver mental health improves child mental health. Both the MIECHV program and Head Start are Federally funded two-generation approaches to improving child health and well-being through supporting both caregivers and children. These two-generation approaches to early childhood programing have demonstrated impacts toward decreasing risks to children's mental health including a 48% reduction in child abuse and maltreatment, improvements in child cognitive and behavioral health, improvements in children's school performance and increases in positive parenting practices which support child mental health.[92]

In addition to MIECHV and Head Start, the social safety net in the U.S. has a vast array of support programs for families aimed at reducing child poverty that vary in their requirements for eligibility, goals, application processes and implementation at the state level.[93] Poverty during childhood is highly connected to the risk of ACEs, with research demonstrating that reducing child poverty will reduce childhood exposure to an array of ACEs.[94] To reduce child poverty rates, there are four major economic support programs in the U.S. for children and families including the Supplemental Nutrition Assistance Program (SNAP), Earned Income Tax Credits (EITC) and the Child Care Development Fund.[95] More programs exist at the state and federal level including tax refunds, unemployment benefits, childcare programs and food supports.

These programs vary in their uptick among both rural and urban caregivers and their children. Many of these programs include extraordinary barriers to enrollment, resulting in extremely low utilization among eligible families. The variety of state and federal programming can be exceedingly difficult for families to navigate on their own and may be particularly difficult for low-income families, who often have lower education levels.[96] Even in the best of circumstances,

navigating the process of enrolling in social benefits is extraordinarily difficult and may require re-enrollment as often as monthly, creating unnecessary barriers to essential services. Standardizing and simplifying the enrollment process and providing longer periods between mandatory re-enrollment could improve utilization.




The Centers for Disease Control and Prevention highlight that investing in caregivers can lead to safe supportive relationships with children and decrease the risk of experiencing ACEs, which in turn, supports resilient, positive mental health for children.

Parental leave after the birth of a child provides one evidence-based avenue to reduce ACEs and increase PCEs among children and adolescents.[97] Parental leave in the U.S. has a very brief history, with the 1993 Family and Medical Leave Act (FMLA) which provides up to 12 weeks of unpaid, job protected leave per year to cover the birth or adoption of a child or the caregiving of an ill family member, but not all employees receive this leave.[98] UNICEF has previously called for a full six months as the minimum amount of time new parents should receive[99]. Improved access to paid parental leave provides caregivers and children with irreplaceable time to establish bonds that will carry throughout the life of the child and provide protective support when children experience adversity.

## STATE MEDICAID EXPANSION TO INCREASE PHYSICAL AND MENTAL HEALTH CARE

Medicaid and CHIP are publicly funded health insurance programs for low-income families in the U.S.[105] Currently, Medicaid and CHIP are the largest health insurance providers in the country, serving nearly 80 million Americans or 1 in 5 people in the country, among them, 37.6 million are children.[106] Enrollment in Medicaid is typically available to families making below the Federal Poverty Level, while enrollment in CHIP health insurance is typically available to anyone under age 19 with higher incomes based on state specific guidelines. Generally, state regulations for enrollment in CHIP health insurance allows for families between 170% and 400% of the Federal Poverty Level, providing wider coverage than Medicaid. Overall, Medicaid provides more comprehensive healthcare coverage than CHIP, however, CHIP provides healthcare coverage for families that fall outside the income guidelines for Medicaid. States can opt in to Medicaid Expansion which allows families up to 138% of the Federal Poverty Level to enroll in Medicaid.

As of November 2024, 41 states and the District of Columbia have adopted the Affordable Care Act's (ACA) Medicaid Expansion. Ten states have not yet expanded Medicaid, which has implications for their state's ability to keep healthcare facilities open and financially viable.[107] Many of these states are in the Southeast—including Tennessee, Mississippi, Alabama, Georgia, Florida, South Carolina and Texas. The states in the Southeast are also states with some of the highest rates of rural hospital closures.

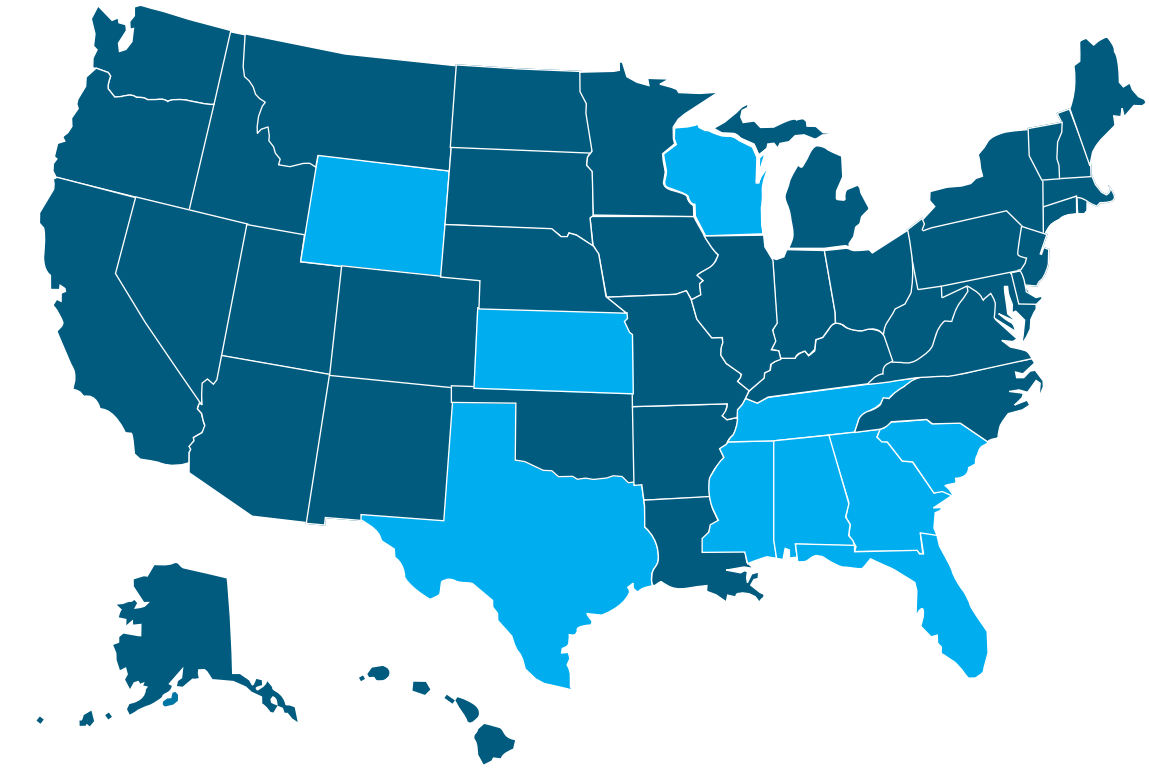
While Medicaid expansion improves access to medical care in both urban and rural communities, the underlying reasons differ. Medicaid expansion has been shown to impact the finances of rural healthcare providers quite differently than urban providers, with states who have expanded Medicaid seeing increases in Medicaid revenue among rural hospitals, while decrease in uncompensated care was larger among urban hospitals.[103] After Medicaid expansion, rural and urban residents have both been shown to have lower uninsured rates. However, while insurance coverage increased among rural residents, uptake of healthcare via doctors' visits only increased among urban residents.[104] This suggests that other factors are influencing care for rural residents, such as transportation, shortages in the healthcare workforce, and affordability, which have all been identified as barriers to care in rural areas.[105]

Medicaid reimbursement rates for medical providers present a challenge for providers in rural areas and providers in large low-income communities where many patients are using Medicaid. Medicaid reimbursement rates are generally lower than reimbursement rates from private insurers and from Medicare.[106] Low reimbursement rates from Medicaid make

operating a medical practice that serves predominantly low-income people financially challenging, if not impossible. Increasing reimbursement rates for Medicaid to match reimbursement rates for Medicare could improve access to medical providers in rural areas and areas with high concentrations of poverty such as the inner-city, potentially addressing provider shortages in strategic locations.

Provider shortages, as highlighted earlier in the report, are a major challenge in rural areas as well as in inner cities in the U.S.[107] Additionally, even if a provider is available, they may not take patients who are uninsured, underscoring the importance of expanding Medicaid. Various measures have been implemented in rural areas, including the expansion of primary healthcare nurse practitioners in rural communities, or expanded scope of practice for other midlevel providers.[108] Student loan repayment and forgiveness programs for healthcare providers in rural areas have brought providers to rural areas for 3-5 years, but turnover and lack of retention is often an issue.[109]

## STATUS OF STATE MEDICAID EXPANSION 2025




SOURCE: "Status of State Medicaid Expansion Decisions: Interactive Map," https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/

# CONCLUSION

Findings from this report illuminate that children and adolescents in the U.S. face high rates of pediatric obesity, poor mental, physical and oral health, and that these rates are not equitably distributed by geographic residential location across the country. The overall differences in health and health behaviors found between rural and urban children are stark, which is a story often told in academic literature and in the popular press. Yet, one of the key takeaways from this report is the granularity of subgroups within rural and within urban differences, which is often not discussed when examining health and health behavior data at the national level. This report found large variations within urban and within rural areas, demonstrating the need for targeted policies and programming that vary by place.

Furthermore, this report highlights the need to look at the granularity of location when funding federal and state policies, and notes that children residing in rural areas often face many of the same challenges as children residing in inner-city urban locations. For example, children residing in high poverty urban areas, such as the inner-city, and children residing in rural areas may both have limited access to mental health services or healthy food. Yet the reasons for the barriers to access may vary. A trained mental health provider may not exist anywhere near a rural adolescent due to healthcare professional shortage areas and long travel distances to access care. In an inner-city urban area, the mental health provider may be so overburdened by need that long wait times may make appointments not accessible.

Thus, the same outcomes of poor mental healthcare exist, but different policies are needed to reach the two groups. Due to the complex mix of federal and state funding, as well as the complicated web of federal, state and local policies and programs, a one-size solution is not the answer to fixing the geographic variations in child well-being and health. Therefore, the findings from this report demonstrates the need for a variety of policies and programs (highlighted in the section above) that invest in the whole family and whole child to improve mental and physical health, as well as education, for both children and their caregivers.
As demonstrated at the beginning of the report through Bronfenbrenner's ecological theory of human development, children live within families and their families exist within larger communities that largely factor into the opportunities and experiences that they are provided with as they grown into adolescence and adulthood.[110] The findings from this report elucidate how children may experience different challenges across varying communities and how policy solutions may help to mitigate, moderate or ameliorate these variations within child well-being.

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# ABOUT THE UNICEF USA REPORT CARD SUPPLEMENT

Each year, UNICEF's Innocenti - Global Office of Research and Foresight monitors, measures and compares progress toward securing the rights of children across high-income countries in the Innocenti Report Card Series. In keeping with UNICEF's universal mandate for children in every country, the Innocenti Report Card series focuses on the well-being of children in high-income countries. This UNICEF USA Supplement accompanies the UNICEF Innocenti UNICEF Report Card 19 and provides a detailed domestic examination of child well-being in the United States.

UNICEF USA's Supplemental report, An Ounce of Prevention: Addressing Disparities in Child Well-being was written by Elizabeth Crouch and Anne Day Leong

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