# 2018 County Health Rankings Key Findings Report



# Introduction

Imagine a place where everyone has a fair and just chance to lead the healthiest life possible – communities with high quality schools, good paying jobs, access to healthy foods and quality healthcare, and affordable housing in safe environments. Imagine a place where differences in race, culture, and perspectives are not only tolerated, but are celebrated as fundamental to health and well-being. Imagine that this is how we all experience our communities, regardless of where we live, who we are, or the circumstances we were born into. This is the vision of health equity.

The County Health Rankings show that where we live matters to health. This year, we bring new analyses that show meaningful health gaps persist not only by place, but also among racial and ethnic groups. These gaps are the result of differences in opportunities in the places where we live. But these differences don't affect all places equally. Structural and institutional barriers to health, such as unfair bank lending practices and property tax-based school funding formulas, contribute to the types of racial disparities illustrated in this report.

# **Summary of Findings**

- After nearly a decade of improvement, there are early signs
  that the percentage of babies born at low birthweight may
  be on the rise (8.2% in 2016, a 2% increase from 2014). Low
  birthweight is a key measure of health and quality of life.
  Across the U.S., there are trouble spots where babies are
  much more likely to be born with low birthweight. In all 50
  states, the percentage of low birthweight babies born to Black
  women is worse than for mothers in the bottom performing
  counties within the state.
- Some places and groups of people have fewer social and economic opportunities, which also limit their ability to be healthy. Nearly 1 out of every 5 youth in the bottom performing counties do not graduate from high school in four years. For American Indian/Alaskan Native, Black, or Hispanic youth, it is 1 out of 4. In 2016, the unemployment rate for adults in the bottom performing counties was 7.5 percent, more than twice that of adults in the top performing counties (3.2 percent). American Indian/Alaskan Native and Black adults experienced the highest unemployment rates (10.5 and 9.9 percent, respectively), while Whites and Asians experienced lower rates of unemployment (4.2 and 3.5 percent, respectively).
- Residential segregation provides a clear example of the link between race and place. For example, in urban or smaller metro counties, Black residents face greater barriers to health and opportunity and are more affected by levels of segregation than White residents. Black children, youth, and adults in segregated counties have higher rates of child poverty, low birthweight, and infant mortality, and lower high school graduation rates and median household incomes than do White residents. Compared to White babies, Black babies are twice as likely to be born with low birthweight and about twice as likely to die before their first birthday.

- Rates of children in poverty remain at levels higher than
  those of the pre-recession era despite declines in those
  rates in recent years. Patterns of recovery vary by both race
  and place. Child poverty rates have been slow to rebound
  in rural counties and in those with a greater share of people
  of color. This is important because we also know that a
  healthy beginning is essential to a healthy future for our
  nation's children.
- Teen birth rates have been declining across community types and racial groups for more than a decade. Hispanic youth have seen the most improvement with rates falling from 77.7 to 31.9 per 1,000 females, ages 15-19. Black and American Indian/Alaskan Native youth have also seen notable improvements. Yet gaps by place and race persist. For example, youth in rural counties have seen the least improvement and continue to have the highest teen birth rates, nearly 1.5 times the rate of youth in suburban counties. American Indian/Alaskan Native, Hispanic, and Black youth have teen birth rates twice as high as White or Asian youth.

#### A Call to Action

This report is a call to action for leaders and community changemakers to take these national findings, dig into local data to better understand the health of their own community, and implement strategies to address both place and racial gaps to create communities where everyone has a fair and just chance to lead the healthiest life possible. Throughout the report you will find references to specific local data resources, evidence informed strategies, and examples of other communities that are working to close the gaps in opportunity.

Supporting materials (such as detailed data tables) are available at countyhealthrankings.org/reports.

# About the County Health Rankings & Roadmaps

By ranking the health of nearly every county in the nation, County Health Rankings & Roadmaps (CHR&R) illustrates what we know when it comes to what is keeping people healthy or making them sick, and shows what we can do to create healthier places to live, learn, work, and play. CHR&R brings actionable data, evidence, guidance, and stories to communities to make it easier for people to be healthy in their neighborhoods, schools, and workplaces. The Robert Wood Johnson Foundation collaborates with the University of Wisconsin Population Health Institute to bring this program to communities across the nation.

#### Rankings

The Rankings are based on a model of population health (see right) that emphasizes the many factors that, if improved, can help make communities healthier. We report these ranks at countyhealthrankings.org, along with all the underlying measures and additional data for this year and prior years.

We compile the Rankings using county-level measures from a variety of national data sources, which can be found on page 14. These measures are standardized and combined using scientific weights. We then rank counties within each state, providing two overall ranks that address two key questions

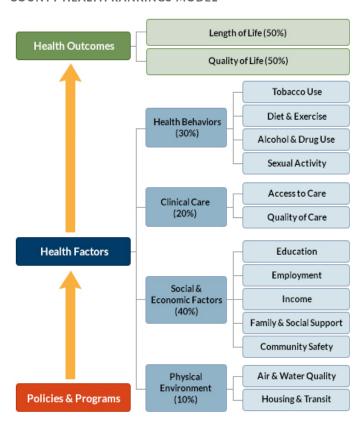
- 1. Health outcomes: how healthy are residents in a county now?
- **Health factors:** what are the opportunities for residents to be healthy in the future?

The ranks call attention to the wide gaps among counties within states in what matters for health. These gaps represent disparities in health outcomes and inequities in opportunities to live long and well.

#### What Works for Health

When it comes to developing and implementing solutions to problems that affect communities, evidence matters. What Works for Health (countyhealthrankings.org/whatworks) is an easy-to-use, online tool that summarizes evidence for policies, programs, and systems changes that can make a difference locally.

#### **COUNTY HEALTH RANKINGS MODEL**



#### **Action Center & Community Guidance**

We provide guidance to communities as they move with data to action to improve health outcomes. Our online Action Center (countyhealthrankings.org/action-center) offers steps for communities to move forward by working together to engage diverse partner organizations and community members, assess needs and resources, and act on what is important to create positive change that has a lasting impact. Our team of community coaches are available to communities across the nation, and can help guide local collaborations and individuals to accelerate learning and action.

# The Intersection of Place, Race, and Health

The County Health Rankings show that meaningful gaps persist in health outcomes between counties across the U.S. in large part because of differences in opportunities for health. As the model on page 3 illustrates, gaps in health outcomes result from differences in the factors that affect our health. Unemployment, lower high school graduation rates, and fewer transportation options make it harder to be healthy.

These gaps in opportunity disproportionately affect people of color—especially children and youth—and lead to less healthy communities that are less likely to be economically stable now and for future generations. Deep-rooted and unfair systems, policies, and practices have created these barriers to opportunity and good health in many communities across our nation. As a result, there is a clear connection between place, race<sup>1</sup>, and health.

To explore the intersection of place, race, and health in more detail, we show one of the measures that contributes to health outcomes - low birthweight.

# Low Birthweight

Birthweight is an important indicator of a healthy start to life and is also a reflection of maternal quality of life. For many years across the U.S., disparities by place and race for low birthweight babies have persisted. Numerous barriers often stand between pregnant women and children and the clinical care and social and economic opportunities they need. Failure to close these gaps in poor birth outcomes has lifelong implications for the health and well-being of children, families, and the nation.

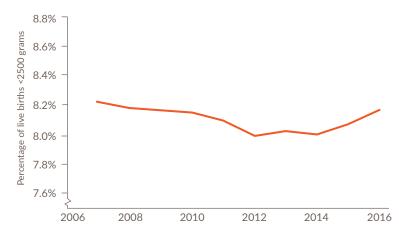
## **Key Findings**

- Recent data suggest that after nearly a decade of improvement, the percentage of babies born at low birthweight may be worsening (8.2% in 2016, a 2% increase from 2014).
- Across the U.S., there are trouble spots where babies are much more likely to be born with low birthweight. The percentage of low birthweight babies has been highest for babies born to women in the Southeastern, Mississippi Delta, and Appalachian regions.

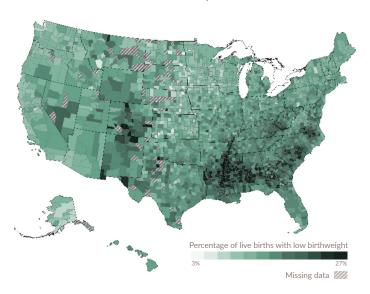
#### **Health Outcomes:**

We measure two types of health outcomes: length and quality of life. For length of life, we measure premature deaths (Years of Potential Life Lost before age 75). Quality of life is based on measures of reported health-related quality of life (overall health, physical health, and mental health) and birth outcomes (in this case, low birthweight babies). Low birthweight babies are infants who weigh less than less than 2,500 grams. To learn more about what we rank and why, visit Explore Health Rankings at countyhealthrankings.org. To find your local data, type your county name into the search box.

#### TRENDS IN LOW BIRTHWEIGHT, 2006-2016



#### PERCENTAGE LOW BIRTHWEIGHT, 2010-2016



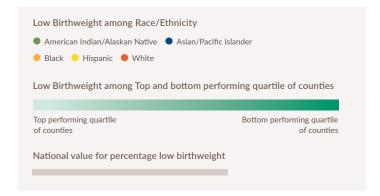
In this report, we use "race" or "racial" to refer to both racial and ethnic categories.
 See Page 13 for detailed definitions of race/ethnicity.

# Pattern of Disparity in Low Birthweight

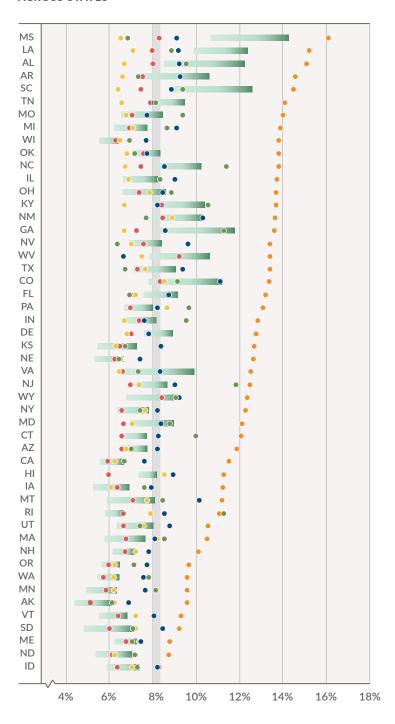
This graphic compares the percentage of low birthweight babies within the 50 states by place and by race. The green bars for each state represent the range of low birthweight values between the top and bottom performing quartile of counties and the multi-colored dots are the low birthweight values for each race.

#### **Key Findings**

- The gap between top and bottom performing counties (the green bars) in the percentage of low birthweight babies is smallest in Hawaii (7.5% to 8.2%) and largest in Alabama (8.8% to 11.8%).
- The gap among racial groups in the percentage of low birthweight babies is even wider than between counties. This is seen in the size of the space between the dots on the chart. The racial gap is smallest in Idaho (6.4% to 8.3%) and largest in Mississippi (6.6% to 16.1%).
- In all 50 states, the percentage of low birthweight babies born to Black mothers (the orange dots) is worse than in the bottom performing counties (green bars) in their state. However, the experience of Black mothers and children is not the same across states. For example, the percentage of Black babies born of low birthweight is better in several states than the overall percentage of low birthweight babies in the top performing counties in other states.



#### PATTERN OF LOW BIRTHWEIGHT BY RACE AND PLACE ACROSS STATES



#### **Call To Action**

Explore how these national and state trends are playing out in your community. Find your county snapshot (enter your county in the search box at countyhealthrankings.org) and review your Health Outcome data. Check with your local health department, hospital, or county government for data on low birthweight babies, including data by race. Work with others to focus on strategies that increase opportunities for moms and babies to be healthy, such as safe neighborhoods, quality housing, good education, good paying jobs, and access to quality health care.

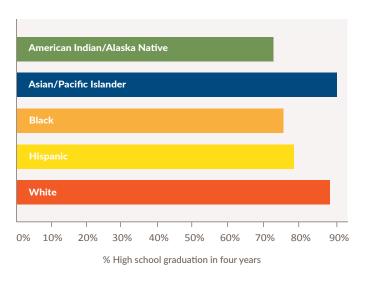
# Bridging the Social and Economic Divide

State by state, there are meaningful differences by place and race in social and economic factors, like community connections and supports, schools, jobs, and safe neighborhoods that are foundational to achieving long and healthy lives. These factors are also interconnected with many other important drivers of health, such as the ability to access clinical care, transportation, or housing.

Better-educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. This is true even when factors like income are taken into account. Employment provides income and, often, benefits that can support healthy lifestyle choices. Unemployment and under employment limit these choices, and negatively affect both quality of life and health overall. The economic condition of a community and an individual's level of educational attainment both play important roles in shaping employment opportunities.

Across the U.S., people who live in the bottom performing counties face higher rates of unemployment, lower rates of high school graduation, and lower median household incomes than people in the top performing counties. American Indian/Alaskan Native, Black, and Hispanic people typically face similar, if not greater gaps, in social and economic opportunities.

HIGH SCHOOL GRADUATION BY RACIAL/ETHNIC GROUPS. 2014-15

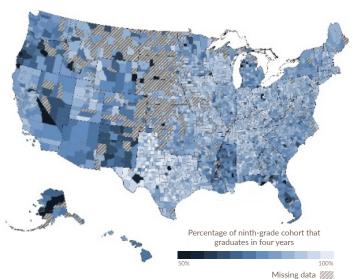


Social and economic factors are strong drivers of how long and how well we live. We measure education, employment, income, family and social support, and community safety. To learn more about what we rank and why, visit countyhealthrankings.org. To find your local data, type your county name into the search box. Of note, data by race is available for children in poverty and median household income.

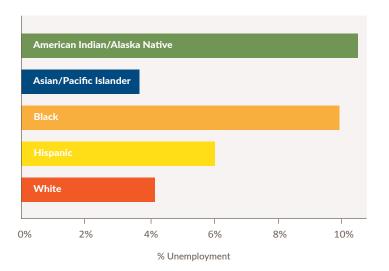
## **Key Findings**

- Significant disparities exist in social and economic opportunities among counties. Nearly 1 out of every 5 youth in the bottom performing counties do not graduate from high school in four years. In 2016, the unemployment rate for adults in the bottom performing counties is 7.5 percent, more than twice that of adults in the top performing counties (3.2 In percent).
- High school graduation and unemployment rates are worse among counties in the Southeast, Southwest, Appalachian, and Mississippi Delta regions.
- Gaps are even more pronounced for people of color. For American Indian/Alaskan Native, Black, or Hispanic youth, 1 out of 4 do not graduate from high school in four years. In 2016, American Indian/Alaskan Native and Black adults experienced the highest unemployment rates (10.5 and 9.9 percent, respectively), while Whites and Asians experienced lower rates of unemployment (4.2 and 3.5) percent, respectively).

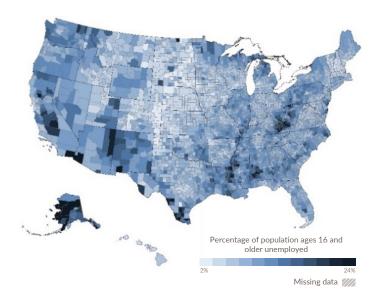
HIGH SCHOOL GRADUATION AMONG U.S. COUNTIES, 2014-15



#### **UNEMPLOYMENT BY RACIAL GROUPS, 2016**



#### **UNEMPLOYMENT AMONG US COUNTIES. 2016**



TAKING ACTION

# San Pablo is Systematically Striving for Better Economic Equality

San Pablo, CA is a kaleidoscope of people. Residents of Latino descent make up 57 percent of the population. Two out of three residents speak a language other than English at home and 45 percent were born outside the U.S. Having weathered tough times during the recession, residents in this small, working-class city in the San Francisco Bay Area understand the connection between economic well-being and health. Local leaders have made removing barriers to employment and fostering entrepreneurship two of the city's top priorities—with a focus on ensuring these opportunities are available to everyone. A new Economic Development Corporation, supported and partially funded by the city, is offering services like job skills training and affordable childcare. The City has developed key community assets, such as a new community center and a youth sports park through the use of New Market Tax Credits. San Pablo has also invested in a community schools model and youth leadership development with an eye toward the future, and continues to experience a downward trend in juvenile arrests. In 2011, San Pablo had 139 juvenile arrests, and in 2015, it dropped to 67. Overall, the City has experienced an 80 percent reduction in homicides from 2014 to 2015. Learn more at rwif.org/prize.



More than 20 municipalities in the inner suburbs of St. Louis, MO – the 24:1 Community – came together with a collective vision that is broad and innovative: stronger communities, engaged families, and successful children. Mayors meet regularly to share best practices. Police chiefs work together to reach the highest standards of policing. Schools are linked with businesses, nonprofits, early childcare providers, and parents working to fully restore the accreditation its school district lost in 2012. With a total population that's 80 percent Black, communities across the 24:1 region are fostering economic opportunity and advancing health equity simultaneously. For instance, in one municipality, there is now a grocery store in a food desert, a new cinema, a Wealth Accumulation Center that demystifies banking and finance, and other supports for residents. There are early signs of success with increased stability for 98 percent of Beyond Housing families with school-aged children and significant decreases in infant mortality in key zip codes. Learn more at rwif.org/prize.

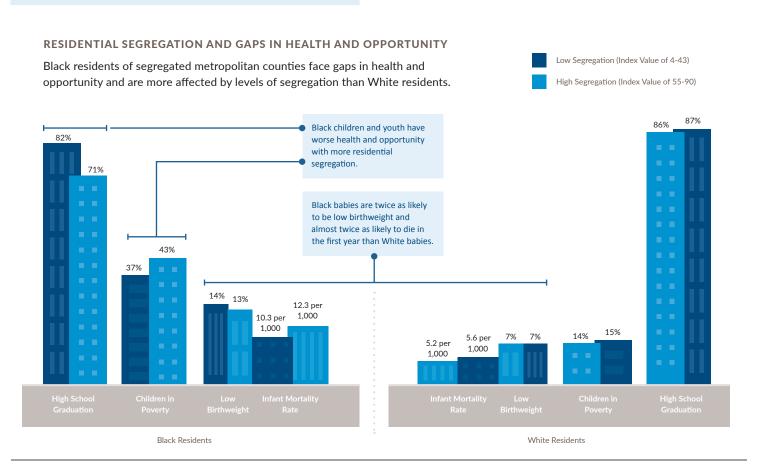
# **Residential Segregation**

Decades of research on residential segregation illustrate the connection between place, race, and health. The U.S. has a long history of policies and practices that limited the opportunities of people of color in choosing where to live. Communities largely populated by people of color are often cut off from investments that promote good schools or jobs that pay a living wage, affordable housing, and access to clinical care or healthy foods. Poor health exists in places segregated from opportunity. Residential segregation of Blacks and Whites is considered to be a fundamental cause of health disparities in the U.S.

Residential segregation is measured using the index of dissimilarity where higher values indicate greater residential segregation between Black and White county residents. The residential segregation index ranges from 0 (complete integration) to 100 (complete segregation). In this analysis, we measure residential segregation within smaller metro and large urban counties. To learn more about our measure of residential segregation, visit countyhealthrankings.org/segregation and find your county's residential segregation data in the Additional Measures section of your county snapshot.

## **Key Findings**

- In smaller metro or large urban counties, Black residents face greater barriers to health and opportunity than White residents. Black children, youth, and adults in segregated counties have higher rates of child poverty, low birthweight, and infant mortality, and lower high school graduation rates and median household incomes than White residents.
- · Black residents are more affected by levels of segregation than White residents. For example, Black children and youth in more segregated counties fare worse in rates of child poverty and high school graduation than those in less segregated counties.
- Data suggest that patterns of segregation and limited opportunity for health also hold true for other racial groups. For example, in more segregated smaller metro and large urban counties, rates of child poverty are higher for Black, American Indian/Alaskan Native, Hispanic, and Asian children but not for White children.



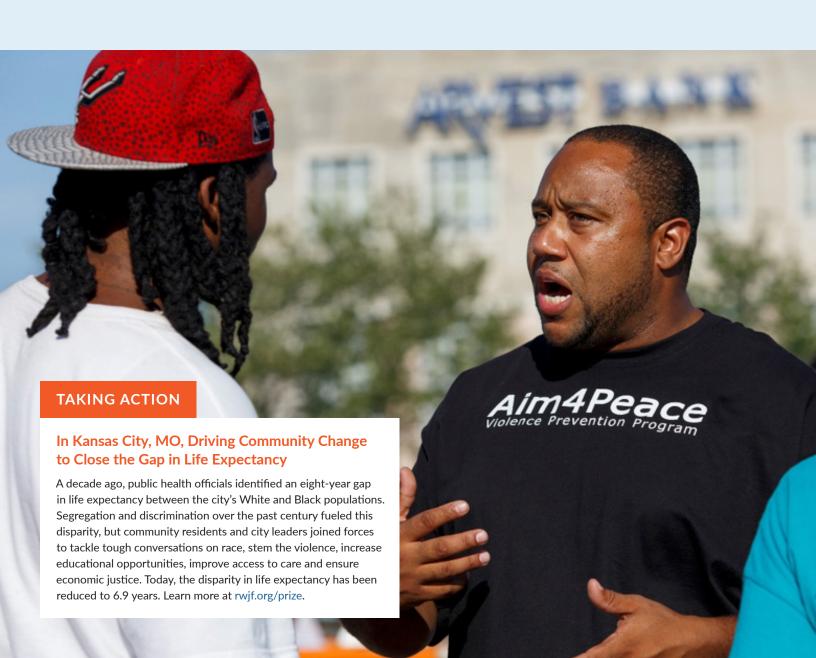
## A CALL TO ACTION

#### **Addressing Neighborhood Opportunity**

A range of policies, programs, and systems changes are needed to ensure opportunities for good health exist in all neighborhoods. There is an array of evidence informed approaches shown to ease the negative health impacts of residential segregation and promote inclusive and connected environments. These include:

- Ensure access to safe and affordable housing in mixedincome neighborhoods through inclusionary zoning, taxes to advance affordable housing development, and vouchers for low-income households.
- Support community development and revitalization in ways that avoid displacement of neighborhood residents through policymaking and incentives to increase economic opportunities such as jobs that pay a living wage, public transportation systems, and integrated public services.
- Build social connectedness, cultivate empowered communities, and promote civic engagement by addressing barriers to participation in policymaking, information sharing, and collaboration in neighborhoods, schools, and workplaces.

For information on these and other specific strategies that have been proven to work, visit What Works for Health at countyhealthrankings.org/whatworks.



# Investing in Children and Youth for Our Nation's Future

# **Children in Poverty**

Poverty limits opportunities and increases the chances of poor health. Children living in poverty are less likely to have access to well-resourced and quality schools, and have fewer chances to prepare for living wage jobs leading to upward economic mobility and good health. Children in poverty is an upstream measure that assess both current and future health risk.

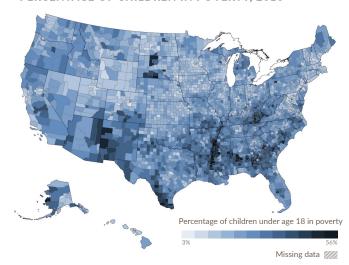
Recent data on poverty show that rates among children and youth are at least 1.5 times higher than rates among adults aged 18 and older - and the rates are even higher for Black, American Indian/Alaskan Native, and Hispanic children and youth.

Available data show that for the majority of U.S. counties, child poverty rates for American Indian/Alaskan Native, Black, or Hispanic children are higher than rates for White children, and these rates are often twice as high. This is an urgent problem because the fastest growing population is children and youth of color. A healthy beginning is essential to a healthy future for our children and our nation.

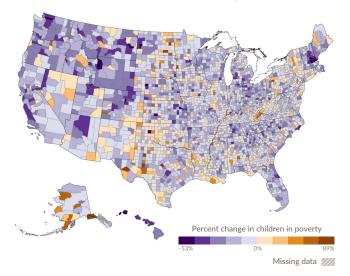
#### **Key Findings**

- Child poverty rates are highest in counties in the Southwest and Southeast regions, as well as parts of Appalachia, the Mississippi Delta, and the Plains.
- Rural counties continue to have the highest child poverty rates (23.2%), followed by large urban metro (21.2%), smaller metro (20.5%), and suburban counties (14.5%).
- In the wake of the Great Recession, rates of children in poverty stayed high through 2012 and, despite declines in recent years, remain higher than the pre-recession era. As seen in the map, patterns of recovery vary by place and by race. Child poverty rates have not bounced back in rural counties or those with a greater share of people of color.
- · Racial disparities in child poverty persist. Black and Hispanic children fare worse in child poverty across all types of counties than White children. Even in suburban counties (the best performing county type overall), Black and Hispanic children fare worse than White children in rural counties (the worst performing county type overall).

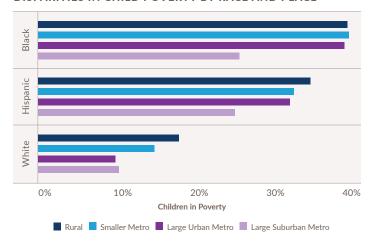
#### PERCENTAGE OF CHILDREN IN POVERTY, 2016



#### PERCENT CHANGE IN CHILD POVERTY, 2012 TO 2016



#### **DISPARITIES IN CHILD POVERTY BY RACE AND PLACE**



#### **Teen Births**

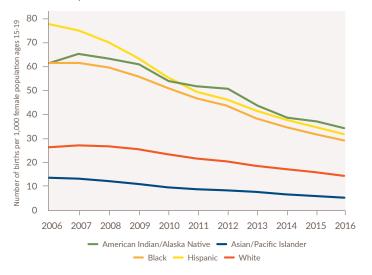
There are strong ties between poverty and giving birth in teen years. Teenage motherhood is more likely to occur in communities with fewer opportunities for education or jobs. Teen mothers are less likely to complete high school and face challenges to upward economic mobility. In turn, their children often have fewer social and economic supports and fare worse in educational achievement and health outcomes, continuing the cycle of disadvantage.

Breaking this cycle requires policies and programs to address gaps in opportunity for youth. Communities with safe and affordable housing in neighborhoods where jobs, good schools, and quality clinical care are accessible also happen to be those with lower teen birth rates and children in poverty.

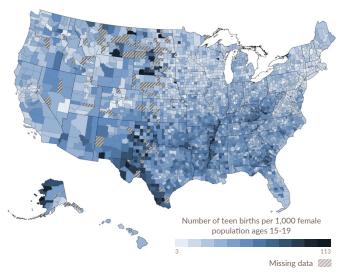
## **Key Findings**

- Teen birth rates have been declining across community types and racial groups for more than a decade. Racial gaps have narrowed. Hispanic youth have seen the most improvement with rates falling from 77.7 to 31.9 births per 1,000 females, ages 15-19. Black and American Indian/Alaskan Native youth have also seen notable improvements.
- Teen birth rates are highest among counties in the Southwest and Southeast, as well as parts of Appalachia, the Mississippi Delta, and the Plains regions. These areas have seen little change over the last decade, while the East and West coasts have seen improvements.
- Youth in rural counties have the highest teen birth rates (35.9 per 1,000 females, ages 15-19), and have also seen the least improvement. Teen birth rates in rural counties are nearly 1.5 times the rate of youth in suburban counties (18.5 per 1,000).
- American Indian/Alaskan Native (34.3 per 1,000), Hispanic (31.9 per 1,000), and Black (28.1 per 1,000) youth consistently have higher rates of teen births, twice as high as White or Asian youth.

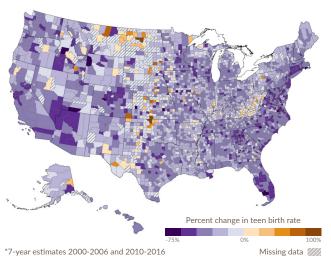
#### TRENDS IN TEEN BIRTH RATES AMONG RACIAL/ETHNIC GROUPS, 2010-2016

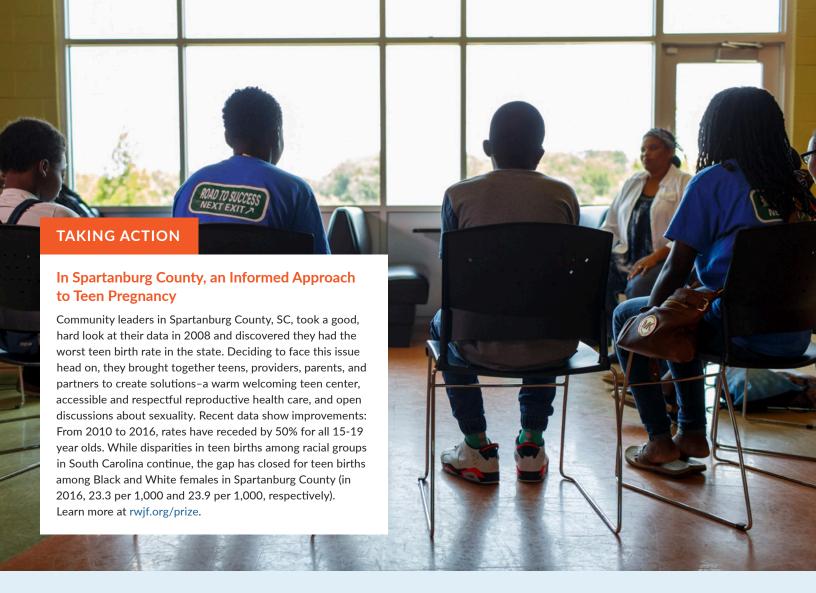


#### **TEEN BIRTH RATE, 2010-2016**



#### PERCENT CHANGE IN TEEN BIRTH RATE OVER A DECADE\*





## A CALL TO ACTION

#### Solutions for Healthier Children and Youth

Communities can take action to help children and youth in all communities gain a foothold on the economic ladder and prepare them to become our future leaders, including:

- Invest in education from early childhood through adulthood, such as universal pre-kindergarten or career and technical education academies, to boost employment and career prospects.
- Increase or supplement income and support asset development in low-income households through expanded earned income tax credits, paid leave, or unemployment insurance.
- Ensure that everyone has adequate, affordable health care coverage and receives culturally competent services and care by integrating social and behavioral services, increasing accessibility through community health workers and school-based health centers, and training health care professionals on cultural diversity.
- Foster social connections within communities, and cultivate empowered and civically engaged youth through leadership development and peer mentoring.

To learn more about these and other evidence informed strategies that can make a difference, visit What Works for Health at countyhealthrankings.org/ whatworks.

# **Technical Notes and Glossary of Terms**

## What is health equity? What are health disparities? And how do they relate?

Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty and discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.

**Health disparities** are differences in health or in the key determinants of health, such as education, safe housing, and discrimination, which adversely affect marginalized or excluded groups.

Health equity and health disparities are closely related to each other. Health equity is the ethical and human rights principle or value that motivates us to eliminate health disparities. Reducing and ultimately eliminating disparities in health and its determinants of health is how we measure progress toward achieving health equity.

Braveman P, Arkin E, Orleans T, Proctor D, and Plough A. What is Health Equity? And What Difference Does a Definition Make? Robert Wood Johnson Foundation. May 2017

Note: In this report, we use the terms disparities, differences, and gaps interchangeably.

#### How did we select evidence informed approaches?

Evidence informed approaches included in this report represent those backed by strategies that have demonstrated consistently favorable results in robust studies or reflect recommendations by experts based on early research. To learn more about evidence analysis methods and evidence informed strategies that can improve health and decrease disparities, visit What Works for Health: countyhealthrankings.org/whatworks.

Technical notes: We follow the basic design principles for cartography in displaying color spectrums with less intensity for lower values and increasing color intensity for higher values. We do not intend to elicit implicit biases that "darker is bad."

We define level of urbanization as: rural (non-metropolitan counties with less than 50,000 people); smaller metro (counties within a metropolitan statistical area (MSA) with between 50,000 and one million people); large suburban metro (non-central fringe counties within an MSA with more than one million people); large urban metro (central urban core counties within an MSA with more than one million people).

#### How do we define racial/ethnic groups?

We recognize that "race" or "ethnicity" are social categories, meaning the way society may identify individuals based on their cultural ancestry, not a way of characterizing individuals based on biology or genetics. A strong and growing body of empirical research provides support for the notion that genetic factors are not responsible for racial differences in health factors and very rarely for health outcomes.

In our analyses by race/ethnicity we define each category as follows:

- Hispanic includes those who identify themselves as Mexican, Puerto Rican, Cuban, Central or South American, other Hispanic, or Hispanic of unknown origin.
- White includes people who identify themselves as White and do not identify as Hispanic.
- Black includes people who identify themselves as Black or African American and do not identify as Hispanic.
- American Indian includes people who identify themselves as American Indian or Alaskan Native and do not identify as Hispanic.
- Asian includes people who identify themselves as Asian or Pacific Islander and do not identify as Hispanic.

All racial/ethnic categories are exclusive so that one person fits into only one category. Our analyses do not capture people reporting more than one race, as it was not measured uniformly across our data sources. In this report, we use "race" to refer to both racial and ethnic categories.

"People of color" is a term used to unify racial and ethnic groups in solidarity with one another and describes people who would generally not be identified as White. The term is meant to be inclusive among people usually categorized as "racial minorities," emphasizing common experiences of racism. Minority, which means "less than half of the larger group," is becoming less and less statistically true in many places.

# 2018 County Health Rankings: Ranked Measure Sources and Years of Data

	Measure	Source	Years of Data
Health Outcomes			
Length of Life	Premature death	National Center for Health Statistics - Mortality files	2013-2015
Quality of Life	Poor or fair health	Behavioral Risk Factor Surveillance System	2016
	Poor physical health days	Behavioral Risk Factor Surveillance System	2016
	Poor mental health days	Behavioral Risk Factor Surveillance System	2016
	Low birthweight	National Center for Health Statistics - Natality files	2010-2016
Health Factors			
Health Behaviors			
Tobacco Use	Adult smoking	Behavioral Risk Factor Surveillance System	2016
Diet and Exercise	Adult obesity	CDC Diabetes Interactive Atlas	2014
	Food environment index	USDA Food Environment Atlas, Map the Meal Gap	2015
	Physical inactivity	CDC Diabetes Interactive Atlas	2014
	Access to exercise opportunities	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files	2010 & 2016
Alcohol and Drug Use	Excessive drinking	Behavioral Risk Factor Surveillance System	2016
	Alcohol-impaired driving deaths	Fatality Analysis Reporting System	2012-2016
Sexual Activity	Sexually transmitted infections	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2015
	Teen births	National Center for Health Statistics - Natality files	2010-2016
Clinical Care			
Access to Care	Uninsured	Small Area Health Insurance Estimates	2015
	Primary care physicians	Area Health Resource File/American Medical Association	2015
	Dentists	Area Health Resource File/National Provider Identification file	2016
	Mental health providers	CMS, National Provider Identification file	2017
Quality of Care	Preventable hospital stays	Dartmouth Atlas of Health Care	2015
	Diabetes monitoring	Dartmouth Atlas of Health Care	2014
	Mammography screening	Dartmouth Atlas of Health Care	2014
Social and Economic	Factors		
Education	High school graduation	EDFacts <sup>1</sup>	2014-2015
	Some college	American Community Survey	2012-2016
Employment	Unemployment	Bureau of Labor Statistics	2016
Income	Children in poverty	Small Area Income and Poverty Estimates	2016
	Income inequality	American Community Survey	2012-2016
Family and Social Support	Children in single-parent house-holds	American Community Survey	2012-2016
	Social associations	County Business Patterns	2015
Community Safety	Violent crime	Uniform Crime Reporting - FBI	2012-2014
	Injury deaths	CDC WONDER mortality data	2012-2016
Physical Environmen	t		
Air and Water Quality	Air pollution – particulate matter <sup>2</sup>	Environmental Public Health Tracking Network	2012
	Drinking water violations	Safe Drinking Water Information System	2016
Housing and Transit	Severe housing problems	Comprehensive Housing Affordability Strategy (CHAS) data	2010-2014
	Driving alone to work	American Community Survey	2012-2016
	Long commute – driving alone	American Community Survey	2012-2016

State sources used for California and Texas.
 Not available for AK and HI.

# Additional Measures (Not Included in Calculation of Ranks): Sources and Years of Data

Measure	Source	Years of Data		
Health Outcomes				
Premature age-adjusted mortality	CDC WONDER mortality data	2014-2016		
Infant mortality	CDC WONDER mortality data	2010-2016		
Child mortality	CDC WONDER mortality data	2013-2016		
Frequent physical distress	Behavioral Risk Factor Surveillance System	2016		
Frequent mental distress	Behavioral Risk Factor Surveillance System	2016		
Diabetes prevalence	CDC Diabetes Interactive Atlas	2014		
HIV prevalence	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2015		
Health Factors				
Health Behaviors				
Food insecurity	Map the Meal Gap	2015		
Limited access to healthy foods	USDA Food Environment Atlas	2015		
Motor vehicle crash deaths	CDC WONDER mortality data	2010-2016		
Drug overdose deaths	CDC WONDER mortality data	2014-2016		
Drug overdose deaths – modeled	National Center for Health Statistics	2016		
Insufficient sleep	Behavioral Risk Factor Surveillance System	2016		
Clinical Care				
Uninsured adults	Small Area Health Insurance Estimates	2015		
Uninsured children	Small Area Health Insurance Estimates	2015		
Health care costs	Dartmouth Atlas of Health Care	2015		
Other primary care providers	CMS, National Provider Identification file	2017		
Social and Economic Factors				
Disconnected youth	Measure of America	2010-2014		
Median household income	Small Area Income and Poverty Estimates	2016		
Children eligible for free or reduced price lunch	National Center for Education Statistics	2015-2016		
Homicides	CDC WONDER mortality data	2010-2016		
Firearm fatalities	CDC WONDER mortality data	2012-2016		
Residential segregation – black/white	American Community Survey	2012-2016		
Residential segregation – non-white/white	American Community Survey	2012-2016		
Demographics				
Population	Census Population Estimates	2016		
% below 18 years of age	Census Population Estimates	2016		
% 65 and older	Census Population Estimates	2016		
% Non-Hispanic African American	Census Population Estimates	2016		
% American Indian and Alaskan Native	Census Population Estimates	2016		
% Asian	Census Population Estimates	2016		
% Native Hawaiian/Other Pacific Islander	Census Population Estimates	2016		
% Hispanic	Census Population Estimates	2016		
% Non-Hispanic white	Census Population Estimates	2016		
% not proficient in English	American Community Survey	2012-2016		
% Females	Census Population Estimates	2016		
% Rural	Census Population Estimates	2010		

# County Health Rankings & Roadmaps

**Building a Culture of Health, County by County** 

#### **University of Wisconsin Population Health Institute**

610 Walnut St, #524, Madison, WI 53726 | (608) 265-8240 / info@countyhealthrankings.org

#### **Credits**

**Lead authors:** Marjory Givens, PhD, MSPH; Keith Gennuso, PhD; Amanda Jovaag, MS; Julie Willems Van Dijk, PhD, RN, FAAN **Recommended citation:** University of Wisconsin Population Health Institute. County Health Rankings Key Findings 2018.

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#### **Research Assistance**

Courtney Blomme Elizabeth Pollock, PhD Joanna Reale Jennifer Robinson Matthew Rodock, MPH Anne Roubal, PhD

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Kate Kingery, MPA
Kitty Jerome, MA
Kate Konkle, MPH
Raquel Bournhonesque, MPH
Ericka Burroughs-Girardi, MA, MPH
Janna West Kowalski, MS
Aliana Havrilla, MPIA
Antonia Lewis, MPH
Karen Odegaard, MPH
Justin Rivas, MPH, MIPA
Attica Scott, MS
Jerry Spegman, JD

Astra Iheukumere, MPA, MBA

Carrie Carroll, MPA Olivia Little, PhD Devarati Syam, PhD

#### **Scientific Advisory Group**

Pat Remington, MD, MPH (Chair)
Renee Branch Canady, PhD, MPA
Jim Chase, MHA
Maggie Super Church, MSc, MCP
Tom Eckstein, MBA
Rebecca Tave Gluskin, PhD
Kurt Greenlund, PhD
James Holt, PhD, MPA
Carolyn Miller, MA, MS
Ana Diez Roux, MD, PhD
Steven Teutsch, MD, MPH
Trissa Torres, MD, MSPH, FACPM

# Communications & Website Development

Burness
Forum One
Kim Linsenmayer, MPA
Matthew Call
Komal Dasani, MPH
Lindsay Garber, MPA
Samuel Hicok
James Lloyd, MS