# 2019 County Health Rankings Key Findings Report





### Introduction

By ranking the health of nearly every county in the nation, County Health Rankings & Roadmaps (CHR&R) illustrates how where we live affects how well and how long we live. CHR&R also shows what each of us can do to create healthier places to live, learn, work, and play - for everyone. This year highlights an important element that shapes how well and how long we live: secure, affordable housing.

### **Summary of Key Findings**

- Across the U.S., more than 1 in 10 households (11%) spend more than half of their income on housing costs (severe housing cost burden). Among those who own their home, housing cost burden has decreased in the past decade. At the same time, there has been no improvement in the rates among renters. Housing cost burden remains substantially higher among renters than owners, particularly for households with low incomes.
- Severe housing cost burden affects health and is linked to barriers to living long and well. Across counties, increases in the share of households severely cost burdened are associated with more food insecurity, more child poverty, and more people in fair or poor health.
- More segregated counties have higher rates of severe cost burden, for both White and Black households. However, Black residents face greater barriers to opportunity and health than White residents. Nearly 1 in 4 Black households spend more than half of their income on housing.
- Owning a home can, over time, help build savings for education or for other opportunities important to health and future family wealth. In large urban and smaller metro counties, the vast majority of households headed by Whites own their home, while more than half of households headed by Blacks are renters, rather than homeowners. In the past decade, trends in homeownership rates have changed little on average, though gaps among racial/ethnic groups are widening.



#### A Call to Action

This report is a call to action for leaders, residents, and community changemakers to take these national findings, dig into local data to better understand the health of your own community, and implement strategies 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 gaps in opportunity. Supporting materials (such as data tables) are available at countyhealthrankings.org/reports.



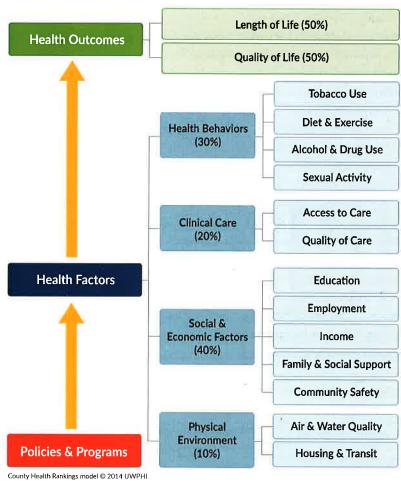
### Our Homes, Our Communities, Our Health

The County Health Rankings show that meaningful gaps persist in health outcomes among counties across the U.S. in large part because of differences in opportunities for health. As the Rankings model to the right illustrates, health outcomes are shaped by a range of factors that are heavily influenced by where we live including health behaviors, clinical care, physical environment, and social and environmental factors. This year we focus on one such factor: our homes.

Our homes, and those of our neighbors, play a critical role in shaping our health and the health of the whole community. When our homes are near quality schools and good jobs, it's easier to get a quality education and earn living wages. When people live near grocery stores where nutritious food is available and affordable, eating healthy is easier. Green spaces and parks encourage active lifestyles. By contrast, inside our homes things like lead, mold, smoke, and other toxins can make us sick. And when too much of a paycheck goes toward the rent or mortgage, it makes it hard to afford the doctor, cover utility bills, or maintain reliable transportation to work or school. Owning a home can help build savings. providing stability and wealth over time.

Our collective health and well-being depend on building opportunity for everyone. Yet, across and within counties there are stark differences in the opportunities to live in safe, affordable homes, especially for people with low incomes and people of color. These differences emerge from discrimination and institutional racism in the form of long-standing, deep-rooted and unfair systems, policies, and practices such as redlining, restrictive zoning rules, and predatory bank lending practices that reinforce residential segregation and barriers to opportunity. As a result, we consistently see worse health outcomes for people with low incomes and people of color. We cannot thrive as a nation when the factors that contribute to good health are available to some, but denied to others.

County Health Rankings Model



This report explores the intersection of place and health and focuses on how our homes contribute to other factors that matter for good health. In the following pages you will find discussion of:

- Housing affordability across the nation.
- · Housing cost burden and community conditions.
- · Insecure housing and homelessness.
- Health and housing in counties of long-standing segregation.

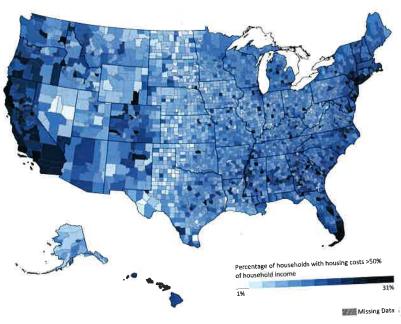
# A Closer Look at **Housing Affordability**

There is a strong and growing evidence base linking our homes to our health. As housing costs have outpaced local incomes, particularly for low-wage workers, families not only struggle to find and stay in safe, secure homes, but also face difficult tradeoffs in meeting other basic needs. General guidance suggests that housing costs should not exceed 30% of monthly household income. When too much of a paycheck goes to paying the rent or mortgage, this housing cost burden can force people to choose among paying for other essentials such as utilities, food, transportation, or medical care. And as housing costs rise, so does the chance of becoming homeless, especially for families with low incomes and household budgets that are already strained.

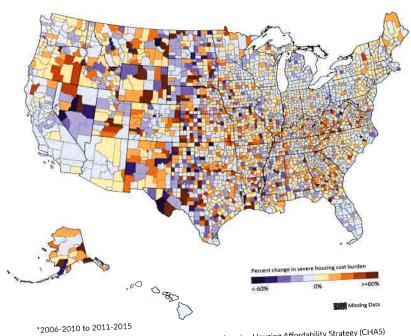
### **Key Findings**

- Across the U.S., more than 1 in 10 households (11%) experience severe housing cost burden (paying more than 50% of household income on housing). The rate of severe housing cost burden among counties ranges from 1% to 31% of households.
- On average, severe housing cost burden is highest in large urban metro counties and lowest in rural counties.1
- Since 2006-2010, when a real estate crisis affected more than half of U.S. states, severe housing cost burden has decreased in large urban metro counties. However, half of all rural counties experienced an - housing cost hurden

Severe Housing Cost Burden Among U.S. Counties, 2011-2015



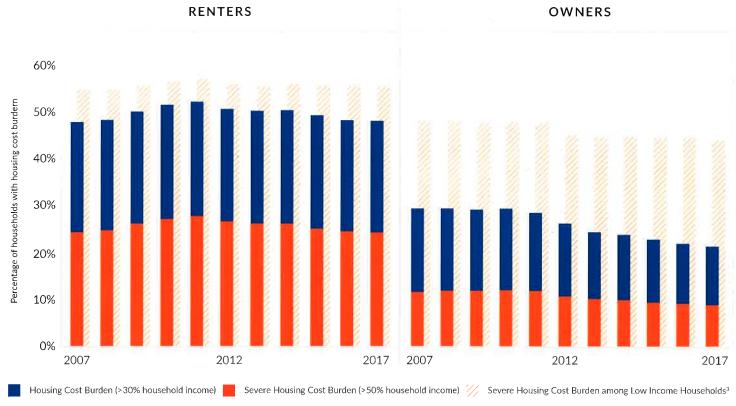
A Decade of Change in Severe Housing Cost Burden\*



Data source: Comprehensive Housing Affordability Strategy (CHAS)

Housing Cost Burden is measured as the percentage of households that spend more than 30% of their income on housing costs.

Trends in Housing Cost Burden Among Renters and Owners Nationwide



Data source: Public Use Microdata Sample (PUMS)

Recent data show that of the approximately 120 million U.S. households,<sup>2</sup> most own a home (64% or 76.2 million), while fewer households rent (36% or 42.8 million). On average, household incomes for renters are lower than for owners, and renters tend to have very little savings and wealth. With less income to draw on, renters are disproportionately burdened by housing costs compared to homeowners. The graphic above shows the share of all households that spend more than 30% (blue bar), or more than 50% (orange bar) of their income on housing costs among renters and owners, each year over the past decade. Housing cost burden is also worse for those with the lowest incomes. The share of low-income households that spent more than half of their income on housing costs in this same time period can be seen with the hatched bars.

### **Key Findings**

- The percentages of housing cost burdened or severely housing cost burdened homeowners has decreased over the past decade.
- Among renters, there has been no indication of improvement in the percentage of housing cost burdened or severely housing cost burdened households. Housing cost burden remains substantially higher among renters than owners.
- One in 4 renters spends more than half of their income on housing costs. Nearly 1 in 2 renters spends more than 30% of their income on housing costs.
- Low-income renters and homeowners<sup>3</sup> are the most likely to be housing cost burdened, showing little improvement in the past decade. More than half of all low-income renters pay more than 50% of their

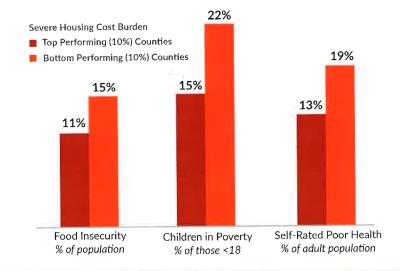
### Housing Cost Burden and Community Conditions

In communities where housing costs rise faster than local incomes, households struggle to acquire and maintain adequate shelter, often to the detriment of other social and economic factors that enable us all to be healthier.

### **Key Findings**

- Severe housing cost burden affects households across the nation, with as many as 800,000 households paying more than half of their income on rent or mortgage in some counties.
- After accounting for demographic factors,<sup>4</sup> the counties
  with the highest and lowest housing cost burden differ
  remarkably in rates of child poverty, food insecurity,
  and self-rated fair or poor health.
- Across these communities, with every increase in the share of households severely housing cost burdened, there are greater barriers to living long and well, such as more people who are food insecure, more children in poverty, and more people reporting poor or fair health.

Health Factors and Outcomes in Top and Bottom Performing Counties for Severe Housing Cost Burden





Across counties, every 10% increase in the share of households severely cost burdened is linked to...



29,000 more children in poverty



**86,000** more people who are food insecure



more people in fair or poor health

Data sources: Comprehensive Housing Affordability Strategy; Small Area Income and Poverty Estimates; Map the Meal Gap; Behavioral Risk Factor Surveillance System

4 Analyses adjusted for median household income and rurality of counties (please see Technical Notes for more detail).



In the vast rural area of the Columbia River Gorge, two counties—Hood River and Wasco—are among the top five most expensive counties to live in Oregon. Residents earning the minimum wage would have to work nearly two full-time jobs to afford a two-bedroom apartment and still have some money to spare for other basic essentials. To increase affordable housing in the region, the Mid-Columbia Housing Authority (MCHA) is utilizing state and federal funding not only to develop housing, but also to equip the new homes with supportive services for the more than 1,100 households receiving Housing Choice Vouchers or residents in affordable housing. Community health workers serve as resident service coordinators and a community-based Housing Team develops comprehensive policy

### **Insecure Housing and Homelessness**

Many households are just one unforeseen event – an illness, job loss, financial crisis, or even a drop in hours at work – from losing their home. The risk for homelessness is especially high for low-income families spending more than half of household income on housing costs. A dataset from The Eviction Lab that measures insecure housing, forced moves, and poverty in the U.S. estimates that, in 2016, nearly 900,000 households faced evictions. That same year, more than 900,000 households also began the foreclosure process. Some of these families end up without a place to live. Though homelessness is difficult to measure, according to the U.S. Department of Housing and Urban Development, the overall number of people experiencing homelessness was approximately 553,000 in 2018.

Families that face insecure housing, forced moves, or homelessness are more likely to experience poor mental or physical health and preventable hospitalizations. For children in these families, experiencing homelessness can also be harmful to brain and body function and development, with lifelong and cumulative negative health outcomes for the child, the family, and the community.

#### **Key Findings**

- Families are considered "at risk" for homelessness if they are low-income and spend more than half of their household income on housing. Recent data suggest that in large urban and smaller metro counties where homelessness is more common, 6.7 million households nearly 1 in 10 could be considered "at risk" for homelessness.<sup>5</sup>
- Even among the healthiest of these counties (top 10% performers in measures of length and quality of life), as many as 1 million households (or 10% of households) could be considered "at risk" for homelessness.



### **Call To Action**

- Explore how national and state findings on stable and affordable homes are playing out in your community. Find your county snapshot (enter your county in the search box at countyhealthrankings.org) and review your data.
- Check with your local health department, housing authority, or county government for data on affordable housing and homelessness, including data by race and income.
- Work with local, statewide and regional partners in community development corporations and financial institutions, hospital systems, government planning and health services, and others.
- Focus on strategies that increase opportunities for low-income households and families at risk of homelessness to be healthy, such as safe and affordable housing in neighborhoods with opportunities for a good education, living wage jobs, and access to healthy foods and quality clinical care.

5 Households considered "at risk" for homelessness are severely housing cost burdened and earn 30% or less of the area median family income

Just outside Boston, in Chelsea, Massachusetts, the community knows that health and housing are inextricably linked. Through the Boston Foundation's Health Starts at Home initiative, the MGH Chelsea HealthCare Center screens medical patients for housing instability and refers those who are most at risk of homelessness to CONNECT, a multi-agency one-stop shop that helps people secure stable housing, gain skills, find jobs, and manage finances. In 2018 alone, CONNECT helped over 450 clients get back on their feet by stabilizing their income and/or housing. The Neighborhood Developers (TND), where CONNECT is based, is also leading the charge to build affordable housing in Chelsea. The Box District is one example: a 248-unit development where half of the units are designated as affordable. With 395 affordable housing units already developed, TND wants to continue its momentum by adding 400 more in the next seven years.



# Housing at the Intersection of Place, Race, and Health

# Impacts of Discriminatory Policies and Practices on Housing and Health

To illustrate how our homes and neighborhoods impact access to opportunity and health, we took a closer look at large urban and smaller metro counties, areas with long-standing segregation of Black and White residents. Residential segregation has resulted in large part from a long history and continuation of discriminatory policies and practices selectively restricting occupancy in neighborhoods reserved for Whites and denying housing loans in 'redlined' neighborhoods, often where mostly Black residents live. While most explicit policies and practices have been outlawed, racial discrimination persists in many forms, such as unfair bank lending and realtor practices that sort prospective homebuyers into certain neighborhoods based on their race, and zoning laws that prohibit lower cost multi-family housing. Additionally, the impacts of once legal discriminatory policies and practices exist today. Past and current discrimination coupled with disinvestment in schools, businesses, and public services limit the opportunities for people of color to rent or own an affordable home in neighborhoods with good schools, living wage jobs, green spaces, and safe environments. Poor health is more common in places that are segregated from opportunity.

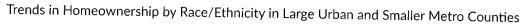
Decades of research shows that separating communities by race and ethnicity, income, and other categories is a fundamental cause of health disparities in the U.S.

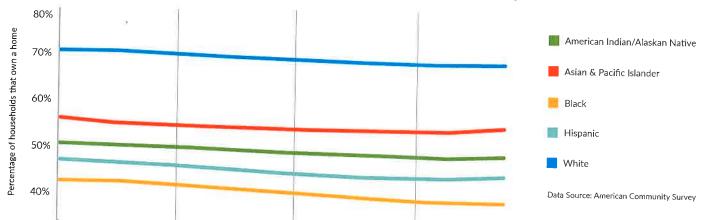
# How Disparities in Homeownership Limit Opportunity

Owning a home can, over time, help build wealth and savings for education or for other opportunities that are important for health and future wealth for families. Today, most households across the U.S. (approximately 64%, or 76.2 million) own a home

Homeownership is the percentage of households that own a home. To learn more about our measure of homeownership, visit countyhealthrankings.org/homeownership and find your county's data in the Additional Measures section of your county snapshot.

- a result in part from policies and tax incentives designed to promote the purchase of housing in some communities. However, not all households have had a fair chance to pursue homeownership and the potential to accrue equity from owning a home. Black homeownership rates have hovered at a level well below that of Whites, remaining virtually unchanged since 1968, when passage of the Fair Housing Act made housing discrimination illegal.





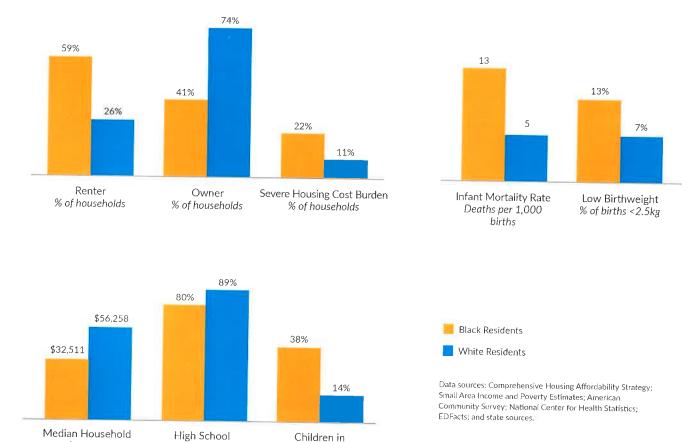
### Key Findings Among Large Urban and Smaller Metro Counties

Income

Graduation

- The vast majority of households headed by Whites are homeowners, while households headed by Blacks are more likely to rent, with fewer than half being homeowners.
- The median income among households headed by Whites is \$56,000, and more than 1 in 10 are severely housing cost burdened. In contrast, the median income among households headed by Blacks is \$33,000 and these households are twice as likely to be severely housing cost burdened compared to White-headed households. Nearly 1 in 4 households headed by Blacks spends more than half of their income on housing.
- Black residents face greater barriers to opportunity and health than White residents. Black children, youth, and adults have higher rates of child poverty, poorer birth outcomes, higher rates of premature death, and lower high school graduation rates than do White residents. For example, 38% of Black children live in poverty compared to 14% of White children, and infant mortality rates for babies born to Black mothers are more than twice that of babies born to White mothers.
- In the past decade, homeownership rates have changed little on average. However, gaps among racial/ ethnic groups are widening. Households headed by Whites have consistently had the highest rates of homeownership. These homeownership rates are 20-30% higher than for people of color.

Housing and Health Among Black and White Residents Within Large Urban and Smaller Metro Counties

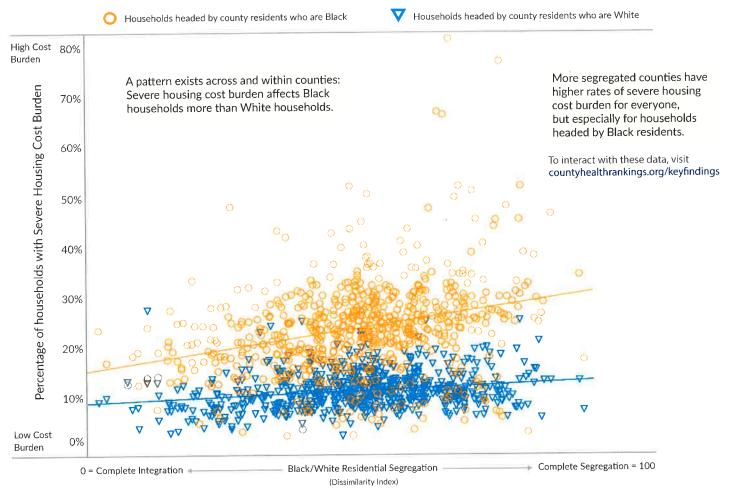


Poverty

### More Segregated Counties have Higher Housing Cost Burden

The graphic below illustrates the relationship between severe housing cost burden and residential segregation for Black and White households in large urban and smaller metro counties. The percentage of severely housing cost burdened households headed by Blacks (circles) and Whites (triangles) can be seen across the range of counties with varying levels of residential segregation. The orange and blue lines show the nature of the relationship between severe housing cost burden and residential segregation across counties for households headed by Blacks or Whites, respectively.

Severe Housing Cost Burden by Levels of Segregation Across Large Urban and Smaller Metro Counties



### Data Sources: Comprehensive Housing Affordability Strategy; American Community Survey

### **Key Findings Among Large Urban and Smaller Metro Counties**

- Places with higher levels of residential segregation have higher rates of severe housing cost burden for households headed by White or Black residents.
- In the most segregated counties (top 10%), on average, 26% of households

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

### Gentrification, Displacement, and Neighborhood Change

Growing demand for housing in many communities can mean increased housing costs in neighborhoods that had historically been home to low- and moderate-income households and/ or families of color. Gentrification — a form of neighborhood change that brings in new businesses and investments and higher income residents to areas of historical disinvestment — can transform neighborhoods from low market value to high market value. But long-term residents can be displaced if those investments are not carefully managed and coordinated with authentic community engagement, resident-driven leadership, and policies that value inclusion and prioritize the preservation of a sufficient quantity of affordable options. For low-income households and/or families of color, owning or renting a home in these communities can become unaffordable, which can result in relocation to neighborhoods with less access to health-promoting resources. And even for those who find a way to stay, they may struggle to have a voice in the process of neighborhood change.



The 24:1 Community in Missouri includes a nationally-recognized community development effort created by Beyond Housing to address the fundamental challenges within the 24 municipalities in the Normandy school district in North St. Louis County. Beyond Housing is working to boost homeownership in 24:1 in several ways. Its nonprofit 24:1 Community Land Trust uses a variety of subsidies to make homeownership affordable for people who would otherwise be locked out of the market. Residents own their homes, but lease the land, which is owned by the trust. The houses stay affordable because the trust controls the price owners receive when they sell. Buyers receive financial and homeownership counseling before they buy and supportive services after they sign the contract. With its partners, Prosperity Connection, a nonprofit financial education provider, and Red Dough, a lender that offers lower-interest alternatives to predatory payday loans, Beyond Housing has established a "Wealth Accumulation Center" in downtown Pagedale. The center offers free financial coaching and classes on homebuying, credit repair, college and retirement savings, and other topics. There are early signs of success with increased



# What can work to create and preserve stable and affordable homes that can improve economic and social well-being for residents?

A comprehensive, strategic approach that looks across a community and multiple sectors and draws from a range of evidence-informed strategies is needed to create and preserve stable, affordable homes in local communities. The way forward requires policies, programs, and systems changes that respond to the specific needs of each community, promote inclusive and connected neighborhoods, reduce displacement, and enable opportunity for better health for all people.

An effective approach will include efforts to:

# Make communities more inclusive and connected, such as:

- Inclusionary zoning
- Civic engagement, including youth, in public governance and in community development decisions
- Fair housing laws and enforcement
- Housing mobility programs
- · Mixed income development
- Access to living wage jobs, quality health care, grocery stores, green spaces and parks, and public transportation systems

# Facilitate access to resources needed to secure affordable housing, particularly for low- to moderate-income families, such as:

- Housing Choice Vouchers for low- and very lowincome households
- · Housing trust funds

Address capital resources needed to create and preserve affordable homes, particularly for low-to moderate-income families, such as:

- Acquisition, management, and financing of land for affordable housing
- Tax credits, block grants, housing trust funds, and other government subsidies or revenues to advance affordable housing development
- Zoning changes that reduce the cost of housing production

Provide services and supports to increase housing stability and reduce the risk of homelessness by ensuring basic needs are met and improving access to social services, such as:

- Rapid re-housing programs, supportive housing, service-enriched housing, and rental assistance
- Eviction prevention strategies
- Income supports, like living wage laws, paid family leave, or Earned Income Tax Credits

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

We recognize that "race" and "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 rarely for health outcomes.

Race and ethnicity categories can be but are not always exclusive. For instance, someone can identify as being of the Black race and Hispanic ethnicity. Our analyses by race/ethnicity use several different sources that are inconsistent in how data for those who identify as Hispanic are included or excluded from racial groups. For instance, race/ethnicity categories for data from the National Center for Health Statistics are exclusive where one person fits into only one category. Data from the American Community Survey, on the other hand, are only exclusive for non-Hispanic Whites. Other racial

"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.

### 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.

We define low-income households in this report according to guidelines on the Federal Poverty Level (FPL) from the U.S. Department of Health and Human Services (DHHS) and on Area Median Family Income (AMFI) from Housing and Urban Development (HUD).

- Federal Poverty Level (FPL): DHHS issues annual guidelines on the Federal Poverty Level for administrative purposes, including determining financial eligibility for certain federal programs. These guidelines vary by family size and for non-contiguous states. In 2017, a household of four at 150% of the FPL earned \$36,900.
- Area Median Family Income (AMFI): HUD calculates median family income for each metropolitan area and non-metropolitan counties annually in order to determine Fair Market Rent and income limits for eligibility for HUD housing assistance programs. In 2017, the Area Median Family Income in Los Angeles county, CA was \$64,300, while in Elk County, Kansas it was \$49,700. A low-income household at <30% of the Area Median Family Income would earn less than \$19,290 in LA county and \$14,910 in Elk County, KS.

We define levels 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 1 million people); Large Suburban Metro (non-central fringe counties within an MSA with more than 1 million people); Large Urban Metro (central urban core counties within an MSA with more than 1 million people).

We focused our analyses on the intersection of place, race, and health within smaller metro and large urban counties because these counties are more likely to have similar demographic profiles to the larger MSAs (the typical level of geography for examination of residential segregation) than large suburban metro and rural counties.

Analyses exploring the association between housing cost burden and community

# 2019 County Health Rankings: Ranked Measure Sources and Years of Data

| ength of Life Premature death National Center for Health Statistics – Mortality files 2015-2017  Poor or fair health Poor of physical health days Behavioral Risk Factor Surveillance System 2016  Poor mental health days Behavioral Risk Factor Surveillance System 2016  Poor mental health days Behavioral Risk Factor Surveillance System 2016  Poor mental health days Behavioral Risk Factor Surveillance System 2016  Poor mental health days Behavioral Risk Factor Surveillance System 2016  Poor mental health days Behavioral Risk Factor Surveillance System 2016  Poor mental health Statistics – Natality files 2011-2017  Poor the Poor Mental Risk Factor Surveillance System 2016  Poor Mental Risk Factor Surveillance System 2016  Poor Mental Risk Factor Surveillance System 2015  Poor Mental Risk Factor Surveillance System 2016  Poor Mental Risk Fa |                      | Measure                          | Source  | Years of Data |
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| ength of Life         Premature death         National Center for Health's Statistics - Mortality files         2015-2017           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           Health Factors         Very Commental Health days         Behavioral Risk Factor Surveillance System         2015           Health Bactors         Very Commental Medical Statistics - Natality files         2015         2015           Dict and Exercise         Adult smoking         Behavioral Risk Factor Surveillance System         2015           Dict and Exercise         Adult obesity         CDC Diabetes Interactive Atias         2015           Dict and Exercise         Adult obesity         CDC Diabetes Interactive Atias         2015           Alcohol and Drug Use         Excessive drinking         Business Analyst, Delorme map data, ESRI, & U.S. Census Files         2010 & 2018           Alcohol and Drug Use         Excessive drinking         Behavioral Risk Factor Surveillance System         2015 & 2016           Sexual Activity         Sexually transmitted infections         Refault Aleas A provention Reported System         2016 & 2016  | Icalth Outcomes      |                                  |   | Was and       |
| Poor of fair health  |                      | Premature death                  | National Center for Health Statistics - Mortality files         | 2015-2017     |
| Poor physical health days   Behavioral Risk Factor Surveillance System   2016  |                      |                                  |   | 2016          |
| Poor mental health days   Behavioral Risk Factor Surveillance System   2016  |                      |                                  |   | 2016          |
| Low birthweight   National Center for Health Statistics - Natality files   2011-2017   |                      |                                  |   | 2016          |
| Feath Pactors   Feath Behaviors   Food environment index   CDC Diabetes Interactive Atlas   2015   2016   2016   2015   2016   2016   2016   2015   2016   2015   2016   2015   2016   2015   2016   2015   2016   2015     |                      |                                  |   | 2011-2017     |
| Health Behaviors           Tobacco Use         Adult smoking         Behavioral Risk Factor Surveillance System         2015           Diet and Exercise         Adult obesity         CDC Diabetes Interactive Atlas         2015           Diet and Exercise         Adult obesity         USDA Food Environment Atlas, Map the Meal Gap         2015 & 2016           Physical inactivity         CDC Diabetes Interactive Atlas         2010 & 2018           Alcohol and Drug Use         Excessive drinking         Behavioral Risk Factor Surveillance System         2016           Alcohol and Drug Use         Excessive drinking         Behavioral Risk Factor Surveillance System         2013-2017           Sexual Activity         Sexually transmitted infections         National Center for HivAlDIS, Viral Hepatitis, STD, and TB Prevention         2016           Sexual Activity         Sexually transmitted infections         National Center for Health Statistics - Natality files         2011-2017           Sexual Activity         Malian Real Health Resource File/American Medical Association         2016           Clinical Care         Vininsured         Small Area Health Resource File/American Medical Association file         2016           Access to Care         Uninsured         Area Health Resource File/American Medical Association file         2018           Quality of Care         Mental health provide  |                      | LOW DITUINGED TO                 |   |               |
| Delaco Use   |                      |                                  |   |               |
| Diet and Exercise Adult obesity Food environment index USDA Food Environment Atlas, Map the Meal Gap Physical inactivity Access to exercise opportunities Business Analyst, Delorme map data, ESRI, & U.S. Census Files 2016 Alcohol and Drug Use Excessive drinking Alcohol-impaired driving deaths Feath Sexually transmitted infections Teen births National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Primary care physicians Area Health Resource File/National Provider Identification file Primary care physicians Area Health Resource File/National Provider Identification file Privaccinations Amengraphy screening Amengraphy screening Amengraphy screening Amping Medicare Disparities Tool Social and Economic Factors Education High school graduation State-specific sources & EDFacts American Community Survey Income Children in poverty Income Children in poverty Family and Social Social associations County Business Patterns Cunity Geath School associations County Business Patterns County Wolfer Community Safety Violent crime Uniform County Business Patterns County Wolfer Income Children in ingle-parent house-holds Social associations County Business Patterns County Wolfer Mortality data County Geath Safety County Wolfer Community Survey County Geath Sacciations County Business Patterns County Wolfer Cornellify data County Geath Safety County Wolfer Cornellify County Business Patterns County Wolfer Cornellify data County Geath Safety County Geath Safety County Wolfer Cornellify data County Geath Sacciations County Wolfer Mortality data County Geath Sacciations County Geath Sacciations Cou |                      | Adult emoking                    | Behavioral Risk Factor Surveillance System                      | 2016          |
| Food environment index Physical inactivity Physical inactivity Access to exercise opportunities Business Analyst, Delorme map data, ESRI, & U.S. Census Files 2010 & 2018 Alcohol and Drug Use Excessive drinkling Alcohol-impaired driving deaths Alcohol and Drug Use Excessive drinkling Alcohol-impaired driving deaths Alcohol impaired driving deaths Sexually transmitted infections National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2013-2017  Sexual Activity Sexually transmitted infections National Center for Health Statistics - Natality files 2011-2017  Clinical Care  Uninsured Primary care physicians Penetral Primary Care physicians Penetral Primary Care Physicians Penetral Primary Care Physicians Penetral Preventials days Mapping Medicare Disparities Tool Apping Medicare Disparities Tool Apping Medicare Disparities Tool  Social and Economic Factor Education High school graduation State-specific sources & EDFacts American Community Survey  Employment Unemployment Unemployment Unemployment Demonstrations Conditions |                      |                                  |   | 2015          |
| Physical inactivity   CDC Diabetes Interactive Atlas   2015  | Diet and Exercise    |                                  | USDA Food Environment Atlas, Map the Meal Gap                   | 2015 & 2016   |
| Access to exercise opportunities Business Analyst, Delorme map data, ESRI, & U.S. Census Files 2016 & 2018 Alcohol and Drug Use Excessive drinking Alcohol-impaired driving deaths Fatality Analysis Reporting System 2013-2017 Sexual Activity Sexually transmitted infections Teen births National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Teen births National Center for Health Statistics - Natality files 2011-2017  Clinical Care  Vininsured Small Area Health Insurance Estimates Area Health Resource File/American Medical Association Dentists Area Health Resource File/American Medical Association file Dentists Area Health Resource File/American Medical Association file Dentists Dentists Area Health Resource File/American Medical Association file Dentists  |                      |                                  |   | 2015          |
| Alcohol and Drug Use   Excessive drinking   Behavioral Risk Factor Surveillance System   2016  |                      |                                  |   | 2010 & 2018   |
| Alcohol-impaired driving deaths Sexual Activity Sexually transmitted infections Teen births National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Teen births National Center for Health Statistics - Natality files  2011-2017  Clinical Care  Access to Care Uninsured Primary care physicians Dentists Area Health Resource File/American Medical Association Dentists Area Health Resource File/National Provider Identification file 2016  Quality of Care Preventable hospital stays Mapping Medicare Disparities Tool Flu vaccinations Mapping Medicare Disparities Tool Plu vaccinations Mapping Medicare Disparities Tool Flu vaccinations  Social and Economic Factors  Education High school graduation Some college American Community Survey 2013-2017  Employment Unemployment Unemployment Small Area Income and Poverty Estimates  Children in poverty Income inequality American Community Survey American Community Survey 2013-2017  American Community Survey 2013-2017  Family and Social Social associations County Business Patterns Community Safety Violent crime Uniform Crime Reporting - FBI Injury deaths CDC WONDER mortality data   | Alcohol and Drug Use |                                  |   | 2016          |
| Sexual Activity Sexually transmitted infections Teen births National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2016-2017  Clinical Care  Clinical Care  Clinical Care  Access to Care  Uninsured Primary care physicians Dentists Area Health Resource File/American Medical Association Dentists Area Health Resource File/National Provider Identification file 2016  Quality of Care Preventable hospital stays Mapping Medicare Disparities Tool Mammography screening Mapping Medicare Disparities Tool 2016  Social and Economic Factors  Education High school graduation Some college American Community Survey Employment Unemployment Unemployment Unemployment Unemployment Unemployment Social are Income inequality American Community Survey Final Area Income and Poverty Estimates County Business Patterns American Community Survey American Community Survey Final Area Income and Poverty Estimates County Business Patterns Uniform Crime Reporting – FBI Injury deaths CDC WONDER mortality data  2016-2016 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017 2016-2017-2017-2017 2016-2017-2017-2017-2017-2017-2017-2017-2017  |                      |                                  | Fatality Analysis Reporting System                              | 2013-2017     |
| Teen births National Center for Health Statistics - Natality files 2011-2017  Clinical Care  Access to Care Access to Care  Uninsured Primary care physicians Dentists Area Health Resource File/American Medical Association Dentists Area Health Resource File/National Provider Identification file 2017 Area Health Resource File/National Provider Identification file 2018 Area Health Resource File/National Provider Identification file 2018 Area Health Providers CMS, National Provider Identification file 2018 Area Health Resource File/National Provider Identification file 2016 Area Health Resource File/National Provider Identification file 2018 Area Health Resource File/National Provider Identification file 2016 Area Health Resource File/National Provider Identification file 2016 Area Health Resource File/American Medical Associations Area Health Resource File/National Provider Identification Medical Associations Area Health Resource File/American Medical Associations Area Health Resource File/National Provider Identification Medical Associations Area Health Resource File/American Medical Associations Area Health Resource File/National Provider Identification Medical Associations Area Health Resource File/American Medical Associations Area Health Resource File/National Provider Identification file 2016 Area Health Resource File/National Prov | Sexual Activity      |                                  |   | 2016          |
| Clinical Care         Access to Care       Uninsured       Small Area Health Insurance Estimates       2016         Access to Care       Primary care physicians       Area Health Resource File/American Medical Association       2016         Dentists       Area Health Resource File/National Provider Identification file       2017         Mental health providers       CMS, National Provider Identification file       2018         Quality of Care       Preventable hospital stays       Mapping Medicare Disparities Tool       2016         Mammography screening       Mapping Medicare Disparities Tool       2016         Social and Economic Factors         Education       High school graduation       State-specific sources & EDFacts       Varies         Education       High school graduation       State-specific sources & EDFacts       Varies         Employment       Unemployment       Bureau of Labor Statistics       2013-2017         Income       Children in poverty       Small Area Income and Poverty Estimates       2017         Income       Children in poverty       Small Area Income and Poverty Estimates       2013-2017         Family and Social Social Social Sociations       County Business Patterns       2016         Community Safety       Violent crime       Uniform  |                      |                                  | National Center for Health Statistics - Natality files          | 2011-2017     |
| Access to Care    Variance   Primary care physicians   Area Health Resource File/American Medical Association   2016     Dentists   Area Health Resource File/National Provider Identification file   2017     Mental health providers   CMS, National Provider Identification file   2018     Quality of Care   Preventable hospital stays   Mapping Medicare Disparities Tool   2016     Mammography screening   Mapping Medicare Disparities Tool   2016     Flu vaccinations   Mapping Medicare Disparities Tool   2016     Flu vaccinations   Mapping Medicare Disparities Tool   2016     Flu vaccinations   State-specific sources & EDFacts   Varies     Social and Economic Factors   Varies   2013-2017     Employment   Unemployment   Bureau of Labor Statistics   2017     Income   Children in poverty   Small Area Income and Poverty Estimates   2013-2017     Family and Social Social associations   County Business Patterns   2016     Community Safety   Violent crime   Uniform Crime Reporting – FBI   2014 & 2013-2017     Injury deaths   CDC WONDER mortality data   2013-2017     CDC WONDER mortality data   2013-2017   2013-2017     Control of the Control  | Clinical Care        |                                  |   | -             |
| Primary care physicians Area Health Resource File/American Medical Association 2016  Dentists Area Health Resource File/National Provider Identification file 2017  Mental health providers CMS, National Provider Identification file 2018  Quality of Care Preventable hospital stays Mapping Medicare Disparities Tool 2016  Mammography screening Mapping Medicare Disparities Tool 2016  Flu vaccinations Mapping Medicare Disparities Tool 2016  Social and Economic Factors  Education High school graduation State-specific sources & EDFacts Varies  Some college American Community Survey 2013-2017  Employment Unemployment Bureau of Labor Statistics 2017  Income Children in poverty Small Area Income and Poverty Estimates 2017  Family and Social Social Social Social associations American Community Survey 2013-2017  Family and Social Social Social associations County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting - FBI 2014 & 2013-2017  Injury deaths CDC WONDER mortality data 2013-2017  |                      | Uninsured                        | Small Area Health Insurance Estimates                           | 2016          |
| Dentists   Area Health Resource File/National Provider Identification file   2017  | Access to Care       |                                  | Area Health Resource File/American Medical Association          | 2016          |
| Mental health providersCMS, National Provider Identification file2018Quality of CarePreventable hospital staysMapping Medicare Disparities Tool2016Mammography screening<br>Flu vaccinationsMapping Medicare Disparities Tool2016Social and Economic FactorsEducationHigh school graduationState-specific sources & EDFactsVariesSome collegeAmerican Community Survey2013-2017EmploymentUnemploymentBureau of Labor Statistics2017IncomeChildren in povertySmall Area Income and Poverty Estimates2017Family and Social SupportChildren in single-parent house-holdsAmerican Community Survey2013-2017Social associationsCounty Business Patterns2016Community SafetyViolent crimeUniform Crime Reporting - FBI2014 & 201Injury deathsCDC WONDER mortality data2013-2017  |                      |                                  | Area Health Resource File/National Provider Identification file | 2017          |
| Quality of CarePreventable hospital staysMapping Medicare Disparities Tool2016Mammography screeningMapping Medicare Disparities Tool2016Flu vaccinationsMapping Medicare Disparities Tool2016Social and Economic FactorsEducationHigh school graduationState-specific sources & EDFactsVariesEmploymentUnemploymentBureau of Labor Statistics2017IncomeChildren in povertySmall Area Income and Poverty Estimates2017IncomeIncome inequalityAmerican Community Survey2013-2017Family and Social SupportChildren in single-parent householdsAmerican Community Survey2013-2017Social associationsCounty Business Patterns2016Community SafetyViolent crimeUniform Crime Reporting - FBI2014 & 201Injury deathsCDC WONDER mortality data2013-2017  |                      |                                  | CMS, National Provider Identification file                      | 2018          |
| Mammography screening Mapping Medicare Disparities Tool 2016 Flu vaccinations Mapping Medicare Disparities Tool 2016  Social and Economic Factors  Education High school graduation State-specific sources & EDFacts Varies Some college American Community Survey 2013-2017  Employment Unemployment Bureau of Labor Statistics 2017  Income Children in poverty Small Area Income and Poverty Estimates 2017  Family and Social Social Social Social associations County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting – FBI 2014 & 2017  Income Injury deaths CDC WONDER mortality data 2013-2017  | Quality of Care      |                                  | Mapping Medicare Disparities Tool                               | 2016          |
| Flu vaccinations   Mapping Medicare Disparities Tool   2018  |                      |                                  | Mapping Medicare Disparities Tool                               | 2016          |
| Social and Economic FactorsEducationHigh school graduationState-specific sources & EDFacts2013-2017EmploymentSome collegeAmerican Community Survey2017EmploymentUnemploymentBureau of Labor Statistics2017IncomeChildren in povertySmall Area Income and Poverty Estimates2017Family and Social SupportChildren in single-parent house-holdsAmerican Community Survey2013-2017Social associationsCounty Business Patterns2016Community SafetyViolent crimeUniform Crime Reporting - FBI2014 & 201Injury deathsCDC WONDER mortality data2013-2017   |                      |                                  | Mapping Medicare Disparities Tool                               | 2016          |
| EducationHigh school graduationState-specific sources & EDFactsVariesSome collegeAmerican Community Survey2013-2017EmploymentUnemploymentBureau of Labor Statistics2017IncomeChildren in povertySmall Area Income and Poverty Estimates2017Income inequalityAmerican Community Survey2013-2017Family and Social SupportChildren in single-parent householdsAmerican Community Survey2013-2017Community SafetyViolent crimeCounty Business Patterns2016Community SafetyViolent crimeUniform Crime Reporting - FBI2014 & 201Injury deathsCDC WONDER mortality data2013-2017  | Social and Economic  |                                  |   |               |
| Some college American Community Survey 2013-2017  Employment Unemployment Bureau of Labor Statistics 2017  Income Children in poverty Small Area Income and Poverty Estimates 2017  Income inequality American Community Survey 2013-2017  Family and Social Support Children in single-parent households Social associations County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting - FBI 2014 & 201  Injury deaths CDC WONDER mortality data 2013-2017  |                      |                                  | State-specific sources & EDFacts                                | Varies        |
| Employment Unemployment Bureau of Labor Statistics 2017  Income Children in poverty Small Area Income and Poverty Estimates 2017  Income inequality American Community Survey 2013-2017  Family and Social Support Children in single-parent households County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting - FBI 2014 & 2017  Injury deaths CDC WONDER mortality data   |                      |                                  | American Community Survey                                       |               |
| Income Children in poverty Small Area Income and Poverty Estimates 2017  Income inequality American Community Survey 2013-2017  Family and Social Support Children in single-parent households Social associations County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting - FBI 2014 & 2017  Injury deaths CDC WONDER mortality data  | Employment           |                                  | Bureau of Labor Statistics                                      |               |
| Income inequality American Community Survey 2013-2017  Family and Social Support Children in single-parent house-holds County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting - FBI 2013-2017  Income inequality American Community Survey 2013-2017  Community Safety Violent crime Uniform Crime Reporting - FBI 2013-2017  |                      |                                  | Small Area Income and Poverty Estimates                         |               |
| Family and Social Support  Children in single-parent house-holds  Social associations  County Business Patterns  Community Safety  Violent crime  Uniform Crime Reporting - FBI  Injury deaths  CDC WONDER mortality data  |                      |                                  | American Community Survey                                       |               |
| Social associations County Business Patterns 2016  Community Safety Violent crime Uniform Crime Reporting - FBI 2014 & 201  Injury deaths CDC WONDER mortality data 2013-2017  |                      | Children in single-parent house- | American Community Survey                                       |               |
| Community Safety Violent crime Injury deaths Uniform Crime Reporting - FBI 2014 & 201 2013-2017  |                      |                                  | County Business Patterns  |               |
| Injury deaths CDC WONDER mortality data 2013-2017  | Community Safety     |                                  | Uniform Crime Reporting - FBI                                   |               |
|  |                      | Injury deaths                    | CDC WONDER mortality data                                       | 2013-2017     |
| Physical Environment 2014  | Physical Environme   |                                  |   |               |

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

|                              | Measure   | Source  | Years of Data |
|------------------------------|---|---|---------------|
| Health Outcom                | nes   |   |               |
| Length of Life               | Life expectancy                                   | National Center for Health Statistics - Mortality Files               | 2015-2017     |
|                              | Premature age-adjusted mortality                  | CDC WONDER mortality data   | 2015-2017     |
|                              | Child mortality                                   | CDC WONDER mortality data   | 2014-2017     |
|                              | Infant mortality                                  | CDC WONDER mortality data   | 2011-2017     |
| Quality of Life              | Frequent physical distress                        | Behavioral Risk Factor Surveillance System                            | 2016          |
| ` ′                          | Frequent mental distress                          | Behavioral Risk Factor Surveillance System                            | 2016          |
|                              | Diabetes prevalence                               | CDC Diabetes Interactive Atlas  | 2015          |
|                              | HIV prevalence                                    | National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention | 2015          |
| Health Factors               |   |   |               |
| Health Behavi                |   |   |               |
| Diet and Exercise            | Food insecurity                                   | Map the Meal Gap  | 2016          |
| SICE AND EXCICISE            | Limited access to healthy foods                   | USDA Food Environment Atlas   | 2015          |
| Alcohol and Drug             | Drug overdose deaths                              | CDC WONDER mortality data   | 2015-2017     |
| Use Drug                     | Motor vehicle crash deaths                        | CDC WONDER mortality data   | 2011-2017     |
| Other Health<br>Behaviors    | Insufficient sleep                                | Behavioral Risk Factor Surveillance System                            | 2016          |
| Clinical Care                |   | ult.  |               |
| Access to Care               | Uninsured adults                                  | Small Area Health Insurance Estimates                                 | 2016          |
|                              | Uninsured children                                | Small Area Health Insurance Estimates                                 | 2016          |
|                              | Other primary care providers                      | CMS, National Provider Identification file                            | 2018          |
| Social and Eco               | onomic Factors                                    |   |               |
| Education                    | Disconnected youth                                | American Community Survey   | 2013-2017     |
| Income                       | Median household income                           | Small Area Income and Poverty Estimates                               | 2017          |
|                              | Children eligible for free or reduced price lunch | National Center for Education Statistics                              | 2016-2017     |
| Family and Social<br>Support | Residential segregation - black/white             | American Community Survey   | 2013-2017     |
|                              | Residential segregation - non-white/white         | American Community Survey   | 2013-2017     |
| Community<br>Safety          | Homicides   | CDC WONDER mortality data   | 2011-2017     |
|                              | Firearm fatalities                                | CDC WONDER mortality data   | 2013-2017     |
| Physical Envi                | ronment   |   |               |
| Housing and<br>Transit       | Homeownership                                     | American Community Survey   | 2013-2017     |
|                              | Severe housing cost burden                        | American Community Survey   | 2013-2017     |
| Demographic                  | s   |   |               |
| All                          | Population  | Census Population Estimates   | 2017          |
|                              | % below 18 years of age                           | Census Population Estimates   | 2017          |
|                              | % 65 and older                                    | Census Population Estimates   | 2017          |
|                              | % Non-Hispanic African American                   | Census Population Estimates   | 2017          |
|                              | % American Indian and Alaskan Native              | Census Population Estimates   | 2017          |
|                              | % Asian   | Census Population Estimates   | 2017          |
|                              | % Native Hawaiian/Other Pacific Islander          | Census Population Estimates   | 2017          |
|                              | % Hispanic  | Census Population Estimates   | 2017          |
|                              | % Non-Hispanic white                              | Census Population Estimates   | 2017          |

### County Health Rankings & Roadmaps

Building a Culture of Health, County by County

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