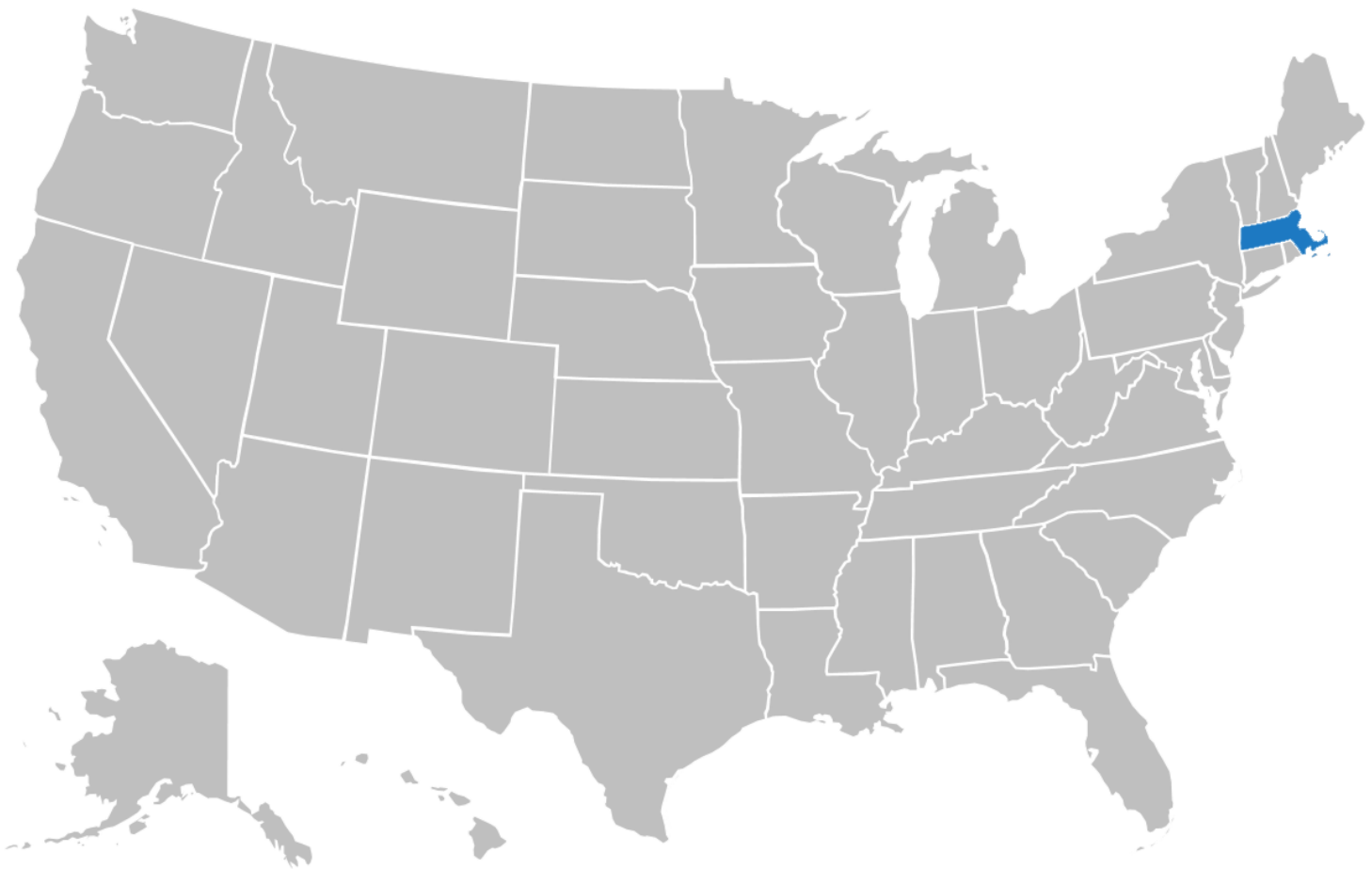


## County Health Rankings & Roadmaps

Building a Culture of Health, County by County

# Massachusetts



## 2021 State Level Data and Ranks

## 2021 County Health Rankings for Massachusetts: Measures and National/State Results

| Measure                              | Description   | US      | MA    | MA Minimum | MA Maximum |
|--------------------------------------|---|---------|-------|------------|------------|
| <b>HEALTH OUTCOMES</b>               |   |         |       |            |            |
| Premature death*                     | Years of potential life lost before age 75 per 100,000 population (age-adjusted).   | 6,900   | 5,600 | 4,100      | 8,200      |
| Poor or fair health                  | Percentage of adults reporting fair or poor health (age-adjusted).  | 17%     | 14%   | 11%        | 19%        |
| Poor physical health days            | Average number of physically unhealthy days reported in past 30 days (age-adjusted).  | 3.7     | 3.5   | 3.1        | 4.5        |
| Poor mental health days              | Average number of mentally unhealthy days reported in past 30 days (age-adjusted).  | 4.1     | 4.3   | 4.0        | 5.0        |
| Low birthweight*                     | Percentage of live births with low birthweight (< 2,500 grams).   | 8%      | 8%    | 5%         | 9%         |
| <b>HEALTH FACTORS</b>                |   |         |       |            |            |
| <b>HEALTH BEHAVIORS</b>              |   |         |       |            |            |
| Adult smoking                        | Percentage of adults who are current smokers (age-adjusted).  | 17%     | 14%   | 12%        | 19%        |
| Adult obesity                        | Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m <sup>2</sup> .                    | 30%     | 25%   | 21%        | 31%        |
| Food environment index               | Index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best).  | 7.8     | 9.2   | 8.1        | 9.3        |
| Physical inactivity                  | Percentage of adults age 20 and over reporting no leisure-time physical activity.   | 23%     | 20%   | 17%        | 26%        |
| Access to exercise opportunities     | Percentage of population with adequate access to locations for physical activity.   | 84%     | 94%   | 79%        | 100%       |
| Excessive drinking                   | Percentage of adults reporting binge or heavy drinking (age-adjusted).  | 19%     | 24%   | 22%        | 26%        |
| Alcohol-impaired driving deaths      | Percentage of driving deaths with alcohol involvement.  | 27%     | 30%   | 0%         | 50%        |
| Sexually transmitted infections      | Number of newly diagnosed chlamydia cases per 100,000 population.   | 539.9   | 444.0 | 199.4      | 869.0      |
| Teen births*                         | Number of births per 1,000 female population ages 15-19.  | 21      | 9     | 2          | 20         |
| <b>CLINICAL CARE</b>                 |   |         |       |            |            |
| Uninsured                            | Percentage of population under age 65 without health insurance.   | 10%     | 3%    | 2%         | 4%         |
| Primary care physicians              | Ratio of population to primary care physicians.   | 1,320:1 | 970:1 | 1,930:1    | 670:1      |
| Dentists                             | Ratio of population to dentists.  | 1,400:1 | 930:1 | 1,490:1    | 450:1      |
| Mental health providers              | Ratio of population to mental health providers.   | 380:1   | 150:1 | 250:1      | 100:1      |
| Preventable hospital stays*          | Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees.   | 4,236   | 4,764 | 2,994      | 6,086      |
| Mammography screening*               | Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening.   | 42%     | 54%   | 46%        | 58%        |
| Flu vaccinations*                    | Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination.  | 48%     | 55%   | 48%        | 60%        |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |   |         |       |            |            |
| High school completion               | Percentage of adults ages 25 and over with a high school diploma or equivalent.   | 88%     | 91%   | 86%        | 96%        |
| Some college                         | Percentage of adults ages 25-44 with some post-secondary education.   | 66%     | 74%   | 60%        | 83%        |
| Unemployment                         | Percentage of population ages 16 and older unemployed but seeking work.   | 3.7%    | 2.9%  | 2.3%       | 4.2%       |
| Children in poverty*                 | Percentage of people under age 18 in poverty.   | 17%     | 12%   | 6%         | 24%        |
| Income inequality                    | Ratio of household income at the 80th percentile to income at the 20th percentile.  | 4.9     | 5.4   | 4.1        | 7.7        |
| Children in single-parent households | Percentage of children that live in a household headed by single parent.  | 26%     | 25%   | 15%        | 40%        |
| Social associations                  | Number of membership associations per 10,000 population.  | 9.3     | 9.4   | 8.0        | 24.2       |
| Violent crime                        | Number of reported violent crime offenses per 100,000 population.   | 386     | 384   | 158        | 752        |
| Injury deaths*                       | Number of deaths due to injury per 100,000 population.  | 72      | 68    | 54         | 96         |
| <b>PHYSICAL ENVIRONMENT</b>          |   |         |       |            |            |
| Air pollution - particulate matter   | Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).   | 7.2     | 6.0   | 5.0        | 8.6        |
| Drinking water violations            | Indicator of the presence of health-related drinking water violations. 'Yes' indicates the presence of a violation, 'No' indicates no violation.              | N/A     | N/A   | No         | Yes        |
| Severe housing problems              | Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. | 18%     | 17%   | 15%        | 24%        |
| Driving alone to work*               | Percentage of the workforce that drives alone to work.  | 76%     | 70%   | 40%        | 82%        |
| Long commute - driving alone         | Among workers who commute in their car alone, the percentage that commute more than 30 minutes.   | 37%     | 44%   | 3%         | 53%        |

\* Indicates subgroup data by race and ethnicity is available

## 2021 County Health Rankings: Disaggregated State-Level Racial/Ethnic Data

| Measure                              | Overall  | AIAN     | Asian    | Black    | Hispanic | White    |
|--------------------------------------|----------|----------|----------|----------|----------|----------|
| <b>HEALTH OUTCOMES</b>               |          |          |          |          |          |          |
| Premature death*                     | 5,600    | 6,400    | 2,200    | 6,900    | 5,300    | 5,700    |
| Life expectancy                      | 80.6     | 88.8     | 90.6     | 80.7     | 85.7     | 80.4     |
| Premature age-adjusted mortality     | 280      | 260      | 120      | 330      | 250      | 290      |
| Child mortality                      | 30       | ---      | 20       | 60       | 40       | 30       |
| Infant mortality                     | 4        | ---      | 3        | 9        | 4        | 3        |
| Low birthweight*                     | 8%       | 7%       | 8%       | 11%      | 8%       | 7%       |
| <b>HEALTH FACTORS</b>                |          |          |          |          |          |          |
| <b>HEALTH BEHAVIORS</b>              |          |          |          |          |          |          |
| Drug overdose deaths                 | 32       | 49       | 3        | 24       | 32       | 35       |
| Motor vehicle crash deaths           | 6        | ---      | 2        | 6        | 5        | 6        |
| Teen births*                         | 9        | 11       | 2        | 13       | 31       | 4        |
| <b>CLINICAL CARE</b>                 |          |          |          |          |          |          |
| Preventable hospital stays*          | 4,764    | 5,591    | 2,711    | 5,917    | 5,871    | 4,724    |
| Mammography screening*               | 54%      | 41%      | 44%      | 46%      | 48%      | 55%      |
| Flu vaccinations*                    | 55%      | 41%      | 53%      | 42%      | 43%      | 57%      |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |          |          |          |          |          |          |
| Reading scores <sup>^</sup>          | 3.4      | N/A      | 3.8      | 2.9      | 2.9      | 3.5      |
| Math scores <sup>+</sup>             | 3.2      | N/A      | 3.9      | 2.7      | 2.8      | 3.4      |
| Children in poverty* <sup>‡</sup>    | 12%      | 23%      | 10%      | 26%      | 31%      | 6%       |
| Median household income              | \$85,700 | \$37,600 | \$96,600 | \$51,800 | \$44,900 | \$88,700 |
| Injury deaths*                       | 68       | 83       | 17       | 52       | 51       | 76       |
| Homicides                            | 2        | ---      | 1        | 10       | 5        | 1        |
| Suicides                             | 9        | ---      | 4        | 5        | 5        | 10       |
| Firearm fatalities                   | 4        | ---      | 1        | 10       | 5        | 3        |
| <b>PHYSICAL ENVIRONMENT</b>          |          |          |          |          |          |          |
| Driving alone to work*               | 70%      | 58%      | 55%      | 61%      | 57%      | 74%      |

\* Ranked measure

<sup>^</sup> Data not available for AK, AZ, LA, MD, NM, NY, VT

<sup>+</sup> Data not available for AK, AZ, LA, MD, NY, VT, VA

<sup>‡</sup> Overall county level values of children in poverty are obtained from one-year modeled estimates from the Small Area Income and Poverty Estimates (SAIPE) Program. Because SAIPE does not provide estimates by racial and ethnic groups, data from the 5-year American Community Survey (ACS) was used to quantify children living in poverty by racial and ethnic groups.

N/A indicates data not available for this race/ethnicity.

--- Data not reported due to NCHS suppression rules (A missing value is reported for counties with fewer than 20 deaths or 10 births.)

## 2021 County Health Rankings: Ranked Measure Sources and Years of Data

|                                      | Measure                              | Weight | Source  | Years of Data |
|--------------------------------------|--------------------------------------|--------|---|---------------|
| <b>HEALTH OUTCOMES</b>               |                                      |        |   |               |
| Length of Life                       | Premature death*                     | 50%    | National Center for Health Statistics - Mortality Files               | 2017-2019     |
| Quality of Life                      | Poor or fair health                  | 10%    | Behavioral Risk Factor Surveillance System                            | 2018          |
|                                      | Poor physical health days            | 10%    | Behavioral Risk Factor Surveillance System                            | 2018          |
|                                      | Poor mental health days              | 10%    | Behavioral Risk Factor Surveillance System                            | 2018          |
|                                      | Low birthweight*                     | 20%    | National Center for Health Statistics - Natality files                | 2013-2019     |
| <b>HEALTH FACTORS</b>                |                                      |        |   |               |
| <b>HEALTH BEHAVIORS</b>              |                                      |        |   |               |
| Tobacco Use                          | Adult smoking                        | 10%    | Behavioral Risk Factor Surveillance System                            | 2018          |
| Diet and Exercise                    | Adult obesity                        | 5%     | United States Diabetes Surveillance System                            | 2017          |
|                                      | Food environment index               | 2%     | USDA Food Environment Atlas, Map the Meal Gap from Feeding America    | 2015 & 2018   |
|                                      | Physical inactivity                  | 2%     | United States Diabetes Surveillance System                            | 2017          |
|                                      | Access to exercise opportunities     | 1%     | Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files | 2010 & 2019   |
| Alcohol and Drug Use                 | Excessive drinking                   | 2.5%   | Behavioral Risk Factor Surveillance System                            | 2018          |
|                                      | Alcohol-impaired driving deaths      | 2.5%   | Fatality Analysis Reporting System                                    | 2015-2019     |
| Sexual Activity                      | Sexually transmitted infections      | 2.5%   | National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention | 2018          |
|                                      | Teen births*                         | 2.5%   | National Center for Health Statistics - Natality files                | 2013-2019     |
| <b>CLINICAL CARE</b>                 |                                      |        |   |               |
| Access to Care                       | Uninsured                            | 5%     | Small Area Health Insurance Estimates                                 | 2018          |
|                                      | Primary care physicians              | 3%     | Area Health Resource File/American Medical Association                | 2018          |
|                                      | Dentists                             | 1%     | Area Health Resource File/National Provider Identification file       | 2019          |
|                                      | Mental health providers              | 1%     | CMS, National Provider Identification                                 | 2020          |
| Quality of Care                      | Preventable hospital stays*          | 5%     | Mapping Medicare Disparities Tool                                     | 2018          |
|                                      | Mammography screening*               | 2.5%   | Mapping Medicare Disparities Tool                                     | 2018          |
|                                      | Flu vaccinations*                    | 2.5%   | Mapping Medicare Disparities Tool                                     | 2018          |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |                                      |        |   |               |
| Education                            | High school completion               | 5%     | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Some college                         | 5%     | American Community Survey, 5-year estimates                           | 2015-2019     |
| Employment                           | Unemployment                         | 10%    | Bureau of Labor Statistics  | 2019          |
| Income                               | Children in poverty*                 | 7.5%   | Small Area Income and Poverty Estimates                               | 2019          |
|                                      | Income inequality                    | 2.5%   | American Community Survey, 5-year estimates                           | 2015-2019     |
| Family and Social Support            | Children in single-parent households | 2.5%   | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Social associations                  | 2.5%   | County Business Patterns  | 2018          |
| Community Safety                     | Violent crime                        | 2.5%   | Uniform Crime Reporting - FBI   | 2014 & 2016   |
|                                      | Injury deaths*                       | 2.5%   | National Center for Health Statistics - Mortality Files               | 2015-2019     |
| <b>PHYSICAL ENVIRONMENT</b>          |                                      |        |   |               |
| Air and Water Quality                | Air pollution - particulate matter   | 2.5%   | Environmental Public Health Tracking Network                          | 2016          |
|                                      | Drinking water violations            | 2.5%   | Safe Drinking Water Information System                                | 2019          |
| Housing and Transit                  | Severe housing problems              | 2%     | Comprehensive Housing Affordability Strategy (CHAS) data              | 2013-2017     |
|                                      | Driving alone to work*               | 2%     | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Long commute - driving alone         | 1%     | American Community Survey, 5-year estimates                           | 2015-2019     |

\*Indicates subgroup data by race and ethnicity is available

## 2021 County Health Rankings: Additional Measure Sources and Years of Data

|                                      | Measure   | Source  | Years of Data |
|--------------------------------------|---|---|---------------|
| <b>HEALTH OUTCOMES</b>               |   |   |               |
| Length of Life                       | Life expectancy*                                  | National Center for Health Statistics - Mortality Files               | 2017-2019     |
|                                      | Premature age-adjusted mortality*                 | National Center for Health Statistics - Mortality Files               | 2017-2019     |
|                                      | Child mortality*                                  | National Center for Health Statistics - Mortality Files               | 2016-2019     |
|                                      | Infant mortality*                                 | National Center for Health Statistics - Mortality Files               | 2013-2019     |
| Quality of Life                      | Frequent physical distress                        | Behavioral Risk Factor Surveillance System                            | 2018          |
|                                      | Frequent mental distress                          | Behavioral Risk Factor Surveillance System                            | 2018          |
|                                      | Diabetes prevalence                               | United States Diabetes Surveillance System                            | 2017          |
|                                      | HIV prevalence                                    | National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention | 2018          |
| <b>HEALTH FACTORS</b>                |   |   |               |
| <b>HEALTH BEHAVIORS</b>              |   |   |               |
| Diet and Exercise                    | Food insecurity                                   | Map the Meal Gap  | 2018          |
|                                      | Limited access to healthy foods                   | USDA Food Environment Atlas   | 2015          |
| Alcohol and Drug Use                 | Drug overdose deaths*                             | National Center for Health Statistics - Mortality Files               | 2017-2019     |
|                                      | Motor vehicle crash deaths*                       | National Center for Health Statistics - Mortality Files               | 2013-2019     |
| Other Health Behaviors               | Insufficient sleep                                | Behavioral Risk Factor Surveillance System                            | 2018          |
| <b>CLINICAL CARE</b>                 |   |   |               |
| Access to Care                       | Uninsured adults                                  | Small Area Health Insurance Estimates                                 | 2018          |
|                                      | Uninsured children                                | Small Area Health Insurance Estimates                                 | 2018          |
|                                      | Other primary care providers                      | CMS, National Provider Identification                                 | 2020          |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |   |   |               |
| Education                            | High school graduation                            | EDFacts   | 2017-2018     |
|                                      | Disconnected youth                                | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Reading scores* <sup>+</sup>                      | Stanford Education Data Archive                                       | 2018          |
|                                      | Math scores* <sup>+</sup>                         | Stanford Education Data Archive                                       | 2018          |
| Income                               | Median household income*                          | Small Area Income and Poverty Estimates                               | 2019          |
|                                      | Children eligible for free or reduced price lunch | National Center for Education Statistics                              | 2018-2019     |
| Family and Social Support            | Residential segregation - Black/White             | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Residential segregation - non-White/White         | American Community Survey, 5-year estimates                           | 2015-2019     |
| Community Safety                     | Homicides*  | National Center for Health Statistics - Mortality Files               | 2013-2019     |
|                                      | Suicides*   | National Center for Health Statistics - Mortality Files               | 2015-2019     |
|                                      | Firearm fatalities*                               | National Center for Health Statistics - Mortality Files               | 2015-2019     |
|                                      | Juvenile arrests <sup>+</sup>                     | Easy Access to State and County Juvenile Court Case Counts            | 2018          |
| <b>PHYSICAL ENVIRONMENT</b>          |   |   |               |
| Housing and Transit                  | Traffic volume                                    | EJSCREEN: Environmental Justice Screening and Mapping Tool            | 2019          |
|                                      | Homeownership                                     | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Severe housing cost burden                        | American Community Survey, 5-year estimates                           | 2015-2019     |
|                                      | Broadband access                                  | American Community Survey, 5-year estimates                           | 2015-2019     |

\*Indicates subgroup data by race and ethnicity is available

<sup>+</sup> Not available in all states

See additional contextual demographic information and measures online at [www.countyhealthrankings.org](http://www.countyhealthrankings.org)

## 2021 County Health Rankings for the 14 Ranked Counties in Massachusetts

| County     | Health Outcomes | Health Factors |
|------------|-----------------|----------------|
| Barnstable | 9               | 5              |
| Berkshire  | 13              | 11             |
| Bristol    | 12              | 13             |
| Dukes      | 4               | 8              |
| Essex      | 8               | 9              |

| County    | Health Outcomes | Health Factors |
|-----------|-----------------|----------------|
| Franklin  | 6               | 6              |
| Hampden   | 14              | 14             |
| Hampshire | 5               | 3              |
| Middlesex | 2               | 2              |
| Nantucket | 1               | 4              |

| County    | Health Outcomes | Health Factors |
|-----------|-----------------|----------------|
| Norfolk   | 3               | 1              |
| Plymouth  | 7               | 7              |
| Suffolk   | 10              | 12             |
| Worcester | 11              | 10             |

For more information on how these ranks are calculated visit [www.countyhealthrankings.org](http://www.countyhealthrankings.org)



### Stay Up-To-Date with County Health Rankings & Roadmaps

For the latest updates on Rankings, What Works for Health, Action Learning Guides, and more visit [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

You can see what we are featuring on our webinar series, what communities are doing to improve health, and how you can get involved!

### Talk to a Team Member:

Have questions about your data? Need help finding an evidence-informed strategy? Looking for more information on how to start taking action? CHR&R team members are available to help you navigate the many resources we have available to support you on your journey to create healthy, equitable communities.

To contact us, please go to [www.countyhealthrankings.org/contact-us](http://www.countyhealthrankings.org/contact-us). We're here to help!

## Technical Notes

### How are race and ethnicity categories defined?

Race and ethnicity are different forms of identity but are sometimes categorized in non-exclusive ways. Race is a form of identity constructed by our society to give meaning to different groupings of observable physical traits. An individual may identify with more than one race group. Ethnicity is used to group individuals according to shared cultural elements. Racial and ethnic categorizations relate to health because our society sorts groups of individuals based on perceived identities. These categorizations have meaning because of social and political factors, including systems of power such as racism. Examining the variation among racial and ethnic groupings in health factors and outcomes is key to understanding and addressing historical and current context that underlie these differences.

Data sources differ in methods for defining and grouping race and ethnicity categories. To incorporate as much information as possible in our summaries, County Health Rankings & Roadmaps (CHR&R) race/ethnicity categories vary by data source. With a few exceptions, CHR&R adheres to the following nomenclature originally defined by [The Office of Management and Budget \(OMB\)](#):

**American Indian & Alaska Native (AIAN):** includes people who identify as American Indian or Alaska Native and do not identify as Hispanic.

**Asian:** includes people who identify as Asian or Pacific Islander and do not identify as Hispanic.

**Black:** includes people who identify as Black or African American and do not identify as Hispanic.

**Hispanic:** includes people who identify as Mexican, Puerto Rican, Cuban, Central or South American, other Hispanic, or Hispanic of unknown origin.

**White:** includes people who identify as White and do not identify as Hispanic.

Note:

- Racial and ethnic categorization masks variation within groups.
- Individuals may identify with multiple races, indicating that none of the offered categories reflect their identity; these individuals are not included in our summaries.
- OMB categories have limitations and have changed over time, reflecting the importance of attending to contemporary racialization as a principle for examining approaches to measurement.
- For some data sources, race categories other than White also include people who identify as Hispanic.

### Learn More:

The above definitions apply to all measures using data from the [National Center for Health Statistics](#) (see Ranked & Additional Measure Sources and Years of Data tables on pages 4 & 5). For this data source, all race/ethnicity categories are exclusive so that each individual fits into only one category.

Other data sources offer slight nuances of the race/ethnicity categories listed above. [The American Community Survey \(ACS\)](#) only provides an exclusive race and ethnicity category for people who identify as non-Hispanic White. An individual who identifies as Hispanic and as Black would be included in both the Hispanic *and* Black race/ethnicity categories. Another difference with ACS data is the separate race categories for people who identify as Asian and people who identify as Hawaiian & Other Pacific Islander. For measures of Children in Poverty and Driving Alone to Work, CHR&R reports a combined estimate for the Asian & Other Pacific Islander categories, while for Median Household Income we only report the Asian race category.

Measures using data from the [Center for Medicare and Medicaid Services](#) (Mammography, Preventable Hospital Stays, Flu Vaccinations) follows the ACS categories with the exception of having a combined Asian/Pacific Islander category. For this data source, race and ethnicity are not self-reported.

The [Stanford Education Data Archive](#) used for the Reading and Math Scores measures follow the [National Center for Education Statistics](#) (NCES) definitions of Asian or Pacific Islander, American Indian & Alaska Native, non-Hispanic Black, non-Hispanic White, and Hispanic.

### How do we rank counties?

To calculate the ranks, we first standardize each of the measures using z-scores. Z-scores allow us to combine multiple measures because the measures are now on the same scale. The ranks are then calculated based on weighted sums of the measure z-scores within each state to create an aggregate z-score. The county with the best aggregate z-score (healthiest) gets a rank of #1 for that state. To see more detailed information on rank calculation please visit our methods in **Explore Health Rankings** on our website: [www.countyhealthrankings.org](http://www.countyhealthrankings.org).