

COUNTY HEALTH RANKINGS 2021: CODEBOOK FOR ANALYTIC DATASETS

The SAS and CSV analytic files provided at www.countyhealthrankings.org/explore-health-rankings/rankings-data-documentation contain the measure value, numerator, denominator and confidence intervals, where available, for all County Health Rankings ranked and unranked measures for each county in the nation. This codebook and documentation provide the name of each variable, its data source and the years of data. A full list of variables included in the CSV and SAS analytic files can be found in the **2021 Data Dictionary** files.

There are seven descriptive variables included for each row of data to identify what geographic area the data is for and additional information, such as if the county was ranked. These variables and their descriptions are:

1. **statecode** = FIPS state code
2. **countycode** = FIPS county code
3. **fipscode** = 5-digit FIPS Code
4. **state** = State abbreviation
5. **county** = County or state name
6. **year** = Release year
7. **county_ranked** = Indicator variable noting whether or not the county was ranked (0=unranked, 1=ranked); this variable is set to missing for state and national level data, since these are not eligible to be ranked.

Each measure variable name is coded with a measure ID. These measure IDs can be found in the tables at the end of the documentation. You will find at least five variables for each measure:

Measure value coded as v(measure id)_rawvalue

Numerator coded as v(measure id)_numerator

Denominator coded as v(measure id)_denominator

Lower bound of 95% confidence interval coded as v(measure id)_cilow

Upper bound of 95% confidence interval coded as v(measure id)_cihigh

Non-standard measure variables

Health care provider measures: Four measures have a “ratio” variable included. These measures and their corresponding variable are

- Primary care physicians (variable = v004_other_data_1),
- Dentists (variable = v088_other_data_1),
- Mental health providers (variable = v062_other_data_1), and
- Other primary care providers (variable = v131_other_data_1)

For these measures, we report a ratio of population to number of providers on the website. However, in calculating the rankings, we use the actual *rate* of number of providers/100,000 population. We include both the rate (as the raw value variable), and the *ratio* (as the “other data 1” variable). If you are trying to replicate the rankings, you should use the rate rather than the ratio.

When a county has no reported providers (ratio = [population]:0), the value for the ratio variable is assigned to be the negative population value. For example, v004_other_data_1 stores the ratio variable as a positive number if the ratio is XXXX:1. However, for counties that have zero providers, the value is stored as a negative number to indicate that the ratio is different and is instead XXXX:0. (For example, if the ratio is 2000:0, the value stored in the field would be -2000.)

Severe housing problems (v136): In addition to the standard variables (e.g. raw value, confidence intervals), there are three additional variables. These are:

- Percentage of households with high housing costs (variable = v136_other_data_1),
- Percentage of households with overcrowding (variable = v136_other_data_2),
- Percentage of households with lack of kitchen or plumbing facilities (variable = v136_other_data_3)
- Confidence intervals are also available for all three of these measures.

Drinking water violations (v124) is a Yes/No variable, where a 1 indicates a "Yes", while a zero indicates a "No".

Juvenile arrests (v158): There are two variables that are summed to create the number of juvenile arrests:

- Petitioned cases (variable = v158_other_data_1),
- Non-petitioned cases (variable = v158_other_data_2),

Race-specific data: Several measures are now available by racial or ethnic group for some counties. These measures are coded as

- v(measure ID)_race_aian for the American Indian & Alaska Native estimate
- v(measure ID)_race_asian for the Asian estimate
- v(measure ID)_race_black for the Black estimate
- v(measure ID)_race_hispanic for the Hispanic estimate
- v(measure ID)_race_white for the White estimate

If confidence intervals are available for race-specific data, the variable name is the same as the raw value variable, except with a “_cilow” or “_cihigh” extension. For example, the confidence interval for American Indian & Alaska Native years of potential life lost values are given by v001_race_aian_cilow and v001_race_aian_cihigh.

For information about how the County Health Rankings are calculated, and more in-depth descriptions of each of the measures, please visit www.countyhealthrankings.org

2021 Ranked Measures, Data Sources, and Years of Data

	Measure (ID)	Weight	Source	Years of Data
HEALTH OUTCOMES				
Length of Life	Premature death (1)*	50%	National Center for Health Statistics - Mortality Files	2017-2019
Quality of Life	Poor or fair health (2)	10%	Behavioral Risk Factor Surveillance System	2018
	Poor physical health days (36)	10%	Behavioral Risk Factor Surveillance System	2018
	Poor mental health days (42)	10%	Behavioral Risk Factor Surveillance System	2018
	Low birthweight (37)*	20%	National Center for Health Statistics - Natality files	2013-2019
HEALTH FACTORS				
HEALTH BEHAVIORS				
Tobacco Use	Adult smoking (9)	10%	Behavioral Risk Factor Surveillance System	2018
Diet and Exercise	Adult obesity (11)	5%	United States Diabetes Surveillance System	2017
	Food environment index (133)	2%	USDA Food Environment Atlas, Map the Meal Gap from Feeding America	2015 & 2018
	Physical inactivity (70)	2%	United States Diabetes Surveillance System	2017
	Access to exercise opportunities (132)	1%	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files	2010 & 2019
Alcohol and Drug Use	Excessive drinking (49)	2.5%	Behavioral Risk Factor Surveillance System	2018
	Alcohol-impaired driving deaths (134)	2.5%	Fatality Analysis Reporting System	2015-2019
Sexual Activity	Sexually transmitted infections (45)	2.5%	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2018
	Teen births (14)*	2.5%	National Center for Health Statistics - Natality files	2013-2019
CLINICAL CARE				
Access to Care	Uninsured (85)	5%	Small Area Health Insurance Estimates	2018
	Primary care physicians (4)	3%	Area Health Resource File/American Medical Association	2018
	Dentists (88)	1%	Area Health Resource File/National Provider Identification file	2019
	Mental health providers (62)	1%	CMS, National Provider Identification	2020
Quality of Care	Preventable hospital stays (5)*	5%	Mapping Medicare Disparities Tool	2018
	Mammography screening (50)*	2.5%	Mapping Medicare Disparities Tool	2018
	Flu vaccinations (155)*	2.5%	Mapping Medicare Disparities Tool	2018
SOCIAL & ECONOMIC FACTORS				
Education	High school completion (168)	5%	American Community Survey, 5-year estimates	2015-2019
	Some college (69)	5%	American Community Survey, 5-year estimates	2015-2019
Employment	Unemployment (23)	10%	Bureau of Labor Statistics	2019
Income	Children in poverty (24)*	7.5%	Small Area Income and Poverty Estimates	2019
	Income inequality (44)	2.5%	American Community Survey, 5-year estimates	2015-2019
Family and Social Support	Children in single-parent households (82)	2.5%	American Community Survey, 5-year estimates	2015-2019
	Social associations (140)	2.5%	County Business Patterns	2018
Community Safety	Violent crime (43)	2.5%	Uniform Crime Reporting - FBI	2014 & 2016
	Injury deaths (135)*	2.5%	National Center for Health Statistics - Mortality Files	2015-2019
PHYSICAL ENVIRONMENT				
Air and Water Quality	Air pollution - particulate matter (125)	2.5%	Environmental Public Health Tracking Network	2016
	Drinking water violations (124)	2.5%	Safe Drinking Water Information System	2019
Housing and Transit	Severe housing problems (136)	2%	Comprehensive Housing Affordability Strategy (CHAS) data	2013-2017
	Driving alone to work (67)*	2%	American Community Survey, 5-year estimates	2015-2019
	Long commute - driving alone (137)	1%	American Community Survey, 5-year estimates	2015-2019

*Indicates subgroup data by race and ethnicity is available.

Additional Measures, Data Sources, and Years of Data, 2021

Measure (ID)		Source	Years of Data
HEALTH OUTCOMES			
Length of Life	Life expectancy (147)*	National Center for Health Statistics - Mortality Files	2017-2019
	Premature age-adjusted mortality (127)*	National Center for Health Statistics - Mortality Files	2017-2019
	Child mortality (128)*	National Center for Health Statistics - Mortality Files	2016-2019
	Infant mortality (129)*	National Center for Health Statistics - Mortality Files	2013-2019
Quality of Life	Frequent physical distress (144)	Behavioral Risk Factor Surveillance System	2018
	Frequent mental distress (145)	Behavioral Risk Factor Surveillance System	2018
	Diabetes prevalence (60)	United States Diabetes Surveillance System	2017
	HIV prevalence (61)	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2018
HEALTH FACTORS			
HEALTH BEHAVIORS			
Diet and Exercise	Food insecurity (139)	Map the Meal Gap	2018
	Limited access to healthy foods (83)	USDA Food Environment Atlas	2015
Alcohol and Drug Use	Drug overdose deaths (138)*	National Center for Health Statistics - Mortality Files	2017-2019
	Motor vehicle crash deaths (39)*	National Center for Health Statistics - Mortality Files	2013-2019
Other Health Behaviors	Insufficient sleep (143)	Behavioral Risk Factor Surveillance System	2018
CLINICAL CARE			
Access to Care	Uninsured adults (3)	Small Area Health Insurance Estimates	2018
	Uninsured children (122)	Small Area Health Insurance Estimates	2018
	Other primary care providers (131)	CMS, National Provider Identification	2020
SOCIAL & ECONOMIC FACTORS			
Education	High school graduation (21)	EDFacts	2017-2018
	Disconnected youth (149)	American Community Survey, 5-year estimates	2015-2019
	Reading scores (159)**	Stanford Education Data Archive	2018
	Math scores (160)**	Stanford Education Data Archive	2018
Income	Median household income (63)*	Small Area Income and Poverty Estimates	2019
	Children eligible for free or reduced price lunch (65)	National Center for Education Statistics	2018-2019
Family and Social Support	Residential segregation - Black/White (141)	American Community Survey, 5-year estimates	2015-2019
	Residential segregation - non-White/White (142)	American Community Survey, 5-year estimates	2015-2019
Community Safety	Homicides (15)*	National Center for Health Statistics - Mortality Files	2013-2019
	Suicides (161)*	National Center for Health Statistics - Mortality Files	2015-2019
	Firearm fatalities (148)*	National Center for Health Statistics - Mortality Files	2015-2019
	Juvenile arrests (158) [†]	Easy Access to State and County Juvenile Court Case Counts	2018
PHYSICAL ENVIRONMENT			
Housing and Transit	Traffic volume (156)	EJSCREEN: Environmental Justice Screening and Mapping Tool	2019
	Homeownership (153)	American Community Survey, 5-year estimates	2015-2019
	Severe housing cost burden (154)	American Community Survey, 5-year estimates	2015-2019
	Broadband access (166)	American Community Survey, 5-year estimates	2015-2019

*Indicates subgroup data by race and ethnicity is available.

[†] Not available in all states.

Demographic Measures, Data Sources, and Years of Data, 2021

	Measure (ID)	Source	Years of Data
HEALTH FACTORS			
DEMOGRAPHICS			
All	Population (51)	Census Population Estimates	2019
	% below 18 years of age (52)	Census Population Estimates	2019
	% 65 and older (53)	Census Population Estimates	2019
	% Non-Hispanic Black (54)	Census Population Estimates	2019
	% American Indian & Alaska Native (55)	Census Population Estimates	2019
	% Asian (81)	Census Population Estimates	2019
	% Native Hawaiian/Other Pacific Islander (80)	Census Population Estimates	2019
	% Hispanic (56)	Census Population Estimates	2019
	% Non-Hispanic White (126)	Census Population Estimates	2019
	% not proficient in English (59)	American Community Survey, 5-year estimates	2015-2019
	% Females (57)	Census Population Estimates	2019
	% Rural (58)	Census Population Estimates	2010