COUNTY HEALTH RANKINGS 2023: ANALYTIC DATASET CODEBOOK

The SAS and CSV files provided at https://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. This codebook and documentation provide the name of each variable, data source and the years of data used.

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 equals 1 when the county was ranked. County_ranked = 0 when the county was not ranked. This variable is set to missing for state and national 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 (v004, v088, v062, v131): Four measures have a "ratio" variable included. These measures and their corresponding variables 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, the value reported for each county is a ratio of population:number of providers. However, in calculating the rankings, we use the actual *rate* of number of providers/100,000 population. The analytic dataset includes 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.)

Drinking water violations (v124): is a Yes/No variable, where a 1 indicates a "Yes", while a 0 indicates a "No".

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)

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 available by racial or ethnic categories for counties with sufficient sub-population sizes. These measures are coded as:

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

2023 Ranked Measures

	Measure (ID)	Data Source	Years of Data
HEALTH OUTCOMES			
Length of Life	Premature Death (1)*	National Center for Health Statistics - Mortality Files	2018-2020
Quality of Life	Poor or Fair Health (2)	Behavioral Risk Factor Surveillance System	2020
	Poor Physical Health Days (36)	Behavioral Risk Factor Surveillance System	2020
	Poor Mental Health Days (42)	Behavioral Risk Factor Surveillance System	2020
	Low Birthweight (37)*	National Center for Health Statistics - Natality files	2014-2020
HEALTH FACTORS			
HEALTH BEHAVIORS			
Tobacco Use	Adult Smoking (9)	Behavioral Risk Factor Surveillance System	2020
Diet and Exercise	Adult Obesity (11)	Behavioral Risk Factor Surveillance System	2020
	Food Environment Index (133)	USDA Food Environment Atlas, Map the Meal Gap from Feeding America	2019 & 2020
	Physical Inactivity (70)	Behavioral Risk Factor Surveillance System	2020
	Access to Exercise Opportunities (132)	ArcGIS Business Analyst and Living Atlas of the World; YMCA; US Census TIGER/Line Shapefiles	2022 & 2020
Alcohol and Drug Use	Excessive Drinking (49)	Behavioral Risk Factor Surveillance System	2020
	Alcohol-Impaired Driving Deaths (134)	Fatality Analysis Reporting System	2016-2020
Sexual Activity	Sexually Transmitted Infections (45)	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2020
	Teen Births (14)*	National Center for Health Statistics - Natality files	2014-2020
CLINICAL CARE			
Access to Care	Uninsured (85)	Small Area Health Insurance Estimates	2020
	Primary Care Physicians (4)	Area Health Resource File/American Medical Association	2020
	Dentists (88)	Area Health Resource File/National Provider Identifier Downloadable File	2021
	Mental Health Providers (62)	CMS, National Provider Identification	2022
Quality of Care	Preventable Hospital Stays (5)*	Mapping Medicare Disparities Tool	2020
	Mammography Screening (50)*	Mapping Medicare Disparities Tool	2020
	Flu Vaccinations (155)*	Mapping Medicare Disparities Tool	2020
SOCIAL & ECONOMIC FACTORS			
Education	High School Completion (168)	American Community Survey, 5-year estimates	2017-2021
	Some College (69)	American Community Survey, 5-year estimates	2017-2021
Employment	Unemployment (23)	Bureau of Labor Statistics	2021
Income	Children in Poverty (24)*	Small Area Income and Poverty Estimates	2021
	Income Inequality (44)	American Community Survey, 5-year estimates	2017-2021
Family and Social Support	Children in Single-Parent Households (82)	American Community Survey, 5-year estimates	2017-2021
	Social Associations (140)	County Business Patterns	2020
Community Safety	Injury Deaths (135)*	National Center for Health Statistics - Mortality Files	2016-2020
PHYSICAL ENVIRONMENT			
Air and Water Quality	Air Pollution - Particulate Matter (125)	Environmental Public Health Tracking Network	2019
	Drinking Water Violations (124) +	Safe Drinking Water Information System	2021
Housing and Transit	Severe Housing Problems (136)	Comprehensive Housing Affordability Strategy (CHAS) data	2015-2019
	Driving Alone to Work (67)*	American Community Survey, 5-year estimates	2017-2021
	Long Commute - Driving Alone (137)	American Community Survey, 5-year estimates	2017-2021

*Indicates subgroup data by race and ethnicity is available; +Data not available for HI.

2023 Additional Measures

	Measure (ID)	Data Source	Years of Data
HEALTH OUTCOMES			
Length of Life	Life Expectancy (147)*	National Center for Health Statistics - Mortality Files	2018-2020
	Premature Age-Adjusted Mortality (127)*	National Center for Health Statistics - Mortality Files	2018-2020
	Child Mortality (128)*	National Center for Health Statistics - Mortality Files	2017-2020
	Infant Mortality (129)*	National Center for Health Statistics - Mortality Files	2014-2020
Quality of Life	Frequent Physical Distress (144) ‡	Behavioral Risk Factor Surveillance System	2020
	Frequent Mental Distress (145) ‡	Behavioral Risk Factor Surveillance System	2020
	Diabetes Prevalence (60) ‡	Behavioral Risk Factor Surveillance System	2020
	HIV Prevalence (61) +	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2020
HEALTH FACTORS			
HEALTH BEHAVIORS			
Diet and Exercise	Food Insecurity (139)	Map the Meal Gap	2020
	Limited Access to Healthy Foods (83)	USDA Food Environment Atlas	2019
Alcohol and Drug Use	Drug Overdose Deaths (138)*	National Center for Health Statistics - Mortality Files	2018-2020
Other Health Behaviors	Insufficient Sleep (143)	Behavioral Risk Factor Surveillance System	2020
CLINICAL CARE			
Access to Care	Uninsured Adults (3)	Small Area Health Insurance Estimates	2020
	Uninsured Children (122)	Small Area Health Insurance Estimates	2020
	Other Primary Care Providers (131)	CMS, National Provider Identification	2022
SOCIAL & ECONOMIC FACTORS			
Education	High School Graduation (021)+	EDFacts	2019-2020
	Disconnected Youth (149)	American Community Survey, 5-year estimates	2017-2021
	Reading Scores (159) *+	Stanford Education Data Archive	2018
	Math Scores (160) *+	Stanford Education Data Archive	2018
	School Segregation (167)	National Center for Education Statistics	2021-2022
	School Funding Adequacy (169)+	School Finance Indicators Database	2020
Income	Gender Pay Gap (151)	American Community Survey, 5-year estimates	2017-2021
	Median Household Income (63)*	Small Area Income and Poverty Estimates	2021
	Living Wage (171)	The Living Wage Calculator	2022
	Children Eligible for Free or Reduced Price Lunch (65)+	National Center for Education Statistics	2020-2021
Family and Social Support	Residential Segregation - Black/White (141)	American Community Survey, 5-year estimates	2017-2021
	Childcare Cost Burden (171)	The Living Wage Calculator; Small Area Income and Poverty Estimates	2022 & 2021
	Childcare Centers (172)	Homeland Infrastructure Foundation-Level Data (HIFLD)	2010-2022
Community Safety	Homicides (15)*	National Center for Health Statistics – Mortality Files	2014-2020
	Suicides (161)*	National Center for Health Statistics – Mortality Files	2016-2020
	Firearm Fatalities (148)*	National Center for Health Statistics – Mortality Files	2016-2020
	Motor Vehicle Crash Deaths (39)*	National Center for Health Statistics - Mortality Files	2014-2020
	Juvenile Arrests (158)+	Easy Access to State and County Juvenile Court Case Counts	2019
Other Social & Economic Factors	Voter Turnout (177)+	MIT Election Data and Science Lab; American Community Survey, 5-year estimates	2020 & 2016-2020
	Census Participation (178)	Census Operational Quality Metrics	2020
PHYSICAL ENVIRONMENT			
Housing and Transit	Traffic Volume (156)	EJSCREEN: Environmental Justice Screening and Mapping Tool	2019
	Homeownership (153)	American Community Survey, 5-year estimates	2017-2021
	Severe Housing Cost Burden (154)	American Community Survey, 5-year estimates	2017-2021
	Broadband Access (166)	American Community Survey, 5-year estimates	2017-2021

Measure (ID)	Data Source	Years of Data
DEMOGRAPHICS		
All Population (51)	Census Population Estimates	2021
% Below 18 Years of Age (52)	Census Population Estimates	2021
% 65 and Older (53)	Census Population Estimates	2021
% Non-Hispanic Black (54)	Census Population Estimates	2021
% American Indian & Alaska Native (55)	Census Population Estimates	2021
% Asian (81)	Census Population Estimates	2021
% Native Hawaiian/Other Pacific Islander (80)	Census Population Estimates	2021
% Hispanic (56)	Census Population Estimates	2021
% Non-Hispanic White (126)	Census Population Estimates	2021
% Not Proficient in English (59)	American Community Survey, 5-year estimates	2017-2021
% Female (57)	Census Population Estimates	2021
% Rural (58)	Census Population Estimates	2010

*Indicates subgroup data by race and ethnicity is available; ⁺Data not available for all states.