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](http://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

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

*Indicates subgroup data by race and ethnicity is available.
### Additional Measures, Data Sources, and Years of Data, 2021

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

*Indicates subgroup data by race and ethnicity is available.
* Not available in all states.
### Demographic Measures, Data Sources, and Years of Data, 2021

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