Rural Population Health in the United States: A Chartbook

2023

NC RHRP
NC Rural Health Research Program

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About the NC Rural Health Research Program

The North Carolina Rural Health Research Program (NC RHRP) at the Cecil G. Sheps Center for Health Services Research is built upon more than 40 years of rural health research at The University of North Carolina at Chapel Hill. The NC RHRP addresses problems in rural health care delivery through research, policy-relevant analyses, geographic and graphical presentation of data, and the dissemination of information to organizations and individuals who can use the information for policy or administrative purposes to address complex social issues affecting rural populations.

NC RHRP's research involves primary data collection, analysis of large secondary data sets, and in-depth policy analysis. The program's diverse, multidisciplinary team includes health care professionals and experts in biostatistics, geography, epidemiology, economics, sociology, anthropology, and political science. With a focus on Medicaid and Medicare policy, NC RHRP has examined rural health topics ranging from hospital finance, hospital closures (and sub-issues like bypass and service provision), emergency medicine, swing bed care, child Medicaid policy, population health, intensive care in Critical Access Hospitals, labor costs and the area wage index, and premium assistance programs. NC RHRP also maintains the professional and data resources to respond to quick turn-around data analyses for policy makers, legislators, community programs and others.

The NC RHRP's project portfolio currently includes the NC Rural Health Research and Policy Analysis Center, Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research Studies, and a partnership with the University of Minnesota and the University of Southern Maine on the Medicare Rural Hospital Flexibility Program. These projects are funded by the U.S. Department of Health and Human Services Federal Office of Rural Health Policy.

For more information about the work of the North Carolina Rural Health Research Program, visit our website http://www.shepscenter.unc.edu/programs-projects/rural-health/.

Information on research conducted by all the federally funded Rural Health Research Centers is compiled and available at the Rural Health Research Gateway: http://www.ruralhealthresearch.org.

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INTRODUCTION AND CHARTBOOK PURPOSE

This chartbook presents variations in U.S. population health in rural areas across all Census regions and states. Where the data allow, we also present rural population health findings stratified by sex, race, and ethnicity. This chartbook presents a full range of data across multiple geographic areas. When looking at data like these it is important to consider the full data range or distribution, not just the average because the data points may cluster in one direction or another, and interpretation may become difficult.[1] Similarly, focusing exclusively on averages may cause us to overlook sub-problems. For example, a national average can conceal rural, regional, and/or state issues; and likewise, a state average may conceal a problem in many of its counties. This is particularly important when making rural-urban comparisons due to the wide range of geographic variation across the U.S.

Our goal is to provide data that are useful for State Offices of Rural Health, county health departments, local hospitals, and other local health leaders. While there are numerous data sources and chartbooks available,[2,3] these sources are not usually designed to highlight rural-urban disparities in population health, nor do they provide an in-depth look at the data. Additionally, little research has been conducted comparing the health of individuals residing in rural areas by race and ethnicity. However, research has consistently documented that populations of different races and ethnicities face different health risks, access to health care, and realize different health outcomes, suggesting that additional and more rigorous analyses of racial disparities are urgently needed.[4-6]

Rural America Overview

This report explores rural population health and disparities within rural areas of the United States. Rural populations are typically poorer, sicker, and older than urban populations.[7] Approximately 46.1 million people or 14% of the U.S. population live in communities that are considered rural using the county-level definition in this chartbook.[8] In these areas, residents have lower average incomes, as well as higher average unemployment and poverty rates compared to urban communities.[7] Compounding these disparities, rural hospitals are at a disproportionately high risk of closing due to factors like low patient volume and financial difficulties. Between 2005 and January 2022, 182 hospitals closed across rural communities, 139 of which closed since 2010.[9] These closures have left a large portion of rural residents at a significant disadvantage in accessing vital health care services.[10] Furthermore, in light of the coronavirus disease 2019 (COVID-19) pandemic, many of the financial challenges experienced by rural hospitals have been exacerbated and may result in additional closures.[11]

Goals of Population Health

An important goal of population health is to improve the health of the entire population. However, we know health needs vary based on many factors. We hope that the results from this analysis can be used to instruct future health initiatives by presenting a range of population health data on the differences between urban and rural areas as well as, disparities within rural communities. For the purposes of this chartbook, we separate the data by race, ethnicity, and sex where possible to allow for the acknowledgement of differences in (1) history and life course, (2) health behaviors, (3) risk factors and interrelated conditions, and (4) outcomes.

How is "Rural" Defined?

There are several ways to define rural. We focus on county-level data in this chartbook. According to the 2020 Office of Management and Budget (OMB) and the U.S. Census Bureau, all counties that that *do not* fall within a Metropolitan Statistical Area (MSA) are often defined as rural.[12] To qualify as metropolitan, an MSA must have a "core urban area" population of at least 50,000.[12]

Counties

For the most part, we present the data at the county-level. The U.S. has 3,142 counties—1,962 rural and 1,180 urban. Because our analysis is primarily at the county level, we will use "urban" to mean metro counties.

A Note on Race, Ethnicity, Sex, and Suppressed Data

Race and ethnicity are often used as a proxy for racism in public health and health services research, and using race and ethnicity alone to understand utilization or disparities limits our ability for a true contextual analysis.[13] However, in research we use a limited set of race and ethnicity categories and definitions. Standardization and categorization allow us to make comparisons, but efforts to standardize race and ethnicity are problematic and may always be elusive as populations are heterogeneous across race, gender identification, class, citizenship, etc. Even so, using these categories is part of an effort to underscore existing inequities and to make improvements. We acknowledge these inherent limitations and also those in the collection and presentation of data.

Data collection methods. In 1997, the U.S. Office of Management and Budget (OMB) issued government-wide collection standards for obtaining race and ethnicity data.[14] Much of the data we use is collected using federally approved or sponsored methods, such as surveys and death certificates, which use the OMB standards as a starting point for data collection. OMB specifies five race categories and two ethnicity categories as a minimum for collection. The race categories include 1) American Indian or Alaska Native, 2) Asian, 3) Black or African American, 4) Native Hawaiian or Other Pacific Islander, and 5) White.[15] OMB ethnicity categories include ''Hispanic or Latino'' and ''Not Hispanic or Latino.'' Additional categories may be included, as long as data can be consolidated to fit the minimum sets for comparison. Ideally survey respondents self-select their preferred race and ethnicity; more than one race may be selected.[14]

Variation in selection. As noted above, race and ethnicity may be self-identified, but that's not always possible. For indicators, such as income, collected in U.S. Census Bureau surveys, respondents self-select their race and ethnicity from a set of provided categories (including the OMB minimum). For other indicators, like mortality, race data are collected from death certificates, which are often completed by funeral directors who may ask relatives or rely on observation, but they also select from OMB race and ethnicity categories. Regardless, there are challenges inherent in these methods.[16]

Sex, gender identity, and sexual orientation. People often face discrimination based on their sex, gender identity, and sexual orientation. Historically, and to a large extent, currently, most national datasets include only the binary options of male and female to identify the biologic sex of a person. Recognizing that sex, gender, and sexual orientation are not binary constructs or interchangeable terms and affect a person's health and health care, increased effort is being made to create more reliable and valid methods for measuring these demographic characteristics.[17] In this chartbook however, we were limited to data available for all U.S. counties. This affects the teen pregnancy data and mortality data by Census division where we report by sex, race, and ethnicity.

Unstable rates and suppression. In addition to how sex, race, and ethnicity are defined and selected/assigned, rural areas have smaller populations, which means smaller numbers of births, fewer people with various health conditions/outcomes, fewer deaths, etc. Many data sources consider counties with *fewer than 10 incidences as potentially identifiable*, and thus, data are suppressed and unavailable for analysis.[18,19] Similarly, data from counties with *20 or fewer incidences are considered unstable* and are also suppressed. The statistics in this chartbook are based on data that were not suppressed. Some states have quite a bit of missing data for certain indicators (e.g., infant mortality, suicide, poisoning). To the extent that the suppressed data are systematically different from non-suppressed (e.g., higher or lower), these statistics may be misleading. Data are sometimes unavailable or limited due to low incidence rates among races and ethnicities too, even at the Census division level. For example, diabetes mortality rates in New England are suppressed for the American Indian/Alaskan Native and Asian or Pacific Islander groups due to a small sample size (see page 51). For these reasons, we present race and ethnicity data at the Census division level instead of at county or state levels to minimize missing data.

HEALTH INDICATORS, DEFINITIONS, & LIMITATIONS

We used a range of indicators in this report to describe population health in rural America and document health disparities between rural and urban areas. This report includes 33 measures of population health, organized into five domains: Access to Care, Health Outcomes and Risks, Mortality, Social Determinants of Health, and Socioeconomics. The domains reflect local health care infrastructure, population health status, economic conditions, social supports, and physical environment.

The indicators provide an overview of population health and include both health outcomes—such as specific measures of mortality—and factors that drive or influence health outcomes—such as smoking, obesity, and the supply of health care providers. Table 1 on pages 4-5 includes indicator definitions and sources.

Indicators were selected from six national data sources. Our goal was to select indicators that would help describe and track rural population health across every U.S. County or county equivalent. We selected indicators that represent a combination of measures that have been used for years in addition to a few emerging measures. Measures are developed based on feasibility, relevance, validity, replicability, etc. It is important to understand that there are pros and cons inherent in each measure. Each indicator has limitations, and just because it has been used for decades doesn't mean it's good, but it may be the best/only available option.

We discussed limitations with race and ethnicity measures on page 2. Here, for brevity, we only describe limitations related to obesity (Body Mass Index), overcrowded households, and teenage pregnancy. First, Body Mass Index is the measure behind our obesity indicator. It's been criticized for not distinguishing between body fat and body lean mass,[20,21] and not accounting for sex or racial differences.[22,23,24] In spite of the limitations, it is an inexpensive way to capture large amounts of data and is the most commonly used obesity measure. Second, we selected overcrowded households as a metric for affordable housing. The measure, defined as more than one person per room, may be considered culturally insensitive given many cultures have multi-generational households, and the measure does not account for relationships or other conditions of the home.[25] Third, we include teenage pregnancy, which is defined as the average number of births per 1,000 females ages 15-19 years old. Here the denominator is narrowed from the whole population to teenagers ages 15-19 years old, and further to females, but the measure may still lack accuracy since sex and gender differ, and the Census measure of females may not accurately capture the population of people who are able to be pregnant.[26] Although every measure has limitations, we selected nationally available measures that inform on concepts difficult to measure on a large scale and at the county level. The indicators in this chartbook provide metrics that may help focus resources and strategies where there are inequities.

Data Are Organized Based on National Quartiles

The data in this report are broken down by *national quartiles*—groups of data points divided into four equal parts consisting of approximately the same number of counties in each. The quartiles are calculated from national datasets and are thus based on the national distributions for each measure. The first quartile represents data points in the 25th percentile and below, the second quartile represents data points between the 25th and 50th percentiles, and so on. Organizing the data into quartiles provides insight into how county-level outcomes are distributed and can also help answer the question as to whether outcomes in rural areas are proportional to national outcomes. To overcome small sample sizes, we used five-to-seven-year averages of the data for many of the indicators. This is a tradeoff that sacrifices latency for non-suppression.

Table 1. Indicators, Definitions, and Sources Used in County and State Stratifications

Domain	Indicator	Definition	Source	Year
Access to Care	Dentist Supply	Dentists per 10,000 population	CHR	2016
	Employer-Sponsored Insurance	Five-year average percentage of the population less than age 65 with employer-sponsored insurance	ACS	2012-2016
	Hospital Nearby	Percentage of the population within 15 miles of an acute care hospital or critical access hospital (CAH)	POS & ACS	2016
	Mental Health Care Provider Supply	Mental health care providers per 10,000 population	CHR	2016
	Physician Supply	Primary care physicians[27] per 10,000 population	CHR	2016
	Preventable Hospital Admissions	Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees	CHR	2016
	Uninsured	Percentage of the population under age 65 without health insurance	CHR	2016
Health Outcomes and Risks	Excessive Alcohol Use	Percentage of adults reporting binge or heavy drinking	CHR	2014
	Low Birth Weight	Five-year average percentage of live births with low birthweight (less than 2,500 grams)	CHR	2010-2016
	Obesity	Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2	CHR	2015
	Opioid Prescriptions	Three-year average percentage of Medicare Part D claims that are for opioids	CMS	2013-2015
	Smoking	Percentage of adults who are current smokers	CHR	2016
	Teen Pregnancy	Seven-year average number of births per 1,000 females ages 15-19	CHR	2010-2016
Mortality (age-adjusted for all except infant mortality)	Cancer Mortality	Five-year average all-cancer mortality per 100,000	CMF	2012-2016
	Chronic Lower Respiratory Disease Mortality	Five-year average chronic lower respiratory disease mortality per 100,000	CMF	2012-2016
	Diabetes Mortality	Five-year average diabetes mortality per 100,000	CMF	2012-2016
	Heart Disease Mortality	Five-year average heart disease mortality per 100,000	CMF	2012-2016
	Infant Mortality	Five-year average infant mortality per 1,000 births (under age 1)	CMF	2012-2016
	Motor Vehicle Mortality	Five-year average motor vehicle mortality per 100,000	CMF	2012-2016
	Poisoning Mortality	Five-year average poisoning mortality per 100,000	CMF	2012-2016
	Stroke Mortality	Five-year average stroke mortality per 100,000	CMF	2012-2016
	Suicide Mortality	Five-year average suicide mortality per 100,000	CMF	2012-2016
	Total Mortality	Five-year average all-cause mortality per 100,000	CMF	2012-2016
	Unintentional Injury Mortality	Five-year average unintentional injury mortality per 100,000	CMF	2012-2016

Table 1 (continued). Indicators, Definitions, and Sources Used in County and State Stratifications

Domain	Indicator	Definition	Source	Year
Social Determinants of Health	Food Insecure Households	Percentage of households with food insecurity	CHR	2015
	Household Transportation Cost	Transportation costs (based on auto ownership, auto use, and transit use) as a percentage of income for the national typical household	HTA Index	2017
	Overcrowded Households	Five-year average percentage of households with more than 1 person per room	ACS	2012-2016
Socioeconomic	Deep Child Poverty	Five-year average percentage of children, ages 0-17 years old, living in households with incomes below 50 percent of the poverty threshold	Rural Atlas	2011-2015
	Labor Force Participation Rate	Five-year average percentage of population aged 16 and older who are employed or seeking employment	Rural Atlas	2011-2015
	Older Adult Population	Five-year average percentage of the population that is age 65 or older	ACS	2012-2016
	Per Capita Income	Five-year average household income earned during the previous 12 months, in 2017 inflation-adjusted dollars, divided by the county population	Rural Atlas	2011-2015
	Recent Veterans	Five-year average percentage of population age 25 and older who gained veteran status since 2001	Rural Atlas	2011-2015
	Social Connectedness	Five-year average percentage of the population participating in activities / groups[28]	CHR	2012-2016

NOTES: CHR=County Health Rankings, POS=Provider of Services, ACS=American Community Survey-Census, CMS=Centers for Medicare & Medicaid Services, HTA=Housing and Transportation (H+T®) Affordability Index, CMF=Compressed Mortality File

Data Sources

We used the following public-use data sources to create the charts and tables in this chartbook.

- County Health Rankings & Roadmaps, 2012-2016. University of Wisconsin Population Health Institute. Available at: www.countyhealthrankings.org.
- Provider of Services, 2016. Centers for Medicare & Medicaid Services. Available at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Provider-of-Services.
- American Community Survey, 2012-2016. U.S. Census Bureau. Available at: https://www.census.gov/programs-surveys/acs/data.html.
- Housing and Transportation (H+T®) Affordability Index, 2017. The Center for Neighborhood Technology. Available at: https://htaindex.cnt.org/.

- Compressed Mortality File, 2012-2016. CDC Wonder. Centers for Disease Control and Prevention. Available at: https://wonder.cdc.gov/mortsql.html.
- Rural Atlas, 2011-2015. Economic Research Service, U.S. Department of Agriculture. Available at: https://www.ers.usda.gov/data-products/atlas-of-rural-and-small-town-america/.

Table 2. Indicators, Definitions, and Sources Used in Race and Ethnicity Stratifications

Indicator	Definition/Recode*	Source	Year
Cancer Mortality	20-43	CMF	2012-2016
Chronic Lower Respiratory Disease Mortality	83-86	CMF	2012-2016
Diabetes Mortality	46	CMF	2012-2016
Heart Disease Mortality	54-68	CMF	2012-2016
Infant Mortality	Five-year average infant mortality per 1,000 births	CMF	2012-2016
Motor Vehicle Mortality	114	CMF	2012-2016
Poisoning Mortality	419 (X40-X49), 425, 426, 427 (X60-X69), 433 (X85-X90, U016-U017), 443, 444 (Y10-Y19), Y352	CMF	2012-2016
Stroke Mortality	70	CMF	2012-2016
Suicide Mortality	124	CMF	2012-2016
Total Mortality	Five-year average all-cause mortality per 100,000	CMF	2012-2016
Unintentional Injury Mortality	114-123	CMF	2012-2016

*We defined mortality indicators using recodes for ICD-10 codes. See Table 5.1: 113 Causes of Death, 10th Revision: Underlying Cause of Death Recode Adapted for Use by the Division of Vital Statistics (DVS), Deaths 1979-2015. National Center for Health Statistics Data Linkage. Available at: https://www.cdc.gov/nchs/data/datalinkage/underlying_and_multiple_cause_of_death_codes.pdf.

Data Source

- Compressed Mortality File (CMF), 2012-2016. CDC Wonder. Centers for Disease Control and Prevention. Available at: https://wonder.cdc.gov/mortsql.html.

CHARTBOOK STRUCTURE—How to Read the Charts

This chartbook presents rural (and sometimes urban) county data using national maps, box plots, bar charts, and dot plots. Five states have few or no rural (non-metro) counties – Connecticut (1), Delaware (0), Massachusetts (2), New Jersey (0), and Rhode Island (0). Hawaii only has five counties (three rural). Data presented for these states may be absent or, when present, look unusual.

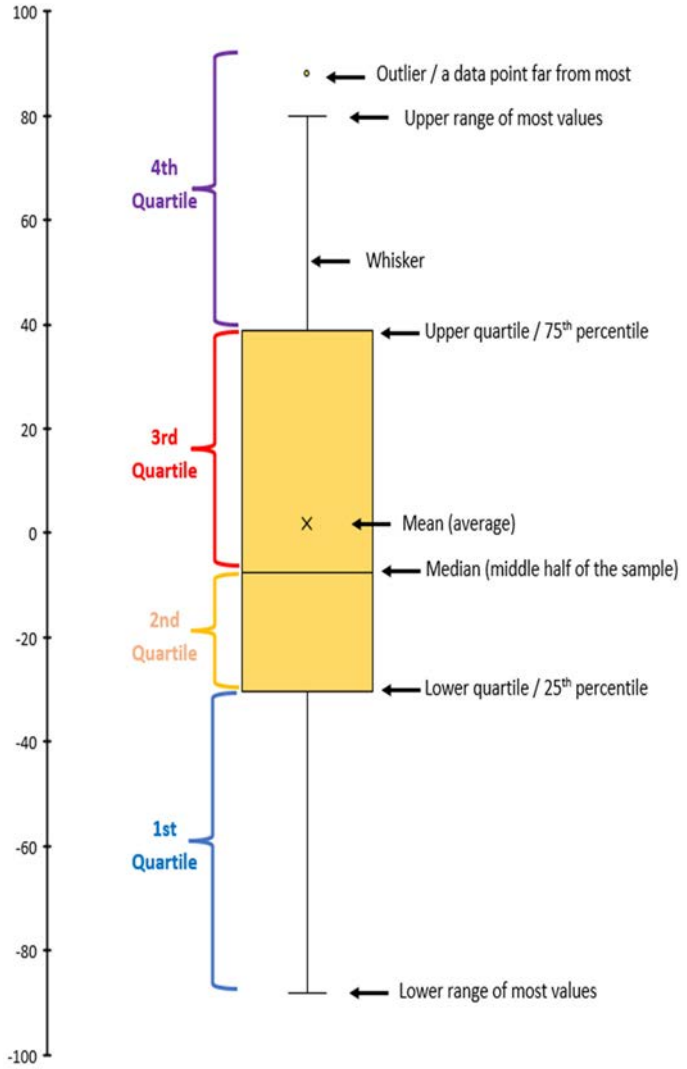
The charts show:

- how health indicators among rural counties in each state compare to the rest of the country.
- differences by sex, race, and ethnicity for each indicator by Census division.
- rural-urban disparities for each indicator across each state and by Census region.
- how often, where, and for which indicators data are suppressed.
- the range of rural county averages for each indicator in each state.

Interpreting Box Plots

We use box plots for the Census region and state summary charts. The box and whisker plot (box plot) helps us visualize the variability and distribution of the data by plotting the range of the values. For example, if a state has 20 counties, the plot will have 20 values. Understanding the distribution of the data is important: although the mean (e.g., average of the values) might tell us how the state is performing relative to other state averages, seeing how the data vary can help explain trends and variations within the state as well. Although a state's average may look reasonable compared to other states, an average does not provide detailed data on individual counties. A box plot therefore shows us (1) how data are grouped, (2) whether there are outliers (e.g., uncommonly high or low values), and (3) whether the distribution of data points is symmetrical (normal) or skewed in particular direction.

The data are divided into **quartiles** (e.g., 0th to 25th, 25th to 50th, etc.), each representing one fourth of the data. Half of the values are above the **median,** while the other half fall below the median. Therefore, the 50th percentile also denotes the median. The box surrounds the values from the first quartile (25th percentile) to the third quartile (75th percentile). The difference between the 75th and 25th percentiles is known as the interquartile range (IQR). The top and bottom whiskers are located at the 75th percentile + 1.5*IQR and the 25th percentile – 1.5*IQR, respectively. The **whiskers** are meant to denote most of the data's distribution. **Outliers** are unusually high or low values in the data and are represented as individual data points beyond the whiskers. Although outliers can have a significant influence on the mean, their influence on the median is less pronounced**.**

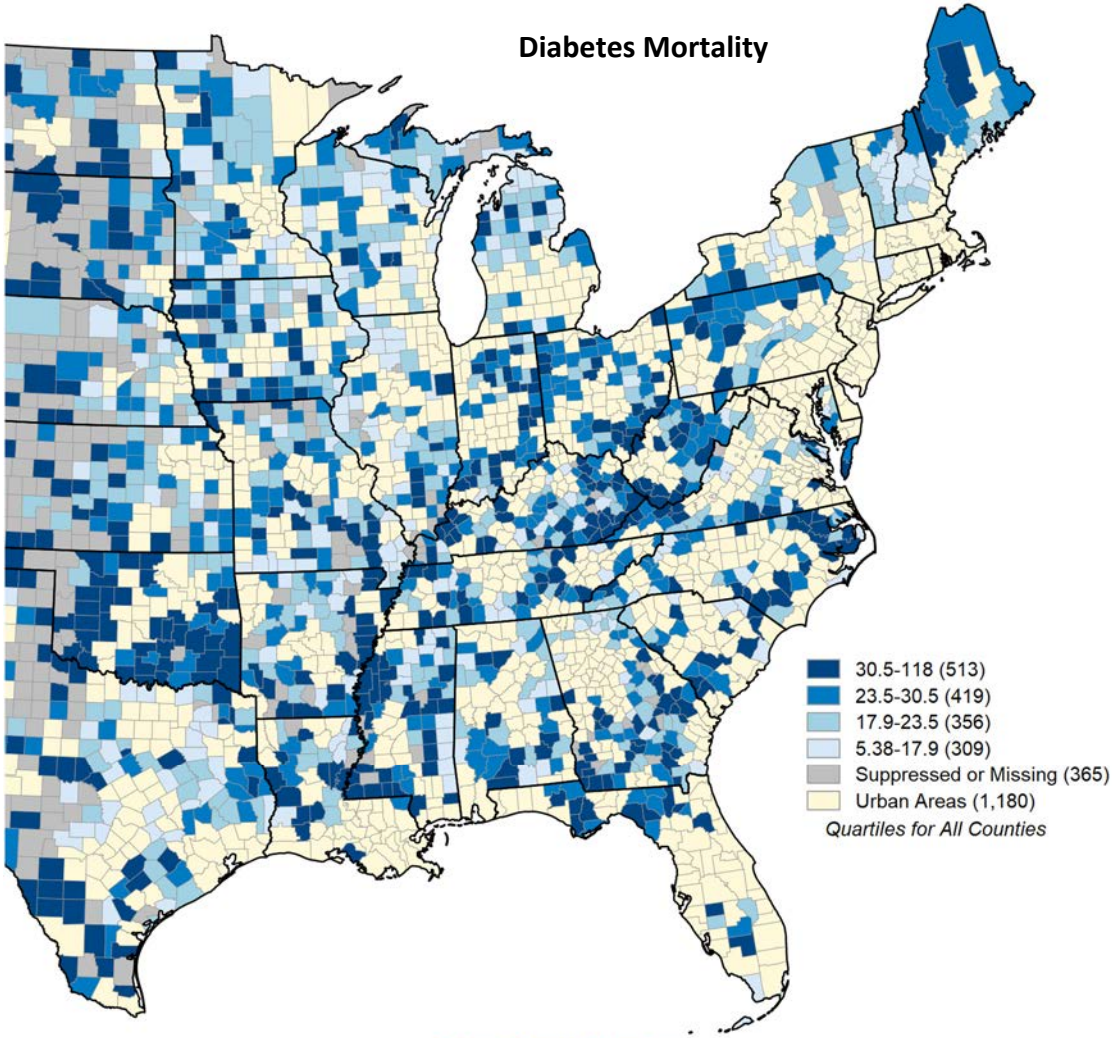


How to Read the U.S. County Maps

The chartbook includes national maps for each indicator displaying its variation across counties. Maps for each variable were designed to have darker colors represent values indicating poor health status, or values for social or behavioral factors that contribute to poor health status and/or greater need.

The value groupings used to determine the color categories in the national maps are determined by the *national* quartiles of each respective indicator: four groupings with equal numbers of constituent counties in each category (with some variation due to rounding and suppressed data values). The quartiles are determined by using the breaks at the 25th, 50th, and 75th percentiles of the national distribution. The maps also include urban counties and note where county data are suppressed.

Because the quartiles are determined using national quartiles, each group will contain approximately 3,142/4 or 785 counties (including urban). A metric with a disproportionate number of rural counties in a group will appear as a dark area on the map. The map to the right shows diabetes mortality rates. The darkest counties have the highest diabetes mortality rates and represent the counties with greater need. The maps can also show regional clusters of high need—along the Mississippi Delta, for example. On the other hand, New Hampshire, Vermont, and northern New York counties are lighter blues, meaning low rates. Under each map, is a table of rural and urban averages by Census region.



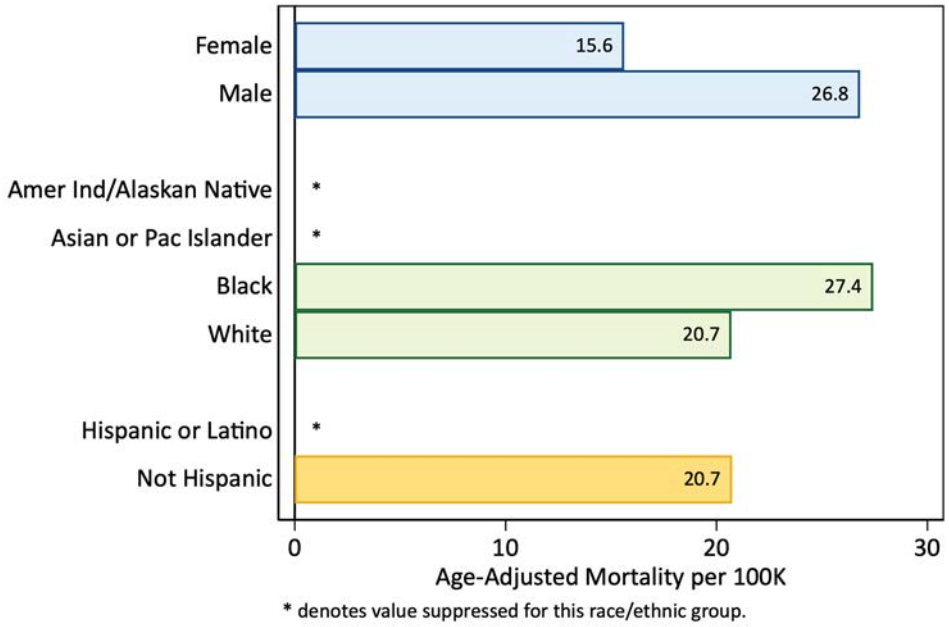
Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
21	26	18	22	21	24	21	29	21	24

How to Read the Sex, Race, and Ethnicity Disparity by Census Division Charts

Each **Census division** contains a disparity profile that shows the difference for rural counties in each division by **sex, race, and ethnicity**. Data at the county level were suppressed at levels that made it impossible to show these differences at smaller levels than Census division (e.g., state or county). For the same reason, these profiles are limited to mortality indicators. We present data for **11 mortality indicators** from the CDC Compressed Mortality File because race and ethnicity data stratified by rural and urban data were not available for many of our indicators but were available for these mortality indicators. See Table 2 on page 6 for indicators, definitions, and sources used in race and ethnicity stratifications.

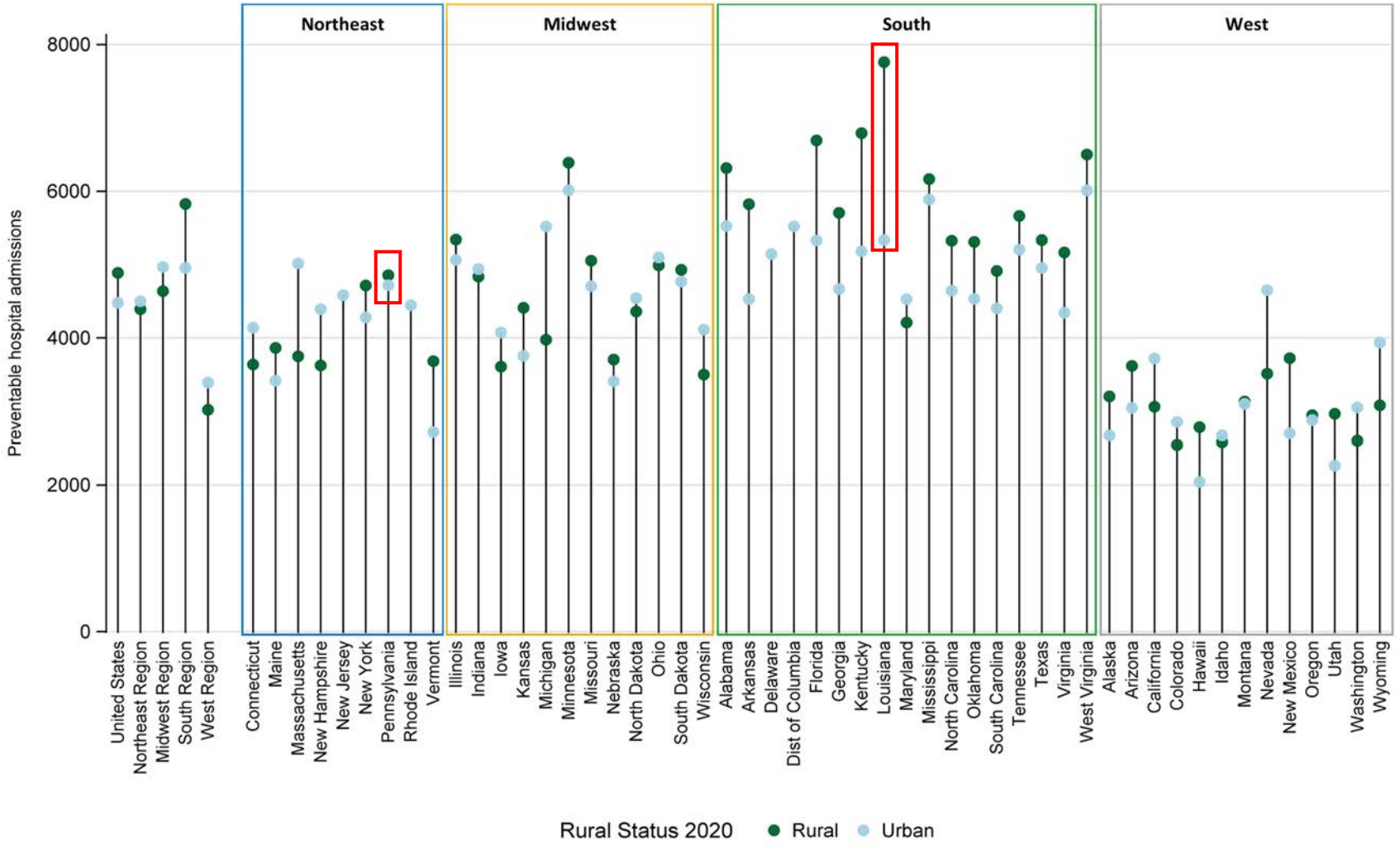
As seen in the profile below, categories with an asterisk denote categories with suppressed or missing data due to small sample sizes.



Census Regions	Census Divisions	
Northeast	**New England**	**Middle Atlantic**
	Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	New Jersey New York Pennsylvania
Midwest	**East North Central**	**West North Central**
	Illinois Indiana Michigan Ohio Wisconsin	Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota
South	**South Atlantic**	**East South Central**
	Delaware Florida Georgia Maryland North Carolina South Carolina Virginia West Virginia	Alabama Kentucky Mississippi Tennessee **West South Central** Arkansas Louisiana Oklahoma Texas
West	**Mountain**	**Pacific**
	Arizona Colorado Idaho Montana Nevada New Mexico Utah Wyoming	Alaska California Hawaii Oregon Washington

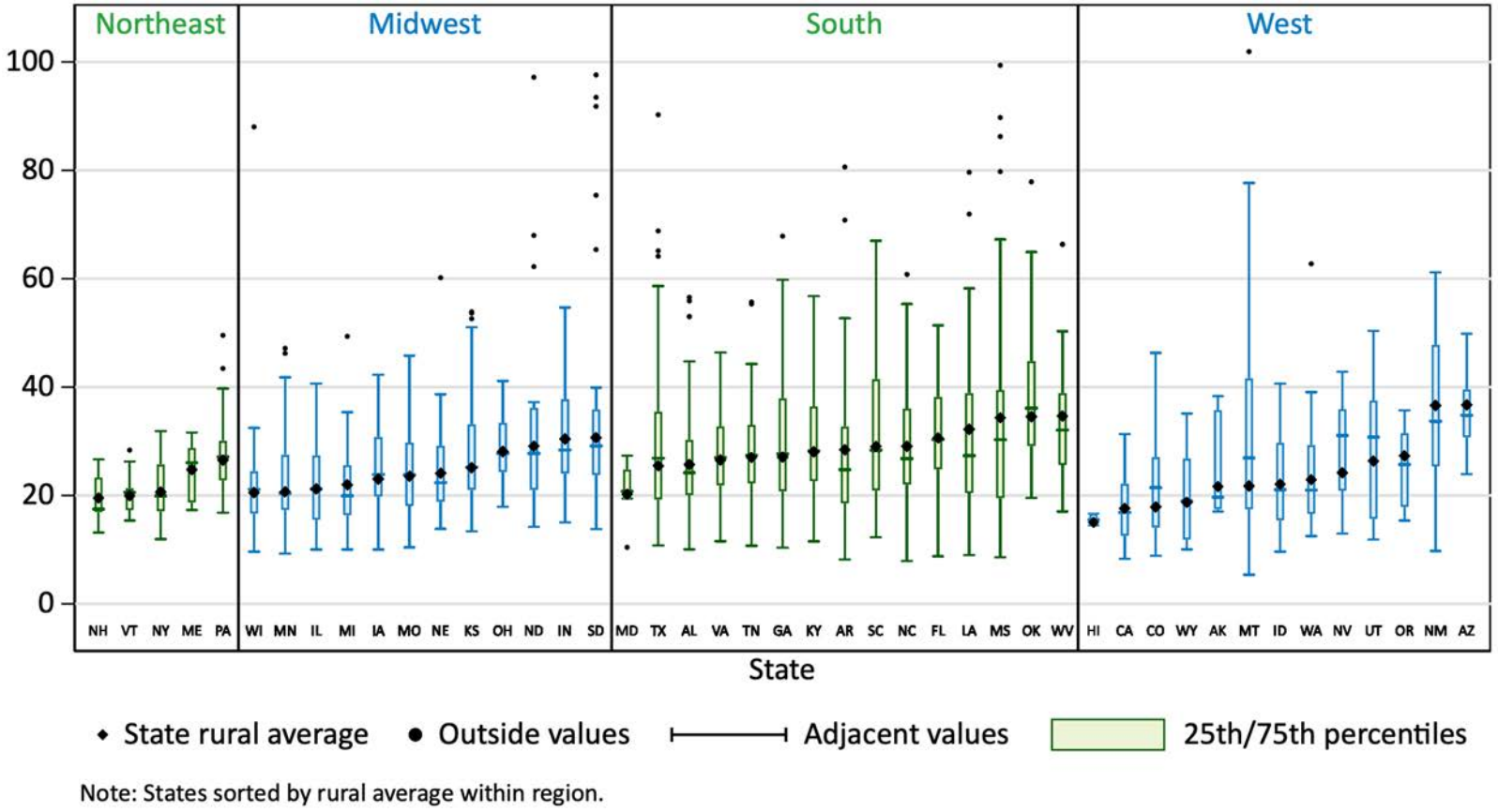
How to Read the Rural – Urban Disparities Charts

State values for the rural (non-metro) and urban (metro) counties in each state and Census region are presented as a "dot plot" for the various indicators. The light blue dots denote the mean urban values, and the dark green dots denote the mean rural values. The distance between the dark green and light blue dots represents the rural-urban difference within that state. **Therefore, states with larger distances between the dark green and light blue dots have larger rural-urban disparities**. For example, the figure here shows that the rural-urban disparity in preventable hospital admissions was greater in Louisiana and smaller in Pennsylvania.



How to Read the Census Region Overview Charts

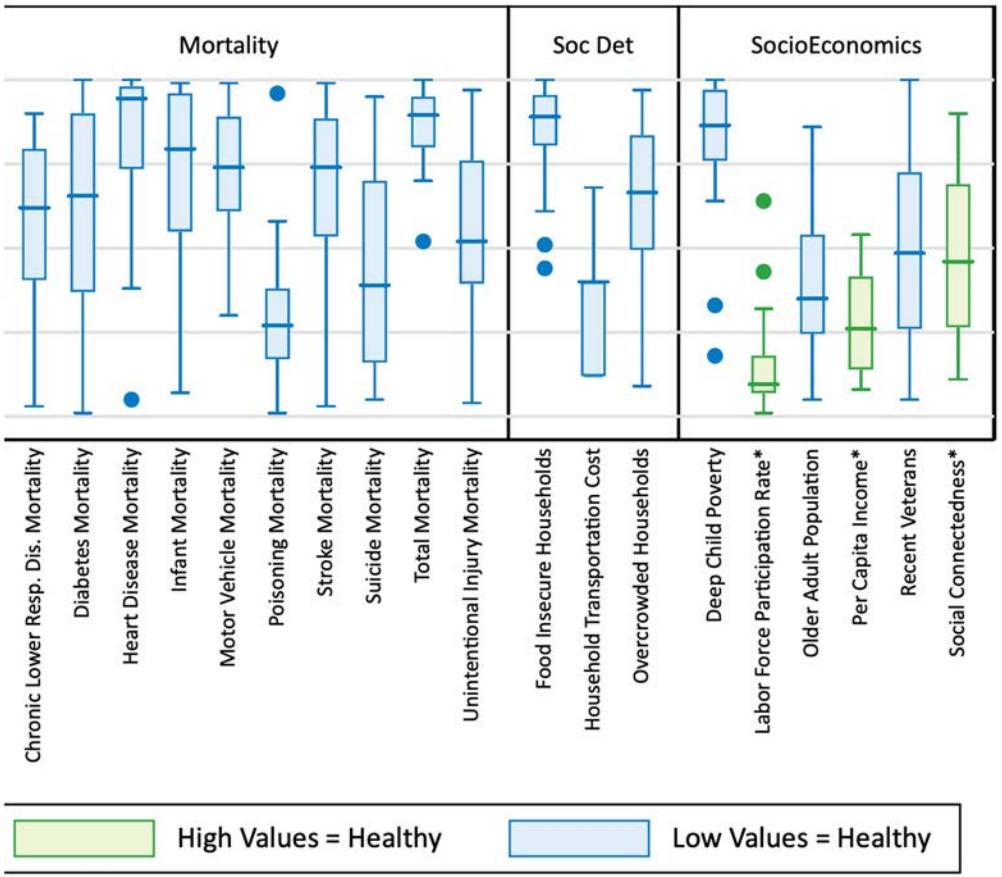
For each state, a box plot chart provides an overview of the distribution of rural (non-metro) county values relative to the national distribution. Instructions on how to read and interpret box plots are provided on page 7. All values are renormalized against national percentiles, which measure the percentage of counties in the U.S. with a value below that value. The 0th (minimum), 25th, 50th, 75th, and 100th (maximum) national percentiles are shown as grey lines on the chart. **The boxes show the distribution of rural counties in that state relative to the national distribution**. Color has no significance in this chart other than to denote Census regions. The bottom and top of the boxes denote the 25th and 75th percentiles for the rural counties in the state, and the horizontal line in the middle of the box is the median. The "whiskers" represent the range for the majority of values, while individual dots beyond the whiskers represent "outliers" (e.g., uncommonly high or low values). States are grouped by Census region and are ordered from lowest to highest within their respective Census region using the state's rural average (denoted by the black diamond). These charts include 45 of the 50 states. Connecticut, Delaware, Massachusetts, New Jersey, and Rhode Island are not included because they had too few or no rural counties.



How to Read the State Summary Charts

Similar to the Census region overview charts, the state summary charts are presented as box plots. For each state, a box plot chart provides an overview of the distribution of rural (non-metro) county values relative to the national distribution. Instructions on how to read and interpret box plots are provided on page 7. All values are renormalized against national percentiles, which measure the percentage of counties in the U.S. with a value below that value. The 0th (minimum), 25th, 50th, 75th, and 100th (maximum) national percentiles are shown as grey lines on the chart. The boxes show the distribution of rural counties in that state relative to the national distribution. The bottom and top of the boxes denote the 25th and 75th percentiles for the rural counties in the state, and the horizontal line in the middle of the box is the median. The "whiskers" represent the range for the majority of values, while individual dots beyond the whiskers represent "outliers" (e.g., uncommonly high or low values). It is important to note that **color has significance** in these charts. **Blue** is for indicators where higher values denote worse health and **green** is for indicators where higher values denote better health (also marked with an asterisk beside the indicator name).

By comparing the box to the grey lines, one can assess whether the range of values for rural counties in the state is high, low, or comparable to the national values. In the example shown here, the blue box representing rural county "food insecure" rates for this state is above the 75th percentile grey line. Therefore, the reader should conclude that the percentage of rural households that are food insecure is generally higher compared to the United States. On the other hand, the "poisoning" mortality indicator box is "low"—the top of the box (e.g., the 75th percentile) is below the 50th percentile grey line. Thus, mortality from poisoning is lower among rural counties in this state compared to the national distribution.



Rural and Urban Indicator Averages by U.S. Census Region

Indicator Definitions	National		Northeast Region		Midwest Region		South Region		West Region	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
States	-	-	11	11	12	12	13	13	14	14
Dentists per 10,000 population	7	4	8	5	7	5	6	4	8	6
Percentage of population < age 65 with **employer-sponsored insurance**	52	45	56	50	57	50	49	41	50	41
Percentage of population **within 15 miles** of acute care **hospital** or CAH	95	80	98	88	97	84	95	83	90	58
Mental health providers per 10,000 population	26	17	32	23	24	15	19	13	34	29
Primary care **physicians** per 10,000 population	8	5	9	7	8	5	7	5	8	6
Rate of **hospital stays** for ambulatory-care sensitive conditions per 100,000 Medicare enrollees	4,477	4,886	4,501	4,391	4,966	4,637	4,953	5,826	3,391	3,018
Percentage of population < age 65 **without health insurance**	10	11	7	7	7	9	14	15	9	11
Percentage of adults reporting binge or **heavy drinking**	19	17	20	19	21	19	18	15	19	18
Percentage of live births with **low birth weight**	8	8	8	7	8	7	9	9	7	7
Percentage of population > age 20 with **BMI > 30 kg/m2**	28	34	26	32	31	34	30	35	25	29
Percentage of Medicare Part D claims for **opioids**	5	5	3	4	5	5	6	5	5	6
Percentage of adults who are current **smokers**	15	18	14	17	16	18	16	20	12	16
Number of **births** to mothers ages **15-19 years old**	21	32	14	18	21	26	26	40	20	29
Average **cancer mortality** rate per 100,000	158	177	157	170	168	175	161	188	146	153
Average **chronic lower respiratory disease mortality** rate per 100,000	39	54	31	47	43	52	41	60	37	48
Average **diabetes mortality** rate per 100,000	21	26	18	22	21	24	21	29	21	24
Average **heart disease mortality** rate per 100,000	163	196	168	182	169	183	168	222	145	156
Average **infant mortality** rate per 1,000 births	6	7	5	6	6	7	7	8	5	6
Average **motor vehicle mortality** rate per 100,000	10	20	7	14	9	17	13	24	9	20
Average **poisoning mortality** rate per 100,000	17	20	20	20	20	18	16	20	15	22
Average **stroke mortality** rate per 100,000	36	42	30	34	37	40	40	48	35	37
Average **suicide mortality** rate per 100,000	12	18	10	15	13	16	13	17	13	24
Average **total mortality** rate per 100,000	713	841	677	763	751	794	753	929	651	746
Average **unintentional injury mortality** rate per 100,000	40	56	38	50	43	51	43	60	36	60
Percentage of households with **food insecurity**	12	14	11	12	12	12	14	16	12	13
Transportation costs as percentage of income for national typical household	23	27	21	27	24	27	24	27	24	27
Percentage of **households with more than one person** per room	4	2	3	1	2	2	3	3	6	4
Percentage of **children**, ages 0-17, in households with income below 50% of **poverty** threshold	8	10	8	8	8	8	9	13	7	9
Percentage of population > 16 **employed** or seeking employment	64	57	65	59	66	61	64	53	64	57
Percentage of population **≥ age 65**	15	19	16	20	15	19	15	18	14	18
Household income earned during the previous 12 months	56,527	41,553	67,219	46,381	53,533	43,534	51,175	37,223	58,940	46,444
Percentage of population > age 25 who gained **veteran** status since 2001	16	13	12	11	14	12	19	14	17	14
Percentage of population participating in **activities/groups**	8	12	9	13	10	15	9	12	6	9
Number of **counties**	1,180	1,962	131	86	304	751	603	819	142	306

Values are population-weighted county averages and may differ slightly from values in other sources.

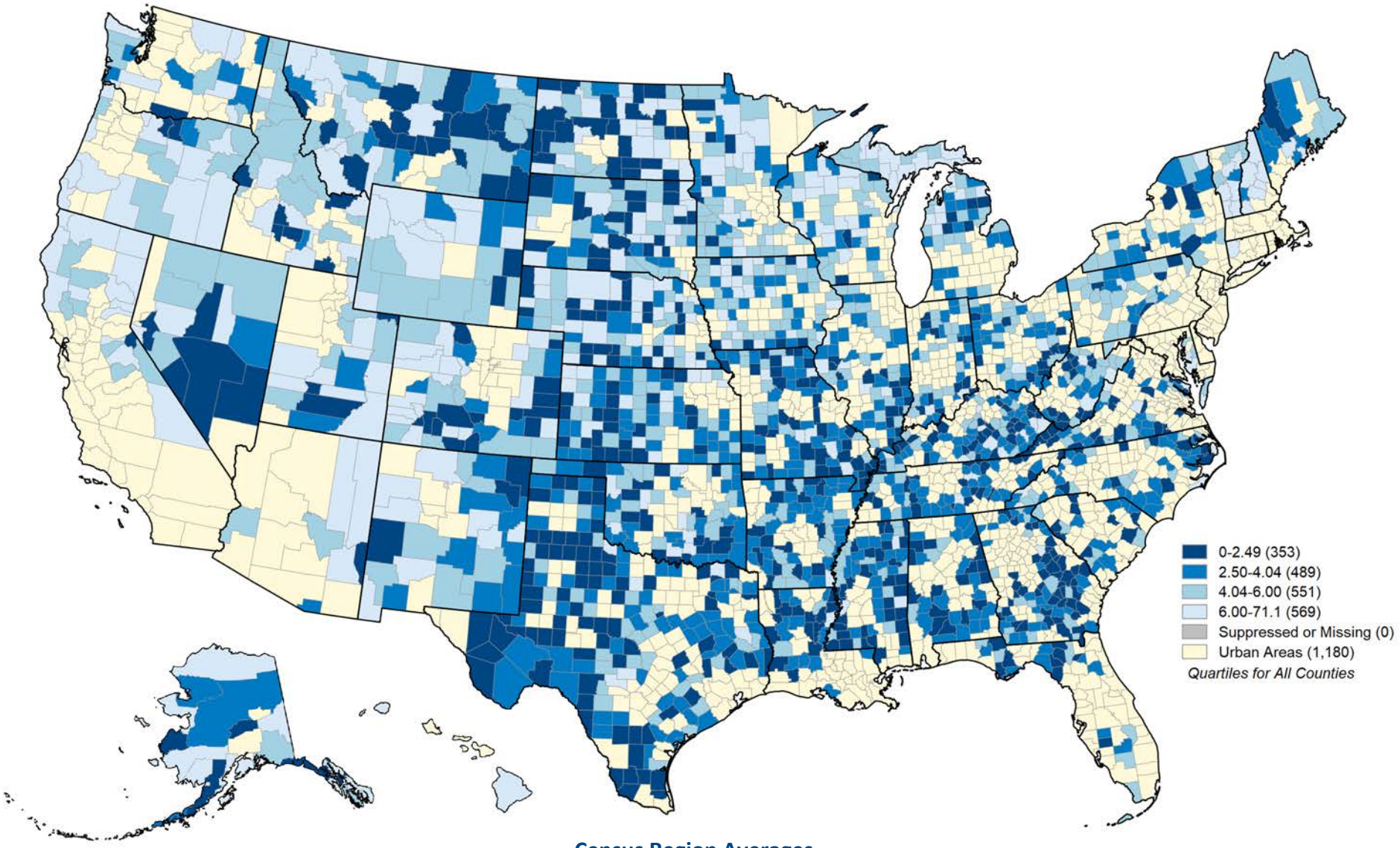
U.S. Maps by Indicator

Definitions and Data Sources

How to Read the Maps

Dentist Supply

Dentists per 10,000 population (2016)

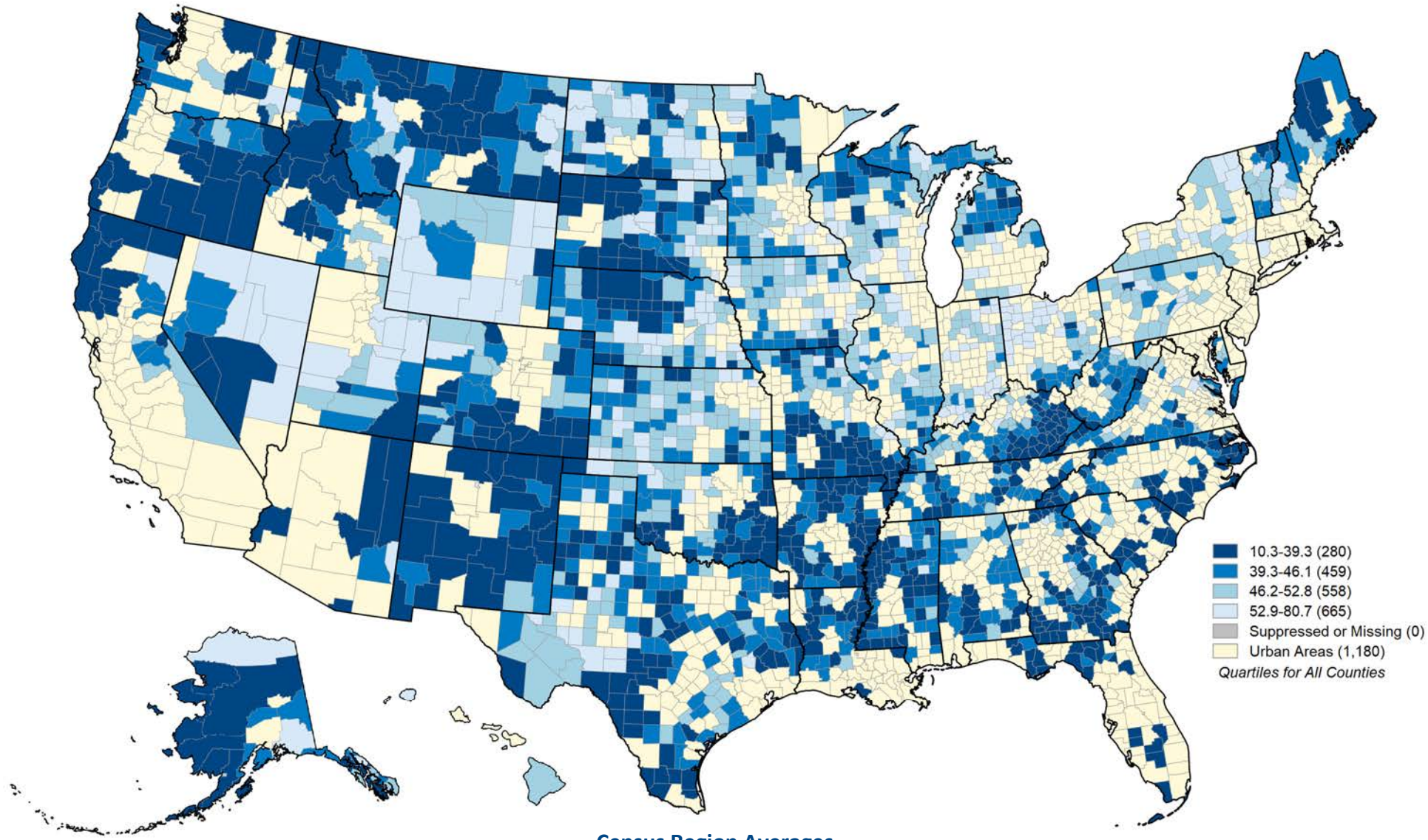


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
7	4	8	5	7	5	6	4	8	6

Employer-Sponsored Insurance

Five-year average percentage of the population less than age 65 with employer-sponsored insurance (2012-2016)

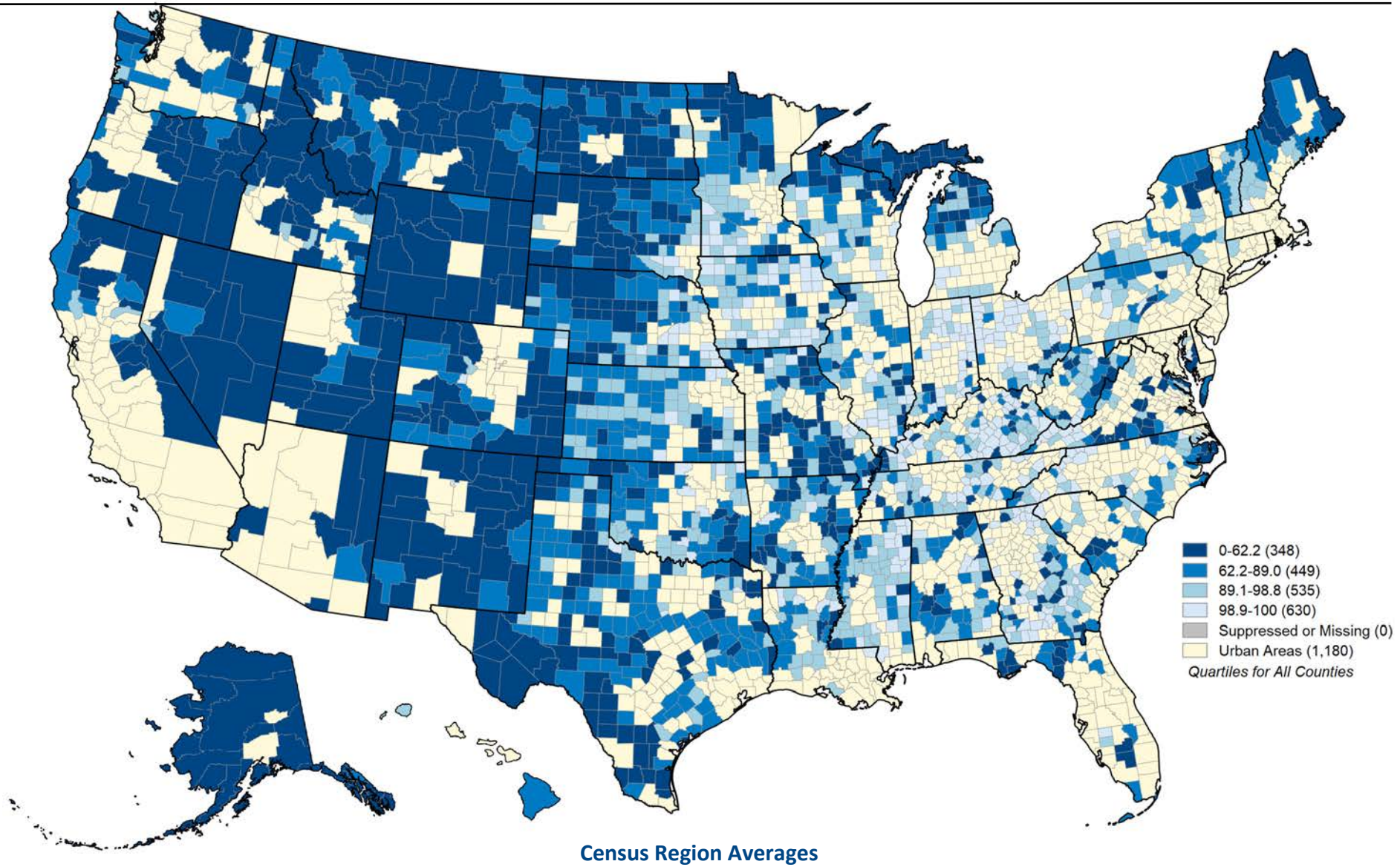


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
52	**45**	**56**	**50**	**57**	**50**	**49**	**41**	**50**	**41**

Hospital Nearby

Percentage of the population within 15 miles of an acute care hospital or CAH (2016)

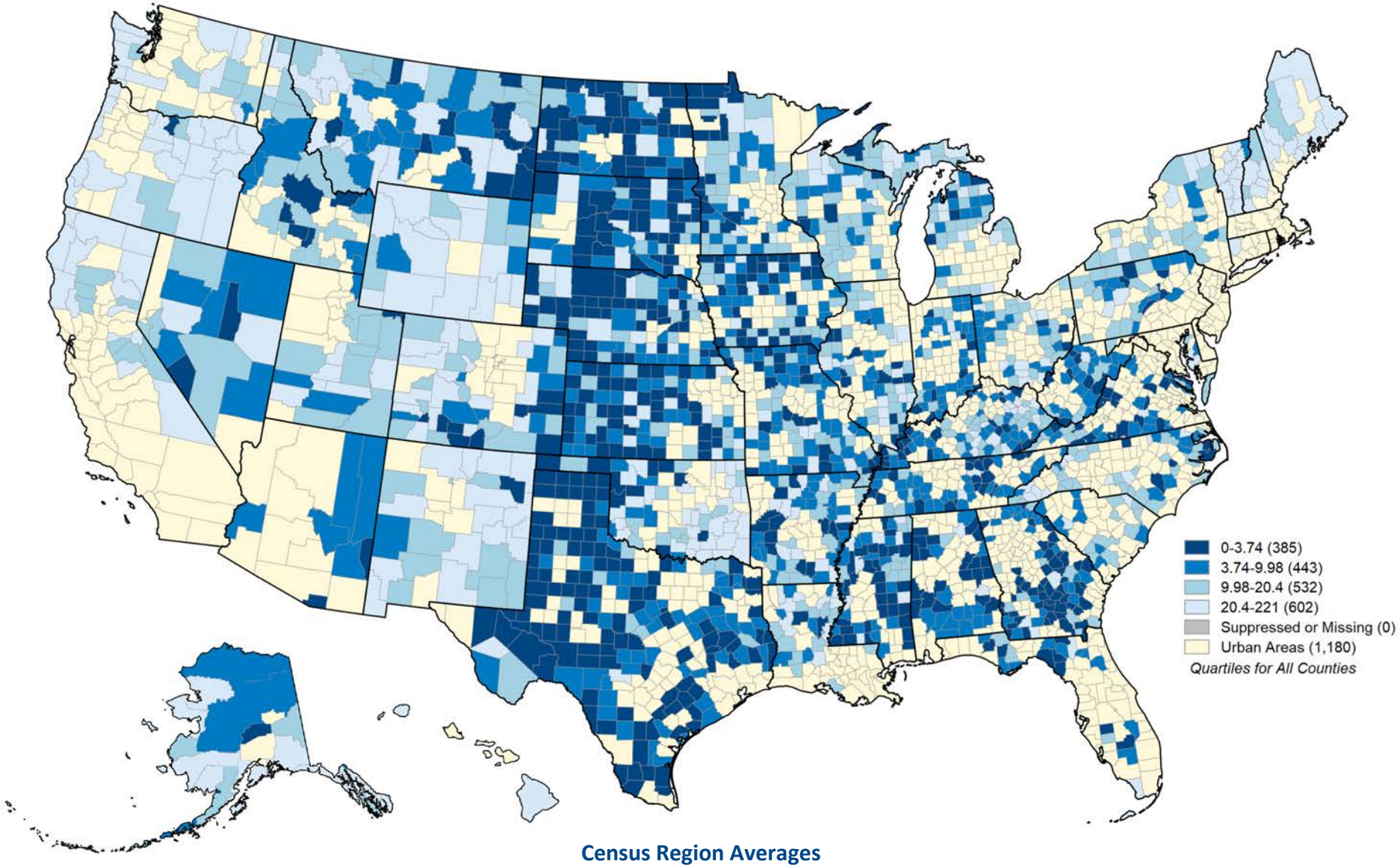


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
95	**80**	**98**	**88**	**97**	**84**	**95**	**83**	**90**	**58**

Mental Health Care Provider Supply

Mental health care providers per 10,000 population (2016)

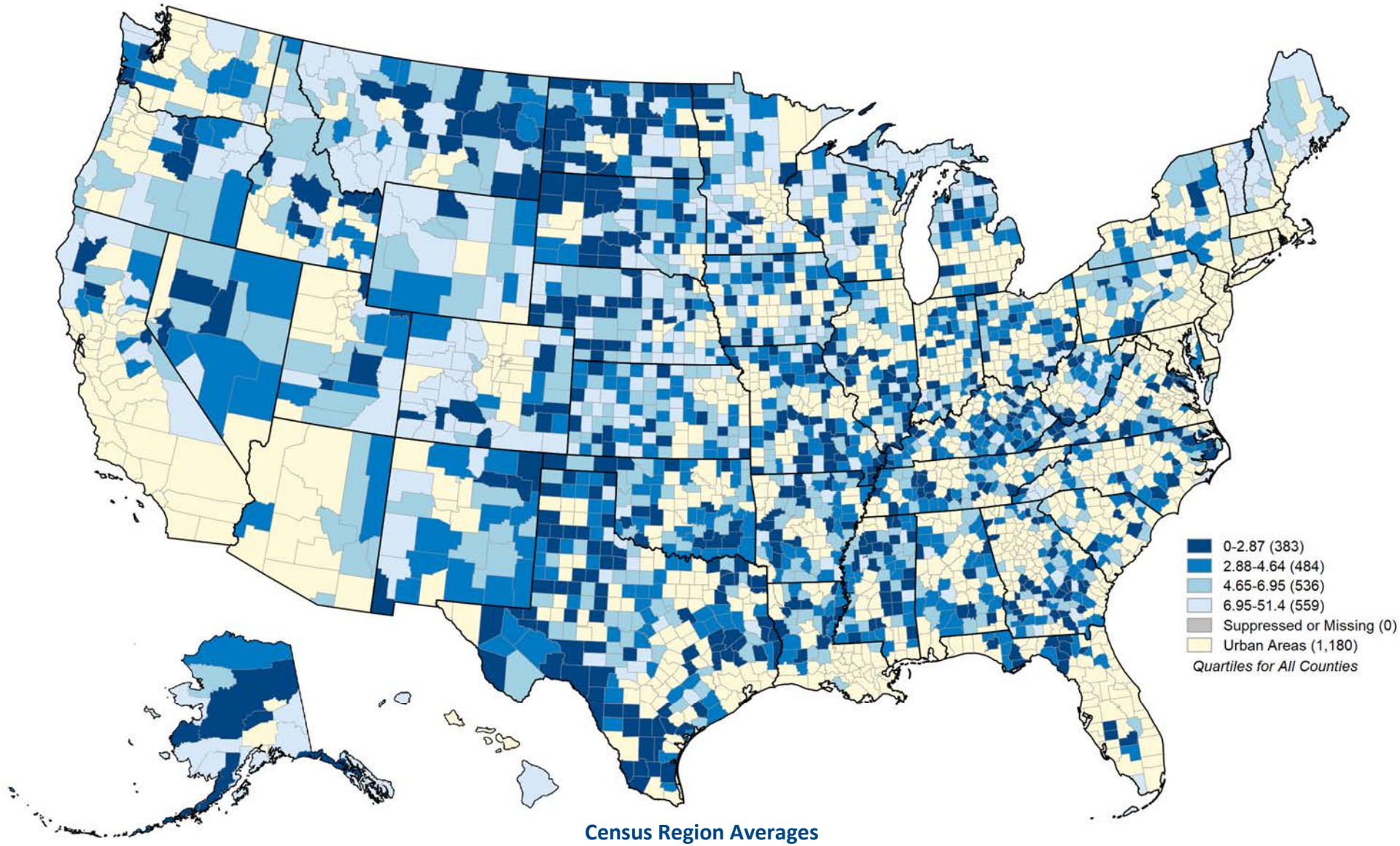


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
26	**17**	**32**	**23**	**24**	**15**	**19**	**13**	**34**	**29**

Physician Supply

Primary care physicians per 10,000 population (2016)



Census Region Averages

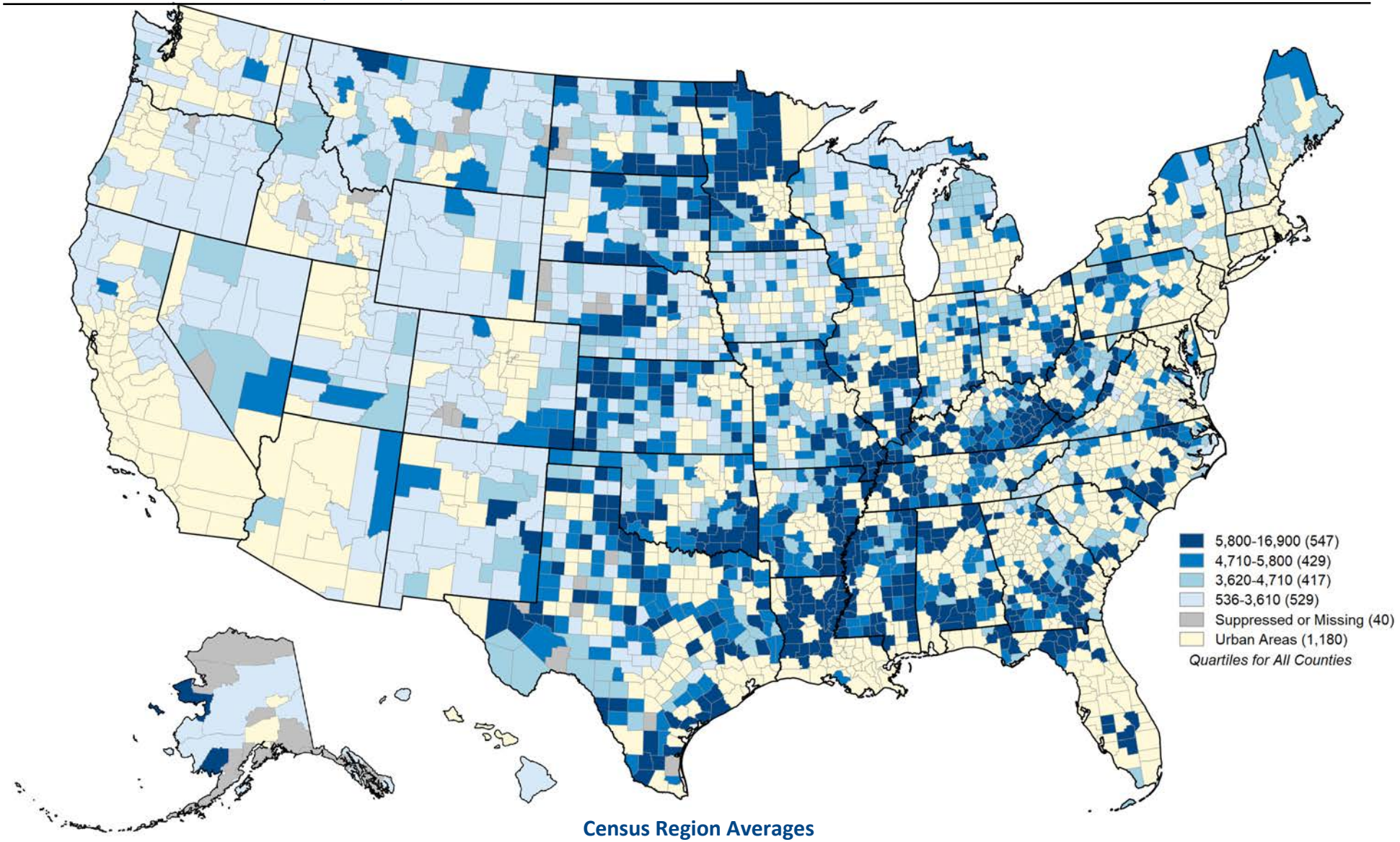
National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
8	5	9	7	8	5	7	5	8	6

Preventable Hospital Admissions

Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees (2016)

NC RHRP
NC Rural Health Research Program

Access to Care Domain

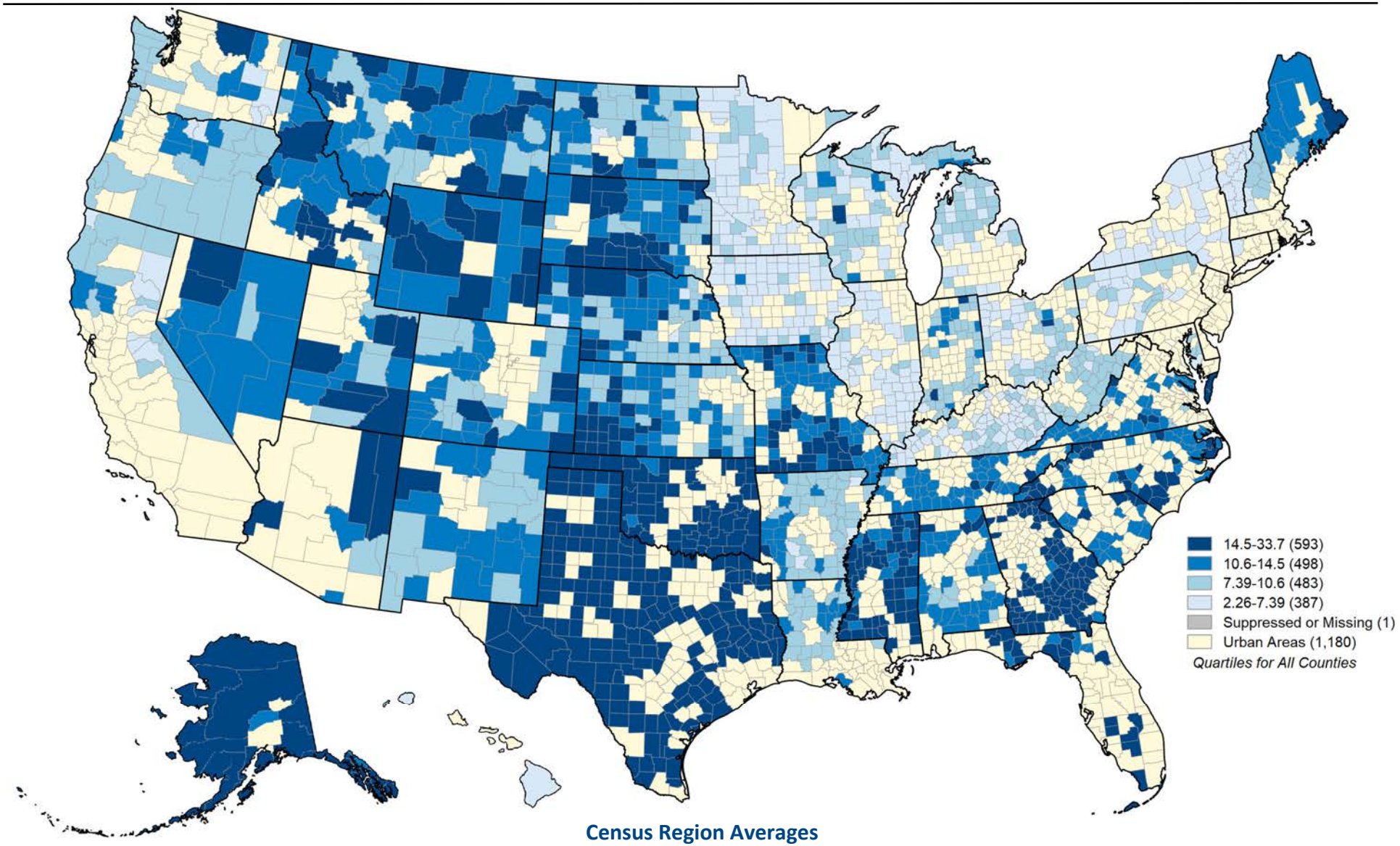


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
4,477	**4,886**	**4,501**	**4,391**	**4,966**	**4,637**	**4,953**	**5,826**	**3,391**	**3,018**

Uninsured

Percentage of the population under age 65 without health insurance (2016)

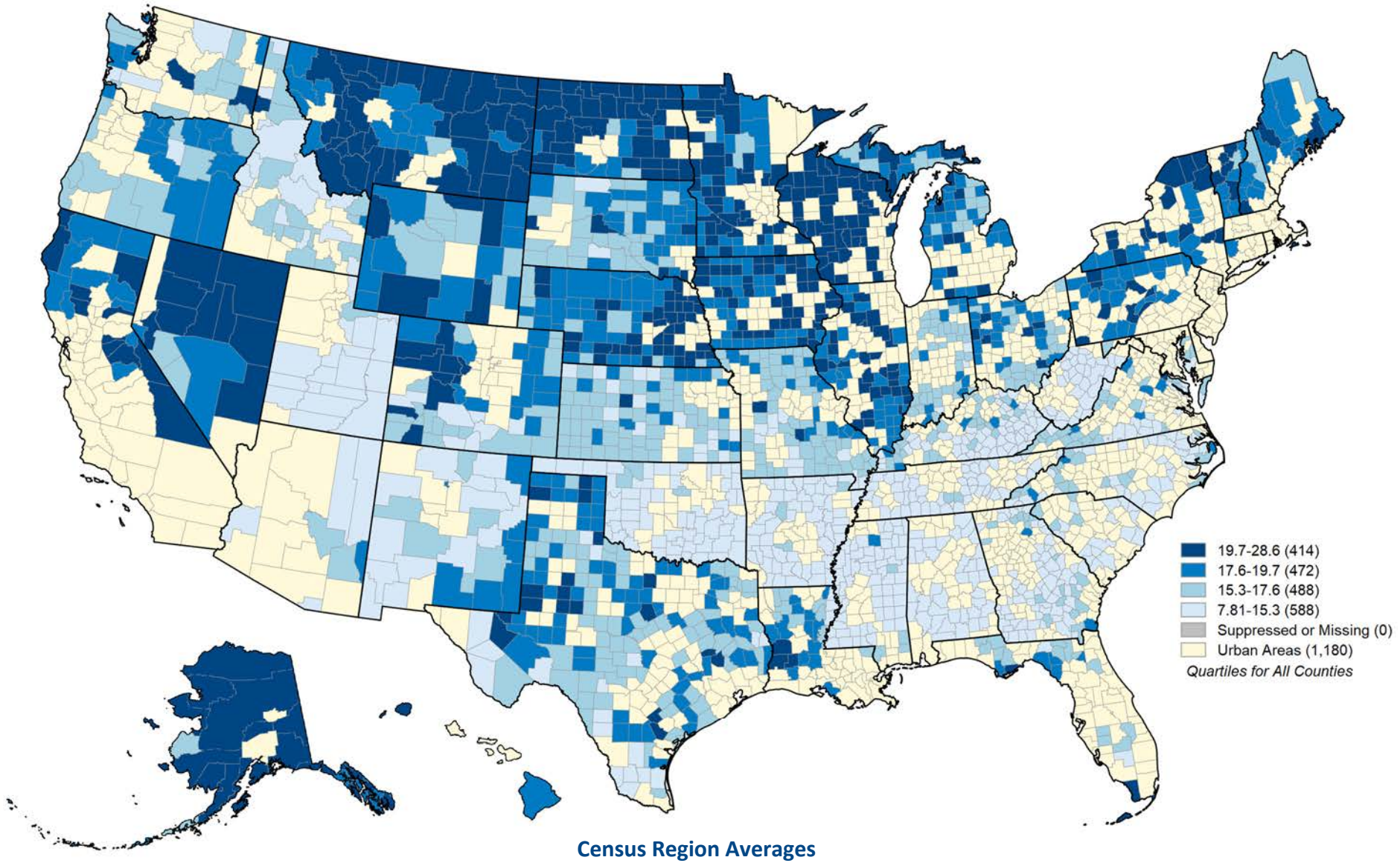


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
10	**11**	**7**	**7**	**7**	**9**	**14**	**15**	**9**	**11**

Excessive Alcohol Use

Percentage of adults reporting binge or heavy drinking (2014)

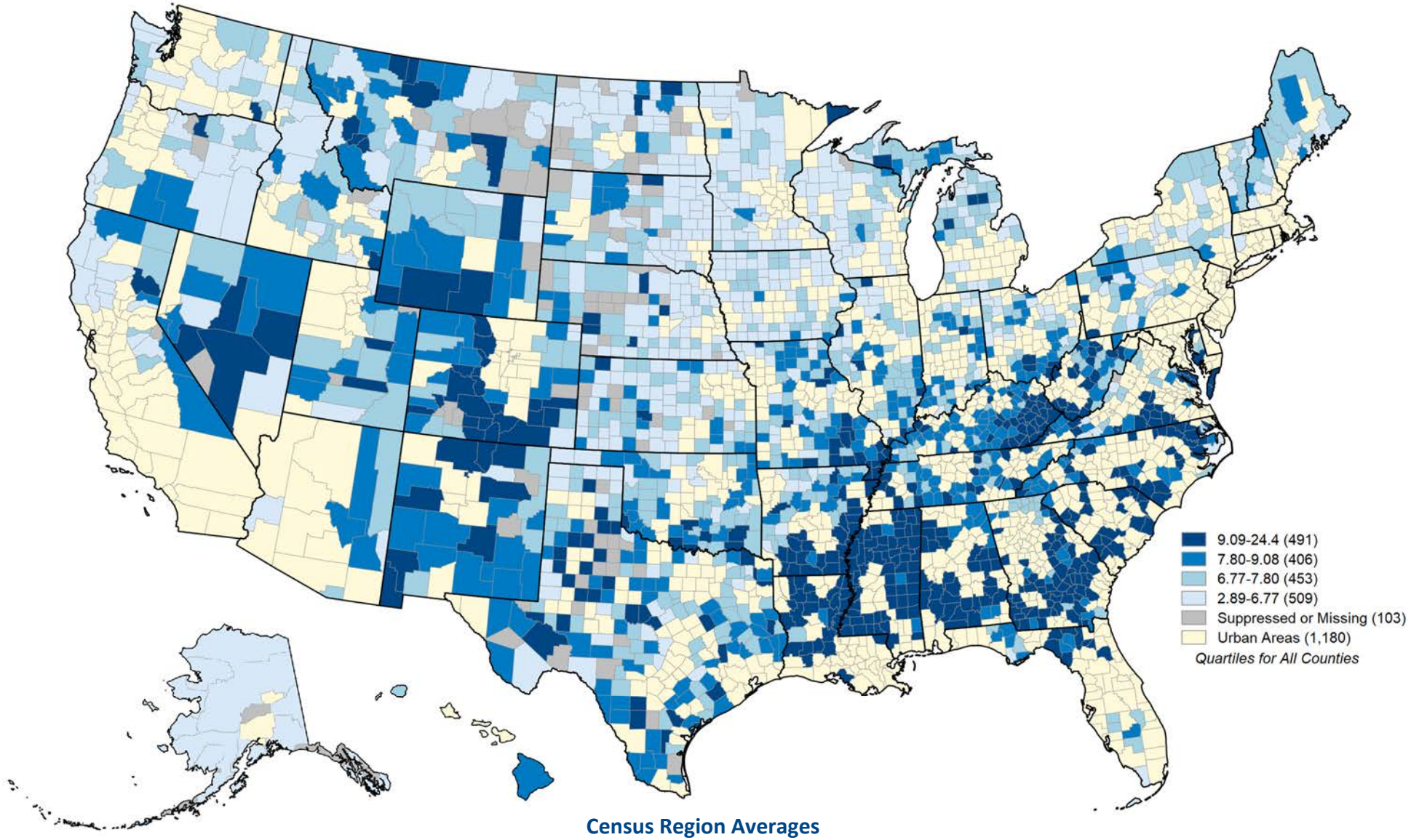


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
19	**17**	**20**	**19**	**21**	**19**	**18**	**15**	**19**	**18**

Low Birth Weight

Five-year average percentage of live births with low birthweight (less than 2,500 grams) (2010-2016)

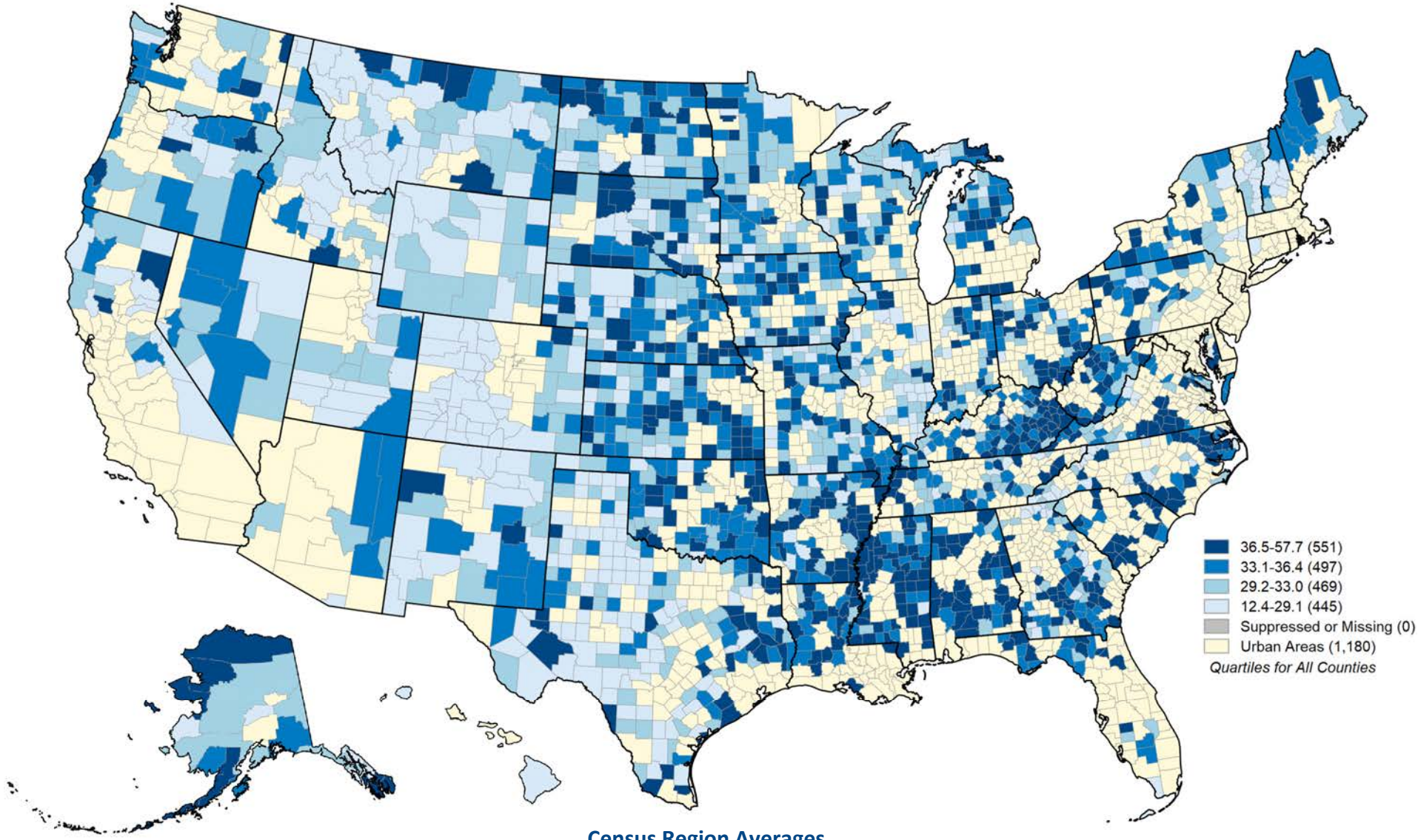


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
8	**8**	**8**	**7**	**8**	**7**	**9**	**9**	**7**	**7**

Obesity

Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2 (2015)

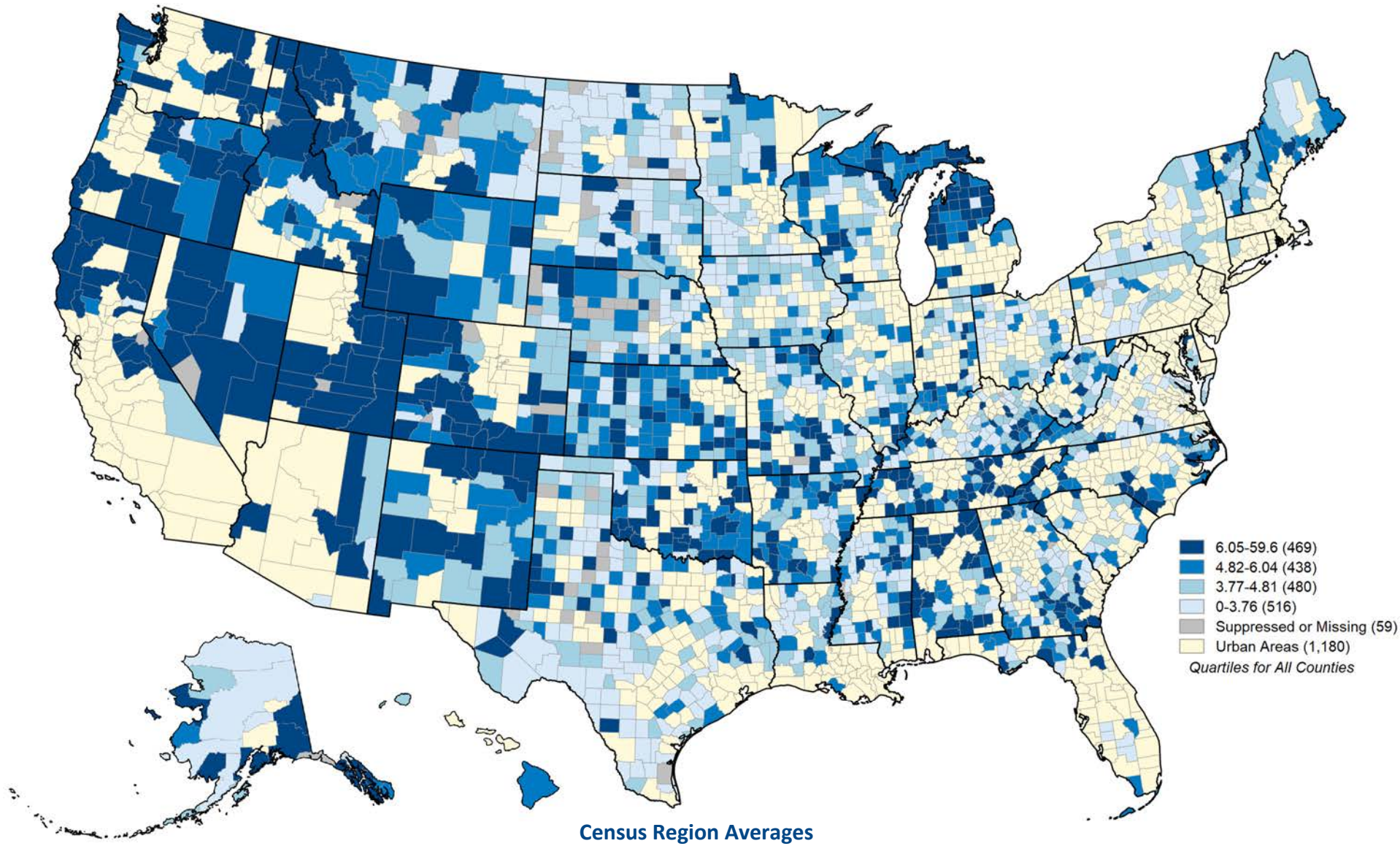


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
28	**34**	**26**	**32**	**31**	**34**	**30**	**35**	**25**	**29**

Opioid Prescription

Three-year average percentage of Medicare Part D claims that are for opioids (2013-2015)

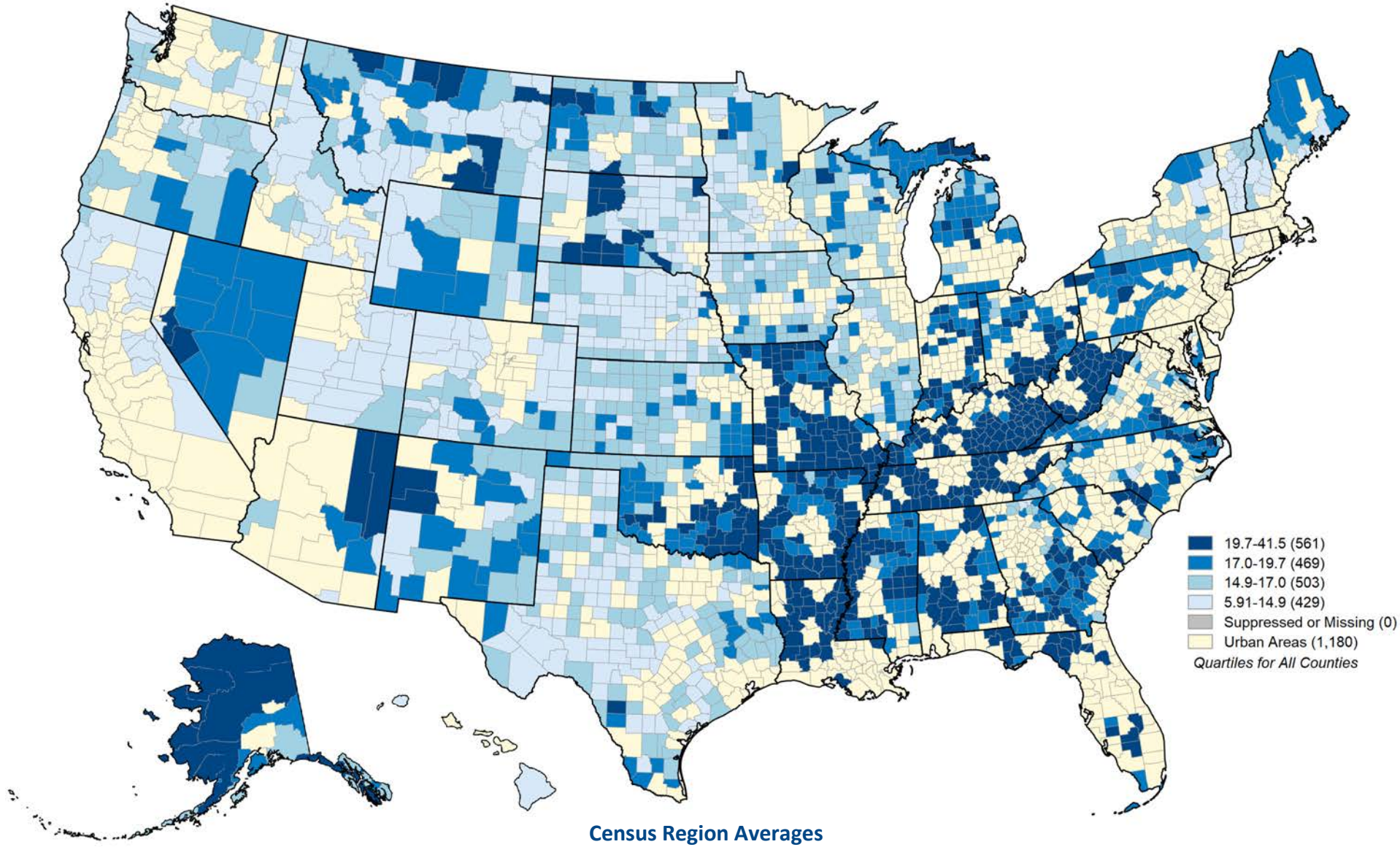


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
5	5	3	4	5	5	6	5	5	6

Smoking

Percentage of adults who are current smokers (2016)

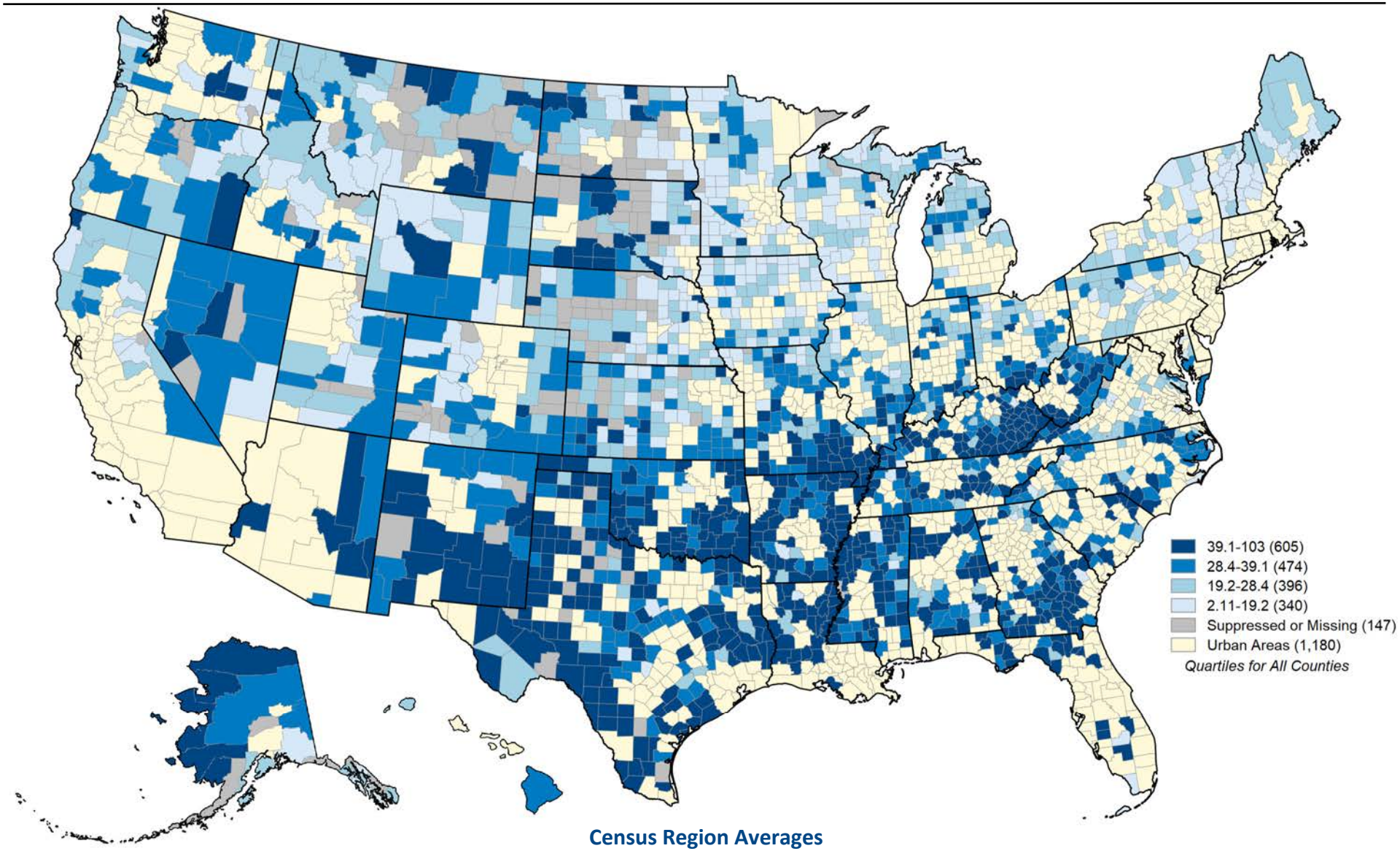


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
15	**18**	**14**	**17**	**16**	**18**	**16**	**20**	**12**	**16**

Teen Pregnancy

Seven-year average number of births per 1,000 females ages 15-19

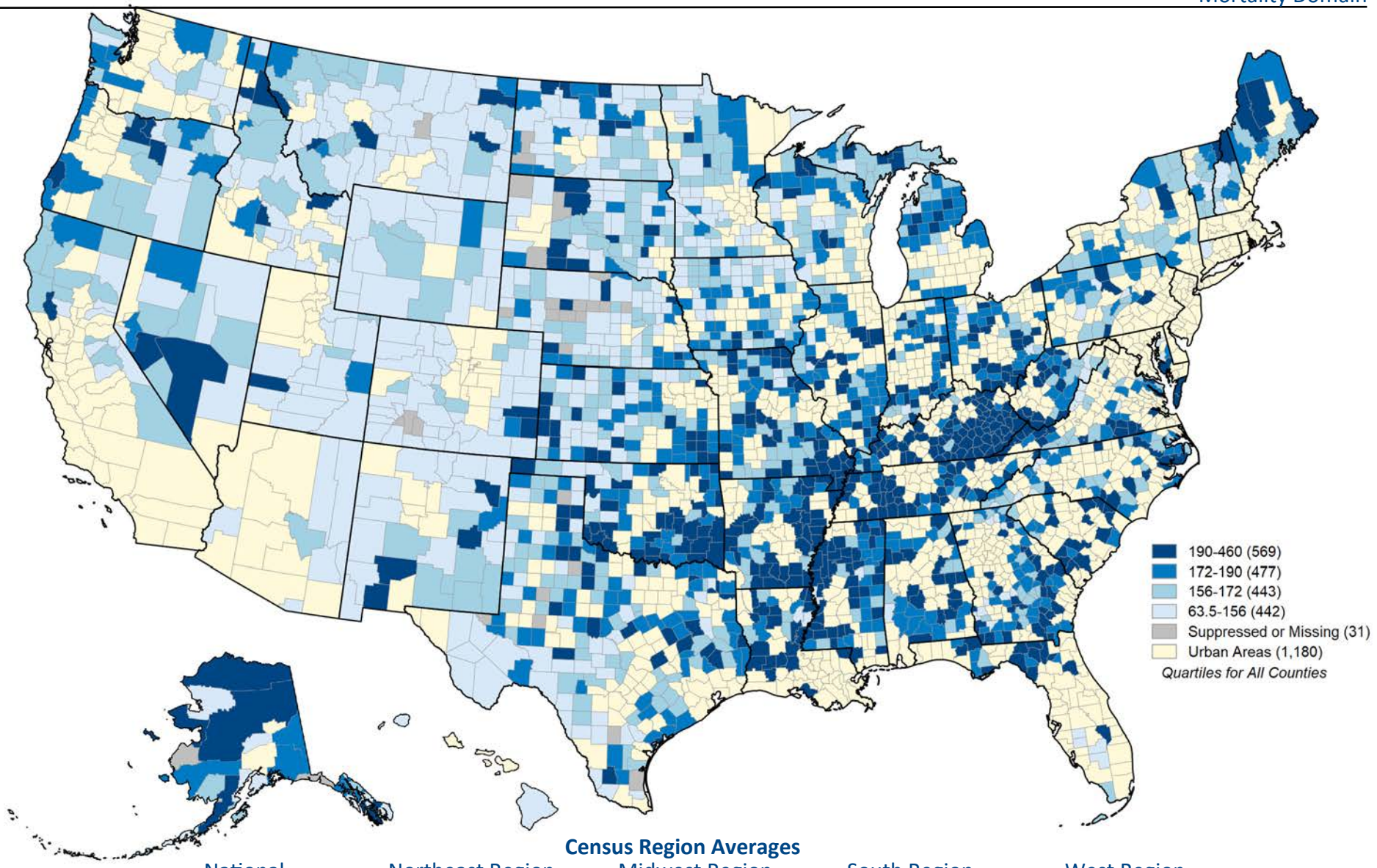


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
21	**32**	**14**	**18**	**21**	**26**	**26**	**40**	**20**	**29**

Cancer Mortality

Five-year average all-cancer mortality per 100,000 (2012-2016)

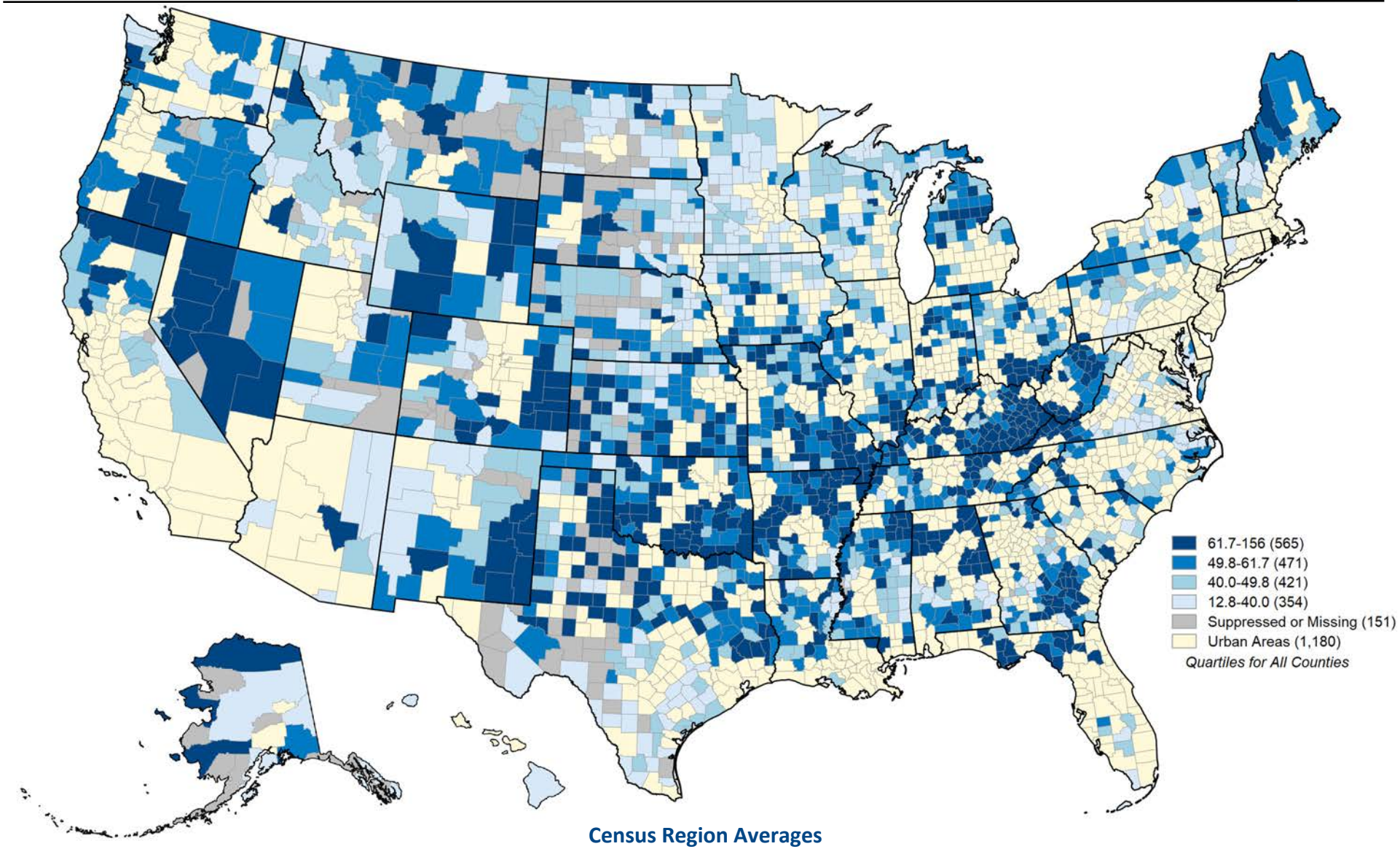


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
158	**177**	**157**	**170**	**168**	**175**	**161**	**188**	**146**	**153**

Chronic Lower Respiratory Disease Mortality

Five-year average chronic lower respiratory disease mortality per 100,000 (2012-2016)

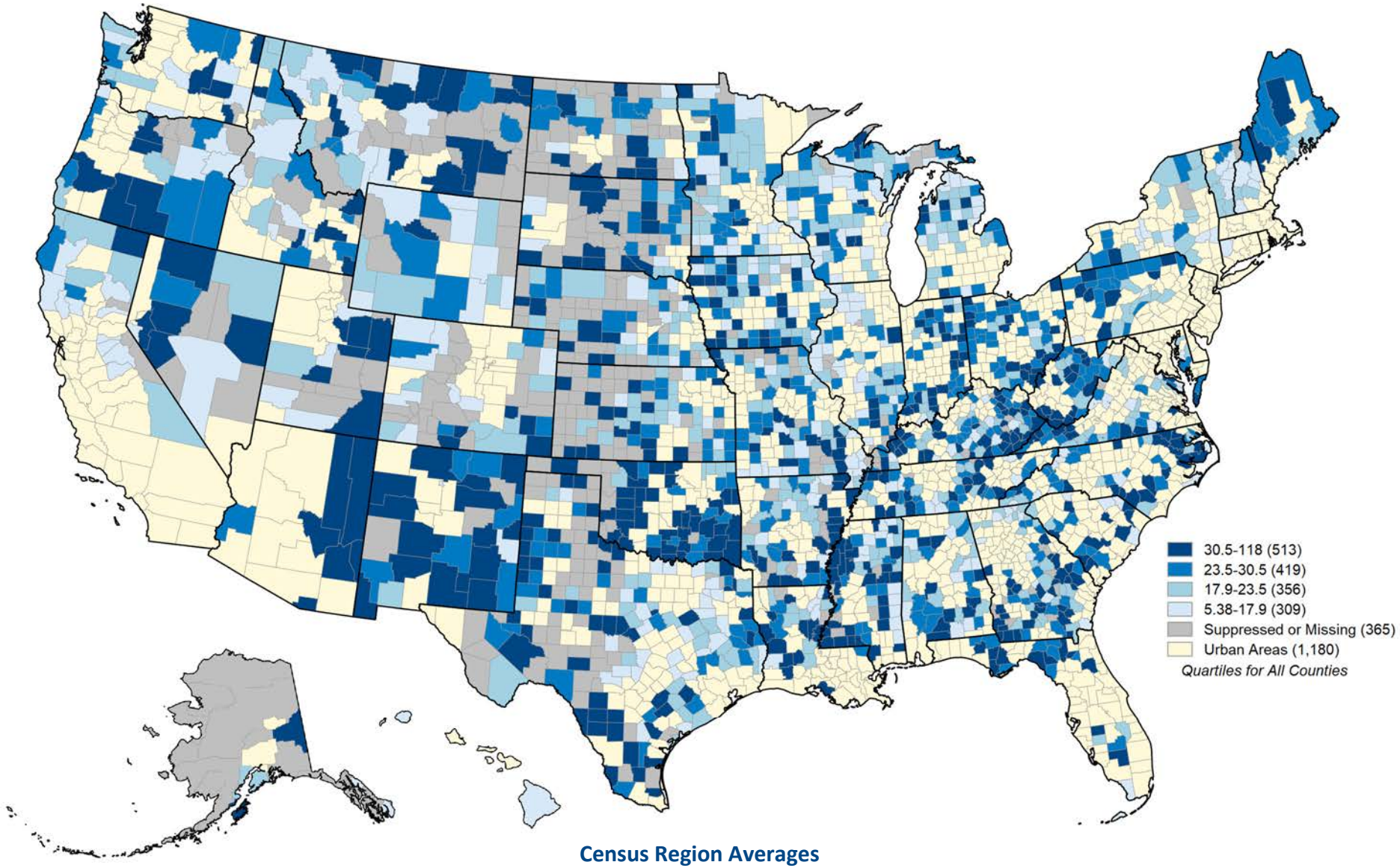


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
39	**54**	**31**	**47**	**43**	**52**	**41**	**60**	**37**	**48**

Diabetes Mortality

Five-year average diabetes mortality per 100,000 (2012-2016)

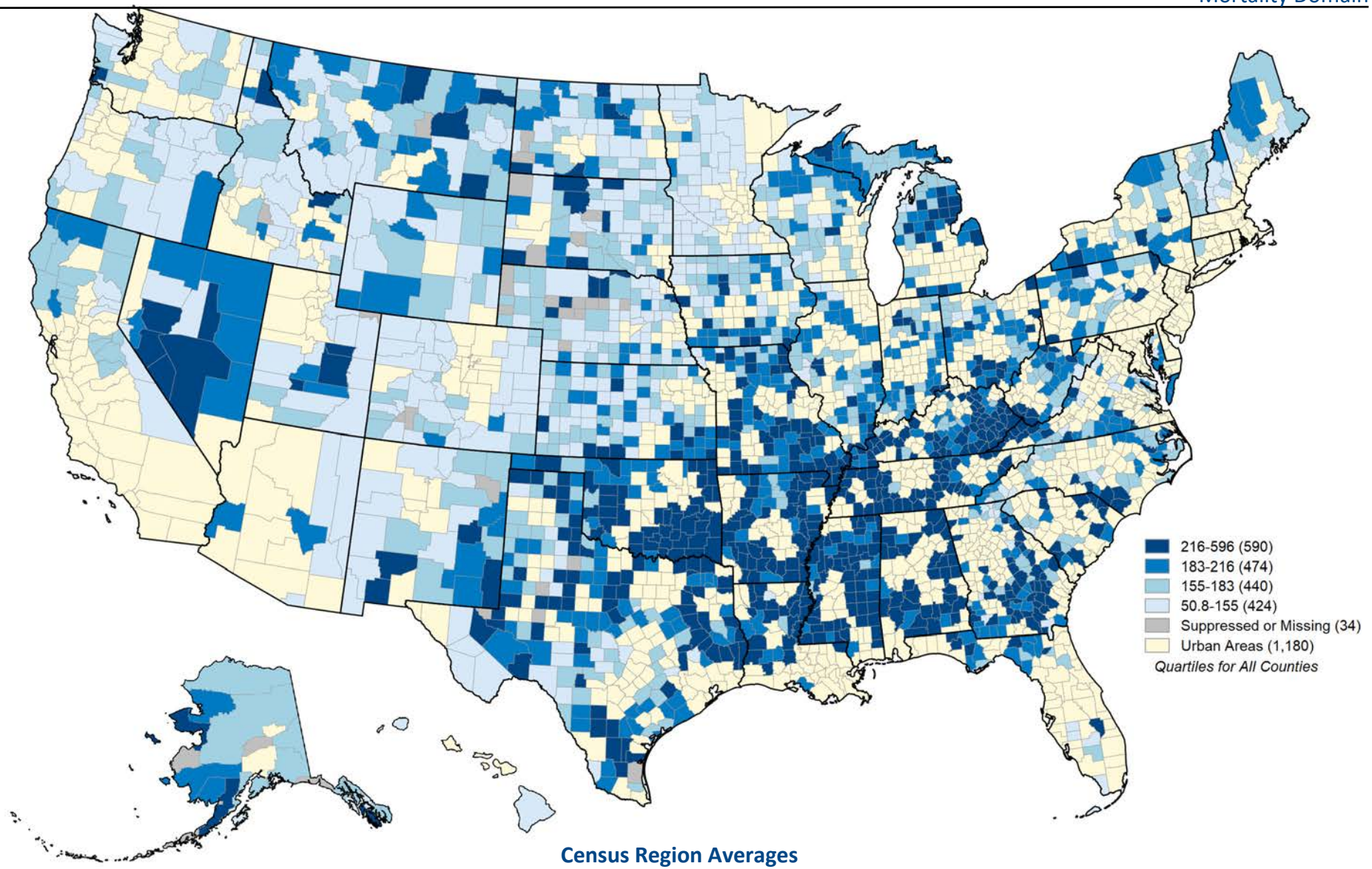


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
21	**26**	**18**	**22**	**21**	**24**	**21**	**29**	**21**	**24**

Heart Disease Mortality

Five-year average heart disease mortality per 100,000 (2012-2016)

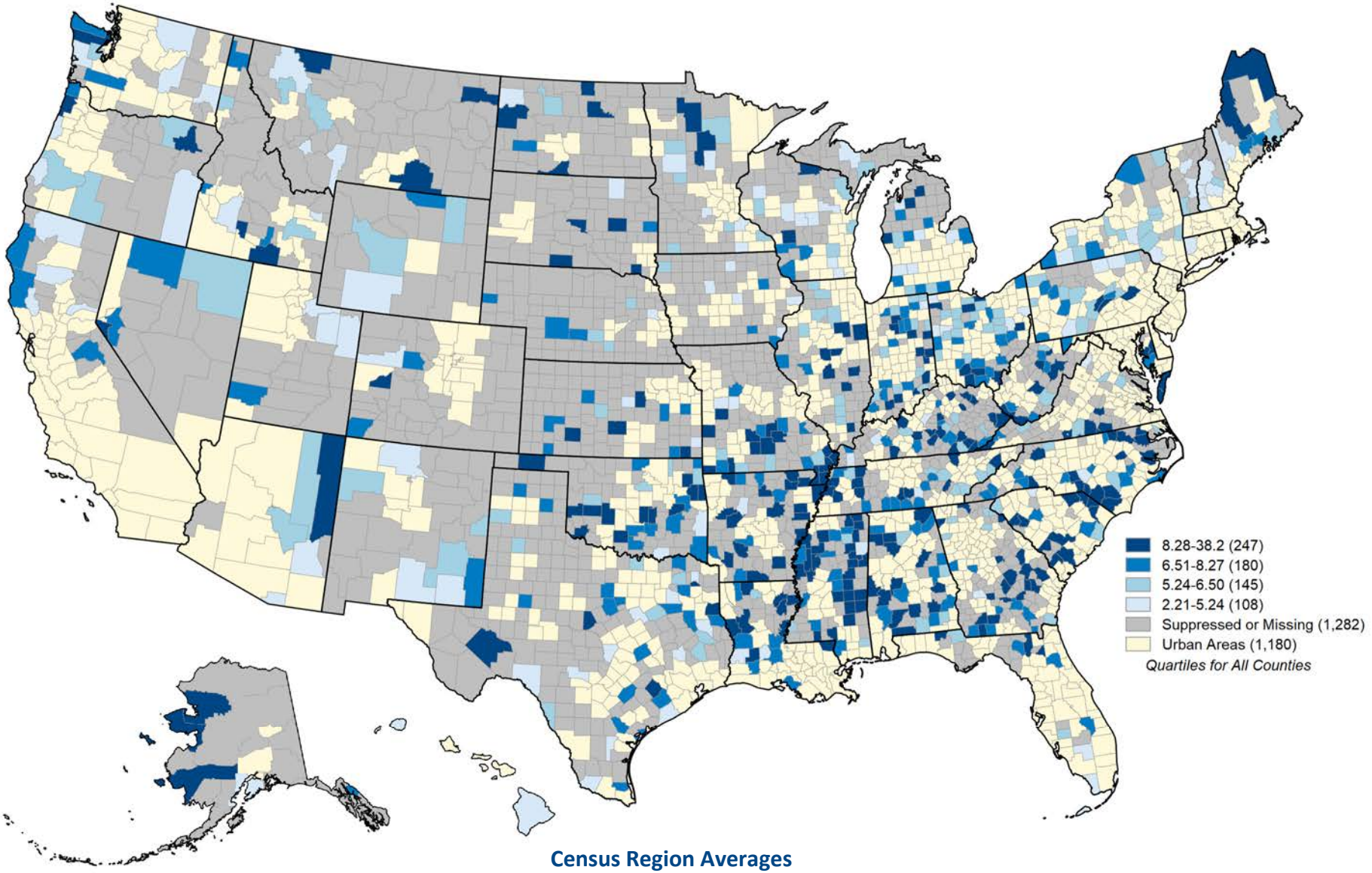


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
163	**196**	**168**	**182**	**169**	**183**	**168**	**222**	**145**	**156**

Infant Mortality

Five-year average infant mortality per 1,000 births (under age 1) (2012-2016)

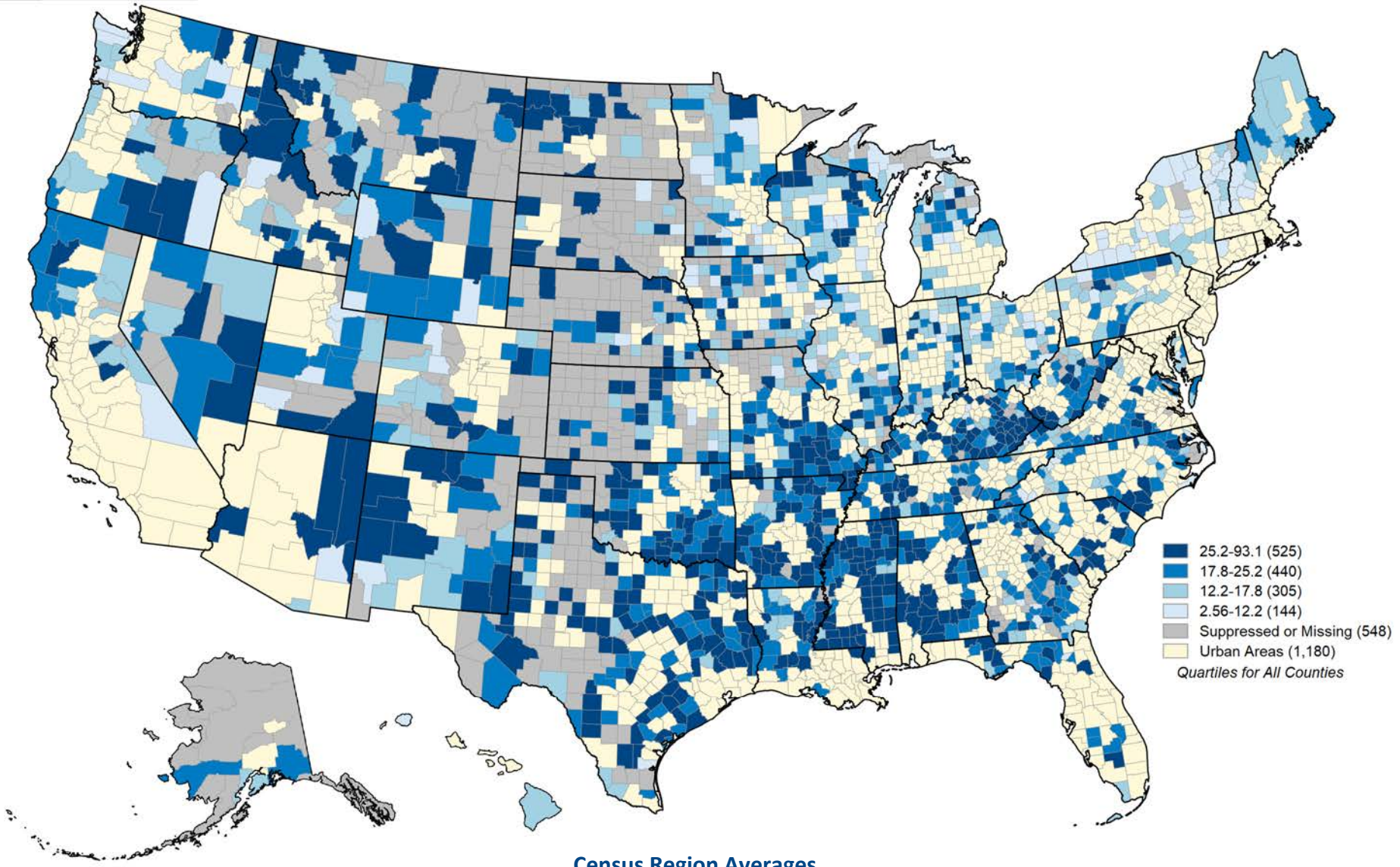


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
6	7	5	6	6	7	7	8	5	6

Motor Vehicle Mortality

Five-year average motor vehicle mortality per 100,000 (2012-2016)

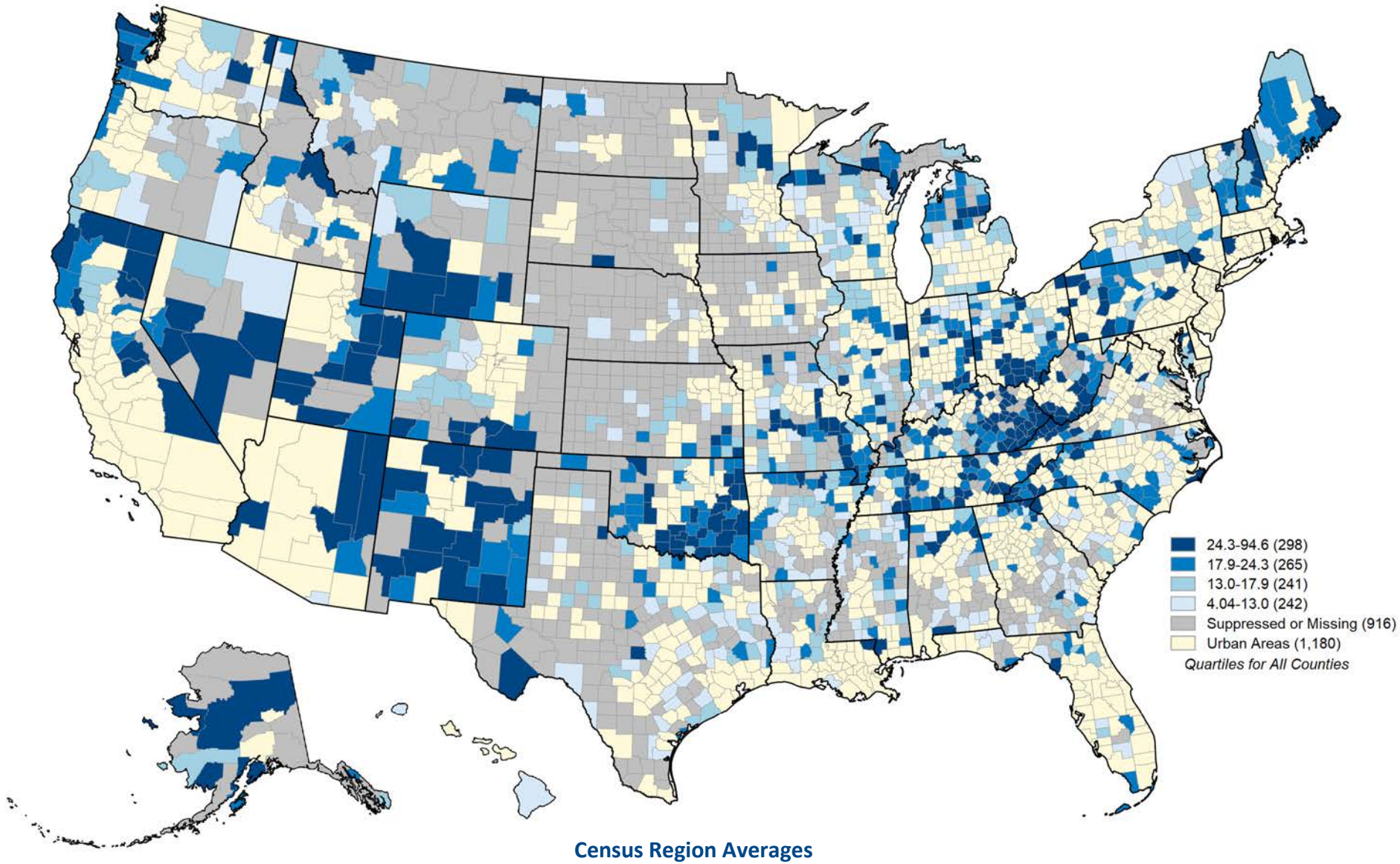


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
10	**20**	**7**	**14**	**9**	**17**	**13**	**24**	**9**	**20**

Poisoning Mortality

Five-year average poisoning mortality per 100,000 (2012-2016)

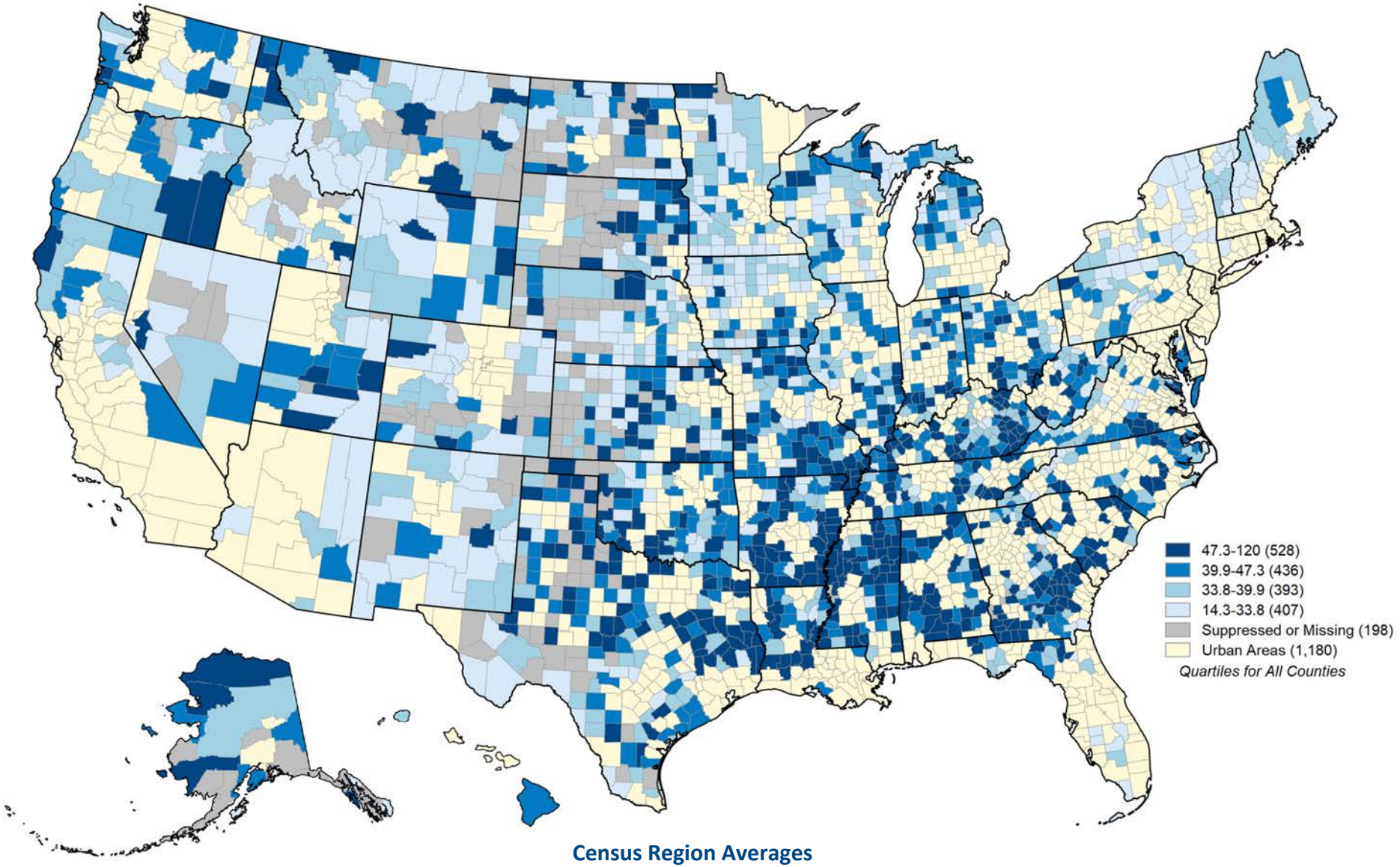


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
17	**20**	**20**	**20**	**20**	**18**	**16**	**20**	**15**	**22**

Stroke Mortality

Five-year average stroke mortality per 100,000 (2012-2016)

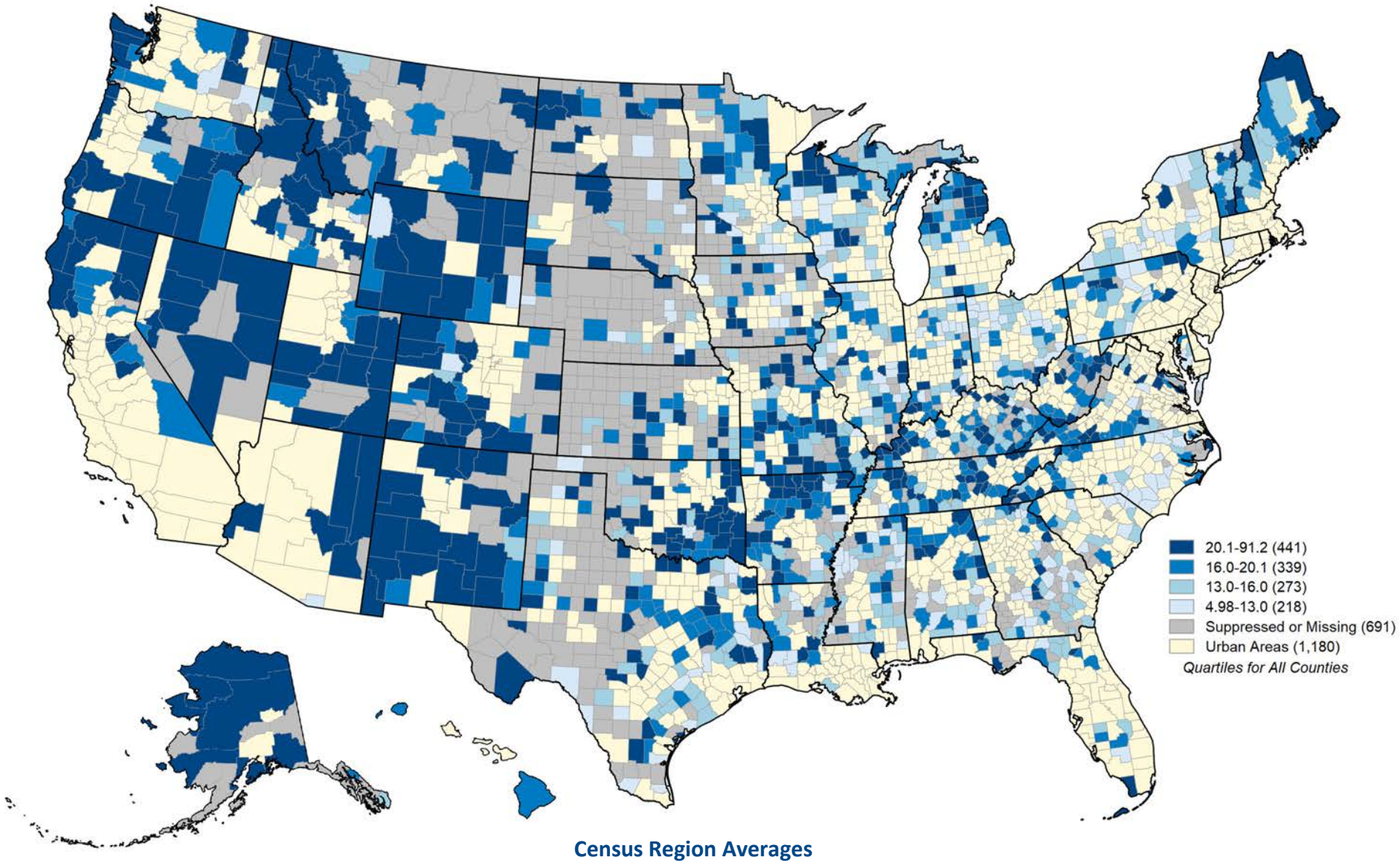


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
36	**42**	**30**	**34**	**37**	**40**	**40**	**48**	**35**	**37**

Suicide Mortality

Five-year average suicide mortality per 100,000 (2012-2016)

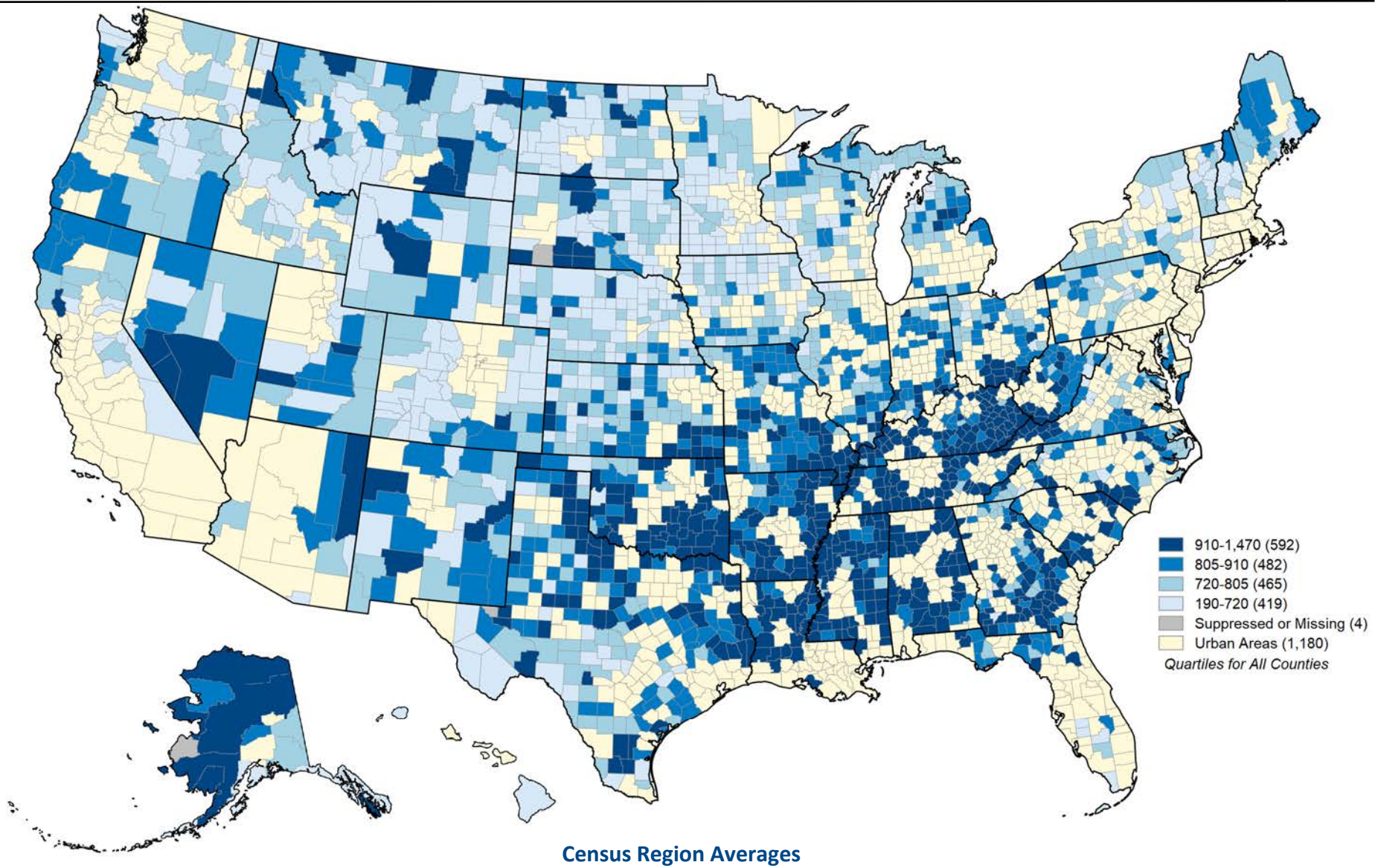


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
12	**18**	**10**	**15**	**13**	**16**	**13**	**17**	**13**	**24**

Total Mortality

Five-year average all-cause mortality per 100,000 (2012-2016)

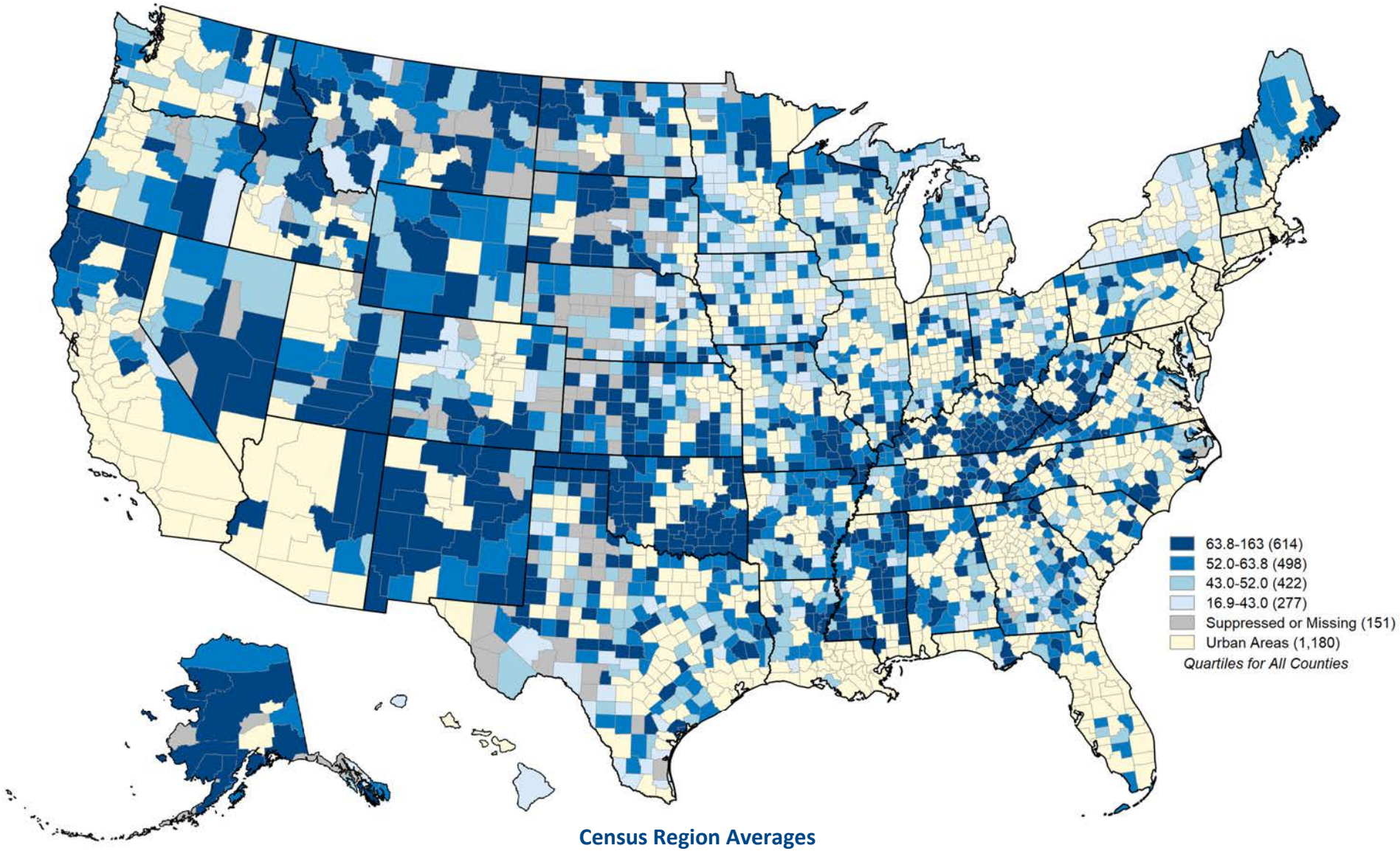


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
713	**841**	**677**	**763**	**751**	**794**	**753**	**929**	**651**	**746**

Unintentional Injury Mortality

Five-year average unintentional injury mortality per 100,000 (2012-2016)

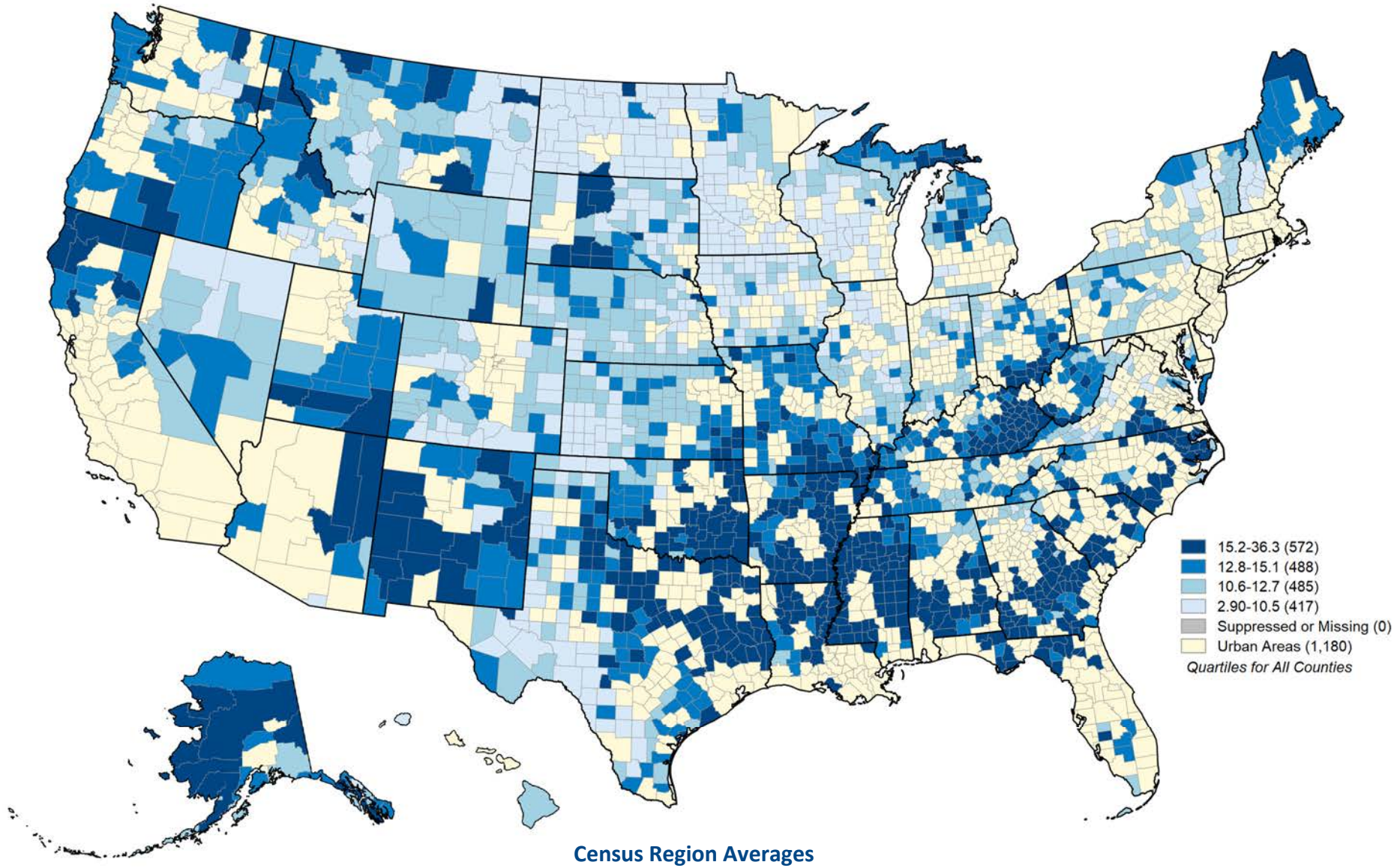


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
40	**56**	**38**	**50**	**43**	**51**	**43**	**60**	**36**	**60**

Food Insecure Households

Percentage of households with food insecurity (2015)

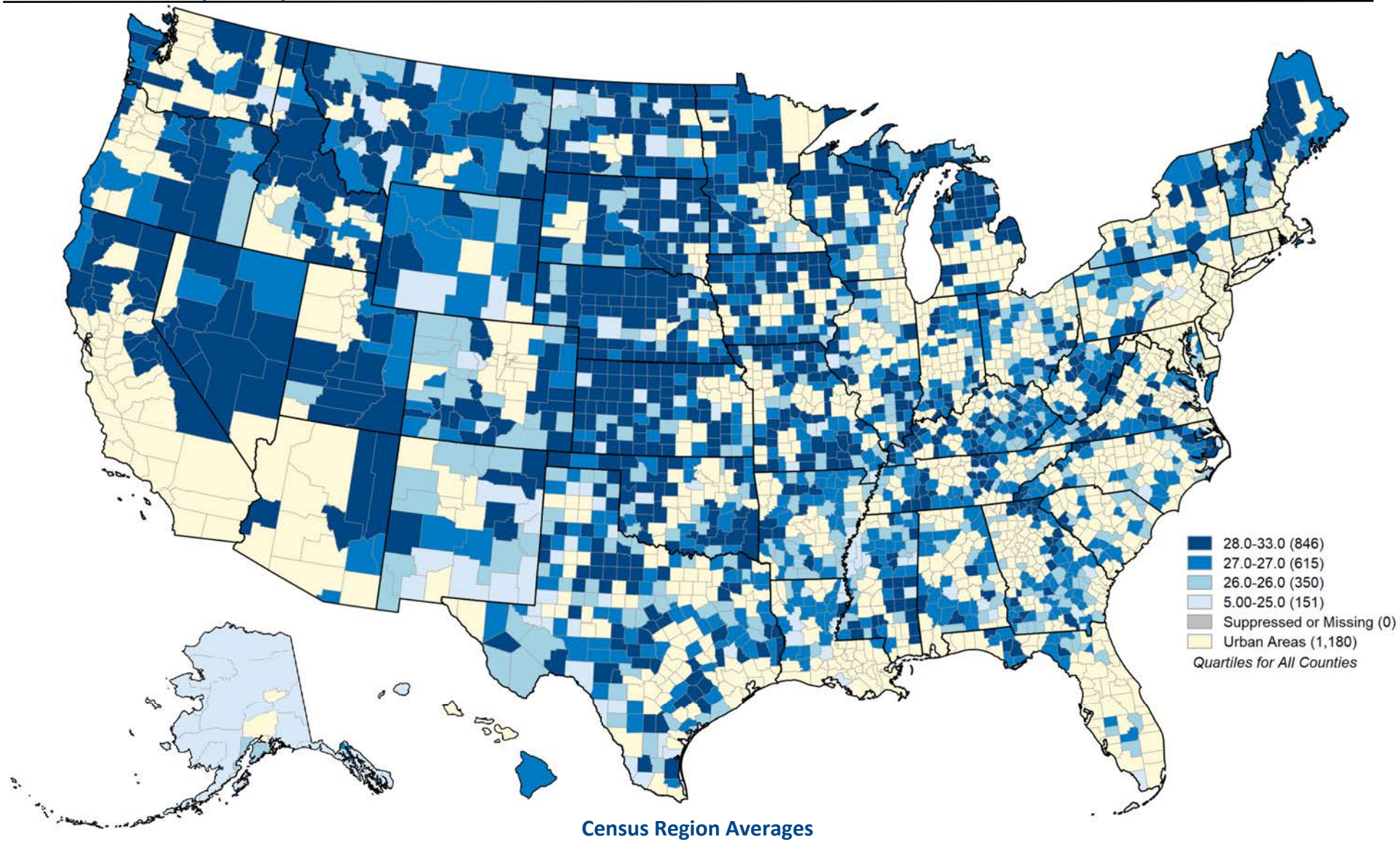


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
12	**14**	**11**	**12**	**12**	**12**	**14**	**16**	**12**	**13**

Household Transportation Cost

Transportation costs as a percentage of income for the national typical household (2017)

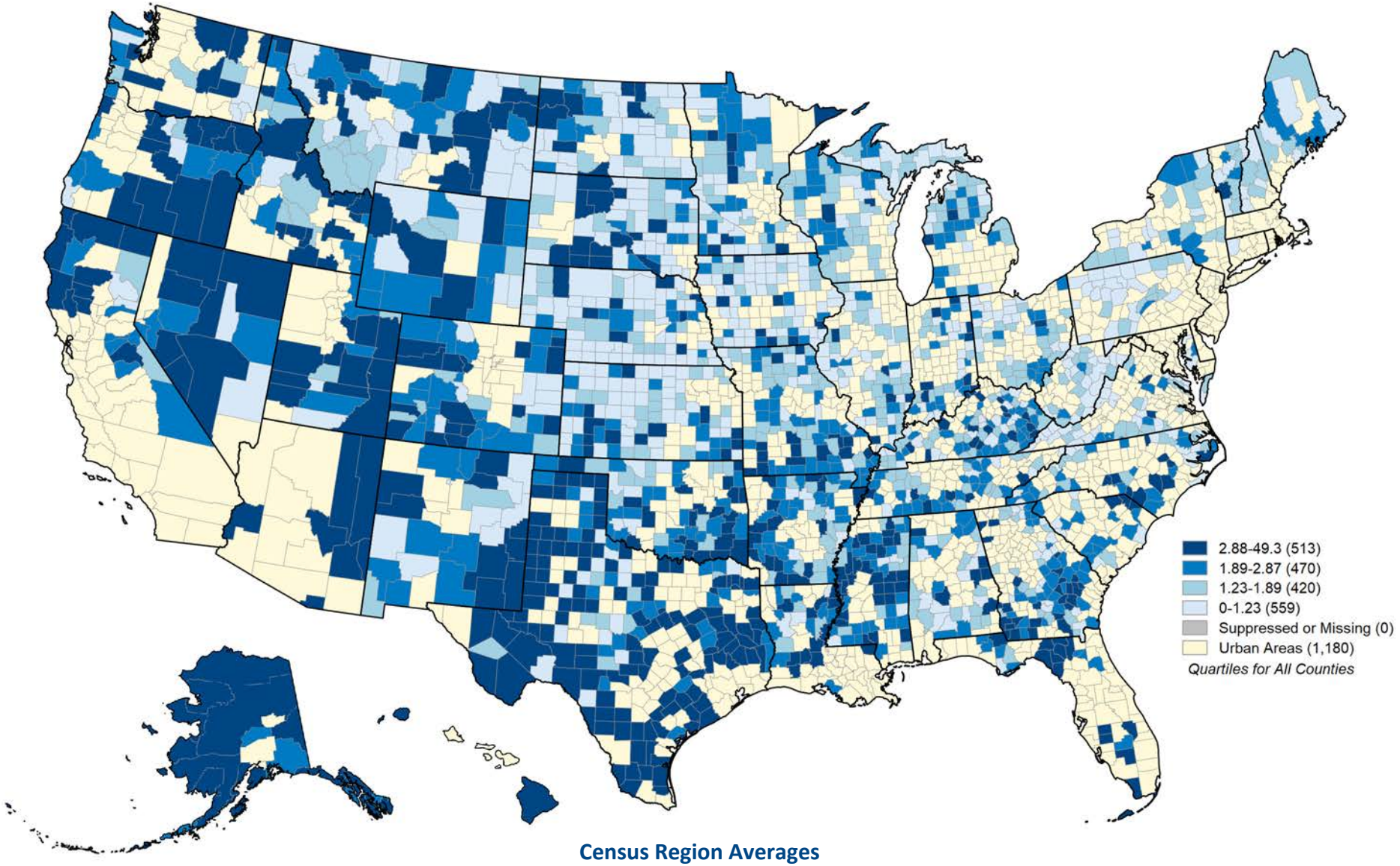


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
23	**27**	**21**	**27**	**24**	**27**	**24**	**27**	**24**	**27**

Overcrowded Households

Five-year average percentage of households with more than one person per room (2012-2016)

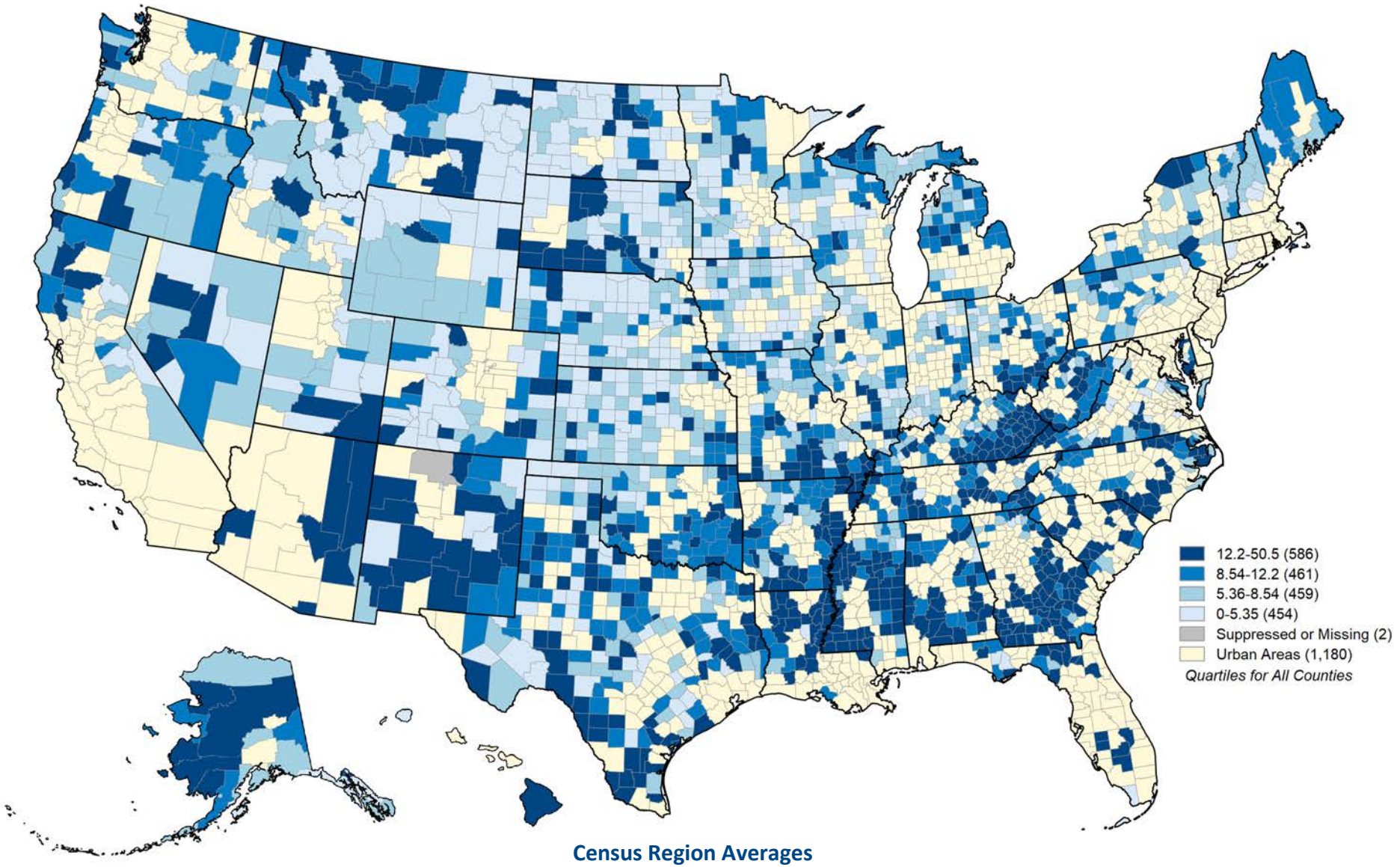


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
4	**2**	**3**	**1**	**2**	**2**	**3**	**3**	**6**	**4**

Deep Child Poverty

Five-year average percentage of children, ages 0-17, living in households with incomes below 50 percent of the poverty threshold (2011-2015)

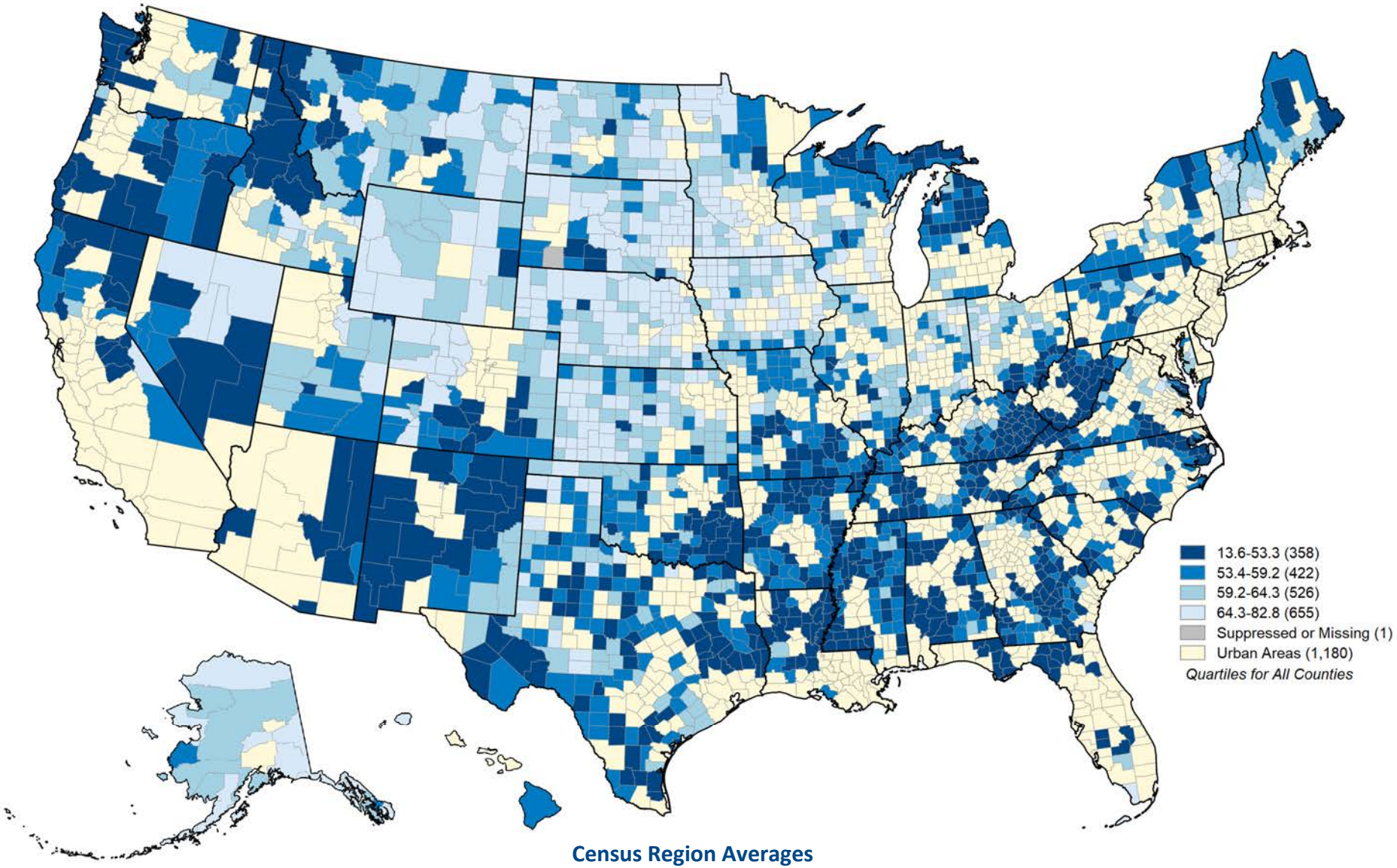


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
8	**10**	**8**	**8**	**8**	**8**	**9**	**13**	**7**	**9**

Labor Force Participation Rate

Five-year average percentage of population aged 16 and older who are employed or seeking employment (2011-2015)

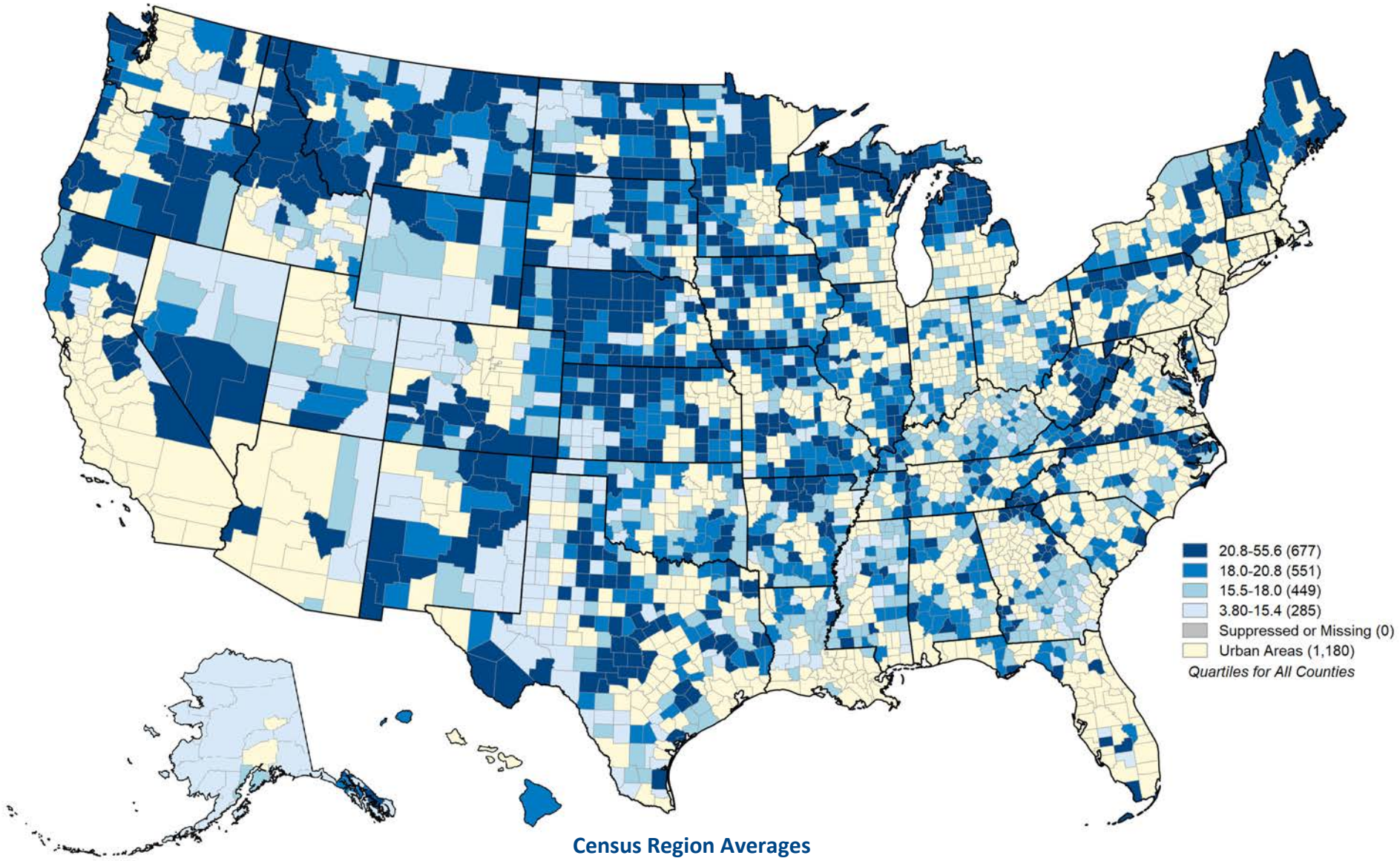


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
64	**57**	**65**	**59**	**66**	**61**	**64**	**53**	**64**	**57**

Older Adult Population

Five-year average percentage of the population that is age 65 or older (2012-2016)

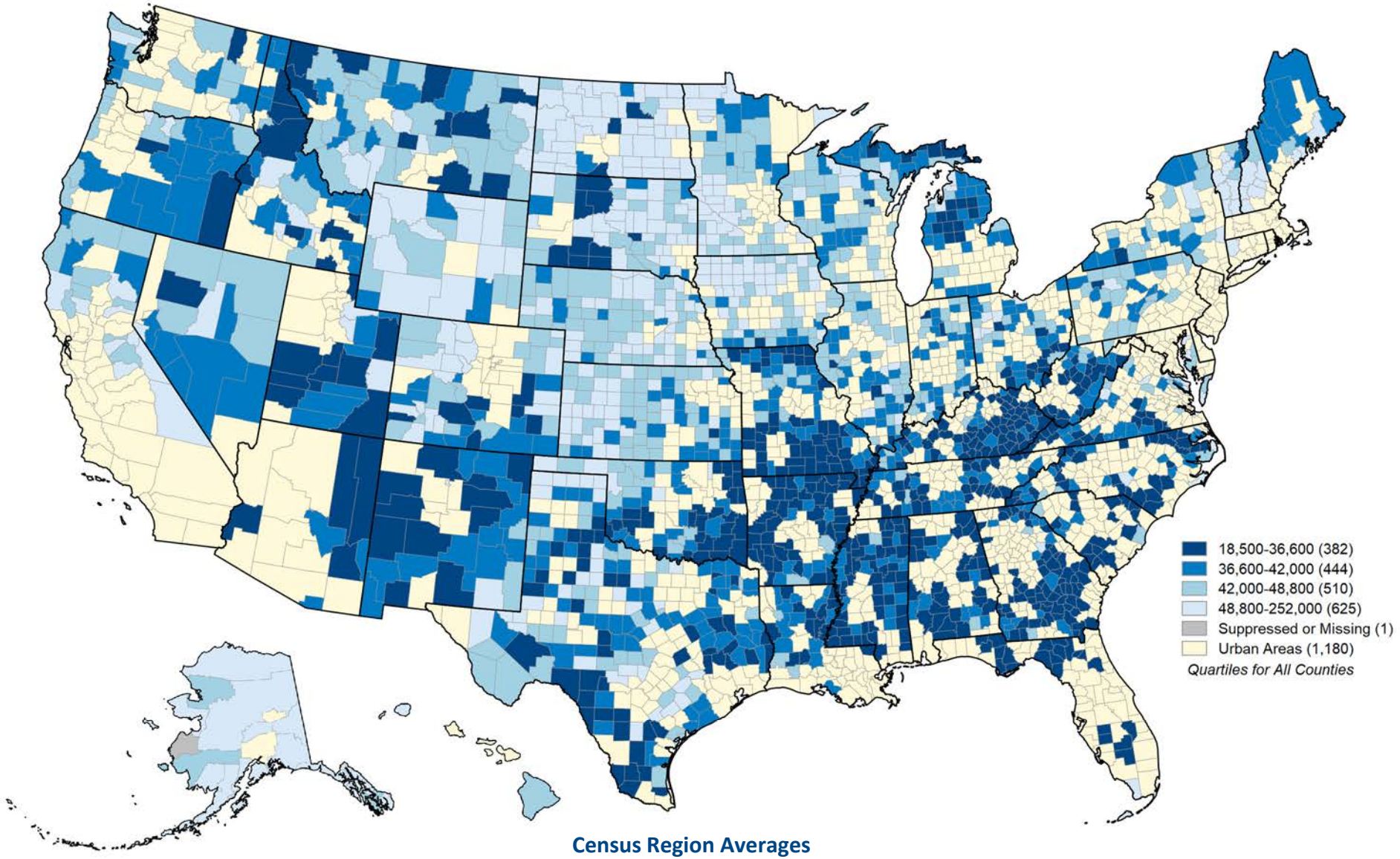


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
15	**19**	**16**	**20**	**15**	**19**	**15**	**18**	**14**	**18**

Per Capita Income

Five-year average household income earned during the previous 12 months divided by the county population (2011-2015)

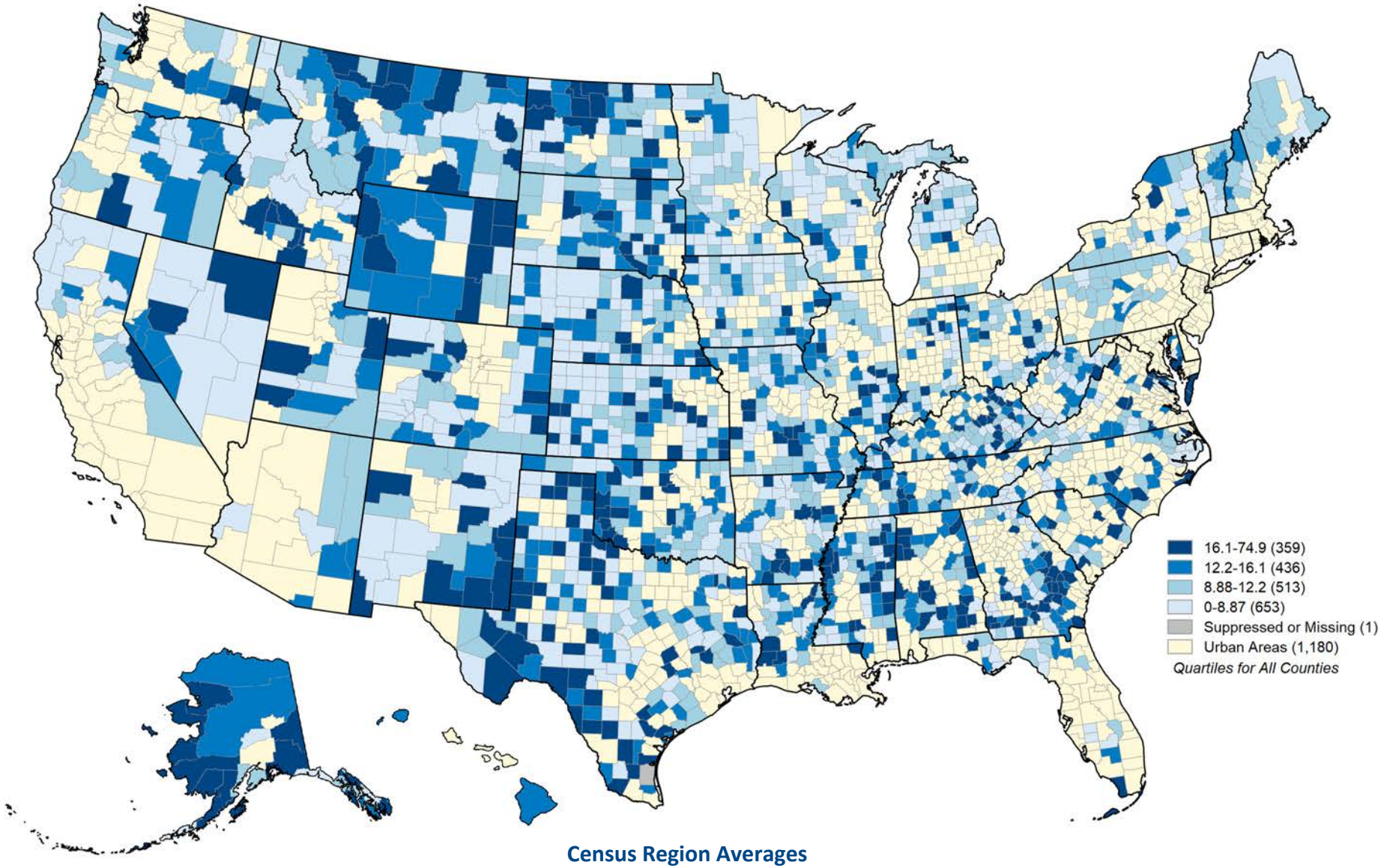


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
56,527	**41,553**	**67,219**	**46,381**	**53,533**	**43,534**	**51,175**	**37,223**	**58,940**	**46,444**

Recent Veterans

Five-year average percentage of population age 25 and older who gained veteran status since 2001 (2011-2015)

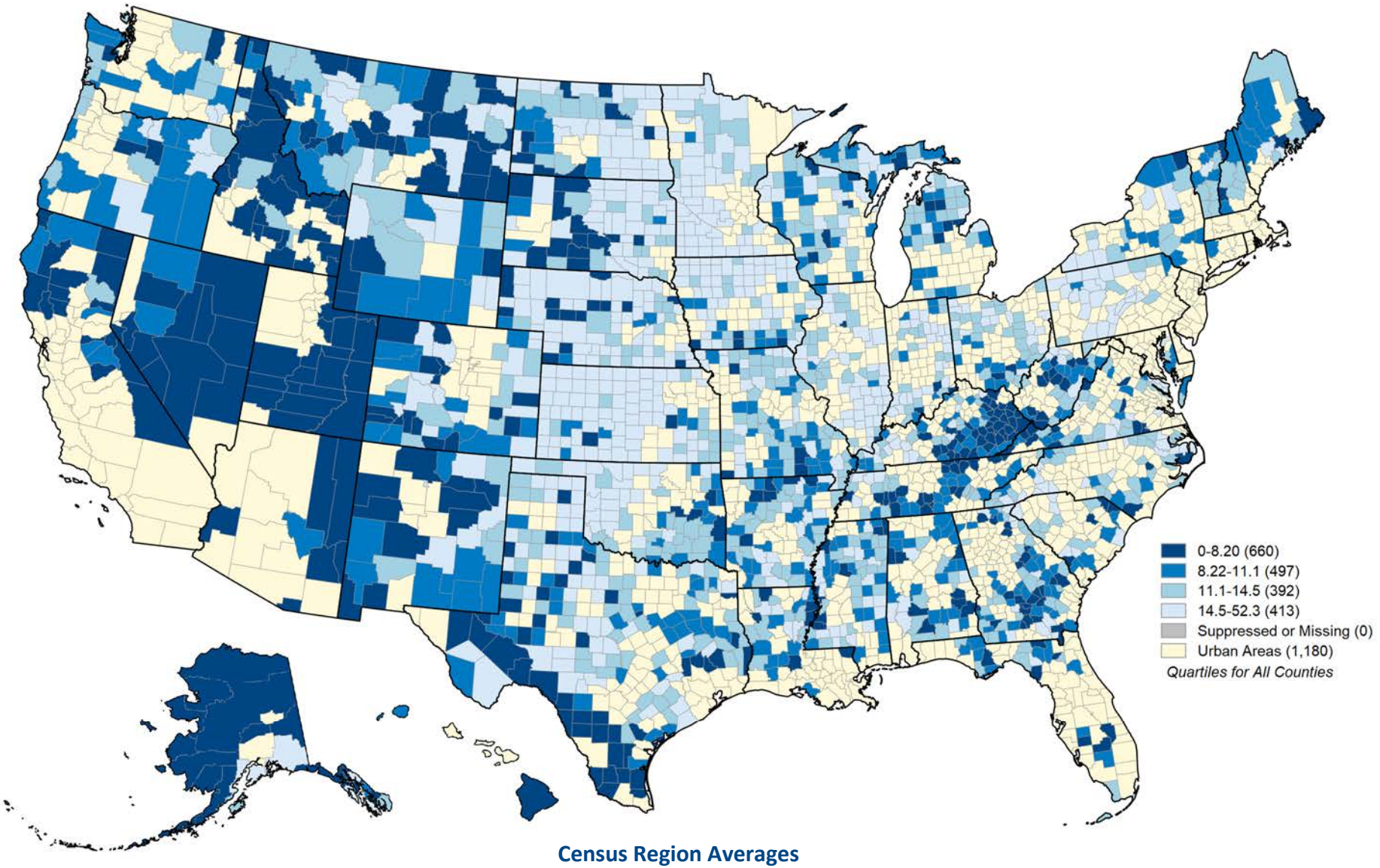


Census Region Averages

National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
16	**13**	**12**	**11**	**14**	**12**	**19**	**14**	**17**	**14**

Social Connectedness

Five-year average percentage of the population participating in activities / groups (2011-2015)



Census Region Averages

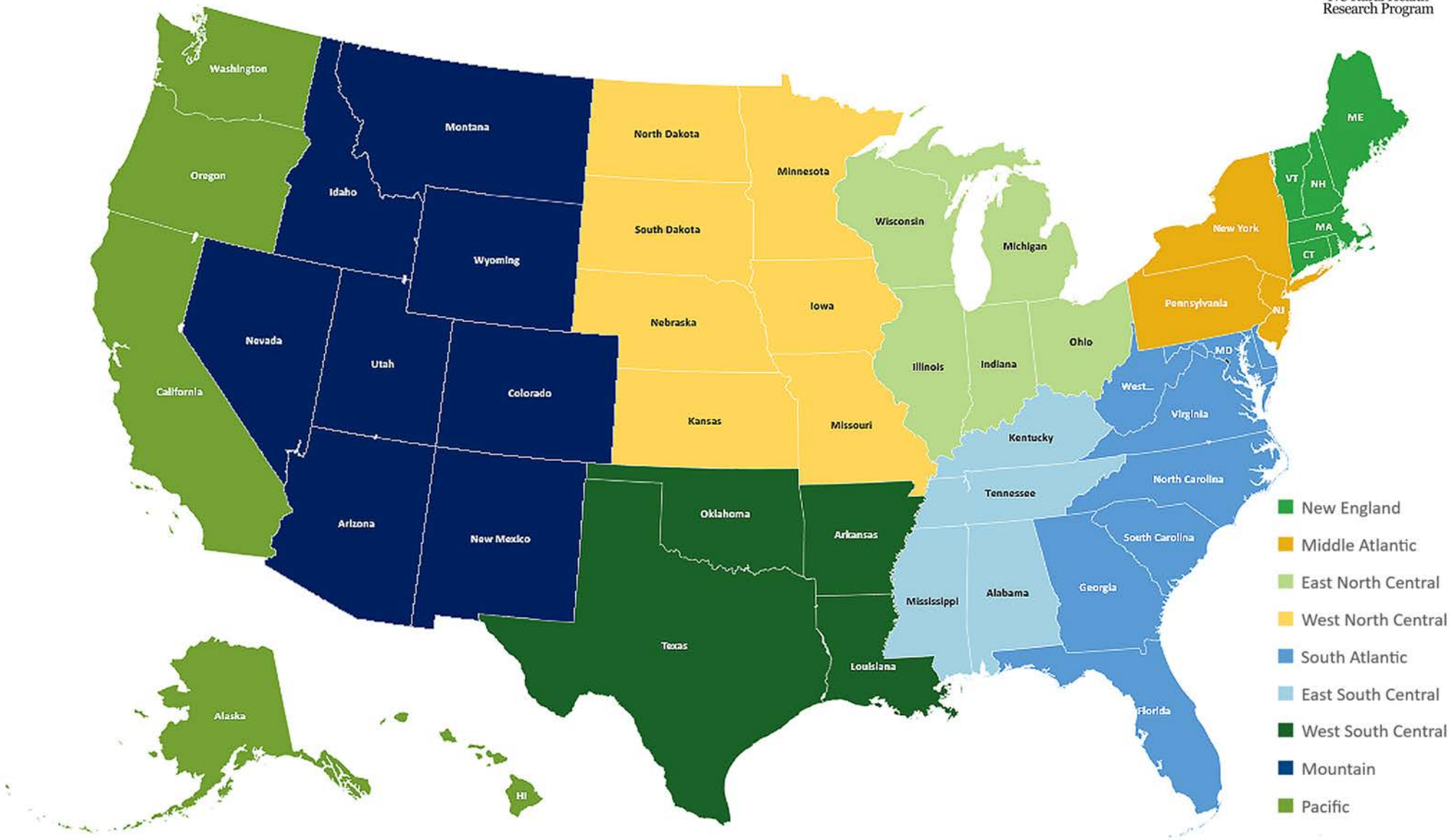
National		Northeast Region		Midwest Region		South Region		West Region	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
8	**12**	**9**	**13**	**10**	**15**	**9**	**12**	**6**	**9**

Sex, Race, and Ethnicity Disparity Charts by U.S. Census Divisions

Definitions and Data Sources

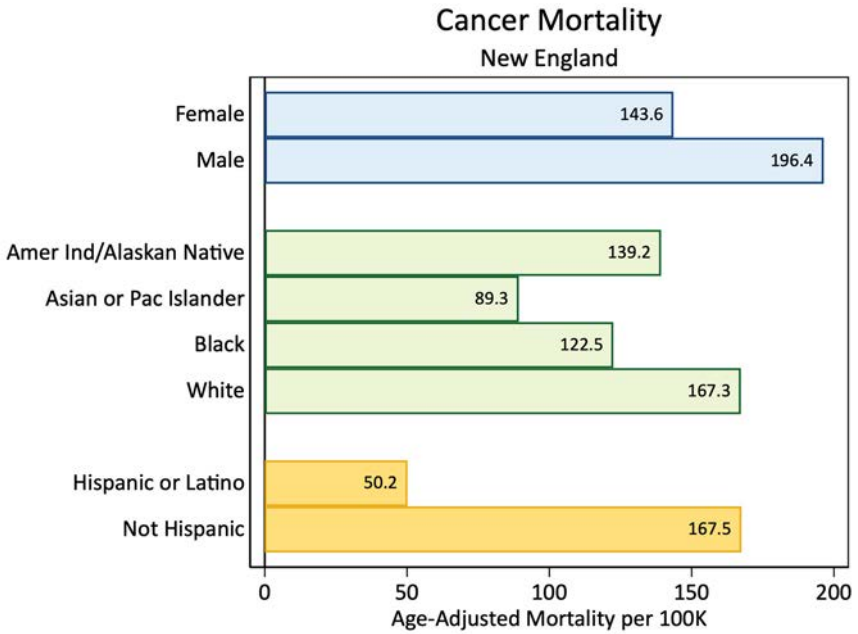
How to Read the Charts

U.S. Census Divisions

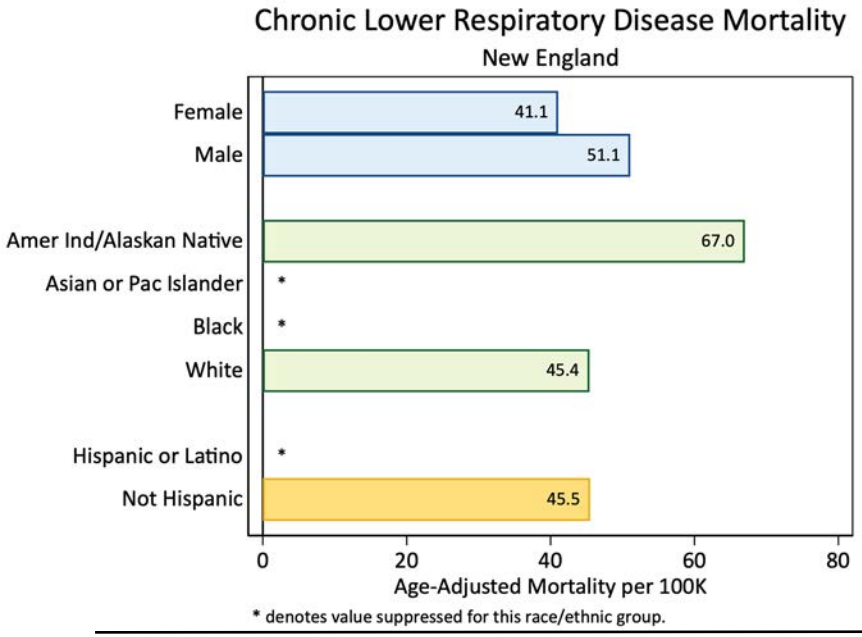


New England Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the New England Census division, males had a higher **cancer mortality** rate per 100,000 compared to their female counterparts. Among race categories, White Americans had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a much higher cancer mortality rate per 100,000 compared to Hispanics or Latino Americans.



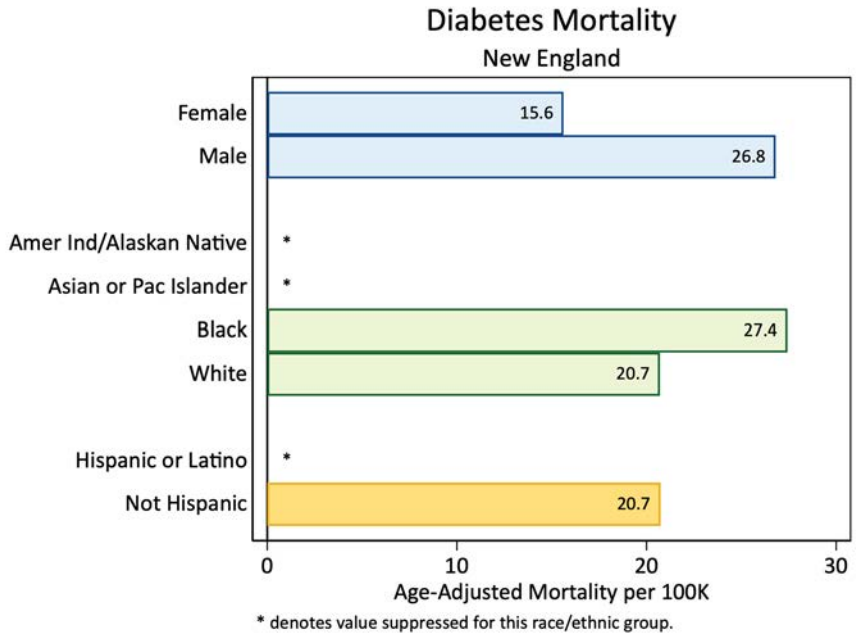
Chronic lower respiratory disease mortality rate was higher for males compared to females. American Indians and Alaskan Natives had the highest rates. Data for Asian or Pacific Islander Americans and Black Americans were suppressed. Comparisons by ethnicity were not possible due to suppressed data.

U.S. Census Divisions Map

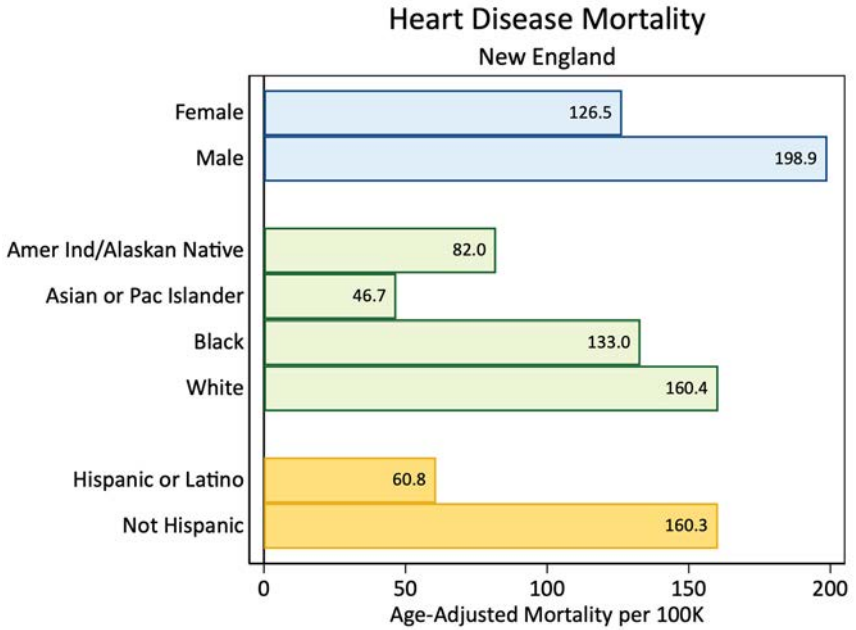
Rural/Urban National Averages

New England Division Summary

Sex, Race, and Ethnicity Disparity Profiles



For **diabetes mortality**, males had a higher rate than females. Diabetes mortality was higher among Black Americans relative to White Americans. Data for American Indians and Alaskan Natives and Asian or Pacific Islander Americans were suppressed. Comparisons by ethnicity were not possible due to suppressed data.



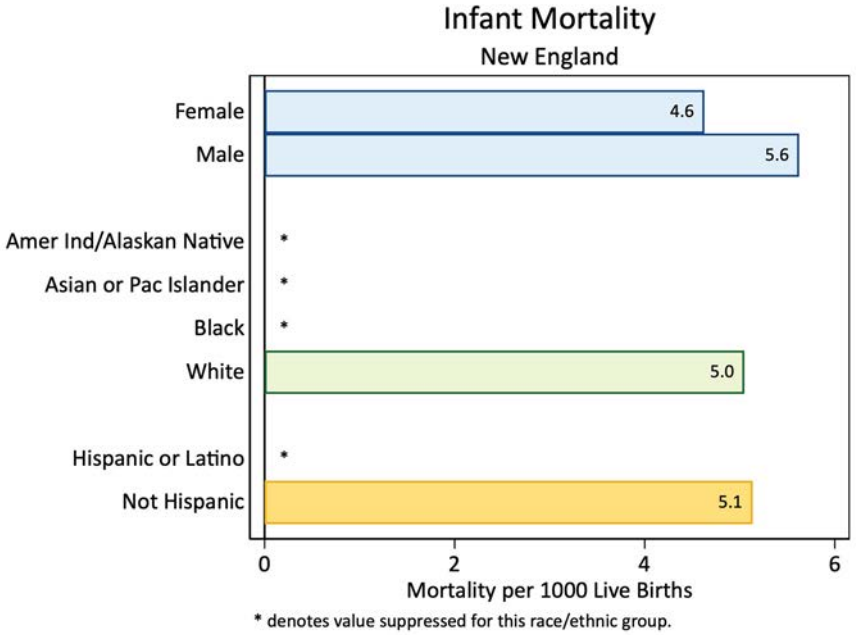
The **heart disease mortality** rate for males was higher than for females. Among race categories, White Americans had the highest rate while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a much higher heart disease mortality rate compared to Hispanic or Latino Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

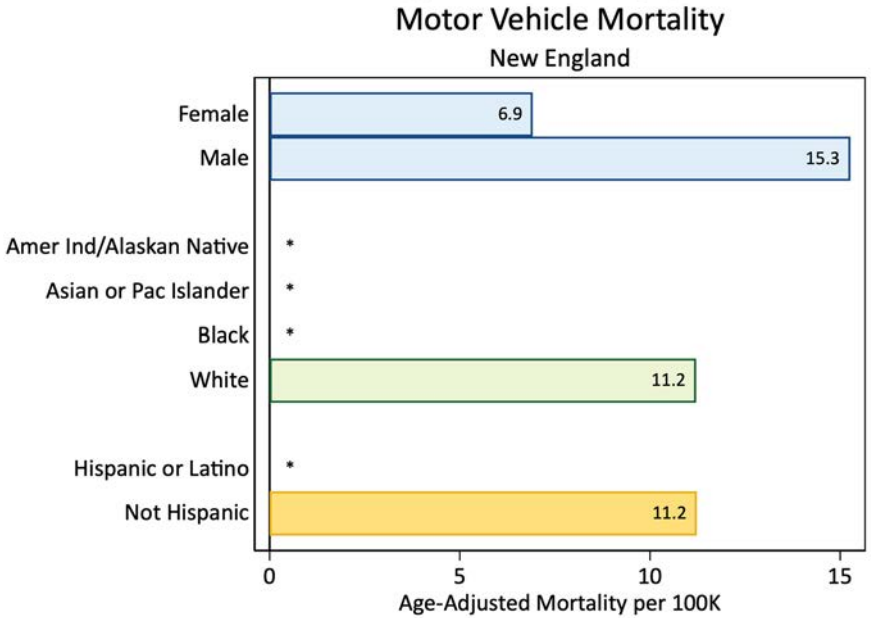
New England Division Summary

Sex, Race, and Ethnicity Disparity Profiles



* denotes value suppressed for this race/ethnic group.

In the New England Census division, males had a higher **infant mortality** rate per 1,000 compared to females. Comparisons by race and ethnicity were not possible due to suppressed data.



* denotes value suppressed for this race/ethnic group.

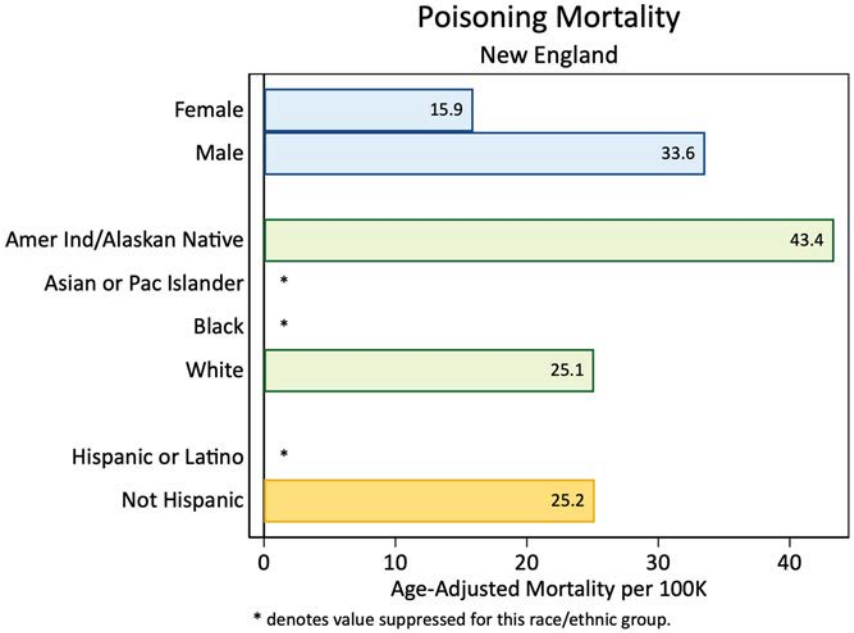
Males had a higher **motor vehicle mortality** rate per 100,000 than females. Comparisons by race and ethnicity were not possible due to suppressed data.

U.S. Census Divisions Map

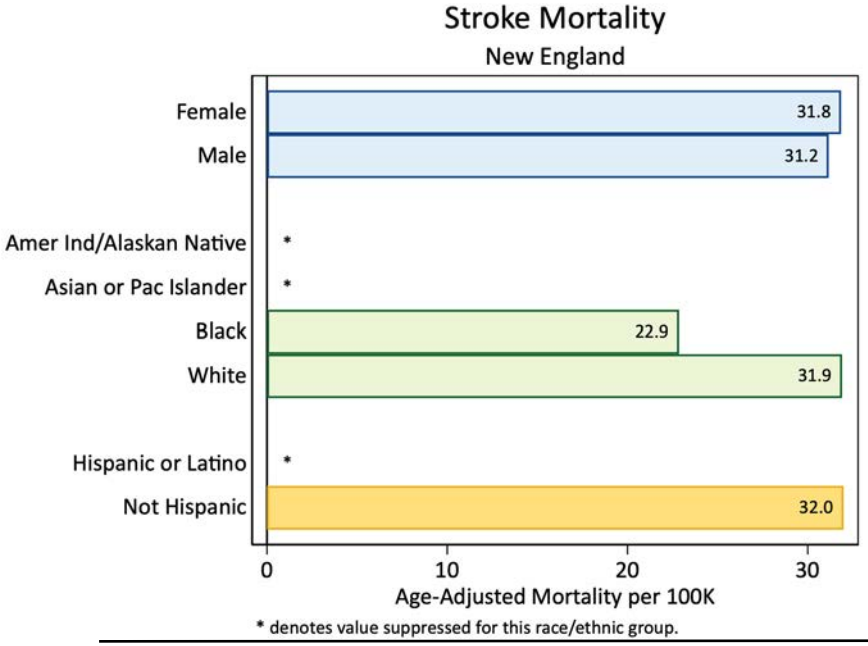
Rural/Urban National Averages

New England Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a higher **poisoning mortality** rate compared to their female counterparts. American Indians and Alaskan Natives had a higher rate relative to White Americans. Data for Asian American or Pacific Islander Americans and Black Americans were suppressed. Suppressed data also made it impossible to make comparisons by ethnicity.



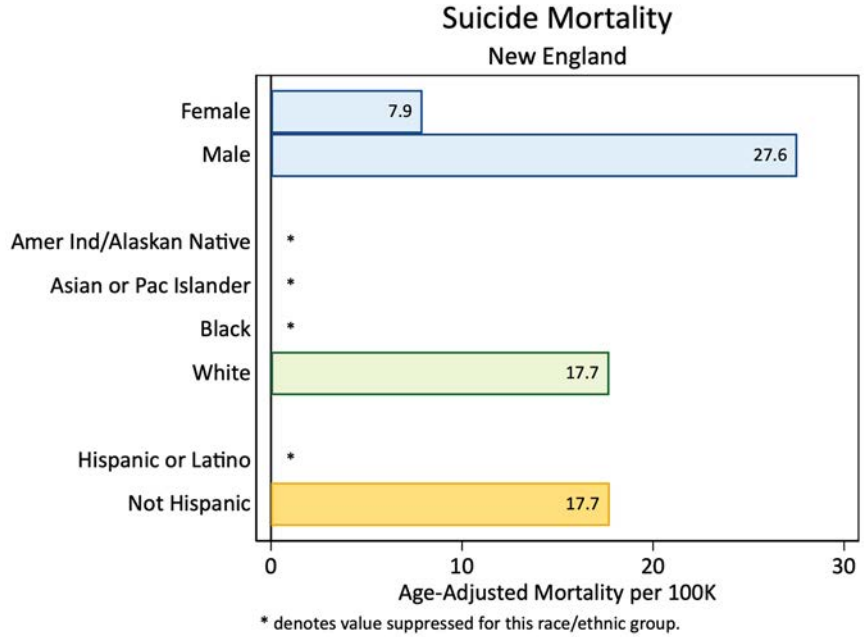
The **stroke mortality** rate is one of the few categories where the rate for females was higher than for males. Among race categories, White Americans had a higher stroke mortality rate relative to Black Americans. Data for American Indians and Alaskan Natives and Asian or Pacific Islander Americans were suppressed. Comparisons by ethnicity were not possible due to suppressed data.

U.S. Census Divisions Map

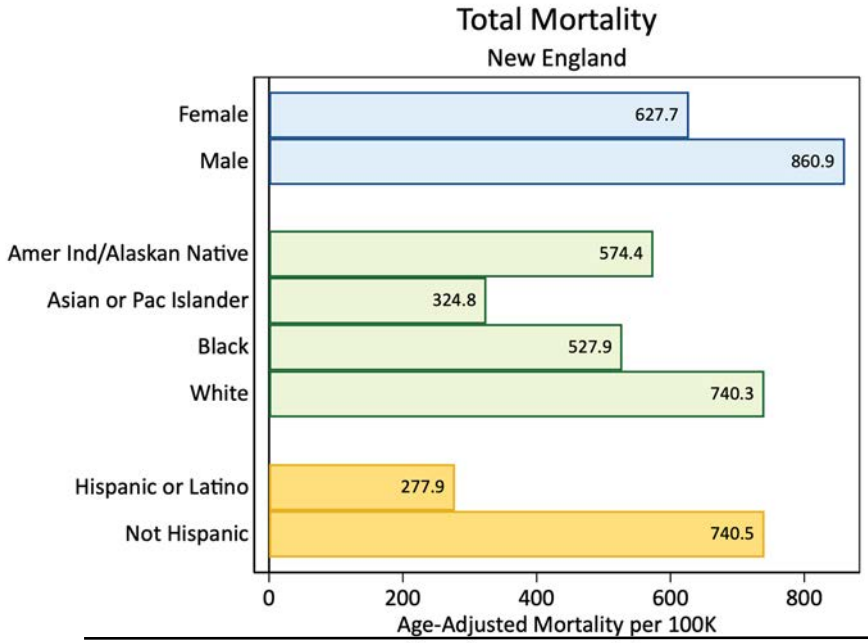
Rural/Urban National Averages

New England Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Male **suicide mortality** rates were much higher than female rates. Comparisons by race and ethnicity were not possible due to suppressed data.



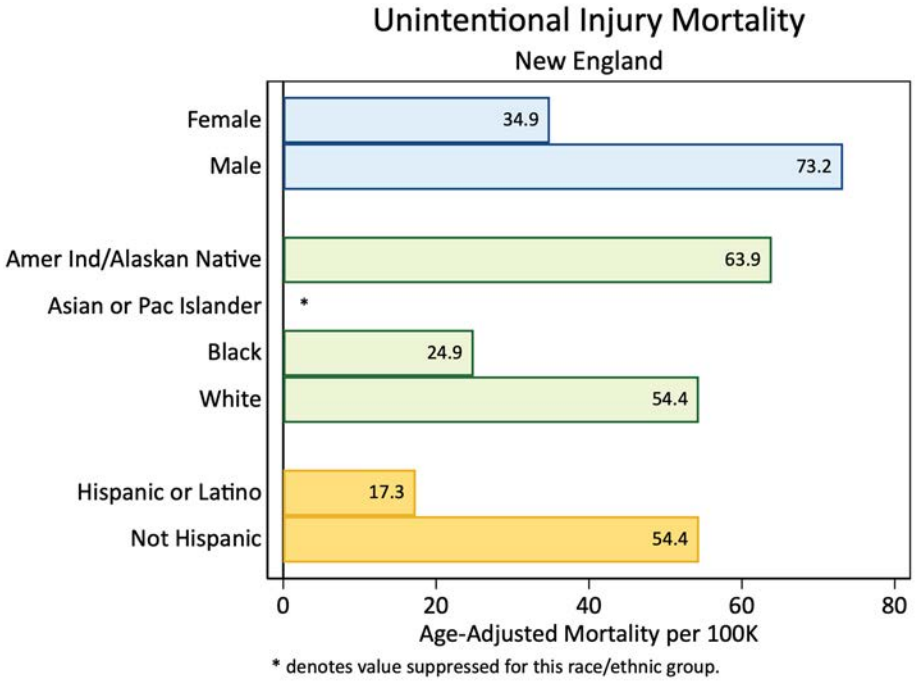
Overall, males had a higher **total mortality** rate per 100,000 compared to females. Among race categories, White Americans had the highest total mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate compared to Hispanic or Latino Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

New England Division Summary

Sex, Race, and Ethnicity Disparity Profiles



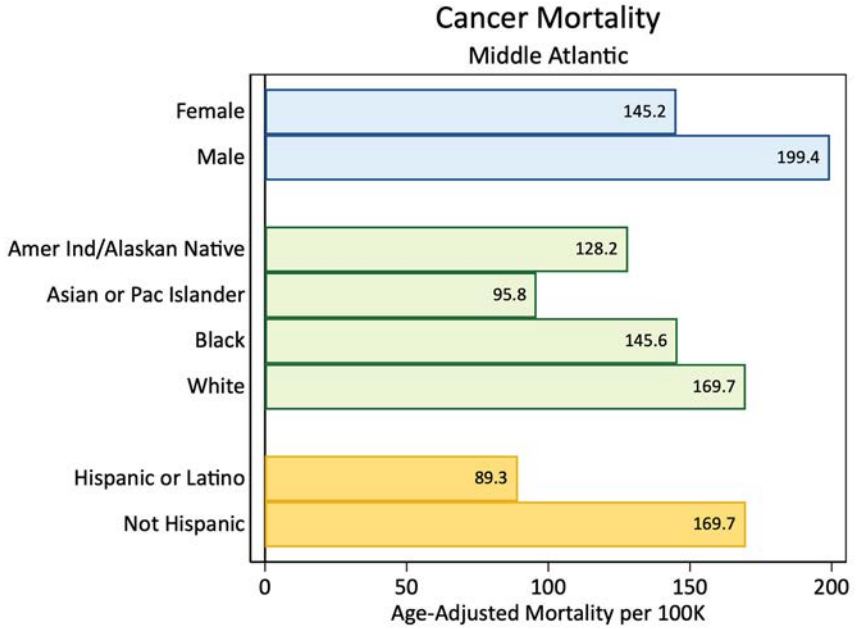
Males had a higher **unintentional injury mortality rate** than females. American Indians and Alaskan Natives had the highest rate, while Black Americans had the lowest. Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

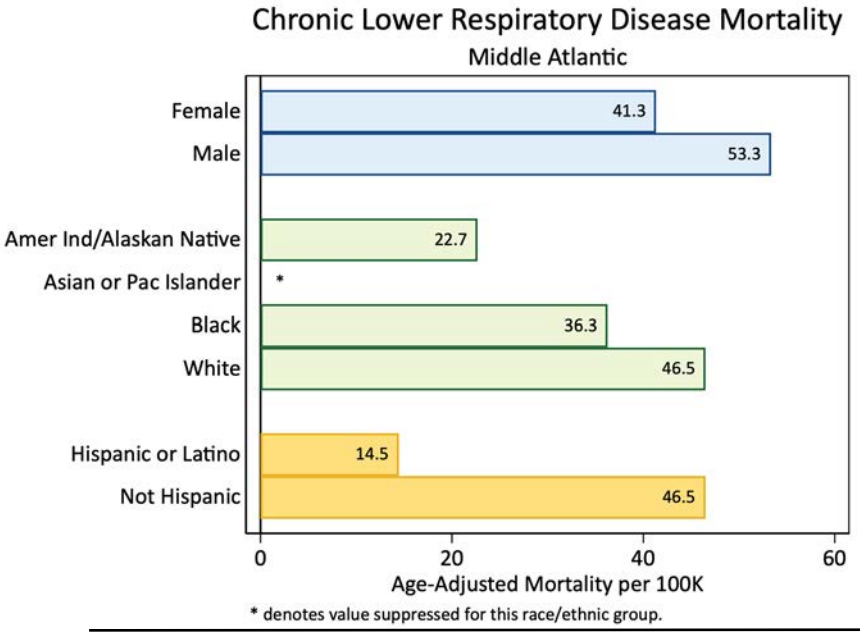
Rural/Urban National Averages

Middle Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Middle Atlantic Census division, males had a higher **cancer mortality** rate per 100,000 compared to females. White Americans had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate compared to Hispanic or Latino Americans.



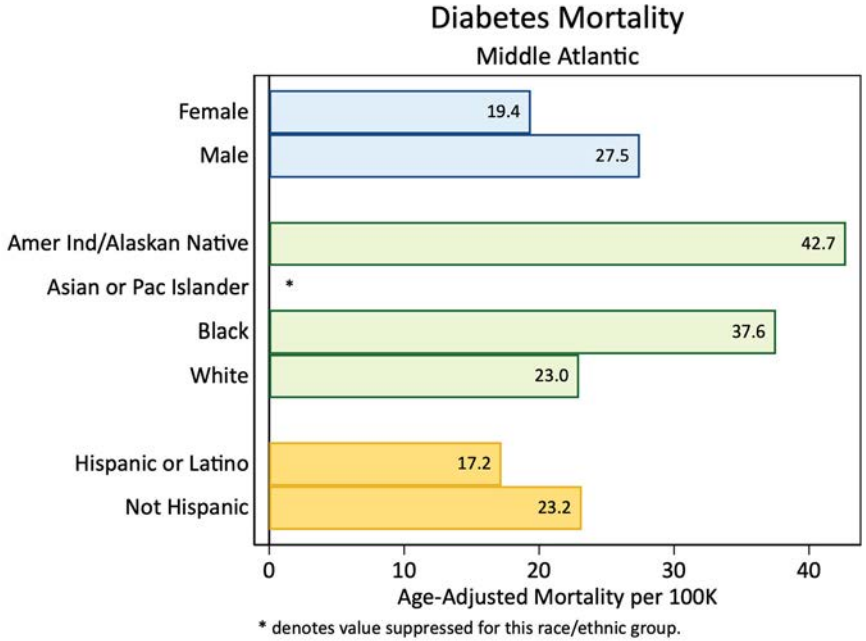
Males had a higher **chronic lower respiratory disease mortality** rate than females. White Americans had the highest rate, while American Indians and Alaskan Natives had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher chronic lower respiratory disease mortality rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

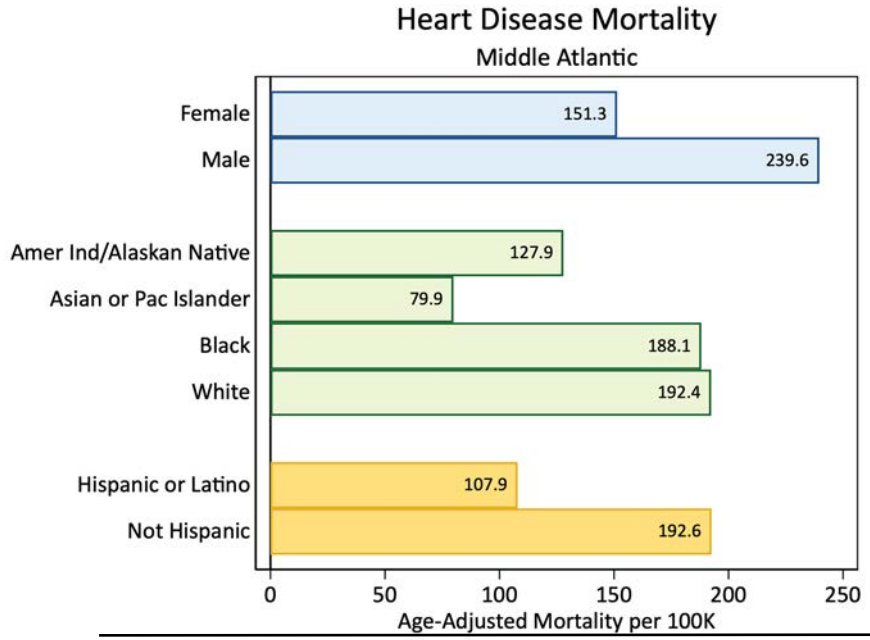
Rural/Urban National Averages

Middle Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



For **diabetes mortality**, males had a higher rate than females. American Indians and Alaskan Natives had the highest diabetes mortality rate, while White Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher rate compared to Hispanic or Latino Americans.



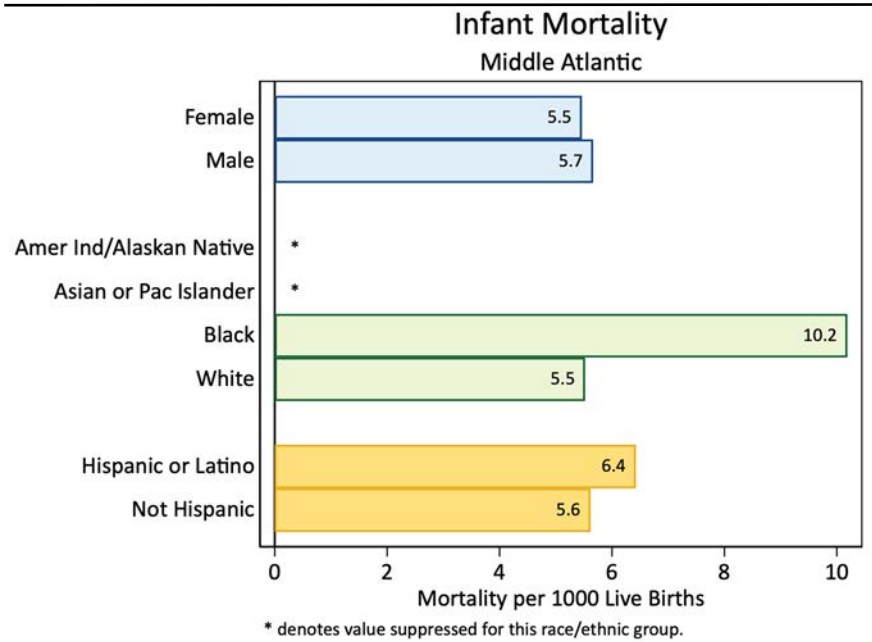
The **heart disease mortality** rate per 100,000 was higher for males than for females. Among race categories, the highest heart disease mortality rate was among White Americans, while Asian or Pacific Islander Americans had the lowest. For ethnic categories, Not-Hispanic Americans had a higher mortality rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

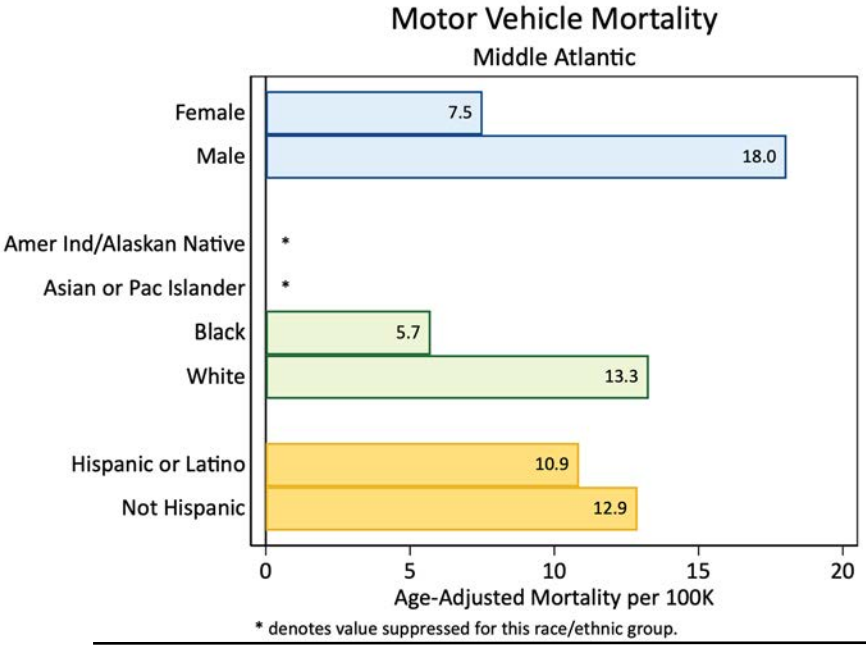
Rural/Urban National Averages

Middle Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a slightly higher **infant mortality** rate per 1,000 than females. Black Americans had a much higher infant mortality rate compared to White Americans. Data for American Indians and Alaskan Natives and Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Hispanic or Latino Americans had a higher infant mortality rate relative to Not-Hispanic Americans.



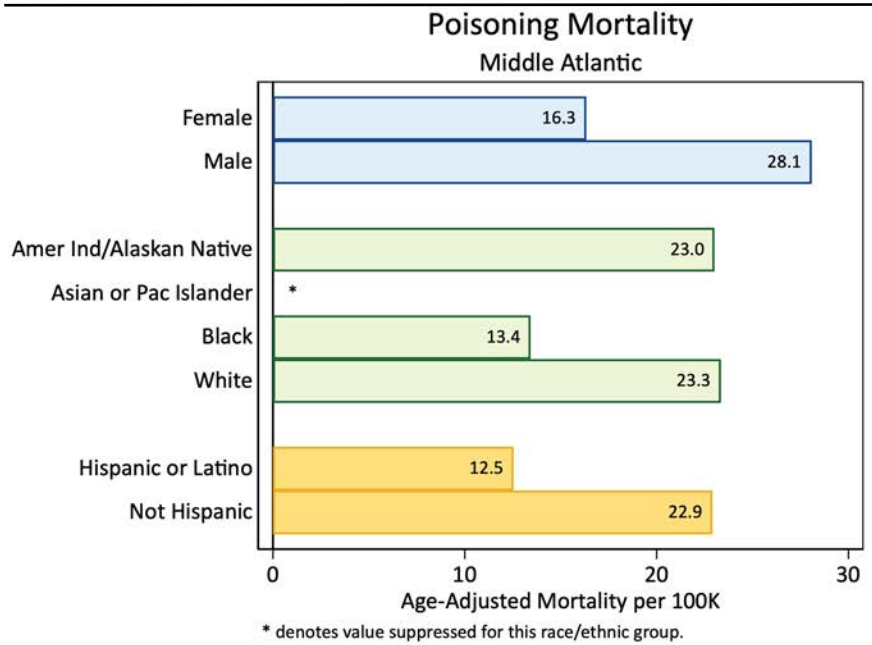
Males had a higher **motor vehicle mortality** rate compared to females. White Americans had a higher rate than Black Americans. Data for American Indians and Alaskan Natives and Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher motor vehicle mortality rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

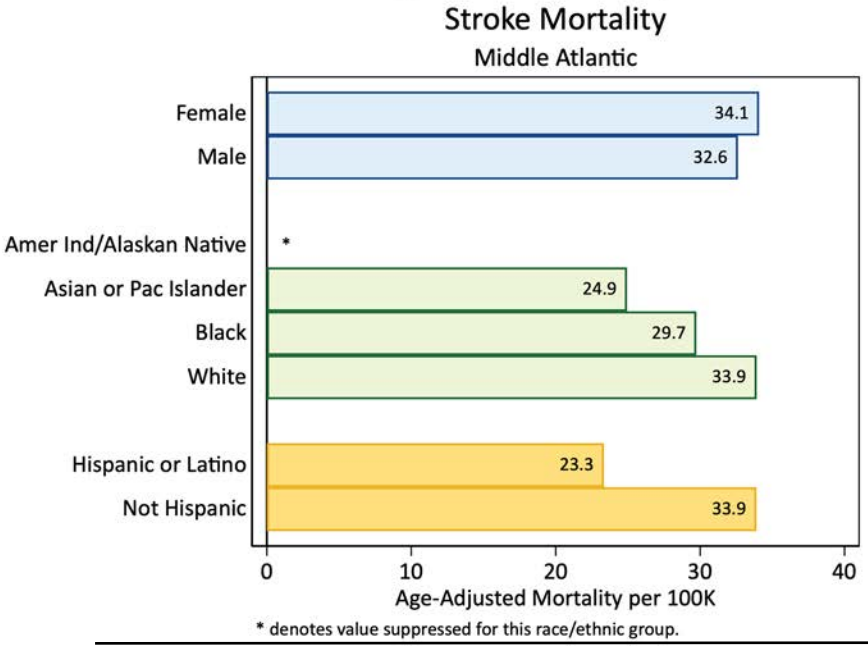
Rural/Urban National Averages

Middle Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



For **poisoning mortality**, males had a higher rate than females. Among race categories, White Americans and American Indians/Alaskan Natives had the highest poisoning mortality rates, and Black Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.



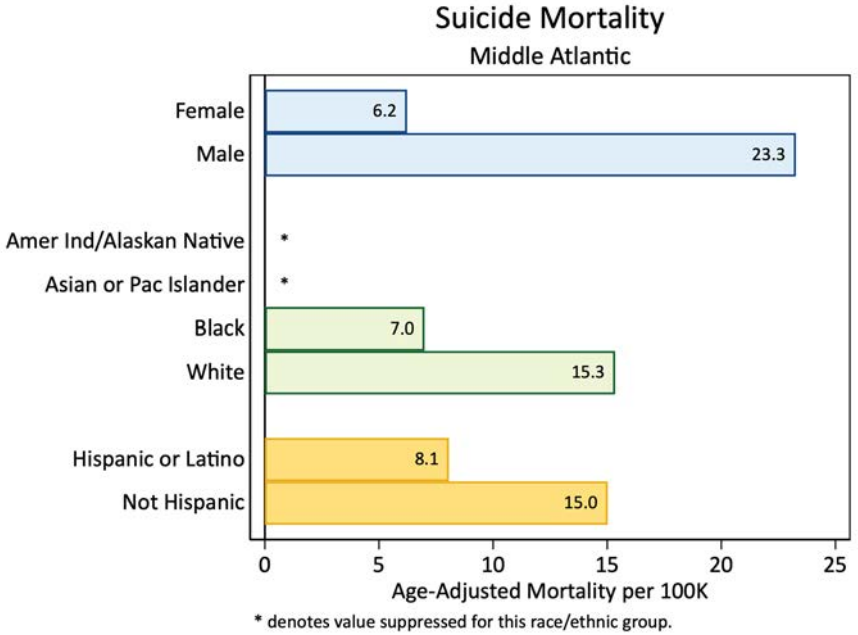
The **stroke mortality** rate was the only rate higher among females compared to males in the Middle Atlantic Census division. Among race categories, White Americans had the highest stroke mortality rate, while Asian or Pacific Islander Americans had the lowest. Data for American Indians and Alaskan Natives were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher stroke mortality rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

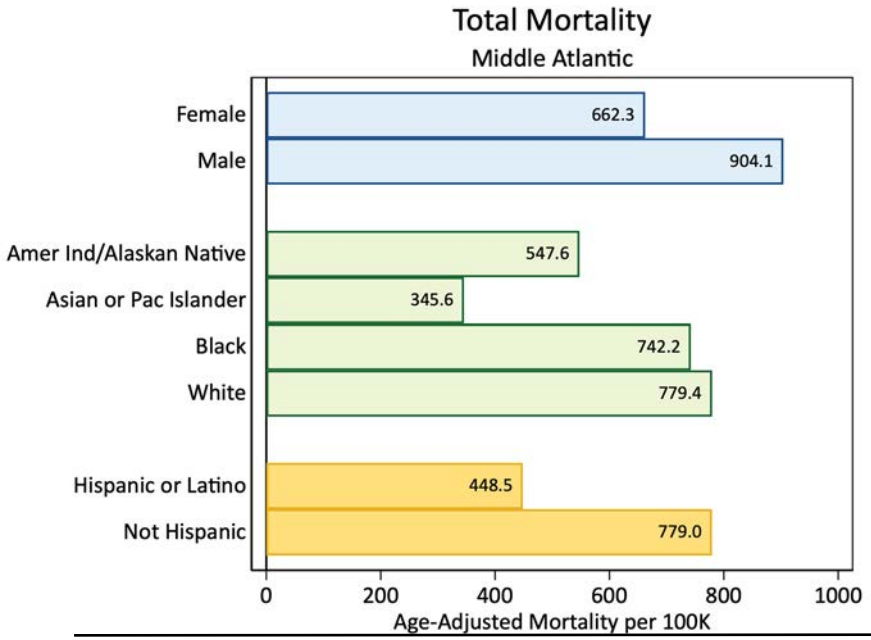
Rural/Urban National Averages

Middle Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a much higher **suicide mortality** rate compared to females. Among race categories, White Americans had a rate higher than Black Americans and other race data were suppressed. Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.



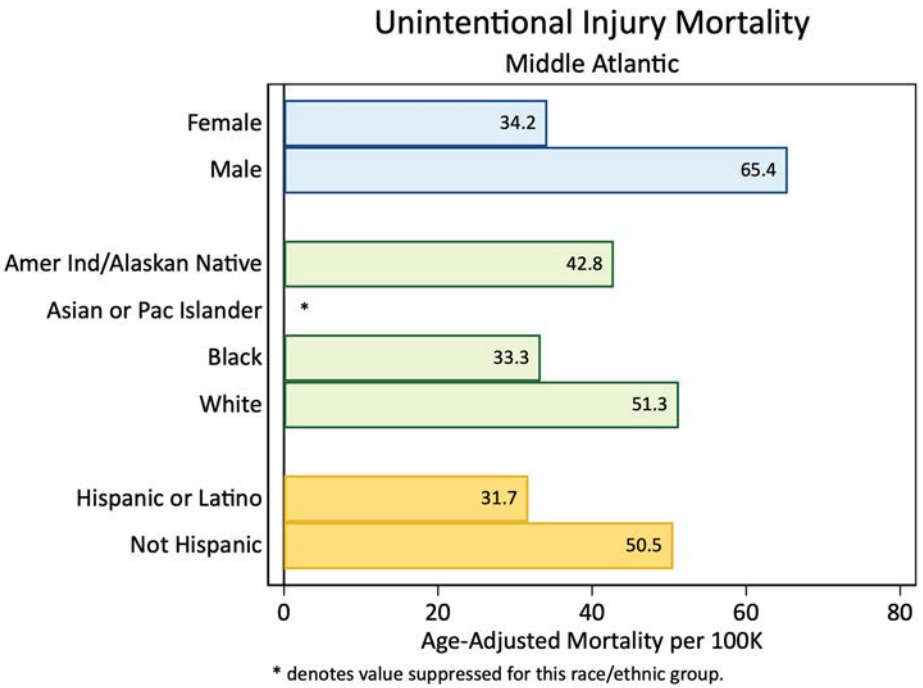
Males had a higher **total mortality** rate per 100,000 than females. Among race categories, White Americans had the highest total mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

Middle Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



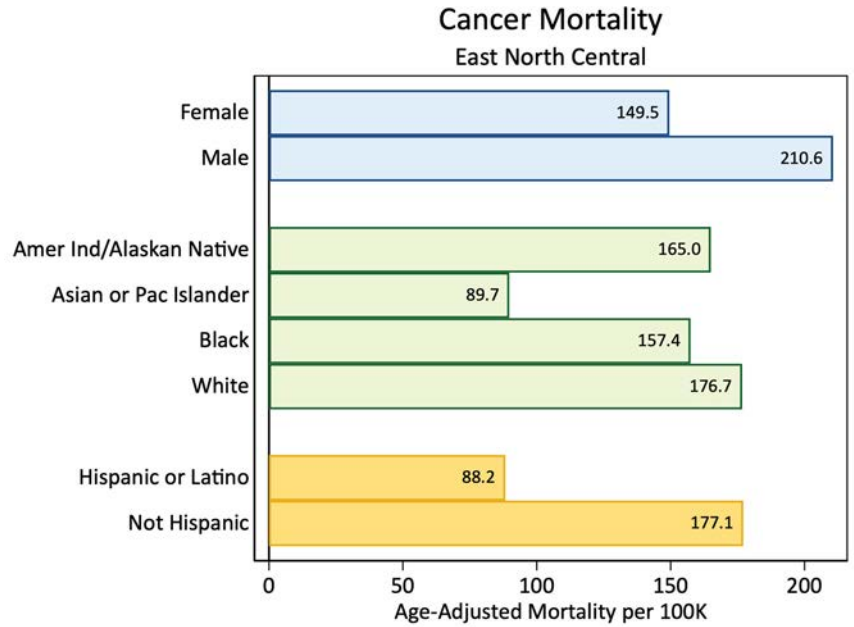
For **unintentional injury mortality**, males had a higher rate than females. White Americans had the highest rate, while Black Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

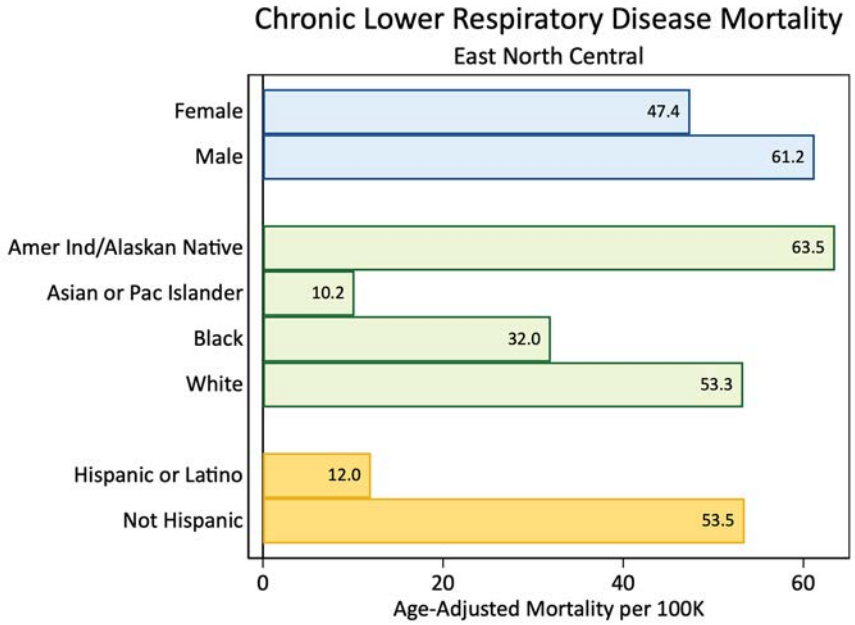
Rural/Urban National Averages

East North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the East North Central Census division, males had a higher **cancer mortality** rate. White Americans had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had the highest rate.



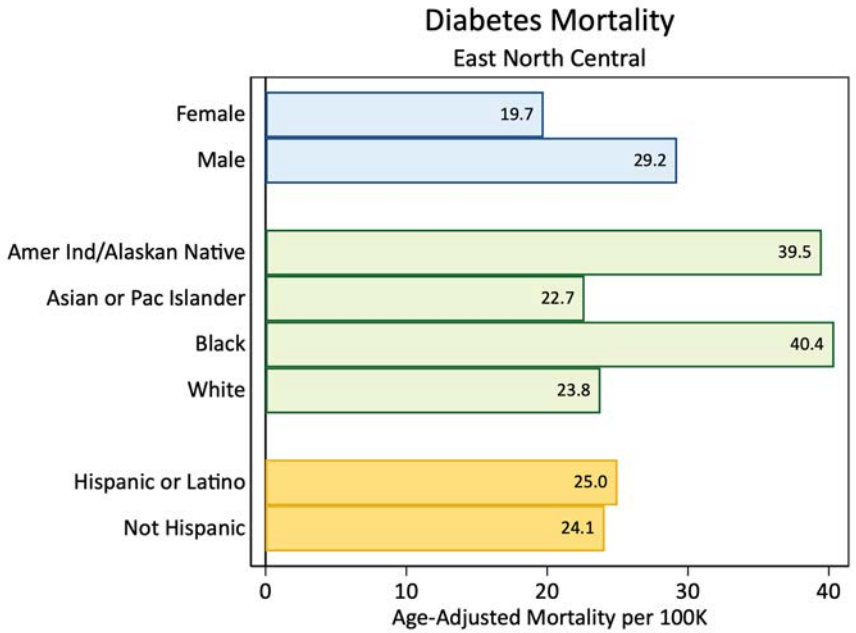
Males had a higher **chronic lower respiratory disease mortality** rate than females. American Indians and Alaskan Natives had the highest rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher chronic lower respiratory disease mortality rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

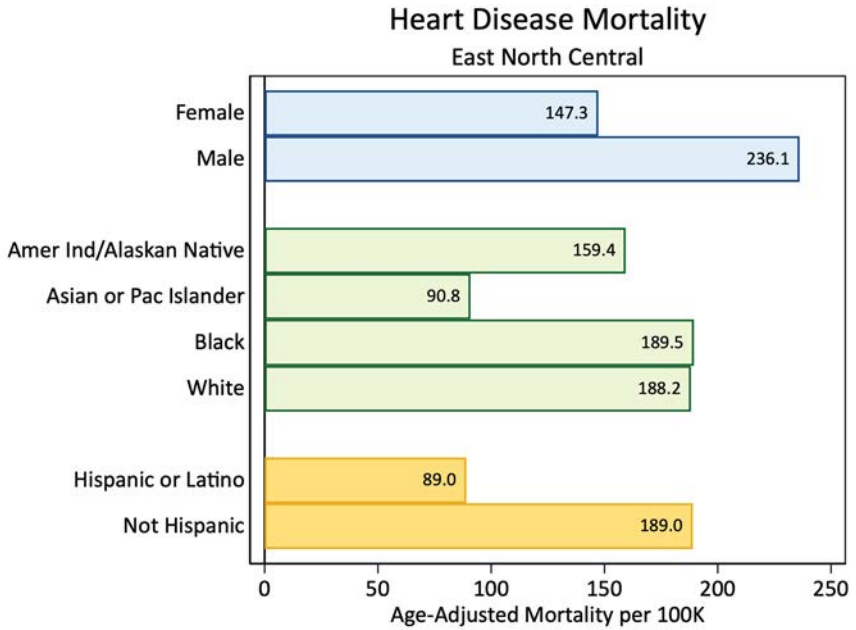
Rural/Urban National Averages

East North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Diabetes mortality was higher among males. Black Americans had the highest diabetes mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Hispanic or Latino Americans had a slightly higher diabetes mortality rate relative to Not-Hispanic Americans.



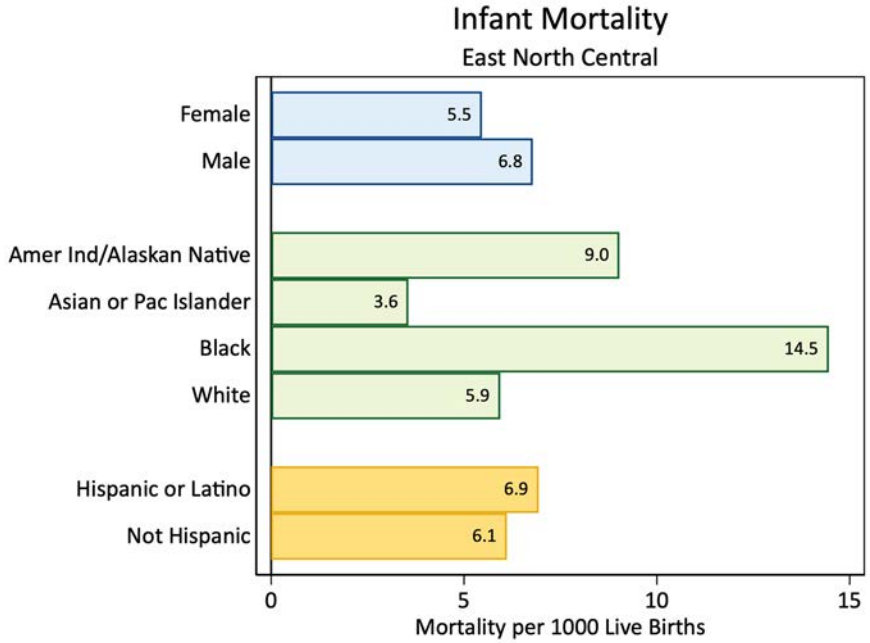
The **heart disease mortality** rate was higher among males than females. Black Americans had the highest heart disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, mortality was higher among Not-Hispanic Americans than Hispanic or Latino Americans.

U.S. Census Divisions Map

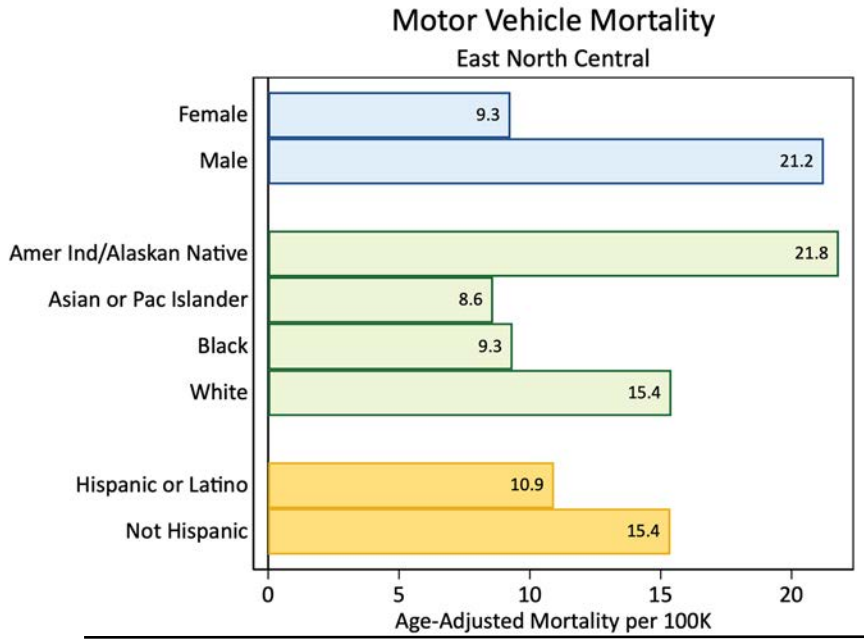
Rural/Urban National Averages

East North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the East North Central Census division, males had a higher **infant mortality** rate per 1,000 than females. Among race categories, Black Americans had the highest infant mortality rate, while Asian or Pacific Islander Americans had the lowest. For ethnic categories, Hispanic or Latino Americans had a higher infant mortality rate compared to Not-Hispanic Americans.



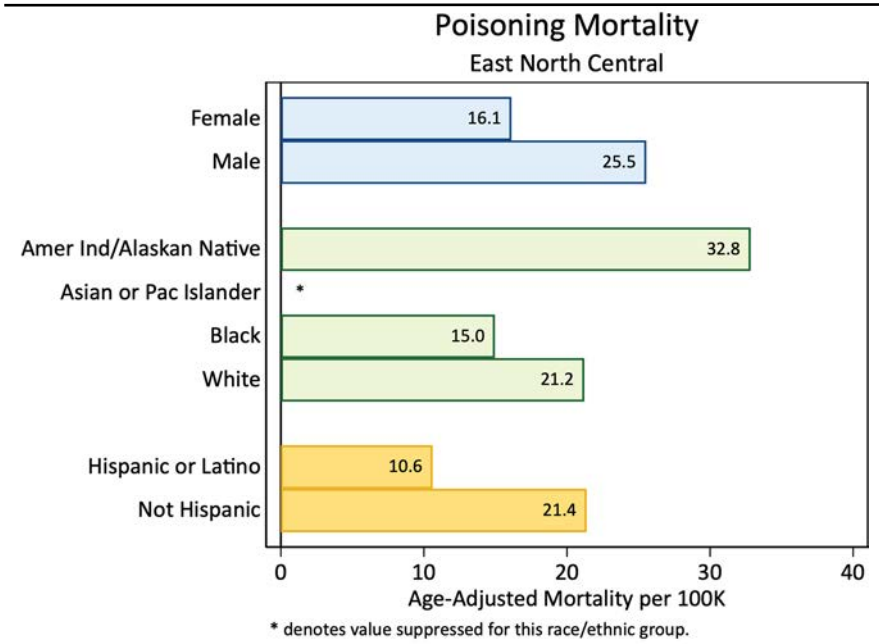
Males had a higher **motor vehicle mortality** rate than females. American Indians and Alaskan Natives had the highest motor vehicle mortality rate, while Asian or Pacific Islander Americans had the lowest. The motor vehicle mortality was higher among Not-Hispanic Americans relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

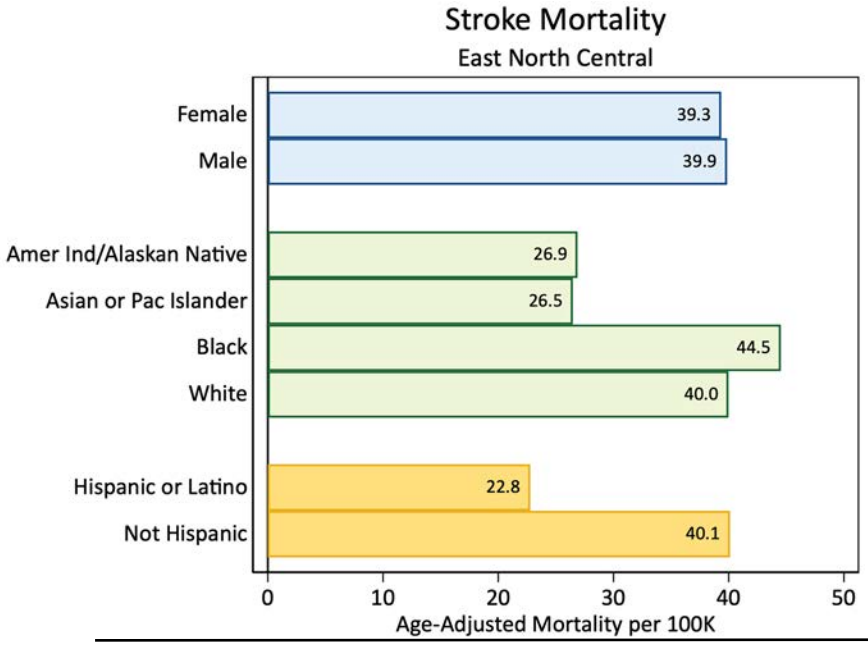
Rural/Urban National Averages

East North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Poisoning mortality was higher for males than females. Among race categories, American Indian and Alaskan Natives had the highest poisoning mortality rate, while Black Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher rate.



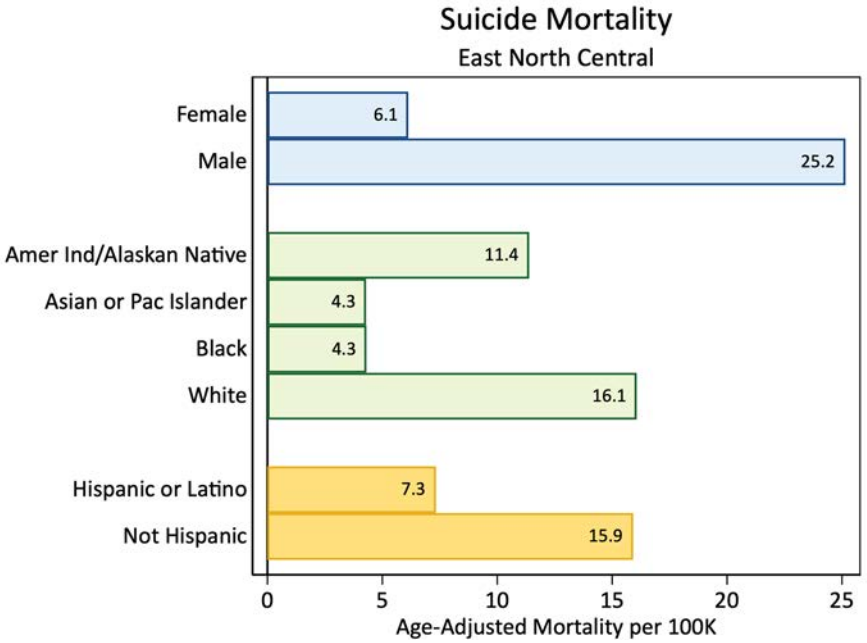
Males had a higher **stroke mortality** rate than females. Black Americans had the highest stroke mortality rate, and Asian or Pacific Islander Americans had the lowest. Not-Hispanic Americans had a higher stroke mortality compared to Hispanic or Latino Americans.

U.S. Census Divisions Map

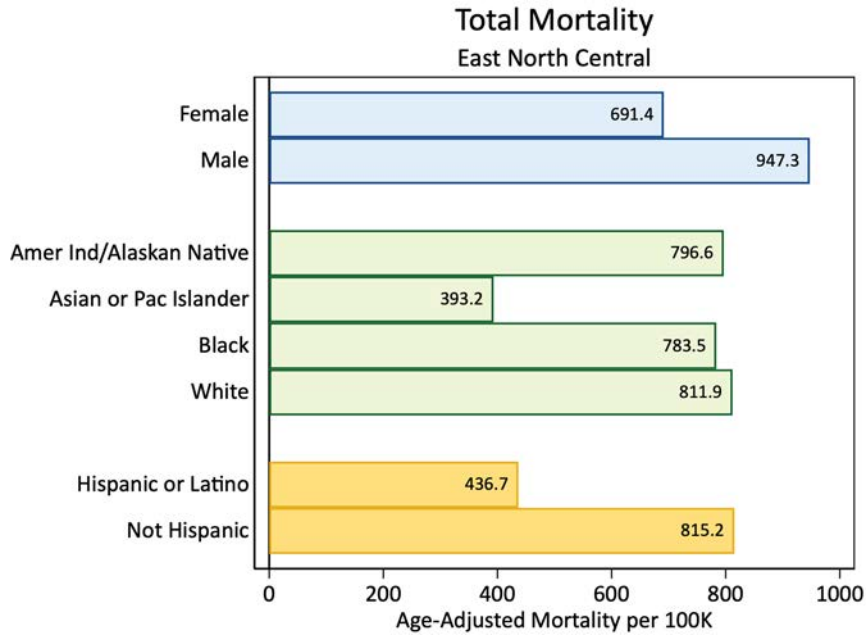
Rural/Urban National Averages

East North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a much higher **suicide mortality** rate than females. White Americans had the highest suicide morality rate, while Black Americans and Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was higher among Not-Hispanic Americans.



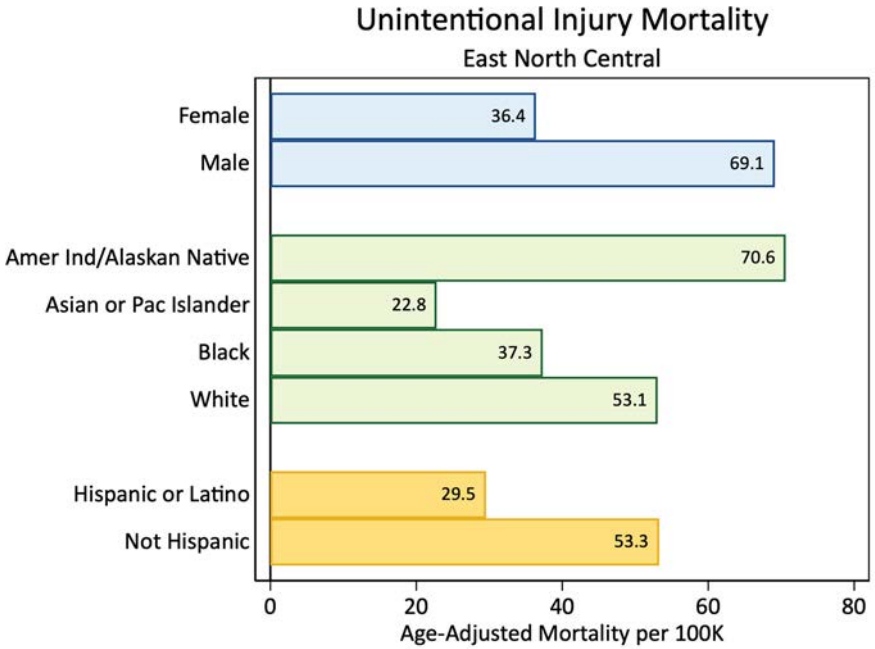
For **total mortality**, males had a higher rate than females. White Americans had the highest total mortality rate while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher total mortality rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

East North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



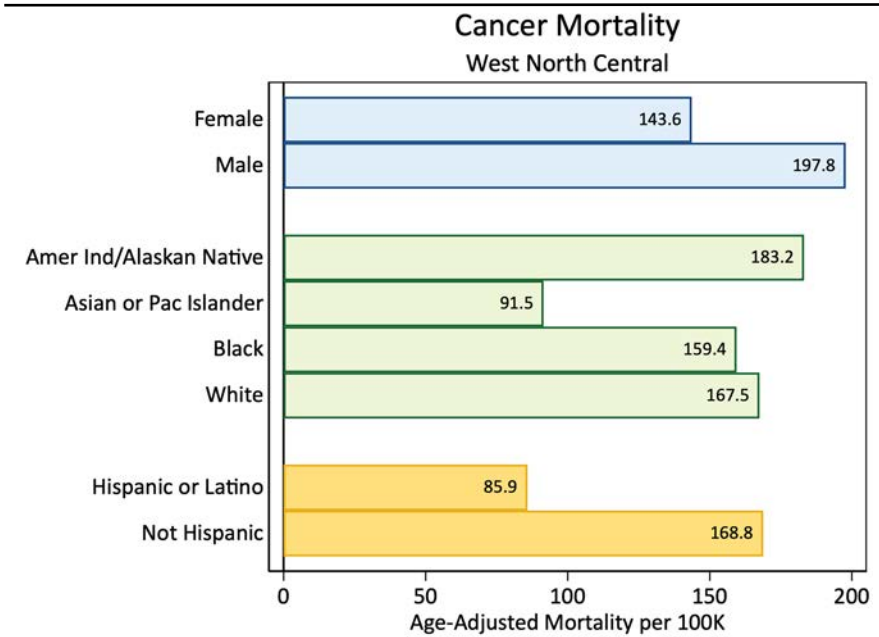
Males had a higher **unintentional injury mortality** rate than females. American Indians and Alaskan Natives had the highest unintentional injury rate, while Asian or Pacific Islander Americans had the lowest. Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

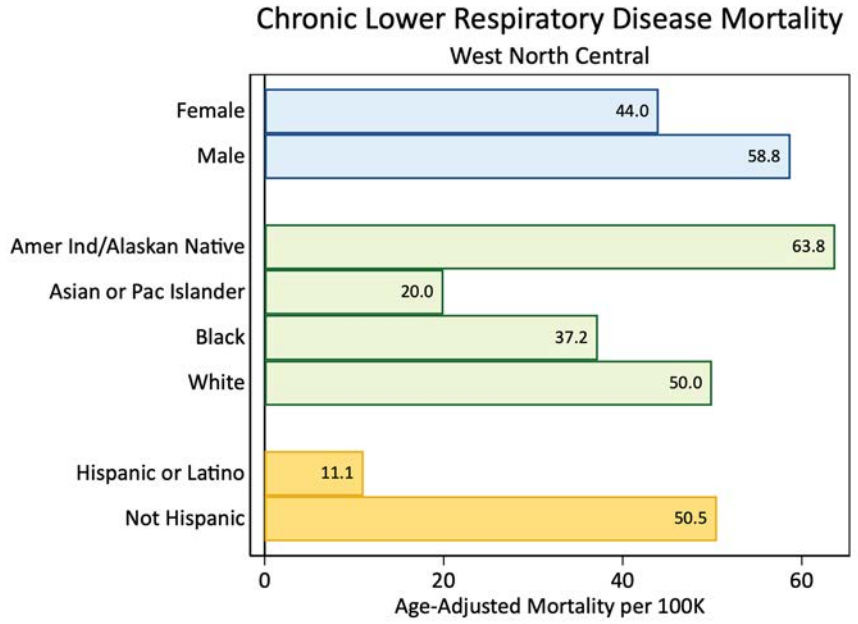
Rural/Urban National Averages

West North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West North Central Census division, males had a higher **cancer mortality** rate than females. American Indians and Alaskan Natives had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the mortality rate was higher for Not-Hispanic Americans.



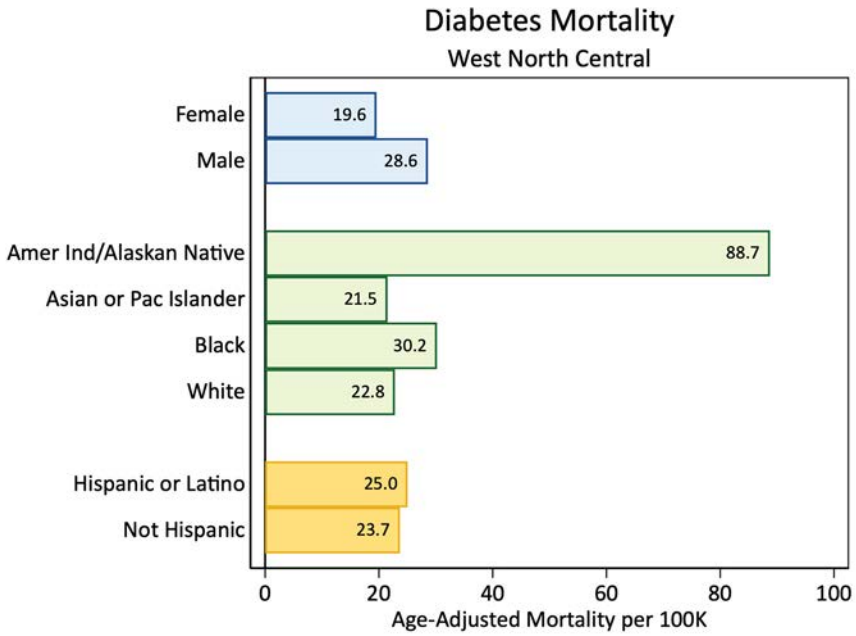
In this division, males had a higher **chronic lower respiratory disease mortality** rate. American Indians and Alaskan Natives had the highest chronic lower respiratory disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher chronic lower respiratory disease mortality rate.

U.S. Census Divisions Map

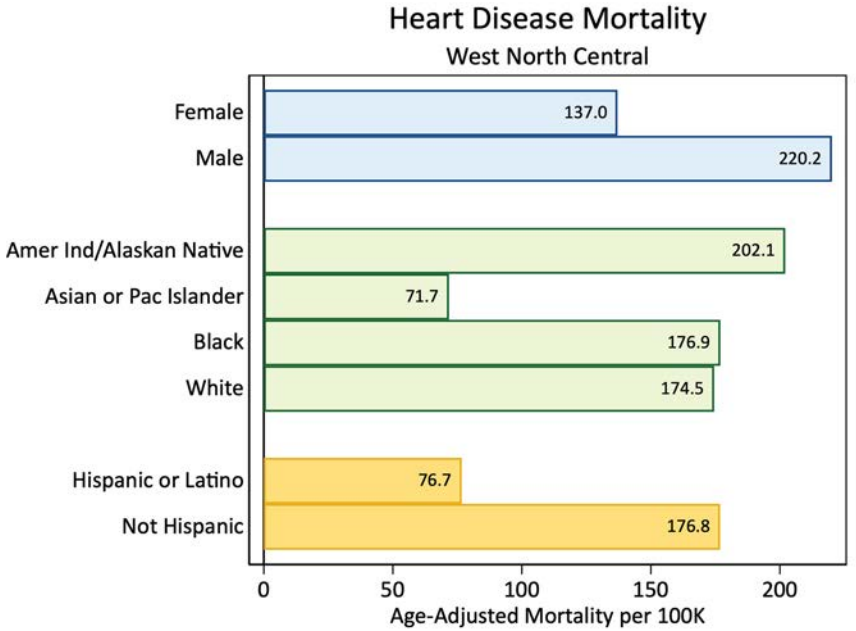
Rural/Urban National Averages

West North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West North Central Census division, males had a higher **diabetes mortality** rate compared to females. American Indians and Alaskan Natives had the highest diabetes mortality rate, nearly three times that of the next highest. Among ethnic categories, Hispanic or Latino Americans had a higher diabetes mortality rate relative to Not-Hispanic Americans.



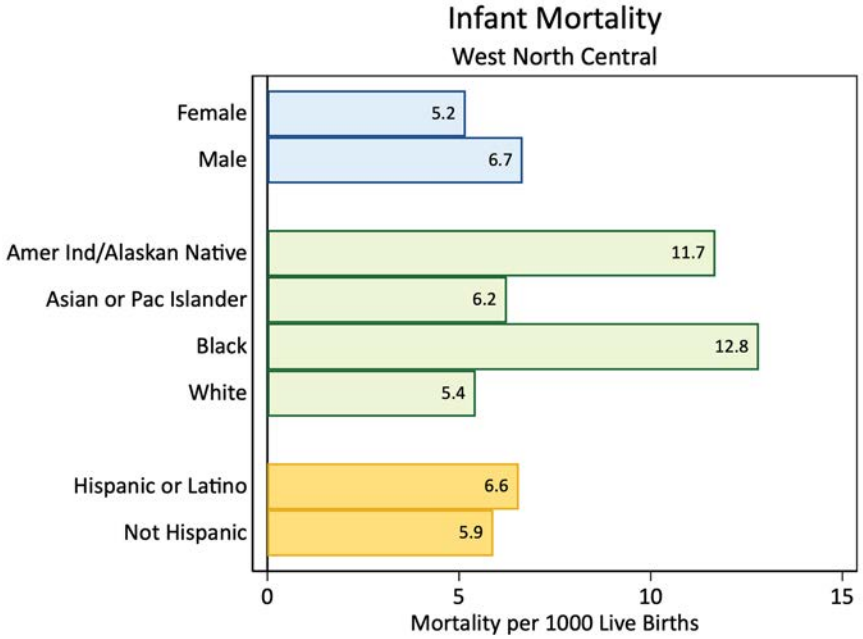
The **heart disease mortality** rate was higher for males relative to females. American Indians and Alaskan Natives had the highest heart disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the heart disease mortality rate was higher for Not-Hispanic Americans.

U.S. Census Divisions Map

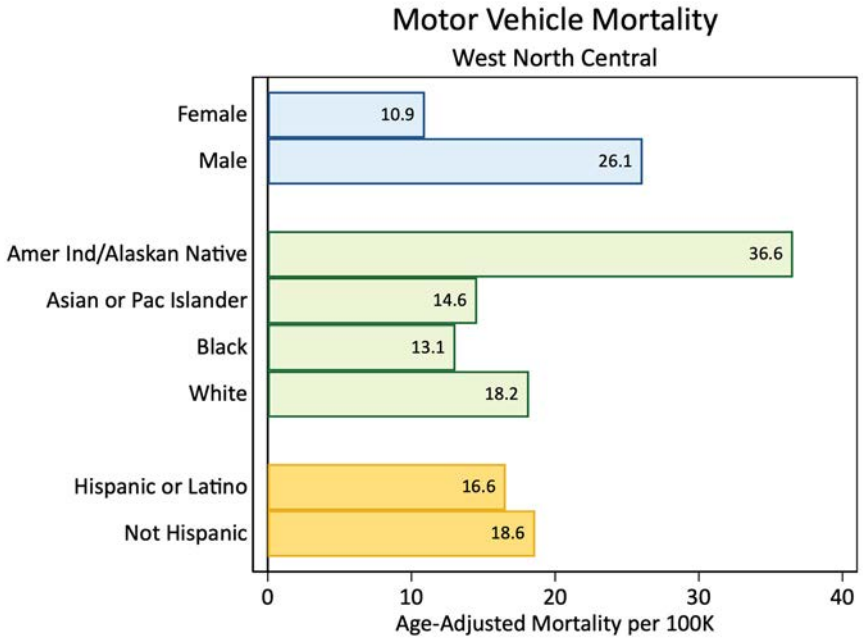
Rural/Urban National Averages

West North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West North Central Census division, males had a higher **infant mortality** rate per 1,000. Black Americans had the highest infant mortality rate, while White Americans had the lowest. Among ethnic categories, Hispanic or Latino Americans had a higher infant mortality rate relative to Not-Hispanic Americans.



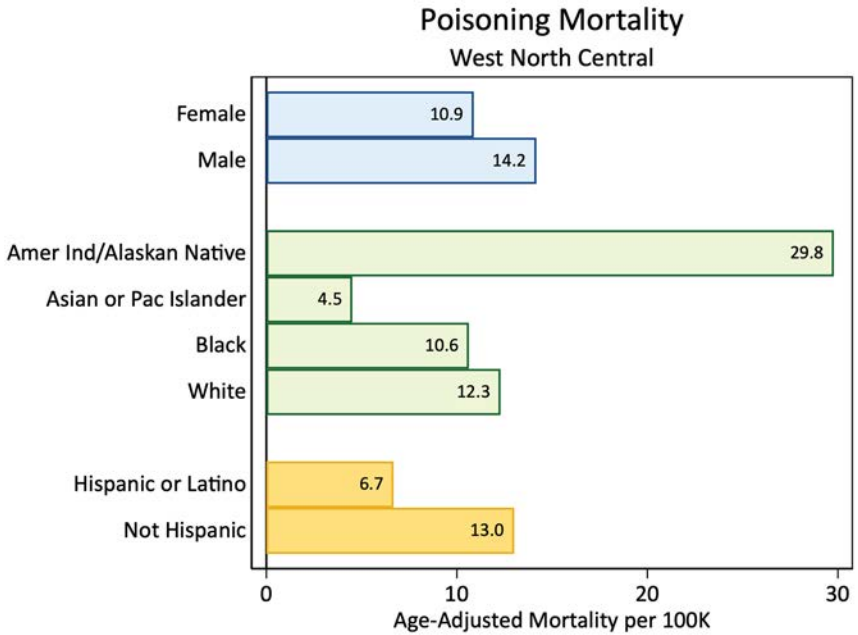
In this division, males had a higher **motor vehicle mortality** rate. American Indians and Alaskan Natives had the highest motor vehicle mortality rate, while Black Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher motor vehicle mortality rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

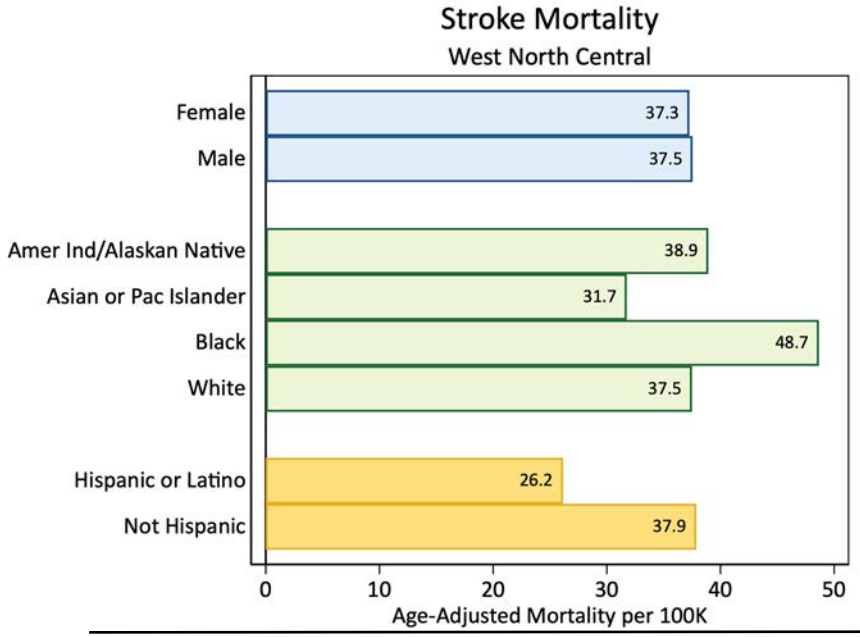
Rural/Urban National Averages

West North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West North Central Census division, males had a higher **poisoning mortality** rate. American Indians and Alaskan Natives had a much higher rate than other races, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.



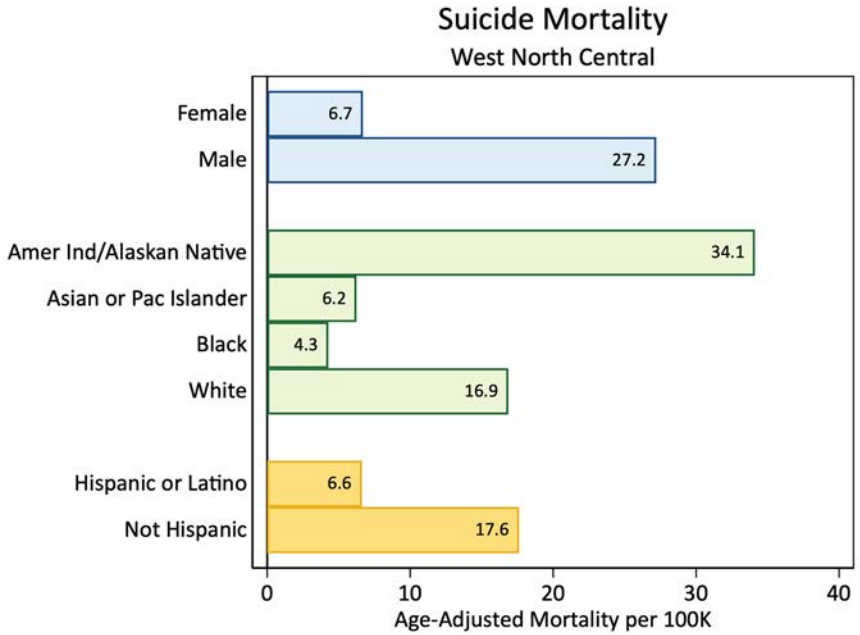
For **stroke mortality**, males had a slightly higher rate than females. Black Americans had the highest stroke mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

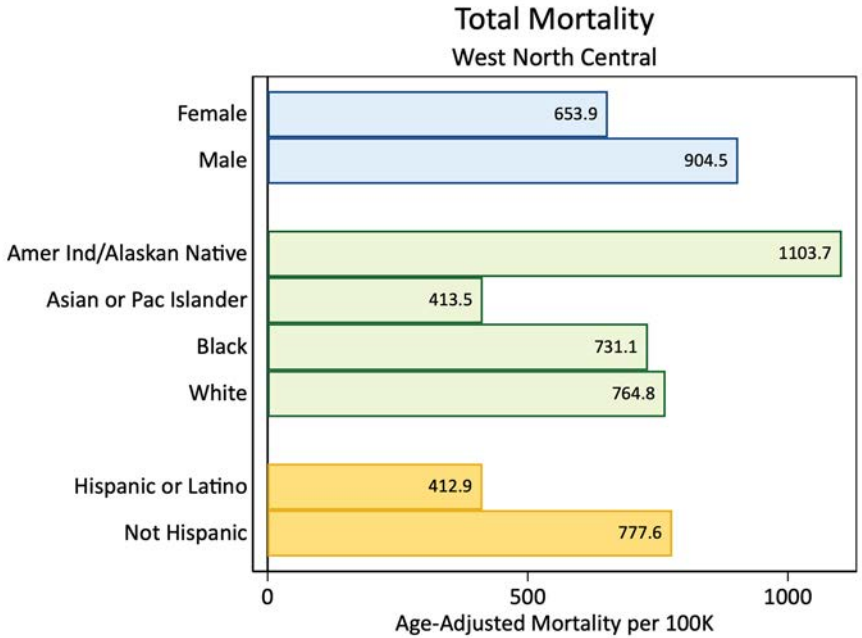
Rural/Urban National Averages

West North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a much higher **suicide mortality** rate compared to females. American Indians and Alaskan Natives had the highest suicide mortality rate, while Black Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.



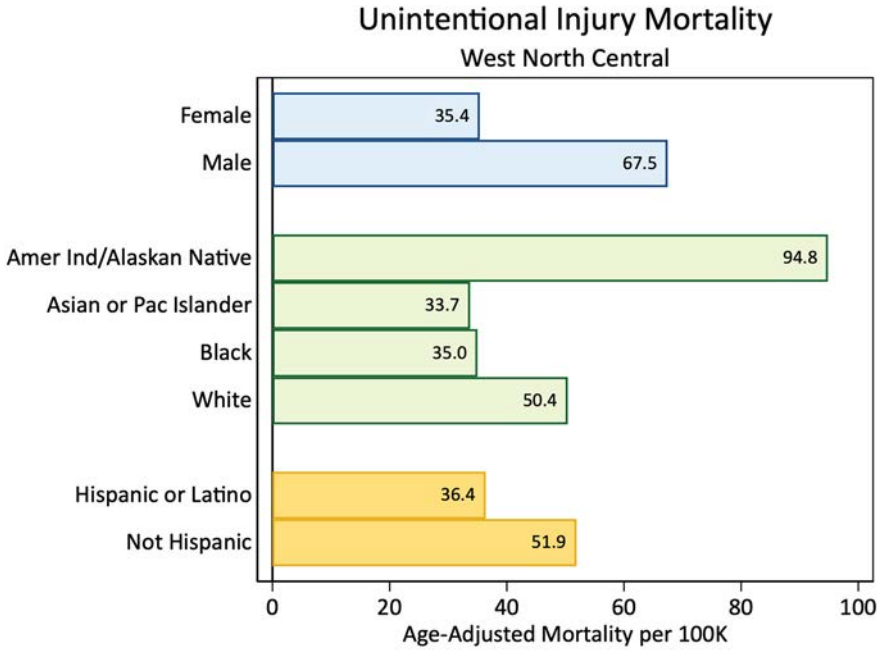
For **total mortality** males had a higher rate than females. American Indians and Alaskan Natives had the highest rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher total mortality rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

West North Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



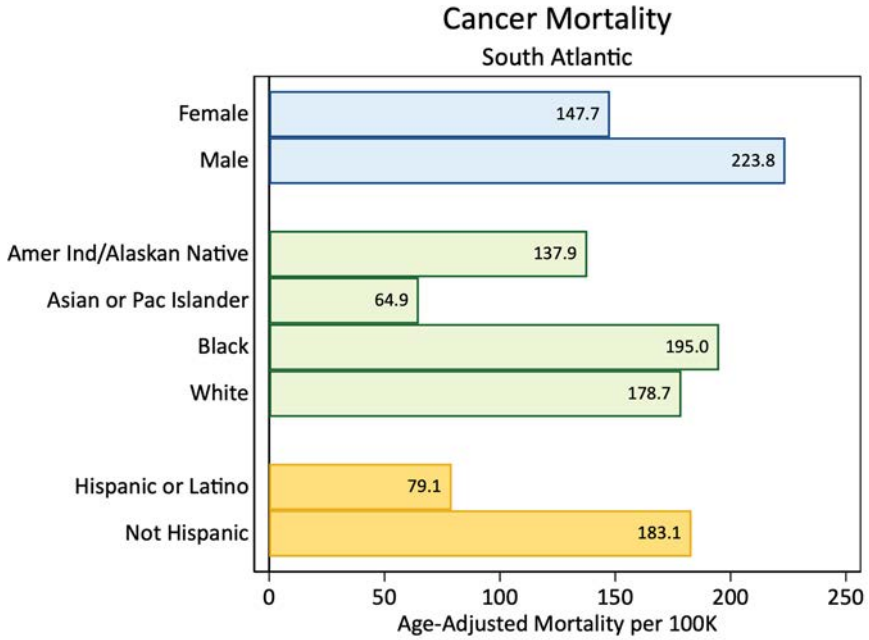
Males had a higher **unintentional injury mortality** rate. American Indians and Alaskan Natives had the highest rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

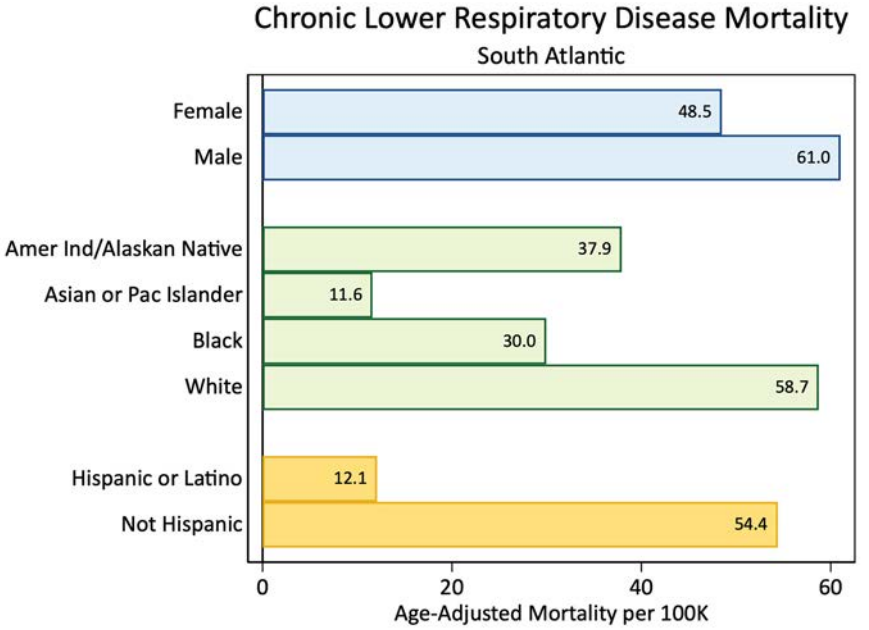
Rural/Urban National Averages

South Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the South Atlantic Census division, males had a higher **cancer mortality** rate. Black Americans had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the cancer mortality rate was higher among Not-Hispanic Americans compared to Hispanic or Latino Americans.



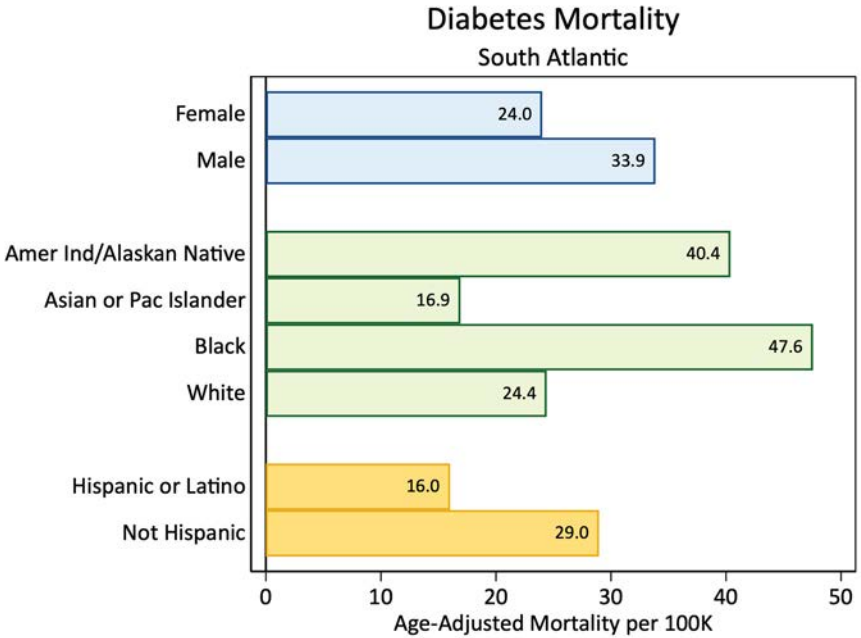
In this division, males had a higher **chronic lower respiratory disease mortality** rate compared to females. White Americans had the highest chronic lower respiratory disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had the highest rate.

U.S. Census Divisions Map

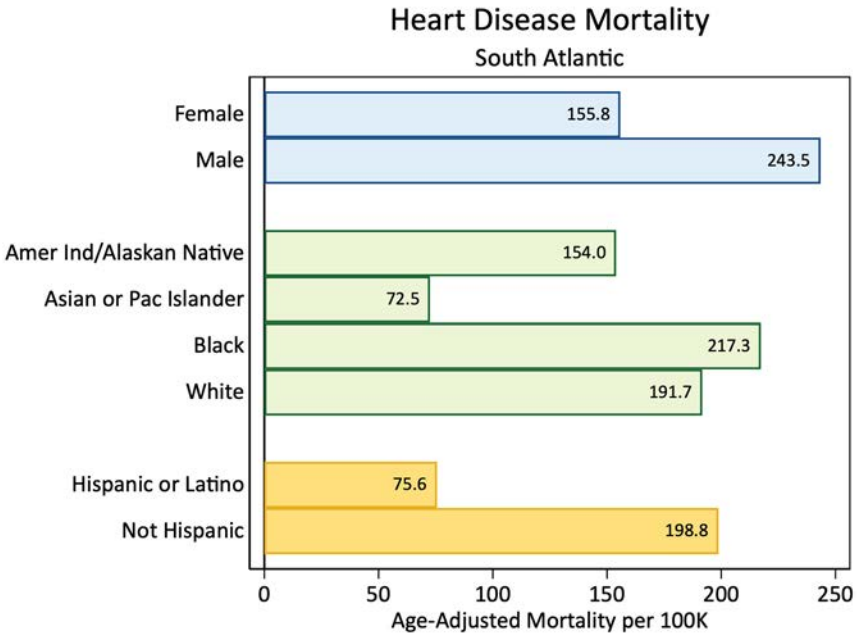
Rural/Urban National Averages

South Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the South Atlantic Census division, males had a higher **diabetes mortality** rate. Black Americans had the highest diabetes mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher diabetes mortality rate.



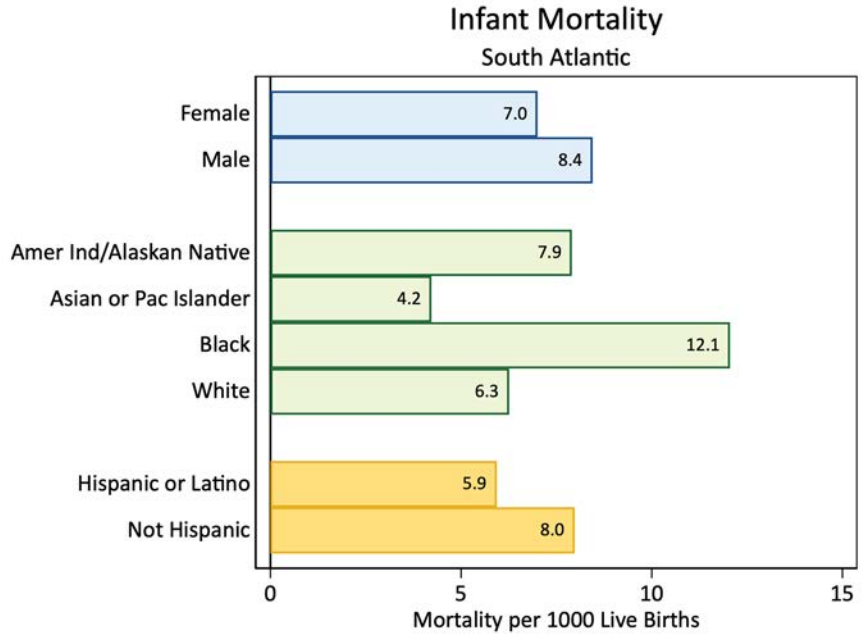
For **heart disease mortality**, males had a higher rate per than females. Black Americans had the highest heart disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was higher among Not-Hispanic Americans.

U.S. Census Divisions Map

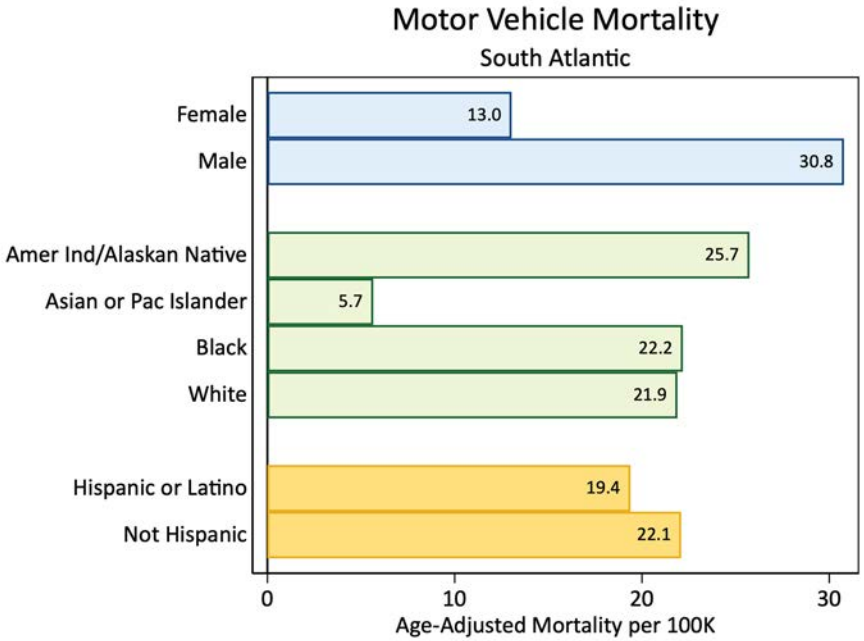
Rural/Urban National Averages

South Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the South Atlantic Census division, the **infant mortality** rate was higher among males. Black Americans had the highest infant mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, infant mortality was higher among Not-Hispanic Americans than Hispanic or Latino Americans.



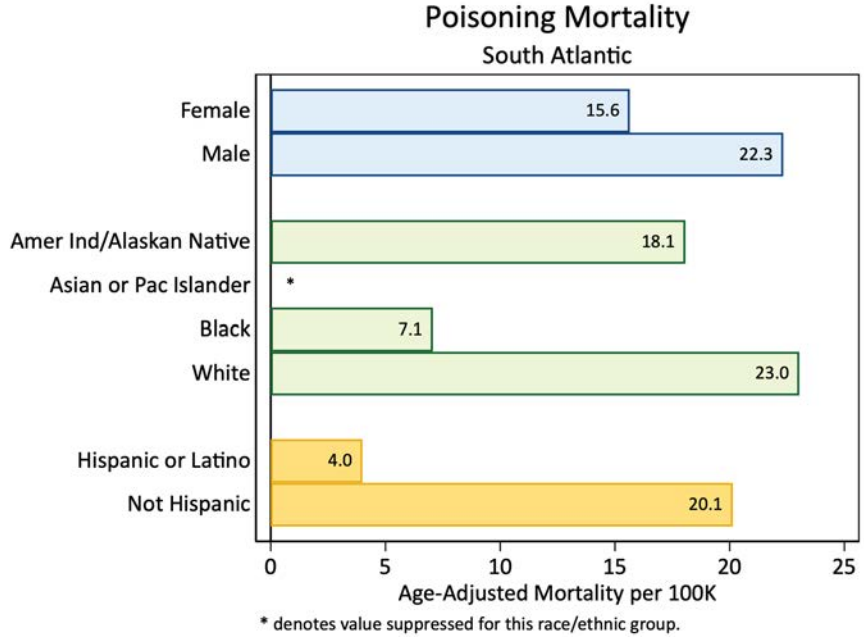
Motor vehicle mortality was much higher among males. American Indians and Alaskan Natives had the highest motor vehicle mortality rate, while Asian American or Pacific Islander Americans had the lowest. For ethnic groups, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

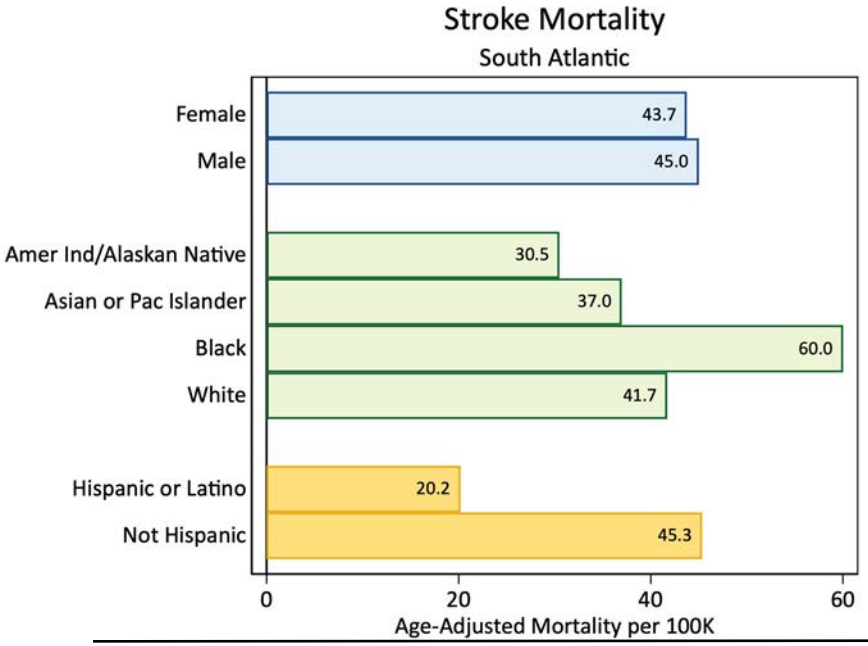
Rural/Urban National Averages

South Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the South Atlantic Census division, males had a much higher **poisoning mortality** rate. White Americans had the highest poisoning mortality rate, while Black Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.



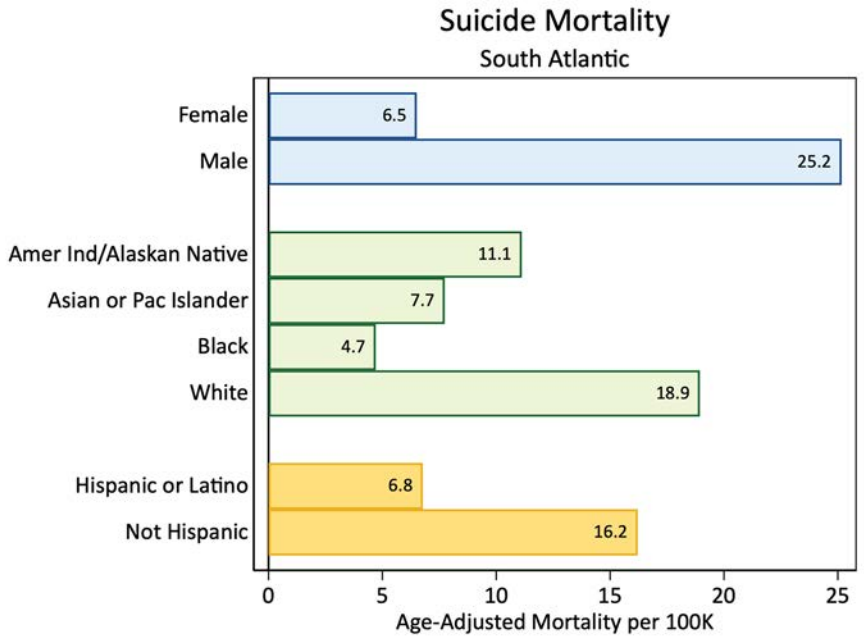
Stroke mortality was similar among males and females, but males were slightly higher. Black Americans had a much higher stroke mortality rate than the other races. Among ethnic categories, Not-Hispanic Americans had a much higher stroke mortality rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

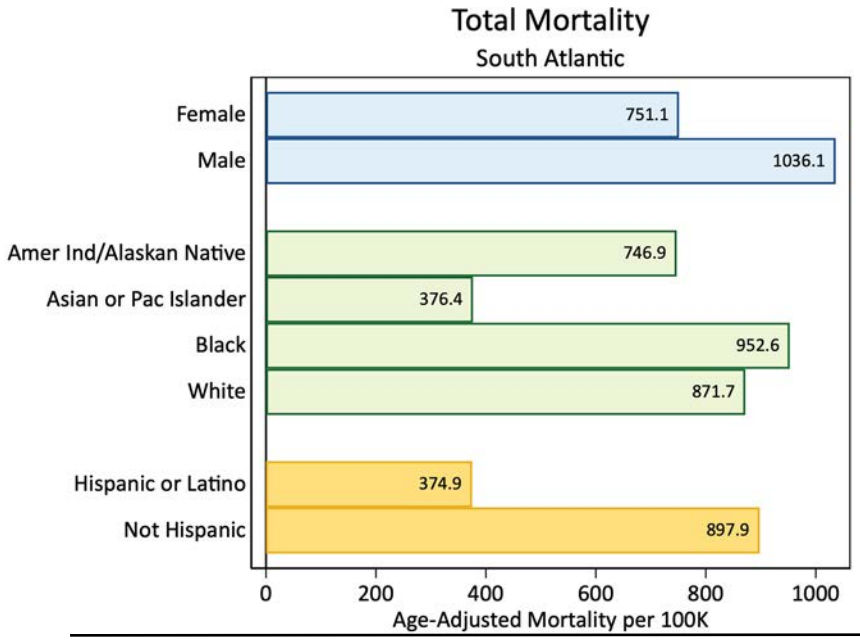
Rural/Urban National Averages

South Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



The **suicide mortality** rate was more than three times higher for males than females. It was also much higher among White Americans and lowest among Black Americans. Among ethnic categories, Not-Hispanic Americans also had a much higher rate relative to Hispanic or Latino Americans.



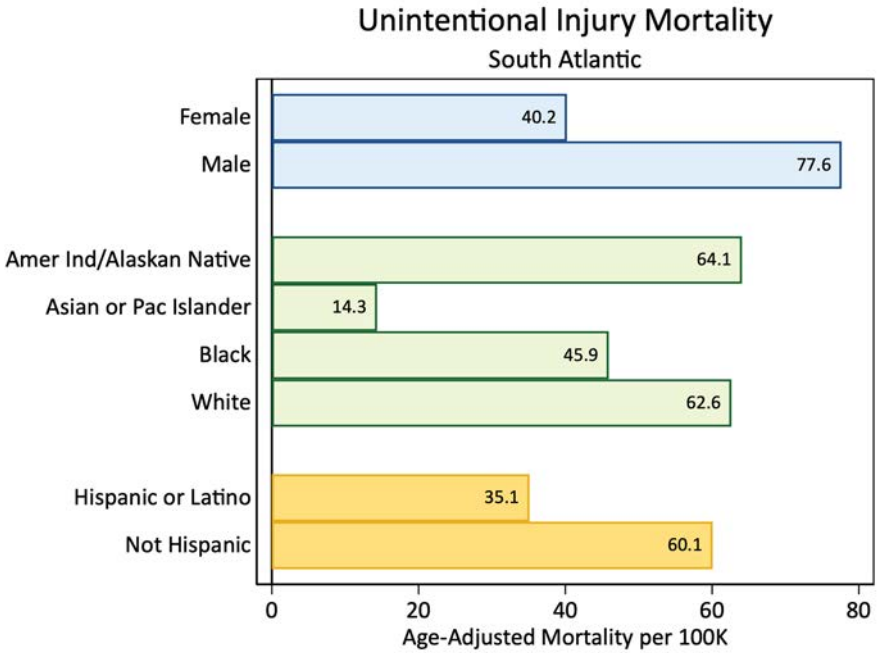
Overall, males had a higher **total mortality** rate. Among race categories, Black Americans had the highest total mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic groups, Not-Hispanic Americans had the highest rate.

U.S. Census Divisions Map

Rural/Urban National Averages

South Atlantic Division Summary

Sex, Race, and Ethnicity Disparity Profiles



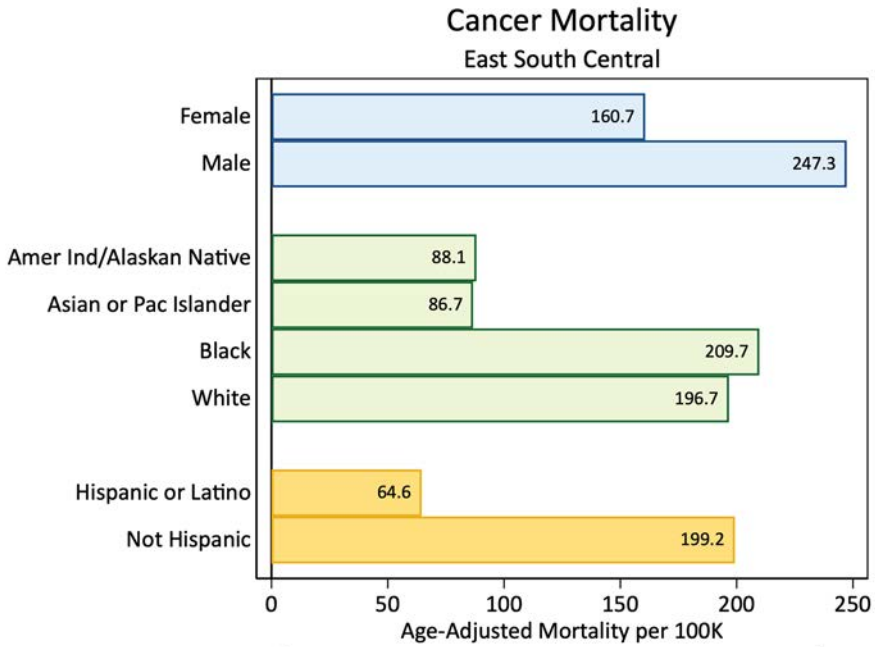
Males had an **unintentional injury mortality** rate nearly double that of females. American Indians and Alaskan Natives had the highest rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

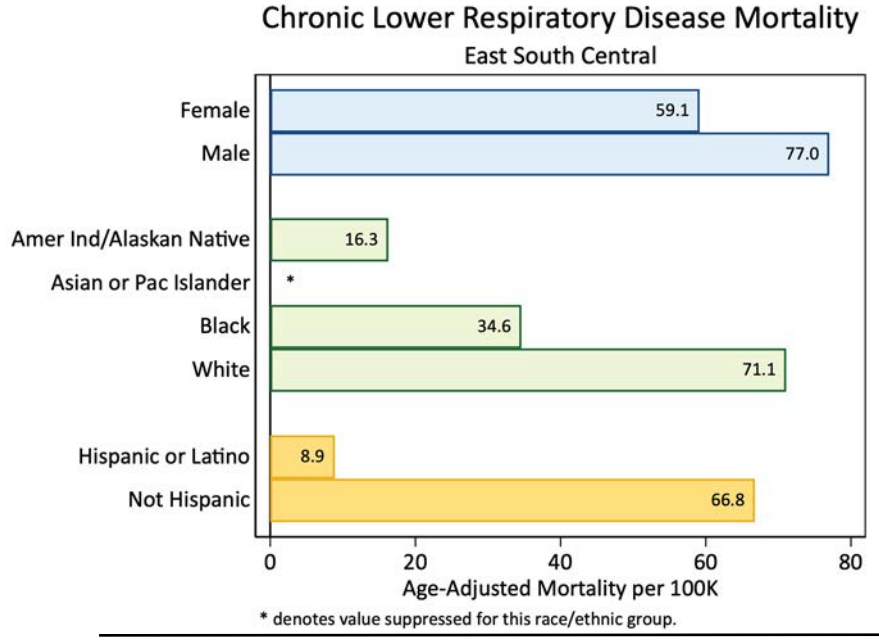
Rural/Urban National Averages

East South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the East South Central Census division, males had a higher **cancer mortality** rate than females. Among race categories, Black Americans had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was higher for Not-Hispanic Americans relative to Hispanic or Latino Americans.



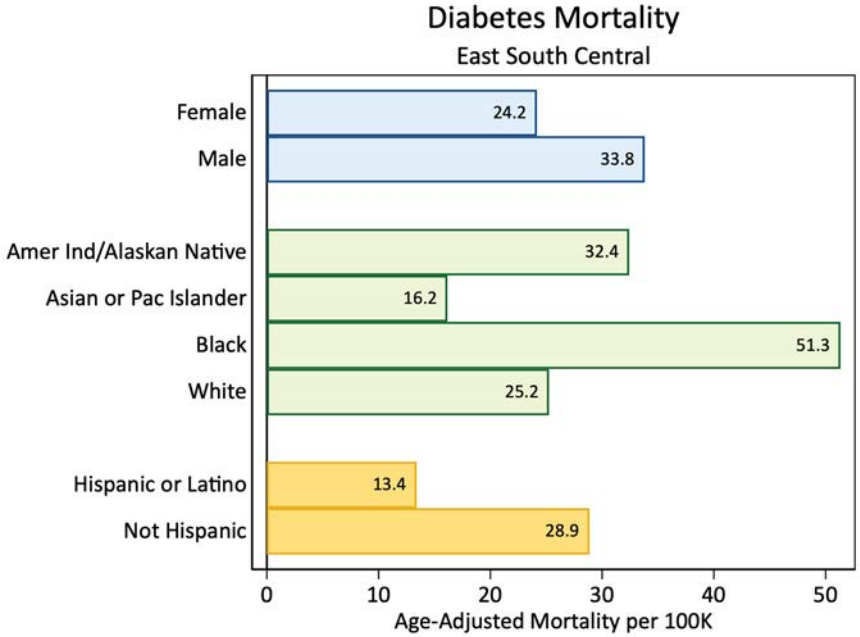
In this division, males had a higher **chronic lower respiratory disease mortality** rate than females. White Americans had the highest chronic lower respiratory disease mortality rate, while American Indians and Alaskan Natives had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a much higher chronic lower respiratory disease mortality rate.

U.S. Census Divisions Map

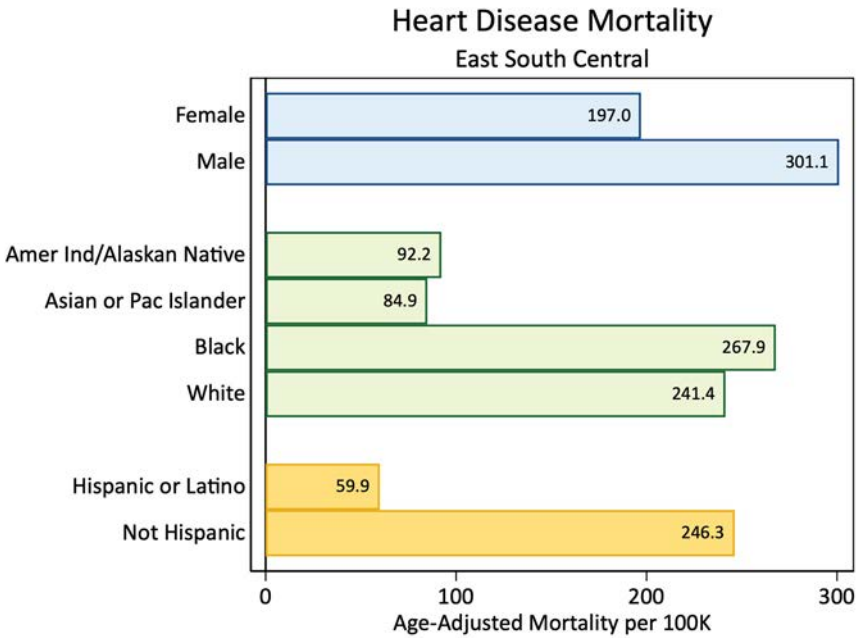
Rural/Urban National Averages

East South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the East South Central Census division, males had a higher **diabetes mortality** rate than females. Black Americans had a much higher diabetes mortality rate, than other groups of Americans. Among ethnic categories, Not-Hispanic Americans also had a much higher diabetes mortality rate.



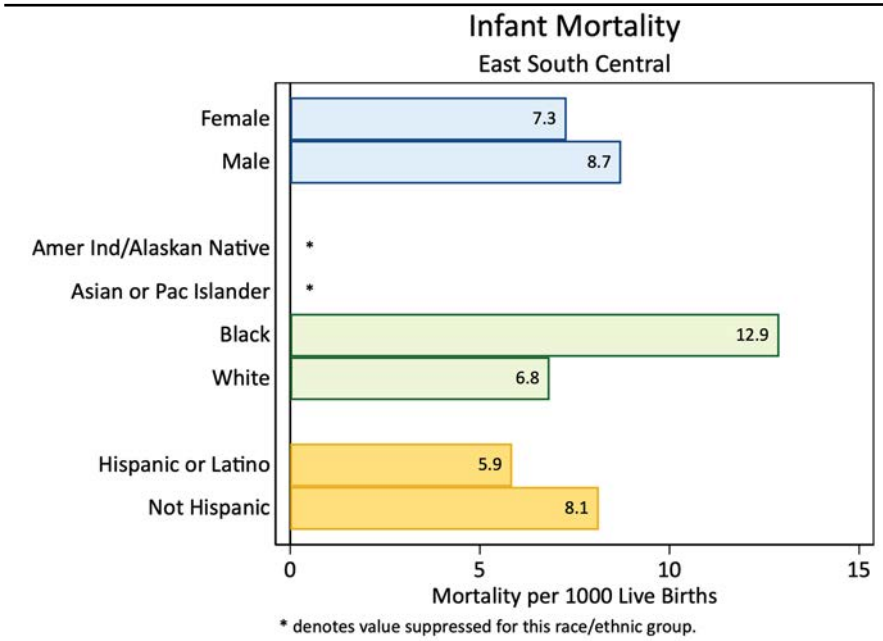
Heart disease mortality was higher among males than females. Black Americans had the highest heart disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was higher for Not-Hispanic Americans.

U.S. Census Divisions Map

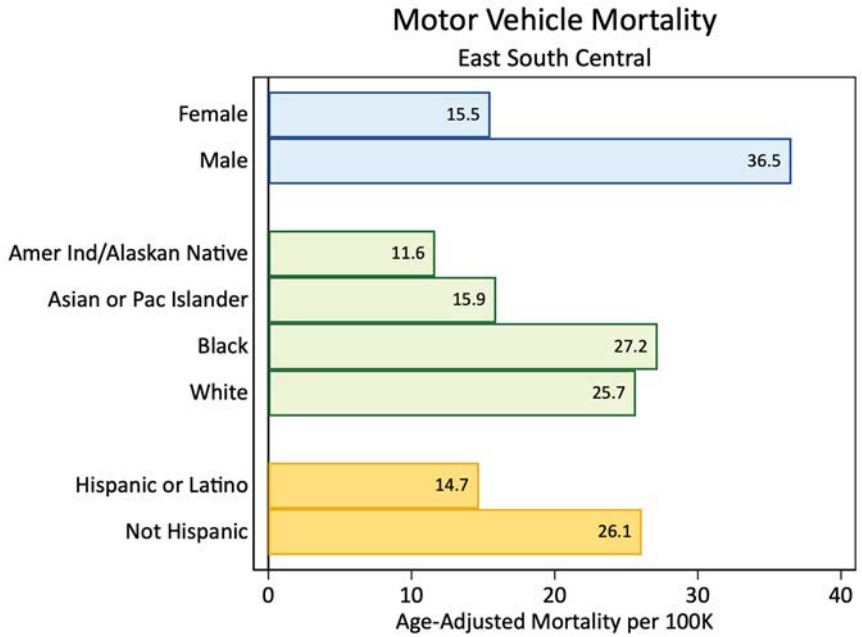
Rural/Urban National Averages

East South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the East South Central Census division, males had a higher **infant mortality** rate per 1,000. Black Americans had a higher infant mortality rate compared to White Americans, while data for American Indians and Alaskan Natives and Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher infant mortality rate.



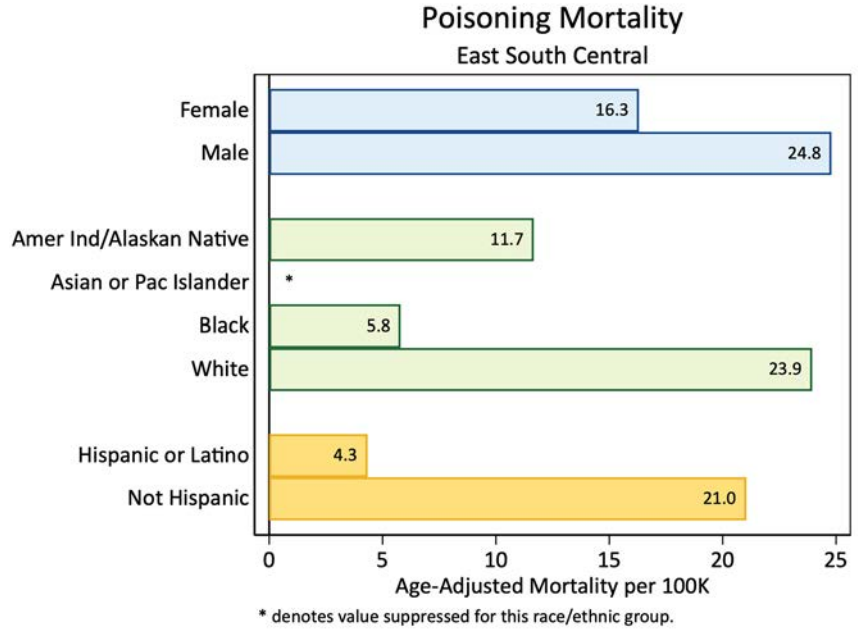
Males had a much higher **motor vehicle mortality** rate than females. Black Americans had the highest motor vehicle mortality rate, while American Indians and Alaskan Natives had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

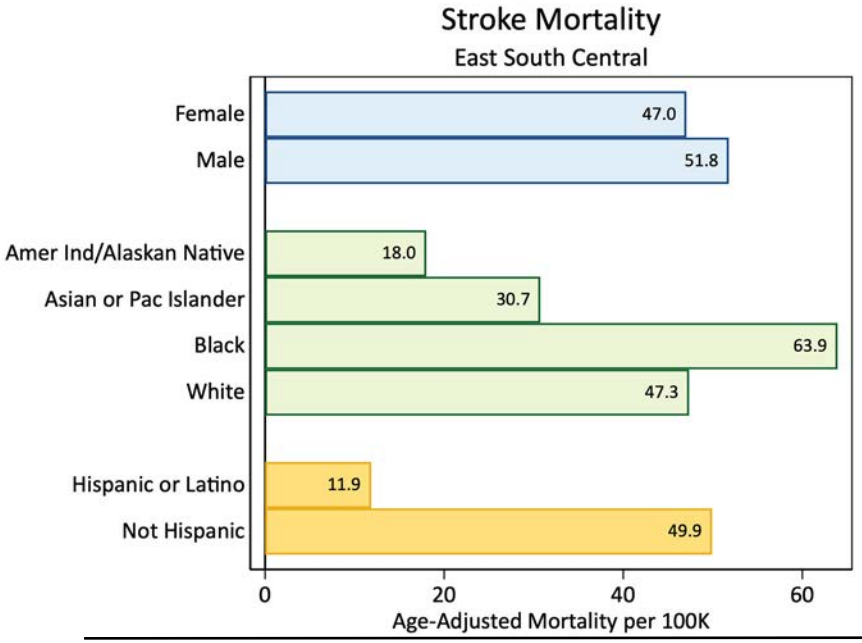
Rural/Urban National Averages

East South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the East South Central Census division, the **poisoning mortality** rate was higher for males compared to females. Among race categories, White Americans had the highest poisoning mortality rate, while Black Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher poisoning mortality rate.



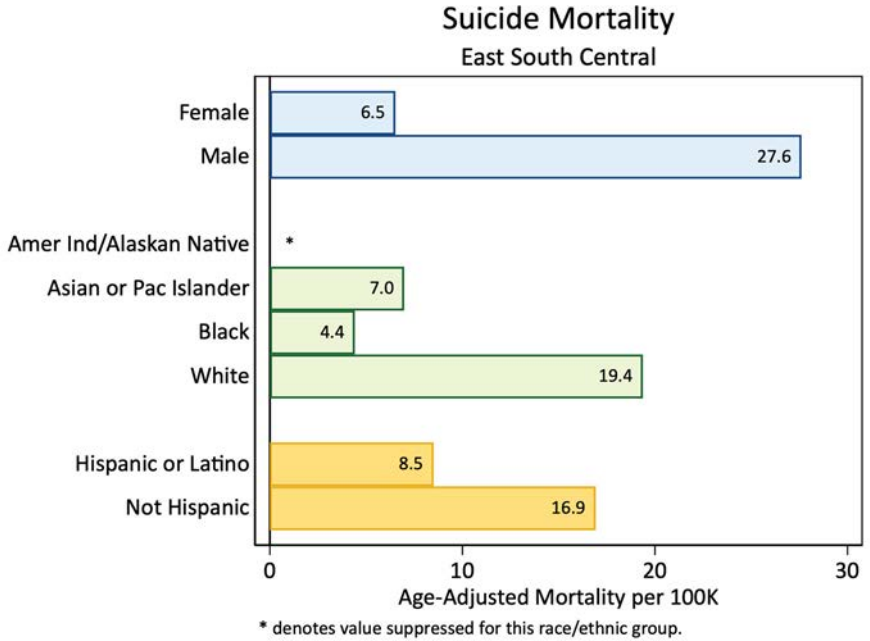
Like other divisions, male and female **stroke mortality** were similar. Among race categories, Black Americans had the highest stroke mortality rate, while American Indians and Alaskan Natives had the lowest. Among ethnic categories, Not-Hispanic Americans rate was more than four times higher than the rate for Hispanic or Latino Americans.

U.S. Census Divisions Map

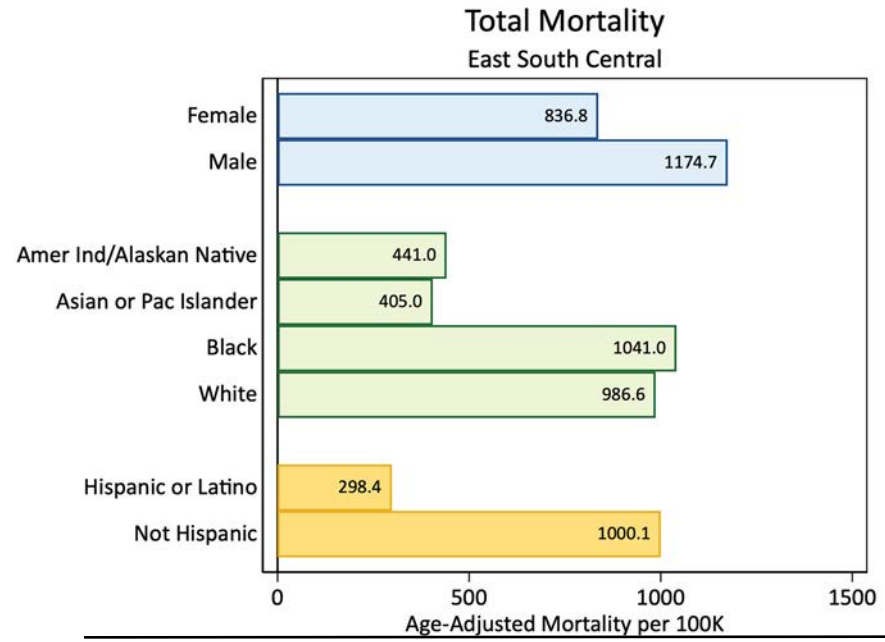
Rural/Urban National Averages

East South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a much higher **suicide mortality** rate than females. White Americans had the highest suicide mortality rate, while Black Americans had the lowest. Data for American Indians and Alaskan Natives were suppressed. Among ethnic categories, Not-Hispanic Americans had a higher rate.



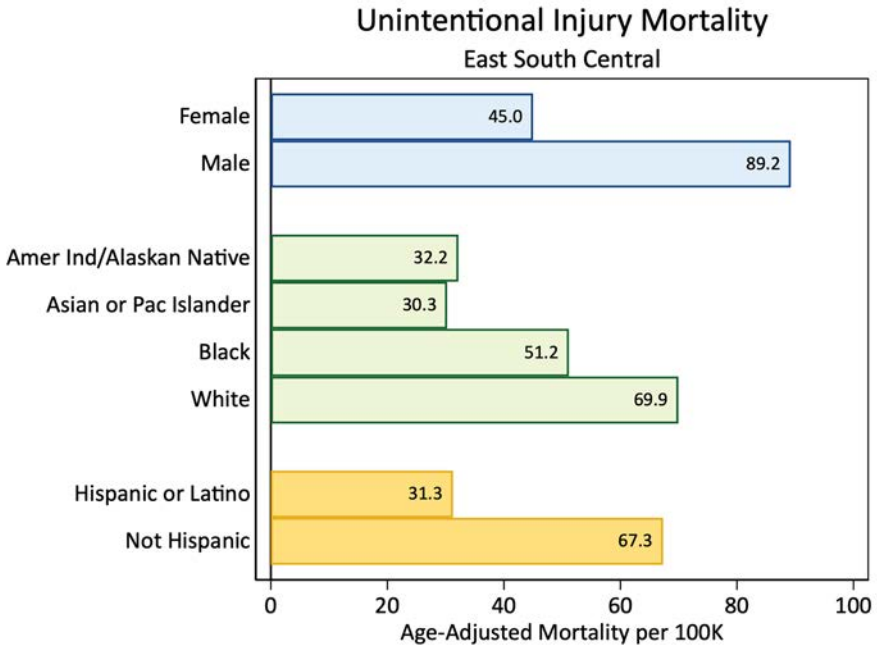
Overall, males had a higher **total mortality** rate than females. Black Americans had the highest total mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was higher among Not-Hispanic Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

East South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



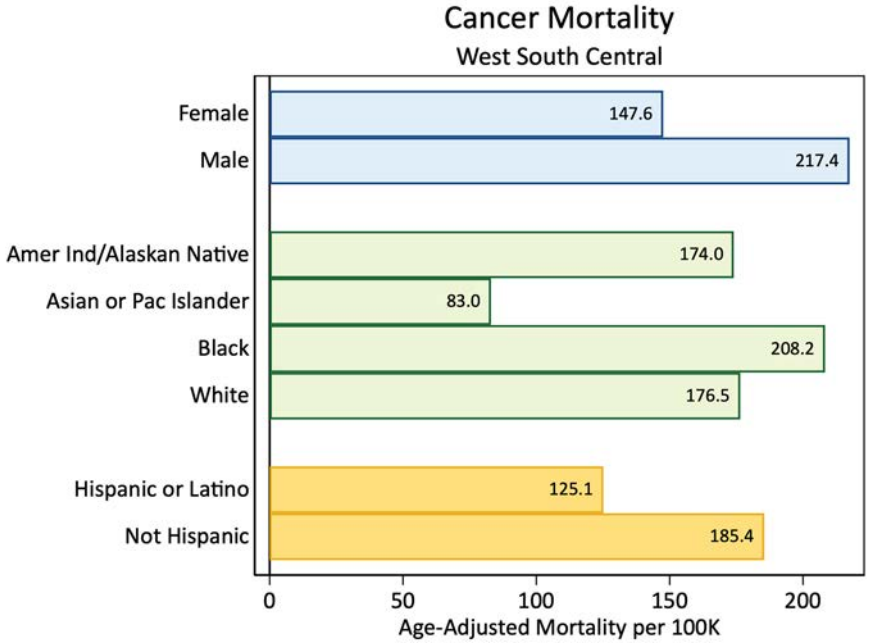
Males had a higher **unintentional injury mortality** rate. White Americans had the highest rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had the higher rate.

U.S. Census Divisions Map

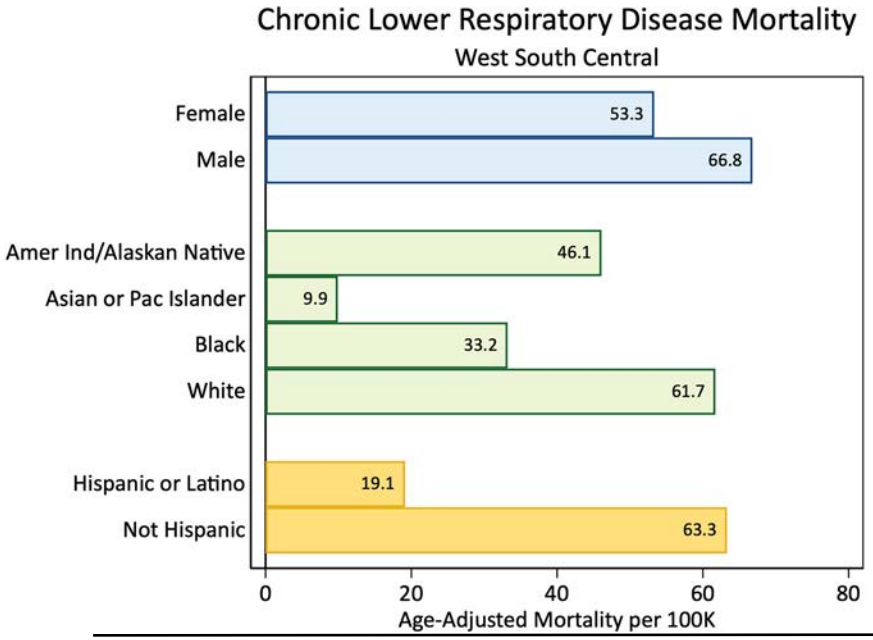
Rural/Urban National Averages

West South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West South Central Census division, males had a higher **cancer mortality** rate. Black Americans had the highest cancer mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the cancer mortality rate was higher for Not-Hispanic Americans.



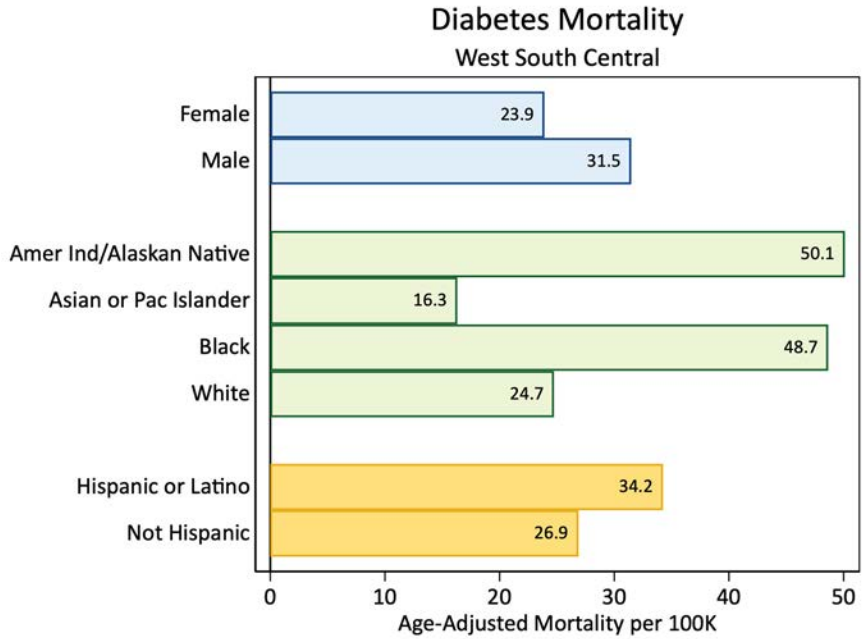
Males had a higher **chronic lower respiratory disease mortality** rate than females. White Americans had the highest chronic lower respiratory disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a much higher rate.

U.S. Census Divisions Map

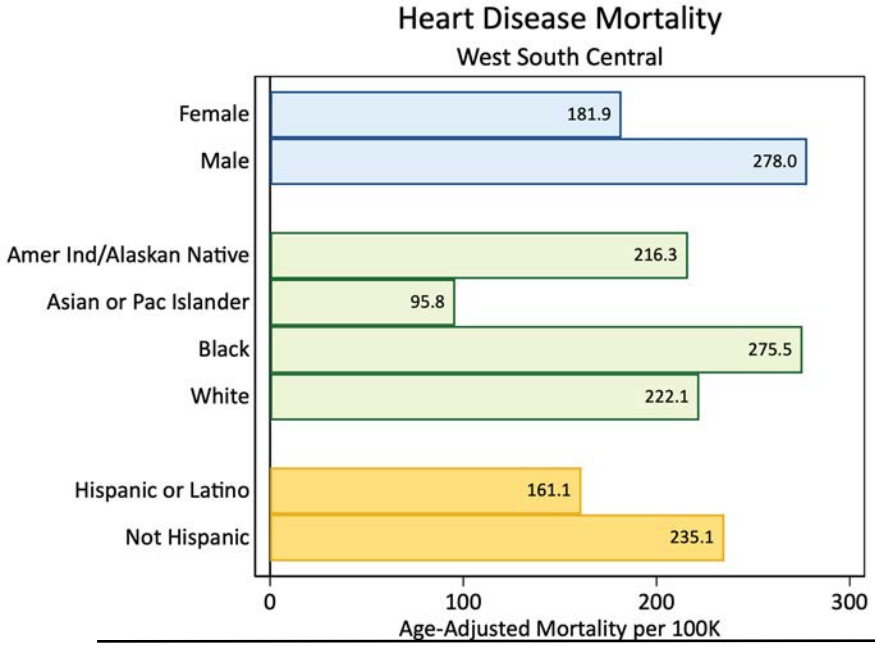
Rural/Urban National Averages

West South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West South Central Census division, males had a higher **diabetes mortality** rate. American Indians and Alaskan Natives and Black Americans had much higher diabetes mortality rates than White Americans and Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Hispanic or Latino Americans had a higher rate.



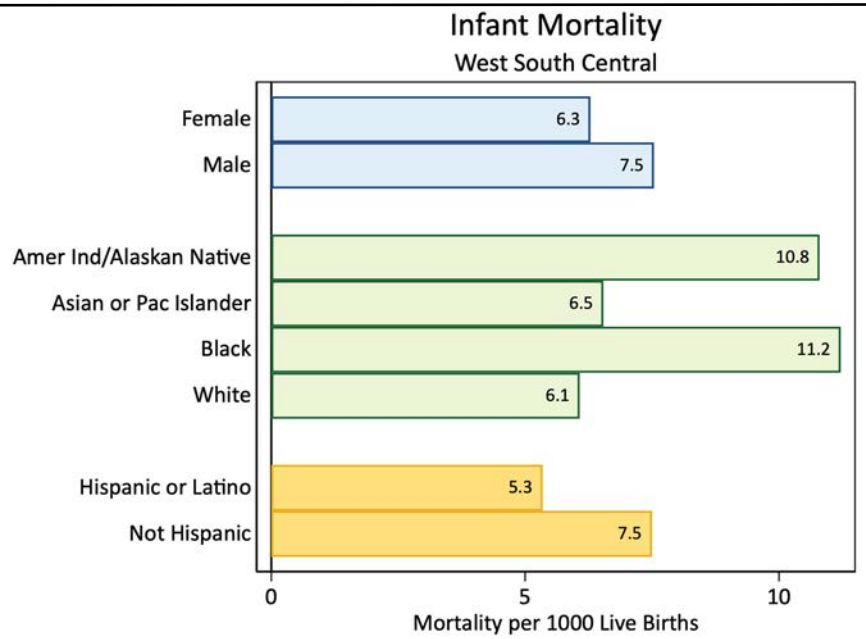
Heart disease mortality was higher among males than females. Black Americans had the highest heart disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was higher for Not-Hispanic Americans.

U.S. Census Divisions Map

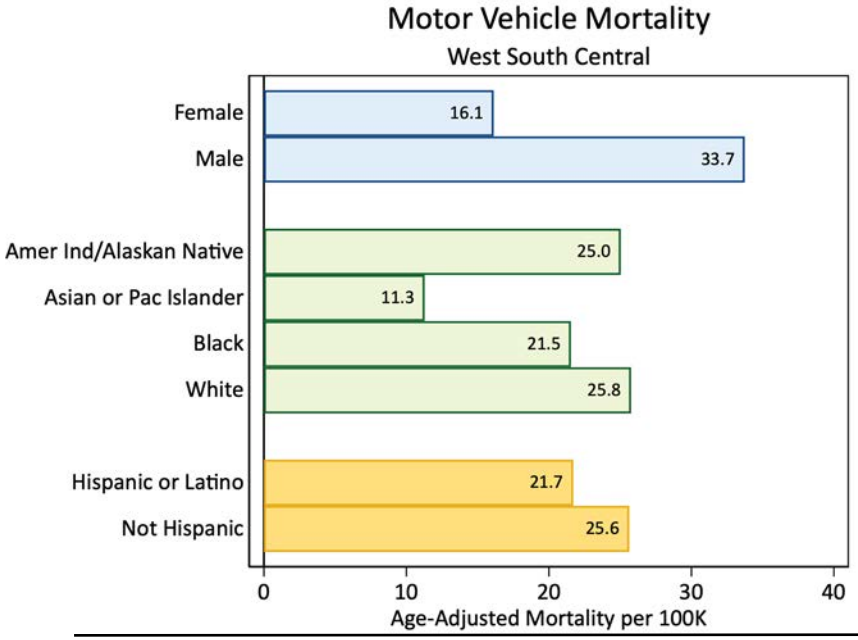
Rural/Urban National Averages

West South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West South Central Census division, males had a higher **infant mortality** rate per 1,000. Black Americans and American Indian and Alaskan Natives had the highest infant mortality rates, while White Americans and Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher infant mortality rate.



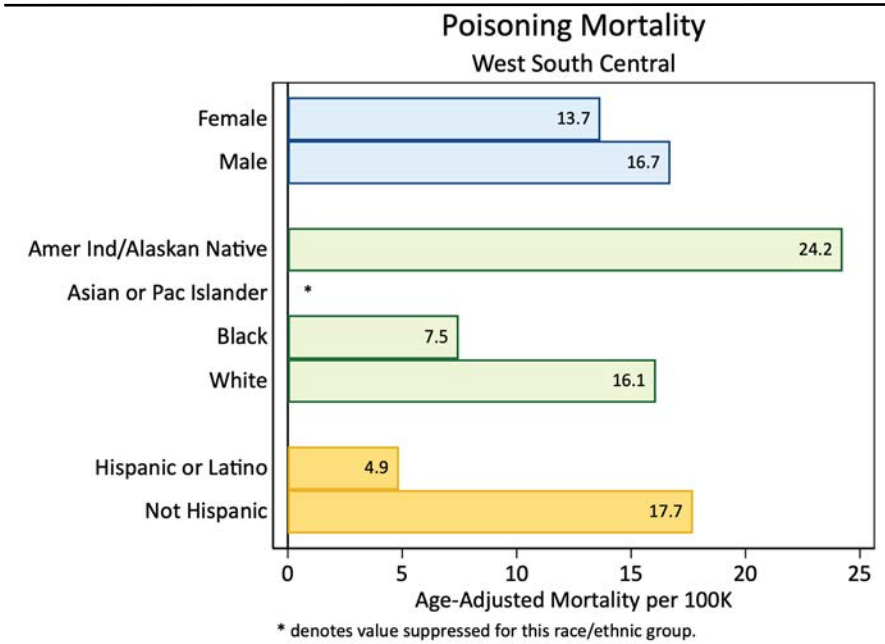
Motor Vehicle mortality was much higher among males. White Americans had the highest motor vehicle mortality rate, while Asian or Pacific Islander Americans had the lowest. Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

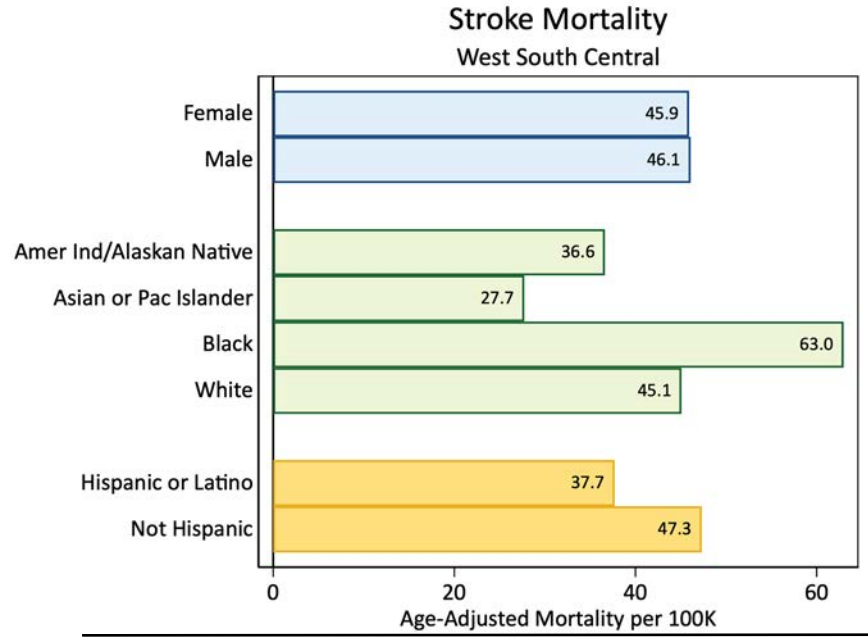
Rural/Urban National Averages

West South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the West South Central Census division, males had a higher **poisoning mortality** rate. American Indians and Alaskan Natives had the highest poisoning mortality rate, while Black Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, the poisoning mortality rate was higher for Not-Hispanic Americans compared to Hispanic or Latino Americans.



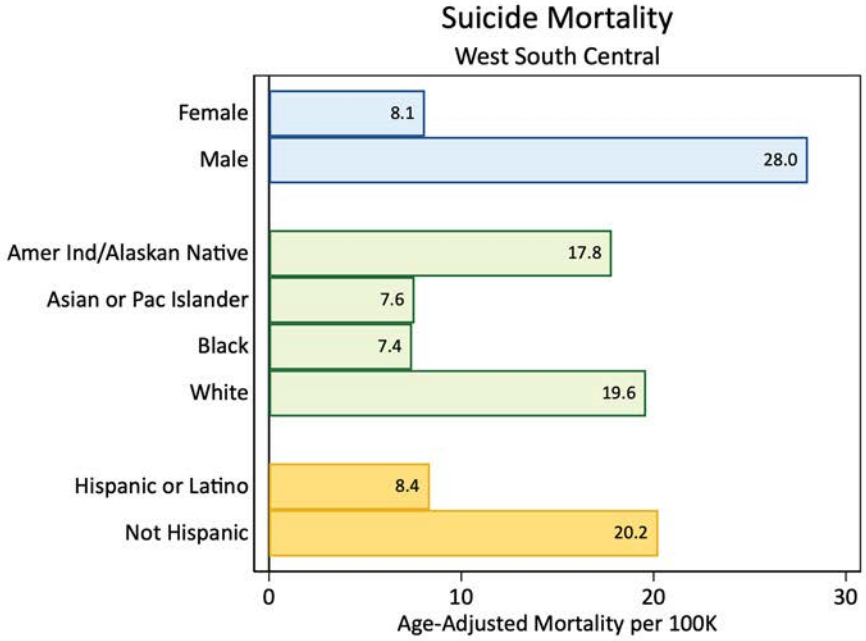
Stroke mortality was similar for males and females. However, among race categories, Black Americans had the highest stroke mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

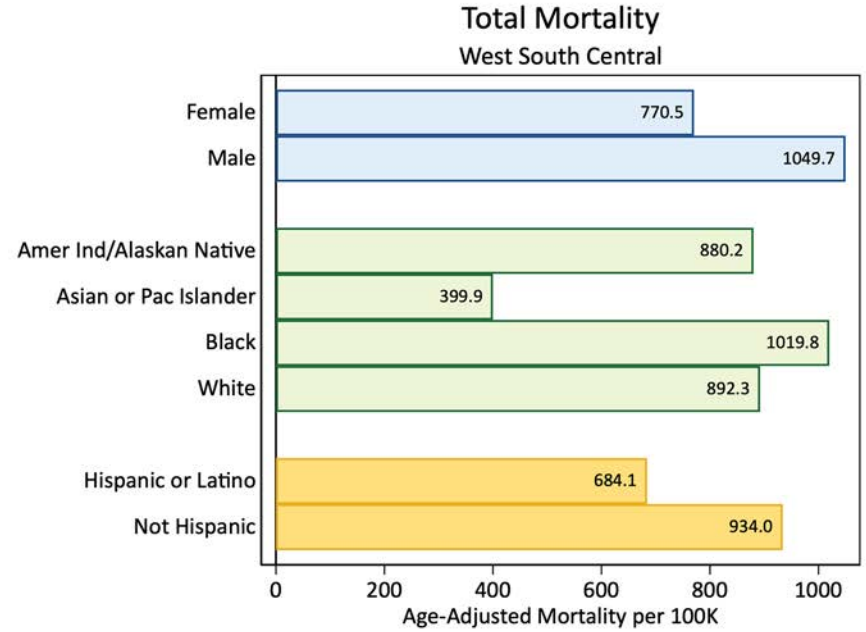
Rural/Urban National Averages

West South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a much higher **suicide mortality** rate. White Americans and American Indian and Alaskan Native Americans had the highest suicide mortality rates, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a much higher rate.



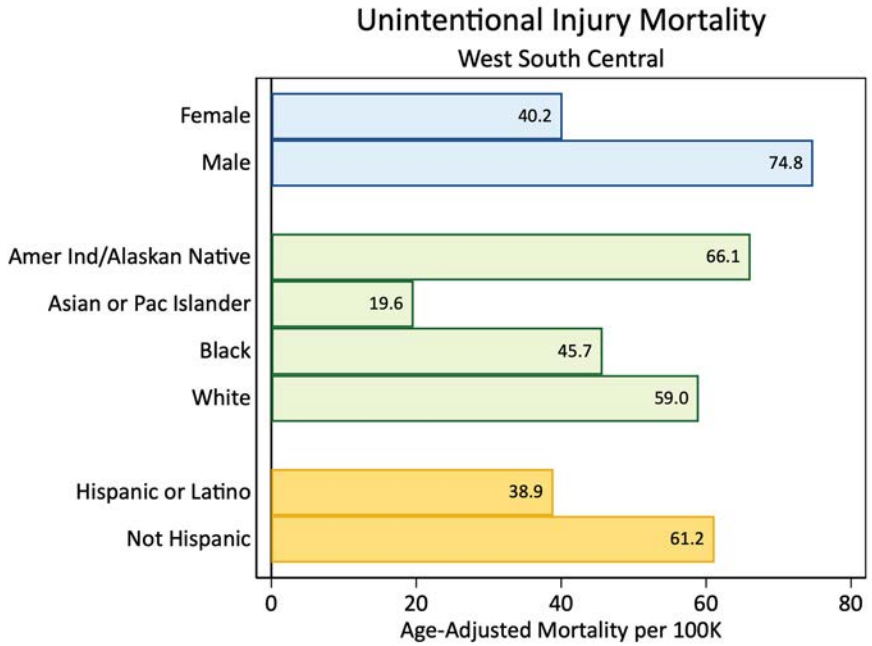
Overall, males had a higher **total mortality** rate compared to females. Black Americans had the highest rate, while Asian or Pacific Islander Americans had the lowest. Not-Hispanic Americans had a higher rate compared to Hispanic or Latino Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

West South Central Division Summary

Sex, Race, and Ethnicity Disparity Profiles



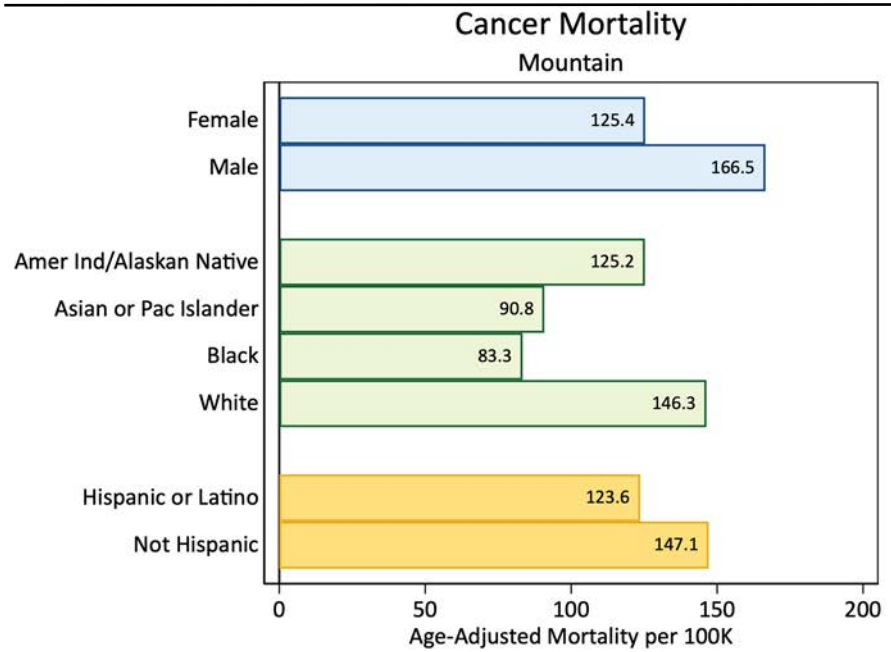
Males had a higher **unintentional injury mortality** rate than females. American Indians and Alaskan Natives had the highest rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate than Hispanic or Latino Americans.

U.S. Census Divisions Map

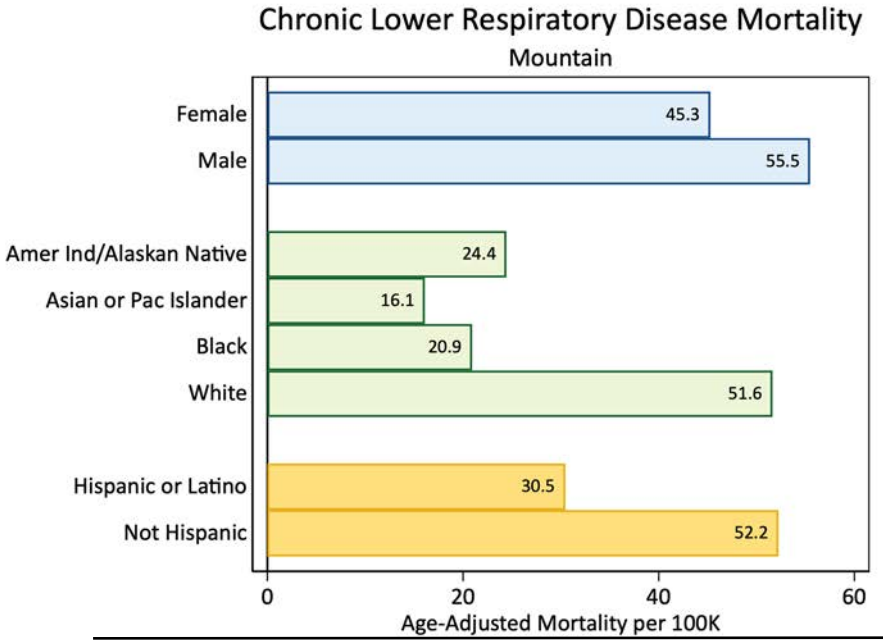
Rural/Urban National Averages

Mountain Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Mountain Census division, males had a higher **cancer mortality** rate. White Americans had the highest cancer mortality rate, while Black Americans had the lowest. Among ethnic categories, the mortality rate was higher for Not-Hispanic Americans.



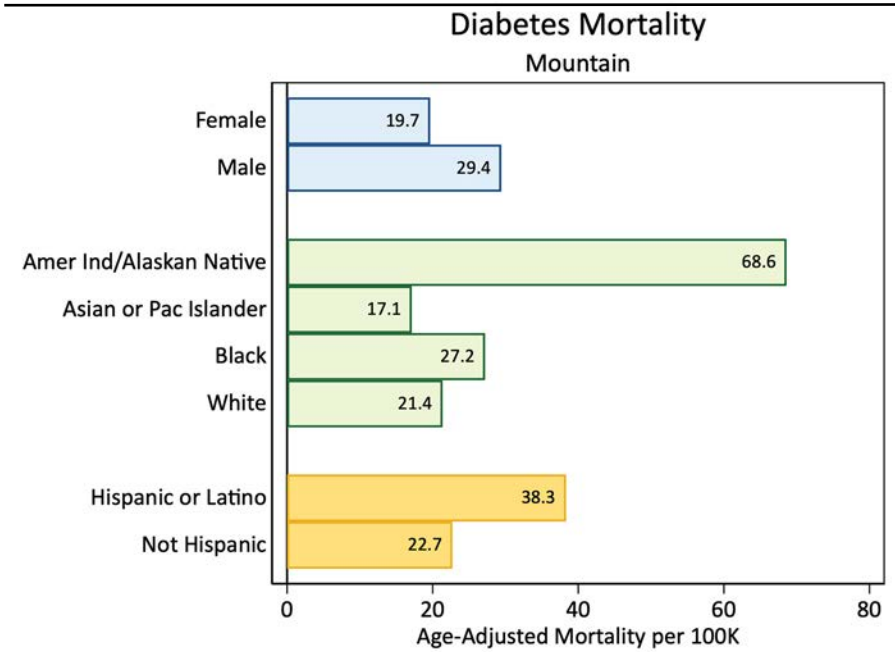
Males had a higher **chronic lower respiratory disease mortality** rate in the Mountain division. White Americans had the highest chronic lower respiratory disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

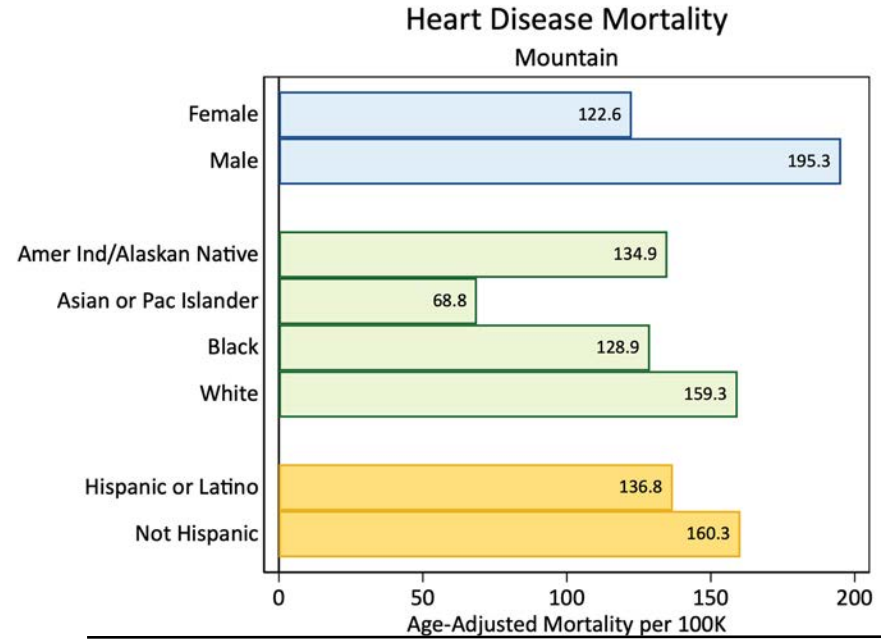
Rural/Urban National Averages

Mountain Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Mountain Census division, males had a higher **diabetes mortality** rate. American Indians and Alaskan Natives had much higher diabetes mortality rate than other races. Among ethnic categories, Hispanic or Latino Americans had a higher diabetes mortality rate.



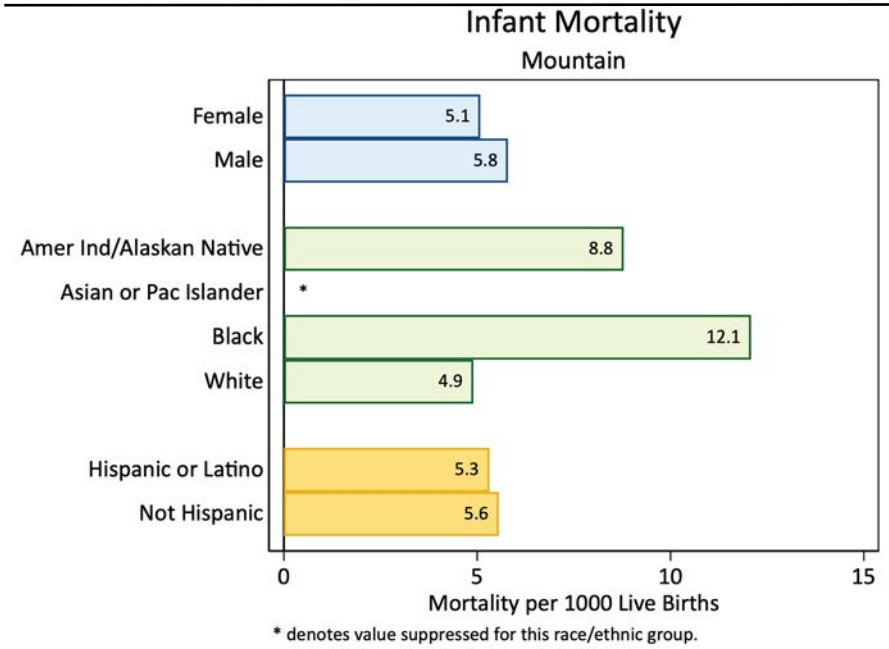
Males had a higher **heart disease mortality** rate per 100,000. White Americans had the highest heart disease mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher heart disease mortality rate compared to Hispanic or Latino Americans.

U.S. Census Divisions Map

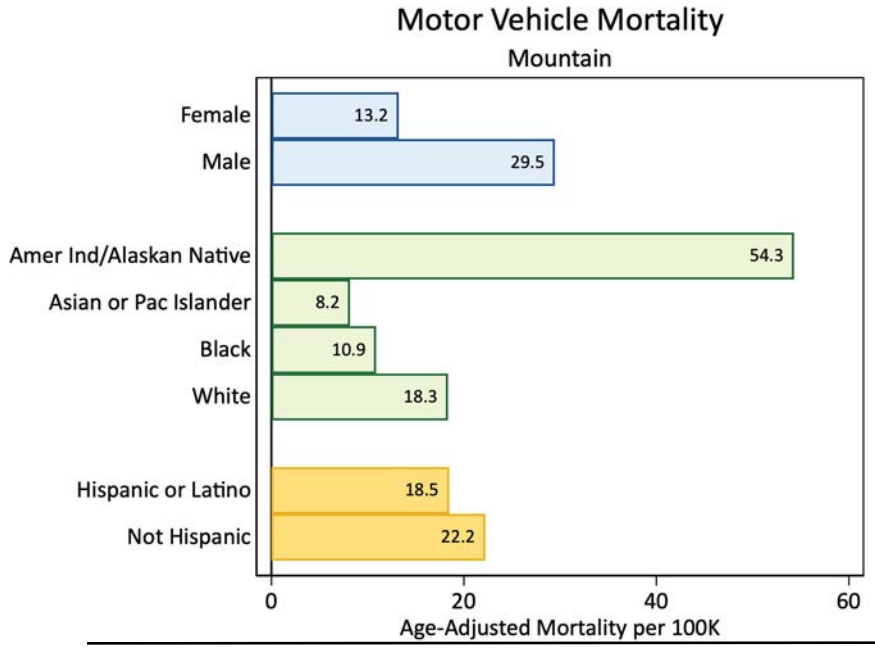
Rural/Urban National Averages

Mountain Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Mountain Census division, males had a slightly higher **infant mortality** rate compared to females. Black Americans had the highest infant mortality rate, while White Americans had the lowest. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Not-Hispanic Americans had a slightly higher infant mortality rate relative to Hispanic or Latino Americans.



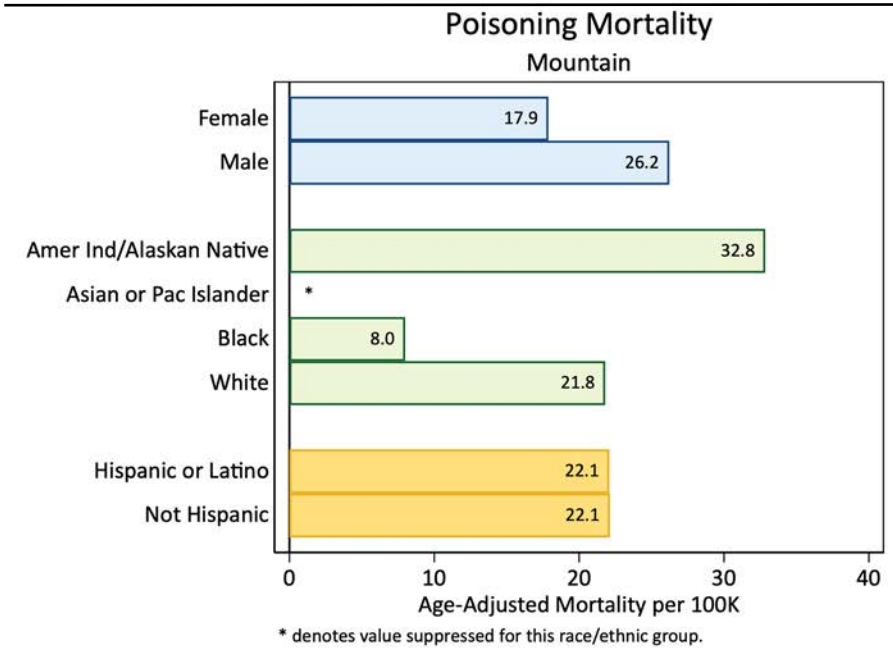
Males had a higher **motor vehicle mortality** rate than females. American Indians and Alaskan Natives had a much higher motor vehicle mortality rate than the other races. Among ethnic categories, Not-Hispanic Americans had a higher motor vehicle mortality rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

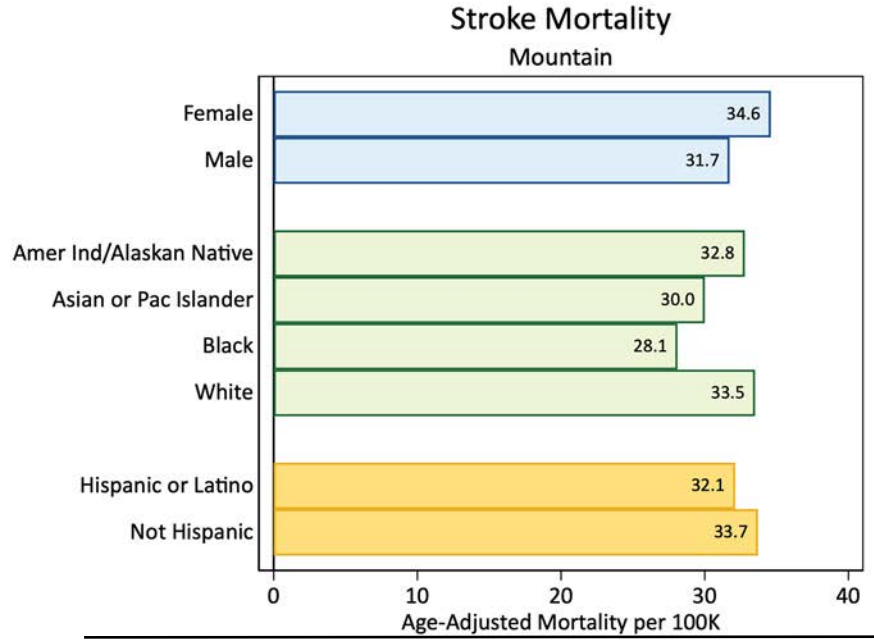
Rural/Urban National Averages

Mountain Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Mountain Census division, **poisoning mortality** was higher for males than females. American Indians and Alaskan Natives had the highest poisoning mortality rate. Data for Asian or Pacific Islander Americans were suppressed. Among ethnic categories, Hispanic or Latino Americans and Not-Hispanic Americans had equal poisoning mortality rates.



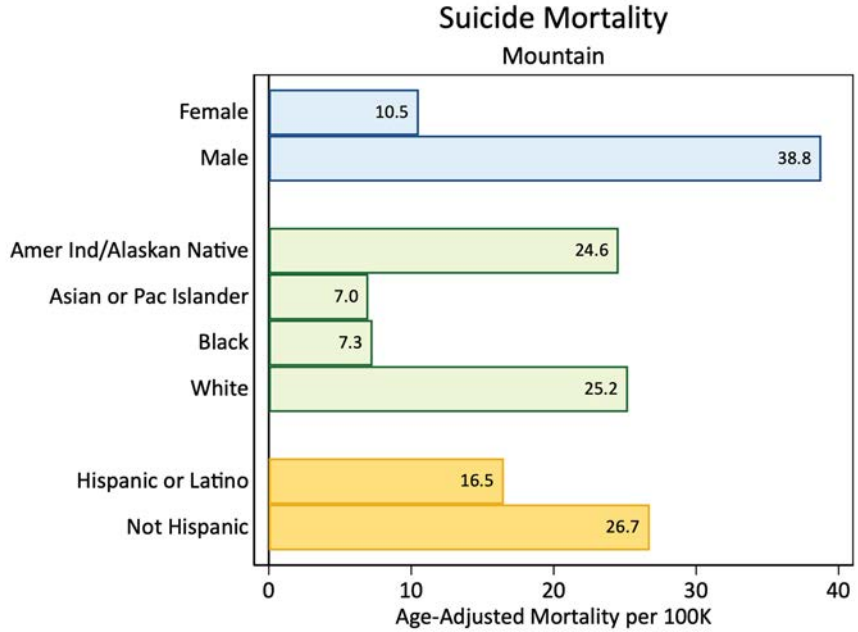
Stroke mortality rates were more comparable among groups in the Mountain division. Females had a higher stroke mortality rate than males. White Americans had the highest stroke mortality rate, while Black Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

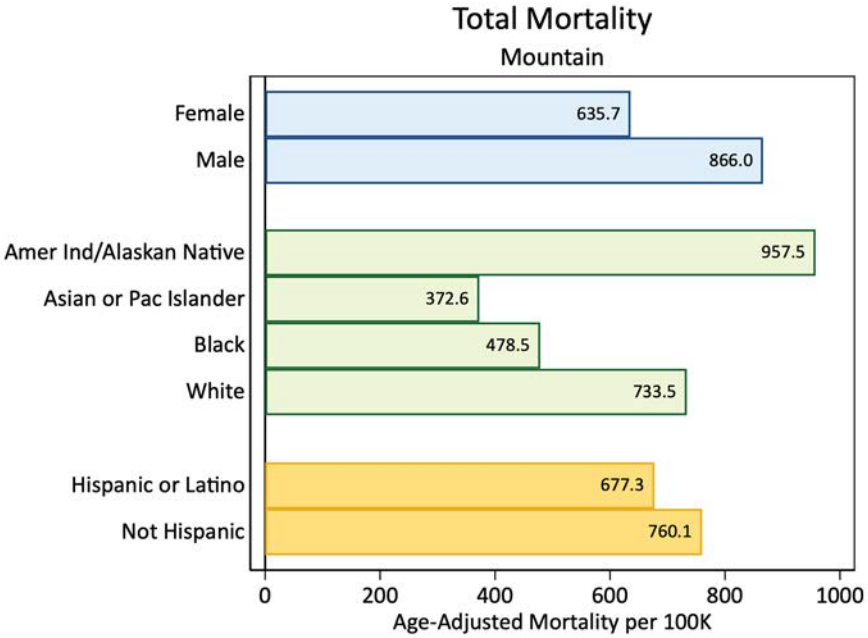
Rural/Urban National Averages

Mountain Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Mountain Census division, **suicide mortality** was much higher among males. White Americans had the highest suicide mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate.



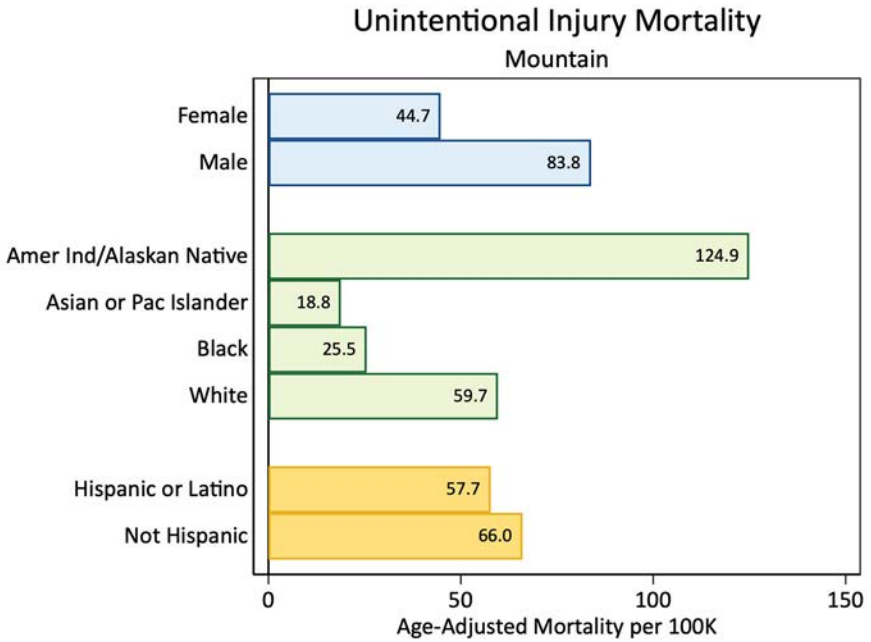
Overall, males had a higher **total mortality** rate. American Indians and Alaskan Natives had the highest total mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, total mortality was higher for Not-Hispanic Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

Mountain Division Summary

Sex, Race, and Ethnicity Disparity Profiles



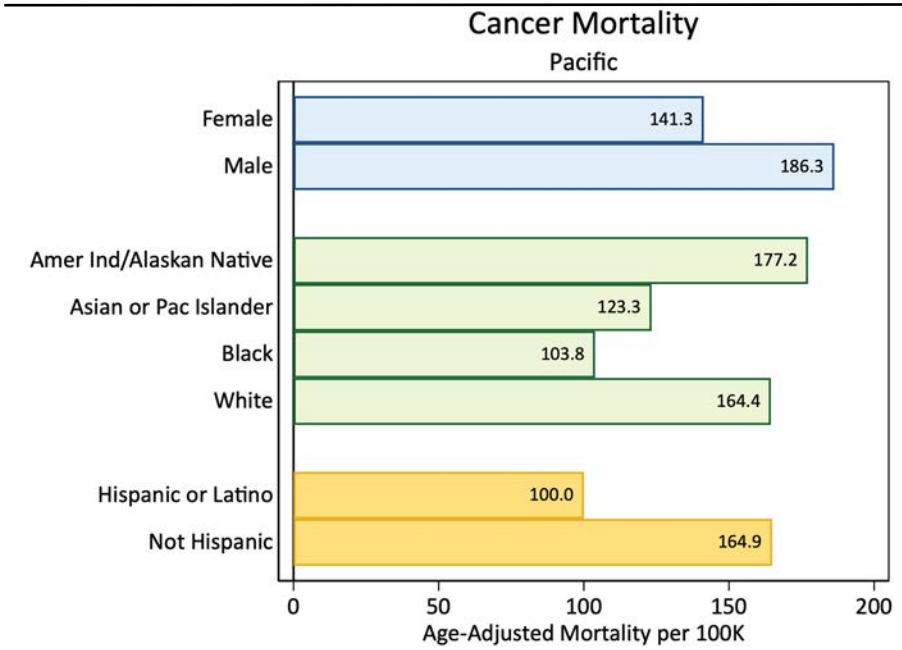
Males had a higher **unintentional injury mortality**. American Indians and Alaskan Natives had a noticeably higher rate, while Asian or Pacific Islander Americans had the lowest rate. Among ethnic categories, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

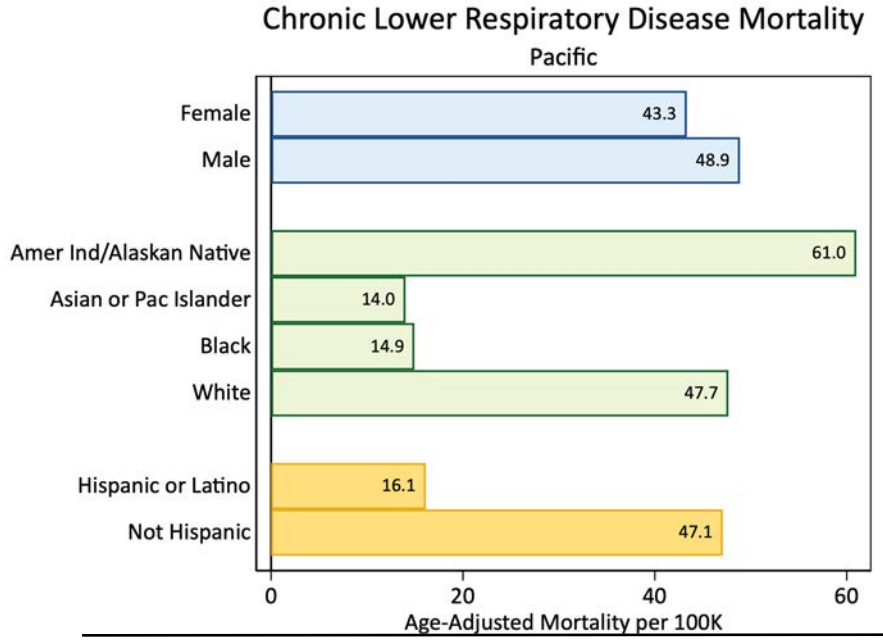
Rural/Urban National Averages

Pacific Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Pacific Census division, males had a higher **cancer mortality** rate. American Indians and Alaskan Natives had the highest cancer mortality rate, while Black Americans had the lowest. Among ethnic categories, the rate was higher for Not-Hispanic Americans compared to Hispanic or Latino Americans.



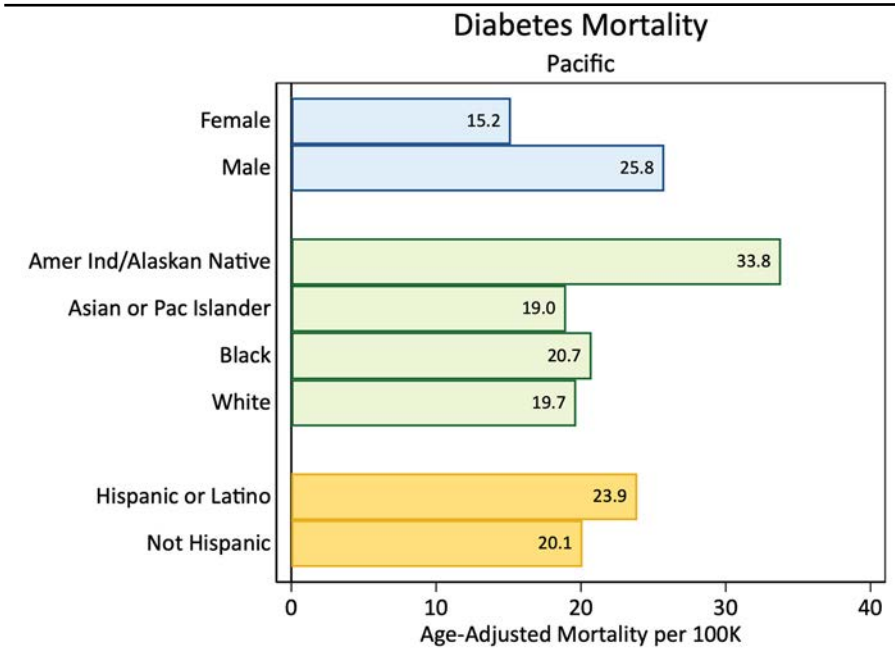
Males in the Pacific division had a higher **chronic lower respiratory disease mortality**. American Indians and Alaskan Natives had a the highest chronic lower respiratory disease mortality rate, while Asian or Pacific Islander Americans had much lower rates. Among ethnic categories, Not-Hispanic Americans had a much higher rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

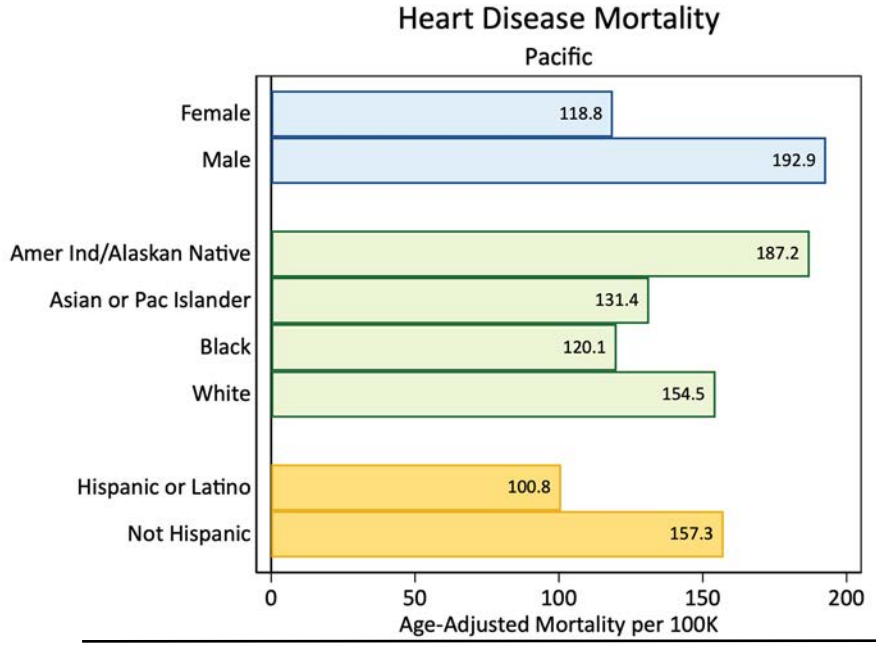
Rural/Urban National Averages

Pacific Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Pacific Census division, males had a higher **diabetes mortality** rate compared to females. American Indians and Alaskan Natives had a much higher diabetes mortality rate than the other groups. Among ethnic categories, Hispanic or Latino Americans had a higher rate.



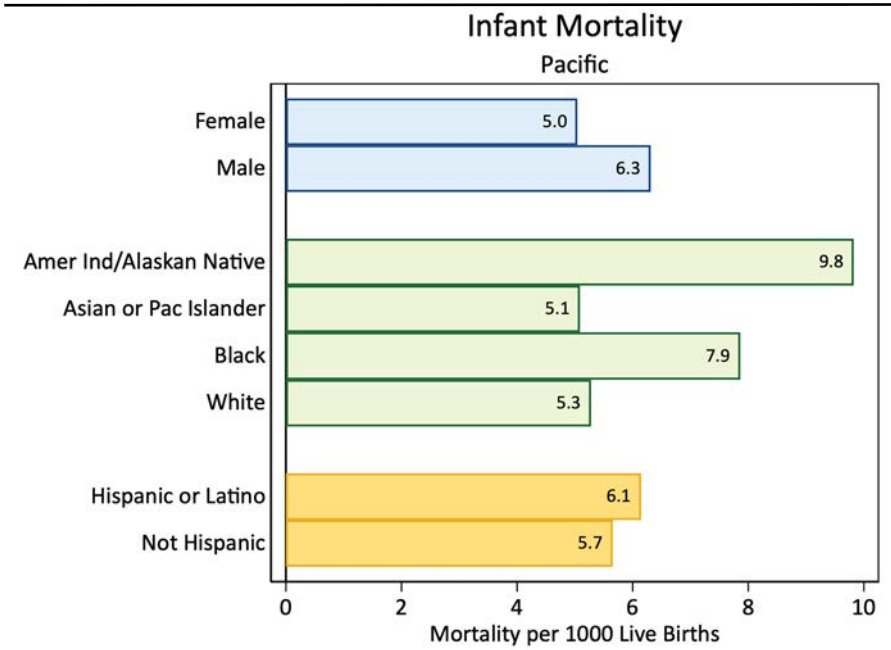
Heart disease mortality for males in the Pacific division was higher compared to females. American Indians and Alaskan Natives had the highest heart disease mortality rate, while Black Americans had the lowest. Among ethnic categories, the rate was higher for Not-Hispanic Americans.

U.S. Census Divisions Map

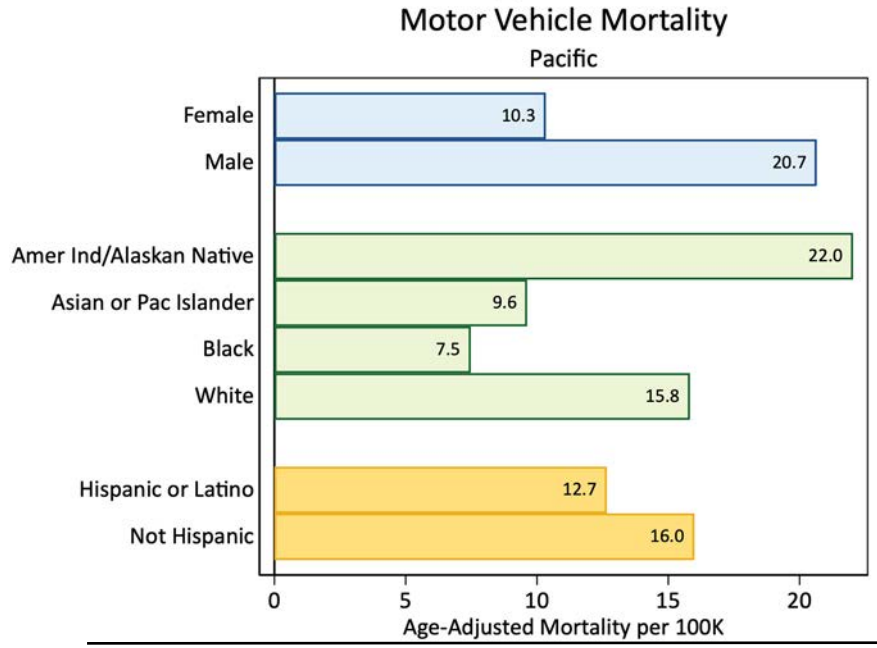
Rural/Urban National Averages

Pacific Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Mountain Census division, males had a higher **infant mortality** rate per 1,000. American Indians and Alaskan Natives had the highest infant mortality rate while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic or Latino Americans had a higher infant mortality rate.



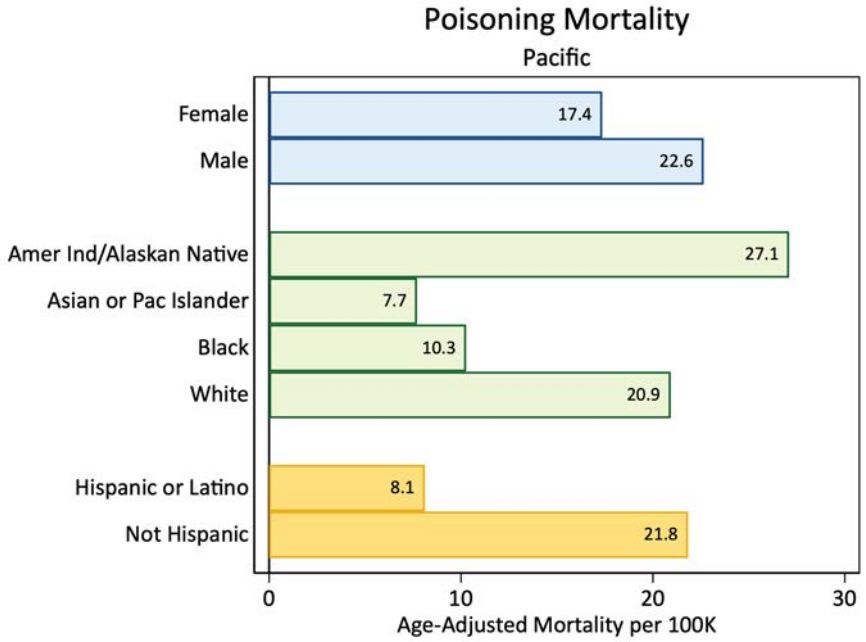
Motor vehicle mortality was also higher for males than females in this division. American Indians and Alaskan Natives had the highest motor vehicle mortality rate, while Black Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate relative to Hispanic or Latino Americans.

U.S. Census Divisions Map

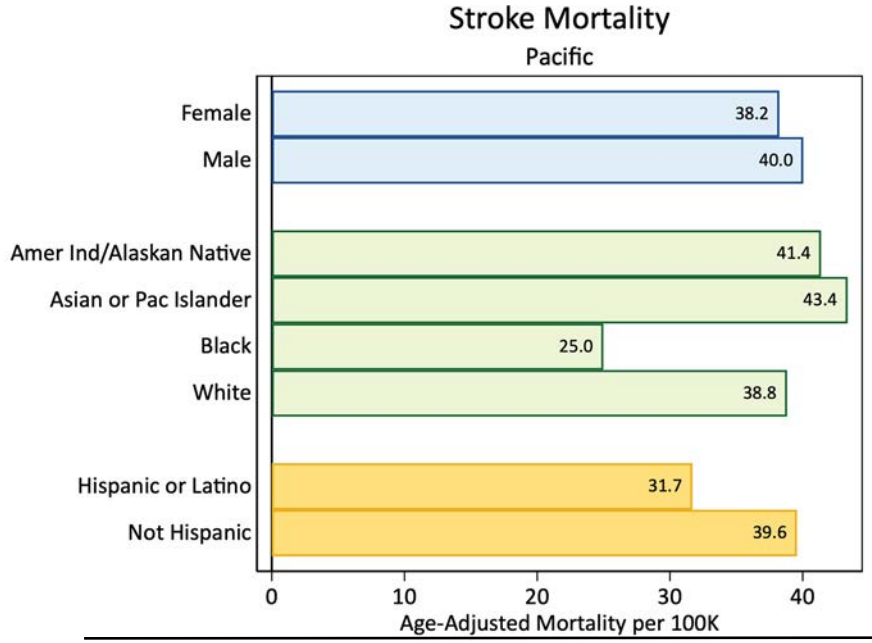
Rural/Urban National Averages

Pacific Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Pacific Census division, males had a higher **poisoning mortality** rate compared to females. American Indians and Alaskan Natives had the highest poisoning mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, the rate was much higher for Not-Hispanic Americans relative to Hispanic or Latino Americans.



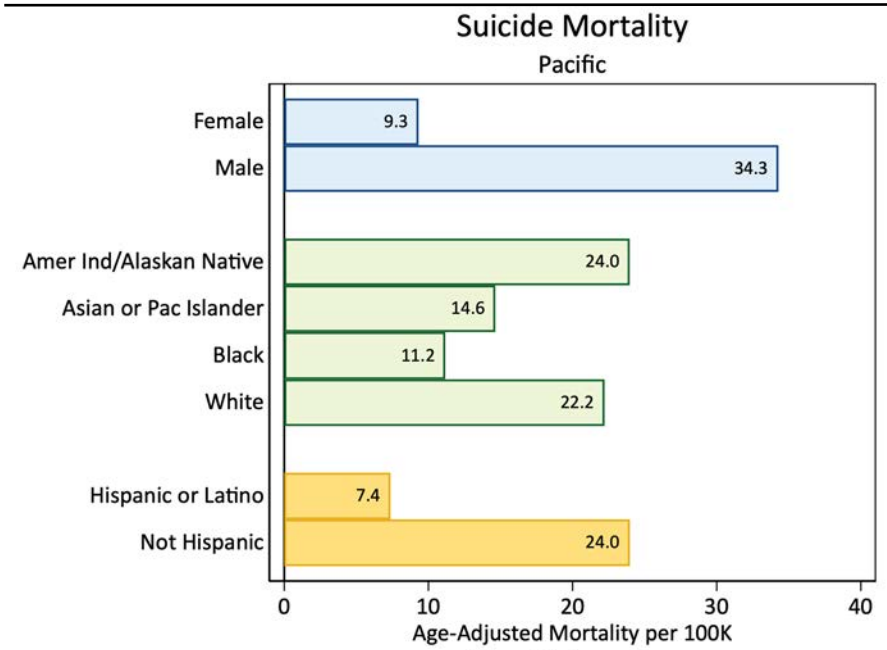
Stroke mortality for males was higher than for females. Among race categories, Asian or Pacific Islander Americans had the highest stroke mortality rate, while Black Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

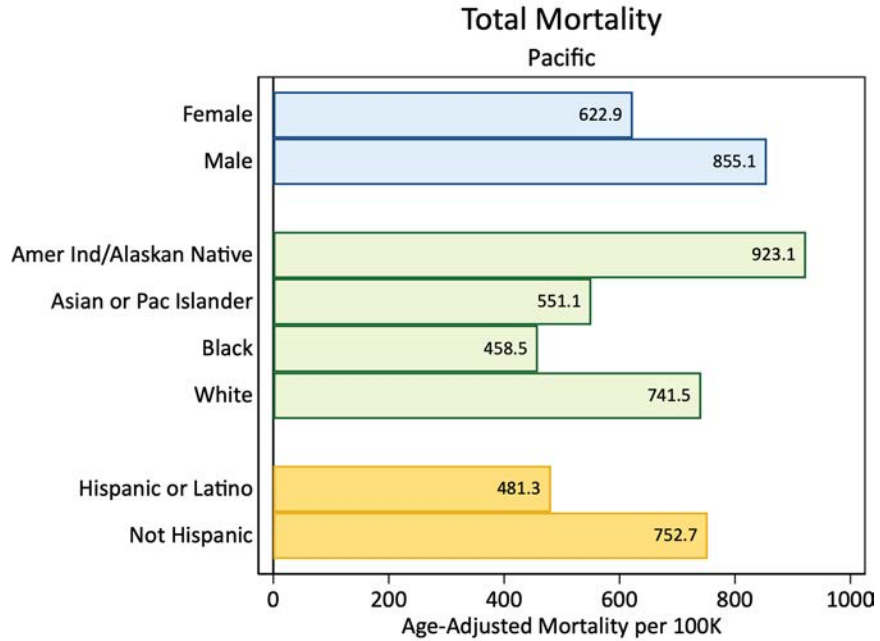
Rural/Urban National Averages

Pacific Division Summary

Sex, Race, and Ethnicity Disparity Profiles



In the Pacific Census division, males had a much higher **suicide mortality** rate than females. American Indians and Alaskan Natives had the highest suicide mortality rate, while Black Americans had the lowest. Not-Hispanic Americans had a much higher suicide mortality rate than Hispanic or Latino Americans.



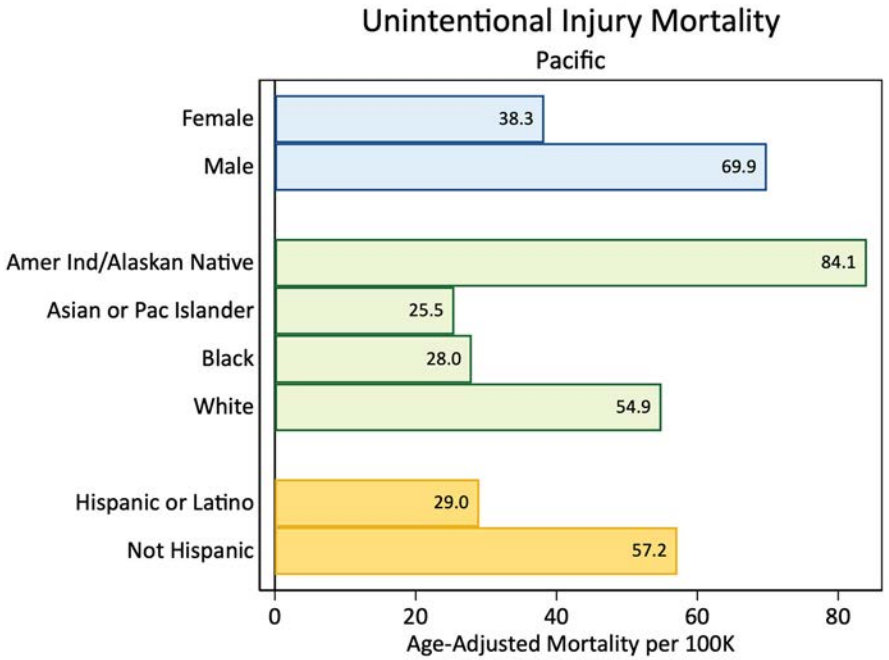
Males had a higher **total mortality** rate compared to females. American Indians and Alaskan Natives had the highest rate, while Black Americans had the lowest. Among ethnic categories, the rate was higher for Not-Hispanic Americans.

U.S. Census Divisions Map

Rural/Urban National Averages

Pacific Division Summary

Sex, Race, and Ethnicity Disparity Profiles



Males had a higher **unintentional injury mortality** rate compared to females. American Indians and Alaskan Natives had the highest unintentional injury mortality rate, while Asian or Pacific Islander Americans had the lowest. Among ethnic categories, Not-Hispanic Americans had a higher rate.

U.S. Census Divisions Map

Rural/Urban National Averages

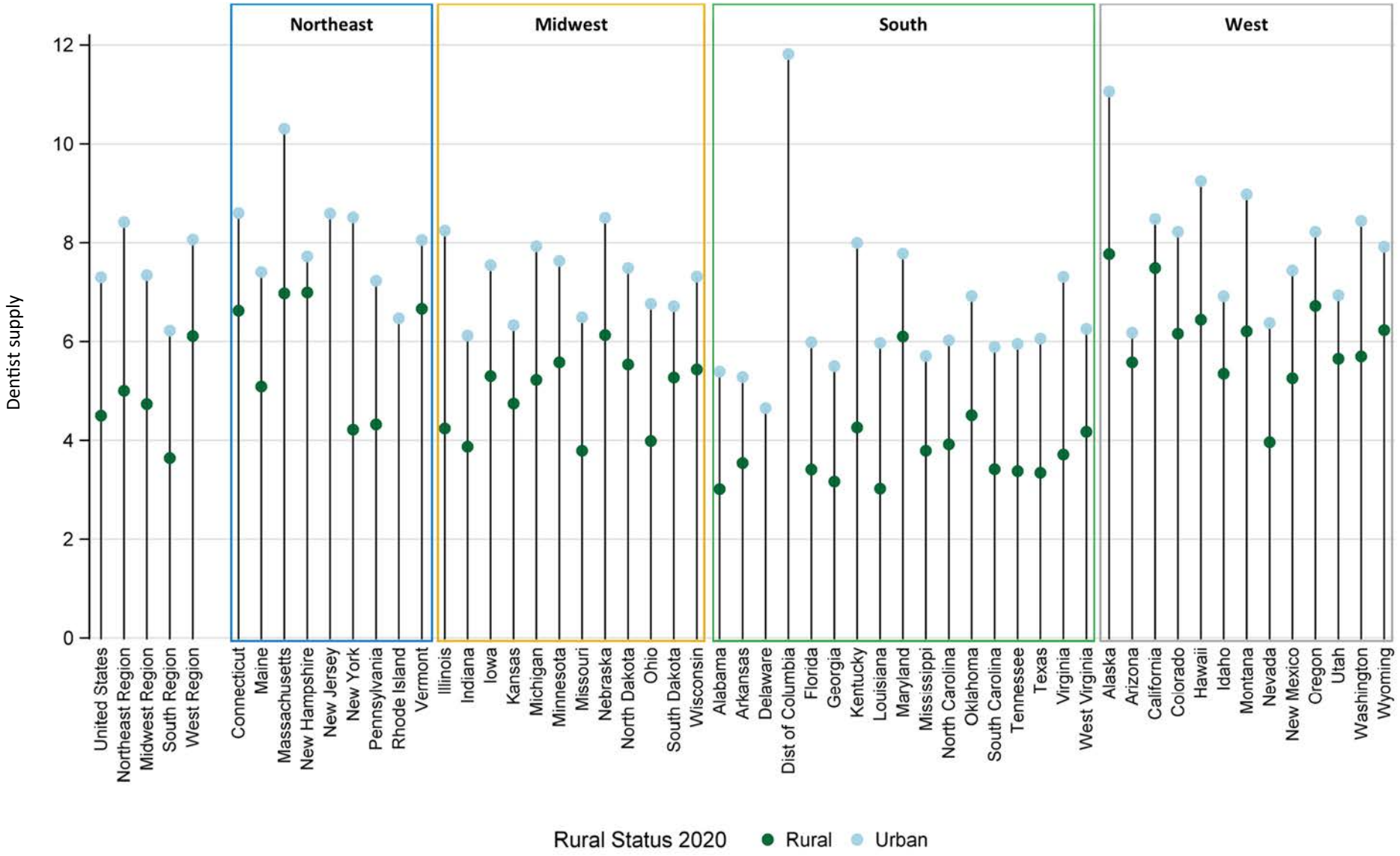
Rural - Urban Disparity Charts

Definitions and Data Sources

How to Read the Charts

Dentist Supply

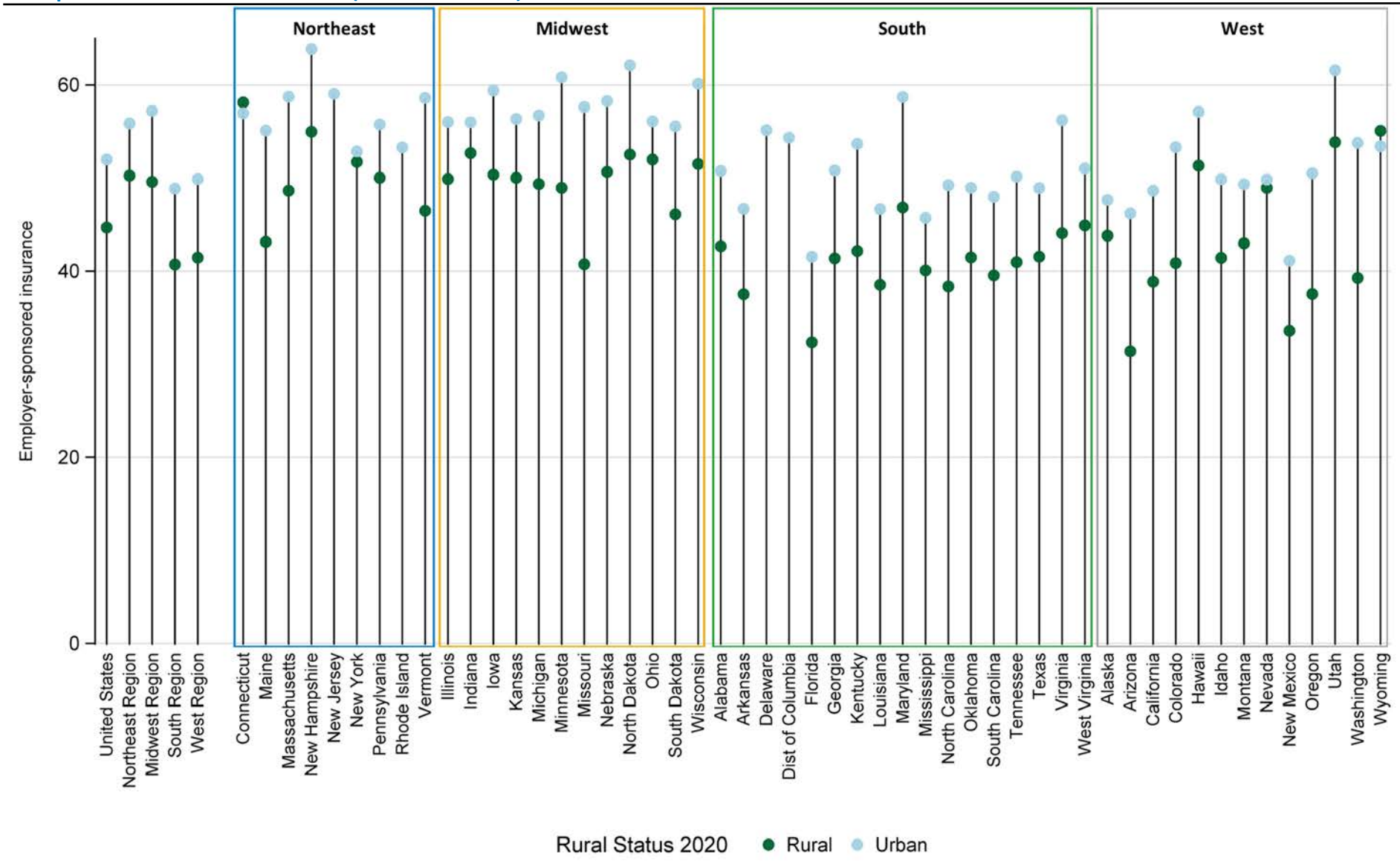
Dentists per 10,000 population (2016)



The rural-urban disparity for dentist supply was pronounced. Dentist supply rates were higher among urban areas in all four Census regions and among all states.

Employer-Sponsored Insurance

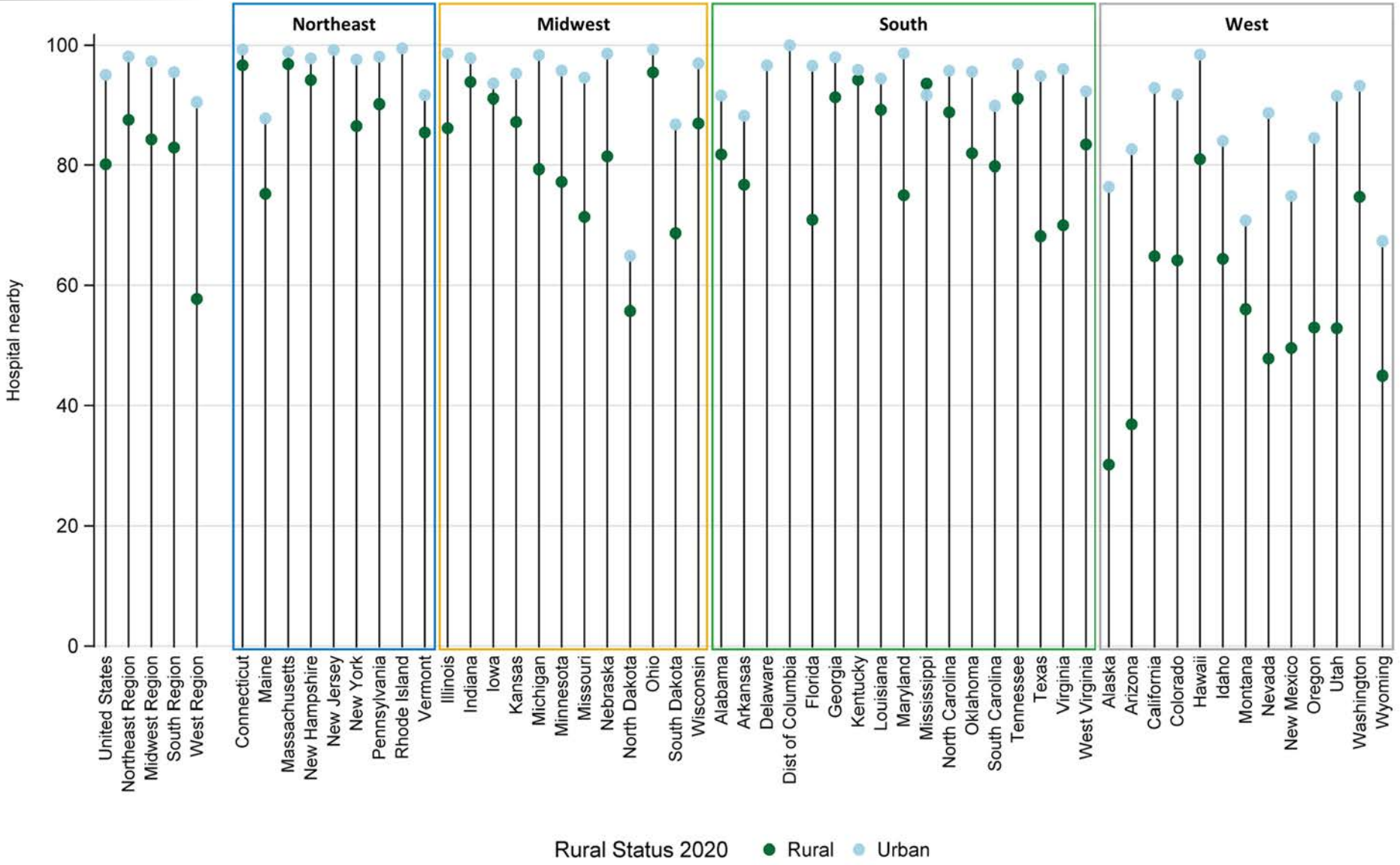
Five-year average percentage of the population less than age 65 with employer-sponsored insurance (2012-2016)



Employer-sponsored insurance rates were higher among urban areas in all four Census regions. Additionally, only two states had higher employer-sponsored insurance rates for rural areas compared to urban ones: Connecticut (only one rural county) and Wyoming (only two urban counties), which had small rural-urban disparities. Conversely, Missouri had one of the largest rural-urban disparities.

Hospital Nearby

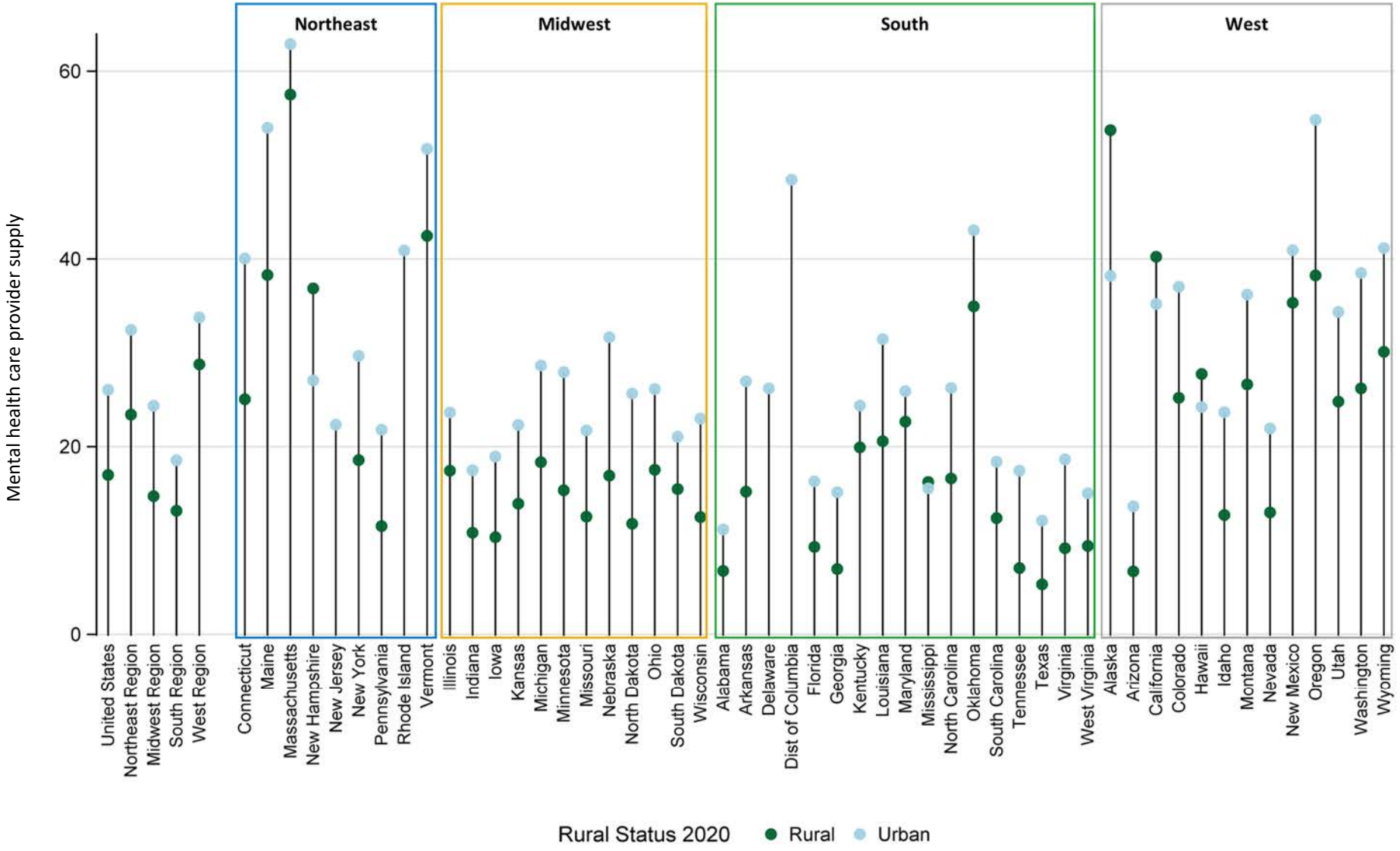
Percentage of the population within 15 miles of an acute care hospital or CAH (2016)



In all Census regions, hospital nearby rates were higher among urban areas relative to rural areas. When comparing rates by state, this trend held true for all but one state—Mississippi—where rural areas had higher rates (however, this disparity between rural and urban was small). Alaska (which has three urban counties) and Arizona had the greatest rural-urban disparity.

Mental Health Care Provider Supply

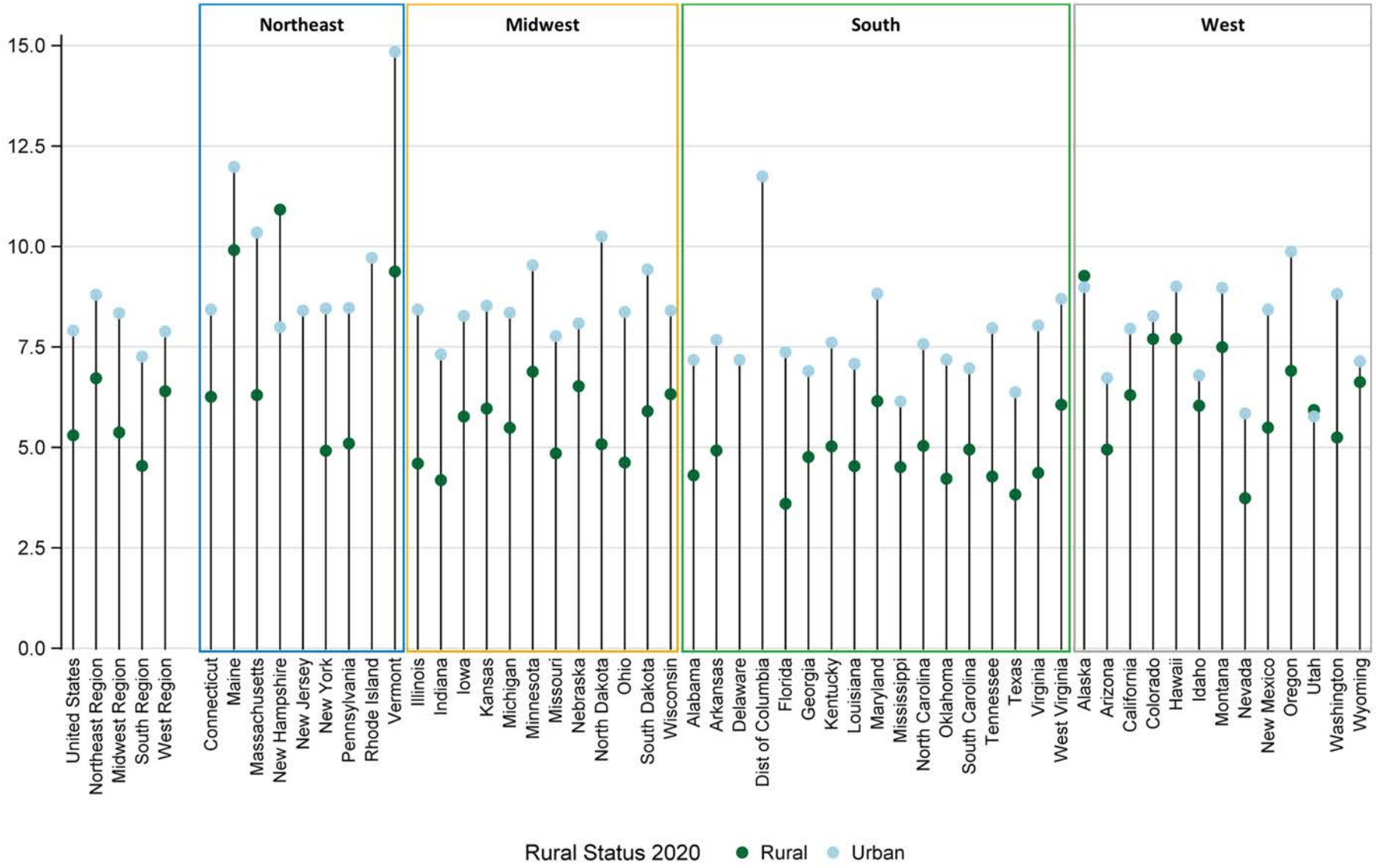
Mental health care providers per 10,000 population (2016)



Mental health care provider supply rates were higher among urban areas in all four Census regions. While rates vary considerably from state to state, all but five states had higher mental health supply rates in urban areas relative to rural ones (New Hampshire, Mississippi, Alaska, California, and Hawaii), and most states had sizeable rural-urban disparities.

Physician Supply

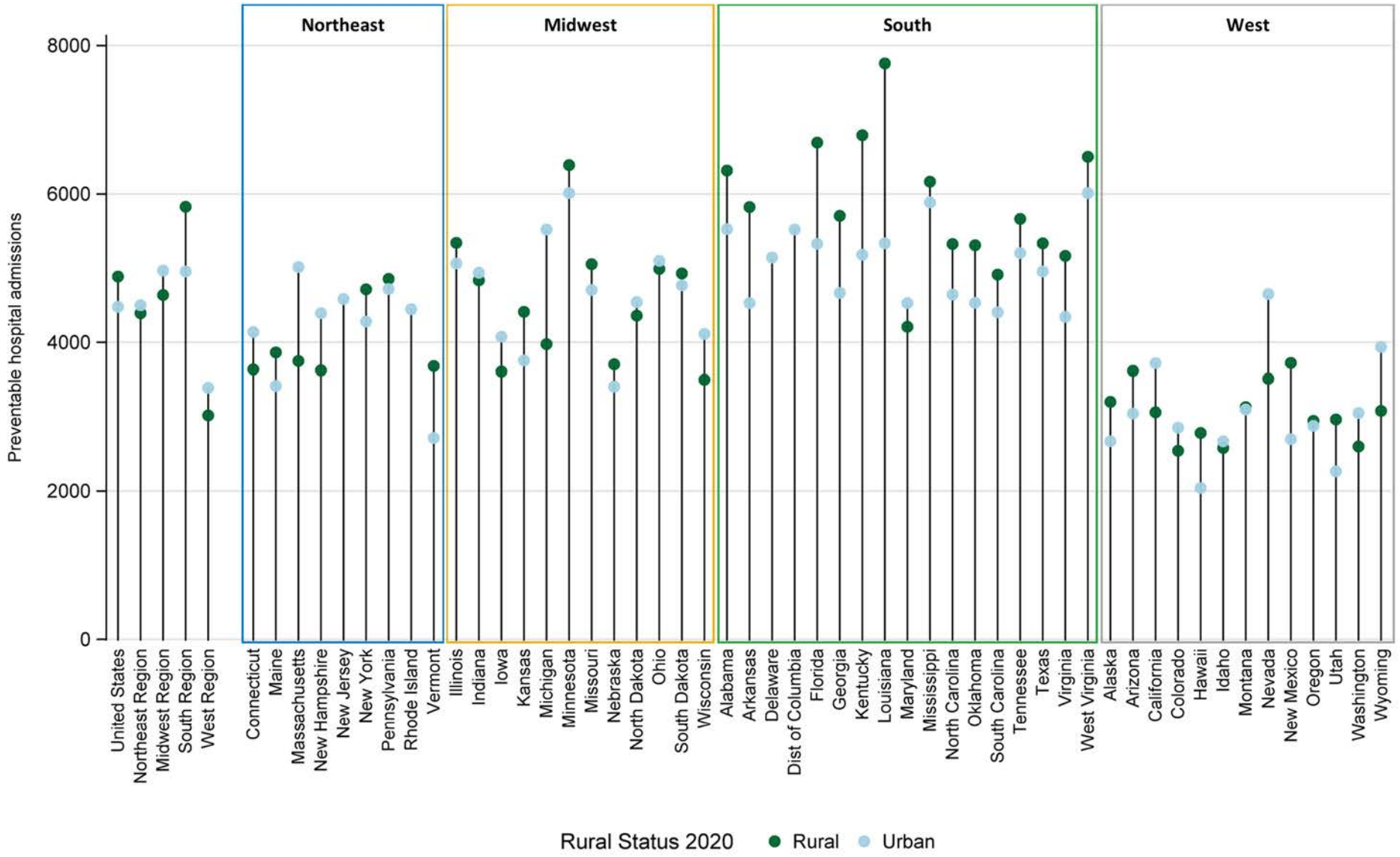
Primary care physicians per 10,000 population (2016)



Like dentist supply, physician supply rates were higher among urban areas in all four Census regions, and the rural-urban disparities were pronounced in most states. Three states had higher physician supply rates for rural areas relative to urban ones: New Hampshire, Alaska, and Utah. Alaska and Utah showed little rural-urban disparity.

Preventable Hospital Admissions

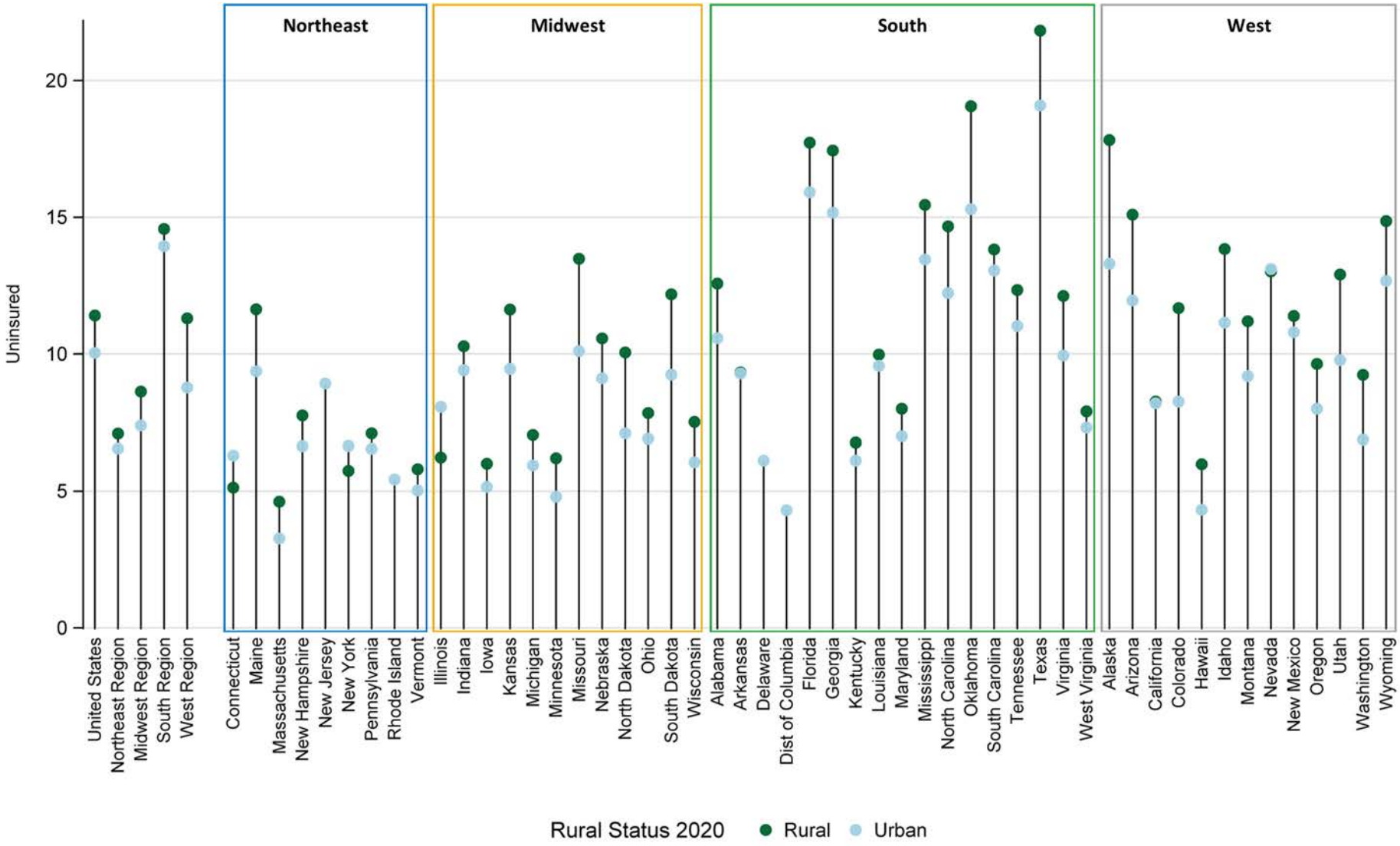
Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees (2016)



Rural-urban disparities in preventable hospital admissions varied by region, with urban areas having higher rates in all but the South region. States in the South also had the largest rural-urban disparity with Louisiana standing out.

Uninsured

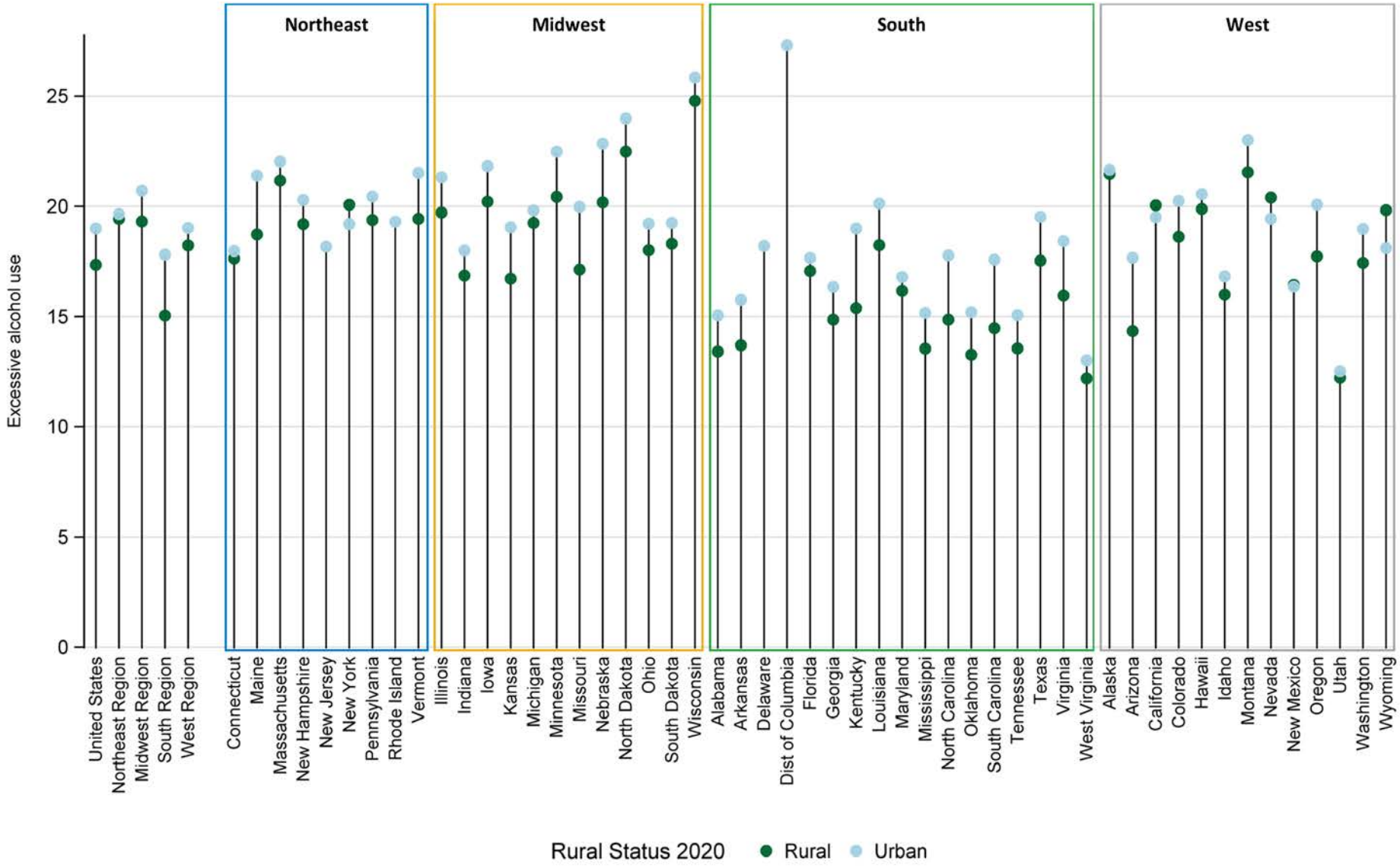
Percentage of the population under age 65 without health insurance (2016)



Uninsured rates were higher among rural areas in all four Census regions. The South had the highest rates of uninsured. Uninsured rates in rural areas were greater than 15% for several states (Florida, Georgia, Mississippi, Oklahoma, Texas, Alaska, Arizona, and Wyoming). Finally, most states had some rural-urban disparity, with exceptions including Arkansas, California, and Nevada. New Jersey, Rhode Island, Delaware, and the District of Columbia have no rural counties.

Excessive Alcohol Use

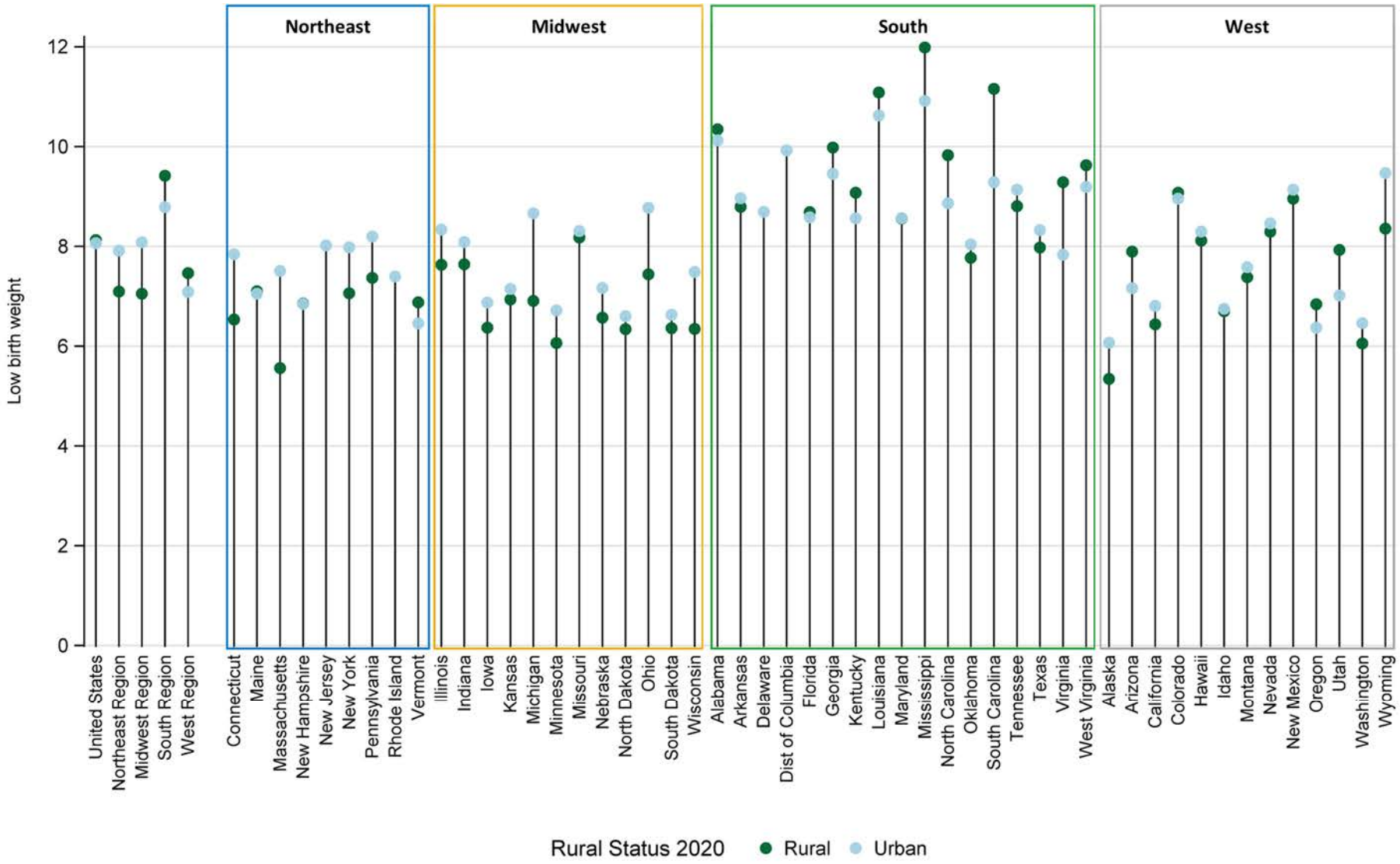
Percentage of adults reporting binge or heavy drinking (2014)



Excessive alcohol use was lower in rural counties among all four Census regions. Only four states had higher rural excessive alcohol use rates compared to urban areas: New York, California, Nevada, and Wyoming. For most states, the difference between rural and urban drinking was relatively small.

Low Birth Weight

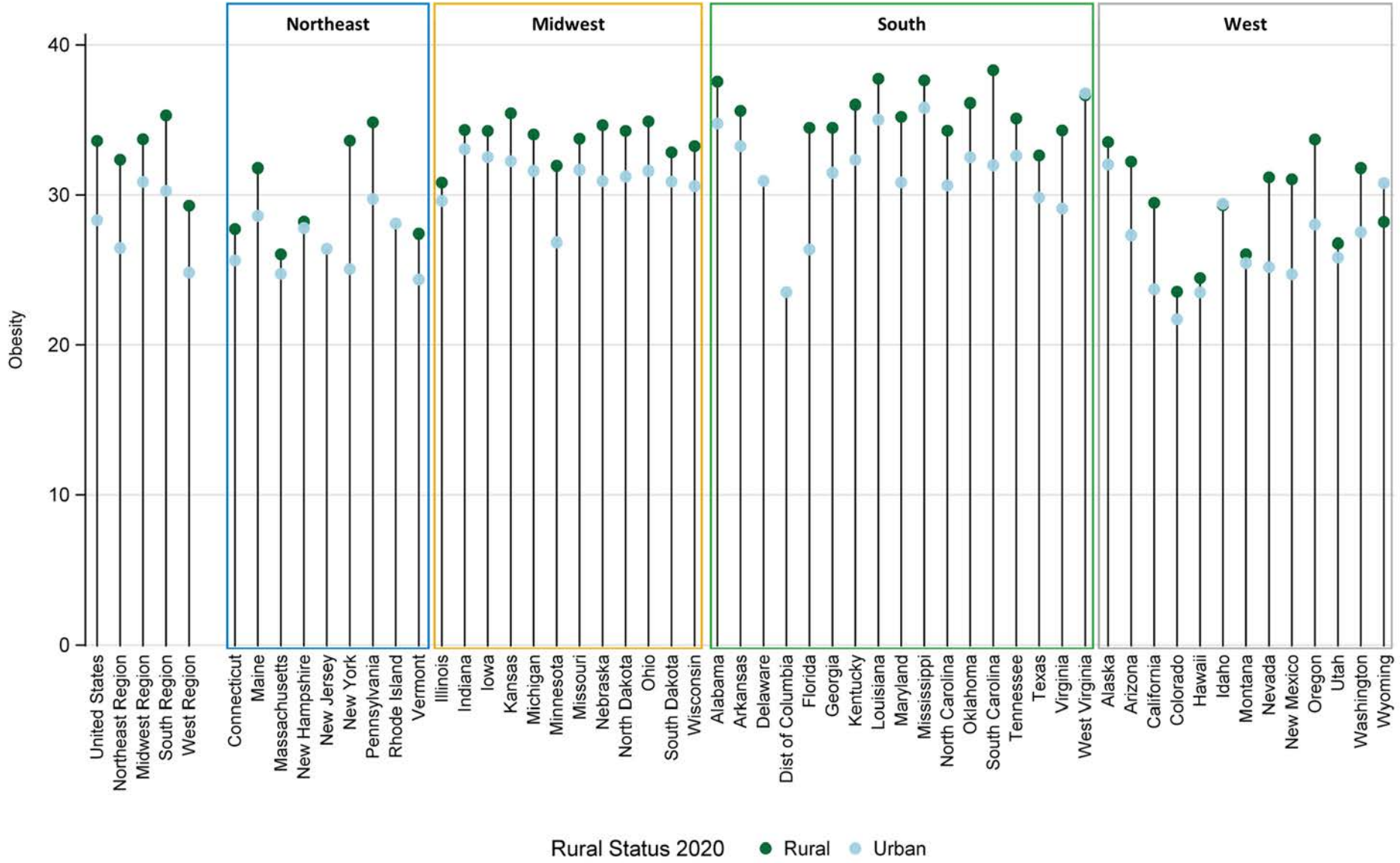
Five-year average percentage of live births with low birthweight (less than 2,500 grams) (2010-2016)



Low birth weight rates were higher in urban areas compared to rural areas among the Northeast and Midwest Census regions. However, among the South and West Census regions, the rural rate was higher. The South had the highest low birthweight rates; rural rates were highest in Alabama, Louisiana, Mississippi, and South Carolina. For most states, the disparity between rural and urban was relatively small, with exceptions being Massachusetts, Michigan, Ohio, and South Carolina.

Obesity

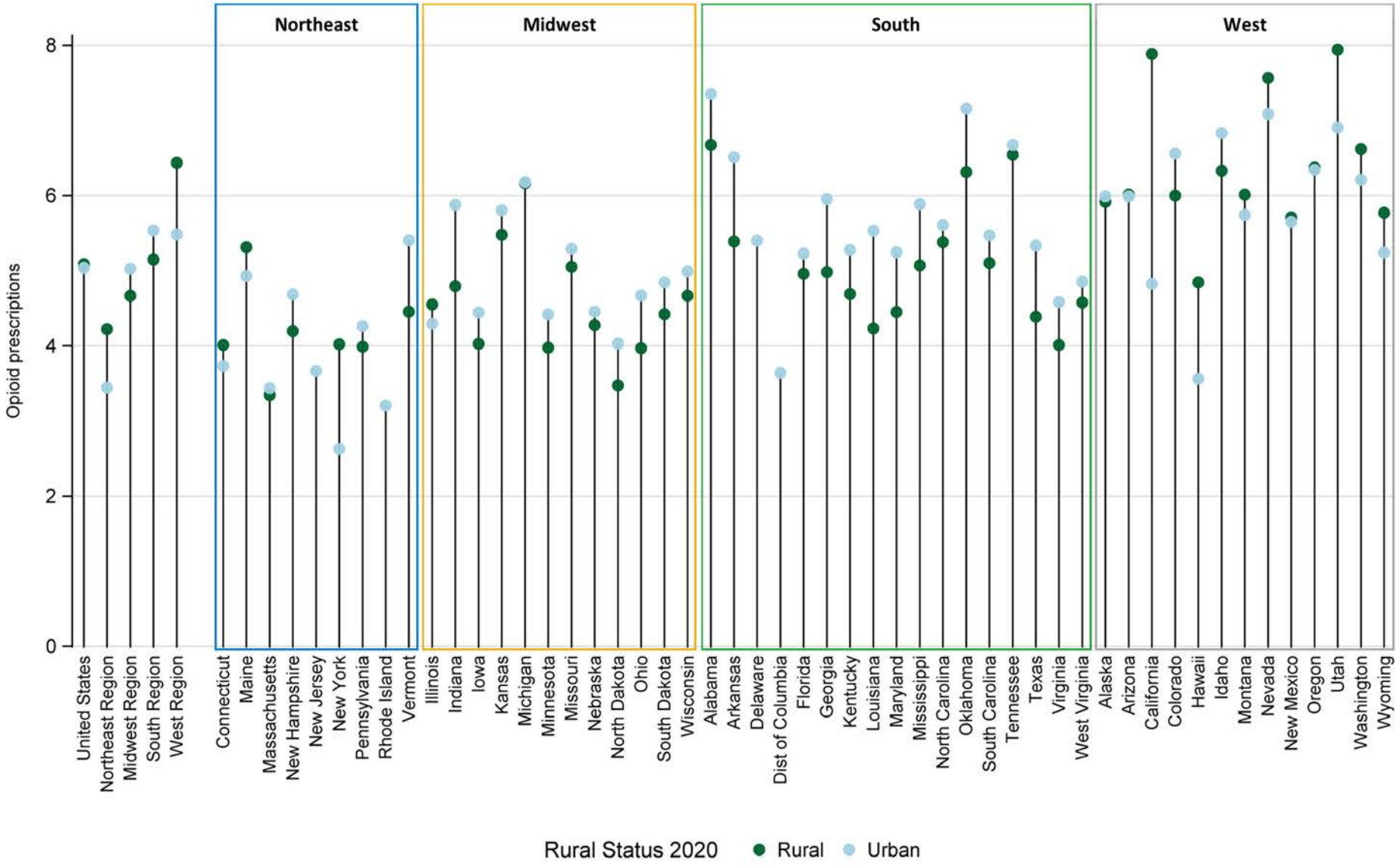
Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2 (2015)



Obesity rates were higher among rural areas in all four Census regions. Most states had higher obesity rates in rural areas compared to urban areas. All states had obesity rates greater than 20%, and many were greater than 30%.

Opioid Prescription

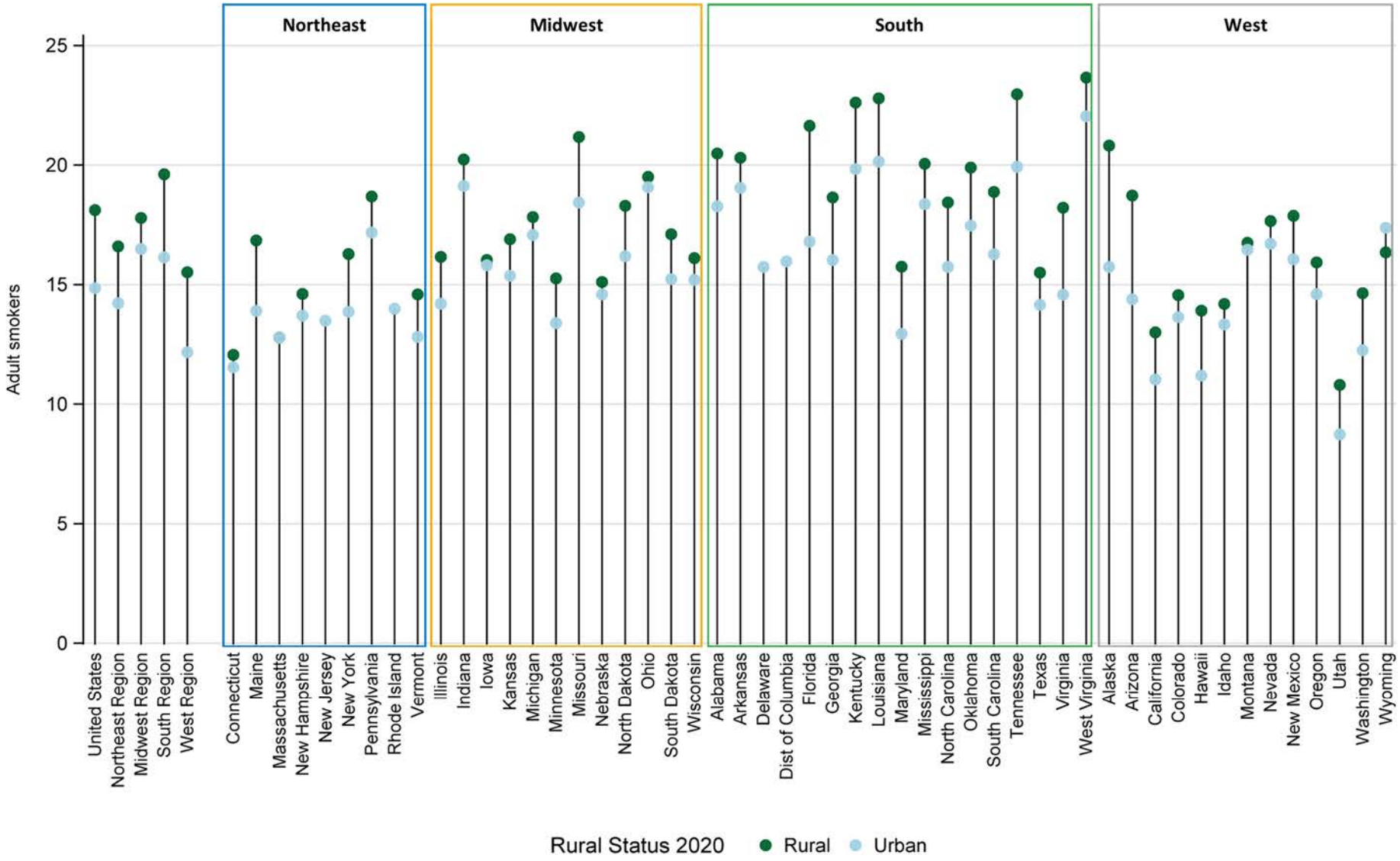
Three-year average percentage of Medicare Part D claims that are for opioids (2013-2015)



Opioid prescription rates were higher in rural areas relative to urban areas among the Northeast and West Census regions. However, among the Midwest and South Census regions, the urban rate was higher. The greatest disparity between rural and urban opioid use was in California.

Smoking

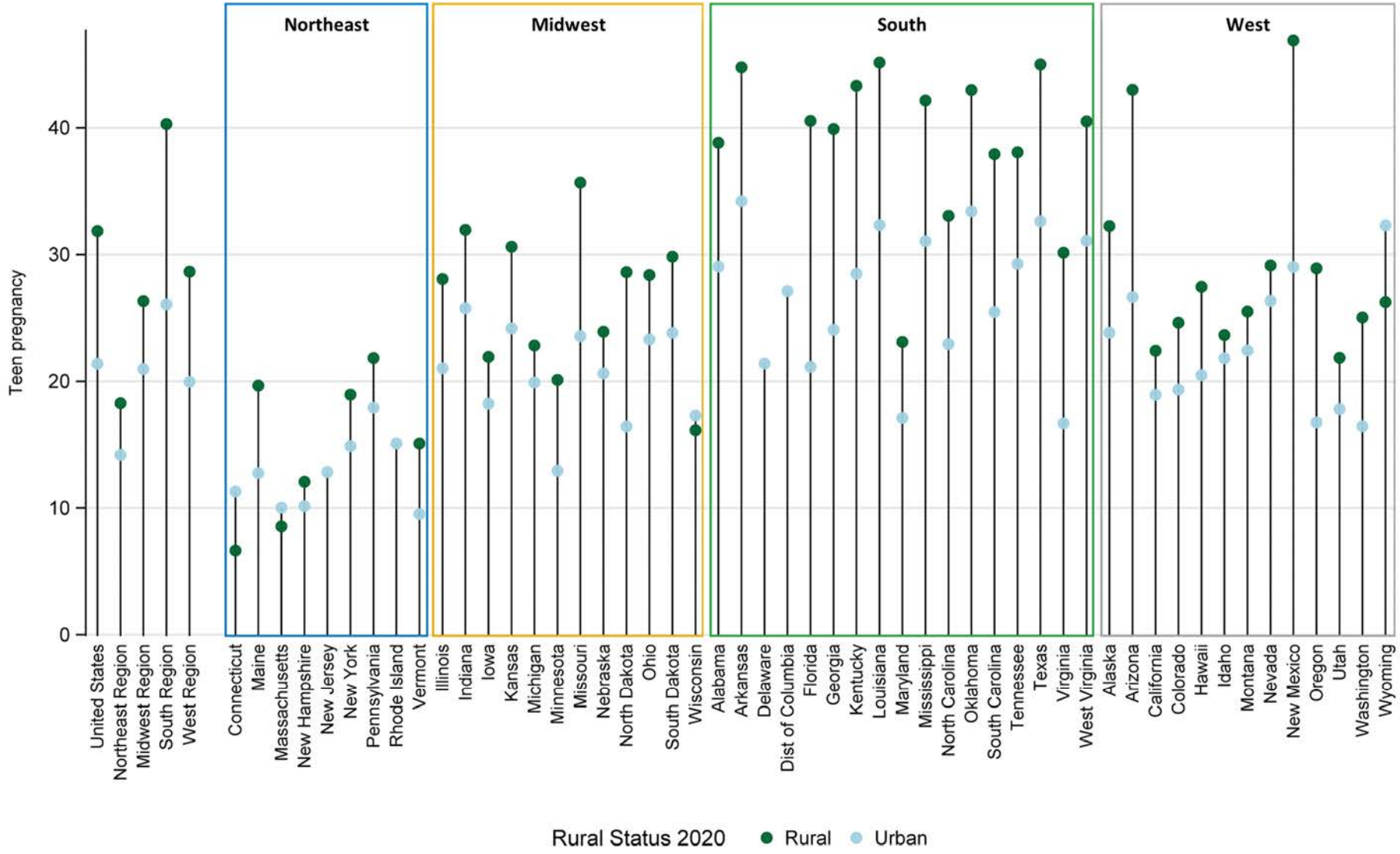
Percentage of adults who are current smokers (2016)



Rural areas in all four Census regions had higher smoking rates. The Southern region had the highest rural rates. Wyoming was the only state with a higher urban county smoking rate compared to rural counties (however, this difference was relatively small). States with larger disparities in rural and urban rates included Florida, Alaska, and Arizona.

Teen Pregnancy

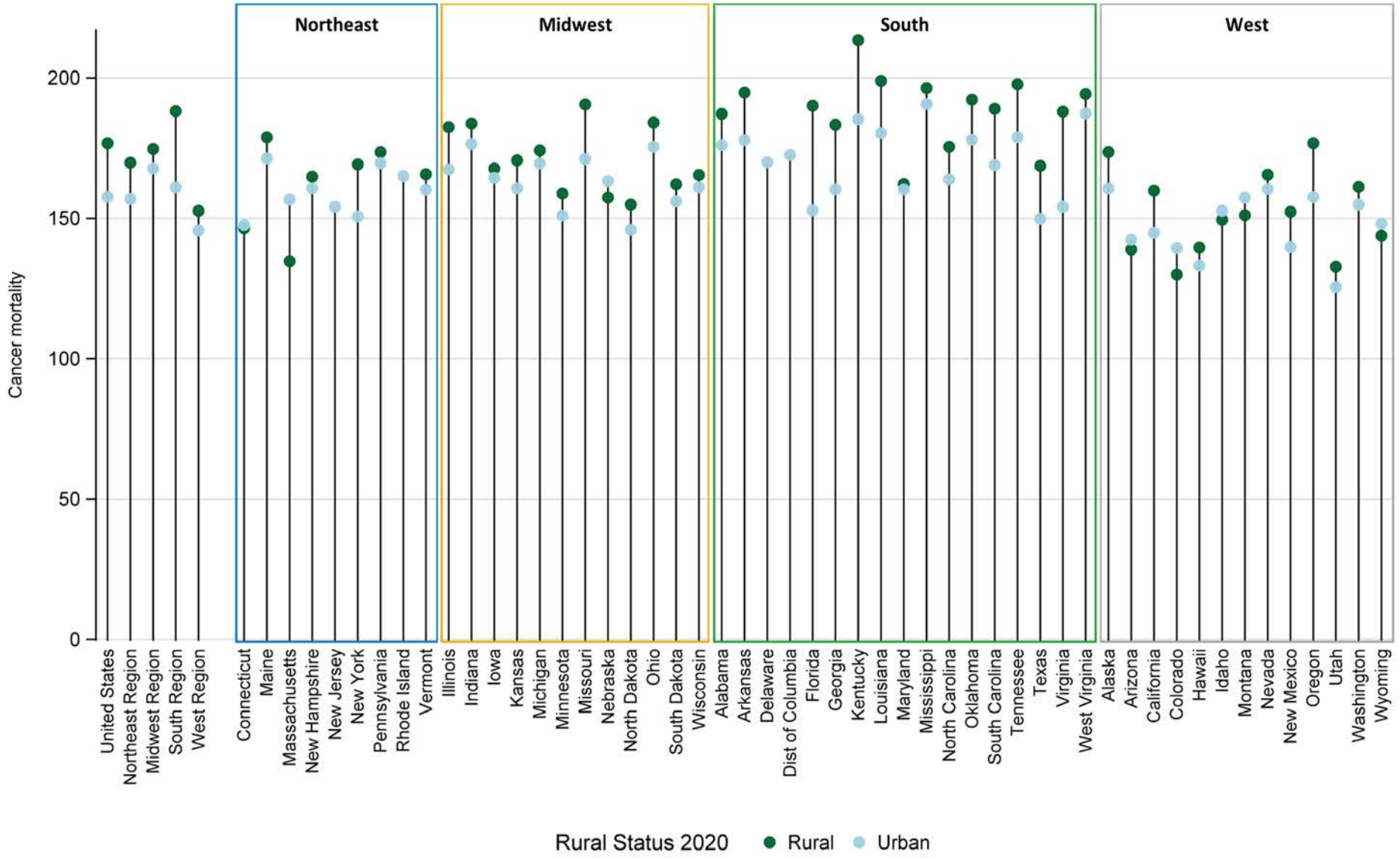
Seven-year average number of births per 1,000 females ages 15-19 (2010-2016)



Teenage pregnancy rates were higher among rural areas in all four Census regions. The greatest disparity was in the South. Among Southern states, rural teen pregnancy rates were above 40 per 1,000 teenage females for eight of the 13 states, while the urban areas in eight of the Southern states were below 30 per 1,000. The greatest difference between rural and urban counties was in Florida. New Mexico had the highest rural teen pregnancy rate.

Cancer Mortality

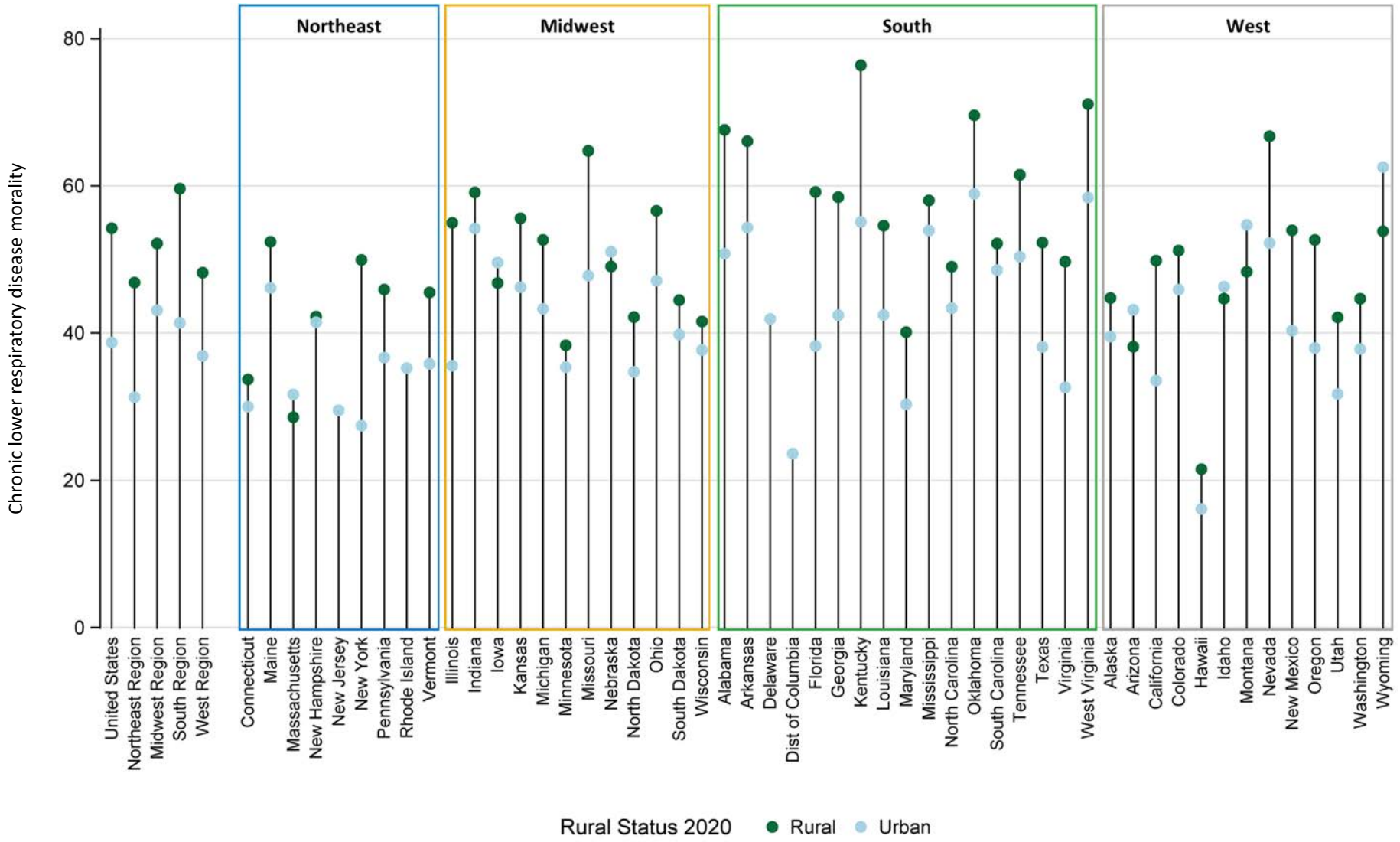
Five-year average all-cancer mortality per 100,000 (2012-2016)



Cancer mortality rates were higher among rural areas compared to urban areas in all Census regions. However, rural-urban disparities in cancer mortality were generally not pronounced by region or by individual states.

Chronic Lower Respiratory Disease Mortality

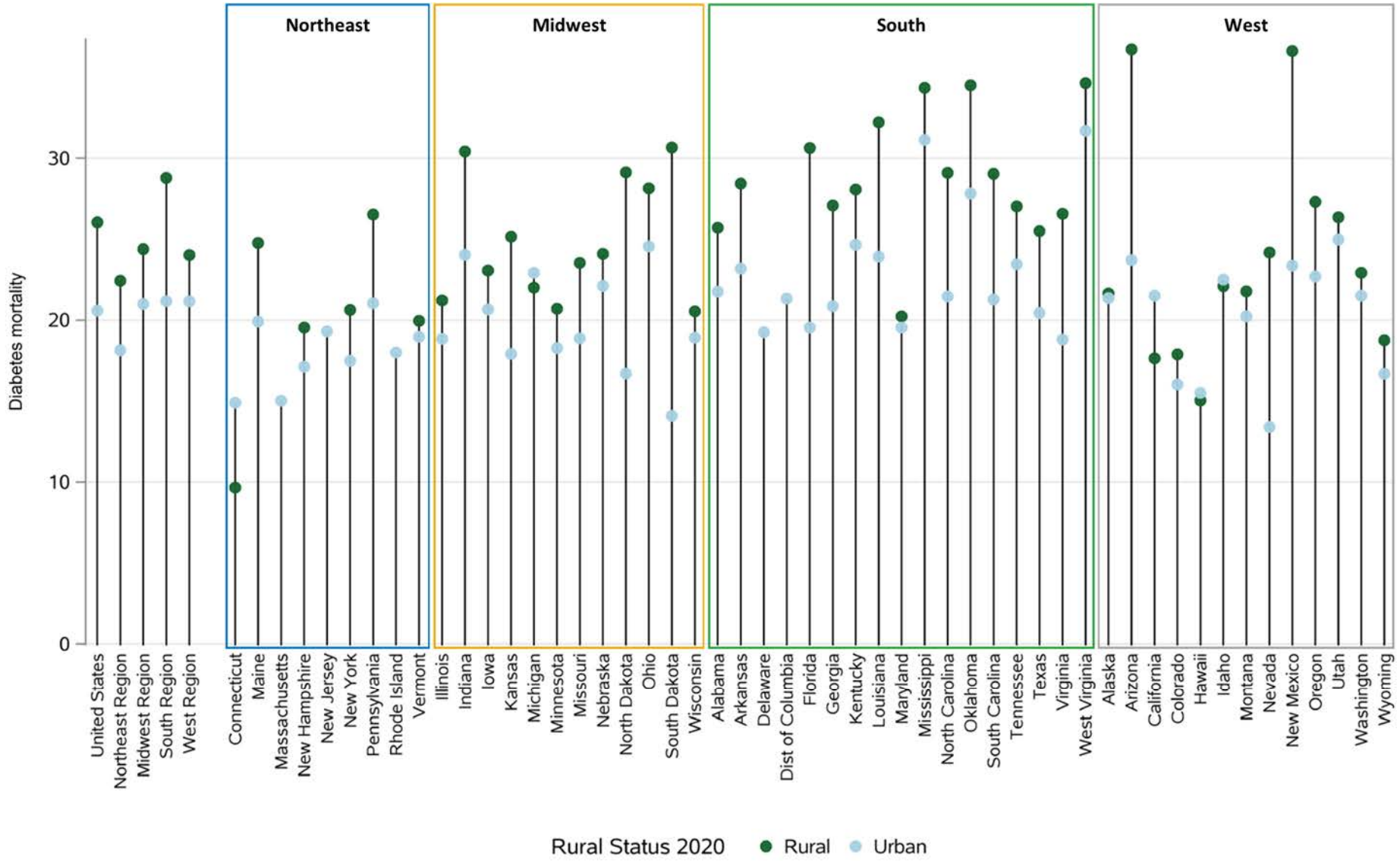
Five-year average chronic lower respiratory disease mortality per 100,000 (2012-2016)



Chronic lower respiratory disease mortality rates were higher among rural areas in all Census regions. The West had the largest rural-urban disparity. When comparing individual states, only a handful had higher chronic lower respiratory disease mortality rates for urban areas compared to rural ones—Iowa, Nebraska, West Virginia, Arizona, Montana, Nevada, and Wyoming. The rural-urban disparity was relatively large among some states such as Kentucky and Nevada.

Diabetes Mortality

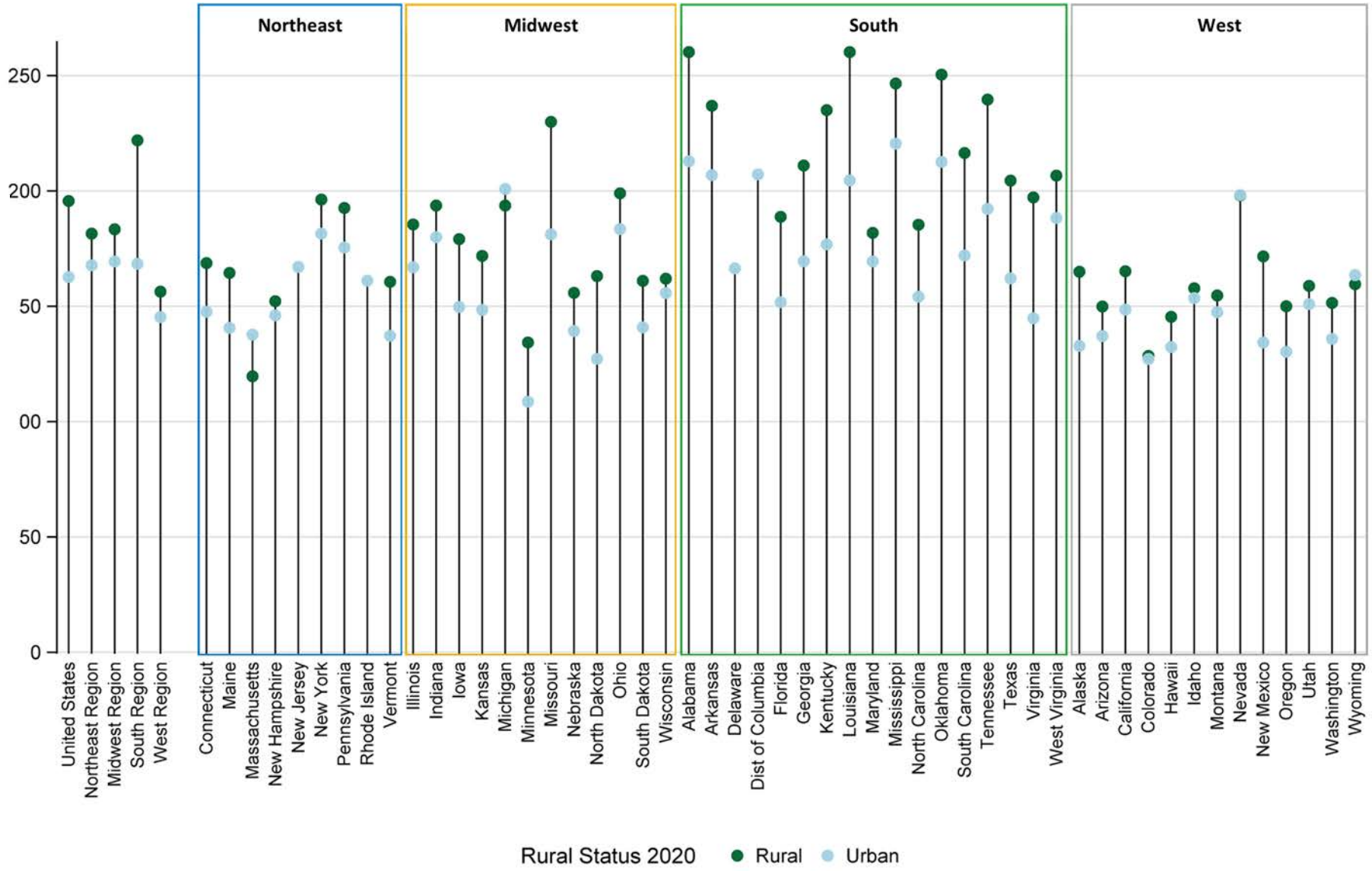
Five-year average diabetes mortality per 100,000 (2012-2016)



Diabetes mortality was higher in rural areas compared to urban areas for all four Census regions. Mortality due to diabetes is only higher in urban areas in three states—Michigan, Connecticut, and California. Some states, such as Arizona and New Mexico, had large rural-urban disparities.

Heart Disease Mortality

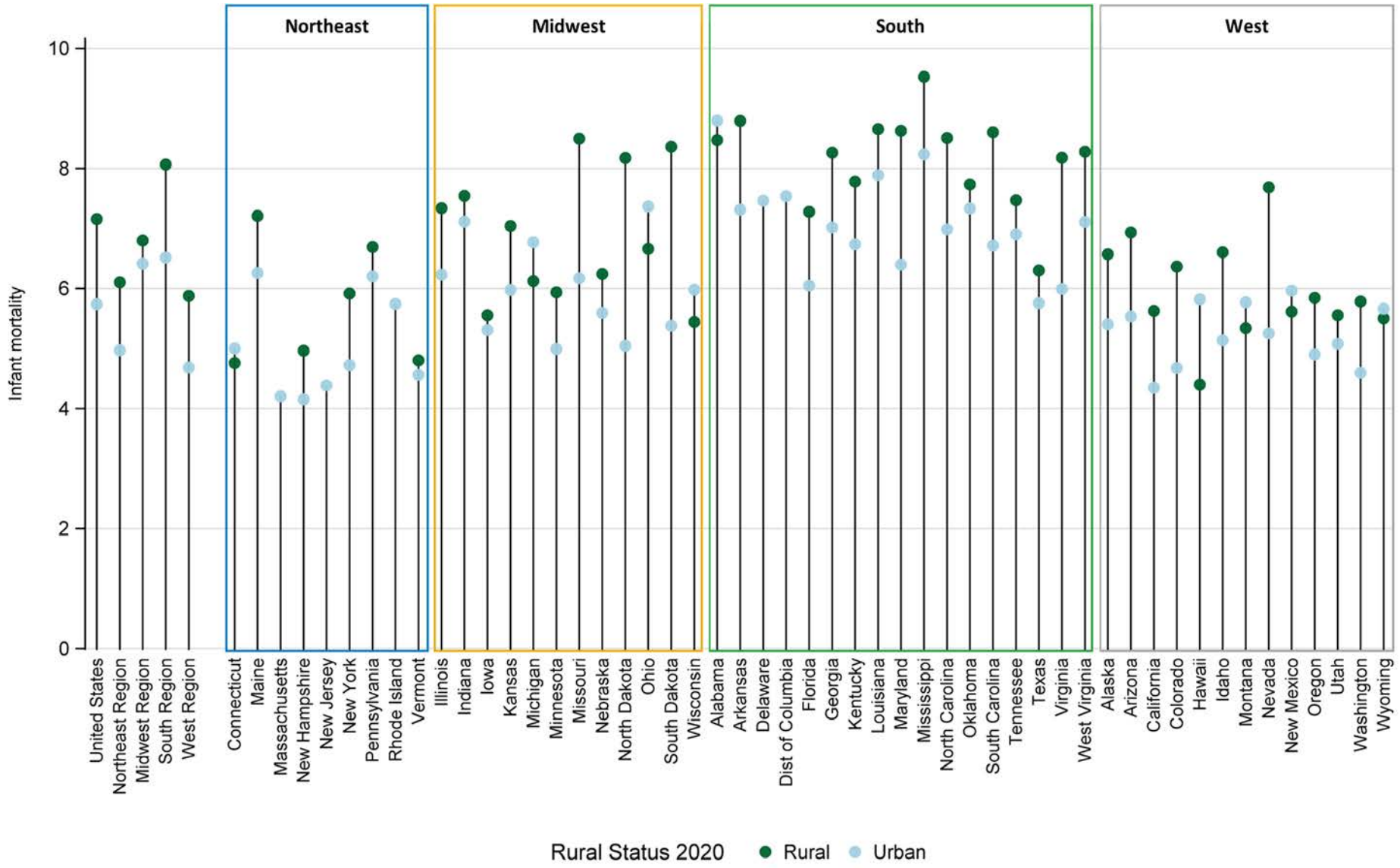
Five-year average heart disease mortality per 100,000 (2012-2016)



Heart disease mortality rates were higher among rural areas compared to urban areas in all Census regions. Some southern states had the highest rates and largest disparities between rural and urban areas.

Infant Mortality

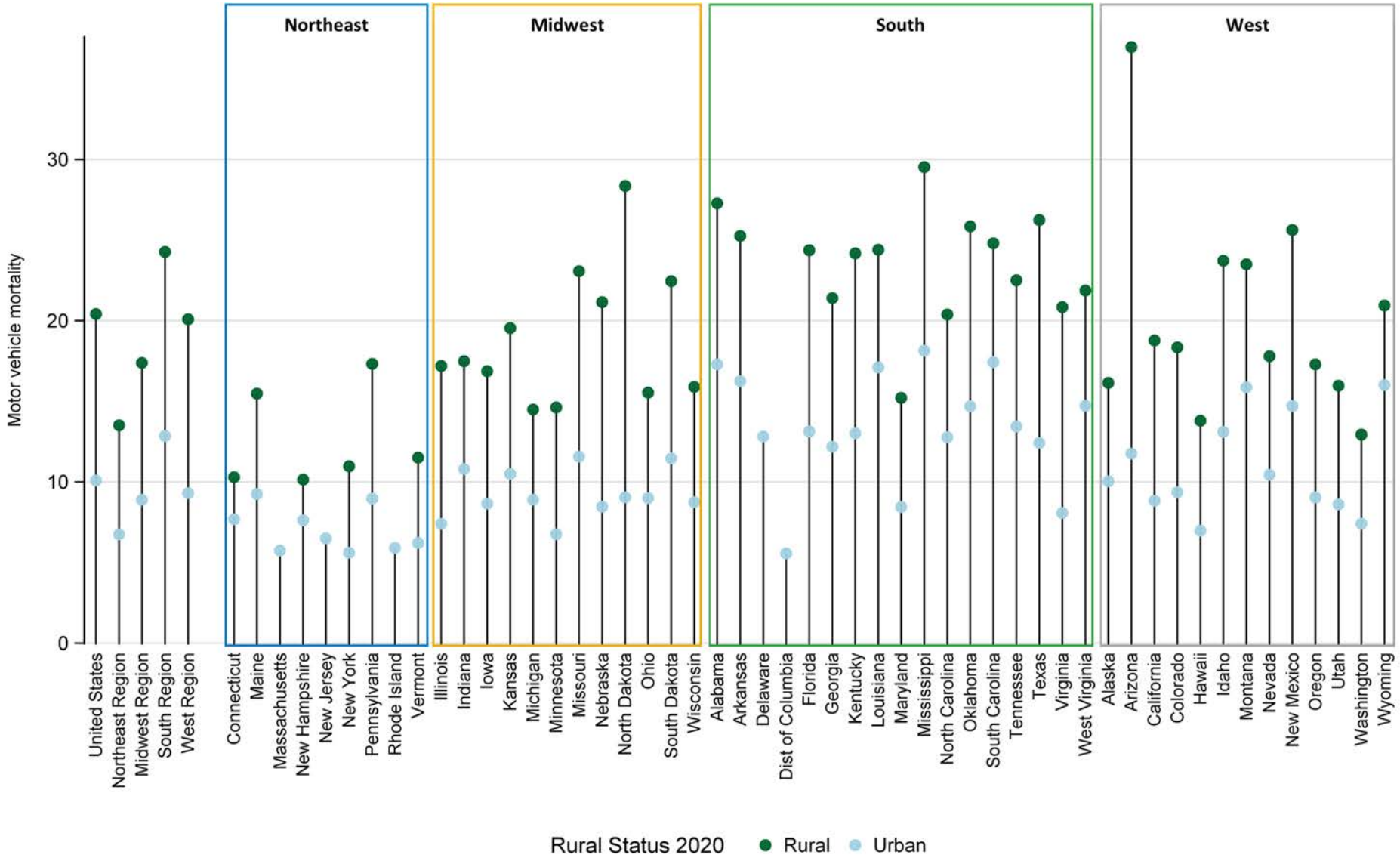
Five-year average infant mortality per 1,000 births (under age 1) (2012-2016)



Infant mortality rates were higher among rural areas relative to urban areas in all Census regions. When comparing individual states, only a handful had urban infant mortality rates that were higher relative to rural areas, including Ohio, Wisconsin, Alabama, Hawaii, Montana, and New Mexico. Mississippi had the highest rural infant mortality rate, while Hawaii had the lowest.

Motor Vehicle Mortality

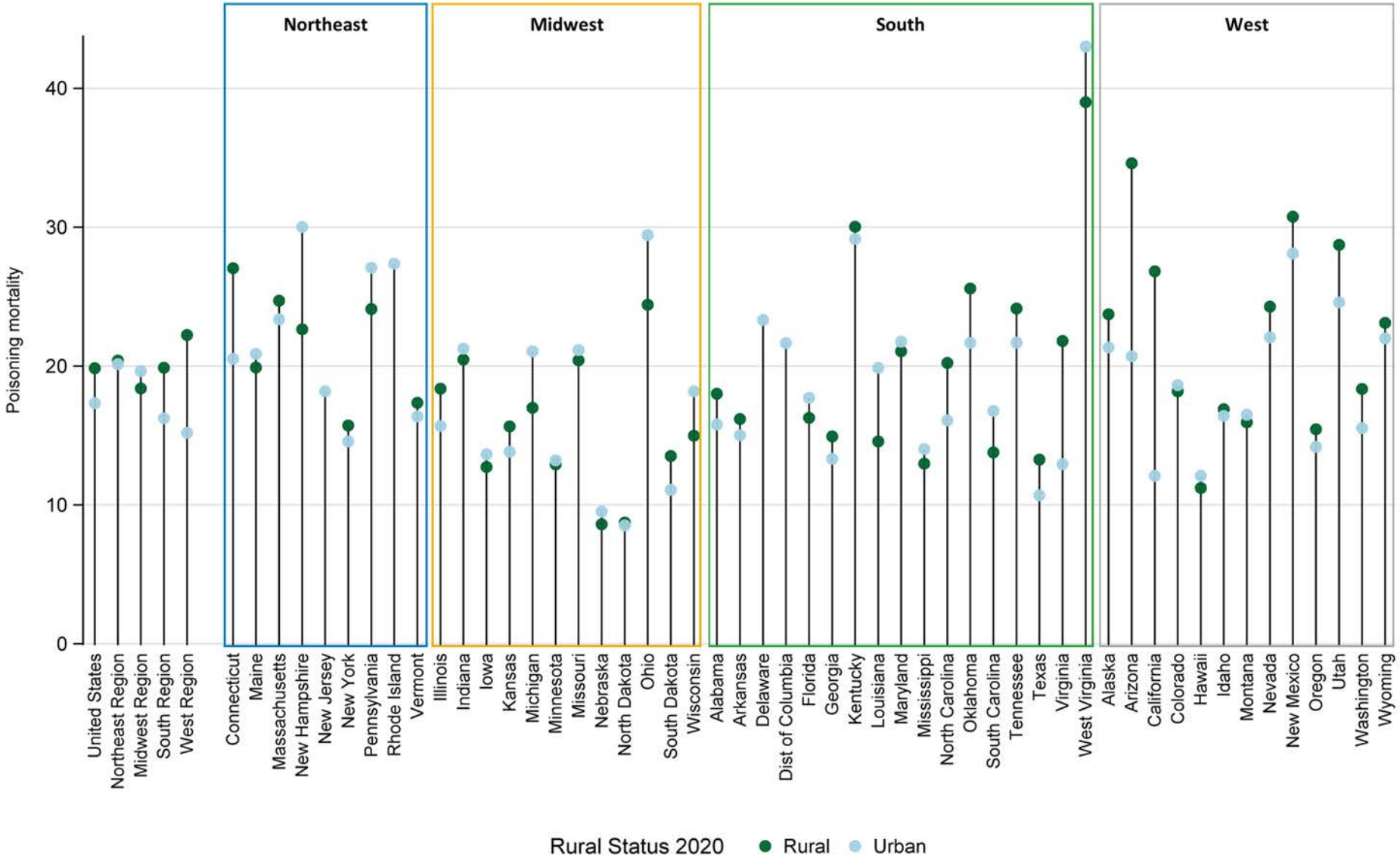
Five-year average motor vehicle mortality per 100,000 (2012-2016)



Motor vehicle mortality rates were higher among rural areas relative to urban areas in all Census regions. When comparing individual states, several had significant rural-urban disparities in the motor vehicle mortality rate, including North Dakota, Missouri, and Arizona.

Poisoning Mortality

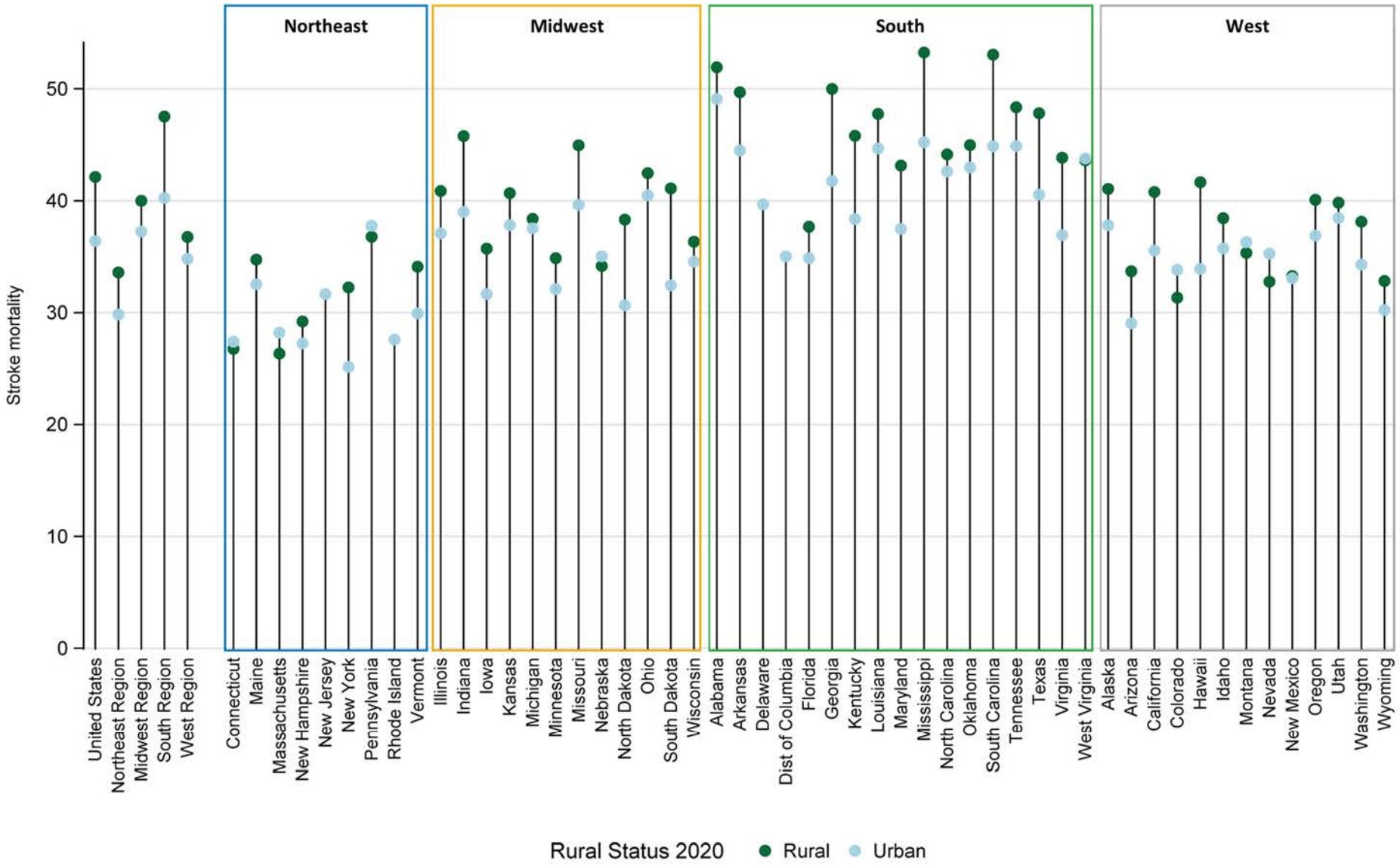
Five-year average poisoning mortality per 100,000 (2012-2016)



Poisoning mortality rates were higher among rural areas relative to urban areas in all but the Midwest Census region. The rural-urban poisoning mortality disparity was largest in the West Census region. Among individual states, West Virginia had the highest rates. In addition, Arizona had the next highest rural rate and the greatest rural-urban disparity.

Stroke Mortality

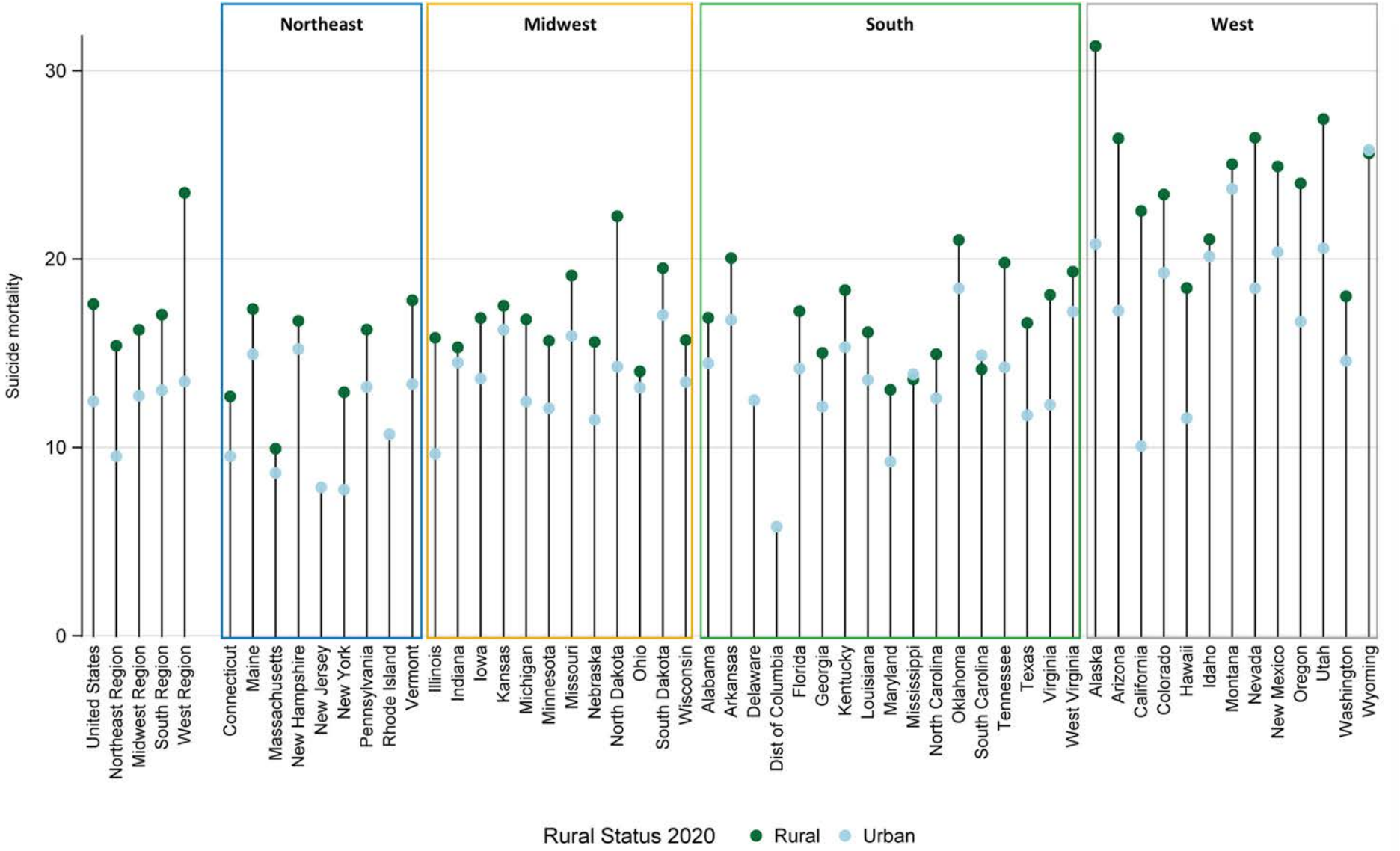
Five-year average stroke mortality per 100,000 (2012-2016)



Stroke mortality rates were higher among rural areas in all four Census regions. The rural-urban stroke mortality disparity was greatest among the Southern Census region, with West Virginia being the only state in this region with a higher urban stroke mortality rate relative to rural areas, albeit slight.

Suicide Mortality

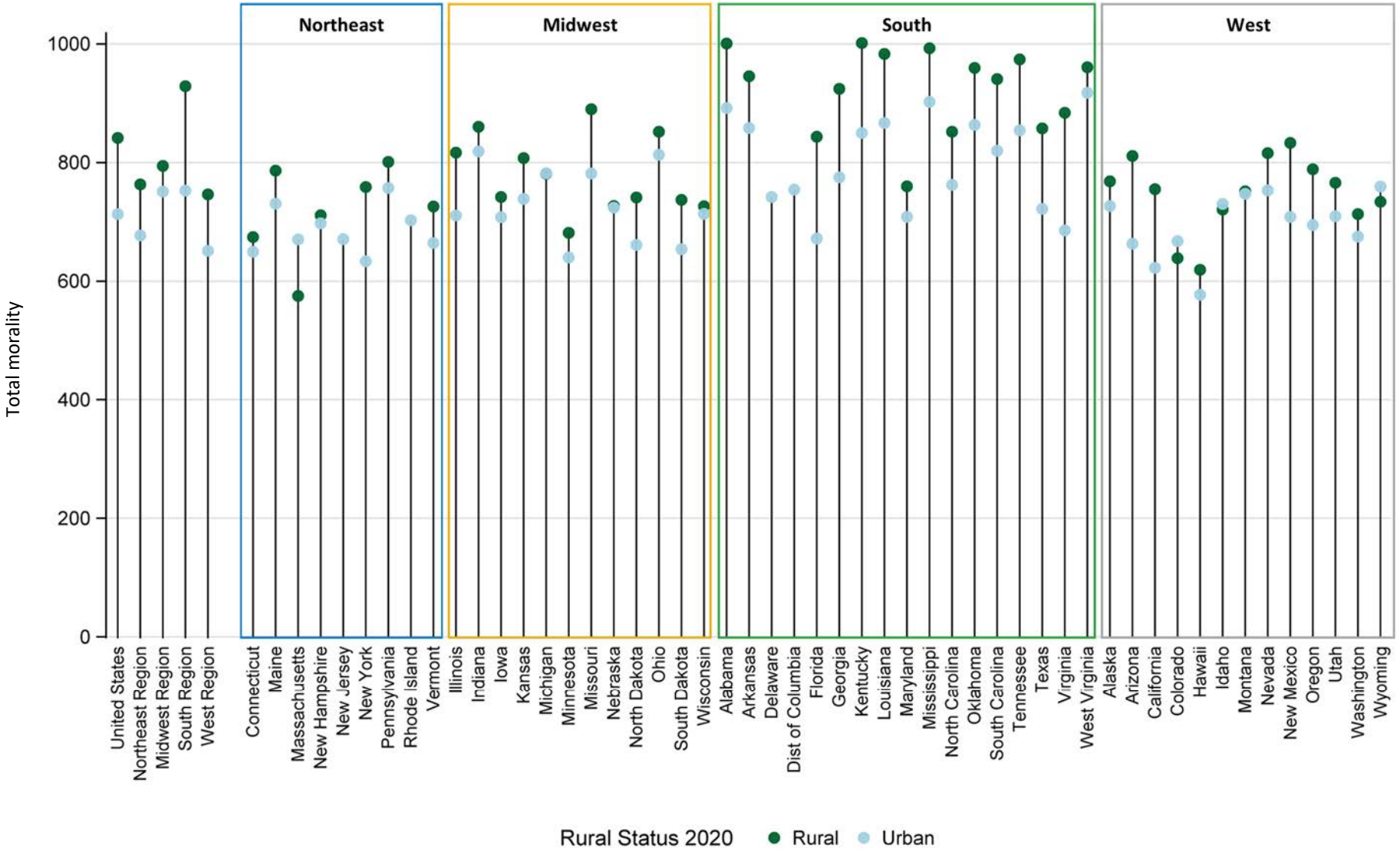
Five-year average suicide mortality per 100,000 (2012-2016)



The suicide rate was higher among rural areas in all four Census regions. When comparing individual states, only three had higher urban suicide rates compared to rural areas: Mississippi, South Carolina, and Wyoming (however, the rural-urban disparity was small for all three). Notably, Alaska had the highest suicide rate and the largest rural-urban disparity.

Total Mortality

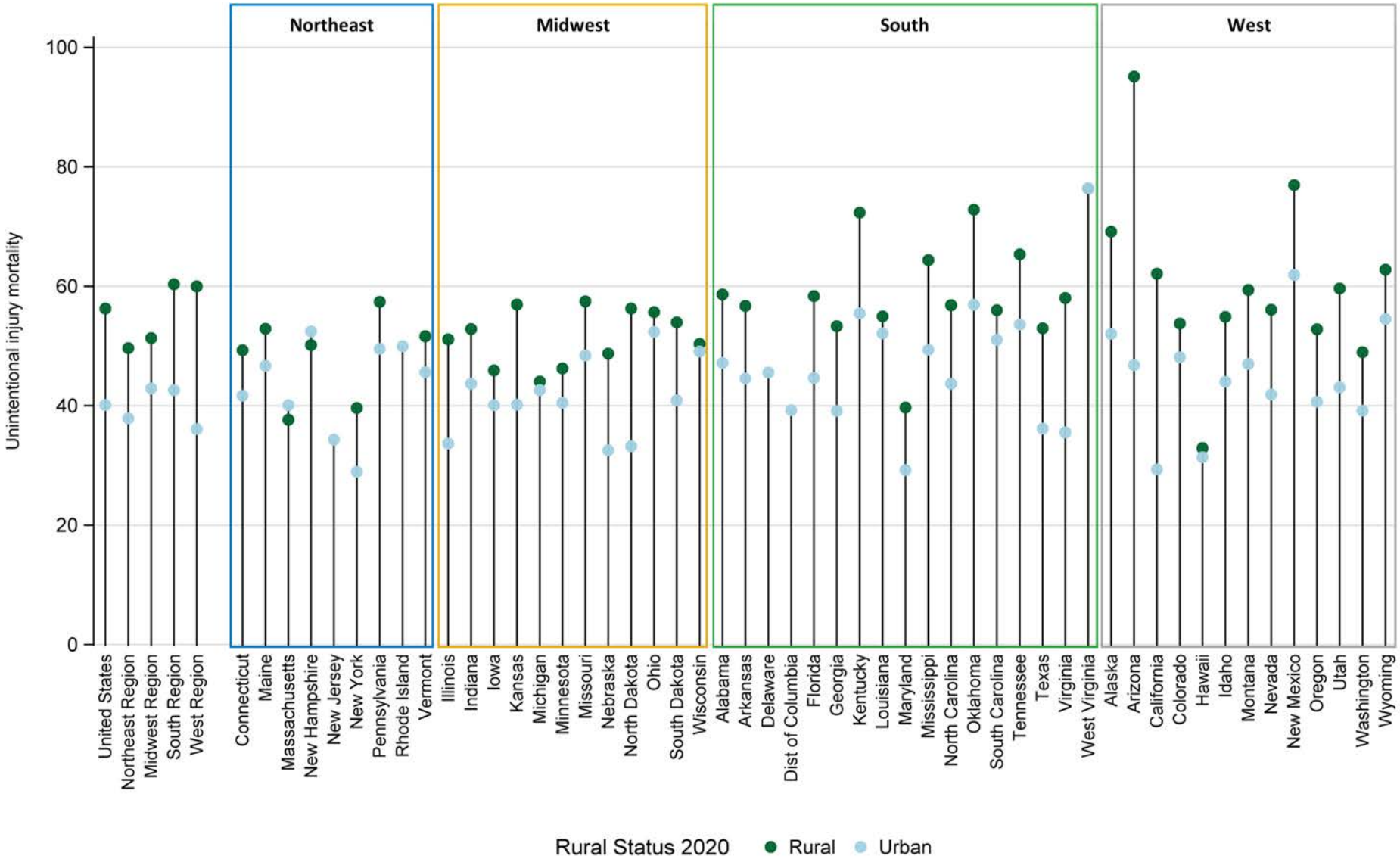
Five-year average all-cause mortality per 100,000 (2012-2016)



Total mortality rates were higher among rural areas relative to urban areas in all Census regions. However, when comparing individual states, several had relatively small rural-urban total mortality rate disparities, including New Hampshire, Nebraska, Wisconsin, Idaho, and Montana. The highest total mortality rates fell among some of the Southern states, including Alabama, Kentucky, and Mississippi.

Unintentional Injury Mortality

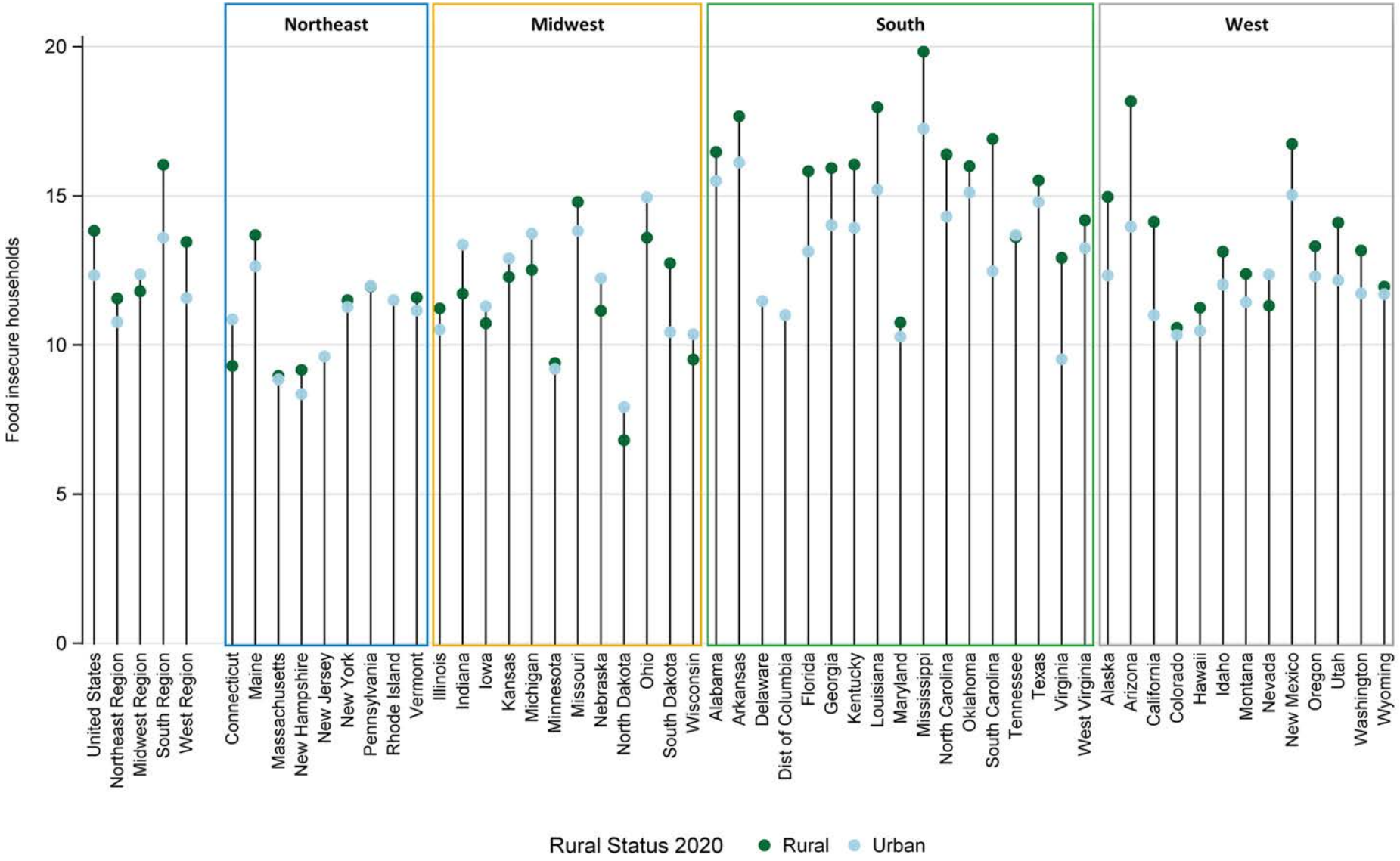
Five-year average unintentional injury mortality per 100,000 (2012-2016)



Unintentional injury mortality rates were higher among rural areas relative to urban areas in all Census regions. When comparing individual states, Arizona had the largest rural-urban disparity in unintentional injury mortality rates.

Food Insecure Households

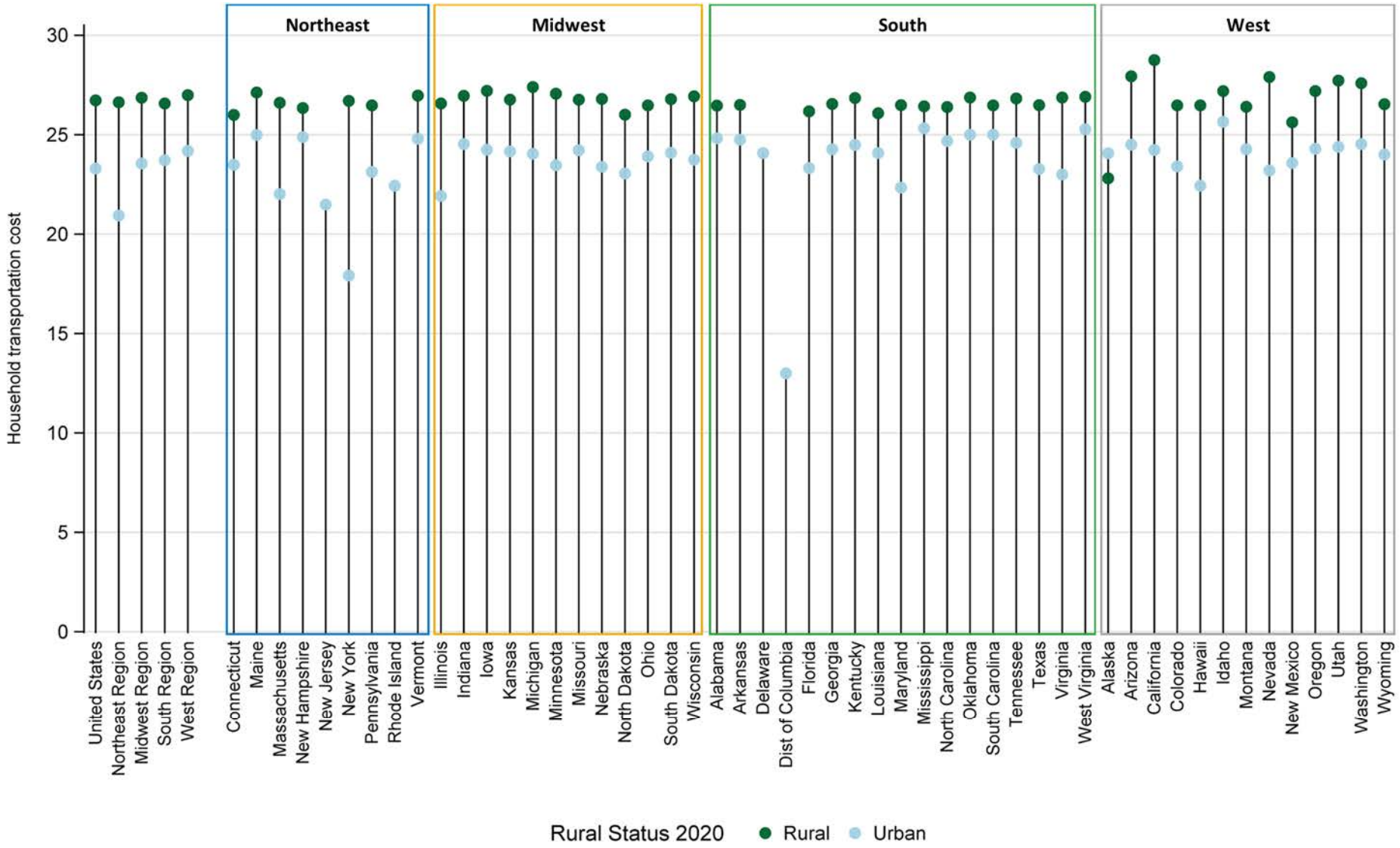
Percentage of households with food insecurity (2015)



Families living in food insecure homes are more likely to be in rural areas in every region except the Midwest. Among Midwestern states, South Dakota had the greatest differences between rural and urban areas.

Household Transportation Cost

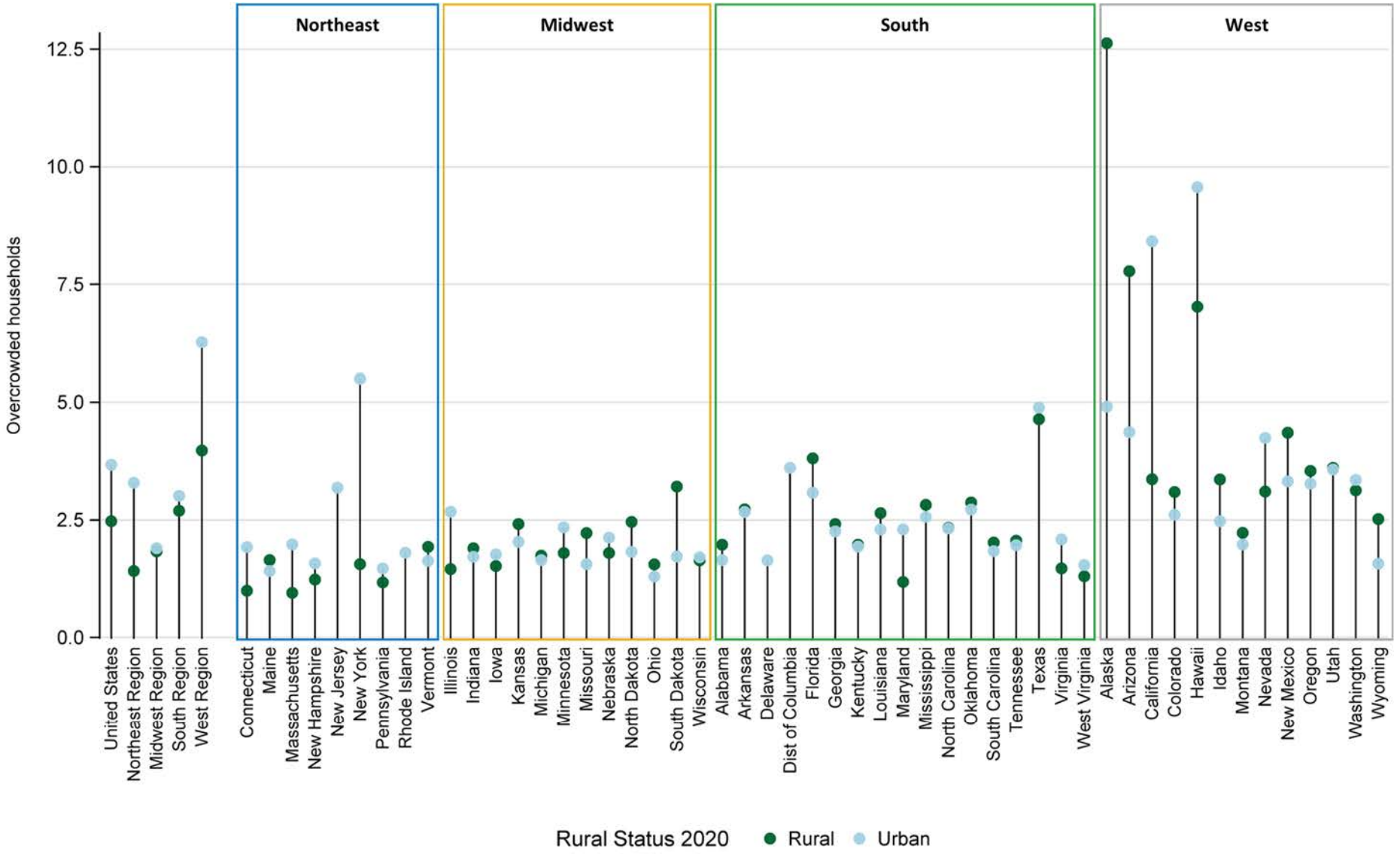
Transportation costs as a percentage of income for the national typical household (2017)



Household transportation costs were higher among rural areas relative to urban areas in all Census regions and every state with rural counties, except Alaska. Rural-urban disparities in transportation costs were largest among the Northeast Census region, with New York having the greatest disparity primarily because the urban mean was lower than other states.

Overcrowded Households

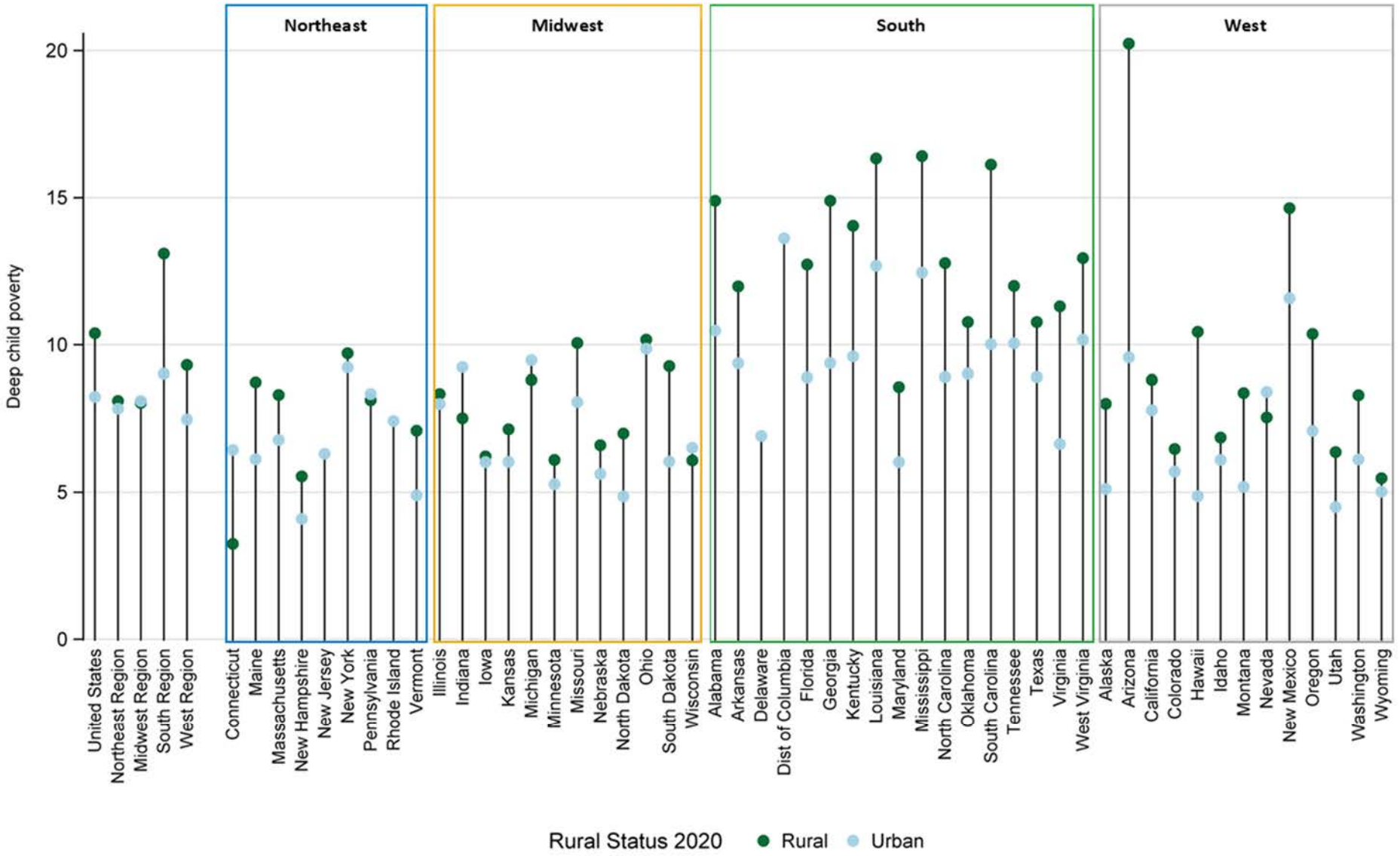
Five-year average percentage of households with more than one person per room (2012-2016)



Overcrowded household rates were higher among urban areas in all Census regions; but rural-urban disparities were greatest in the West. When comparing individual states, Alaska had the largest rural-urban disparity in overcrowded household rates; however, unlike most states, Alaska's rural overcrowded household rate was higher than its urban rate.

Deep Child Poverty

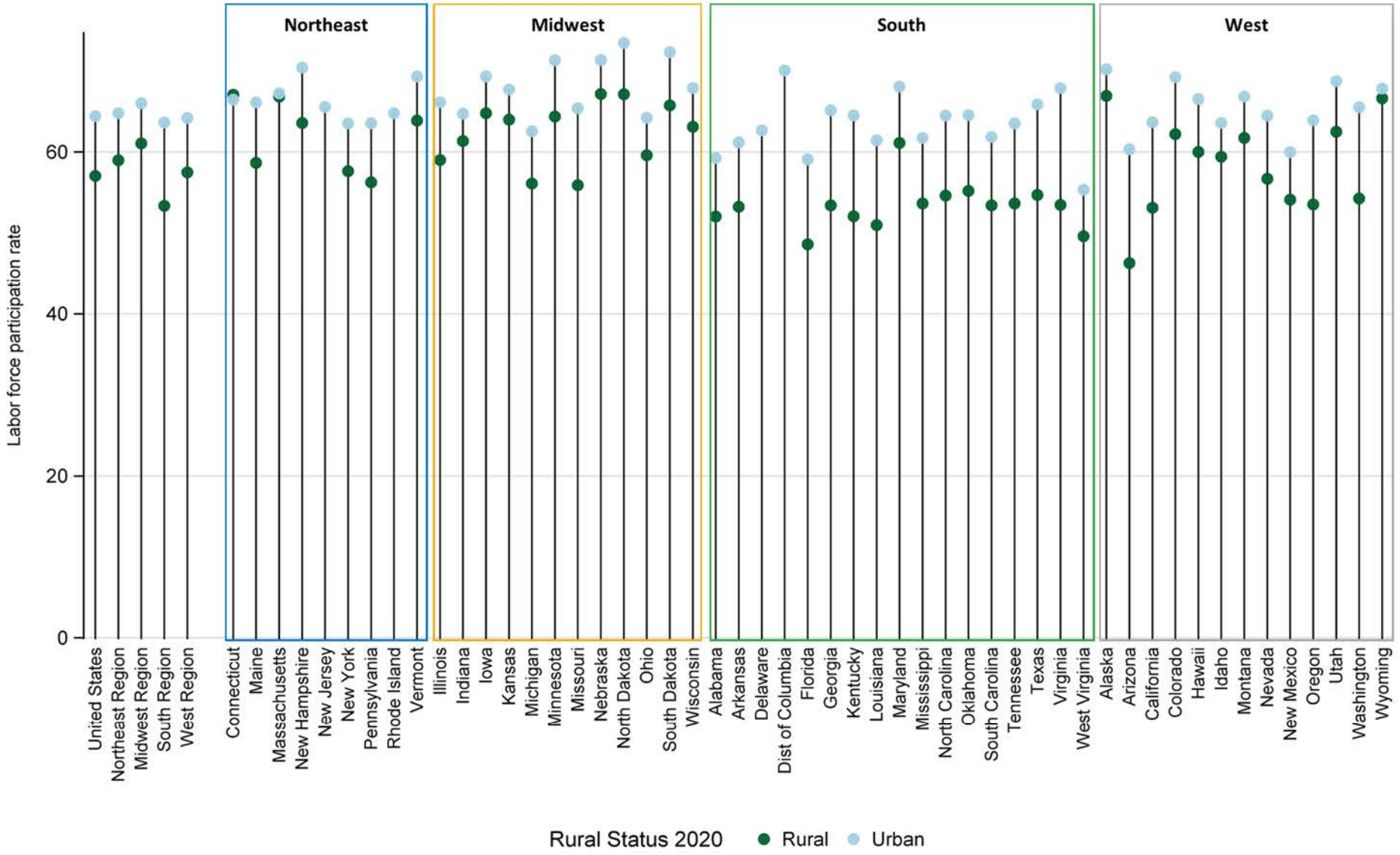
Five-year average percentage of children, ages 0-17, living in households with incomes below 50 percent of the poverty threshold (2011-2015)



Deep child poverty was higher among rural areas in all but one Census region: the Midwest. Overall, the South Census region had the highest child poverty rate and the largest rural-urban disparity. When looking at individual states, rural-urban disparities varied greatly. Relative to other states, Arizona had the largest rural-urban disparity in the child poverty rate.

Labor Force Participation Rate

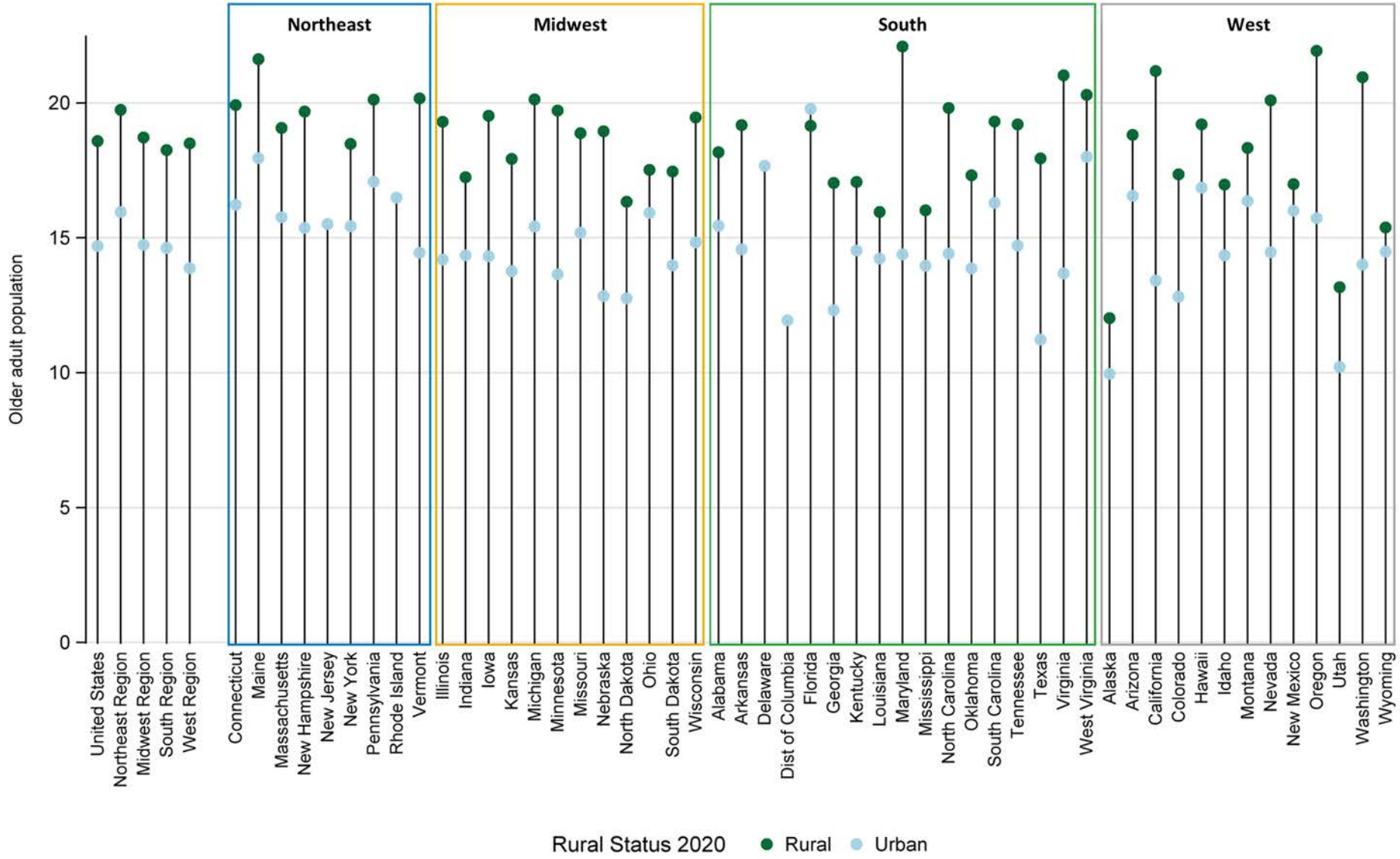
Five-year average percentage of population aged 16 and older who are employed or seeking employment (2011-2015)



Labor force participation rates were higher among urban areas in all four Census regions. The only state with a higher rural participation rate relative to urban areas was Connecticut. Florida and Arizona had the lowest rural rates.

Older Adult Population

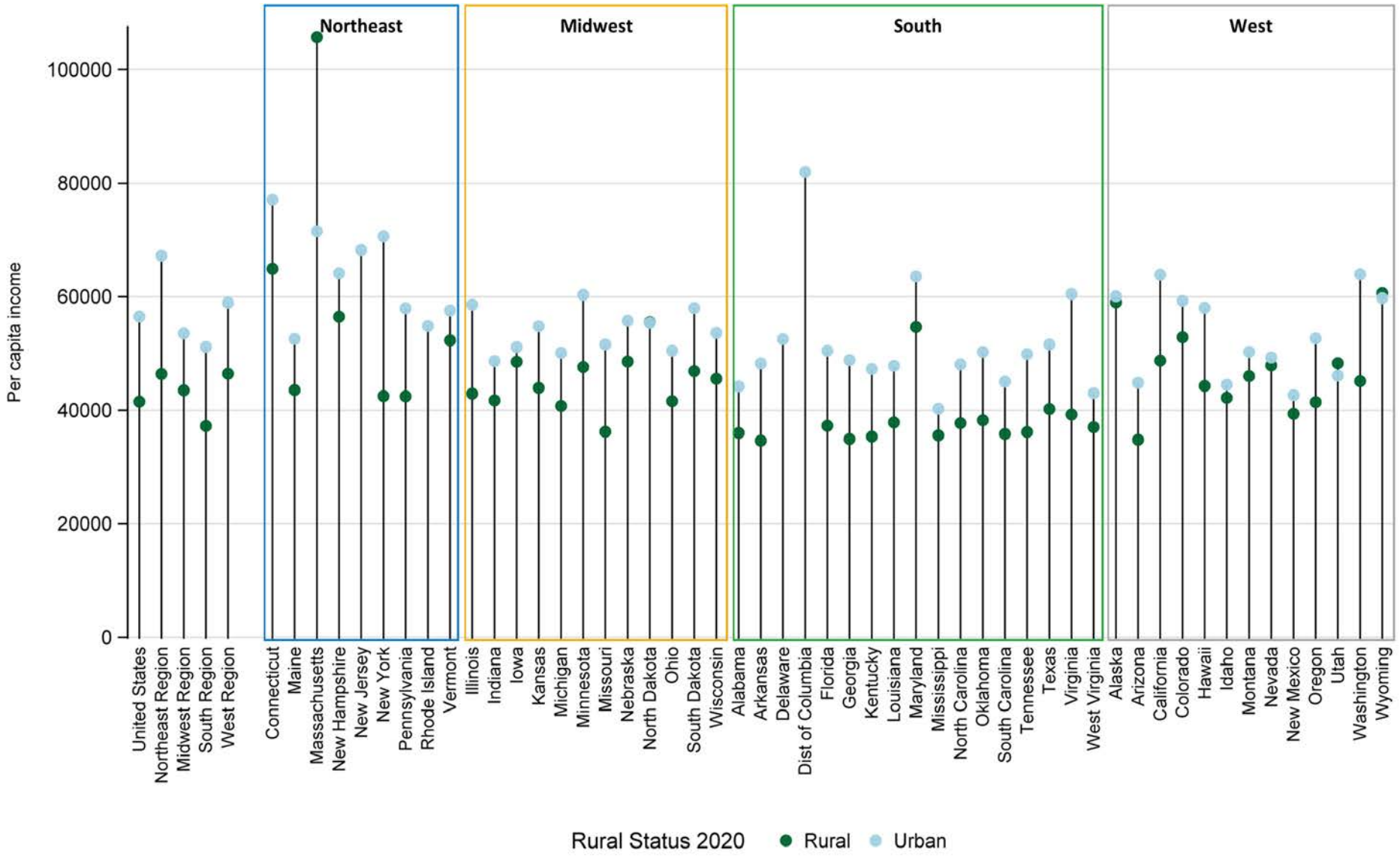
Five-year average percentage of the population that is age 65 or older (2012-2016)



The percentage of older adults was higher among rural areas in all four Census regions. The only state with a higher urban older adult percentage relative to rural areas was Florida. Most states had a sizeable rural-urban disparity.

Per Capita Income

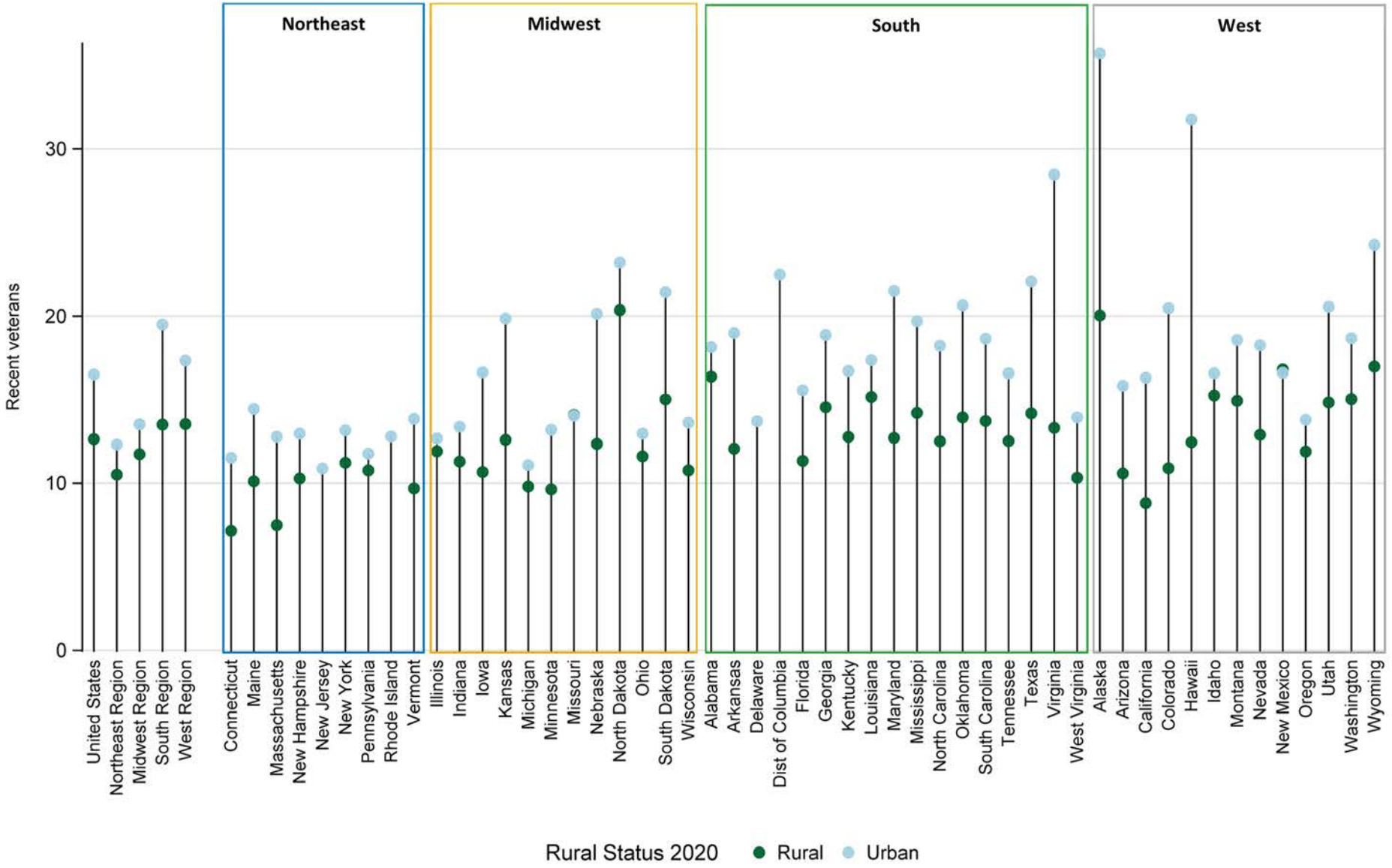
Five-year average household income earned during the previous 12 months (in 2017 inflation-adjusted dollars) divided by the county population (2011-2015)



Per capita income was higher among urban areas in all four Census regions. A few states, including Massachusetts (which only has two rural counties), Utah, and Wyoming (which only has two urban counties), had higher rural per capita income levels compared to urban areas. Southern states had the lowest rural per capita income rates.

Recent Veterans

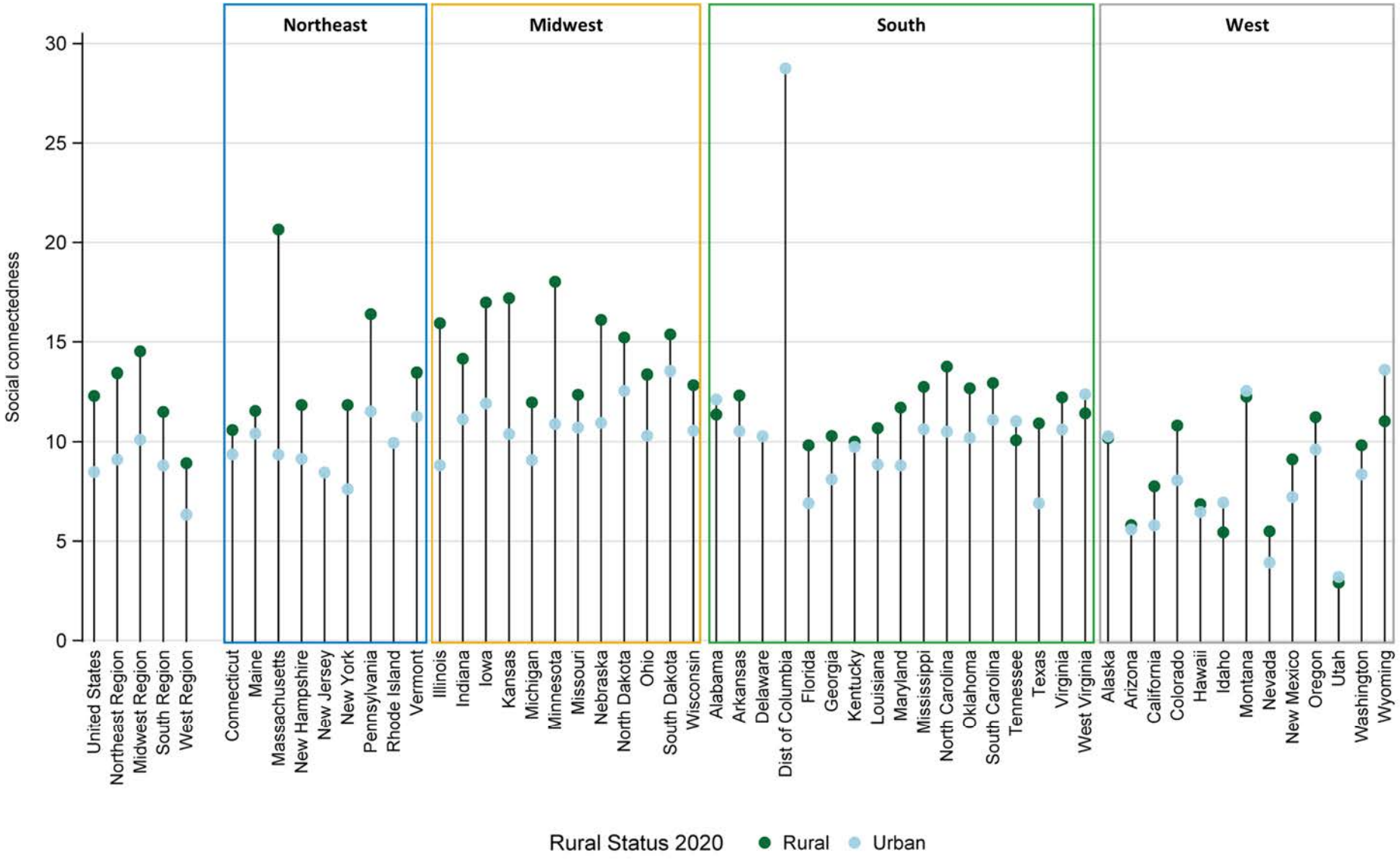
Five-year average percentage of population age 25 and older who gained veteran status since 2001 (2011-2015)



The percentage of recent veterans was higher among urban areas in all four Census regions. The only state with a higher rural recent veteran percentage relative to urban areas was New Mexico. Among all states, North Dakota and Alaska had the highest rural rate of recent veterans.

Social Connectedness

Five-year average percentage of the population participating in activities / groups (2011-2015)



Social connectedness rates were higher among rural areas in all four Census regions. Many Western states had low rates of social connectedness for both rural and urban areas. Utah had the lowest rates for both rural and urban.

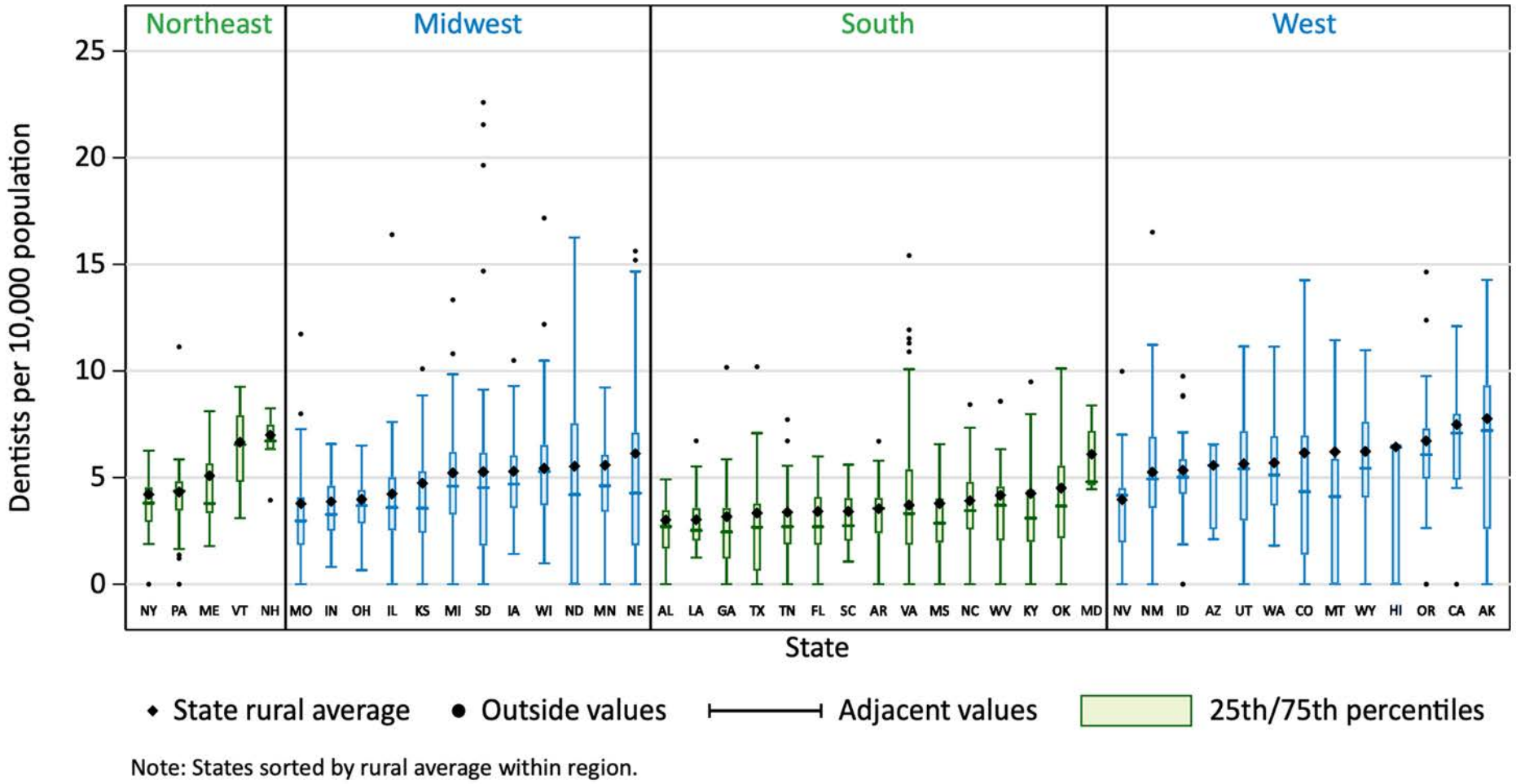
Census Region Overview Charts

Definitions and Data Sources

How to Read the Charts

Dentist Supply

Dentists per 10,000 population (2016)



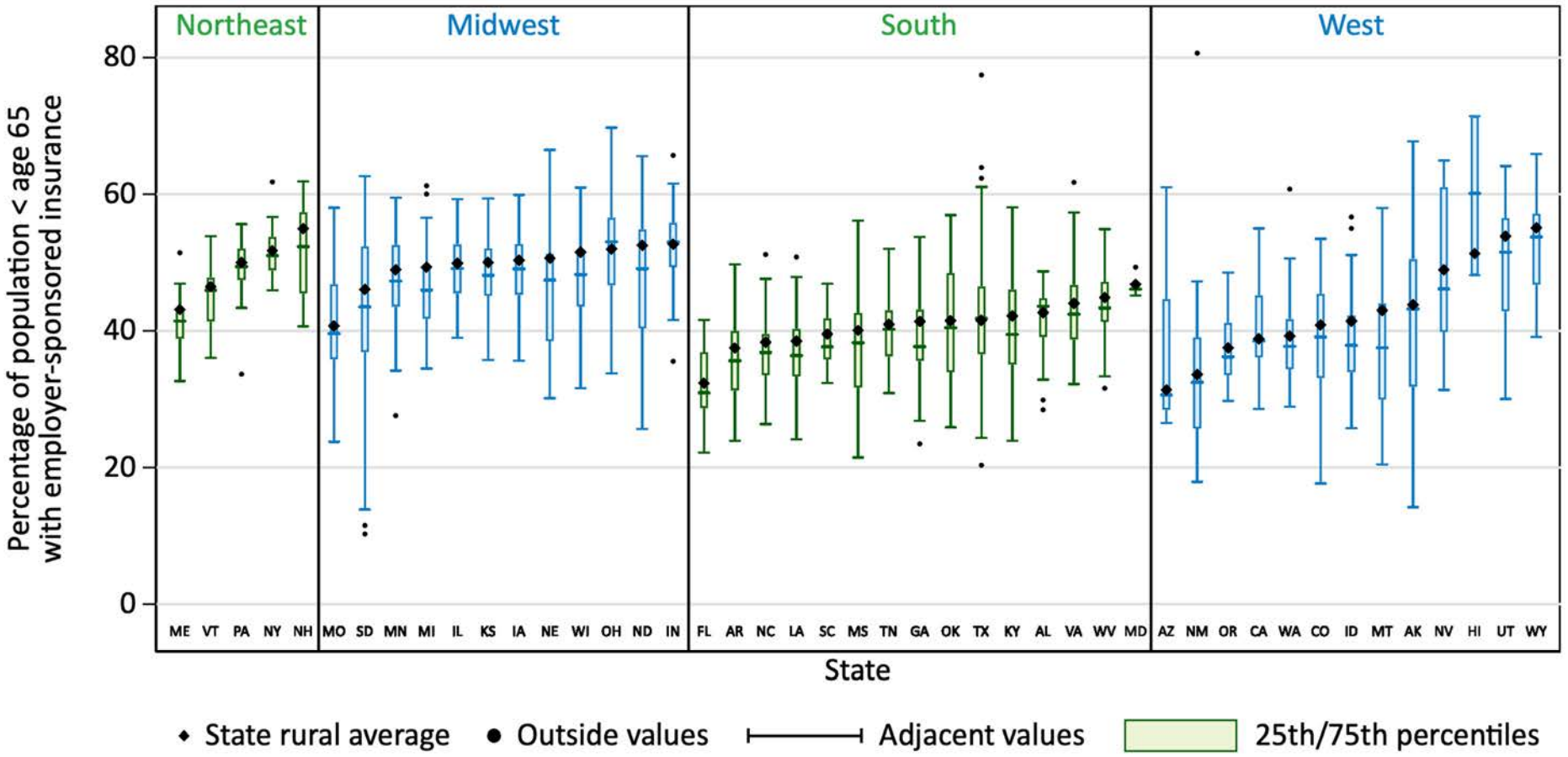
Note: States sorted by rural average within region.

Generally, Southern states had lower average rural dentist supply rates compared to other regions. Among the South, all but one state had an average rural dentist supply rate of less than five dentists per 10,000. Comparatively, only two states in the Northeast, five states in the Midwest, and one state in the West had values below this rate. Within the Northeast, Midwest, South, and West, the states with the highest average rural dentist supply rates were New Hampshire, Nebraska, Maryland, and Alaska, respectively. The states with the lowest average rural dentist supply rates were New York, Missouri, Alabama, and Nevada, respectively.

Rural/Urban National Averages

Employer-Sponsored Insurance

Five-year average percentage of the population less than age 65 with employer-sponsored insurance (2012-2016)



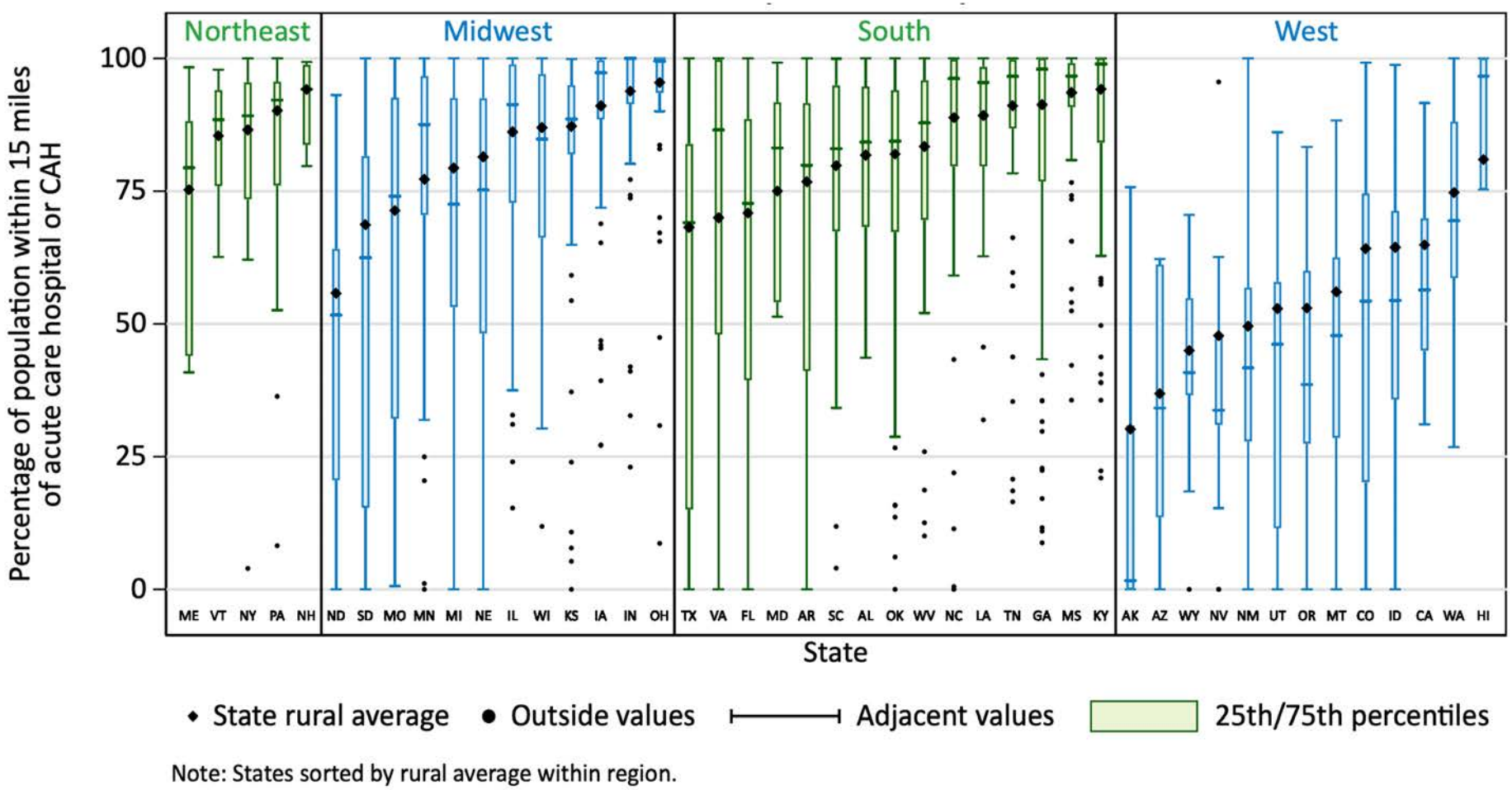
Note: States sorted by rural average within region.

The figure shows that generally, Southern and Western states had lower average rural employer-sponsored insurance rates. Within the South and West, six states and five states had average rural employer-sponsored insurance rates at or below 40%. Comparatively, no states in the Northeast or Midwest had average rural employer-sponsored insurance rates below this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural employer-sponsored insurance rates were New Hampshire, Indiana, Maryland, and Wyoming, respectively. The states with the lowest average rural employer-sponsored insurance rates were Maine, Missouri, Florida, and Arizona.

Rural/Urban National Averages

Hospital Nearby

Percentage of the population within 15 miles of an acute care hospital or CAH (2016)



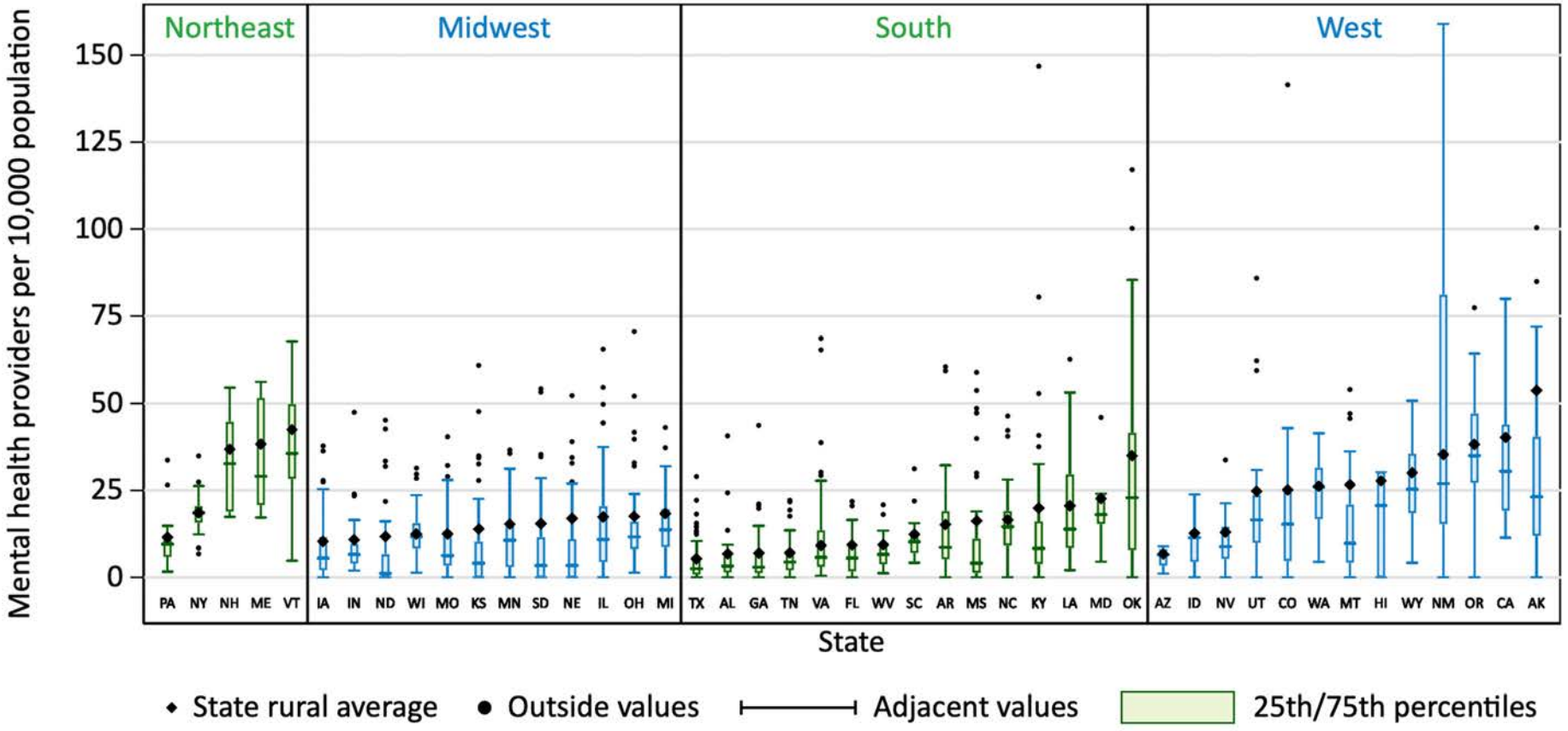
Note: States sorted by rural average within region.

There were fewer nearby hospitals in the West compared to other regions. Most of the Western states had average rural hospital nearby rates below 75%, but among the Northeast, Midwest, and South, most states had average rural hospital nearby rates at or above 75%. Within the Northeast, Midwest, South, and West, the states with the highest average rural hospital nearby rates were New Hampshire, Ohio, Kentucky, and Hawaii, respectively. The states with the lowest average rural hospital nearby rates were Maine, North Dakota, Texas, and Alaska, respectively. Some states had wide ranges.

Rural/Urban National Averages

Mental Health Care Provider Supply

Mental health care providers per 10,000 population (2016)



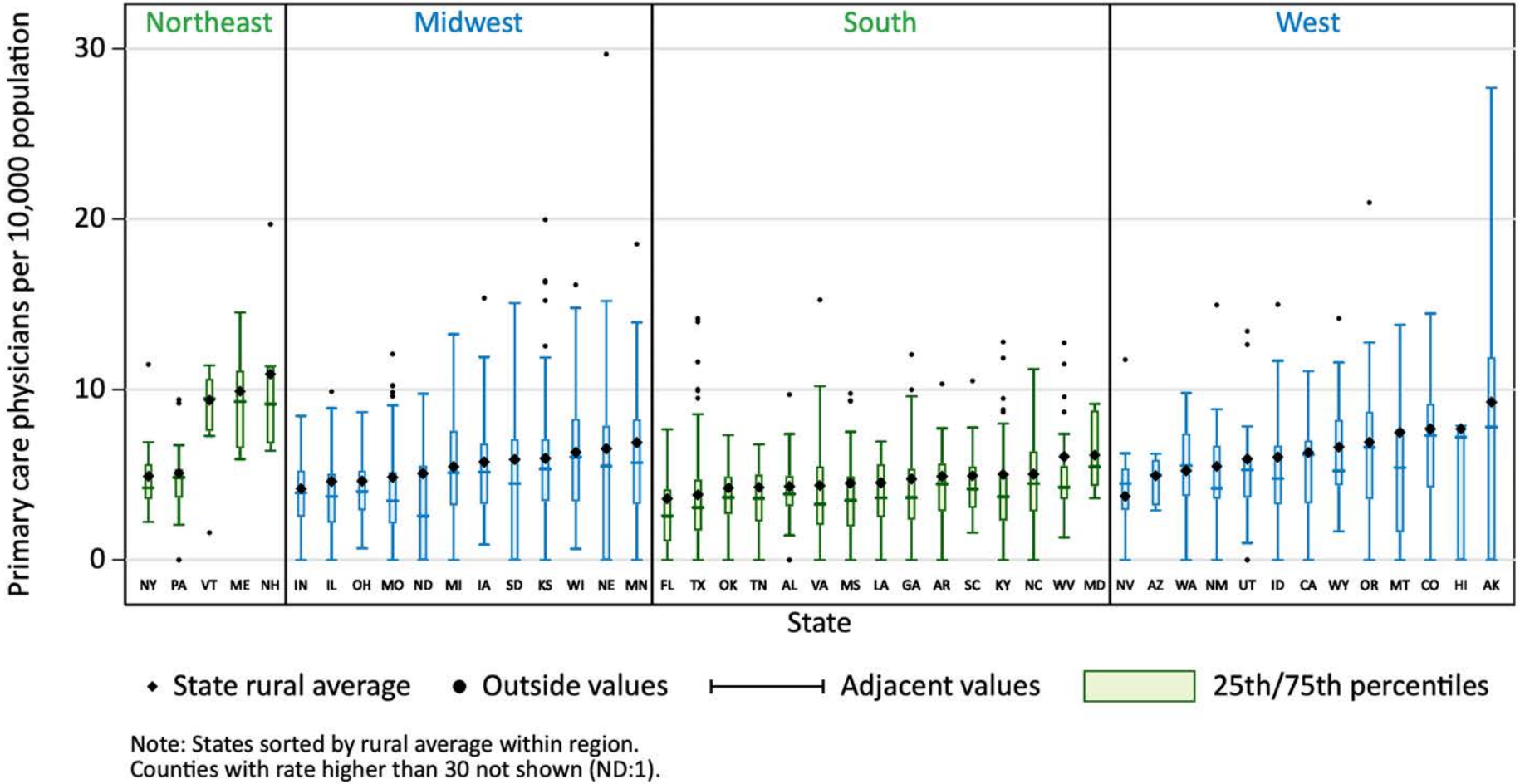
Note: States sorted by rural average within region.
Counties with rate higher than 150 not shown (AK:2, KY:1, NM:1).

Southern and Midwestern states had lower average rural mental health provider supply rates relative to other regions, with most states having between 0 to 25 mental health providers per 10,000. Comparatively, roughly half the states in the Northeast and West had average rural values within this range. Within the Northeast, Midwest, South, and West, the states with the highest average rural mental health providers were Vermont, Michigan, Oklahoma, and Alaska, respectively. The states with the lowest average rural mental health provider rates were Pennsylvania, Iowa, Texas, and Arizona, respectively.

Rural/Urban National Averages

Physician Supply

Primary care physicians per 10,000 population (2016)



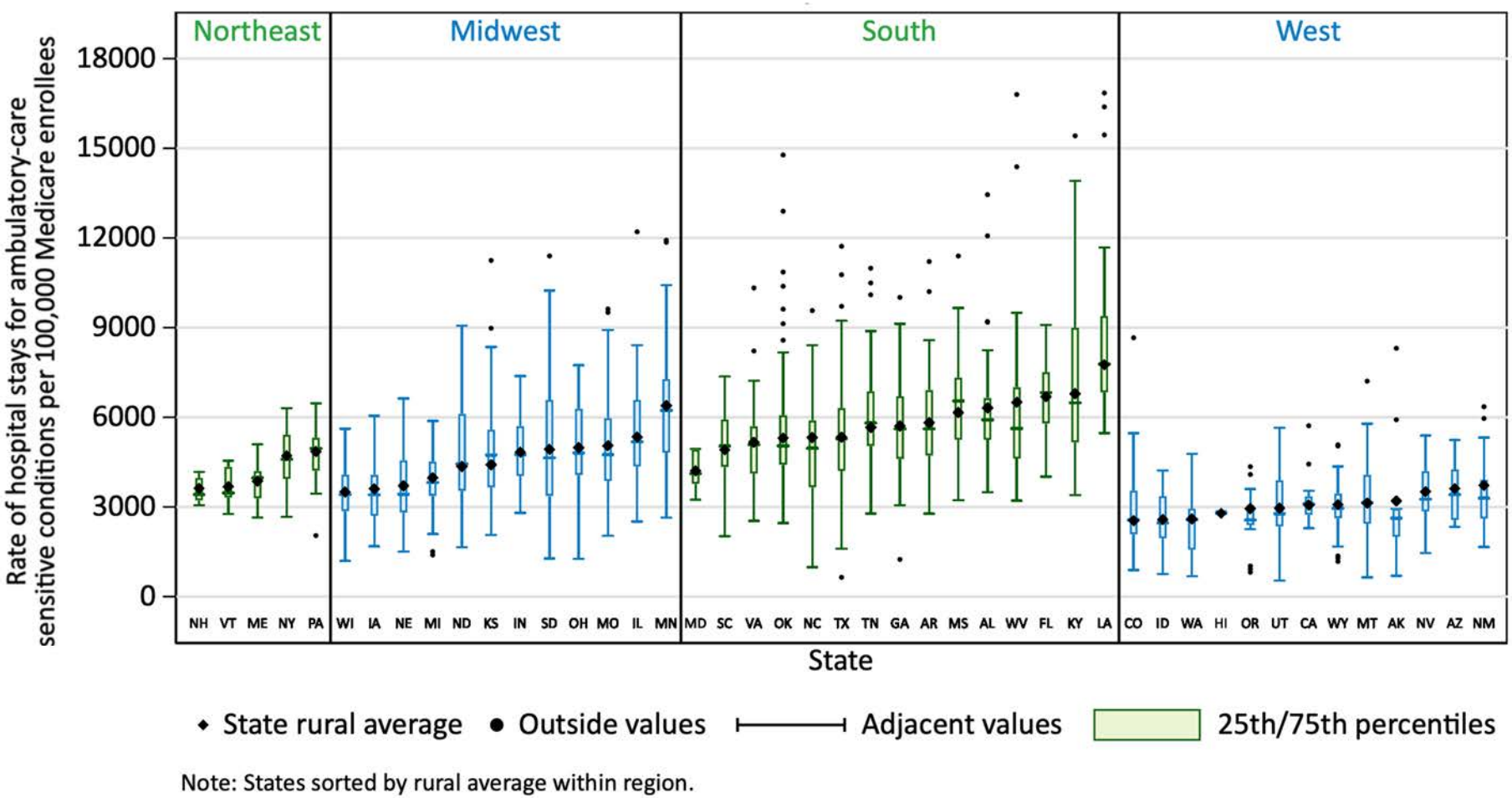
Note: States sorted by rural average within region.
Counties with rate higher than 30 not shown (ND:1).

The average rural primary care physician availability levels were generally highest in the Northeast. Only two states, Maine and New Hampshire, had average rural primary care physician availability rates at or above nine primary care providers per 10,000. Comparatively, all other states had average rural primary care physician availability levels below nine providers per 10,000. Within the Northeast, Midwest, South, and West, the states with the highest average rural primary care physician availability rates were New Hampshire, Minnesota, Maryland, and Alaska, respectively. The states with the lowest average rural primary care physician availability rates were New York, Indiana, Florida, and Nevada, respectively.

Rural/Urban National Averages

Preventable Hospital Admissions

Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees (2016)



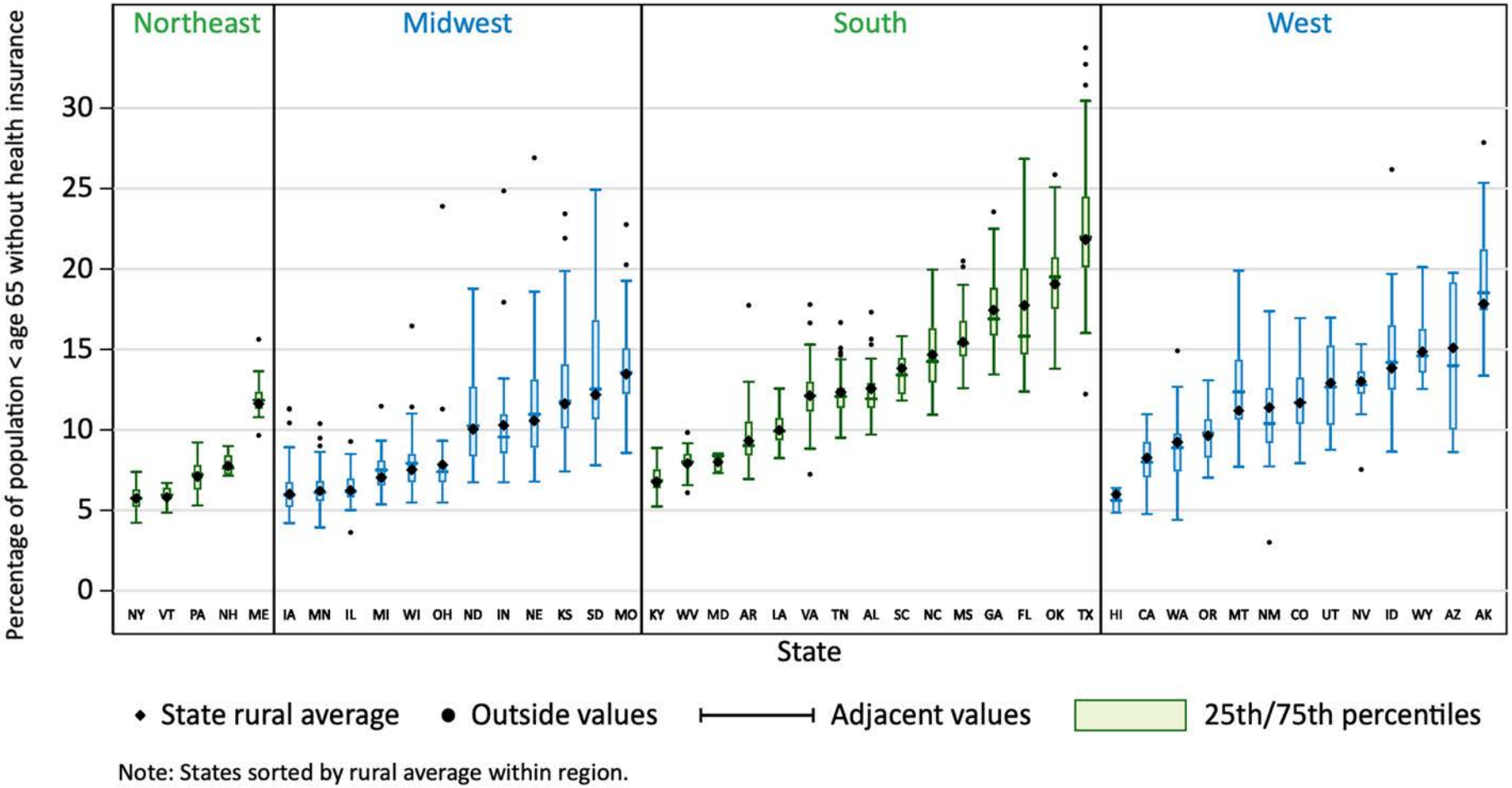
Note: States sorted by rural average within region.

Overall, Southern states had higher average rural preventable hospital admissions rates relative to other regions. Within the South, six of the 15 states had average rural preventable hospital admissions rates above 6,000 admissions per 100,000 Medicare enrollees. Comparatively, among the Northeast, Midwest, and West, only one state had average rural preventable hospital admissions rates above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural preventable hospital admissions rates were Pennsylvania, Minnesota, Louisiana, and New Mexico, respectively. The states with the lowest average rural preventable hospital admissions rates were New Hampshire, Wisconsin, Maryland, and Colorado, respectively.

Rural/Urban National Averages

Uninsured

Percentage of the population under age 65 without health insurance (2016)



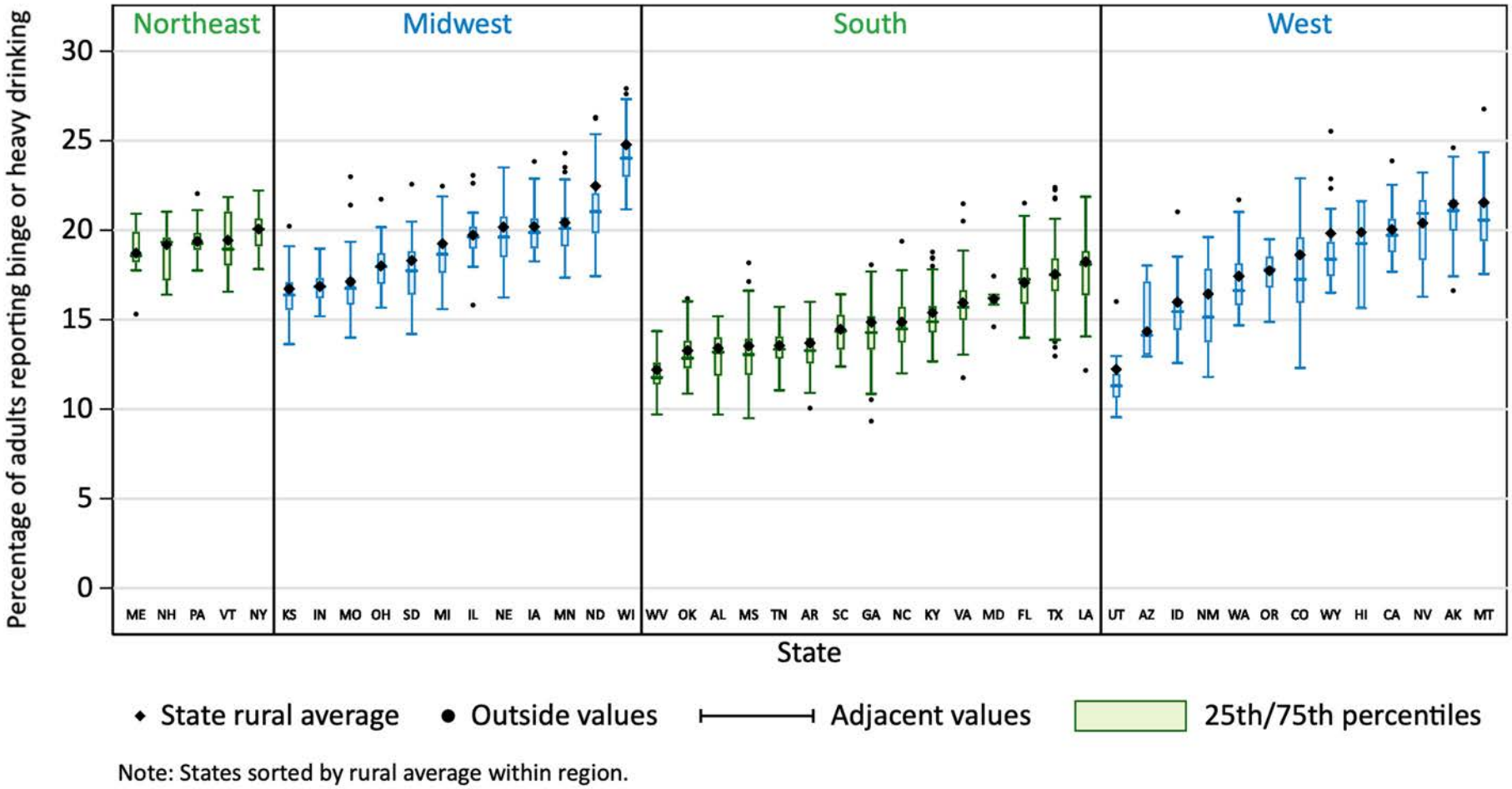
Note: States sorted by rural average within region.

The average rural uninsured rates were generally highest in the South. Among Southern states, five of the 15 states had average rural uninsured rates above 15%. Comparatively, among the Northeast, Midwest, and West combined, only four states had average rural uninsured percentages at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural uninsured percentages were Maine, Missouri, Texas, and Alaska, respectively. The states with the lowest average rural uninsured percentages were New York, Iowa, Kentucky, and Hawaii, respectively.

Rural/Urban National Averages

Excessive Alcohol Use

Percentage of adults reporting binge or heavy drinking (2014)



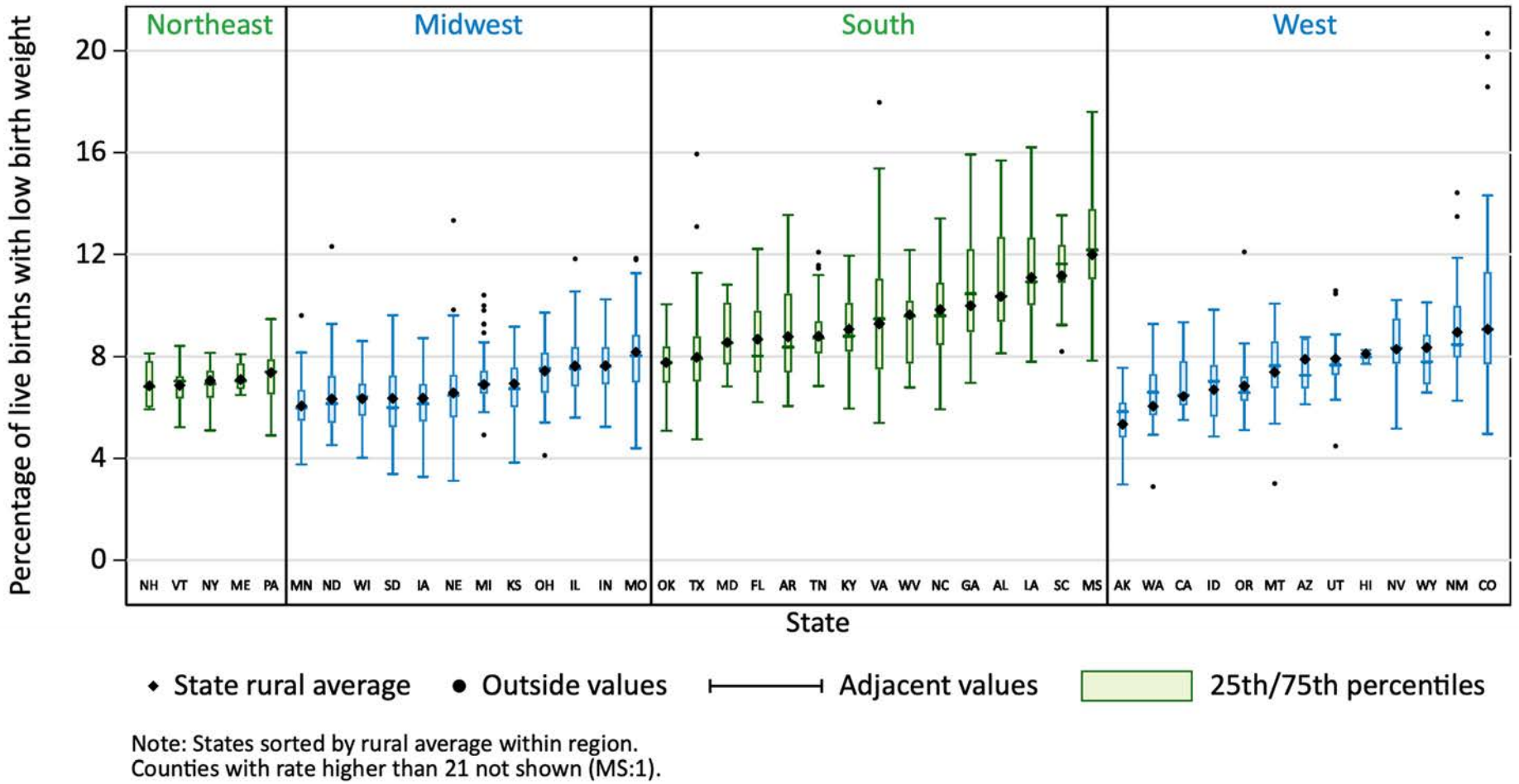
Note: States sorted by rural average within region.

Southern states had the lowest average rural percentage of excessive alcohol use. Within the South, no states had average rural excessive alcohol use rates above 20%. Comparatively, five Midwestern states and four Western states had average rural excessive alcohol use rates at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural excessive alcohol use rates were New York, Wisconsin, Louisiana, and Montana, respectively. The states with the lowest average rural excessive alcohol use rates were Maine, Kansas, West Virginia, and Utah, respectively.

Rural/Urban National Averages

Low Birth Weight

Five-year average percentage of live births with low birthweight (less than 2,500 grams) (2010-2016)



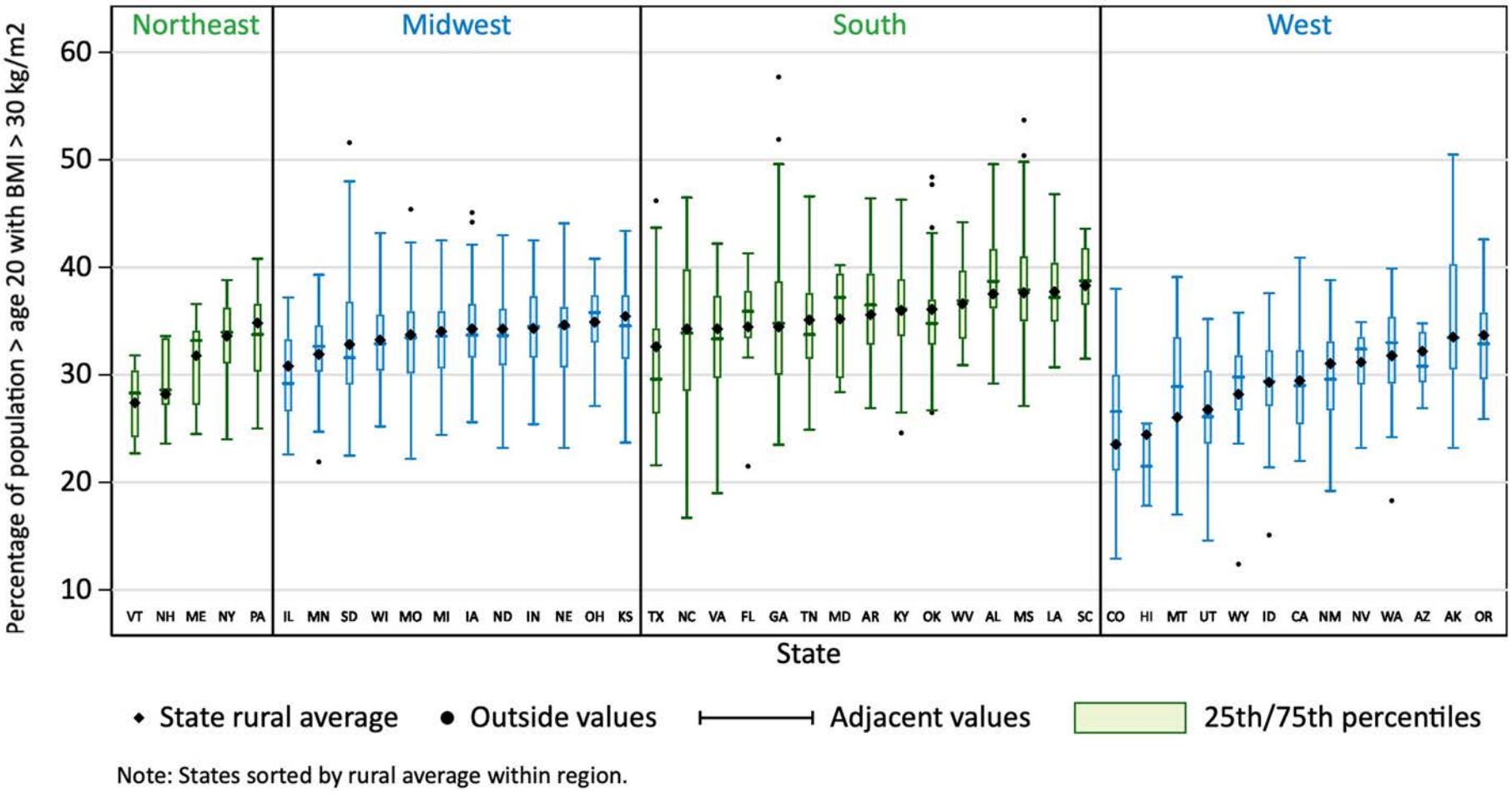
Note: States sorted by rural average within region.
Counties with rate higher than 21 not shown (MS:1).

Southern states generally had higher average rural low birth weight percentages relative to other regions. Within the South, all but two states had average rural low birth weight percentages above eight percent. Comparatively, one state in the Midwest and five states in the West had values above this percentage. Within the Northeast, Midwest, South, and West, the states with the highest average rural low birth weight percentages were Pennsylvania, Missouri, Mississippi, and Colorado, respectively. The states with the lowest average rural low birth weight percentages were New Hampshire, Minnesota, Oklahoma, and Alaska, respectively.

Rural/Urban National Averages

Obesity

Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2 (2015)



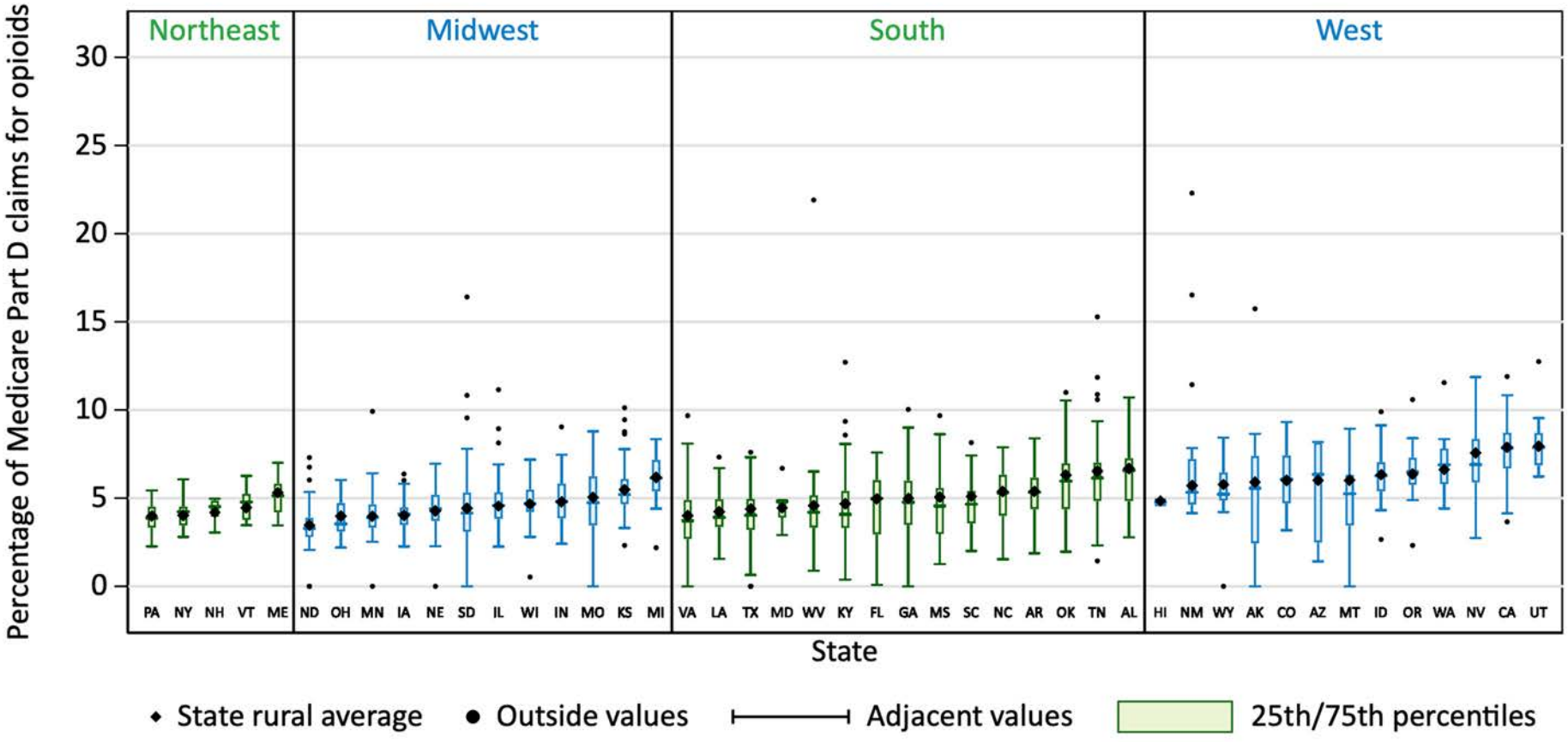
Note: States sorted by rural average within region.

Western states generally had lower average rural obesity rates relative to other regions. Within the West, seven of the 13 states had obesity rates below 30%. Comparatively, all states within the Midwest and South regions had average rural obesity rates above 30%. Within the Northeast, Midwest, South, and West, the states with the highest average rural obesity percentages were Pennsylvania, Kansas, South Carolina, and Oregon, respectively. The states with the lowest average rural obesity percentages were Vermont, Illinois, Texas, and Colorado, respectively.

Rural/Urban National Averages

Opioid Prescription

Three-year average percentage of Medicare Part D claims that are for opioids (2013-2015)



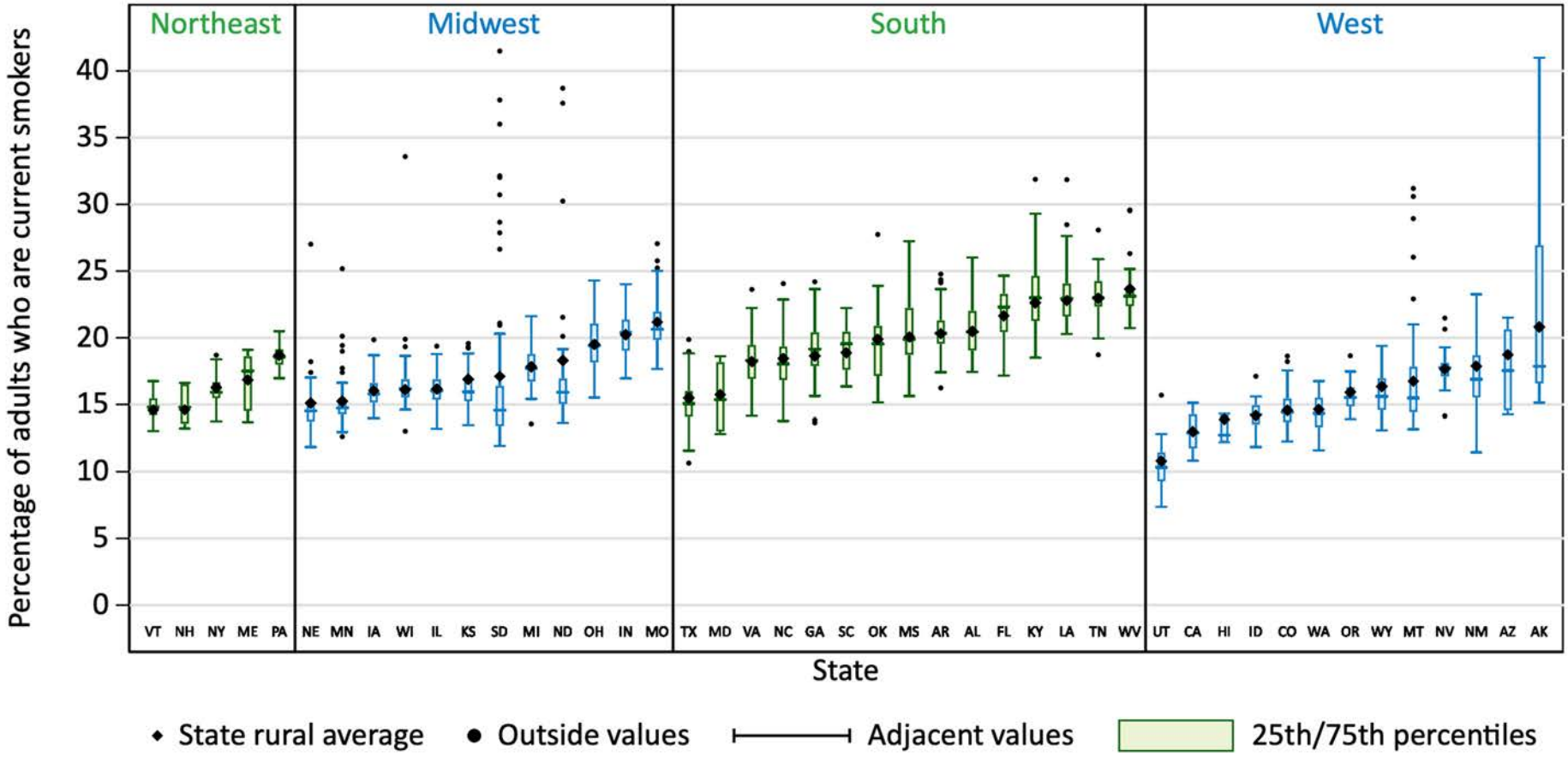
Note: States sorted by rural average within region.
Counties with rate higher than 30 not shown (TX:1).

The average rural percentage of Medicare claims prescribed for opioids was highest in the West and South. Five of the 15 Southern states and all but one Western state had more than five percent of claims written for opioids. Comparatively, only one state in the Northeast and two states in the Midwest had prescription rates at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural percentage of claims written for opioids were Maine, Michigan, Alabama, and Utah, respectively. The states with the lowest average rural percentage of claims written for opioids were Pennsylvania, North Dakota, Virginia, and Hawaii, respectively.

Rural/Urban National Averages

Smoking

Percentage of adults who are current smokers (2016)



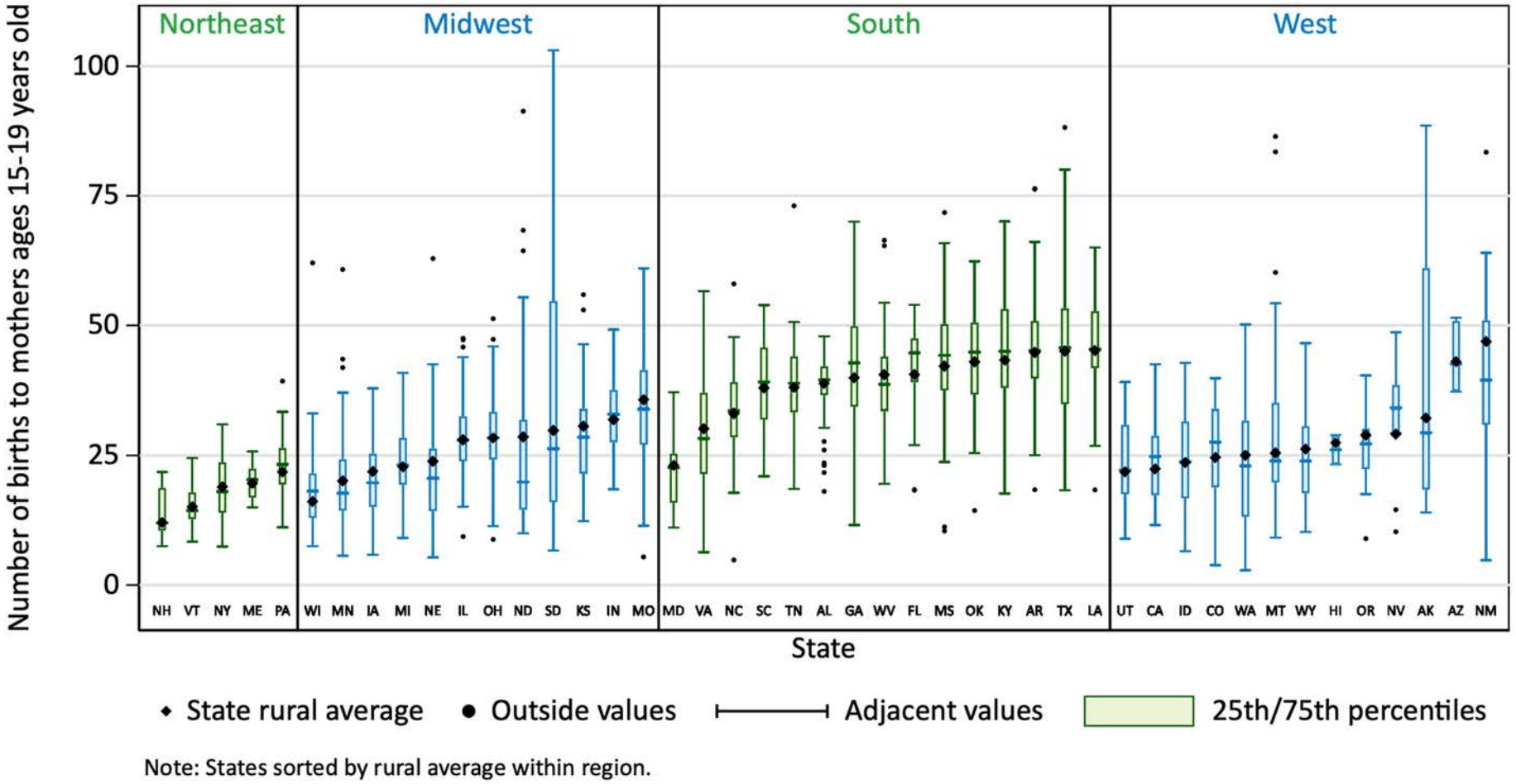
Note: States sorted by rural average within region.

The average rural percentage of adult smokers was highest among Southern states relative to other regions. Of the 15 Southern states, more than half had average rural adult smoker percentages of 20% or higher. Comparatively, only two states in the Midwest and one state in the West had average rural adult smoker percentages above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural adult smoker percentages were Pennsylvania, Missouri, West Virginia, and Alaska, respectively. The states with the lowest average rural adult smoker percentages were Vermont, Nebraska, Texas, and Utah, respectively.

Rural/Urban National Averages

Teen Pregnancy

Seven-year average number of births per 1,000 females ages 15-19 (2010-2016)



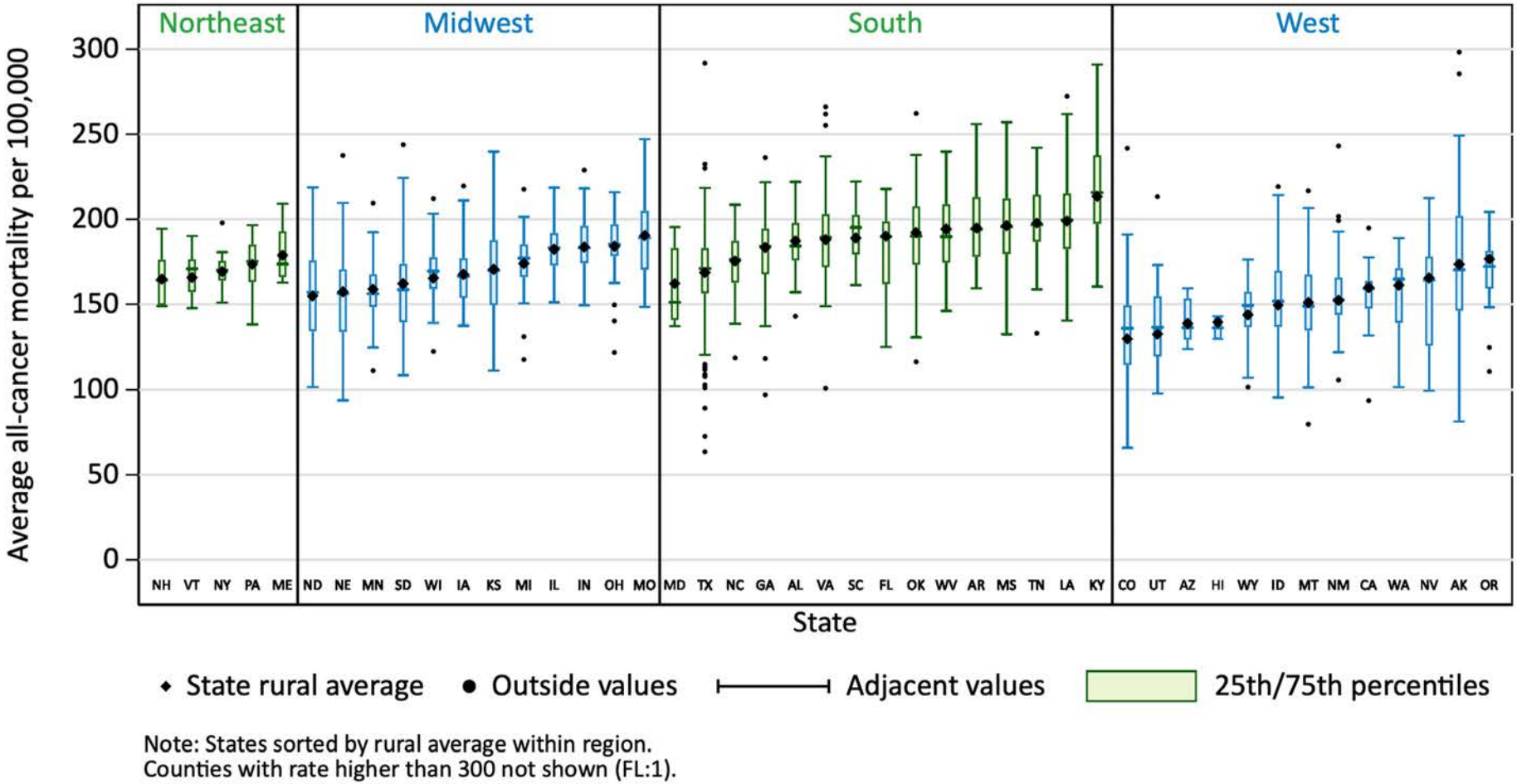
Note: States sorted by rural average within region.

Generally, Southern states had higher average rural teenage pregnancy rates relative to other regions. In the South, all but one state – Maryland – had an average rural teenage pregnancy rate of 25 births or more per 1,000 15-19-year-old females. Comparatively, no states in the Northeast had an average rural teenage pregnancy rate of 25, while roughly half the states in the Midwest and West regions had teenage pregnancy rates above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural teenage pregnancy rates were Pennsylvania, Missouri, Louisiana, and New Mexico, respectively. The states with the lowest average rural teenage pregnancy rates were New Hampshire, Wisconsin, Maryland, and Utah, respectively.

Rural/Urban National Averages

Cancer Mortality

Five-year average all-cancer mortality per 100,000 (2012-2016)



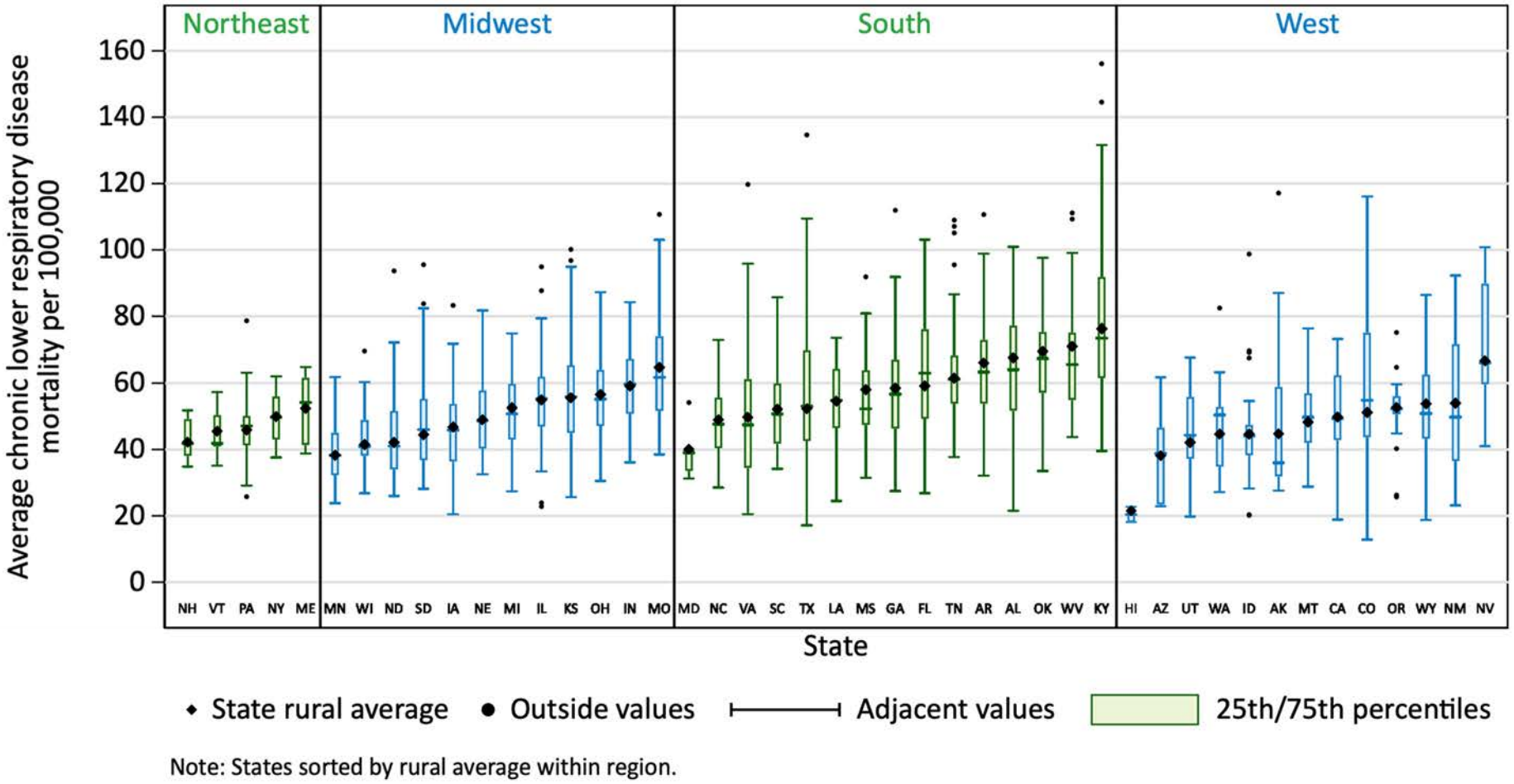
Note: States sorted by rural average within region.
Counties with rate higher than 300 not shown (FL:1).

Cancer mortality rates were generally lowest in the West. Among Western states, five had an average rural cancer mortality below 150 deaths per 100,000. Comparatively, among the Northeast, Midwest, and South, no states had an average rural cancer mortality rate below this value. Within the Northeast, Midwest, South, and West, the states with highest average rural cancer mortality rates were Maine, Missouri, Kentucky, and Oregon, respectively. The states with the lowest average rural cancer mortality rates were New Hampshire, North Dakota, Maryland, and Colorado, respectively.

Rural/Urban National Averages

Chronic Lower Respiratory Disease Mortality

Five-year average chronic lower respiratory disease mortality per 100,000 (2012-2016)



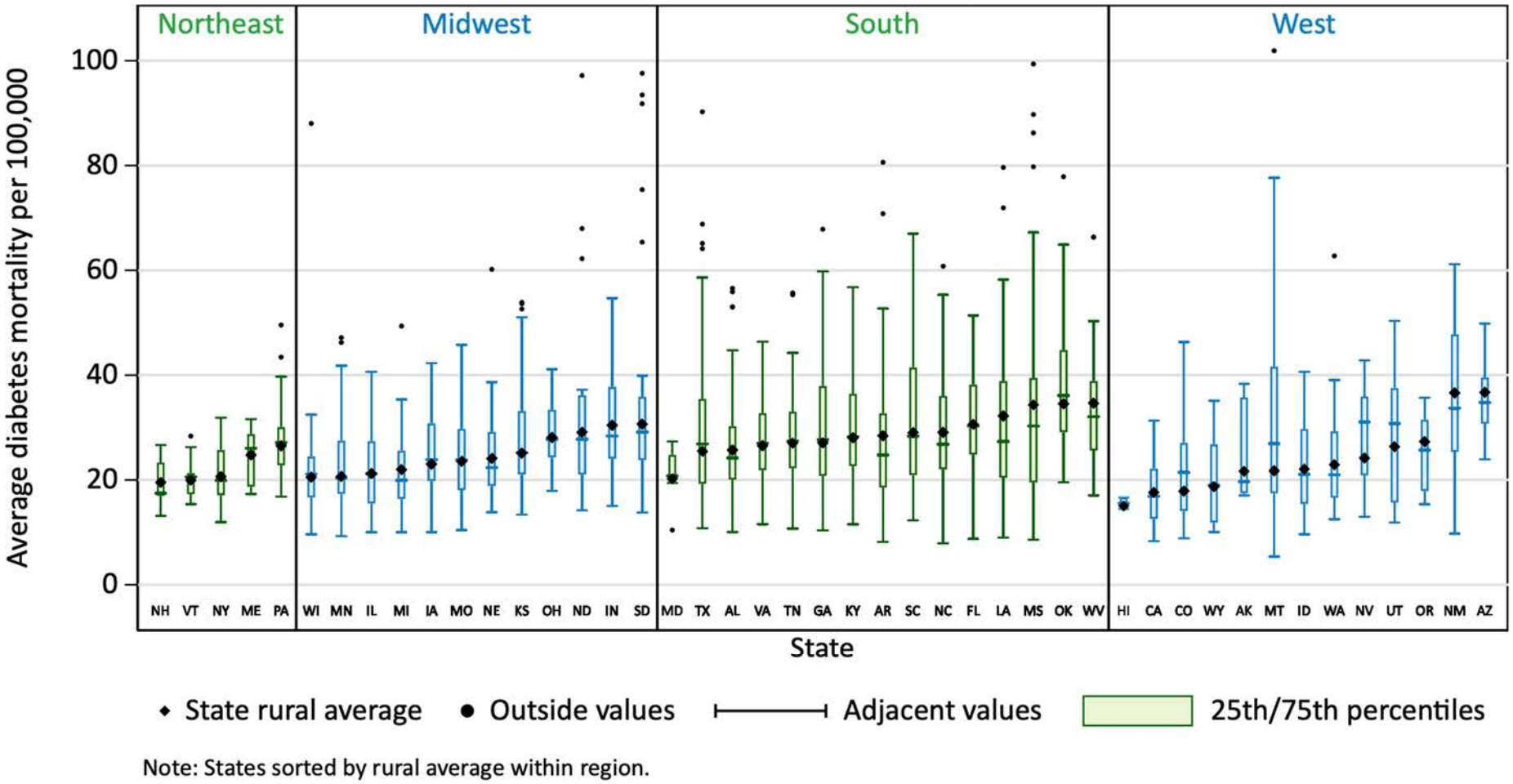
Note: States sorted by rural average within region.

Southern states had higher average rural mortality rates per 100,000 for chronic lower respiratory disease relative to other regions. Among the South, six of the 15 states had average rural mortality rates above 60 deaths per 100,000 for chronic lower respiratory disease. Comparatively, only one state in the Midwest and one state in the West had average rural mortality rates above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural chronic lower respiratory disease mortality rates were Maine, Missouri, Kentucky, and Nevada, respectively. The states with the lowest average rural chronic lower respiratory disease mortality rates were New Hampshire, Minnesota, Maryland, and Hawaii, respectively.

Rural/Urban National Averages

Diabetes Mortality

Five-year average diabetes mortality per 100,000 (2012-2016)



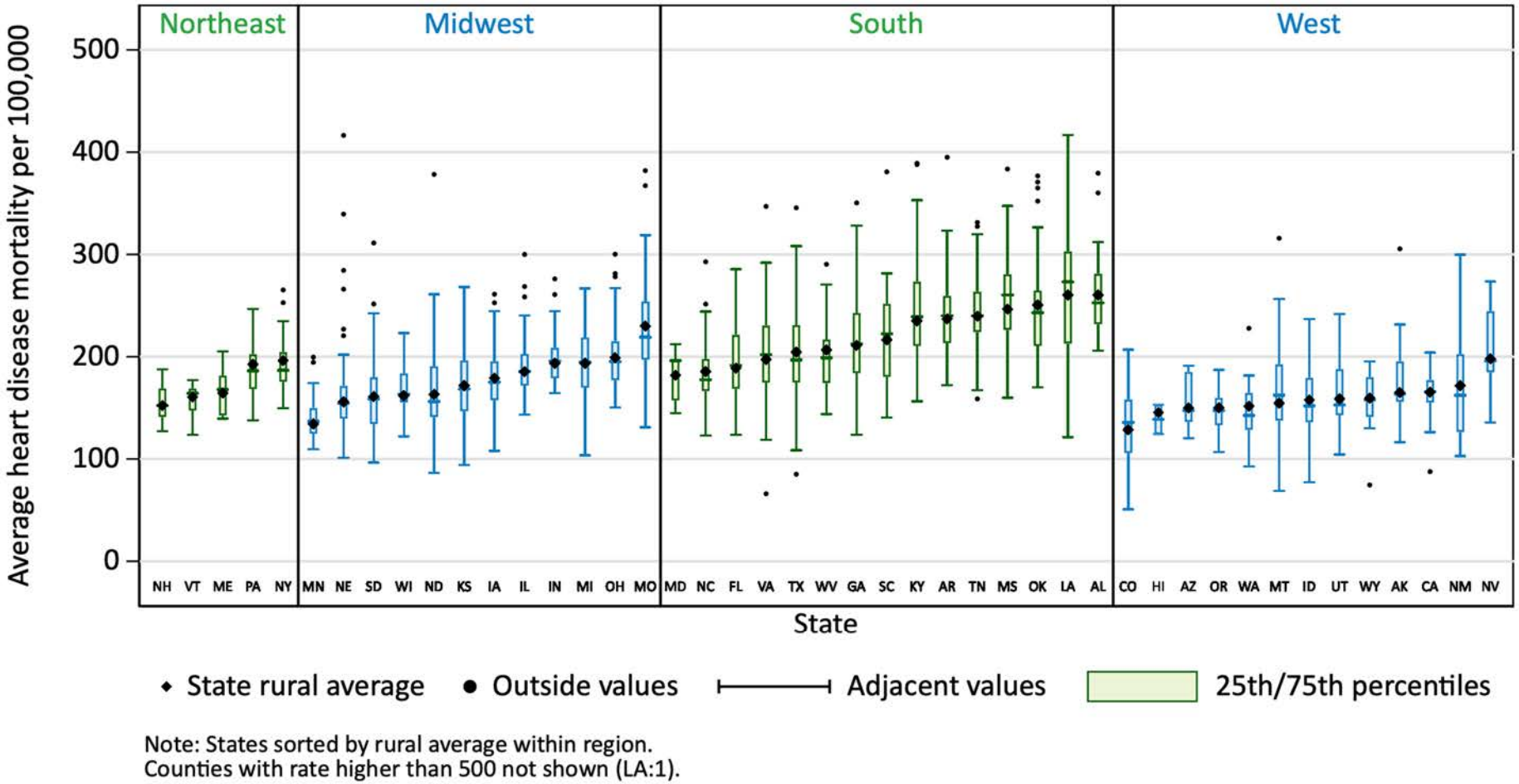
Note: States sorted by rural average within region.

Southern states had higher average rural mortality rates for diabetes compared to other regions. Within the South, all states had average rural mortality rates of 20 per 100,000 or higher, with several states having average rural mortality rates close to 40 deaths per 100,000. Within the Northeast, Midwest, South, and West, the states with the highest average rural diabetes mortality rates were Pennsylvania, South Dakota, West Virginia, and Arizona, respectively. The states with the lowest average rural diabetes mortality rates were New Hampshire, Wisconsin, Maryland, and Hawaii, respectively.

Rural/Urban National Averages

Heart Disease Mortality

Five-year average heart disease mortality per 100,000 (2012-2016)



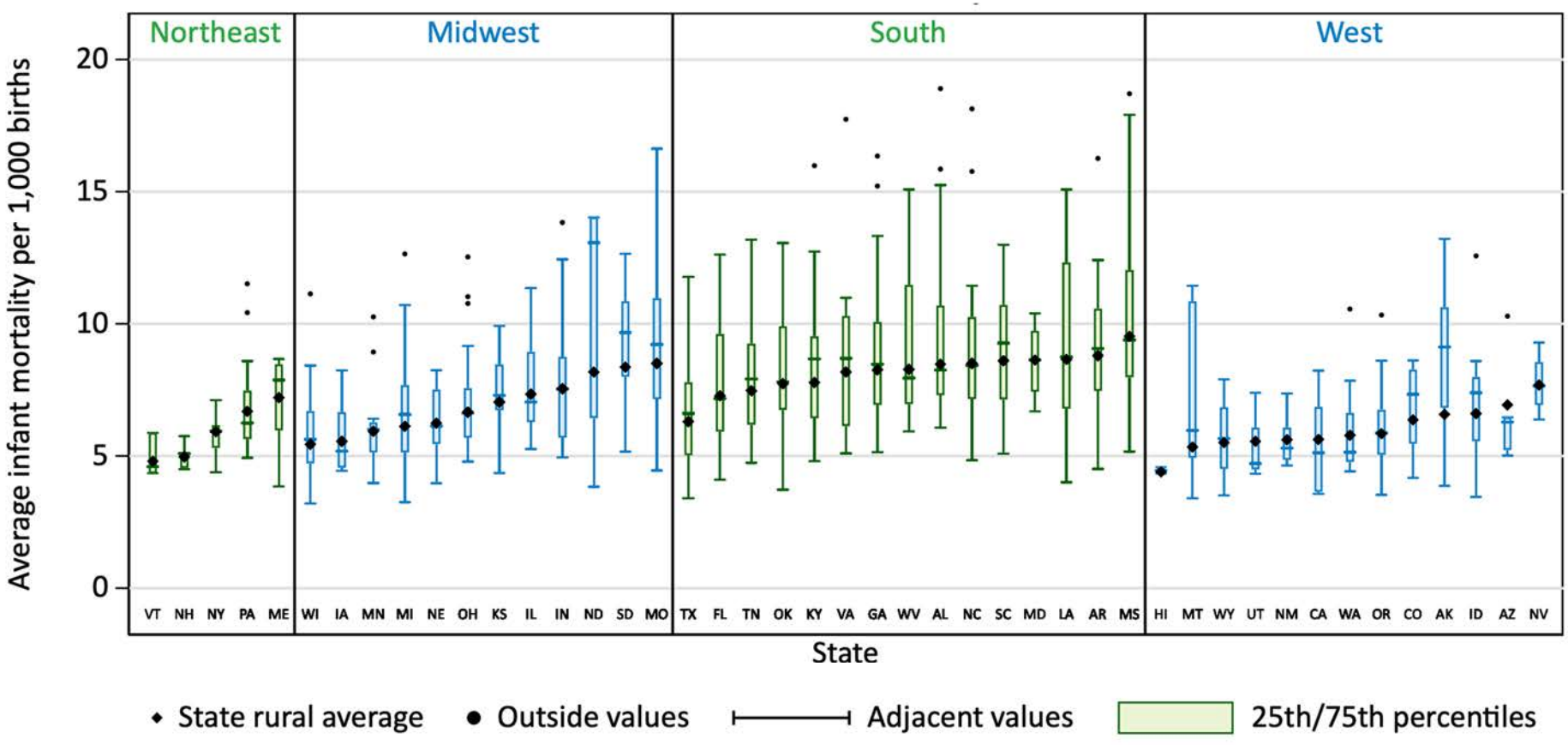
Note: States sorted by rural average within region.
Counties with rate higher than 500 not shown (LA:1).

Overall, Southern states had higher average rural mortality for heart disease compared to other regions. Among the 15 Southern states, 11 had average rural mortality rates of more than 200 deaths per 100,000. Comparatively, among the Northeast, Midwest, and West regions, only one state—Missouri—had an average rural mortality rate above 200 deaths per 100,000. Within the Northeast, Midwest, South, and West, the states with the highest average rural heart disease mortality rates were New York, Missouri, Alabama, and Nevada, respectively. The states with the lowest average rural heart disease mortality rates were New Hampshire, Minnesota, Maryland, and Colorado, respectively.

Rural/Urban National Averages

Infant Mortality

Five-year average infant mortality per 1,000 births (under age 1) (2012-2016)



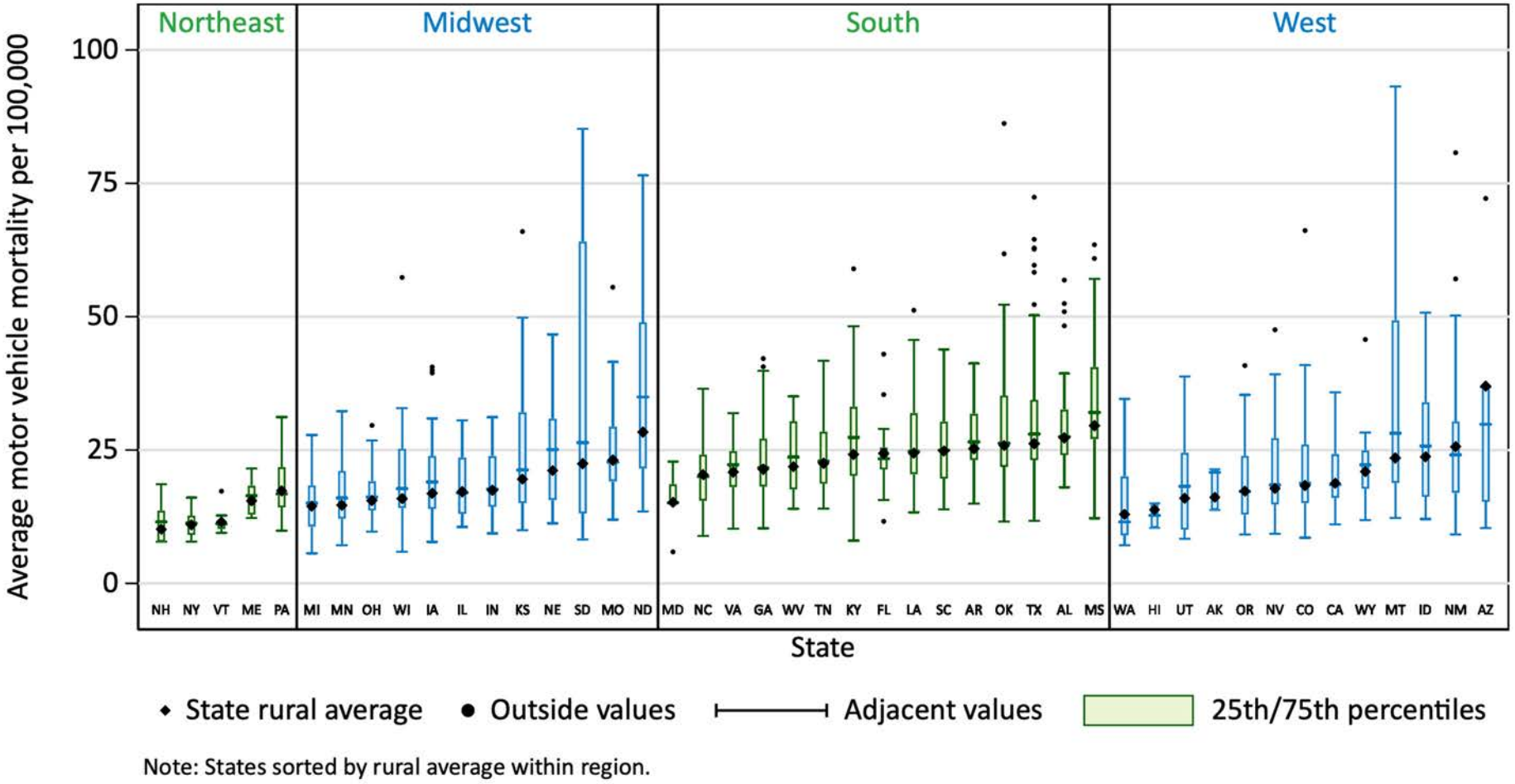
Note: States sorted by rural average within region.
Counties with rate higher than 20 not shown (AL:1, ND:1).

The West region generally had lower average rural infant mortality rates compared to the Northeast, Midwest, and South. Among Midwestern and Southern states, all had infant mortality rates of greater than five deaths per 1,000 births. Within the Northeast, Midwest, South, and West, the states with the highest average rural infant mortality rates were Maine, Missouri, Mississippi, and Nevada, respectively. The states with the lowest average rural infant mortality rates were Vermont, Wisconsin, Texas, and Hawaii.

Rural/Urban National Averages

Motor Vehicle Mortality

Five-year average motor vehicle mortality per 100,000 (2012-2016)



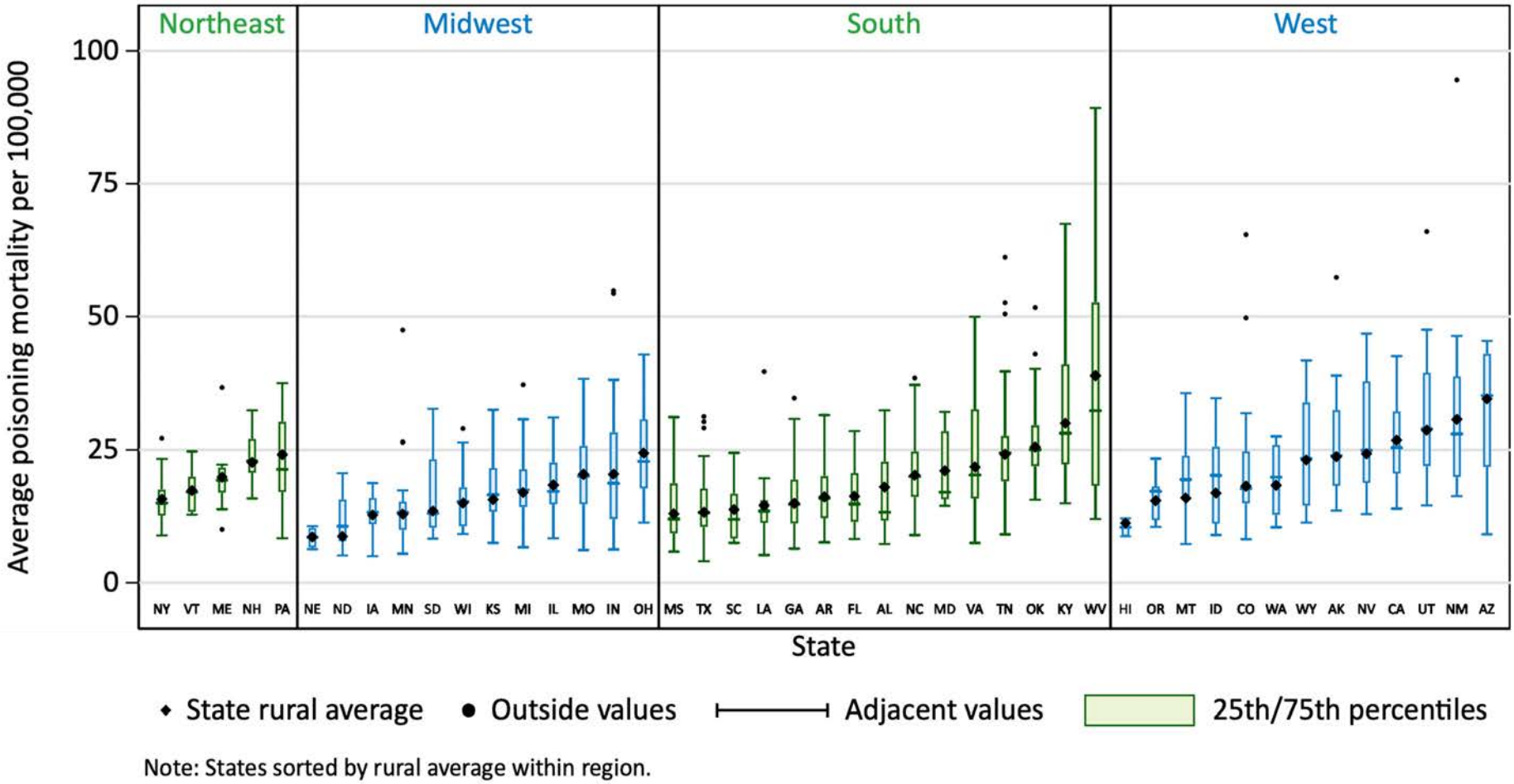
Note: States sorted by rural average within region.

The average rural motor vehicle mortality rates were highest in the South, with six of the 15 states having average rural motor vehicle mortality rates of 25 or greater. Comparatively, only one state in the Midwest and two states in the West had average rural motor vehicle mortality rates at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural motor vehicle mortality rates were Pennsylvania, North Dakota, Mississippi, and Arizona, respectively. The states with the lowest average rural motor vehicle mortality rates were New Hampshire, Michigan, Maryland, and Washington, respectively.

Rural/Urban National Averages

Poisoning Mortality

Five-year average poisoning mortality per 100,000 (2012-2016)



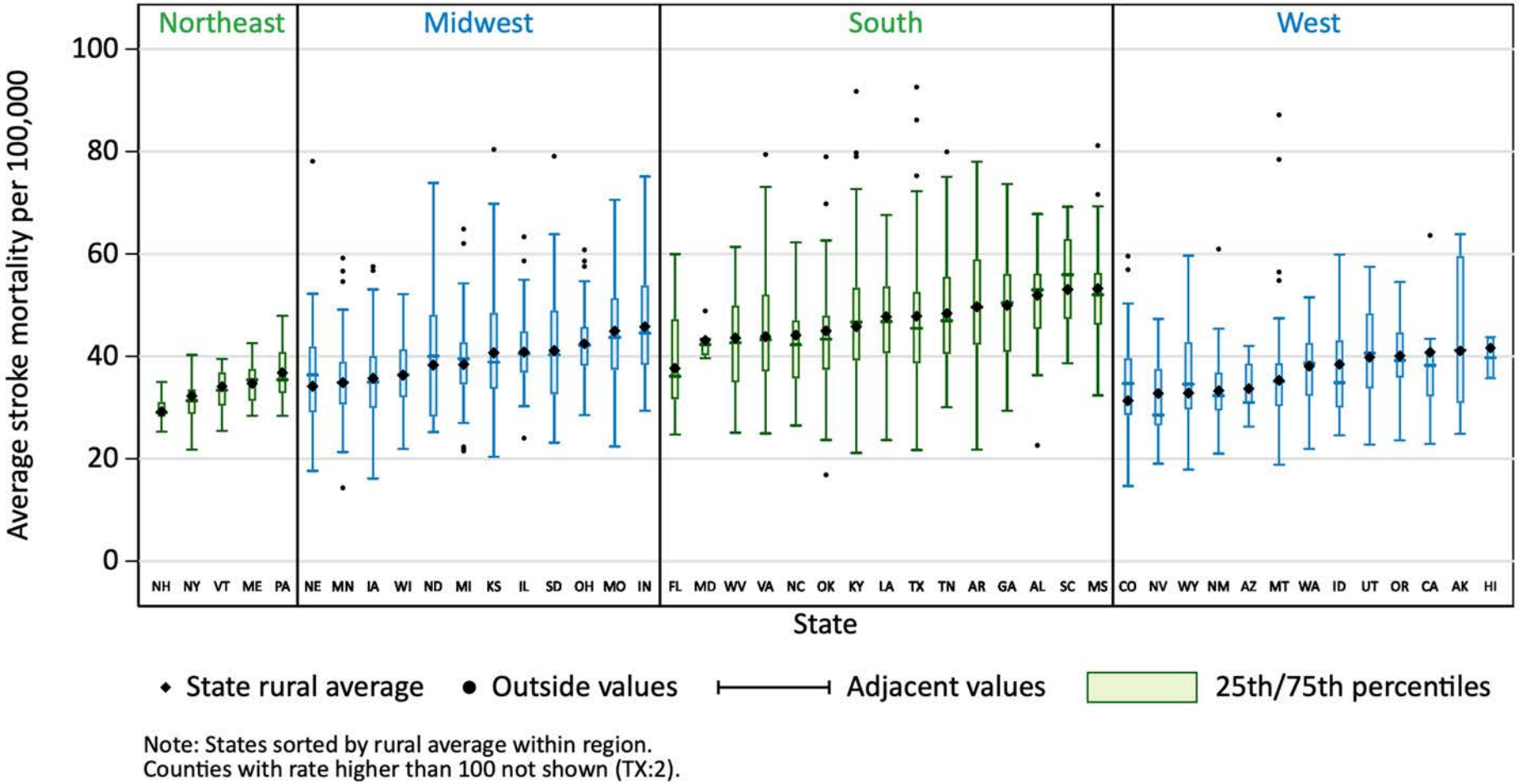
Note: States sorted by rural average within region.

The average rural poisoning mortality rates were generally lowest in the Northeast and Midwest, with no states in these regions having average rural poisoning mortality rates above 25 deaths per 100,000. Within the Northeast, Midwest, South, and West, the states with the highest average rural poisoning mortality rates were Pennsylvania, Ohio, West Virginia, and Arizona, respectively. The states with the lowest average rural poisoning mortality rates were New York, Nebraska, Mississippi, and Hawaii, respectively.

Rural/Urban National Averages

Stroke Mortality

Five-year average stroke mortality per 100,000 (2012-2016)



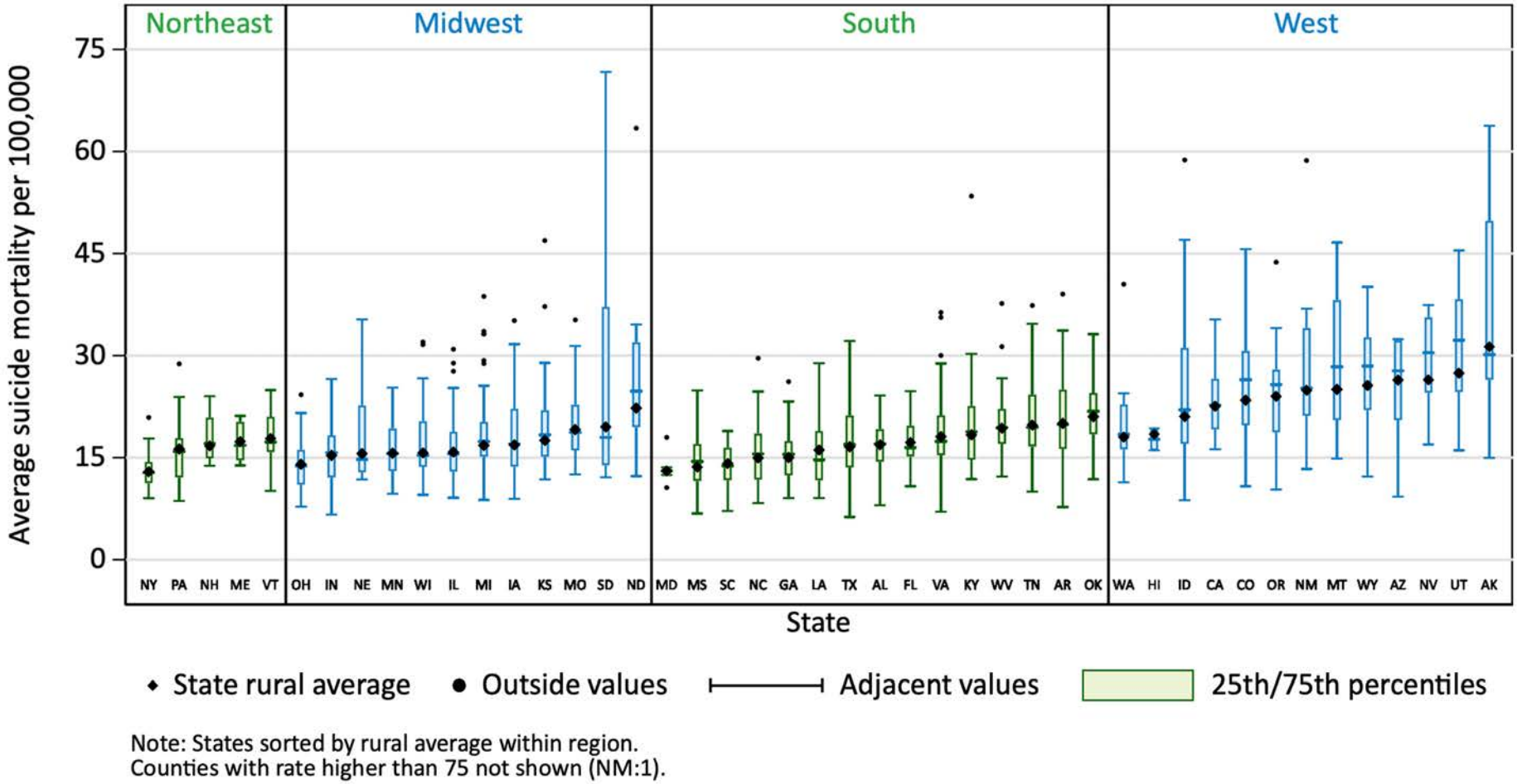
Note: States sorted by rural average within region.
Counties with rate higher than 100 not shown (TX:2).

Southern states had higher average rural stroke mortality rates. Among Southern states, all but Florida had average rural stroke mortality rates above 40 deaths per 100,000. Within the Northeast, Midwest, South, and West, the states with the highest average rural stroke mortality rates were Pennsylvania, Indiana, Mississippi, and Hawaii, respectively. The states with the lowest average rural stroke mortality rates were New Hampshire, Nebraska, Florida, and Colorado, respectively.

Rural/Urban National Averages

Suicide Mortality

Five-year average suicide mortality per 100,000 (2012-2016)



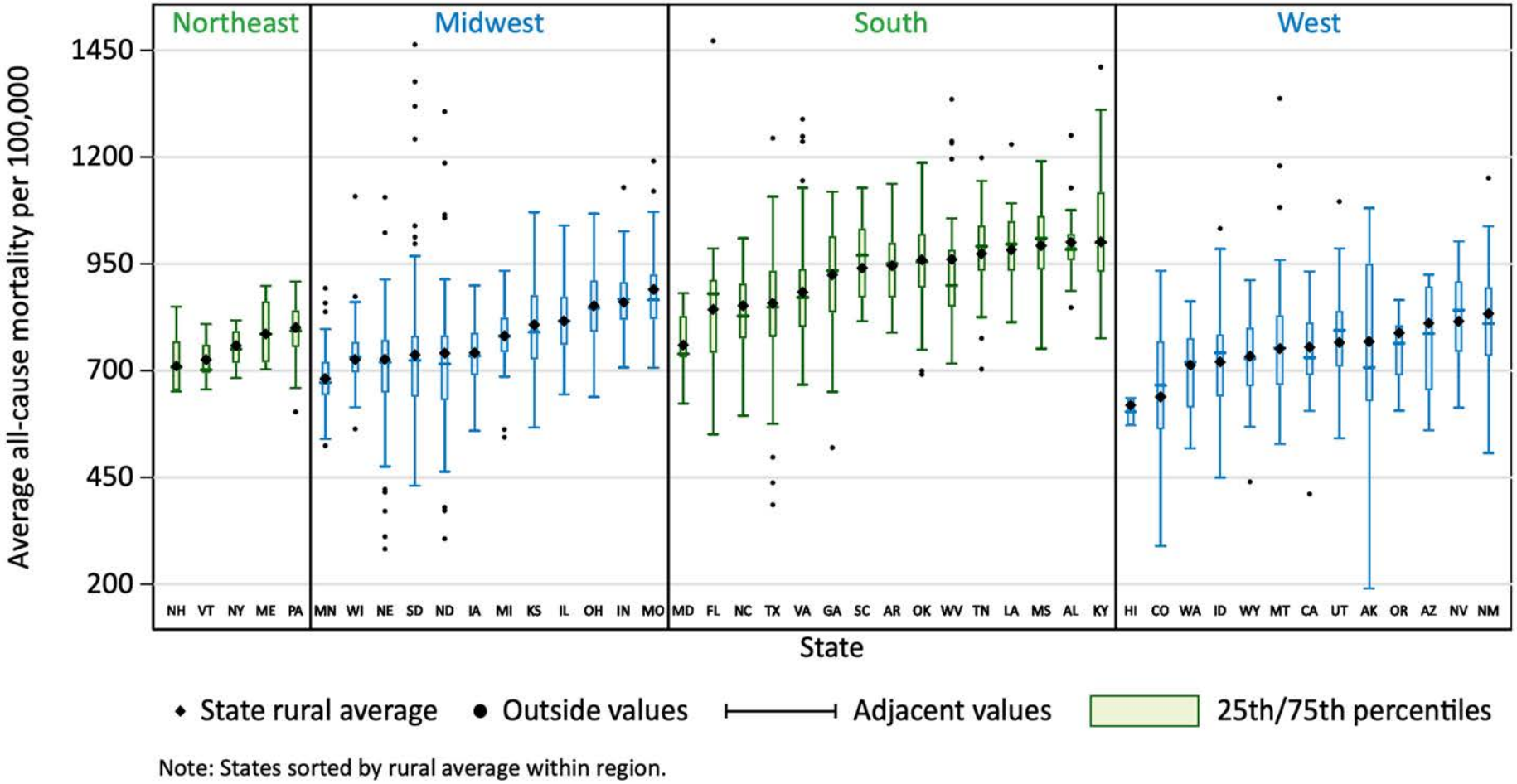
Note: States sorted by rural average within region.
Counties with rate higher than 75 not shown (NM:1).

The average rural suicide mortality rates were generally highest in the West. Among Western states, all had average rural suicide mortality rates above 15 deaths per 100,000. Within the Northeast, Midwest, South, and West, the states with highest average rural suicide mortality rates were Vermont, North Dakota, Oklahoma, and Alaska, respectively. The states with the lowest average rural suicide mortality rates were New York, Ohio, Maryland, and Washington, respectively.

Rural/Urban National Averages

Total Mortality

Five-year average all-cause mortality per 100,000 (2012-2016)



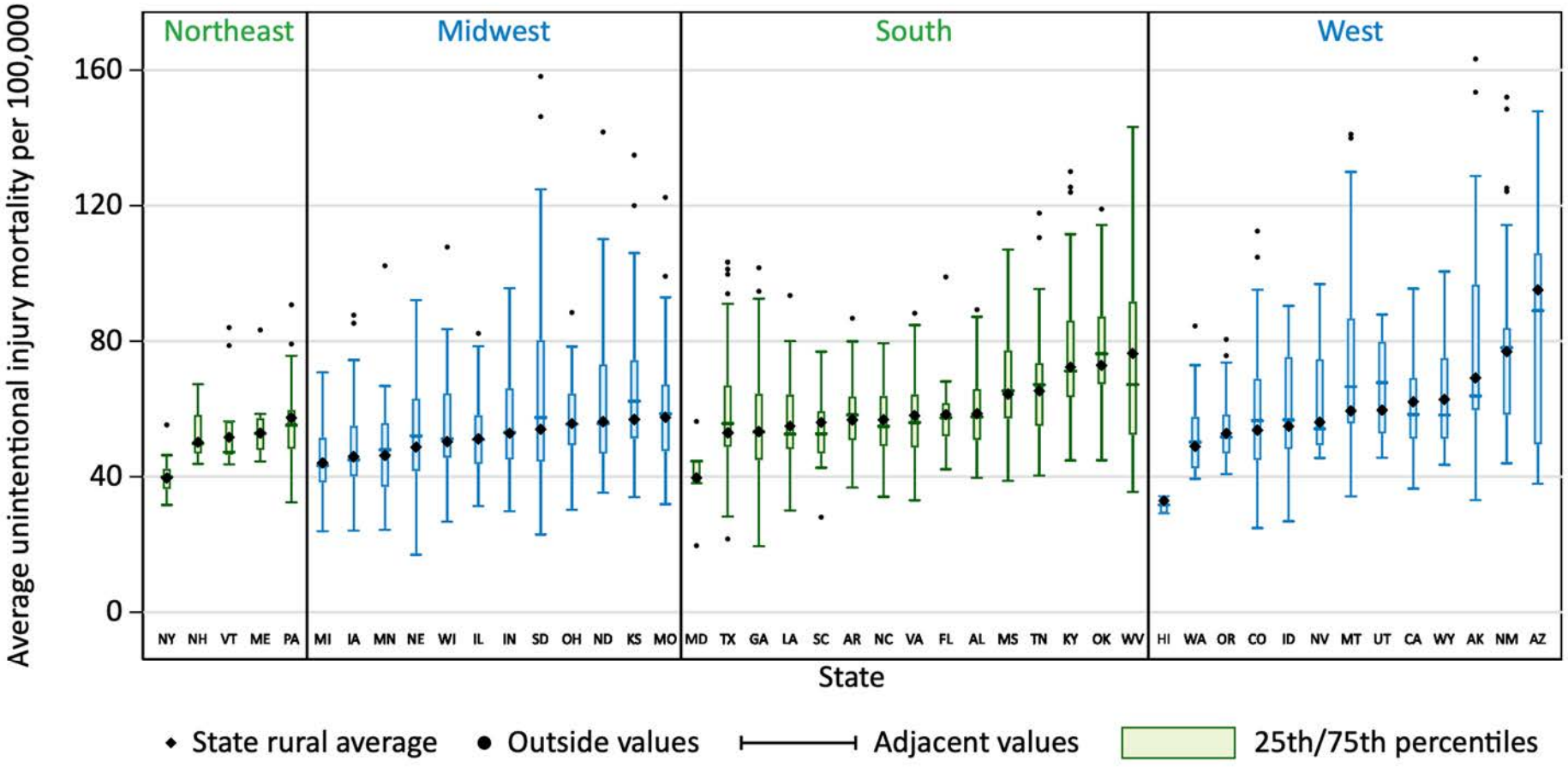
Note: States sorted by rural average within region.

Rural total mortality was generally highest in the South. Half of the 15 states in the South had average rural all-cause mortality rates at or above 950 deaths per 100,000. No states in the Northeast, Midwest, and West had averages at or above this level. Within the Northeast, Midwest, South, and West, the states with the highest average rural total mortality rates were Pennsylvania, Missouri, Kentucky, and New Mexico, respectively. The states with the lowest average rural total mortality rates were New Hampshire, Minnesota, Maryland, and Hawaii.

Rural/Urban National Averages

Unintentional Injury Mortality

Five-year average unintentional injury mortality per 100,000 (2012-2016)



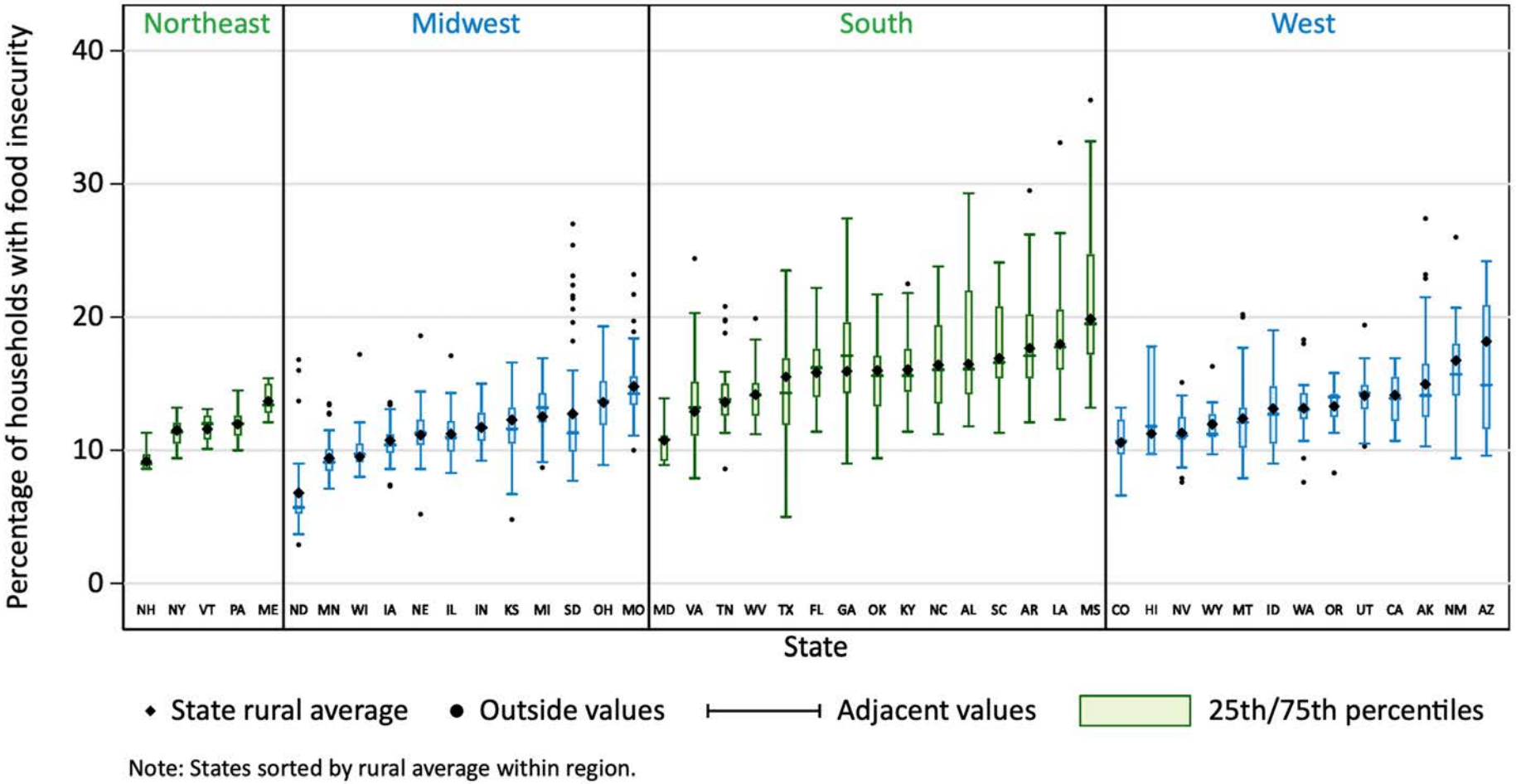
Note: States sorted by rural average within region.

Most states in all regions had average rural unintentional injury mortality rates between 40 and 80 deaths per 100,000. Within the Northeast, Midwest, South, and West, the states with the highest average rural average rural unintentional injury rates were Pennsylvania, Missouri, West Virginia, and Arizona, respectively. The states with the lowest average rural unintentional injury mortality rates were New York, Michigan, Maryland, and Hawaii, respectively.

Rural/Urban National Averages

Food Insecure Households

Percentage of households with food insecurity (2015)



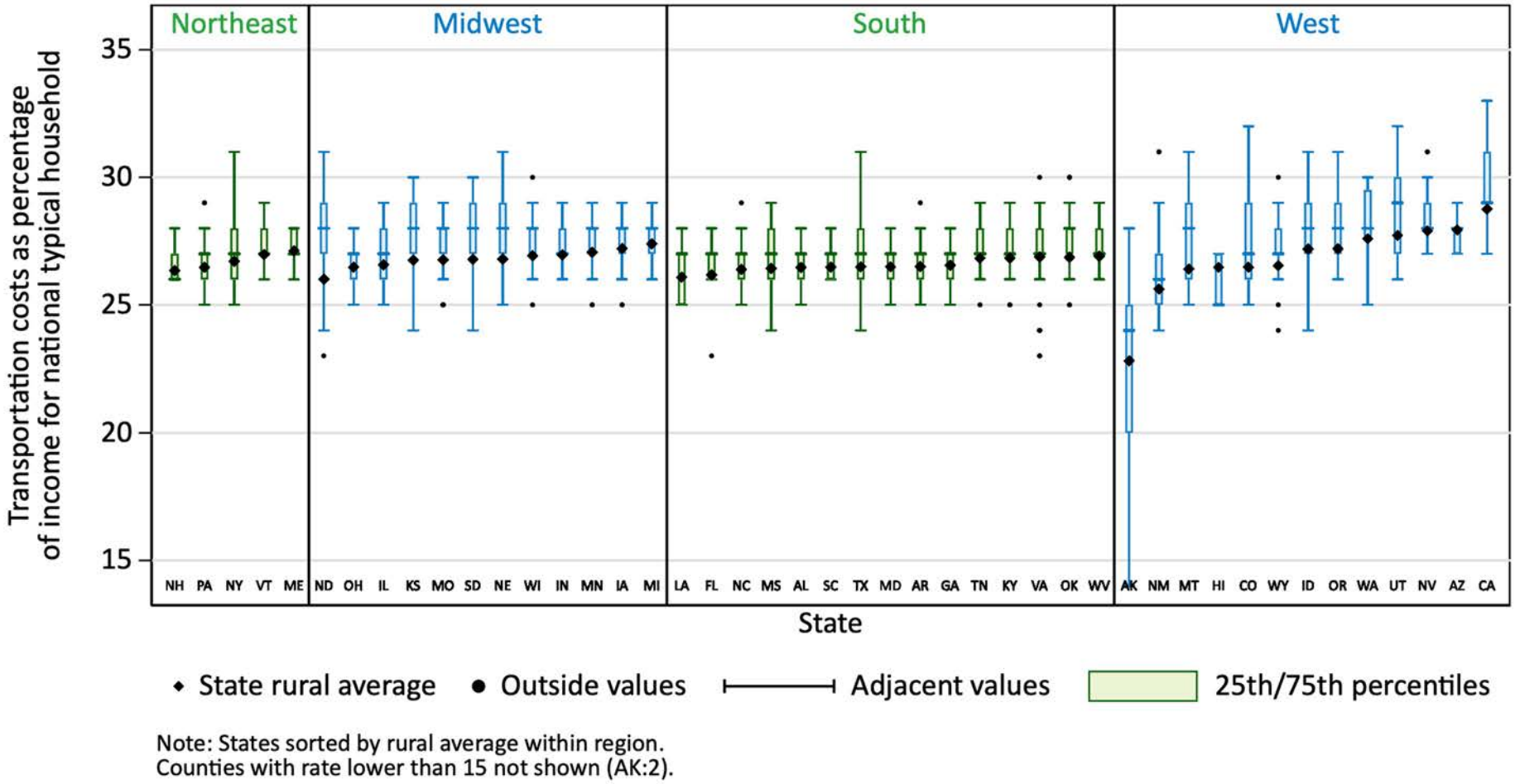
Note: States sorted by rural average within region.

The average rural food insecure household percentages were higher in the South and some Western states relative to other regions. Only four states—New Hampshire, North Dakota, Minnesota, and Wisconsin—had average rural food insecure household percentages below 10%. Within the Northeast, Midwest, South, and West, the states with the highest average rural food insecure household percentages were Maine, Missouri, Mississippi, and Arizona, respectively. The states with the lowest average rural food insecure household percentages were New Hampshire, North Dakota, Maryland, and Colorado, respectively.

Rural/Urban National Averages

Household Transportation Cost

Transportation costs as a percentage of income for the national typical household (2017)



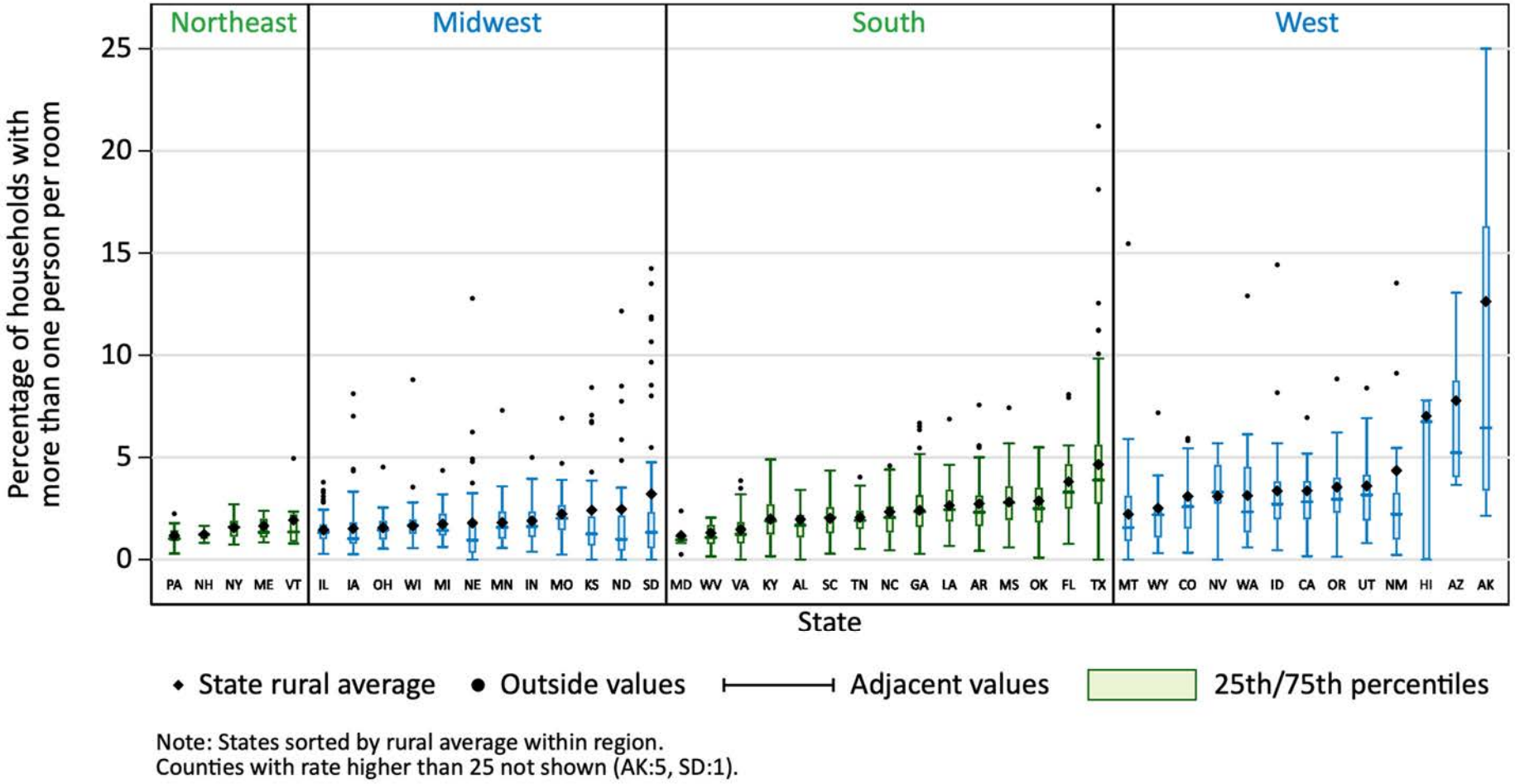
Note: States sorted by rural average within region.
Counties with rate lower than 15 not shown (AK:2).

Average rural household transportation costs were relatively similar across states and regions. Only one state—Alaska—had an average rural household transportation cost below 25%, while all other states had average rural household transportation costs between 25% and 30%. Within the Northeast, Midwest, South, and West, the states with the highest average rural household transportation costs were Maine, Michigan, West Virginia, and California, respectively. The states with the lowest average rural household transportation costs were New Hampshire, North Dakota, Louisiana, and Alaska, respectively.

Rural/Urban National Averages

Overcrowded Households

Five-year average percentage of households with more than one person per room (2012-2016)



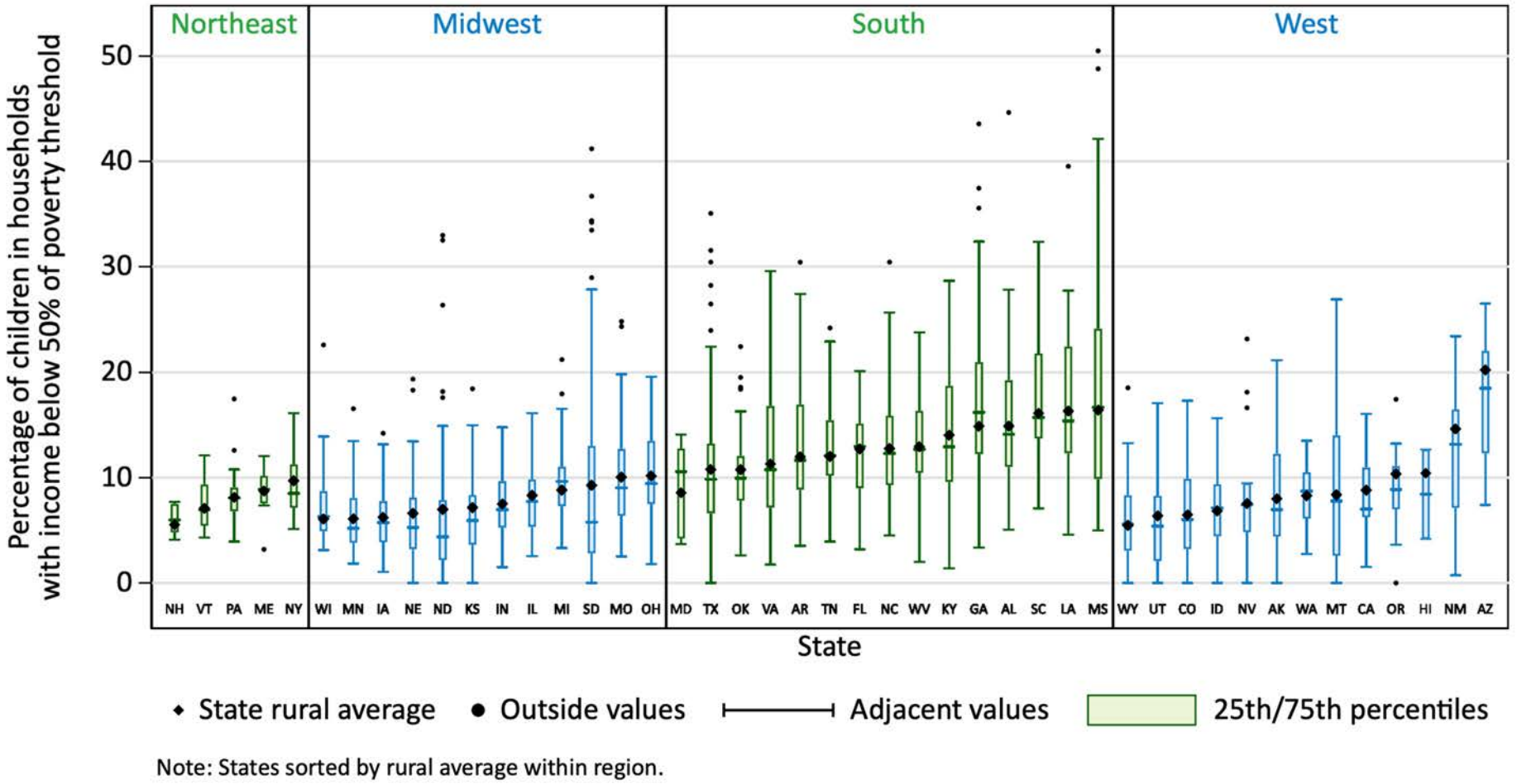
Note: States sorted by rural average within region.
Counties with rate higher than 25 not shown (AK:5, SD:1).

Overall, average rural overcrowded household percentages were relatively similar across states and regions. Only three states—all in the West—had an average rural overcrowded household percentage above 5%. Within the Northeast, Midwest, South, and West, the states with the highest average rural overcrowded household percentages were Vermont, South Dakota, Texas, and Alaska, respectively. The states with the lowest average rural overcrowded household percentages were Pennsylvania, Illinois, Maryland, and Montana, respectively.

Rural/Urban National Averages

Deep Child Poverty

Five-year average percentage of children, ages 0-17, living in households with incomes below 50 percent of the poverty threshold (2011-2015)



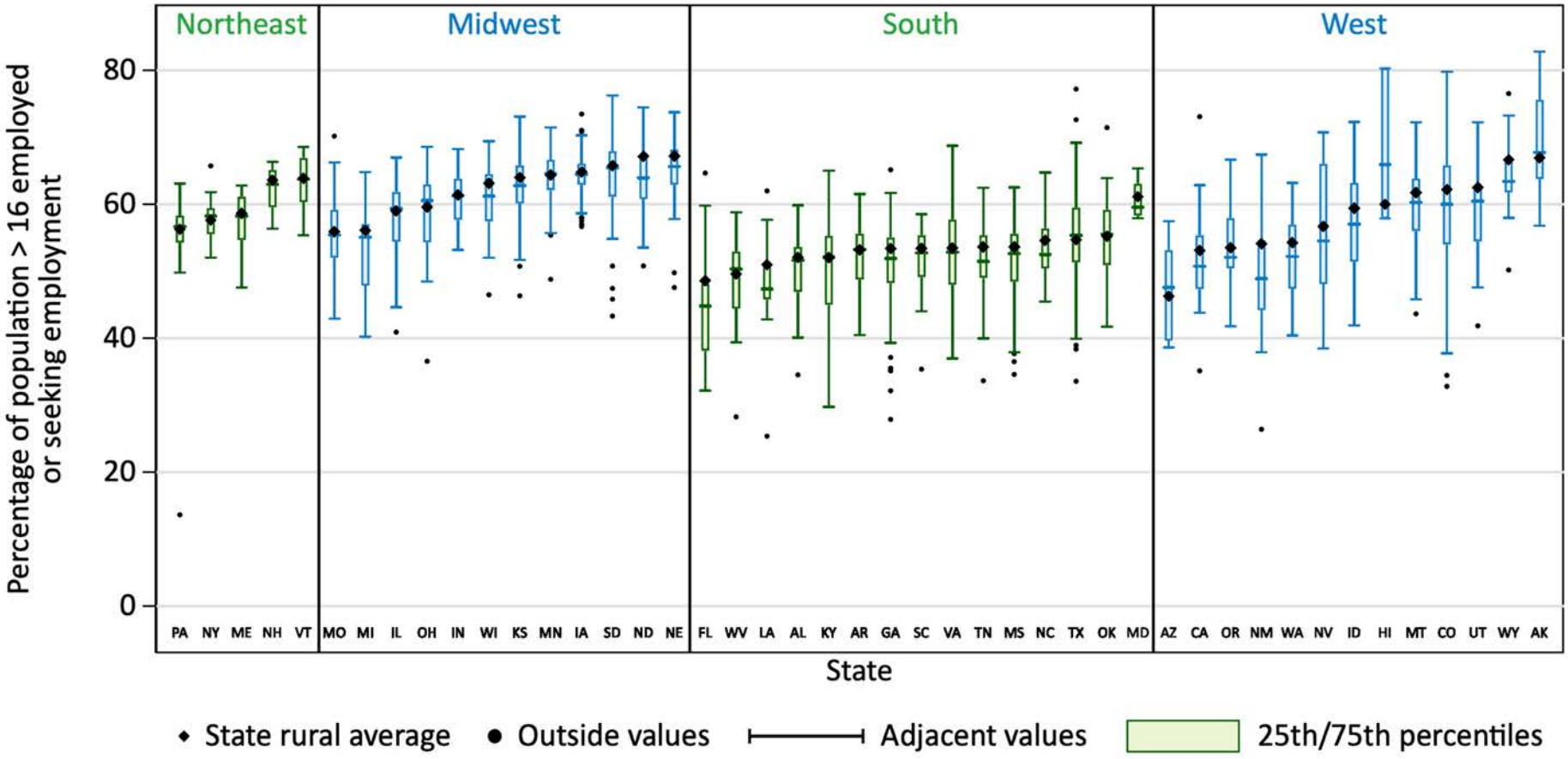
Note: States sorted by rural average within region.

The average rural deep child poverty percentages were highest among Southern states. Among the 15 states in the South, all but one had deep child poverty percentages above 10%. Comparatively, only two states in the Midwest and four states in the West had average rural deep child poverty rates at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural deep child poverty rates were New York, Ohio, Mississippi, and Arizona, respectively. The states with the lowest average rural deep child poverty rates were New Hampshire, Wisconsin, Maryland, and Wyoming, respectively.

Rural/Urban National Averages

Labor Force Participation Rate

Five-year average percentage of population aged 16 and older who are employed or seeking employment (2011-2015)



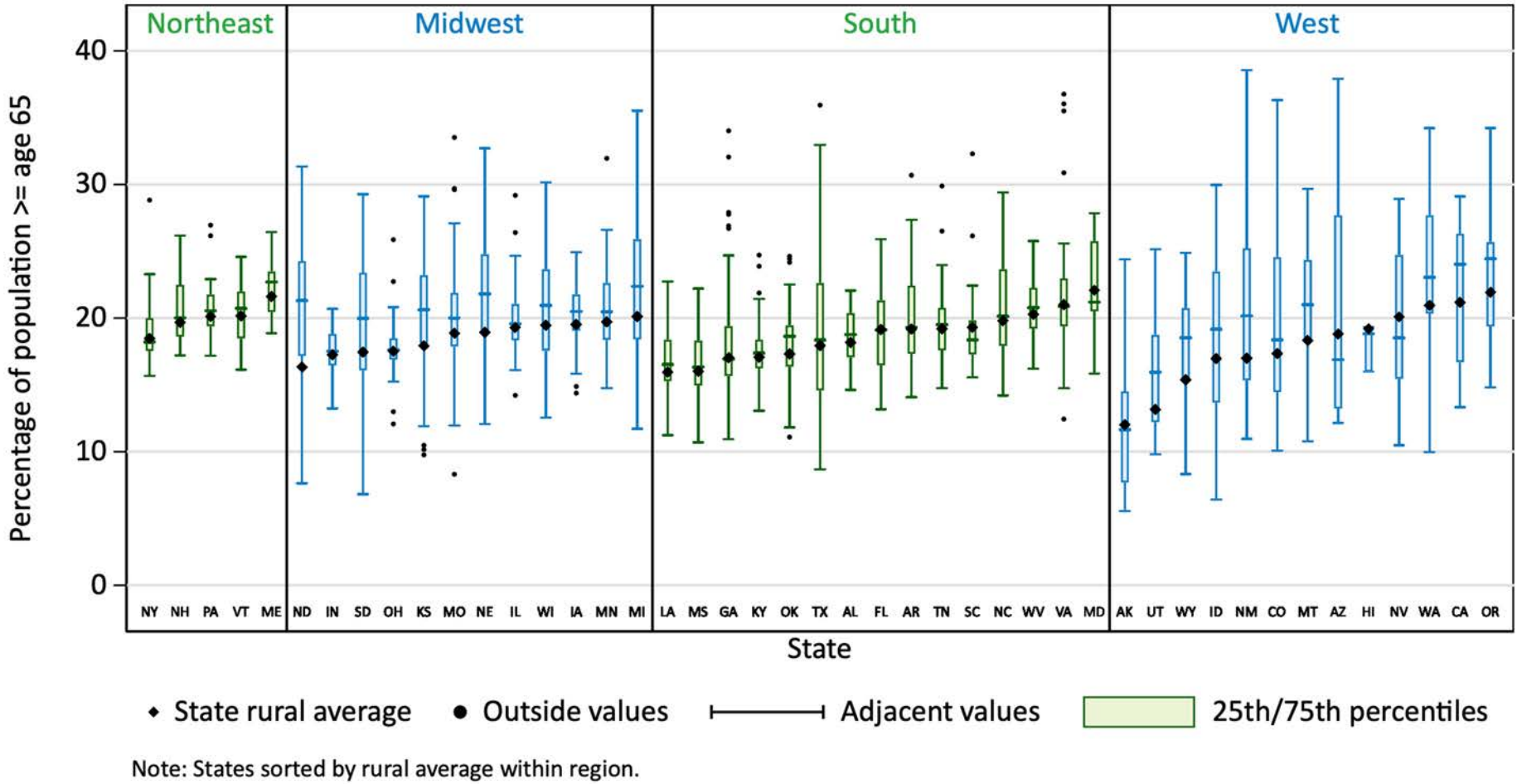
Note: States sorted by rural average within region.

The average rural labor-force participation rate was lowest in the South and West. In the South, only one state – Maryland – had an average rural labor-force participation rate above 60%, while in the West, six of the 13 states had average rural values at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural labor-force participation rates were Vermont, Nebraska, Maryland, and Alaska, respectively. The states with the lowest average rural labor-force participation rates were Pennsylvania, Missouri, Florida, and Arizona, respectively.

Rural/Urban National Averages

Older Adult Population

Five-year average percentage of the population that is age 65 or older (2012-2016)



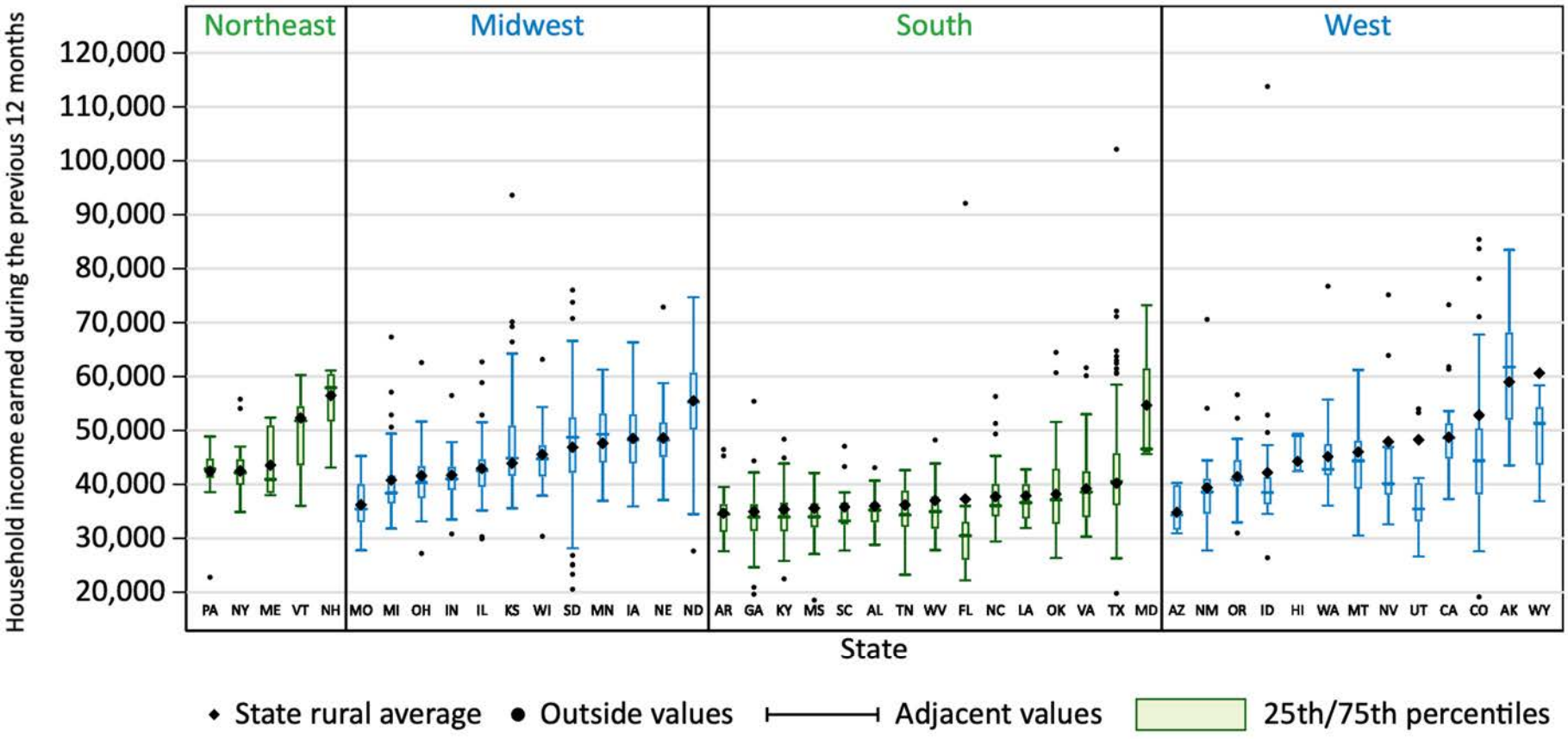
Note: States sorted by rural average within region.

The average rural older adult population percentages were relatively similar across states. Among all four regions, average rural older adult population percentages were close to 20% for many states. Within the Northeast, Midwest, South, and West, the states with the highest average rural older adult population percentages were Maine, Michigan, Maryland, and Oregon, respectively. The states with the lowest average rural older adult population percentages were New York, North Dakota, Louisiana, and Alaska, respectively.

Rural/Urban National Averages

Per Capita Income

Five-year average household income earned during the previous 12 months (in 2017 inflation-adjusted dollars) divided by the county population (2011-2015)



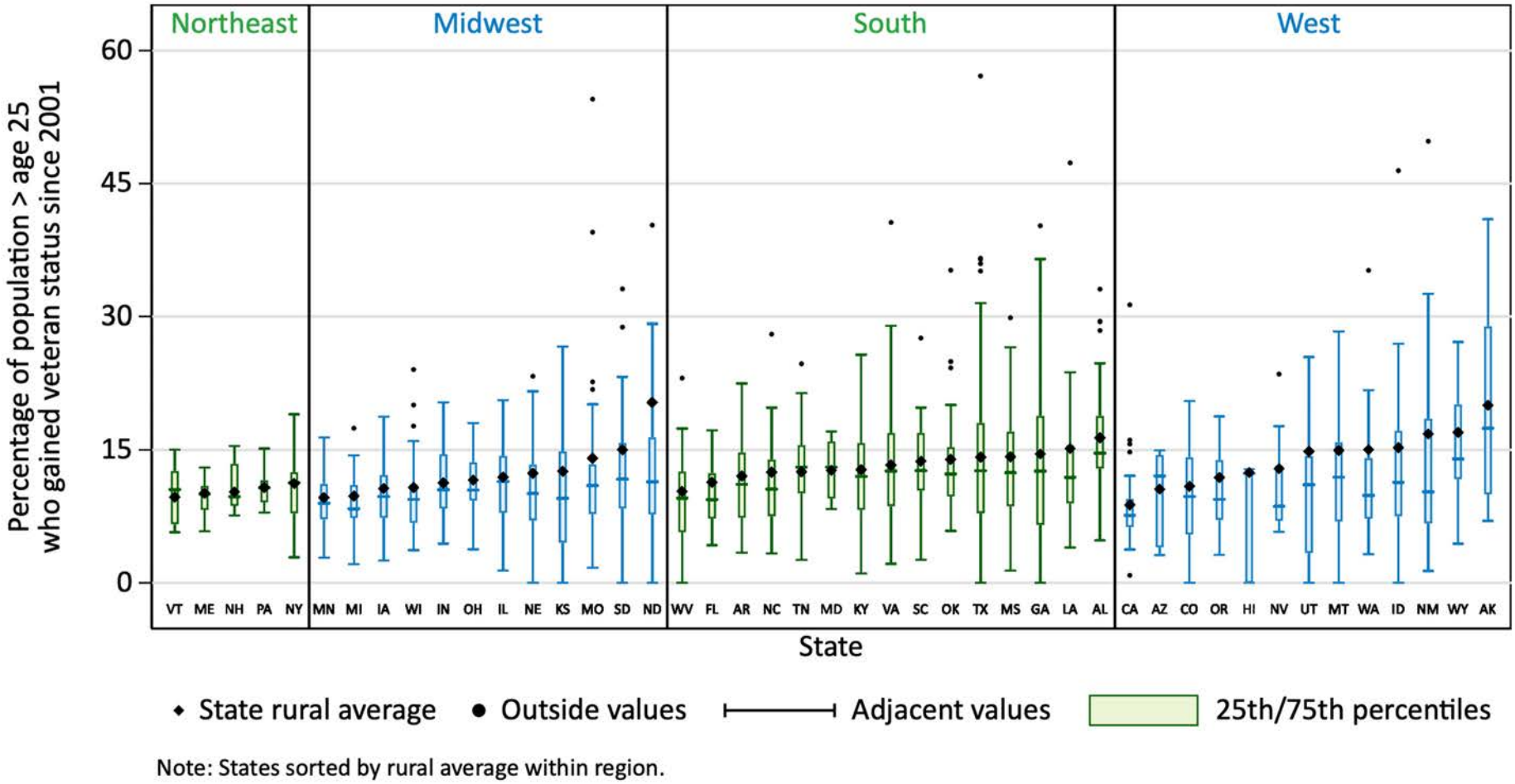
Note: States sorted by rural average within region.
Counties with rate higher than 120K not shown (AK:2, CO:1, TX:1, UT:1, WY:1).

The average rural per capita income was lowest in Southern states. Among Southern states, only two—Texas and Maryland—had average rural per capita incomes above $40,000. Comparatively, only one state in the Midwest and two states in the West had average rural per capita income values below this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural per capita incomes were New Hampshire, North Dakota, Maryland, and Wyoming, respectively. The states with the lowest average rural per capita incomes were Pennsylvania, Missouri, Arkansas, and Arizona, respectively.

Rural/Urban National Averages

Recent Veterans

Five-year average percentage of population age 25 and older who gained veteran status since 2001 (2011-2015)



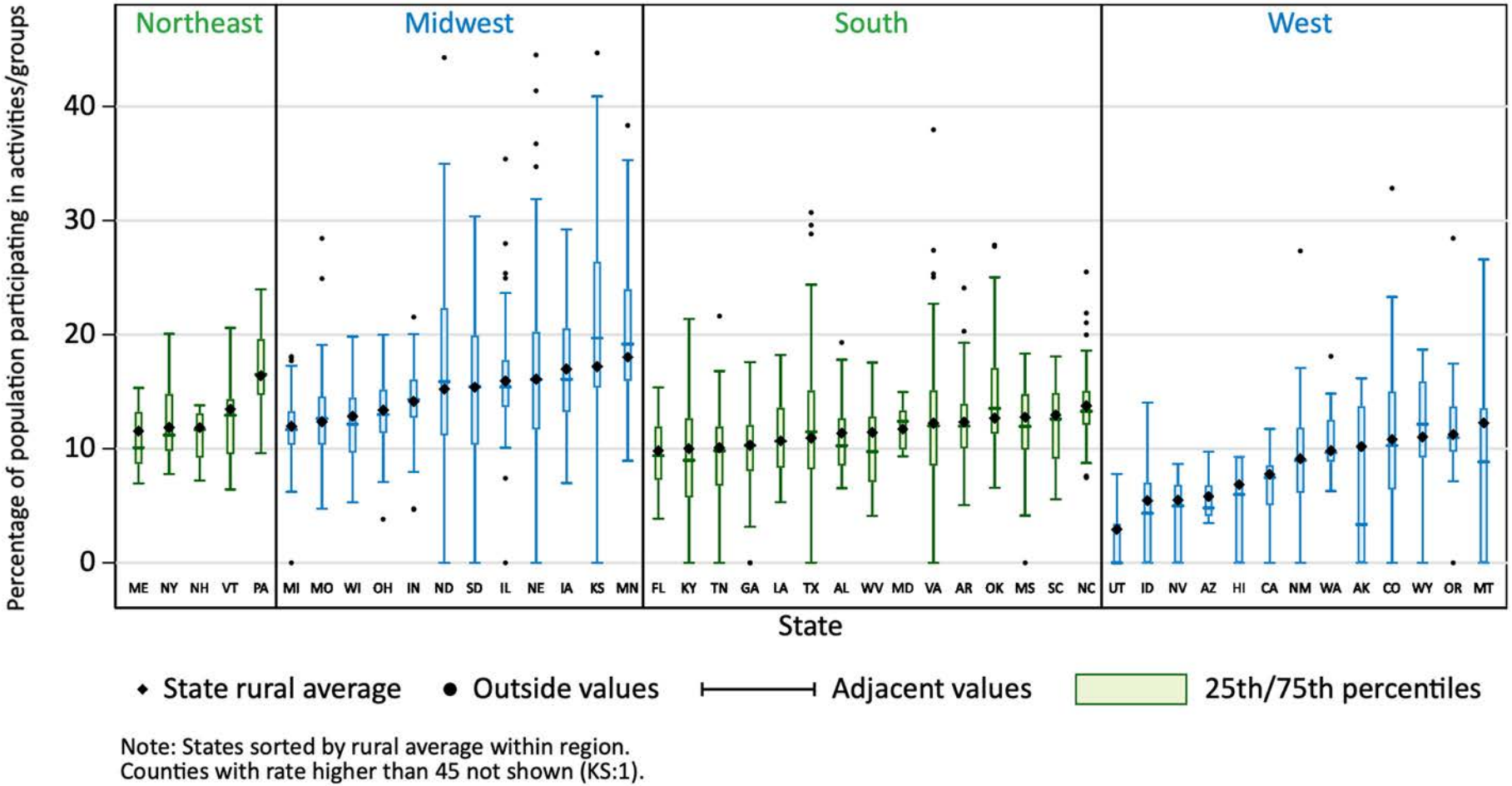
Note: States sorted by rural average within region.

On average, rural recent veteran percentages were highest in the West. In the West, seven of the 13 states had average rural recent veteran percentages at or above 15%. Comparatively, only four other states—two in the Midwest and two in South—had average rural recent veteran percentages at or above this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural recent veteran percentages were New York, North Dakota, Alabama, and Alaska, respectively. The states with the lowest average rural recent veteran percentages were Vermont, Minnesota, West Virginia, and California, respectively.

Rural/Urban National Averages

Social Connectedness

Five-year average percentage of the population participating in activities / groups (2011-2015)



Note: States sorted by rural average within region.
Counties with rate higher than 45 not shown (KS:1).

The average rural percentages of social connectedness were generally lowest among Western states. Among the 13 states in this region, seven had average rural social connectedness percentages at or below 10%. Comparatively, among the Northeast, Midwest, and South, no states had average rural social connectedness percentages below this value, while only a handful of Southern states had percentages around this value. Within the Northeast, Midwest, South, and West, the states with the highest average rural social connectedness percentages were Pennsylvania, Minnesota, North Carolina, and Montana, respectively. The states with the lowest average rural social connectedness percentages were Maine, Michigan, Florida, and Utah, respectively.

Rural/Urban National Averages

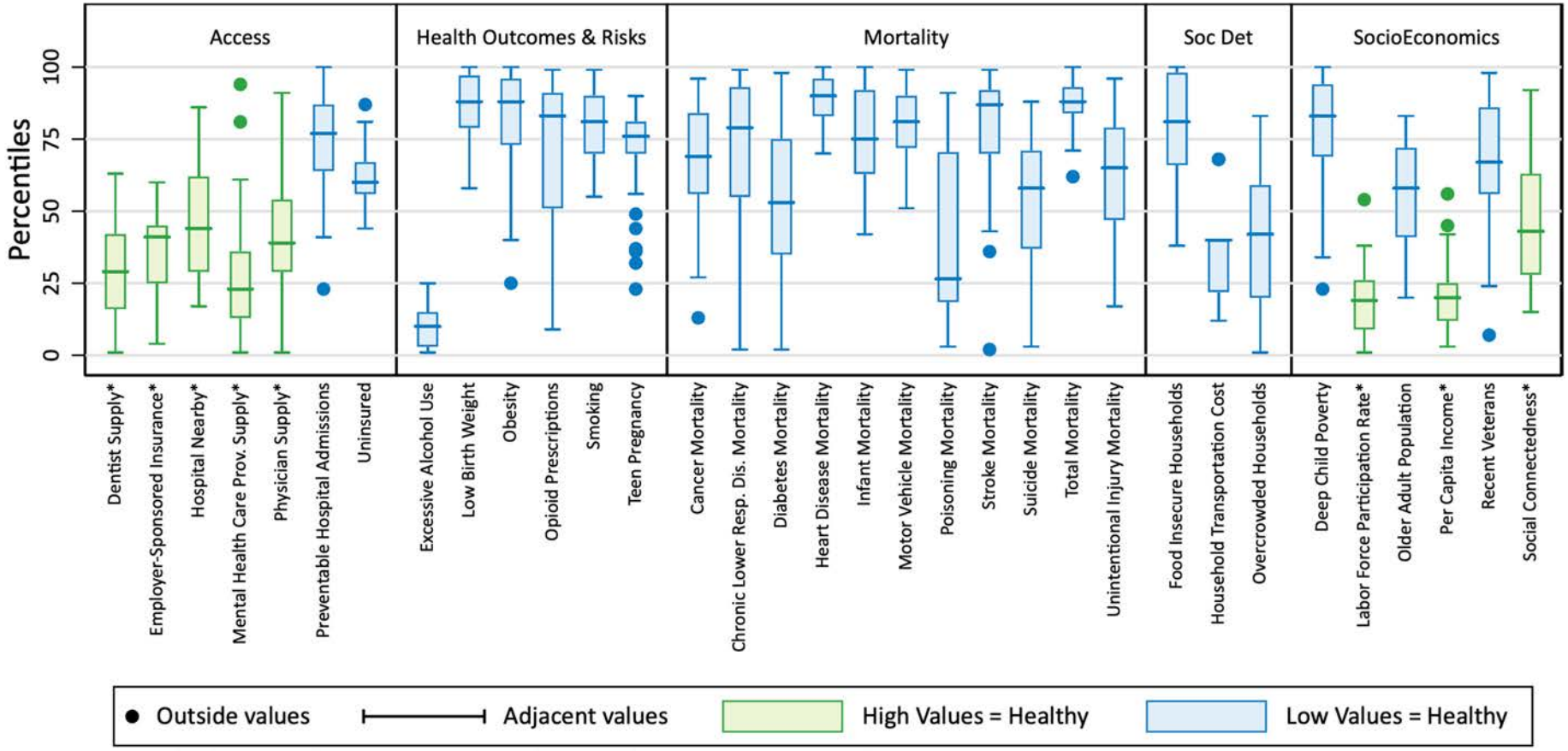
State Summary Charts

Note: Delaware, New Jersey, and Rhode Island have no rural counties, therefore have no charts in this section.

Definitions and Data Sources

How to Read the Charts

Alabama Summary



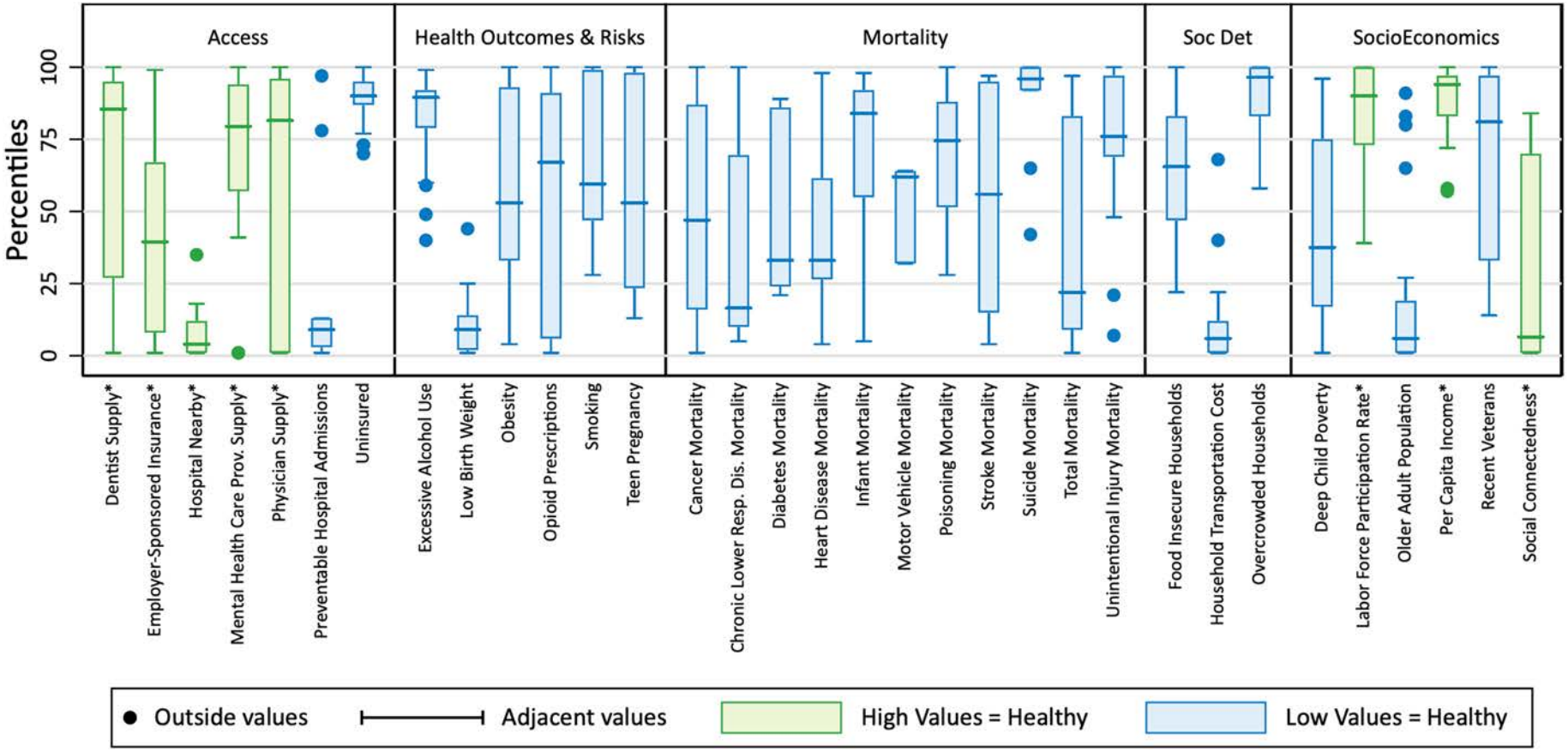
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Alabama generally had a poorer performance compared to the United States. Each of rural Alabama's health care access indicators were worse than the U.S. medians. Rural Alabamans also had higher medians among the health outcomes and risks domain, except for alcohol use. They had higher median mortality rates for most indicators except poisoning. In addition, median child poverty was in the highest quartile, and labor force participation and per-capita income were in the lowest quartiles.

Definitions and Data Sources

Rural/Urban National Averages

Alaska Summary



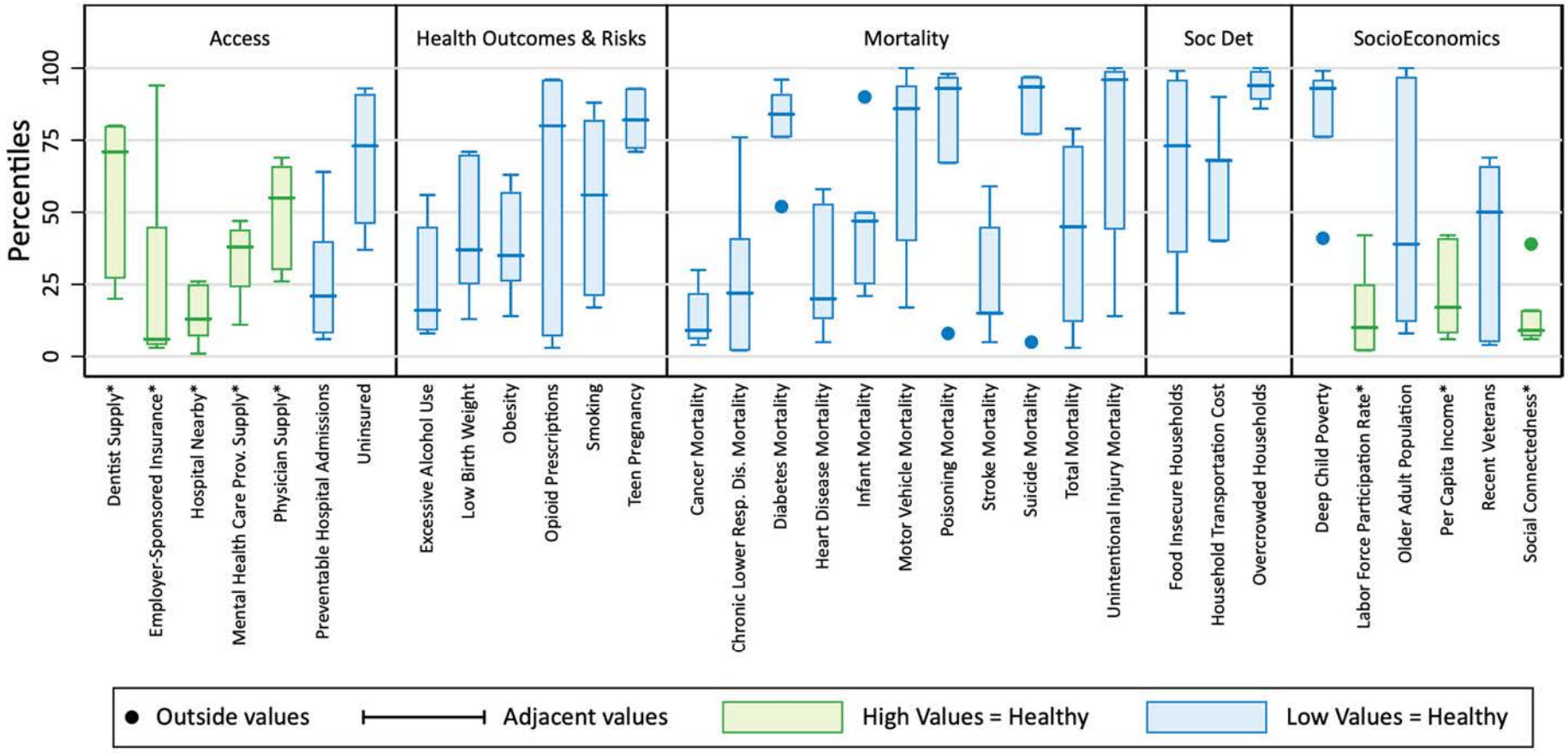
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Alaska had a mixed performance relative to national values. Many of the indicators had wide distributions, so county rates may vary broadly. Physician supply, for example, has a median in the fourth quartile, but some of its values are near zero. For most counties in Alaska, uninsured rates were in the highest quartile, and most rural counties did have a hospital nearby. Health outcomes and risks indicator rates varied across counties except alcohol use (high) and low birth weight (low). Mortality medians were lower for total mortality, cancer, chronic lower respiratory disease, diabetes, and heart disease, while infant mortality and suicide were higher. Transportation costs, older adult population, and social connectedness were low, and recent veterans were higher.

Definitions and Data Sources

Rural/Urban National Averages

Arizona Summary



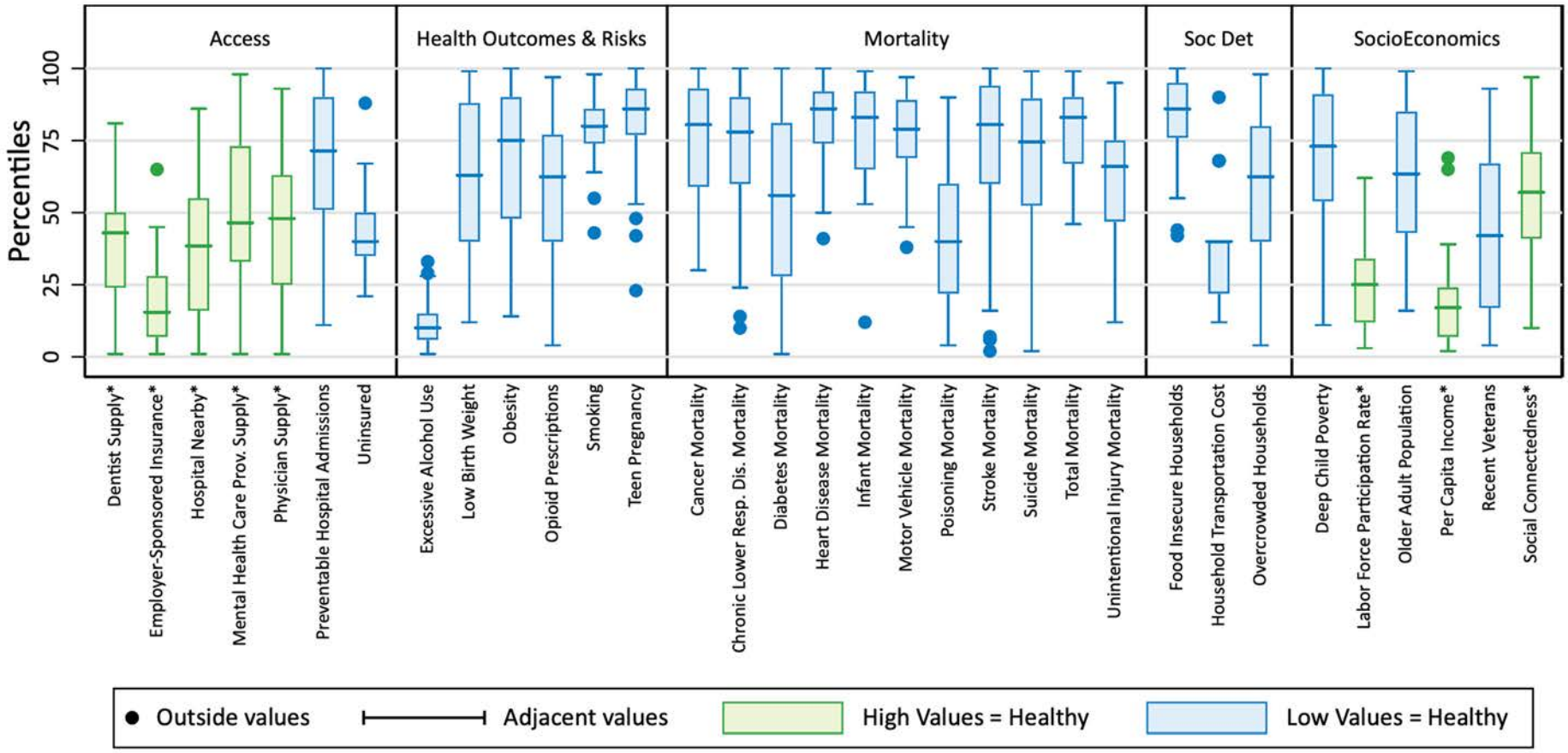
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

In terms of health care access, rural Arizona counties had poorer median rates of employer-sponsored insurance, hospitals nearby, and access to mental health professionals, as well as higher uninsured rates. Rural Arizona county medians were lower for alcohol use and obesity, but medians were higher for opioid use, teen pregnancy, and smoking. Rural rates of cancer and chronic lower respiratory disease were low, while diabetes, motor vehicle injury, poisoning, suicide, and unintentional injury were high. Overcrowded households and child poverty were also worse for rural Arizonians compared to national medians.

Definitions and Data Sources

Rural/Urban National Averages

Arkansas Summary



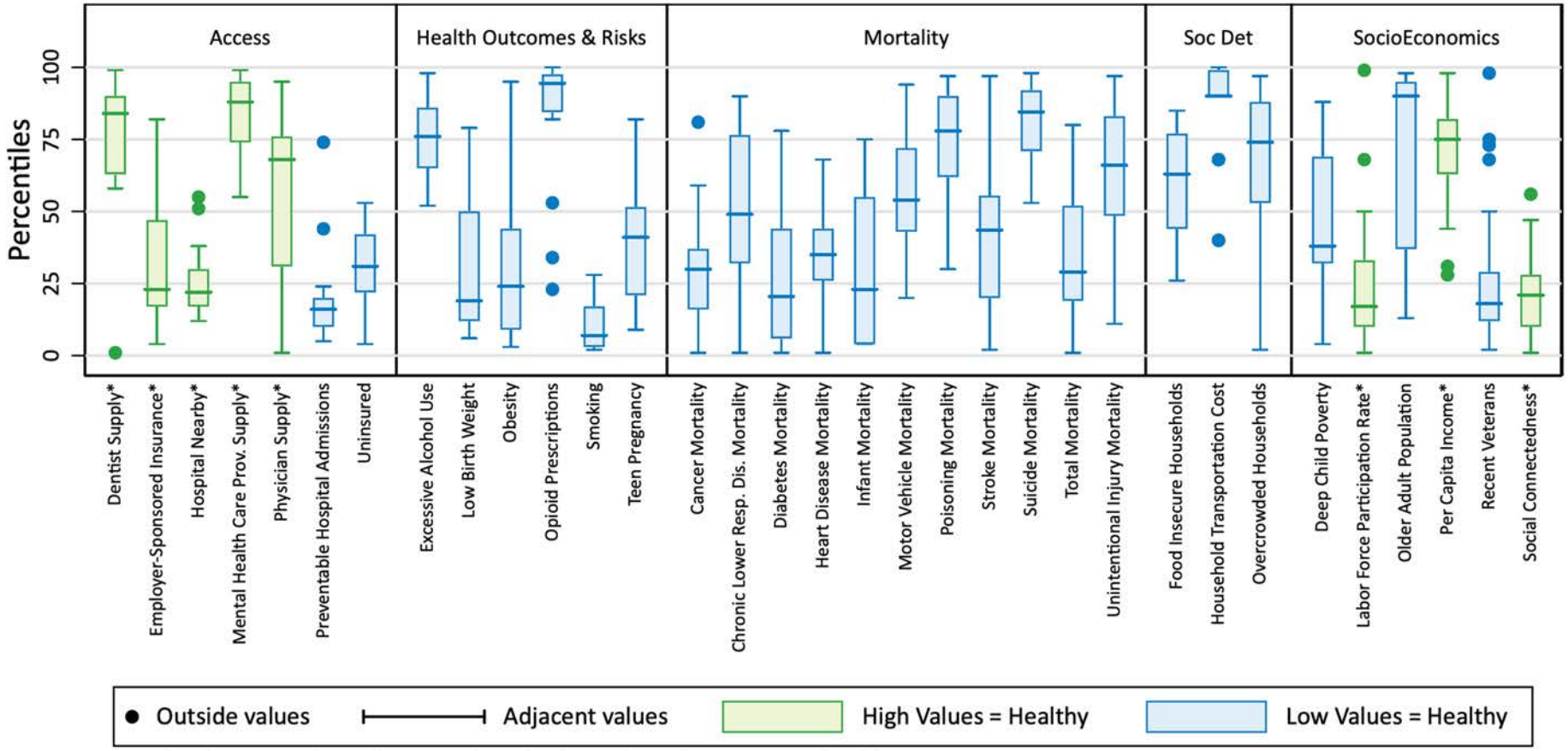
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Across all domains in rural Arkansas, most medians indicate worse health compared to U.S. medians. Rural Arkansas had lower rates of employer-sponsored insurance and higher rates of preventable hospital admissions, poorer rates for health outcomes and risks indicators, except alcohol use, and higher mortality rates except poisoning. Rural Arkansas also had higher rates of food insecurity, lower participation in the labor force, and lower per capita income than national measures.

Definitions and Data Sources

Rural/Urban National Averages

California Summary



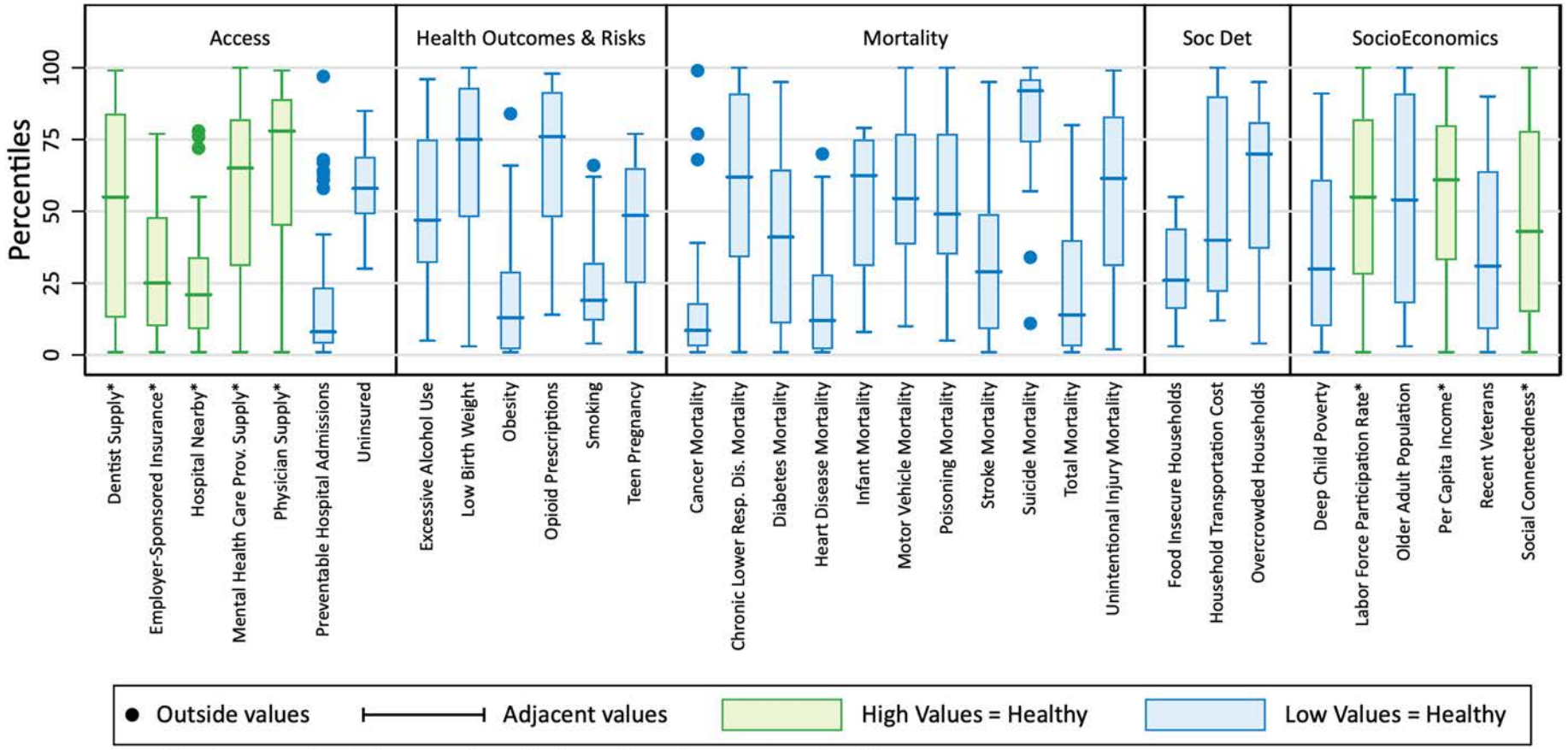
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural California generally had a mixed performance in most domains relative to the United States. The state had lower employer-sponsored insurance access, but higher access to providers (with the exception of hospital access). Alcohol and opioid use were higher, as were poisoning, suicide, and unintentional injury, while most other mortality indicators were lower. Transportation was expensive in California. Per capita income and the percentage of older adults was also higher.

Definitions and Data Sources

Rural/Urban National Averages

Colorado Summary



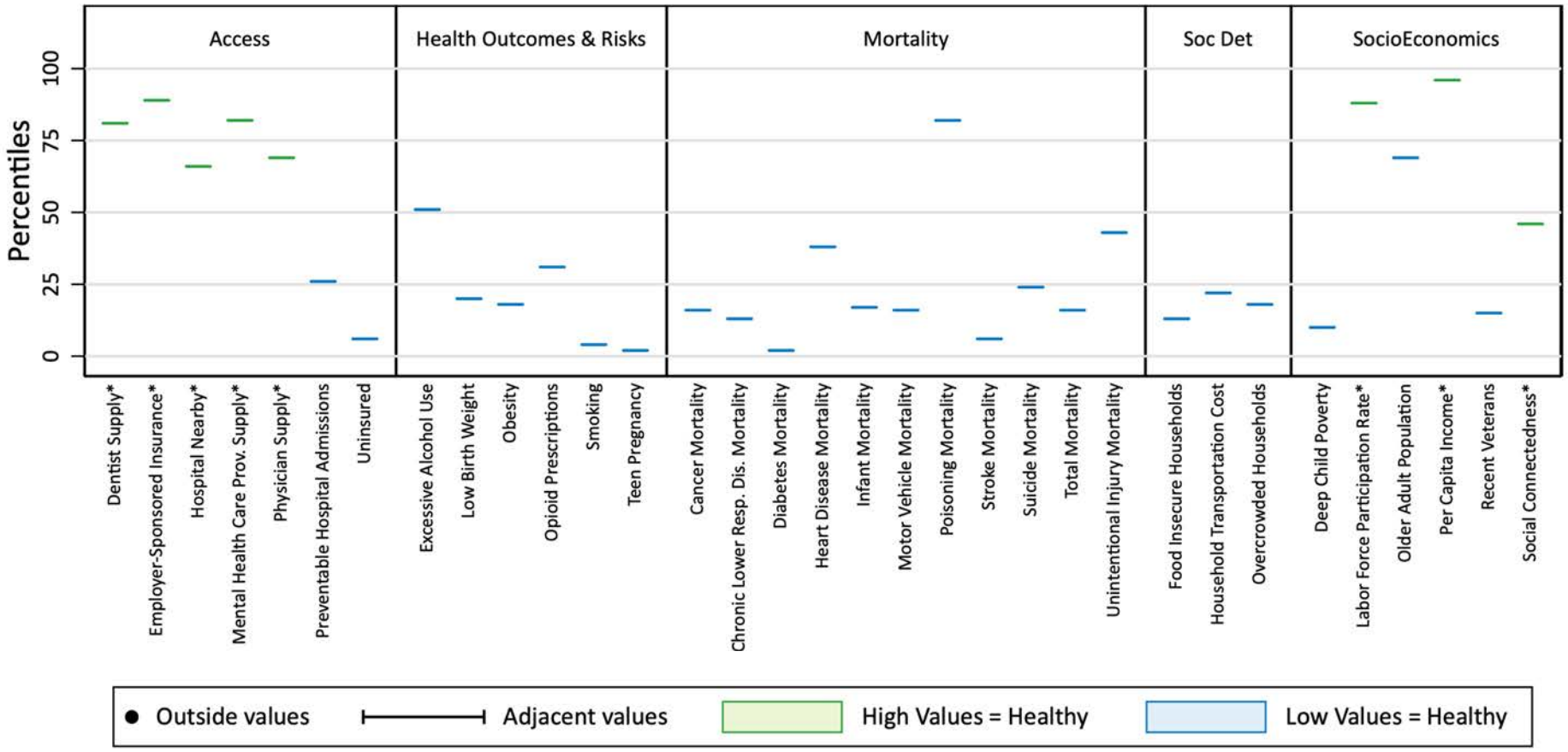
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Colorado performed relatively well compared to U.S. medians, but many indicators had broad distributions. Within the mortality domain, rural Colorado counties had lower medians for seven out of the 10 indicators, but suicide was higher. In the access domain, rural Colorado county medians were higher for the provider supply and uninsured individuals and lower for preventable hospital admissions and hospital accessibility. Food insecurity and child poverty were also relatively low compared to other states.

Definitions and Data Sources

Rural/Urban National Averages

Connecticut Summary



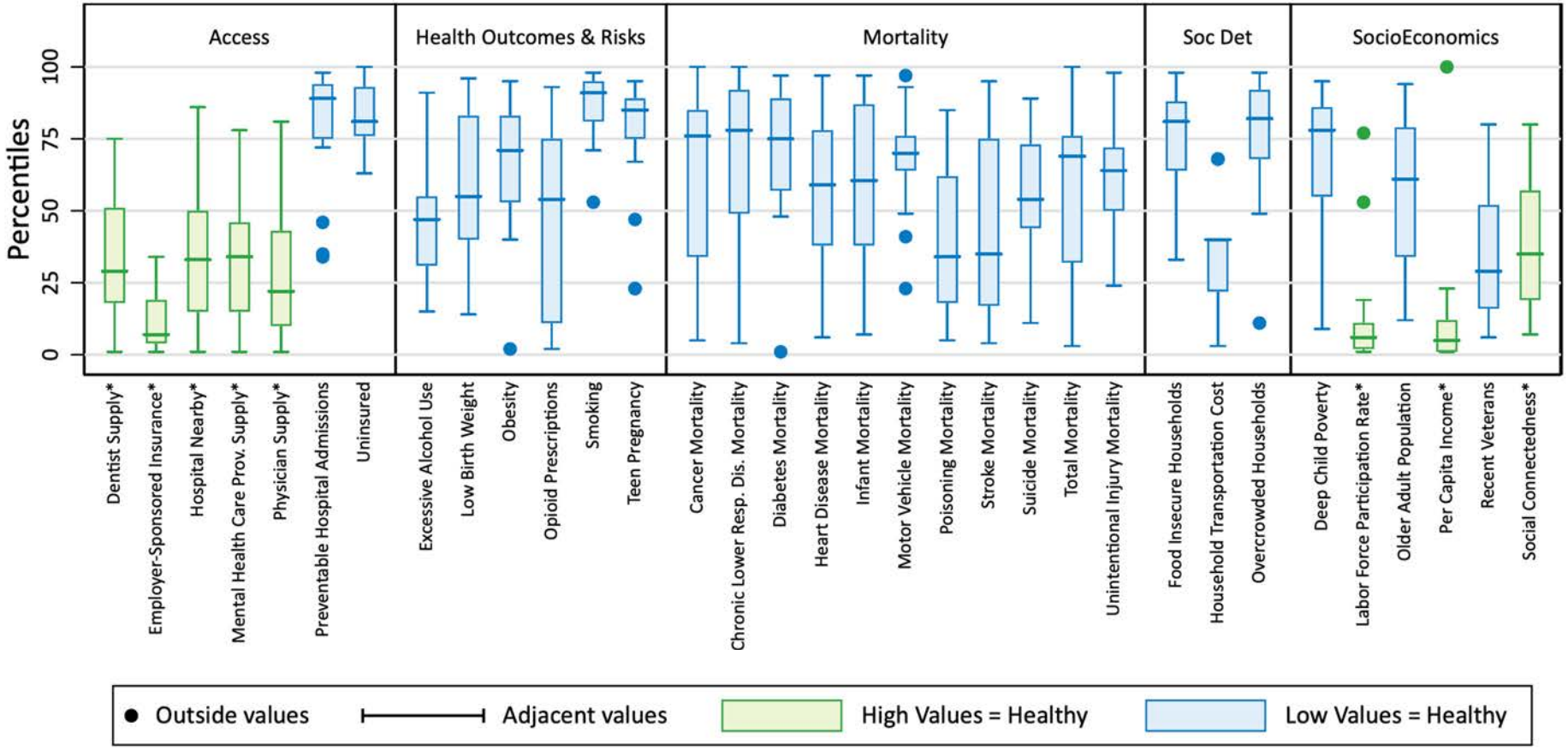
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Connecticut has only one rural county. The lines on the chart represent the single county value for each indicator. For that county, the indicators look good overall. Poisoning mortality is the only indicator that stands out as a problem.

Definitions and Data Sources

Rural/Urban National Averages

Florida Summary



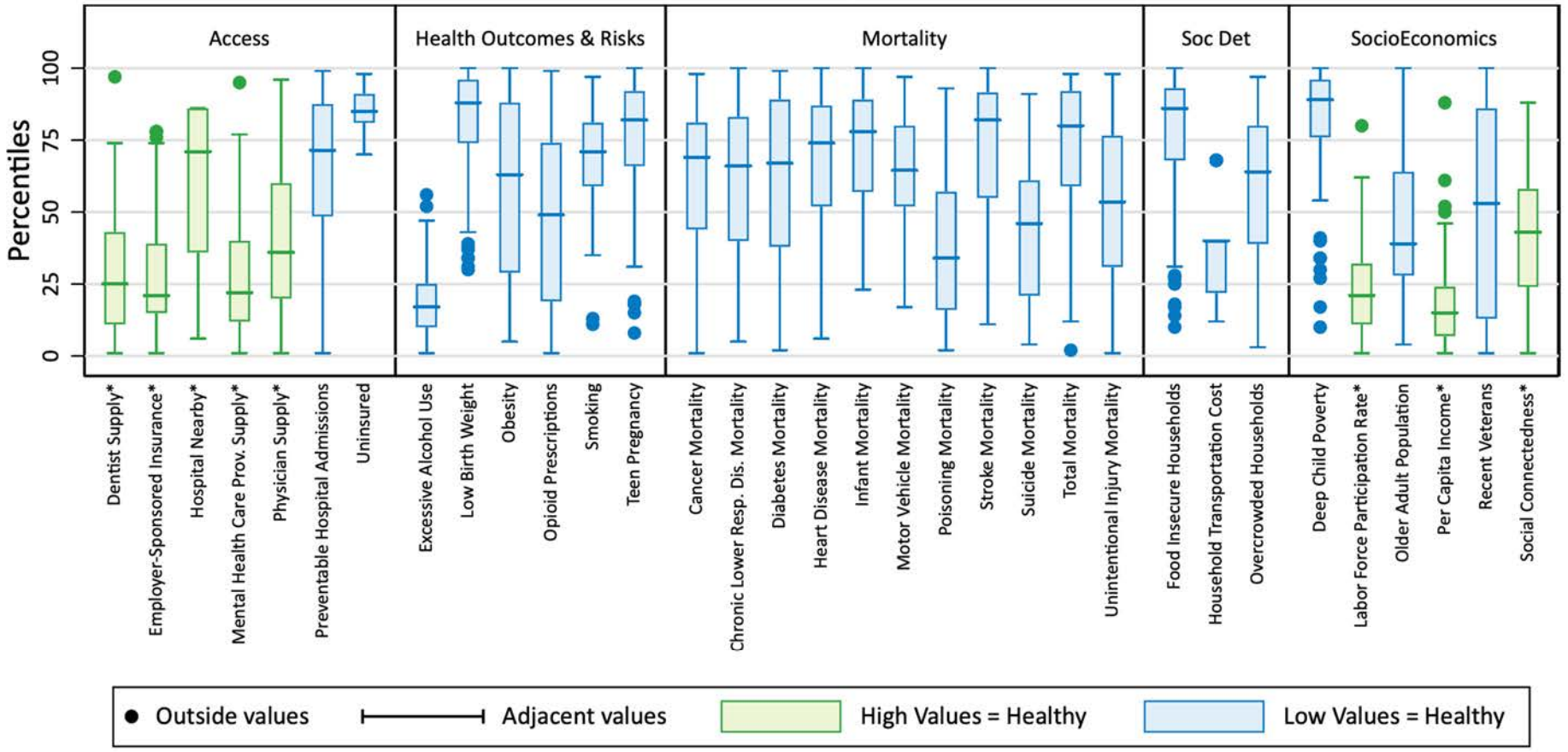
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Florida generally performed poorly compared to U.S. medians for indicators across all five domains. For access, median values for rural Florida counties were worse than the U.S. median for all the indicators. Among the age-adjusted mortality indicators, only poisoning and stroke mortality had medians below the national median. Smoking, teen pregnancy, food insecurity, overcrowded households, and child poverty were also higher. Finally, labor force and per capita income were very low compared to national medians.

Definitions and Data Sources

Rural/Urban National Averages

Georgia Summary



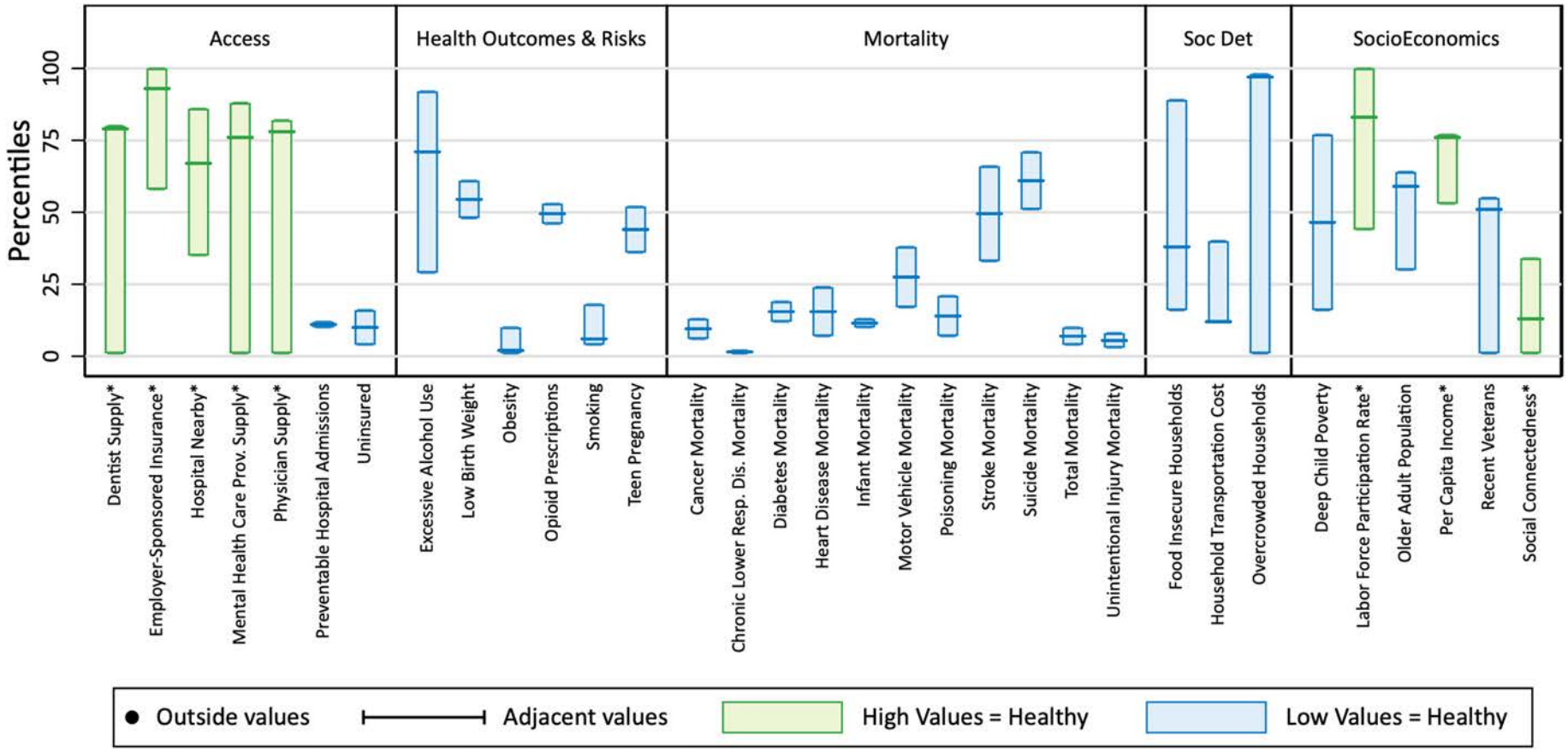
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Georgia had less healthy medians than most U.S. counties for several indicators across all five domains. The state had poorer rates for most access indicators except hospital nearby. Rural Georgia also had higher median mortality rates for all but two indicators (poisoning and suicide), as well as higher medians for all health outcomes and risks indicators except alcohol use (lower than the 25th percentile). Food insecurity and child poverty were also high, while labor force participation and per capita income were low.

Definitions and Data Sources

Rural/Urban National Averages

Hawaii Summary



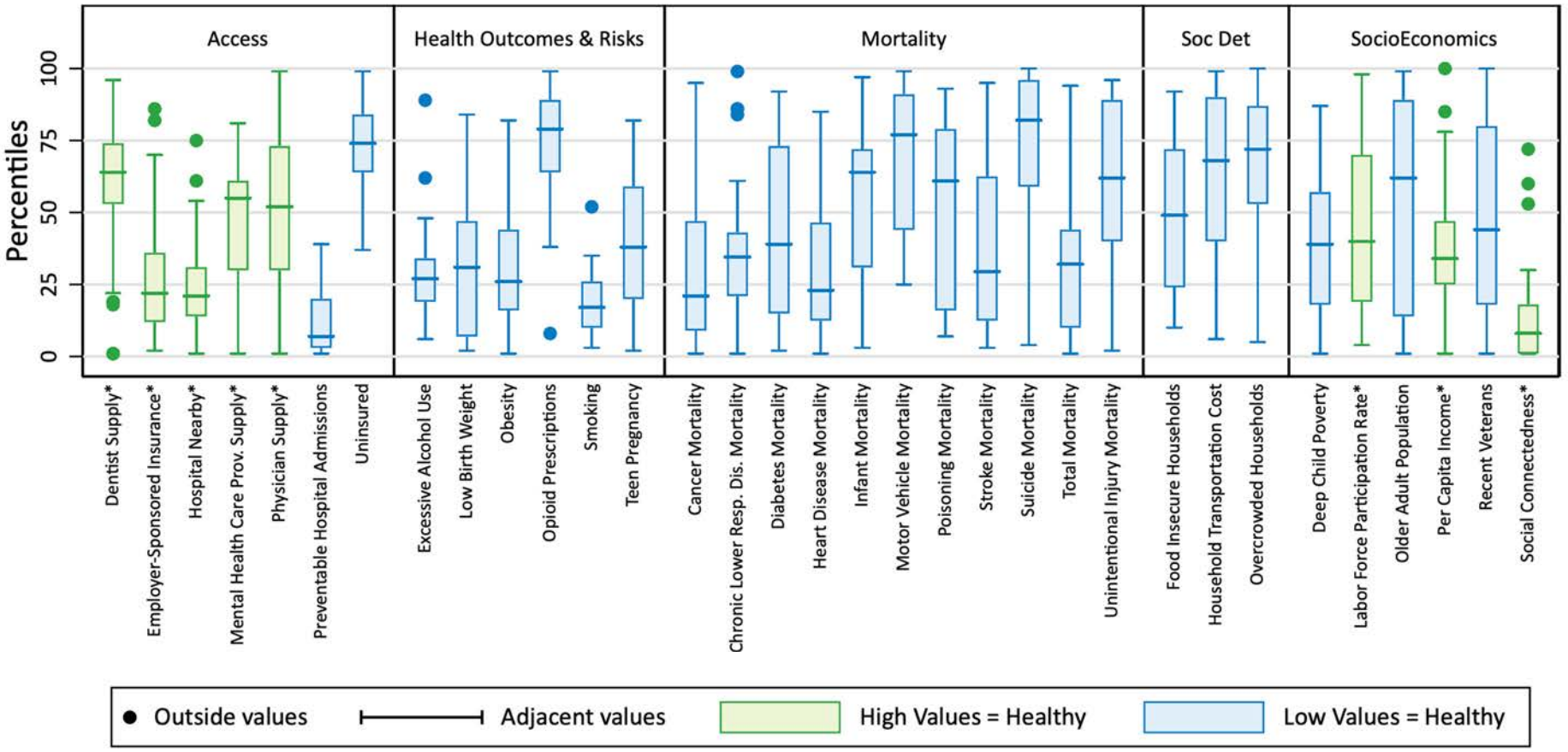
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Overall, Hawaii performed better than U.S. medians for most indicators. The state had higher medians for all positive access indicators (provider supply, hospital nearby, and employer-sponsored insurance), but the distribution was broad, so some counties have poor access. The uninsured and preventable hospital admissions rates were better than most of the United States. Hawaii also had medians at or below U.S. medians for all but one of the mortality indicators—suicide. Rural Hawaiians had lower medians for obesity, smoking, and teenage pregnancy, but higher medians for alcohol use and low birth weight. Social connectedness and overcrowded households had worse medians compared to the U.S.

Definitions and Data Sources

Rural/Urban National Averages

Idaho Summary



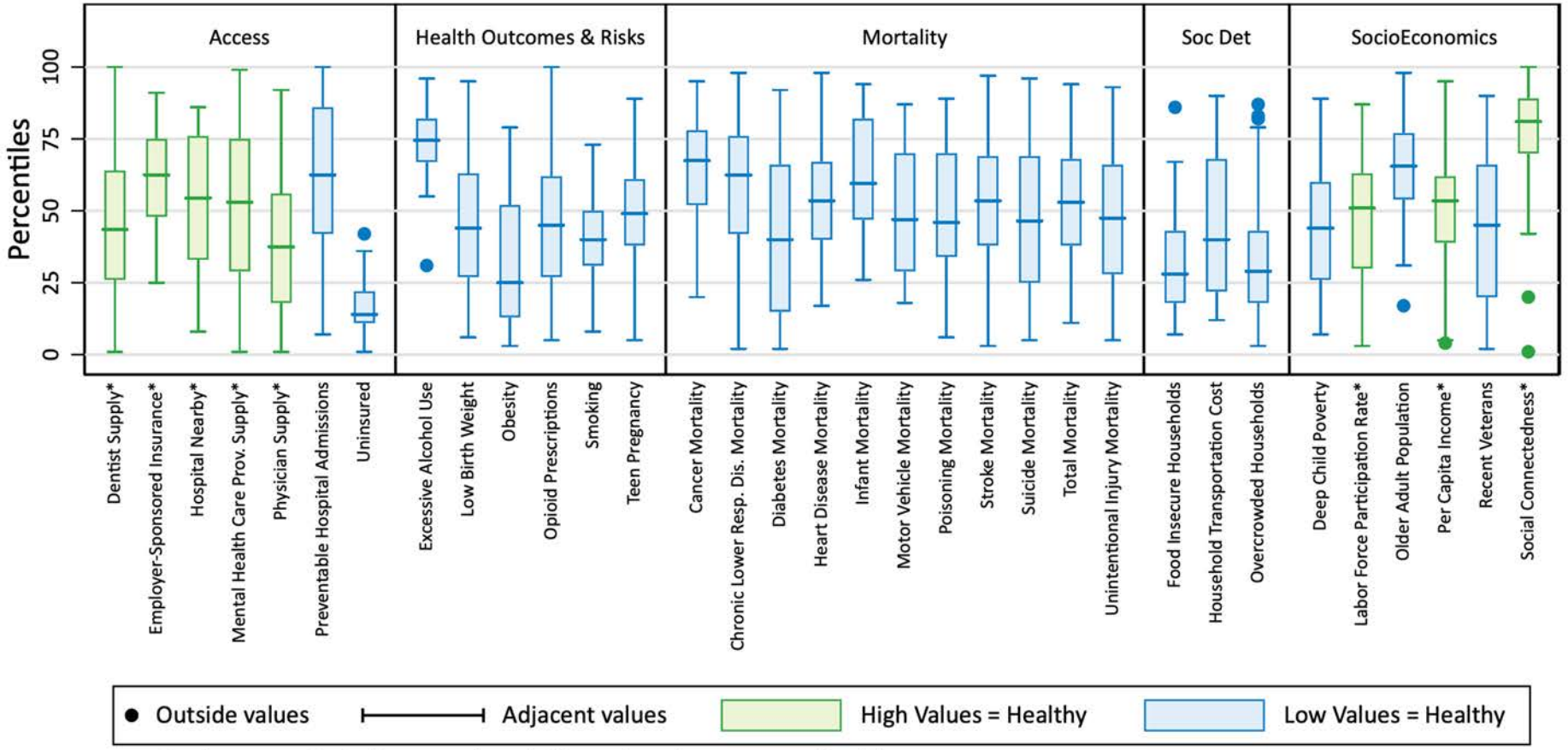
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Idaho had a mixed performance relative to the United States. Rural Idahoans had less access to health insurance and nearby hospitals, but also had a low preventable hospital admissions median. Health outcomes and risks indicators in Idaho were generally better, except for opioid use. Motor vehicle, suicide, infant, poisoning, and unintentional injury mortality were higher than national medians, while other mortality rates were lower. Rural Idaho's median social connectedness rate was low.

Definitions and Data Sources

Rural/Urban National Averages

Illinois Summary



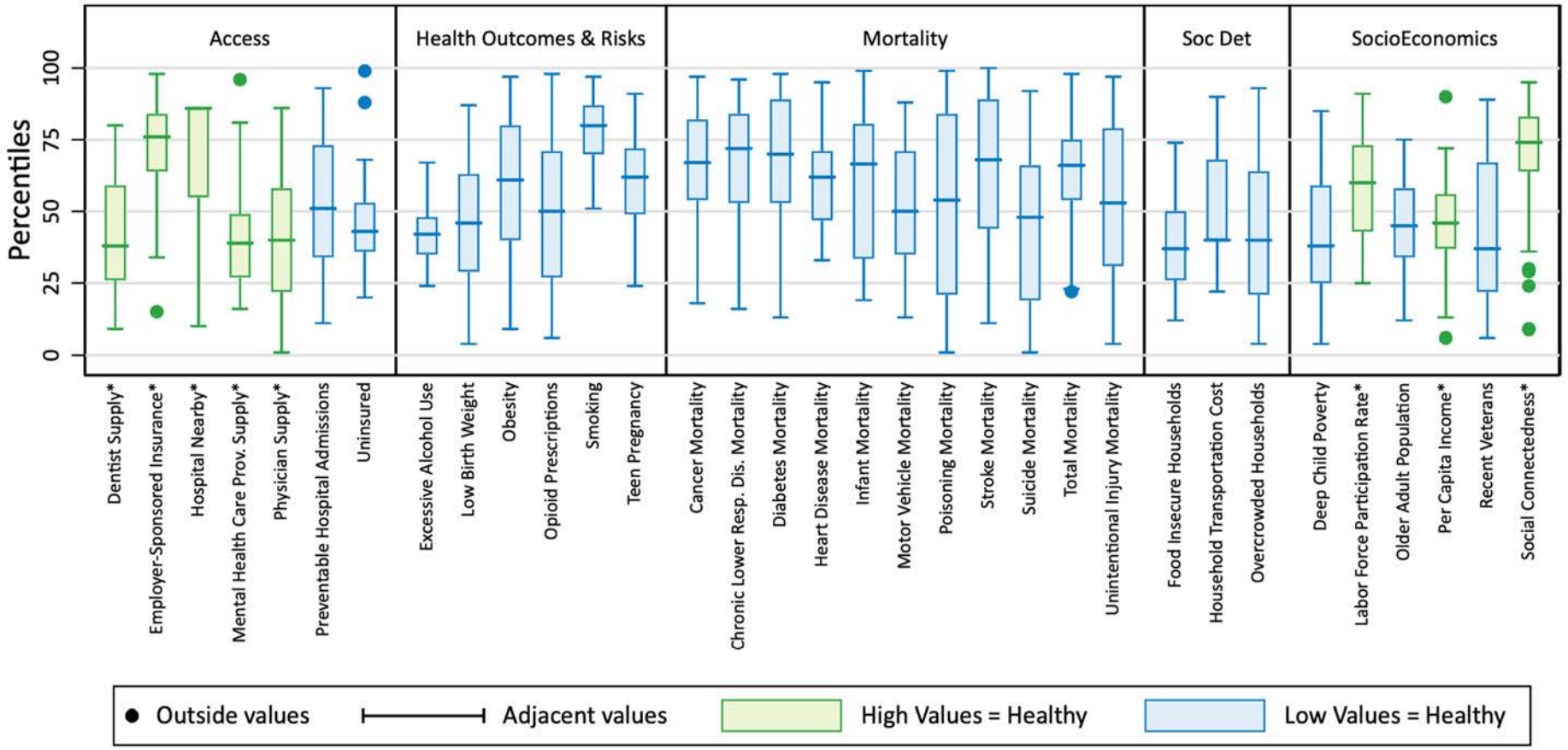
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Illinois health indicators were comparable to U.S. medians for many indicators in each domain, except for social determinants of health. The state's social determinants indicators were below national medians. The uninsured rate was low and employer-sponsored insurance was just above the median U.S. rate. Alcohol use was high, while other health outcomes and risks indicators were below U.S. medians. Performance in the mortality domain hovered around national medians, with medians a little above the U.S. median for half of indicators. Social connectedness among rural counties in Illinois was better for most counties than the national median.

Definitions and Data Sources

Rural/Urban National Averages

Indiana Summary



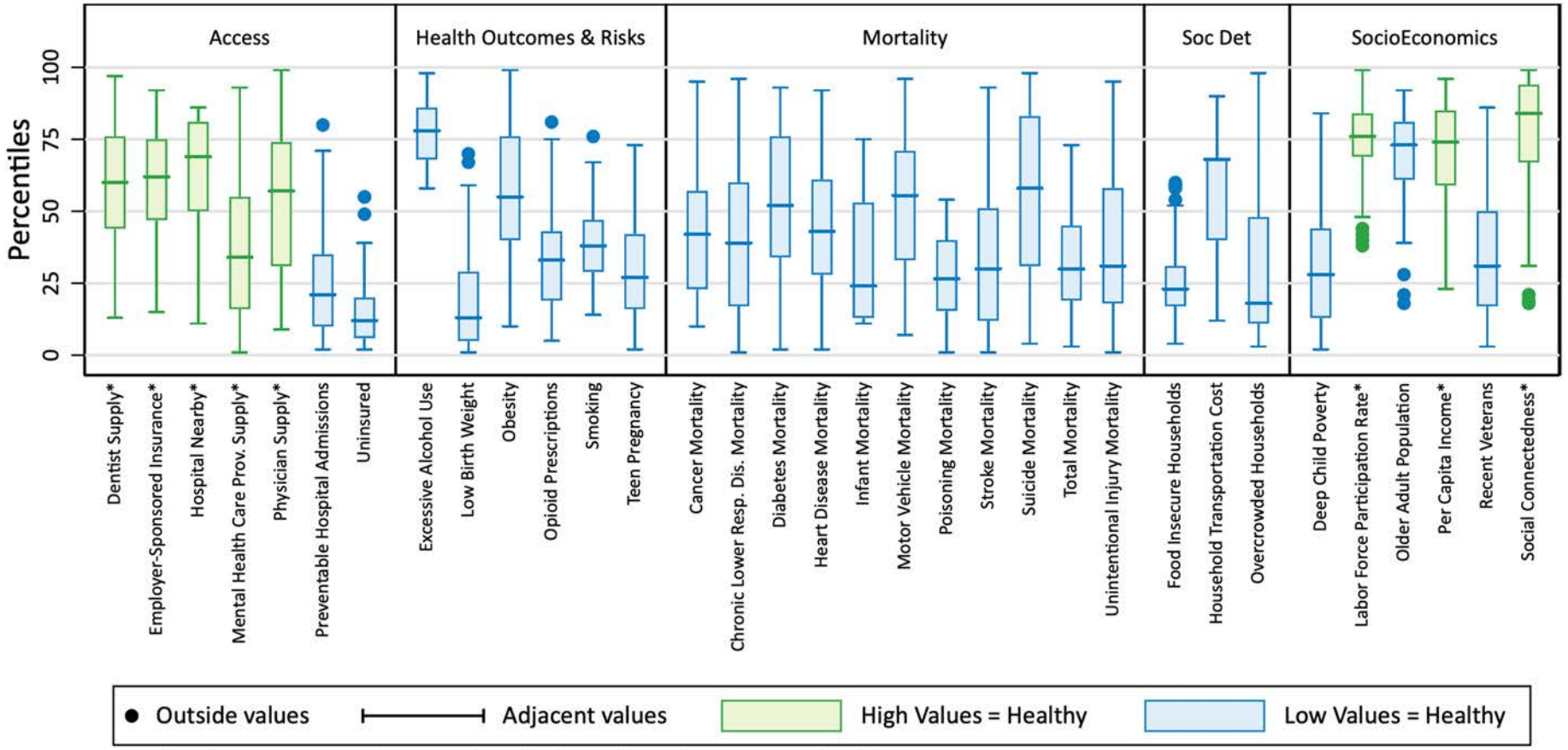
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Indiana had a mixed performance relative to the United States. Provider supply was slightly lower than national values, and employer-sponsored insurance was higher. The rural counties in the state had lower medians for all three social determinant indicators, but higher medians for most of the mortality indicators. Rural Indiana also had a mixed performance in the socioeconomic domain, with lower median child poverty and per capita income rates and a higher median labor force participation rate.

Definitions and Data Sources

Rural/Urban National Averages

Iowa Summary



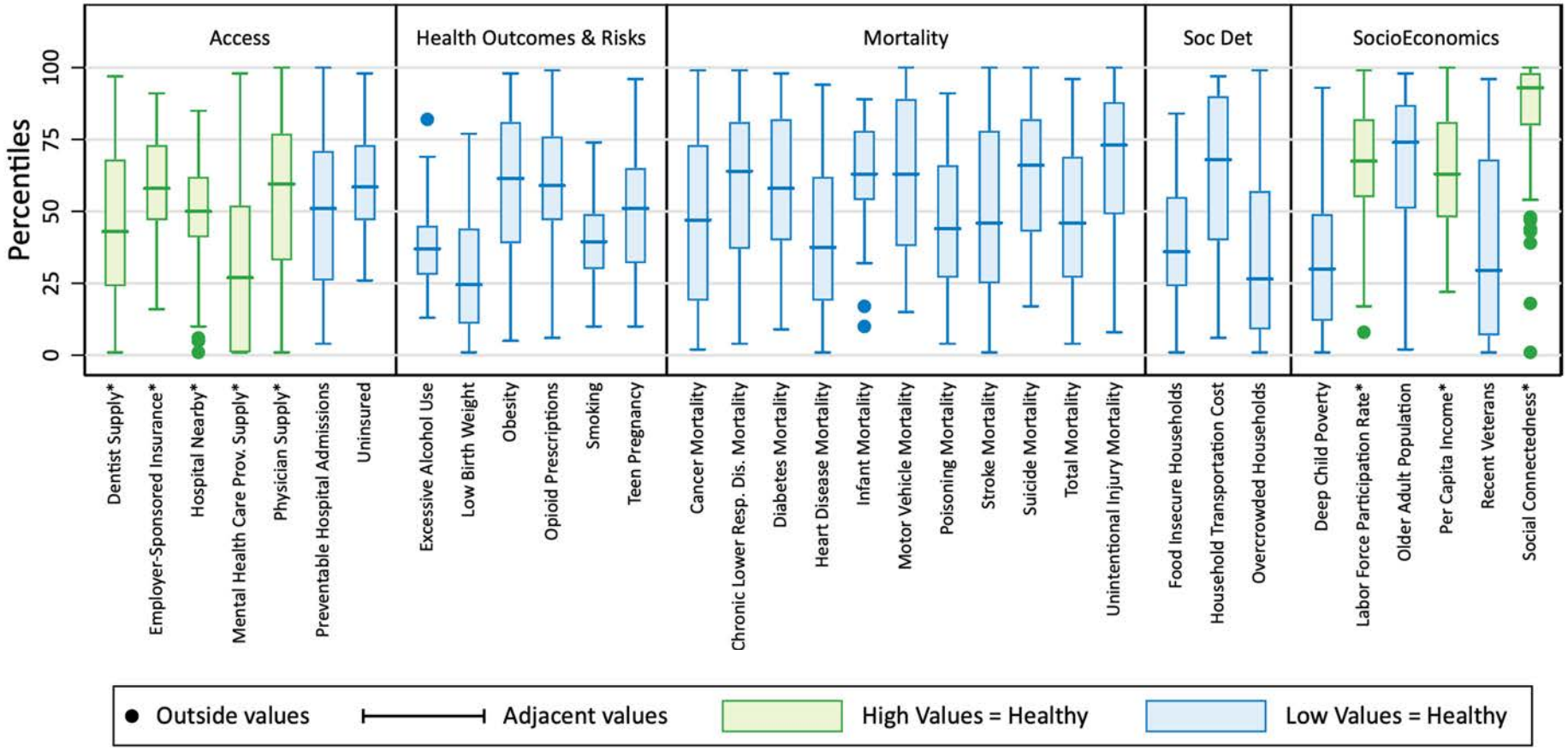
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Iowa generally had a stronger performance relative to the U.S. for many indicators. Except for mental health supply, rural Iowa counties fared well with access measures, having among the lowest rates of uninsured. Excessive alcohol use is the only health outcomes and risks indicator that is notably higher than most U.S. measures. Most of the mortality measures are lower than national values, except for diabetes, motor vehicle incidents, and suicide. Food insecurity, overcrowded households, and child poverty were low. Rural Iowa also had higher median labor force participation and per capita income.

Definitions and Data Sources

Rural/Urban National Averages

Kansas Summary



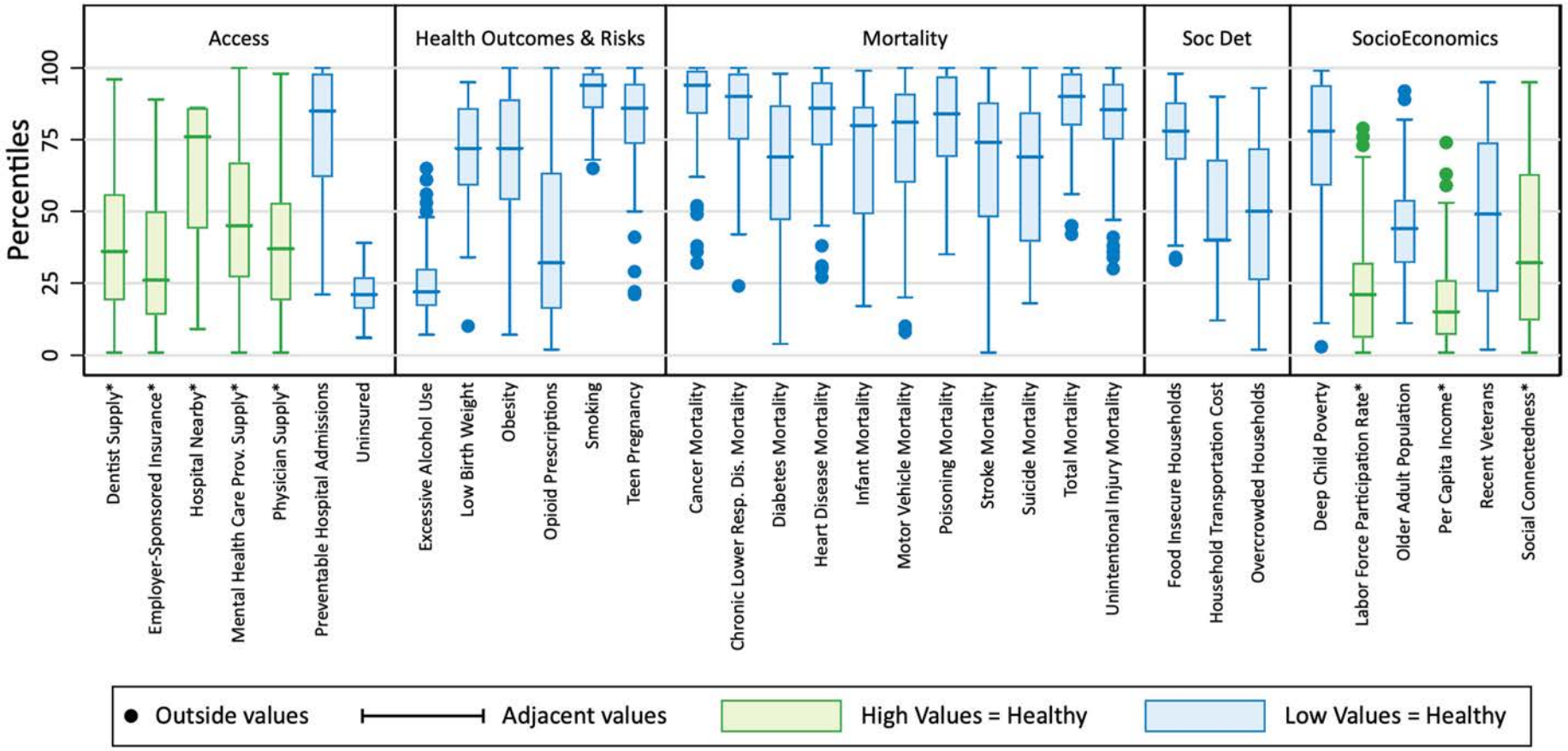
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Kansas had a somewhat mixed performance compared to U.S. medians. In the mortality domain, the rural counties had lower medians for five of the 11 indicators. In the social determinant domain, the rural counties had lower medians for food insecurity and overcrowded households, but a higher median for transportation costs. However, rural Kansas performed well in the socioeconomic domain, with a lower deep child poverty median, as well as higher labor force and per capita income medians. Social connectedness was among the highest in the U.S.

Definitions and Data Sources

Rural/Urban National Averages

Kentucky Summary



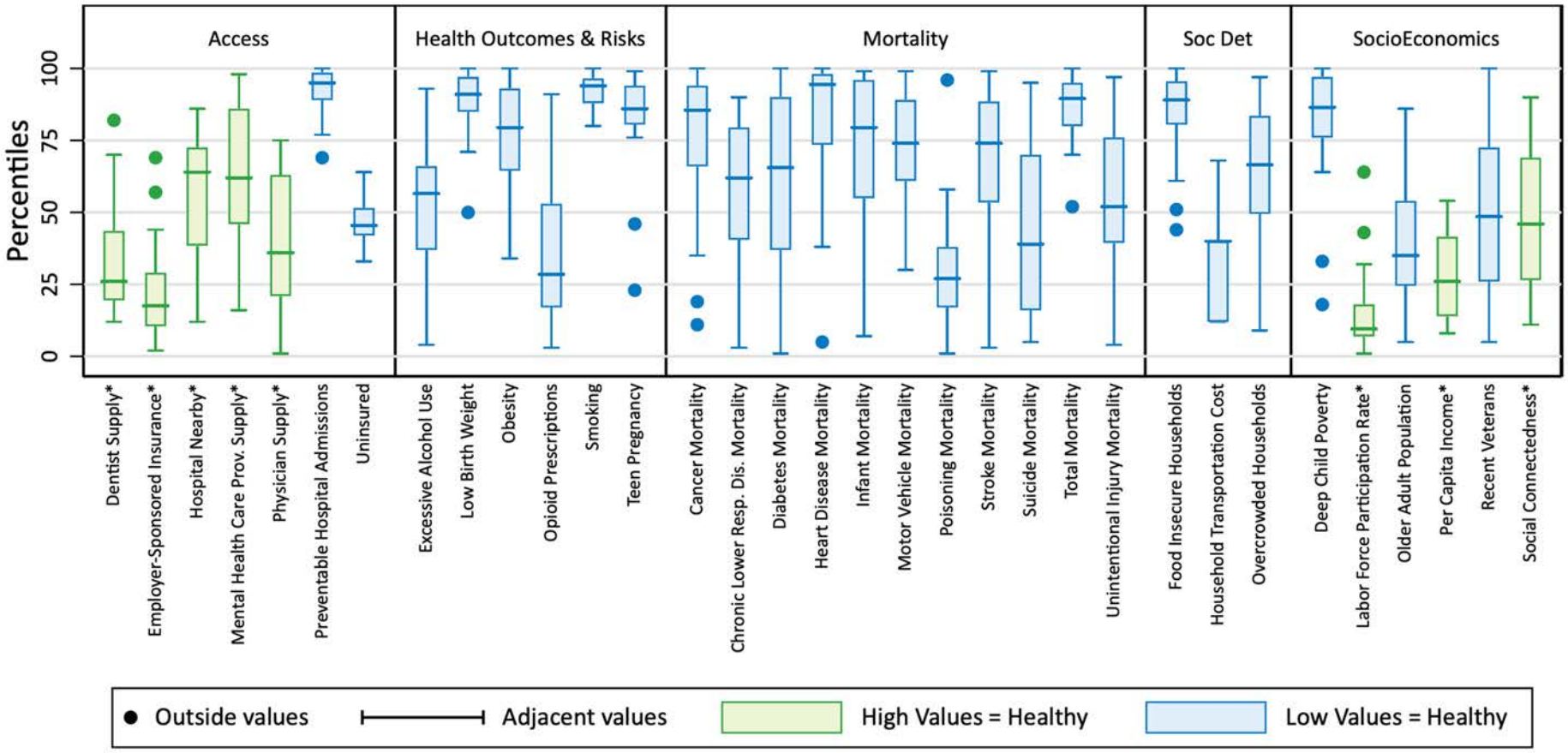
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Kentucky had a fairly poor performance relative to the U.S. Except for hospital nearby and uninsured rates, rural Kentucky had poorer median values for health care access measures. Kentucky had high medians for smoking and teen pregnancy, but low medians for excessive alcohol use. Medians for most mortality indicators standout with most above 75th percentile. Deep child poverty was high, and labor force and per capita income were low.

Definitions and Data Sources

Rural/Urban National Averages

Louisiana Summary



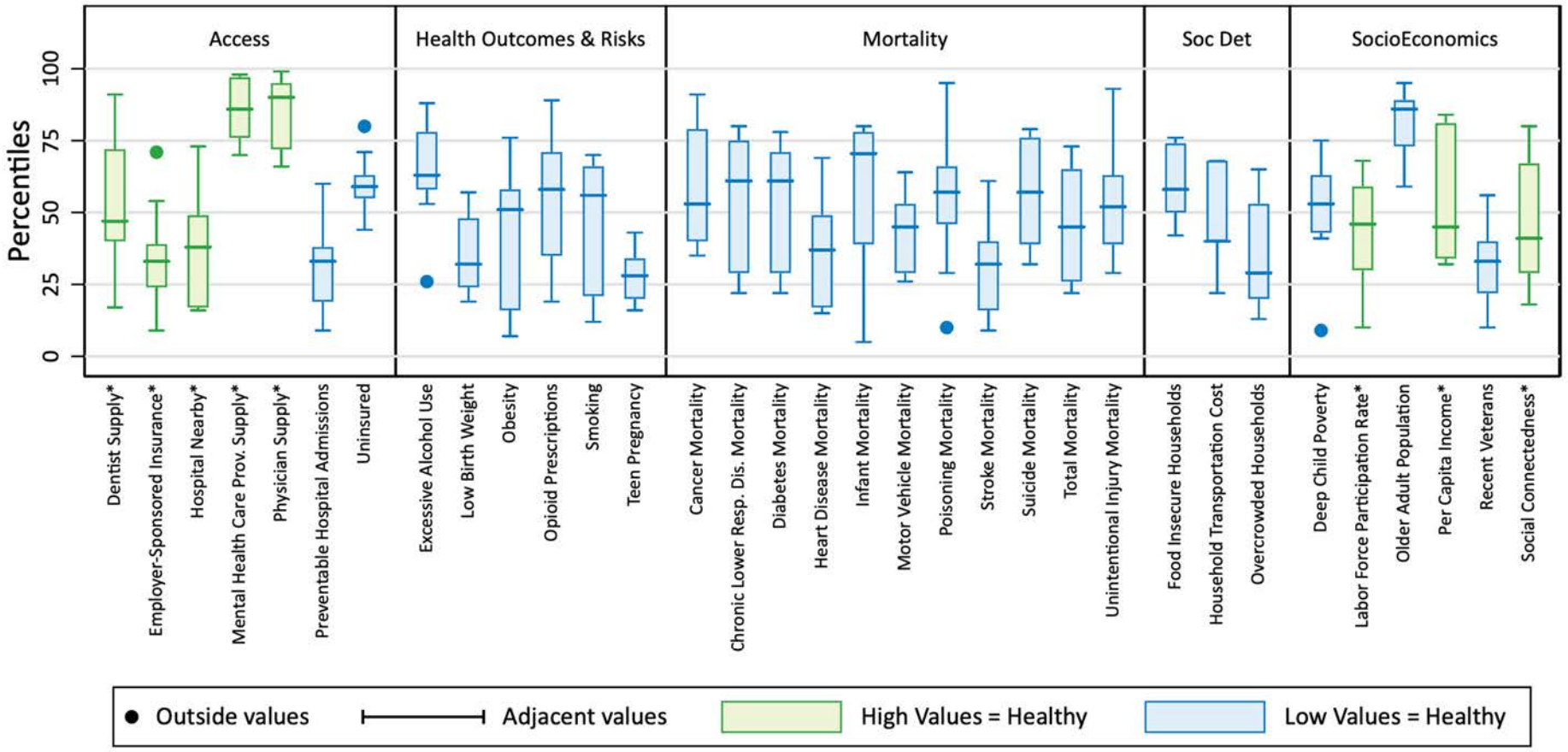
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Louisiana generally performed below U.S. medians for most indicators across all five domains. For access, median values for rural Louisiana counties were worse than the U.S. medians for the following indicators: dentist supply, employer-sponsored insurance, physician supply, and preventable hospital admissions. For mortality, only two indicators were better among rural Louisiana counties relative to the U.S.: poisoning and suicide. Four health outcomes and risks indicators had median rates that were greater than the 75th percentile. Food insecure and child poverty were also greater than the 75th percentile, while labor force and per capita income were near the bottom.

Definitions and Data Sources

Rural/Urban National Averages

Maine Summary



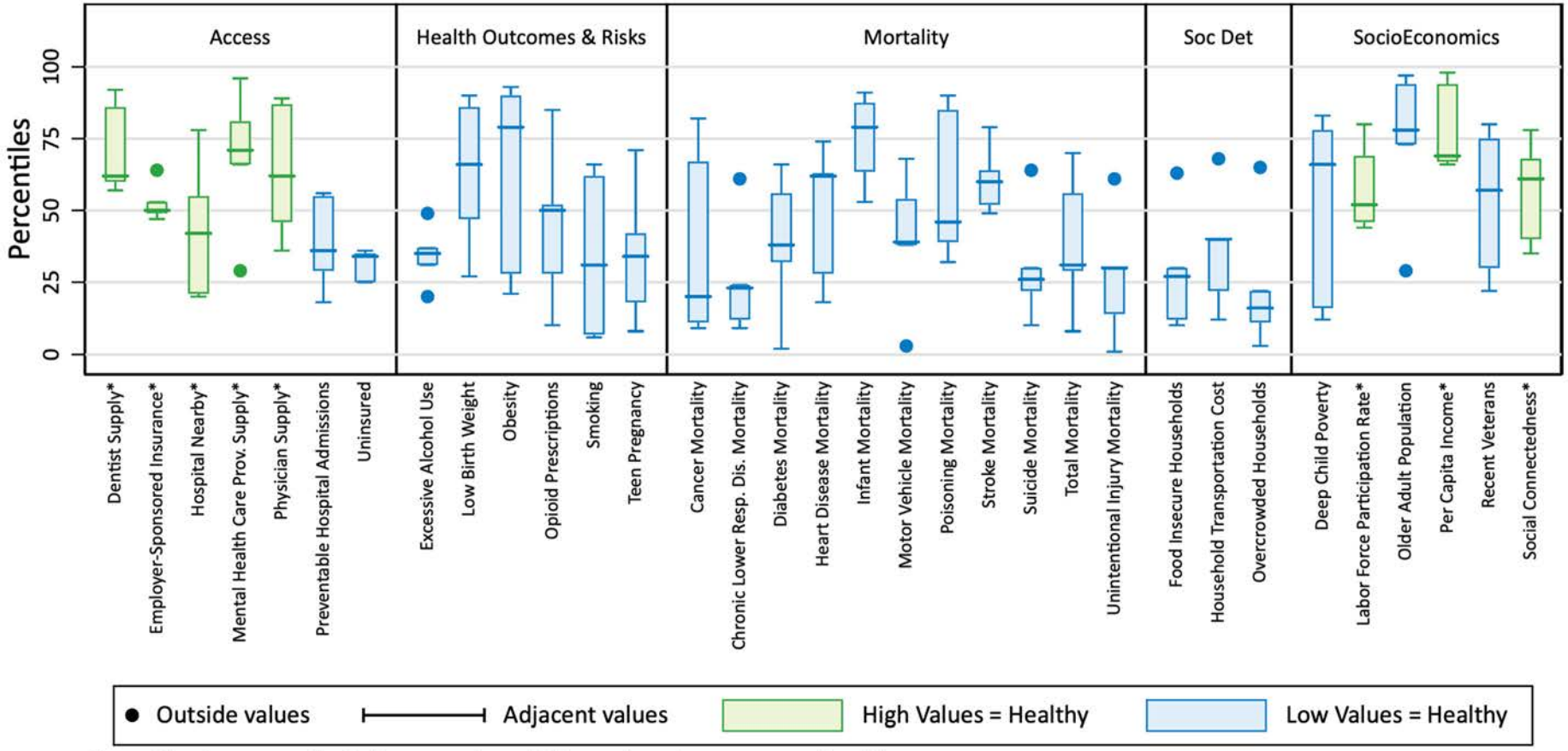
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Most of rural Maine's indicator medians were near the national medians. Among the access indicators, mental health care provider and physician supply were above the 75th percentile. Teen pregnancy and low birth weight were also better, near the 25th percentile. However, rural Maine counties had relatively high infant mortality, but below the 75th percentile. The other notable indicator was a higher median older adult population.

Definitions and Data Sources

Rural/Urban National Averages

Maryland Summary



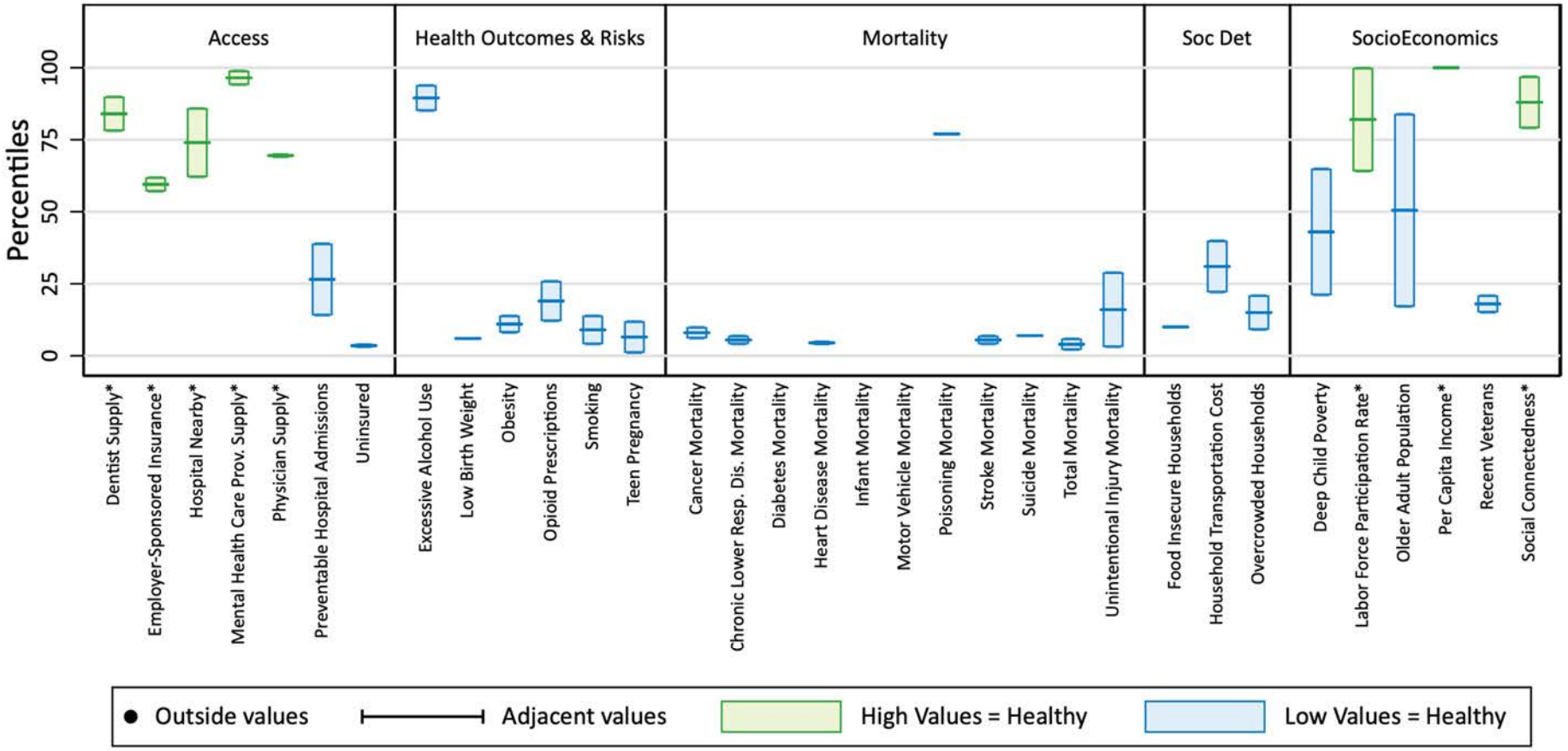
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Maryland counties performed strongly compared to the United States. For example, among the social determinants domain, rural Maryland counties had low median rates of all three indicators relative to the U.S. median (i.e., food insecurity, overcrowded households, transportation costs). Additionally, rural Maryland counties had lower medians for seven out of the 10 mortality domain indicators: cancer, chronic lower respiratory disease, diabetes, motor vehicle incidents, poisoning, suicide, and unintentional injury.

Definitions and Data Sources

Rural/Urban National Averages

Massachusetts Summary



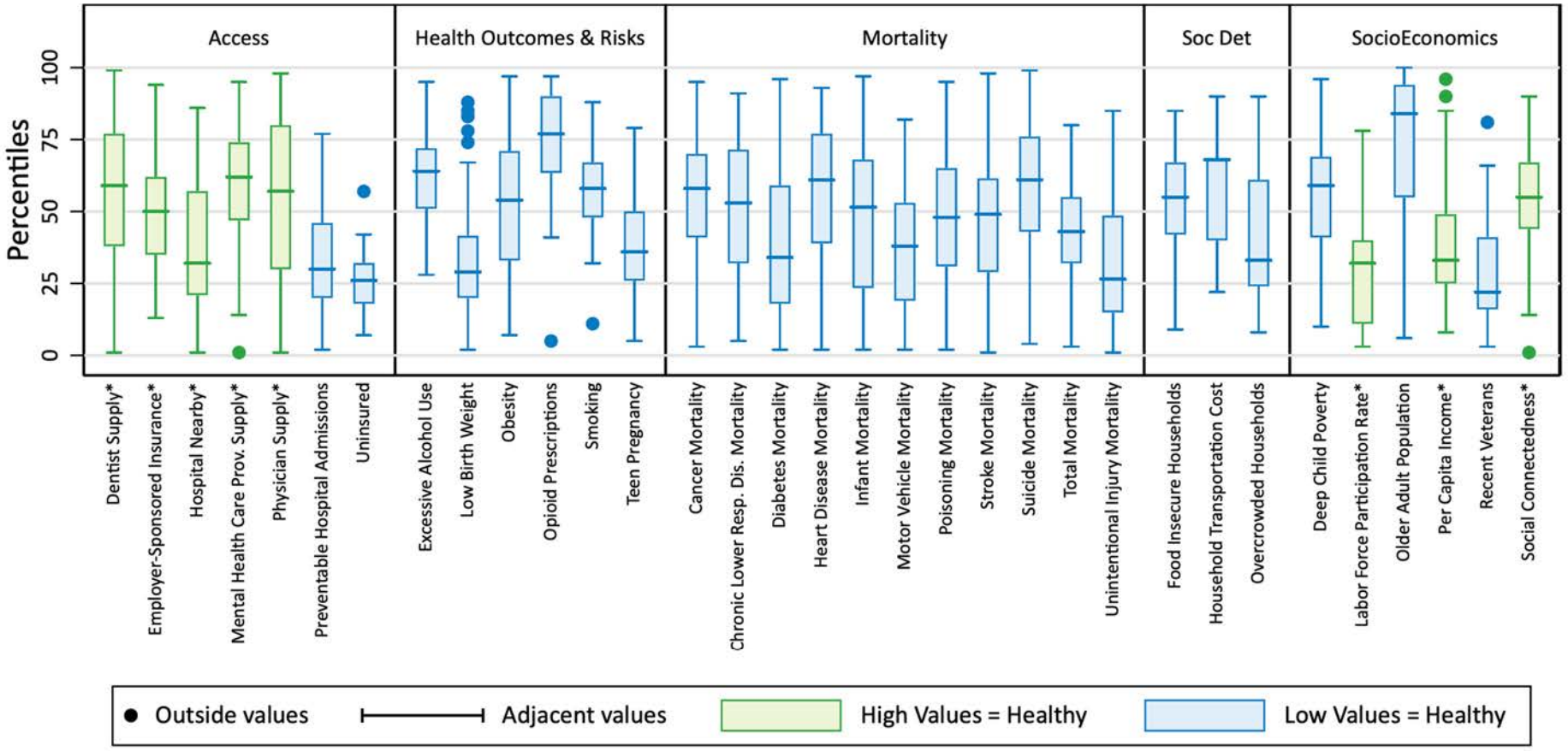
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Massachusetts had only two rural counties, and data for some indicators were missing. For these two counties, medians were generally positive compared to national medians. Alcohol use and poisoning stood out as potential issues. Per capita income was at the top of the range, and yet deep child poverty was not low—it was just below the 50th percentile.

Definitions and Data Sources

Rural/Urban National Averages

Michigan Summary



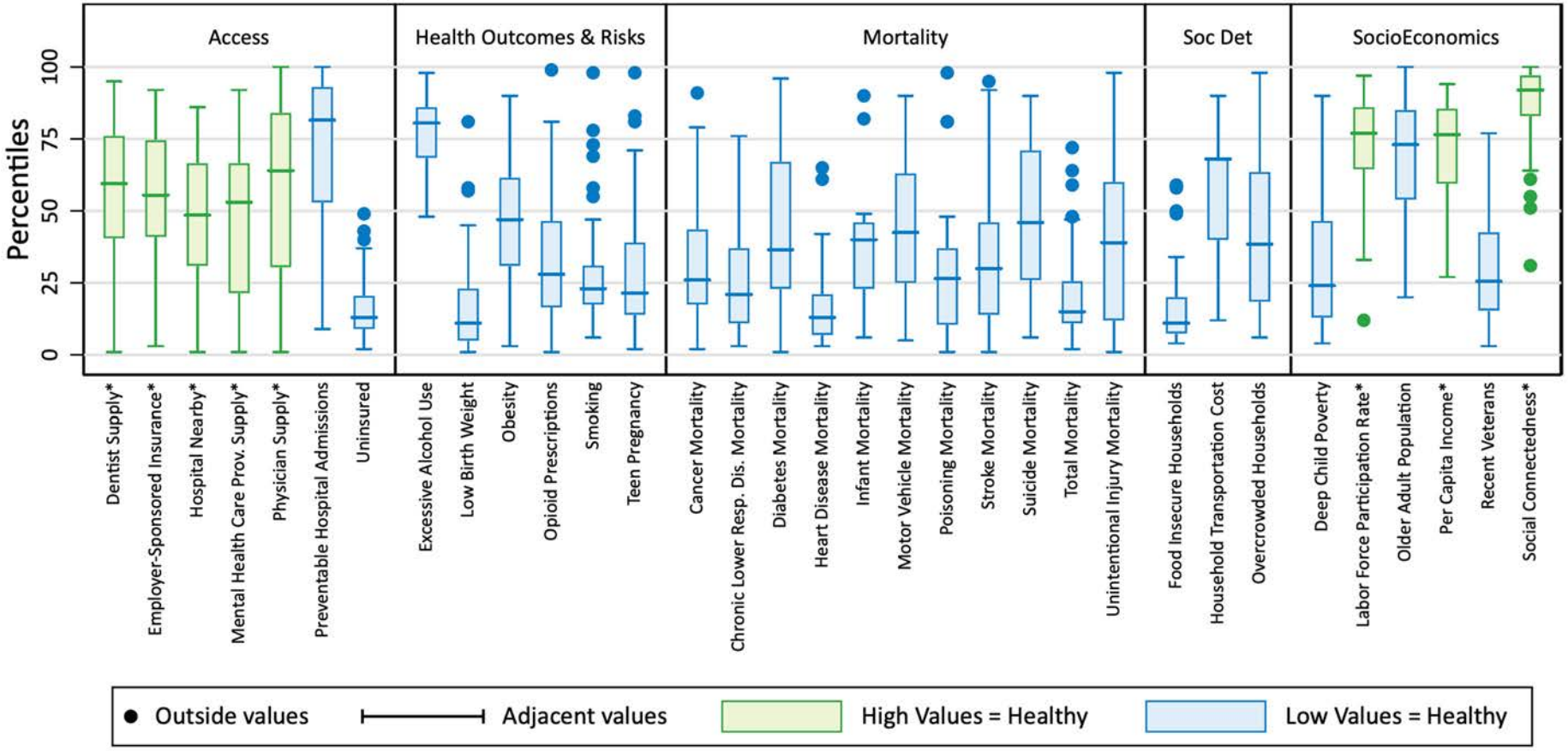
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Michigan's performance for most indicators was between the 25th and 75th percentiles. Indicators that deviated from that were opioid use (>75th percentile), older adult population (>75th percentile), and recent veterans (<25th percentile). Within the mortality domain, rural Michigan counties had lower medians for diabetes and unintentional injury. The state performed relatively well in the access domain, as rural Michigan county medians were slightly higher for the provider supply indicators and lower for preventable hospital admissions and uninsured indicators.

Definitions and Data Sources

Rural/Urban National Averages

Minnesota Summary



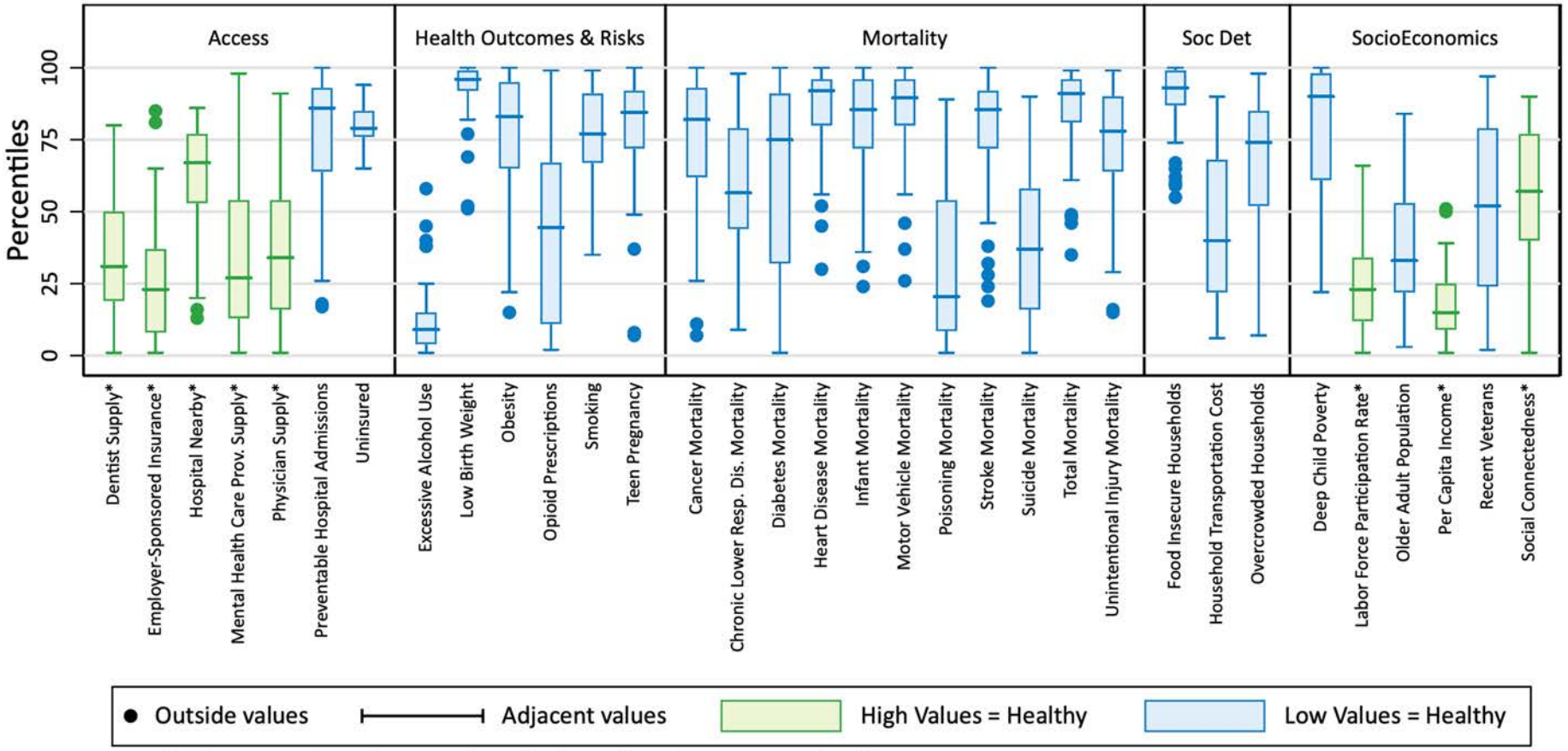
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Minnesota counties generally had a strong performance in several indicators across all five domains. In the health outcomes and risks domain, rural Minnesota counties had lower median rates of low birth weight, obesity, opioid use, smoking, and teenage pregnancy relative to the median in U.S. Rural Minnesota also had lower median rates for all mortality indicators. Socioeconomic indicators were better than most U.S. values with lower child poverty, higher labor force participation, higher per capita income, and higher social connectedness.

Definitions and Data Sources

Rural/Urban National Averages

Mississippi Summary



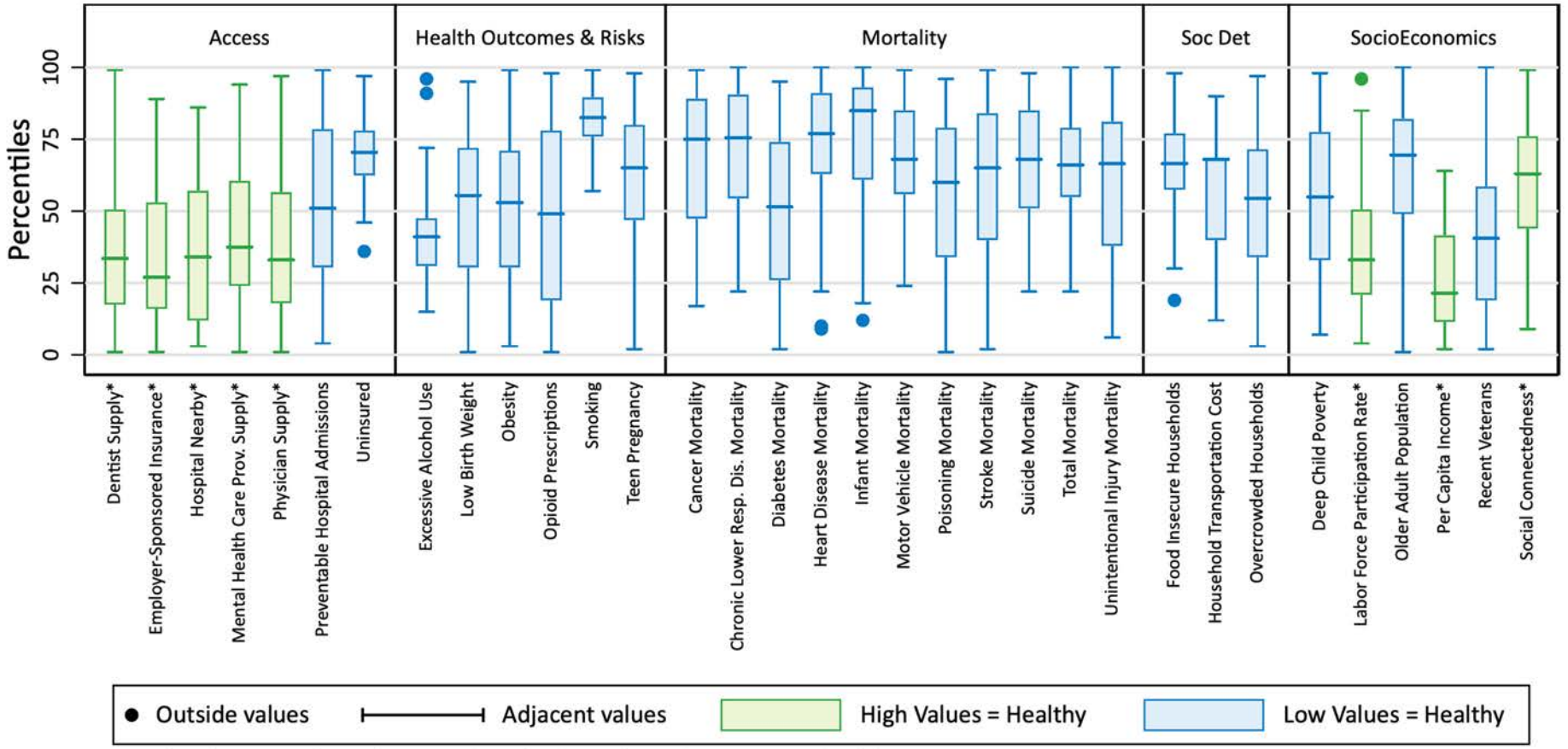
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Mississippi performed poorly relative to the United States. Among the access indicators, the only positive median is hospital nearby. Provider supply medians were low, and the uninsured median was high. Seven mortality indicators medians were above the 75th percentile. Two mortality indicators had lower medians—poisoning and suicide. Mississippi rural counties had a higher median for child poverty and a lower median for per capita income relative to the U.S. median. Median child poverty and food insecurity were notably high.

Definitions and Data Sources

Rural/Urban National Averages

Missouri Summary



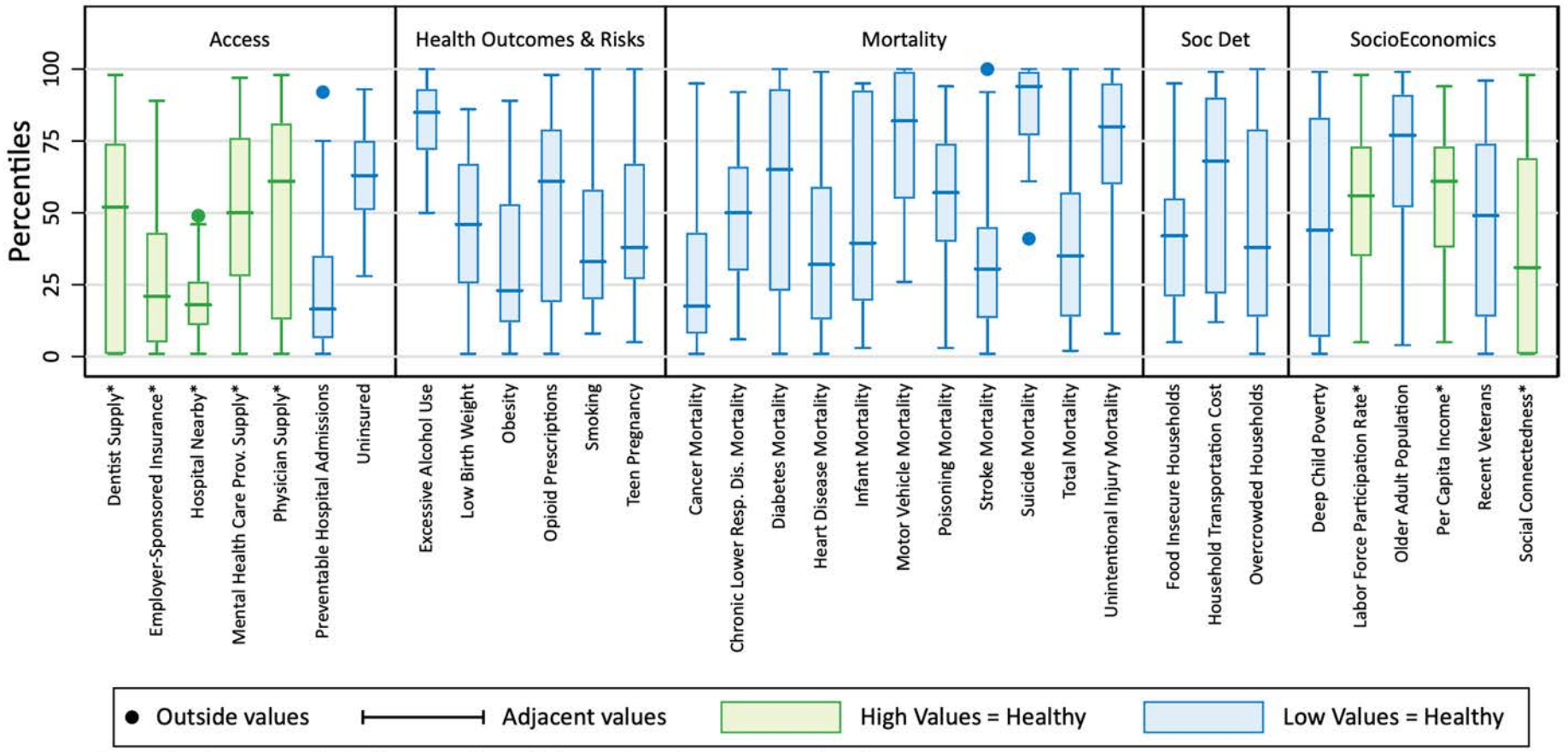
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Missouri generally performed poorly relative to the United States. Among the access indicators, the Missouri rural county medians for dentist supply, employer-sponsored insurance, hospital nearby, mental health supply, and physician supply were below U.S. medians, and the median uninsured rate is higher than the U.S. median. All the mortality indicators had medians above the 50th percentile. Health outcomes and risks indicators were similar to national medians or lower except for smoking (>75th percentile) and teen pregnancy. The rural labor force and per capital income medians were below national medians.

Definitions and Data Sources

Rural/Urban National Averages

Montana Summary



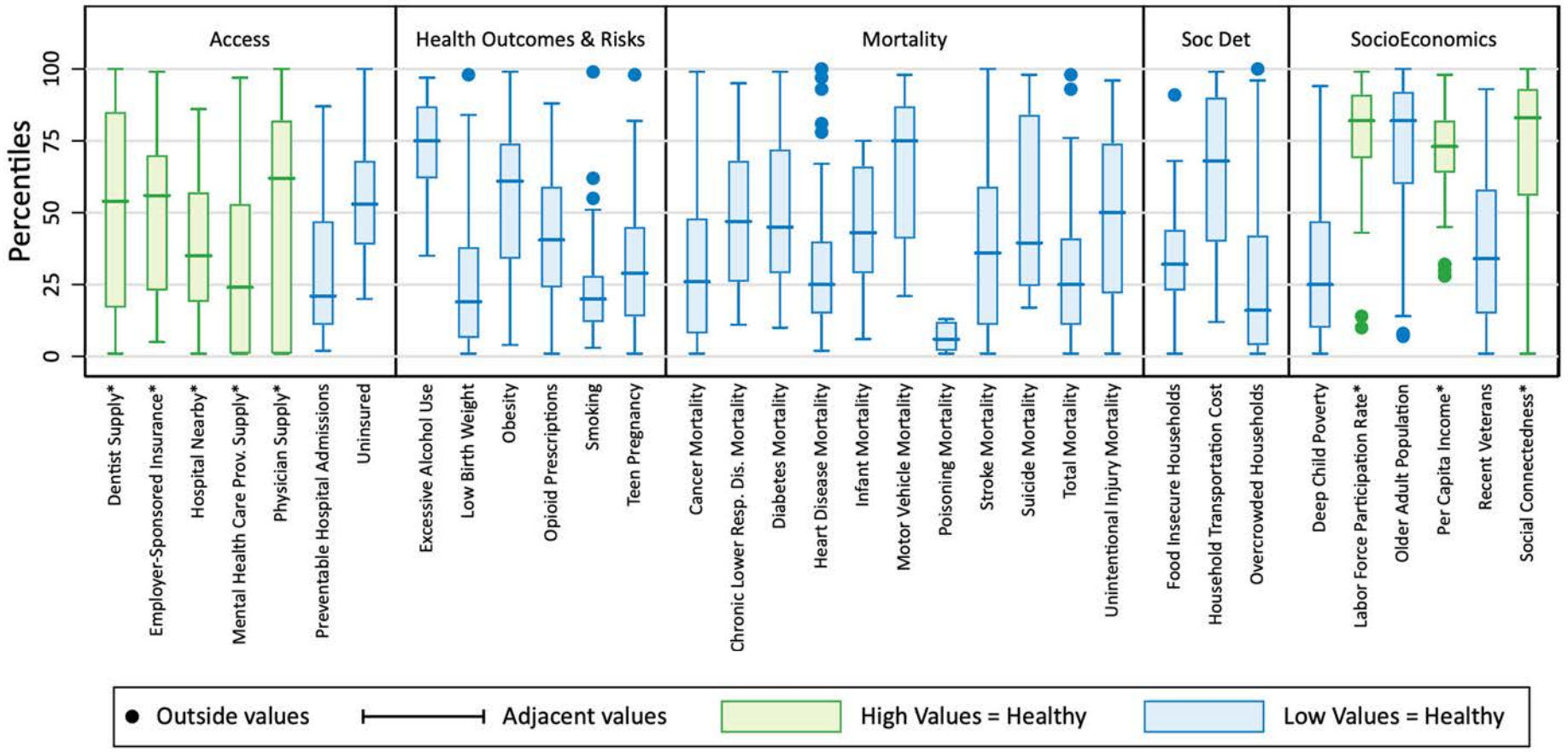
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Montana counties had a mixed performance compared to the U.S., and distributions for many indicators were wide. They are unlikely to have a hospital nearby. For the health outcomes and risks domain, rural Montana had higher median rates of alcohol use and opioid use compared to U.S. medians, but lower median rates of low birth weight, obesity, opioid use, and teenage pregnancy. Among mortality indicators, rural Montana had higher median mortality rates for diabetes, motor vehicle (>75th percentile), poisoning, suicide (>75th percentile), and unintentional injury mortality (>75th percentile), but lower rates of cancer (<25th percentile), heart, infant mortality, and stroke mortality.

Definitions and Data Sources

Rural/Urban National Averages

Nebraska Summary



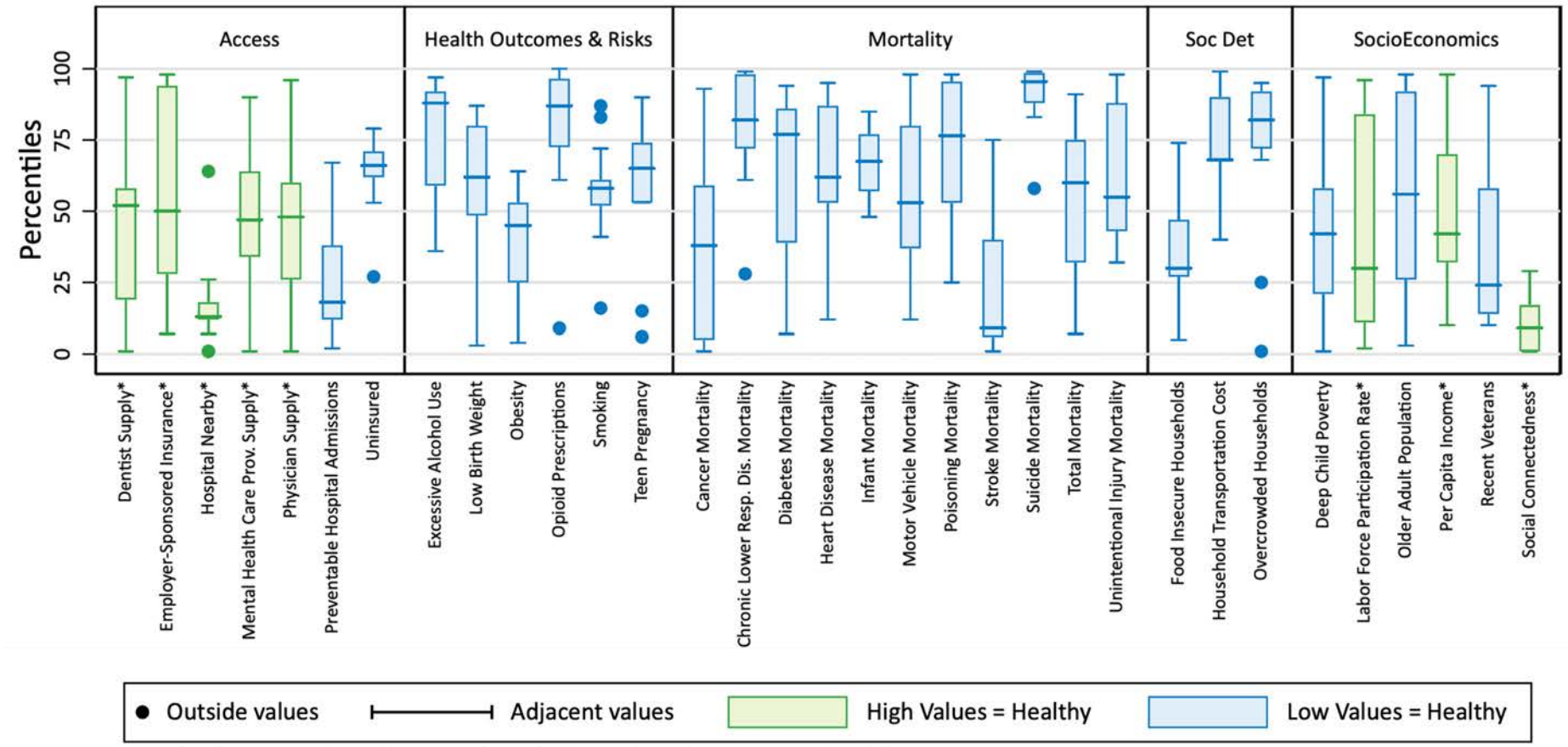
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Nebraska indicator medians overall look better than many U.S. medians. Among the access domain, rural Nebraska had similar or higher median dentist supply, employer-sponsored insurance rate, and physician supply compared to the U.S. median, but a lower median for the hospital nearby and mental health care provider supply. Rural Nebraska performed well with most mortality indicators except motor vehicle mortality (75th percentile). For the social determinant domain, the state had lower medians for food insecurity and overcrowded households, but a higher median for transportation.

Definitions and Data Sources

Rural/Urban National Averages

Nevada Summary



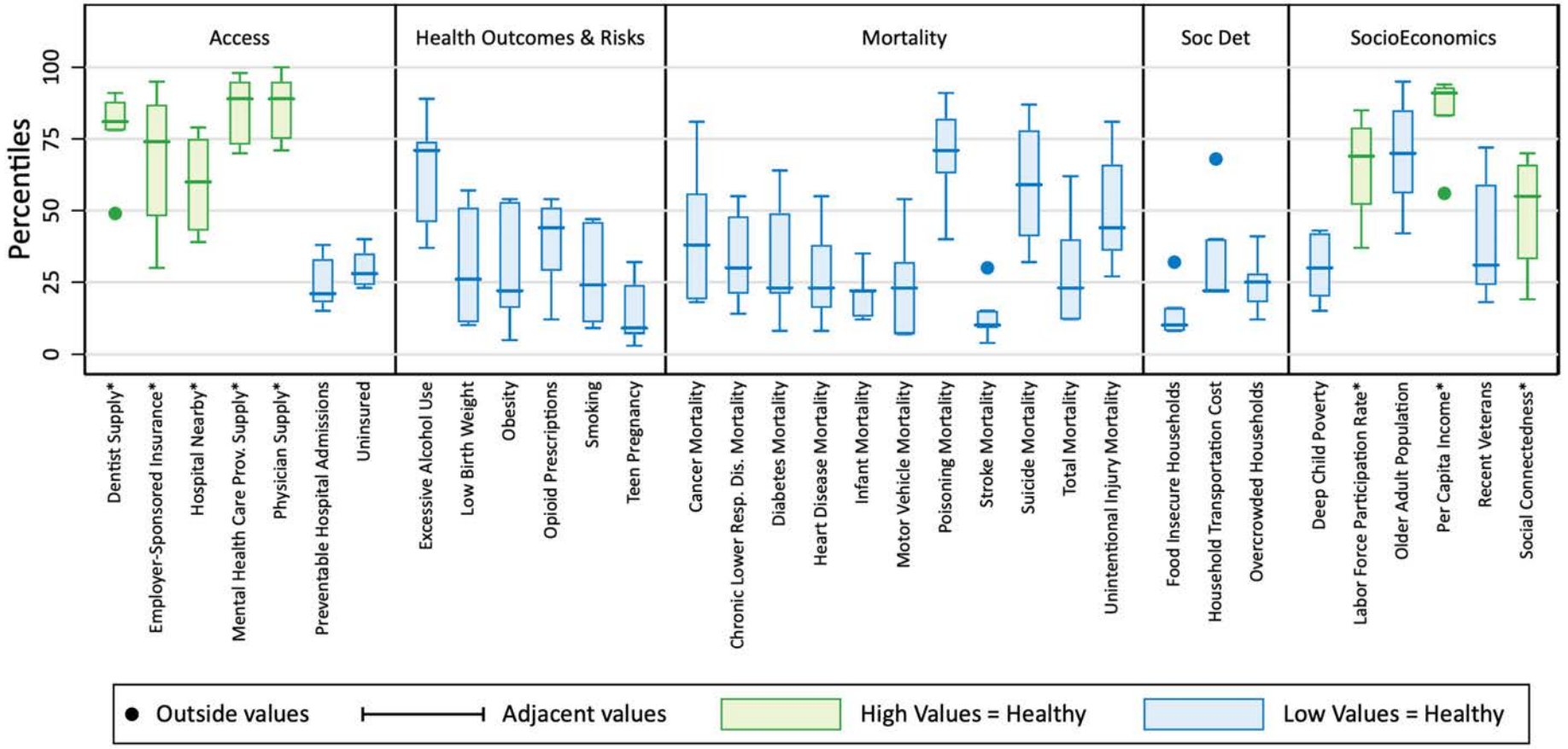
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Nevada had a poorer performance relative to the United States. Among the access domain, several of the indicators were either at or close to the U.S. median, but hospital nearby was among the lowest. Rural counties in the state had higher median rates for alcohol use and opioid use, as well as a high (>75th percentile) median mortality rates for the chronic lower respiratory disease, diabetes, poisoning, and suicide. Suicide rates were notably high and social connectedness rates were notably low.

Definitions and Data Sources

Rural/Urban National Averages

New Hampshire Summary



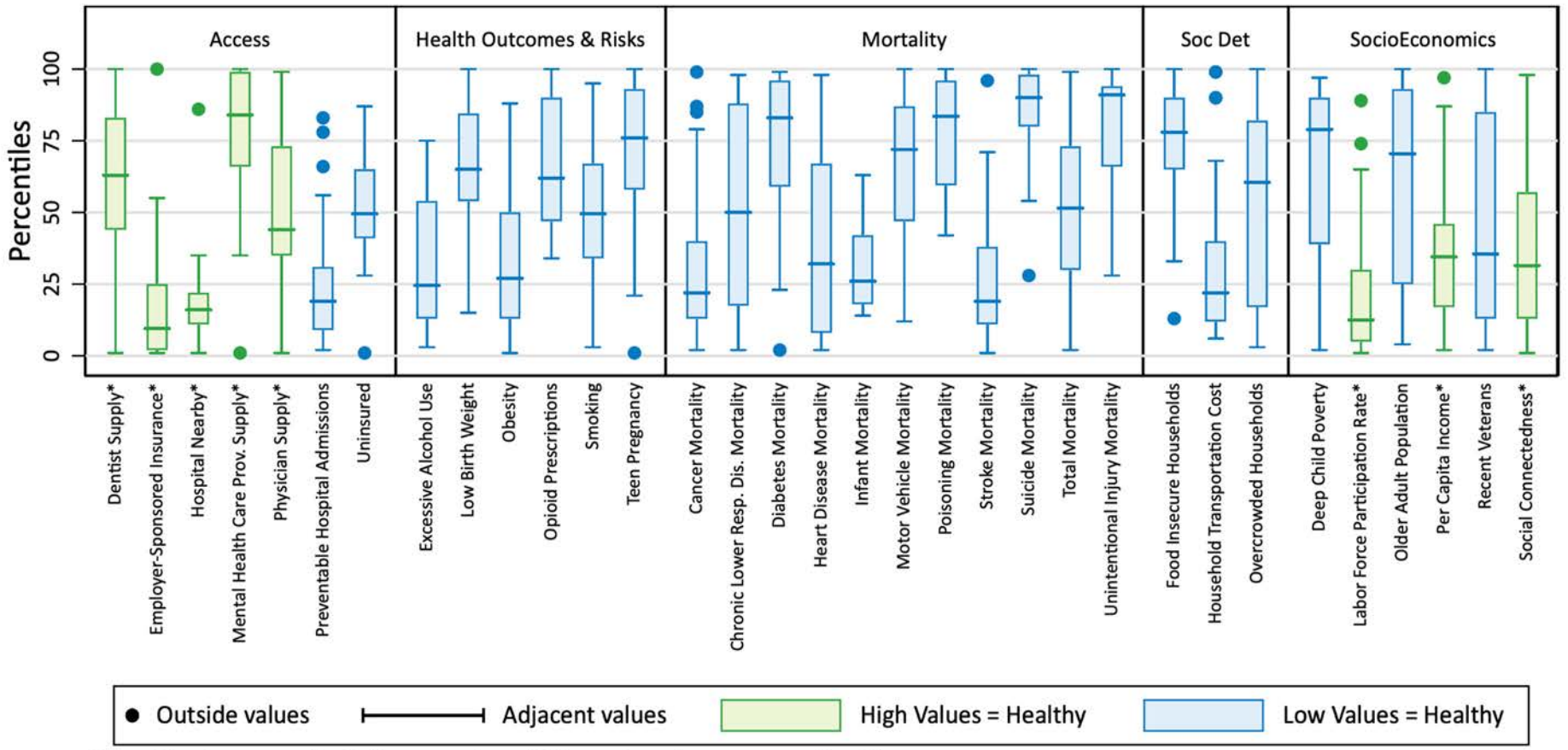
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural New Hampshire generally had a stronger performance across most indicators in each of the five domains relative to the U.S. In the access domain, rural counties in New Hampshire had higher medians for dentist supply, employer-sponsored insurance, hospital nearby, mental health supply, and physician supply, as well as lower median preventable hospital admissions and uninsured rates. The median mortality rates were lower for rural New Hampshire for all but two indicators—poisoning and suicide. Median per capita income was also higher compared to U.S. values.

Definitions and Data Sources

Rural/Urban National Averages

New Mexico Summary



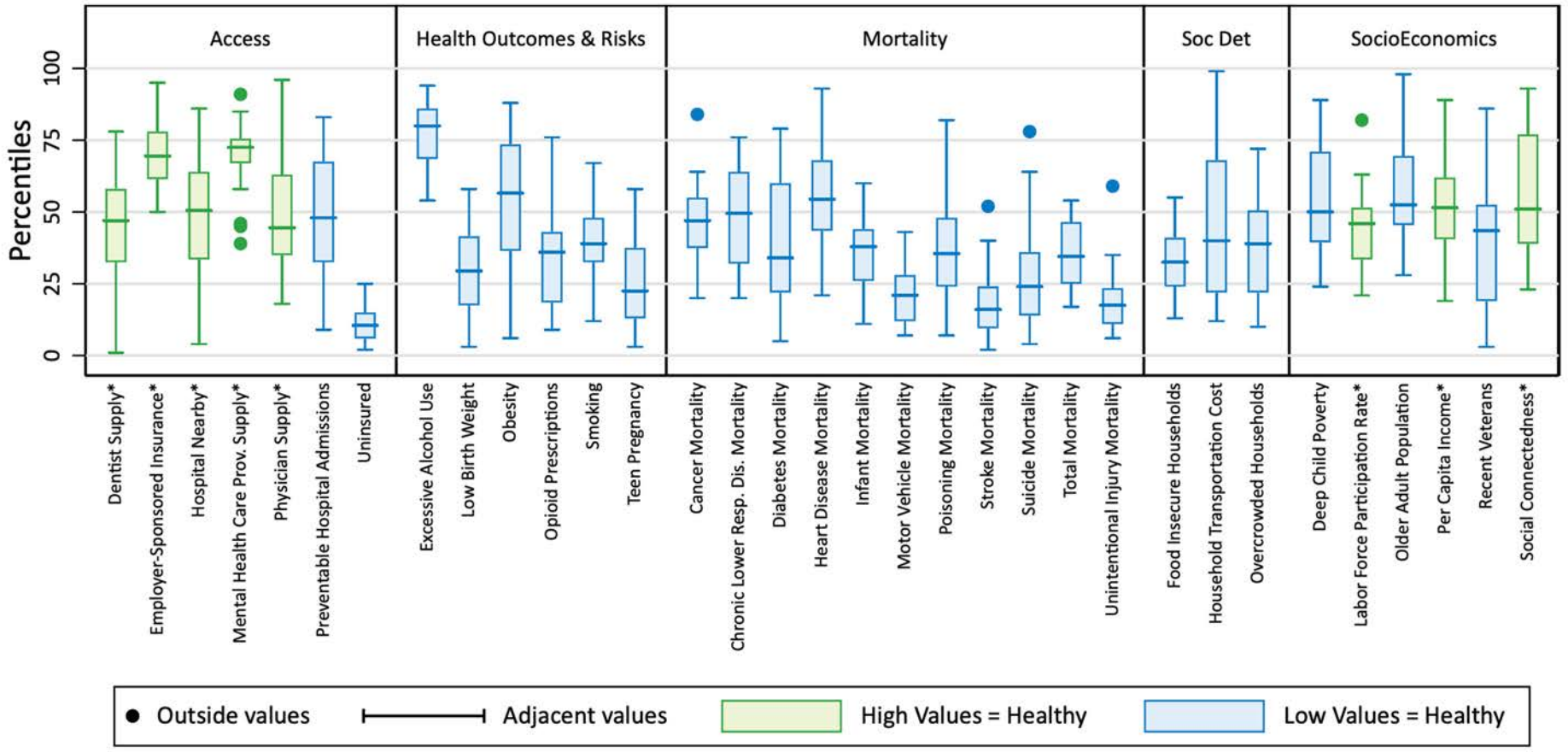
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural New Mexico had a mixed performance relative to the United States. For the mortality indicators, rural New Mexico had four indicators that were among the best values relative to the U.S. median—cancer, heart disease, infant mortality, and stroke were all in the lowest quartile; however, diabetes, motor vehicle, poisoning, suicide, and unintentional injury mortality were worse than the U.S. median (all in the highest quartile). Median food insecurity and overcrowded households were higher in rural New Mexico compared to the U.S. median, but median transportation cost was lower. The median deep child poverty rate was high, and the labor force rate was low.

Definitions and Data Sources

Rural/Urban National Averages

New York Summary



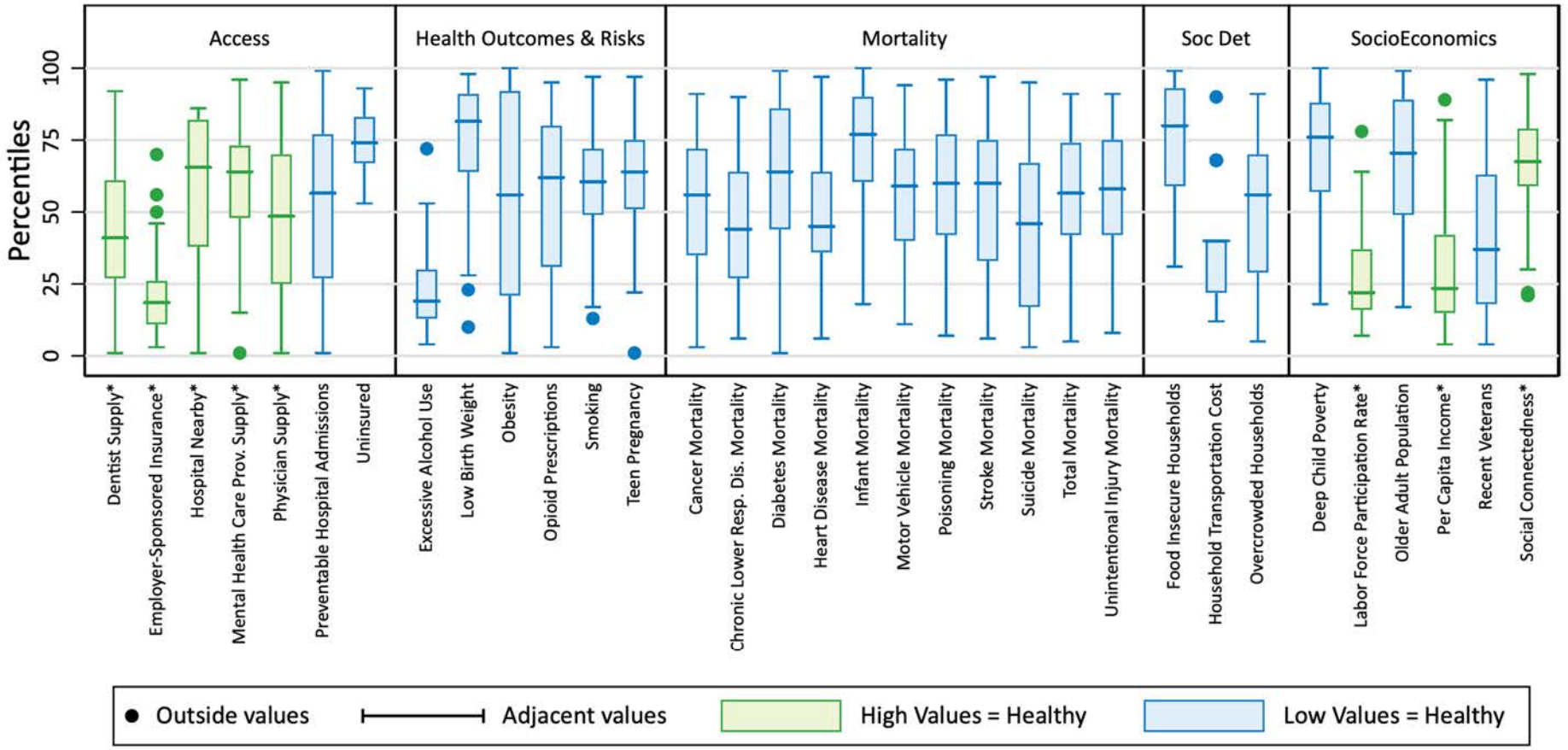
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural New York generally had a stronger performance across several indicators in all domains relative to the United States. Distributions were narrow compared to most states. For mortality rates among rural New York counties, all but one of the indicators were either at or below the U.S. median. Rural counties in this state also had lower median rates of food insecurity and overcrowded households, as well as lower transportation costs. Among the health outcomes and risks indicators, only alcohol use was high (>75th percentile). The uninsured population was notably low.

Definitions and Data Sources

Rural/Urban National Averages

North Carolina Summary



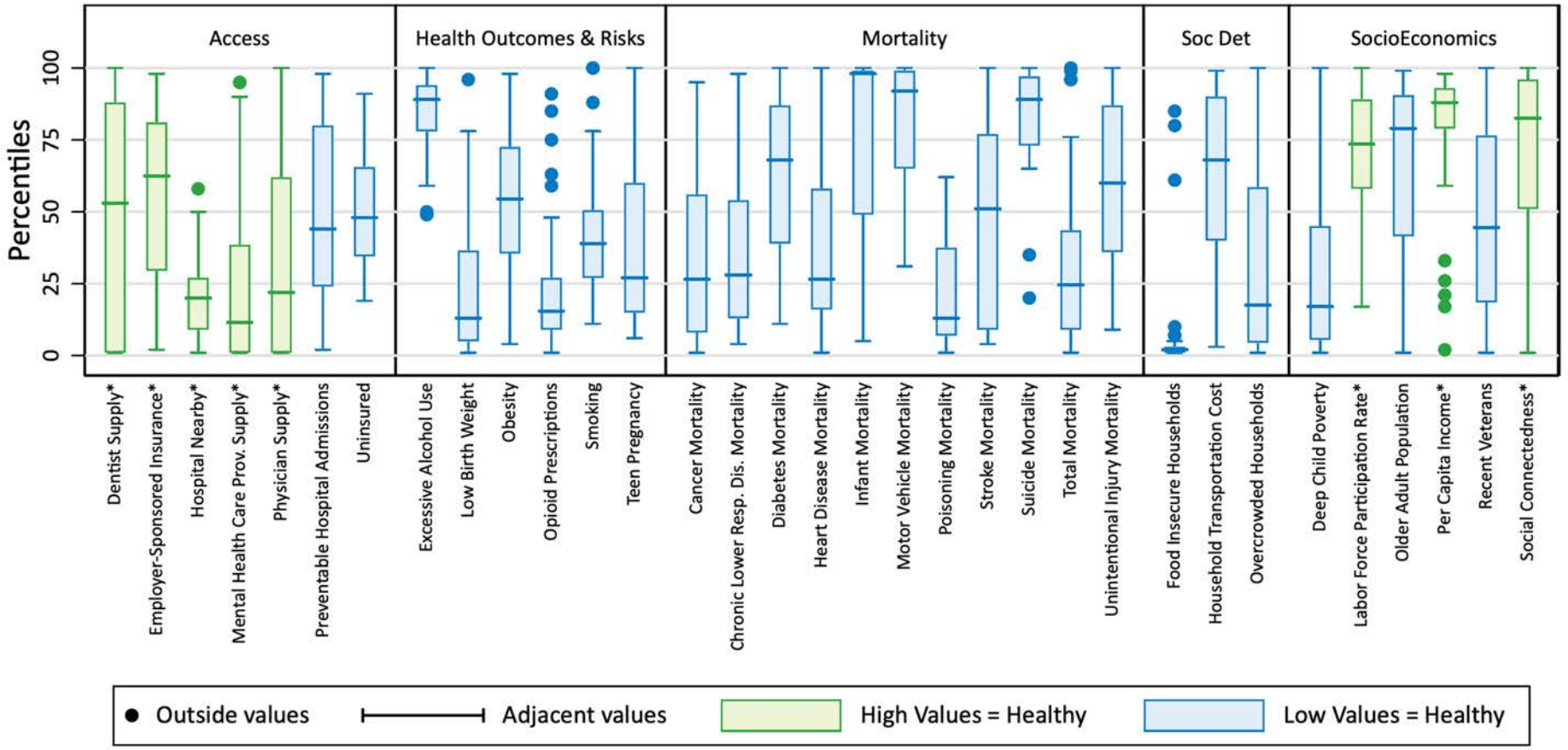
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

In rural North Carolina, low employer sponsored insurance rates and high uninsured rates stand out among the access indicators. Mortality rates were near the national median except for infant mortality (greater than 75th percentile). Similarly, most of the state's health outcomes and risks indicators were near the national median except excessive alcohol use (less than 25th percentile) and low birth weight (greater than 75th percentile). Food insecurity and child poverty medians were high, and labor force and per capita income medians were low.

Definitions and Data Sources

Rural/Urban National Averages

North Dakota Summary



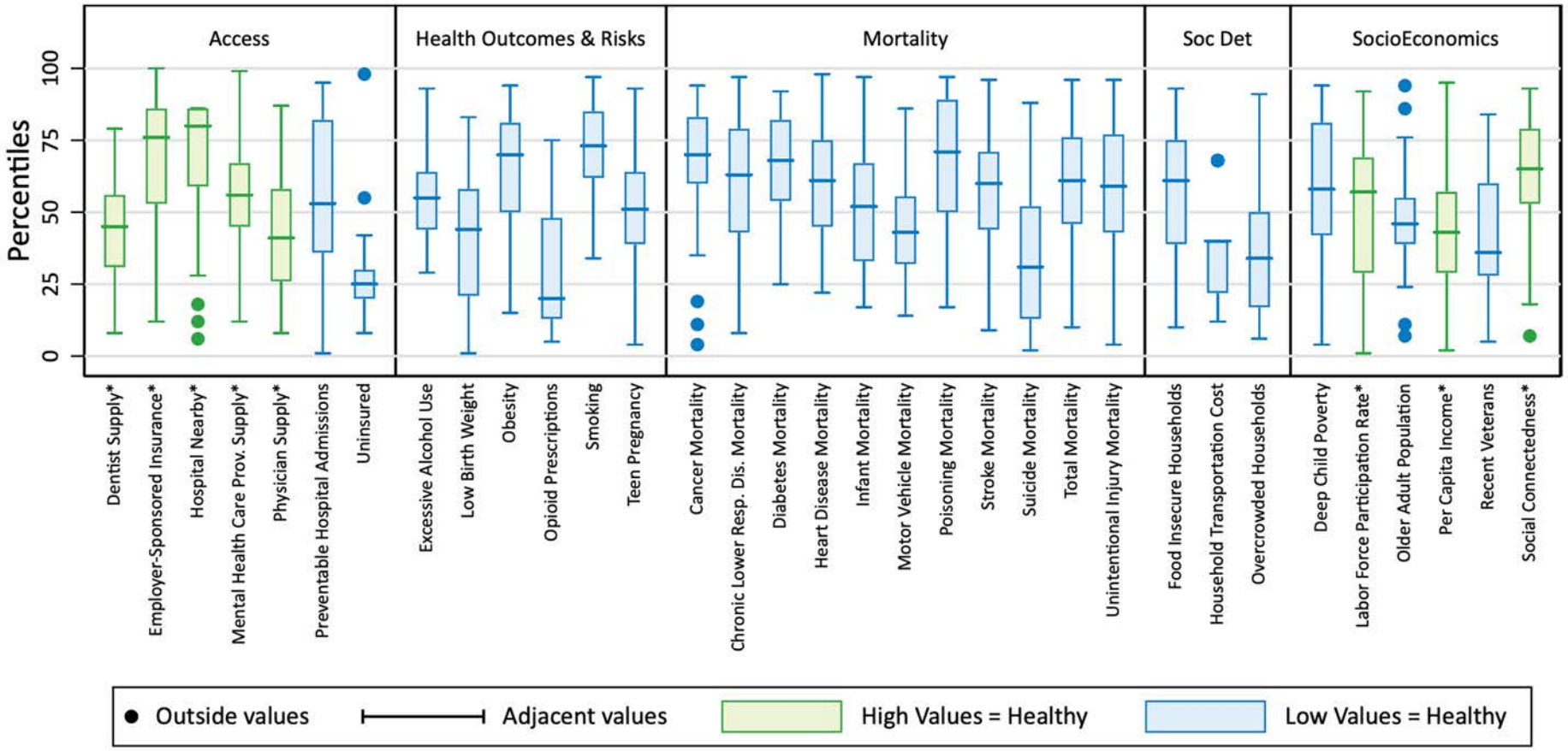
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural North Dakota had a mixed performance relative to the United States. For mortality, the rural counties had lower median mortality rates for cancer, chronic lower respiratory disease, heart disease, and poisoning, but higher medians for diabetes, infant mortality (near the highest), motor vehicle incidents, suicide, and unintentional injury. The rural counties in North Dakota performed well in the socioeconomic domain: the median deep child poverty rate was lower compared to the U.S. median, while the median per capita income and social connectedness rate were higher. Food insecurity and overcrowded households were low.

Definitions and Data Sources

Rural/Urban National Averages

Ohio Summary



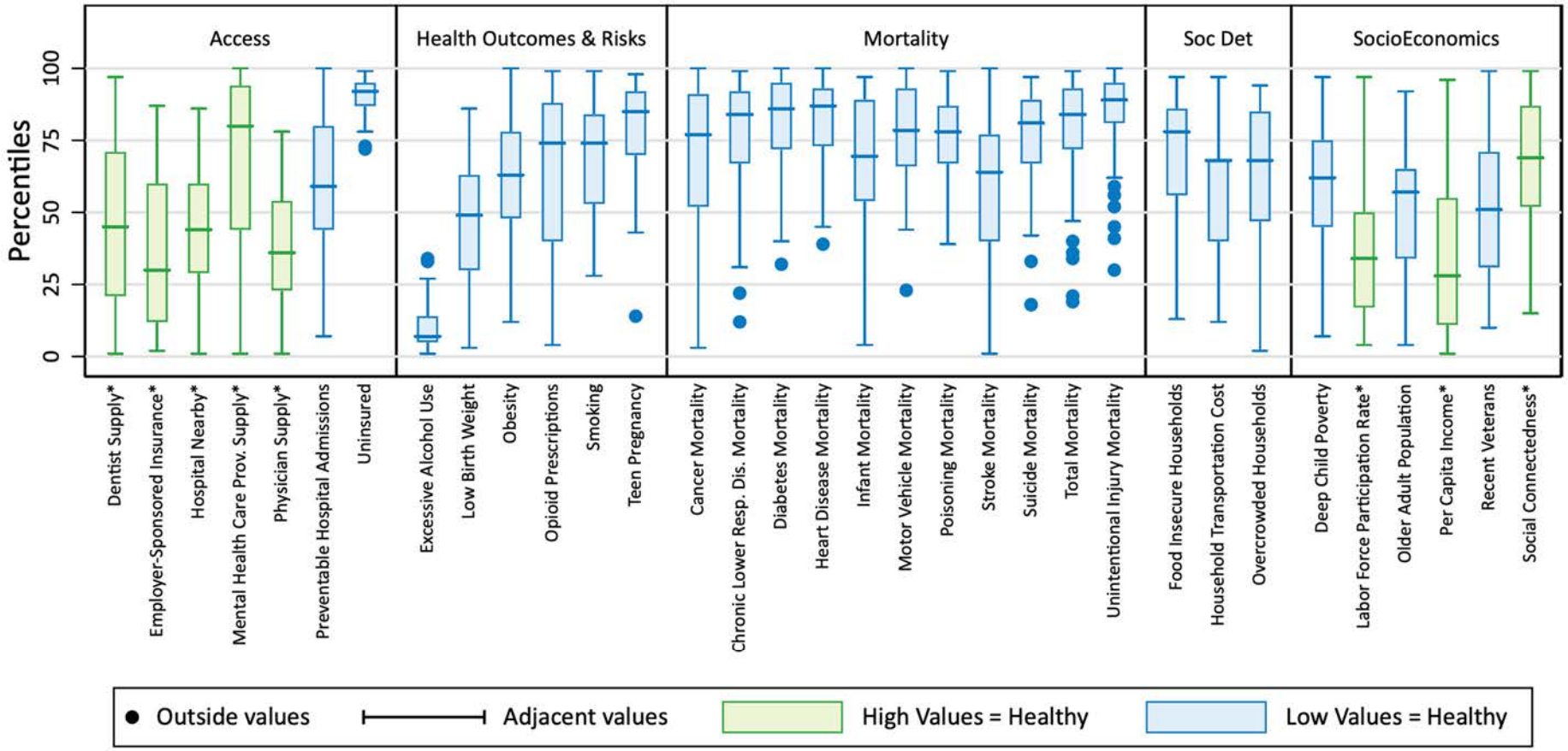
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

For most of rural Ohio, access to health care is near or better than the national medians. However, rural counties in this state had somewhat higher mortality medians for all but two indicators: motor vehicle and suicide mortality. Among the health outcomes and risks indicators, the rural counties in Ohio had median rates that were near or below the national medians, except smoking and obesity.

Definitions and Data Sources

Rural/Urban National Averages

Oklahoma Summary



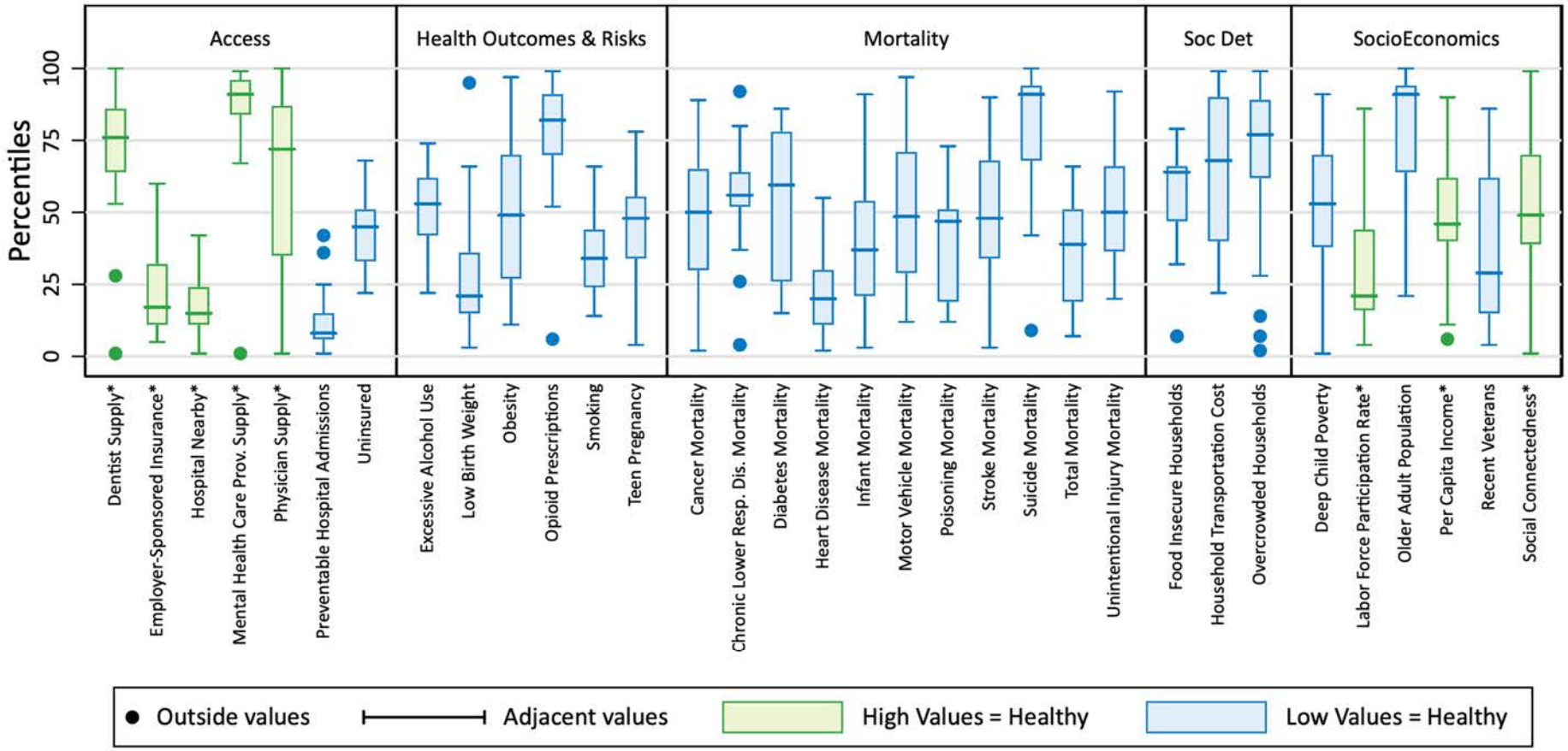
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Oklahoma performed poorly overall. Rural counties had high rates of uninsured and, except for mental health providers, had lower medians for provider supply compared to the U.S. medians. Most of the mortality indicators had medians in the highest quartile (> 75th percentile). In the social determinant domain, rural Oklahoma had higher medians for all three indicators: food insecurity, overcrowded households, and transportation costs.

Definitions and Data Sources

Rural/Urban National Averages

Oregon Summary



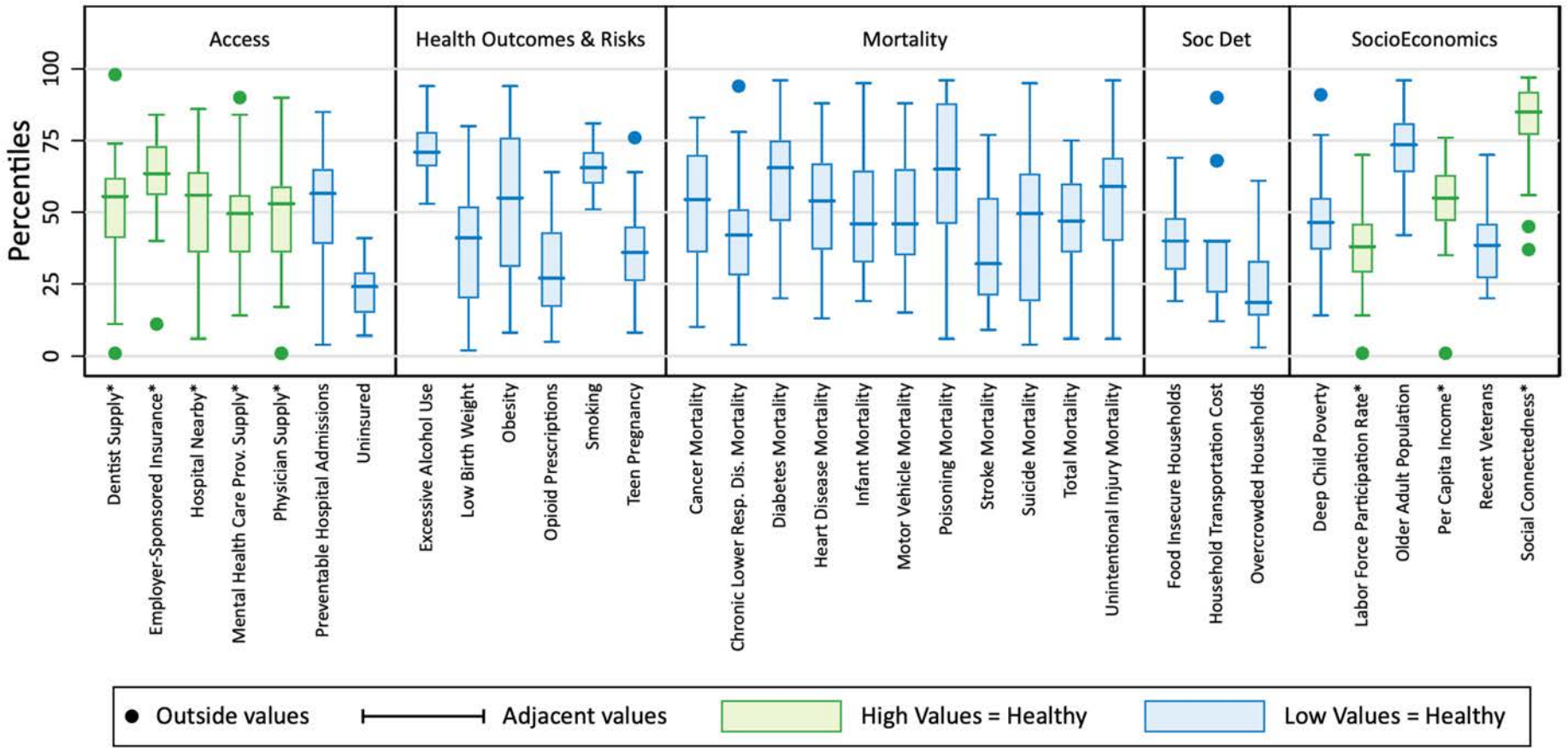
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Oregon had a mixed performance relative to the United States. Among the access domain indicators, aside from lower employer-sponsored insurance and hospital nearby, rural Oregon had favorable measures. Most mortality indicators were below U.S. medians, but the median suicide rate was high. The rural counties in Oregon performed poorly in the social determinant domain, with higher medians for all three indicators: food insecurity, overcrowded households, and transportation costs. Median labor force participation was low, and median older adult population was high.

Definitions and Data Sources

Rural/Urban National Averages

Pennsylvania Summary



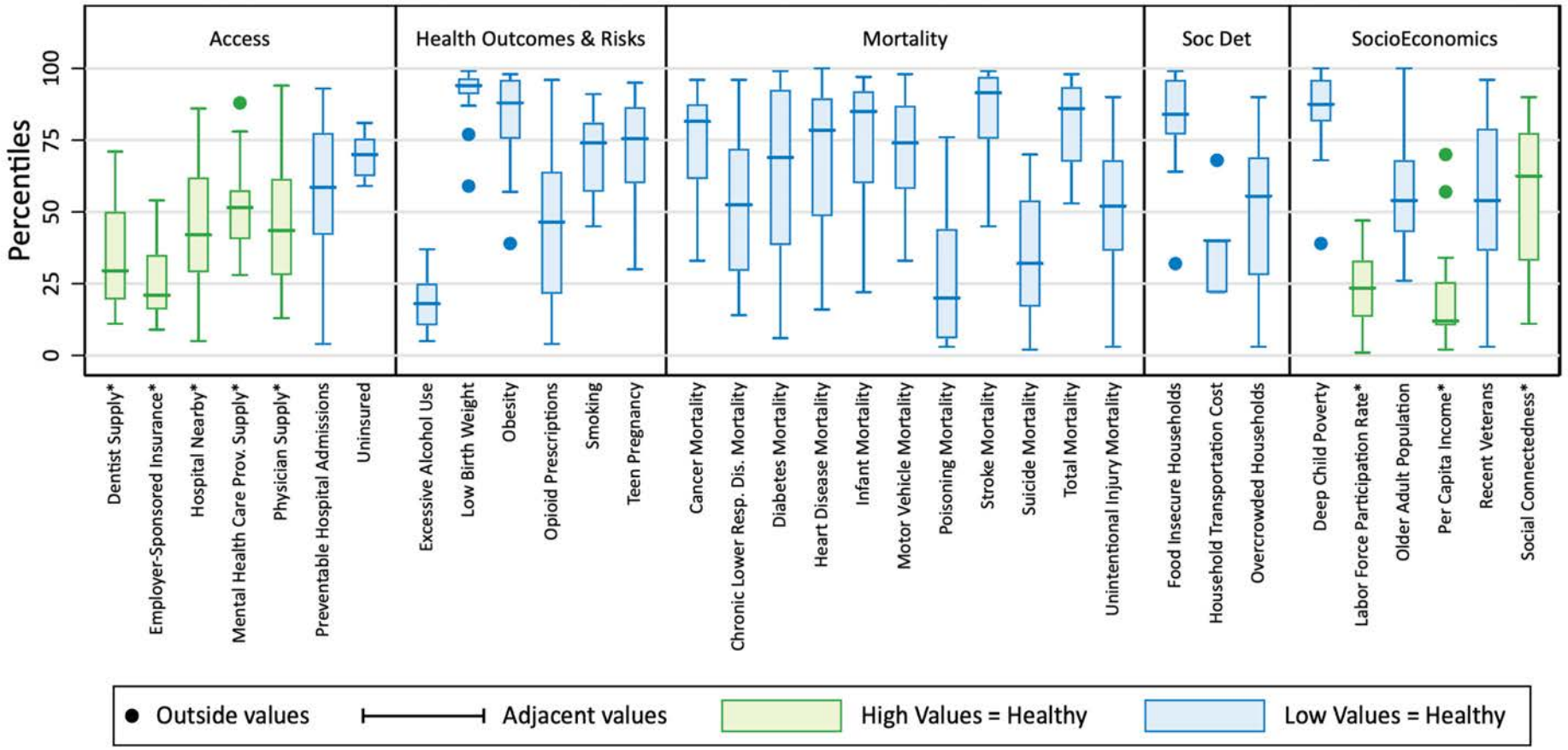
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Many of rural Pennsylvania's medians were near U.S. medians. Among the access indicators, the most notable was a low uninsured rate relative to the U.S. median. Excessive alcohol use and smoking were higher than the U.S. median, but opioid use was lower. Mortality was mixed with poisoning being the highest rural median and stroke being the lowest. Rural Pennsylvania had lower medians for all three social determinant indicators. Social connectedness was also high (>75th percentile).

Definitions and Data Sources

Rural/Urban National Averages

South Carolina Summary



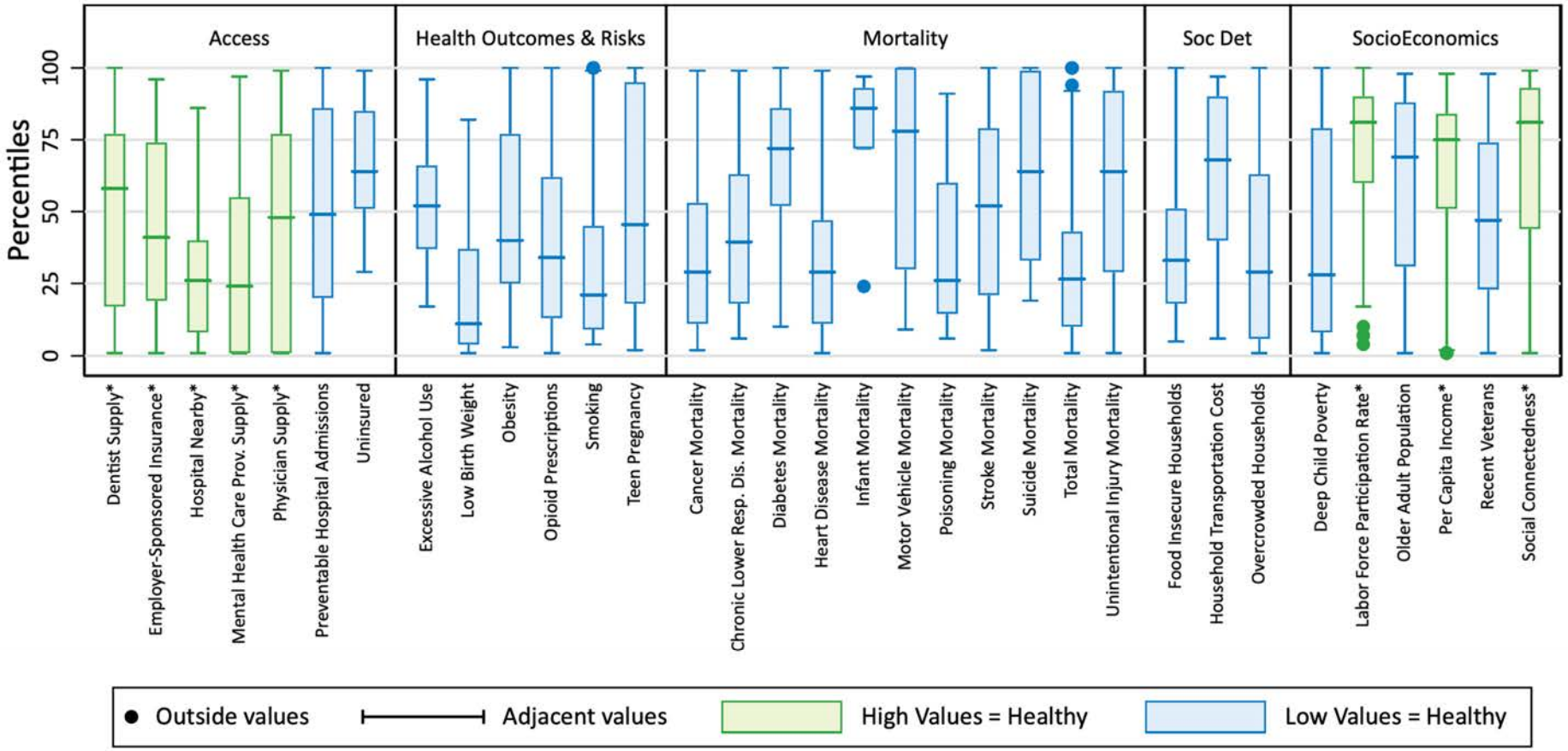
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural South Carolina had a poorer performance relative to the United States. The state had lower medians for several access indicators, including dentist supply, employer-sponsored insurance, hospital nearby, and physician supply. The rural counties of South Carolina also had higher median mortality rates for all but two indicators: poisoning and suicide. Rural South Carolina also had a high median low birth weight, higher median food insecurity rate and deep child poverty rate, as well as a lower median labor force participation and per capita income.

Definitions and Data Sources

Rural/Urban National Averages

South Dakota Summary



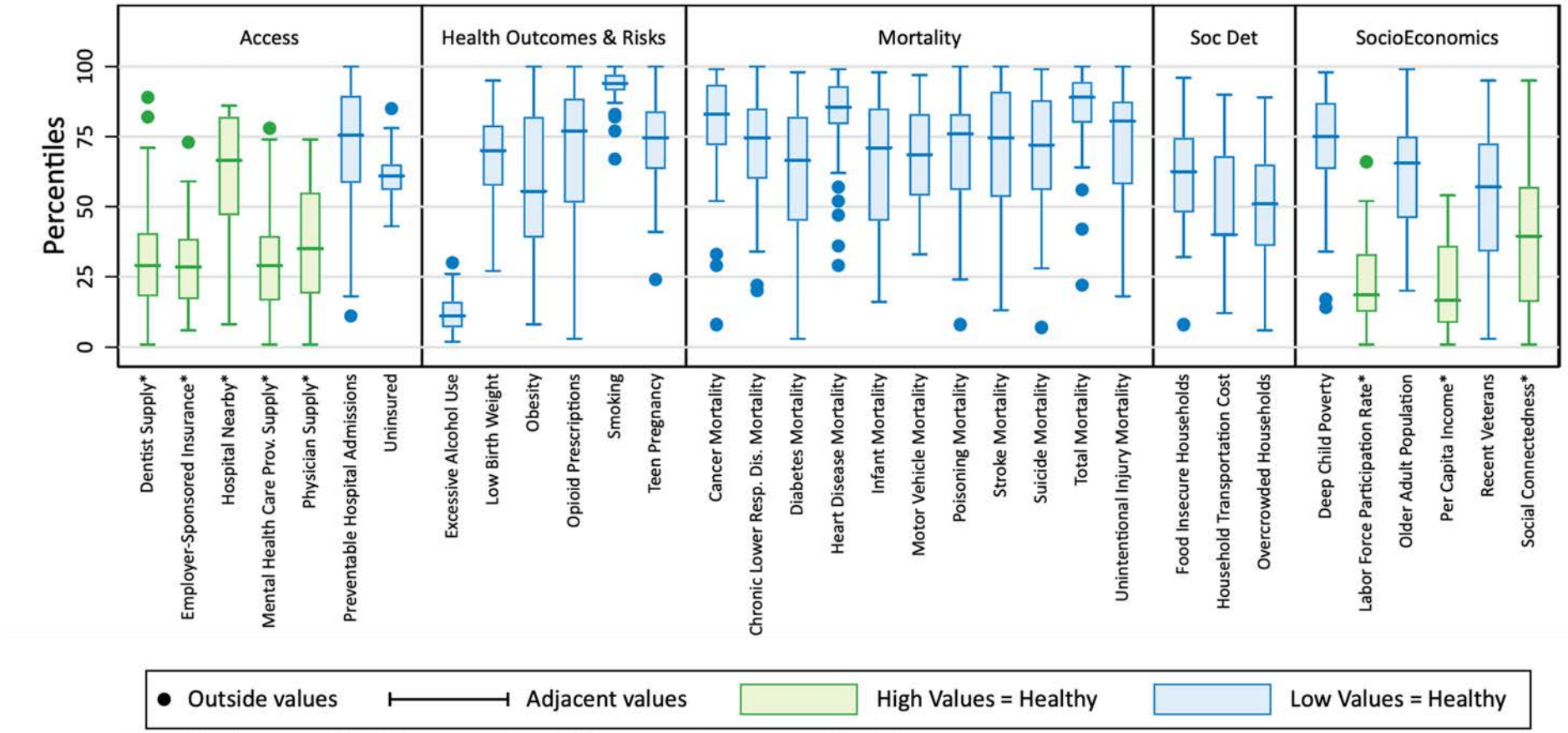
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural South Dakota had a mixed performance relative to the U.S. with a broad range of rates for many indicators. Among the health outcomes and risks indicators, rural counties in South Dakota had lower medians for five out of the six indicators: low birth weight, obesity, opioid use, smoking, and teenage pregnancy. Rural counties in South Dakota had higher median mortality rates for six of the indicators: diabetes, infant mortality (>75th percentile), motor vehicle incidents, stroke, suicide, and unintentional injury, but medians for total mortality, cancer, heart disease, and poisoning were low. Infant mortality, diabetes, and motor vehicle mortality medians, however, were high.

Definitions and Data Sources

Rural/Urban National Averages

Tennessee Summary



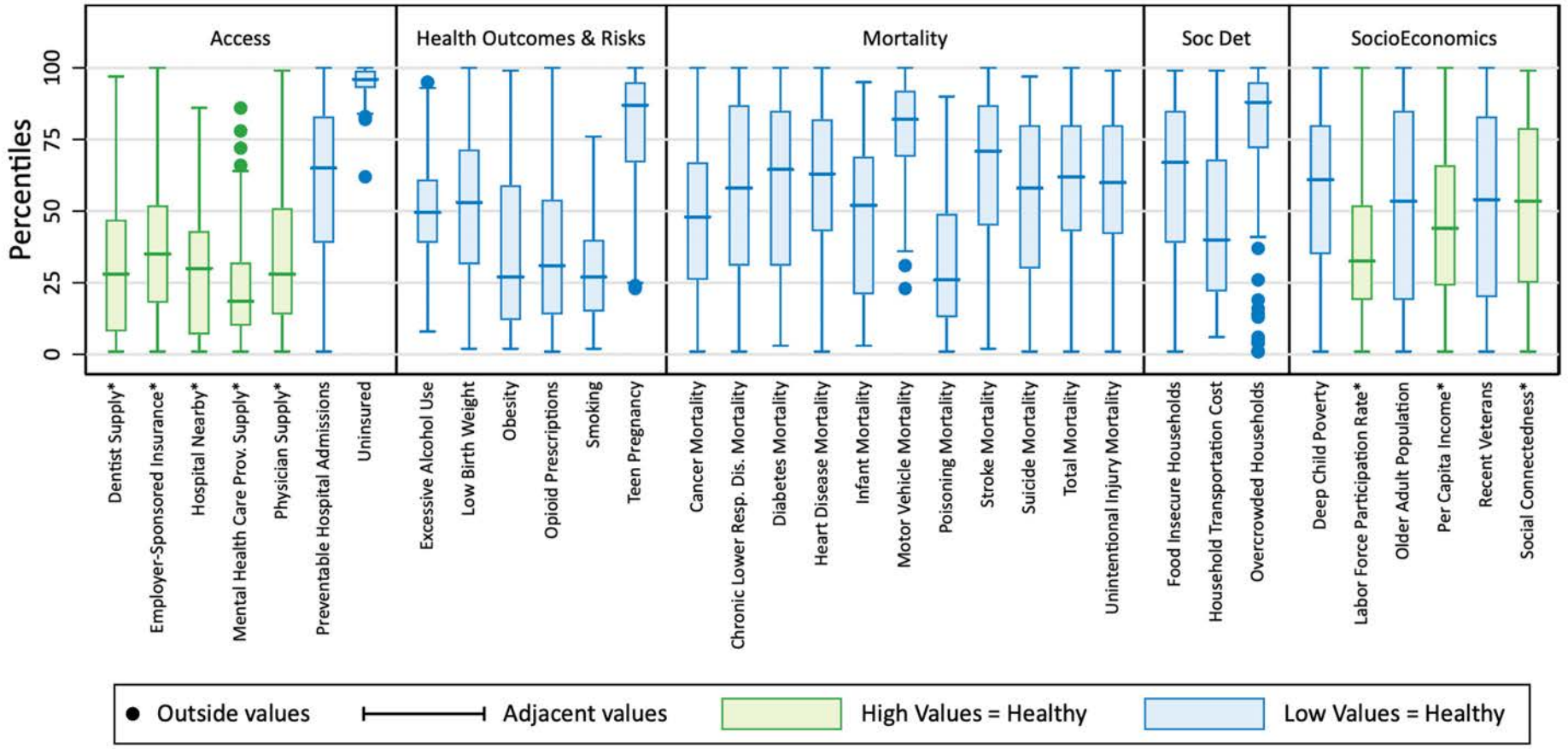
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Tennessee generally had a poorer performance relative to the United States. The rural counties in Tennessee had lower medians for provider supply except for hospital nearby. Among the mortality domain, rural Tennessee had higher median mortality rates for all indicators. Rural Tennessee also had higher medians for five of the six health outcomes and risks indicators—alcohol use was low.

Definitions and Data Sources

Rural/Urban National Averages

Texas Summary



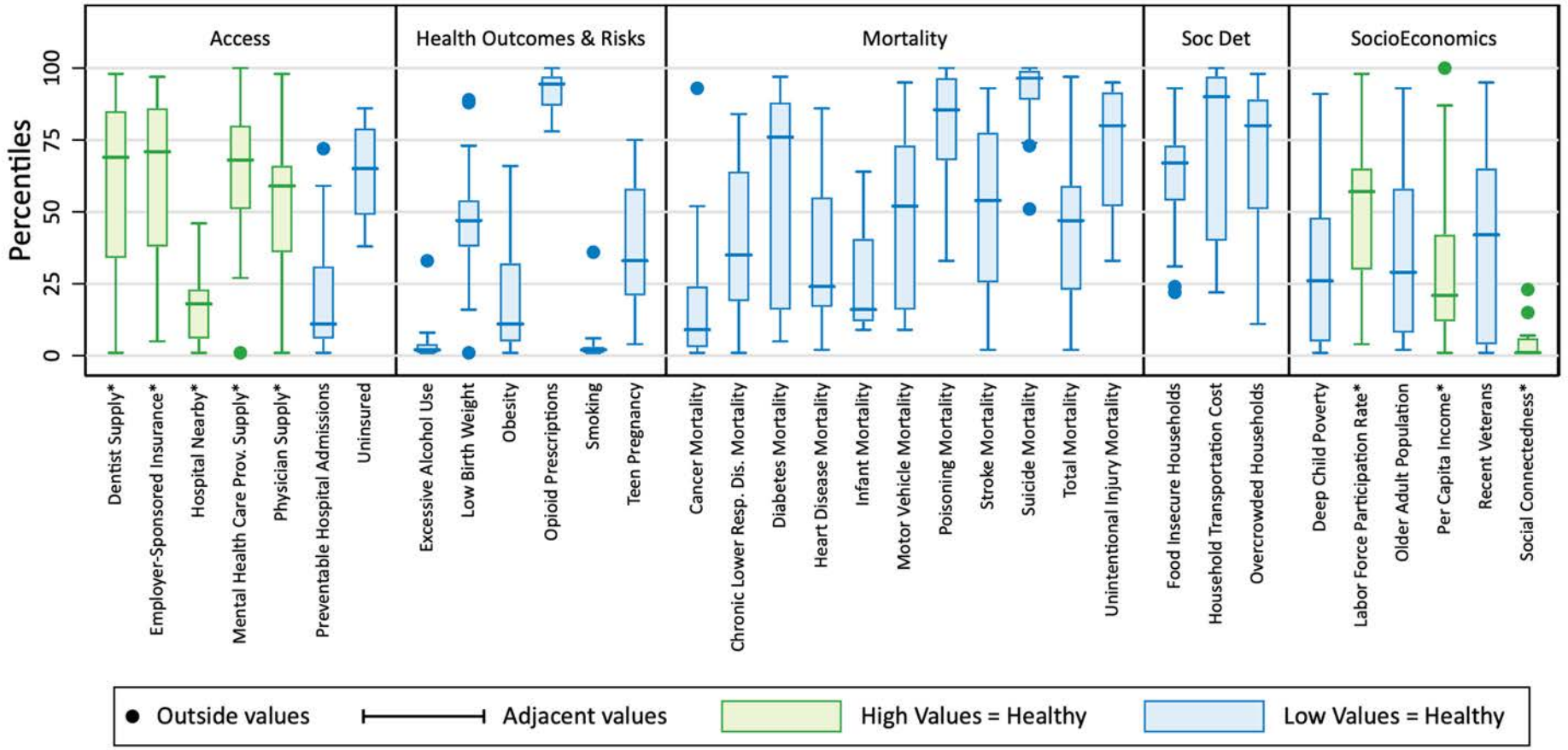
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Texas's access indicator rates were among the worst in the United States. Rural counties in the state had lower medians for the dentist supply, employer-sponsored insurance, hospital nearby, mental health supply, and physician supply domains, as well as higher medians for the preventable hospital admissions and uninsured indicators. Teen pregnancy stands out as the highest health outcomes and risks indicator (>75th percentile). Rural Texas counties also had higher medians for all but two mortality indicators: cancer and poisoning. For most of rural Texas, overcrowded households rates were also high.

Definitions and Data Sources

Rural/Urban National Averages

Utah Summary



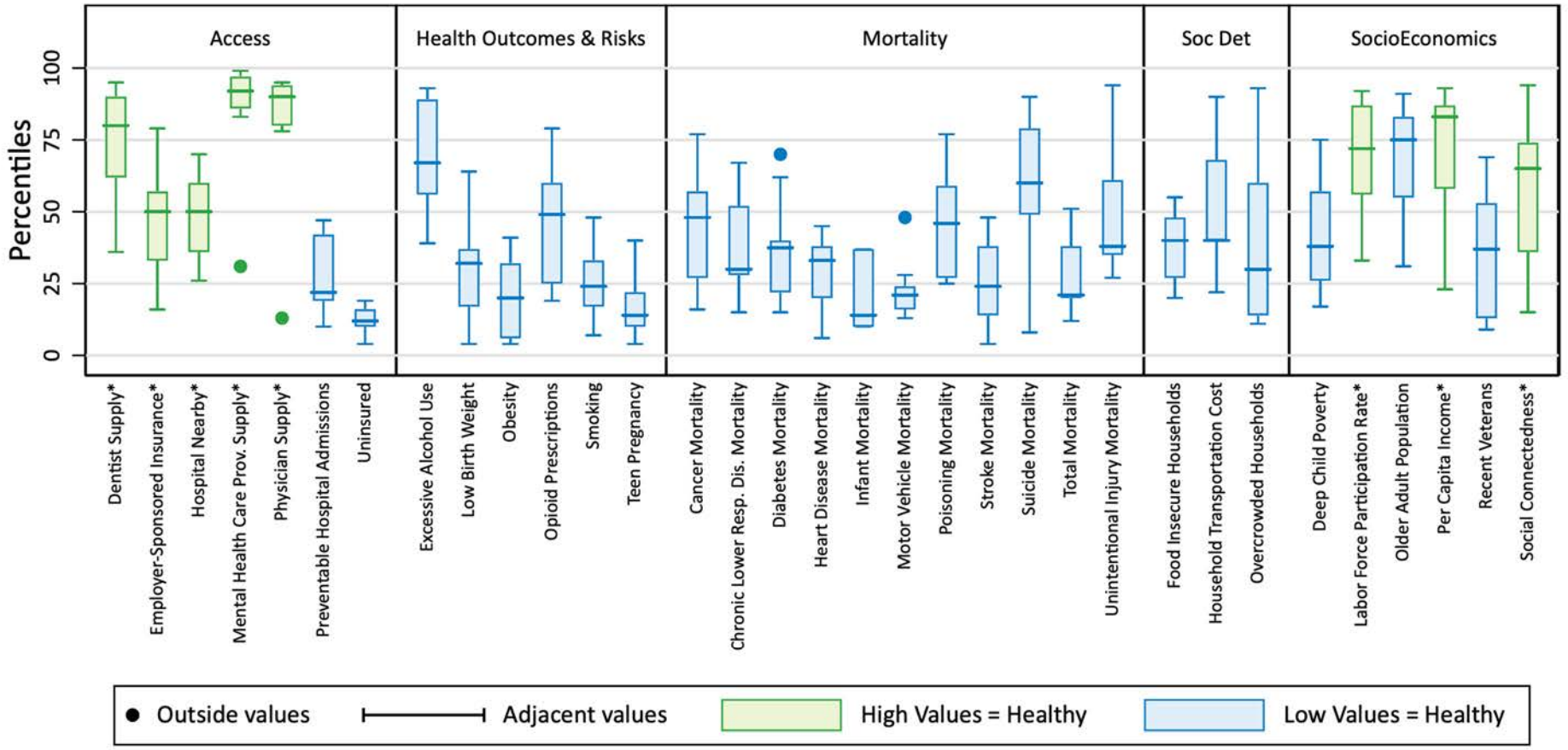
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Utah had a mixed performance. Several of the positive access domains, including dentist supply, employer-sponsored insurance, mental health supply, and physician supply were also high. Some of the health outcomes and risks indicators were remarkably low, however opioid use was among the worst (>75th percentile). Rural Utah's counties had lower medians for four of the mortality indicators—cancer, chronic lower respiratory disease, heart disease, and infant mortality. Diabetes, poisoning, suicide (>75th percentile), and unintentional injury mortality were high. Utah also performed poorly in the social determinant domain, with higher medians for all three indicators. Social connectedness was very low.

Definitions and Data Sources

Rural/Urban National Averages

Vermont Summary



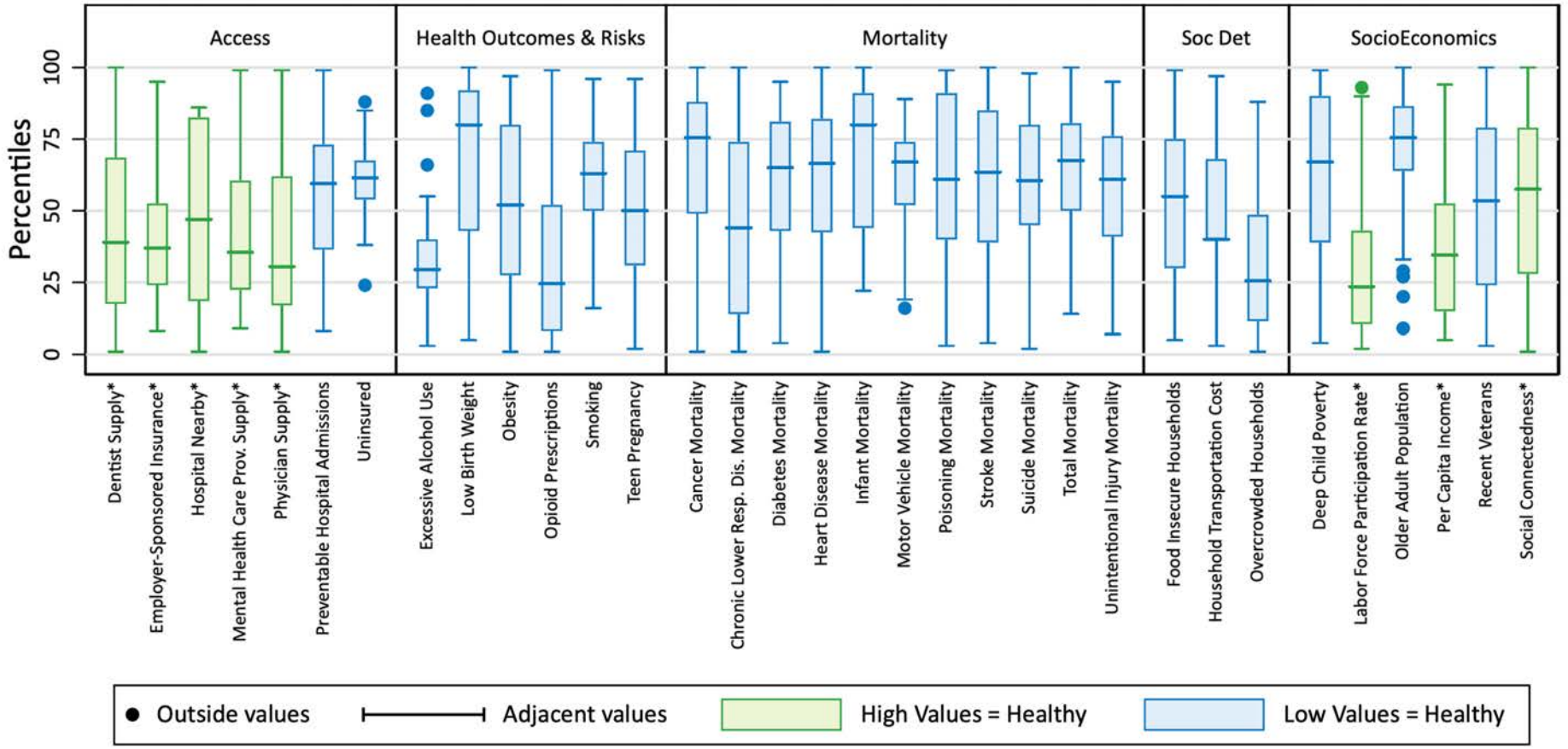
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Vermont performed well relative to the U.S. across several indicators. The uninsured median was among the lowest in the U.S., and medians were lower for all but one health outcomes and risks indicator—excessive alcohol use. Rural counties in Vermont also had lower medians for all but one mortality indicator—suicide. Additionally, rural Vermont had lower medians for all three social determinant indicators, and per capita income was higher.

Definitions and Data Sources

Rural/Urban National Averages

Virginia Summary



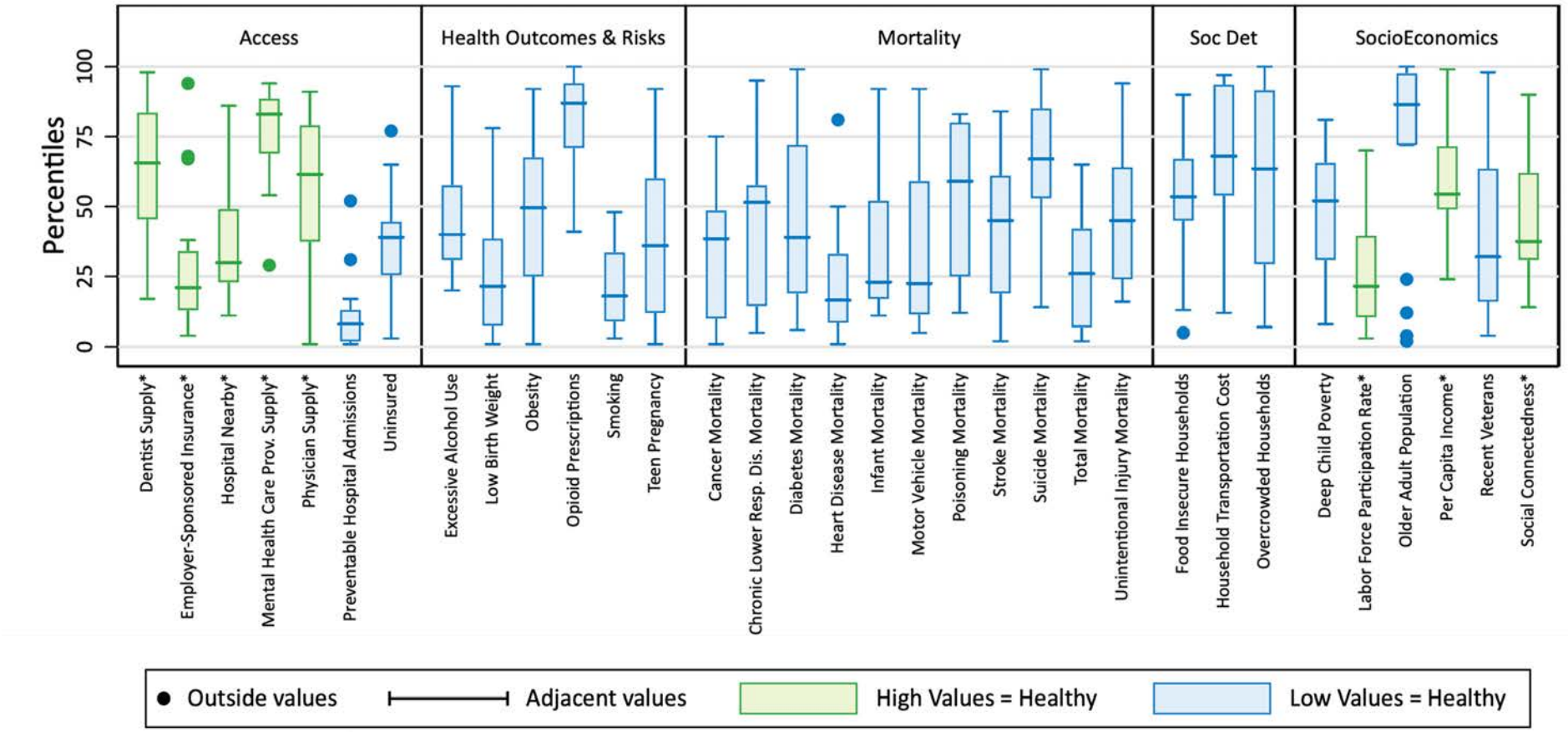
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural Virginia generally had a poorer performance relative to the United States. The state's rural counties had lower medians for several access indicators, including dentist supply, employer-sponsored insurance, hospital nearby, mental health supply, and physician supply, as well as higher medians for preventable hospital admissions and the uninsured rate. Additionally, rural Virginia had higher medians for all but one of the mortality indicators: chronic lower respiratory disease.

Definitions and Data Sources

Rural/Urban National Averages

Washington Summary



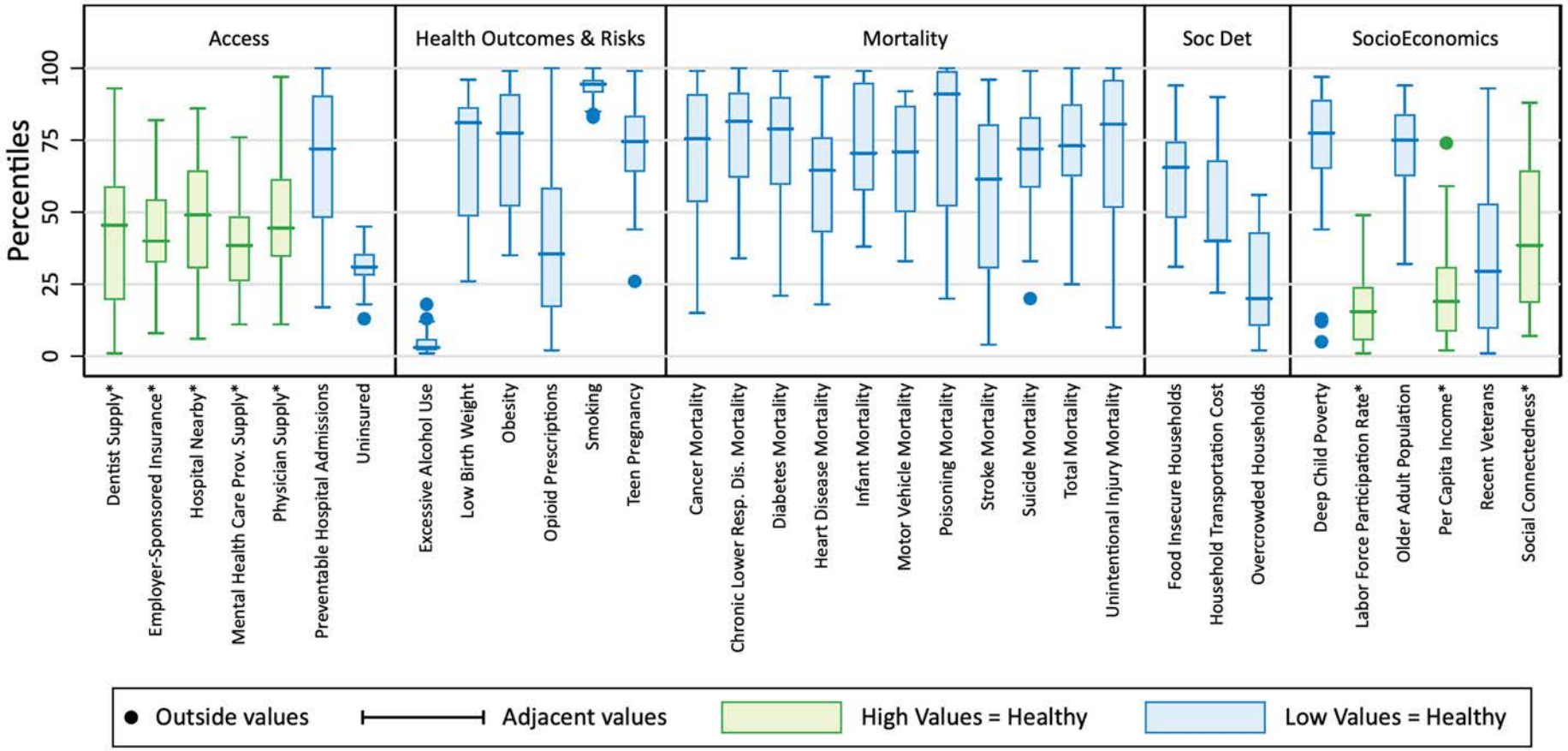
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Washington had a mixed performance relative to the United States. Washington's rural counties performed well in the mortality domain, with lower medians for all but three indicators: chronic lower respiratory disease, poisoning, and suicide. Additionally, rural Washingtonians had higher medians for all three social determinant indicators. However, rural counties in the state had lower medians for several health outcomes and risks indicators, including excessive alcohol use, low birth weight, smoking, and teenage pregnancy, as well as lower medians for access indicators: employer-sponsored insurance, hospital nearby, and the preventable hospital admissions, and uninsured. Opioid use was high.

Definitions and Data Sources

Rural/Urban National Averages

West Virginia Summary



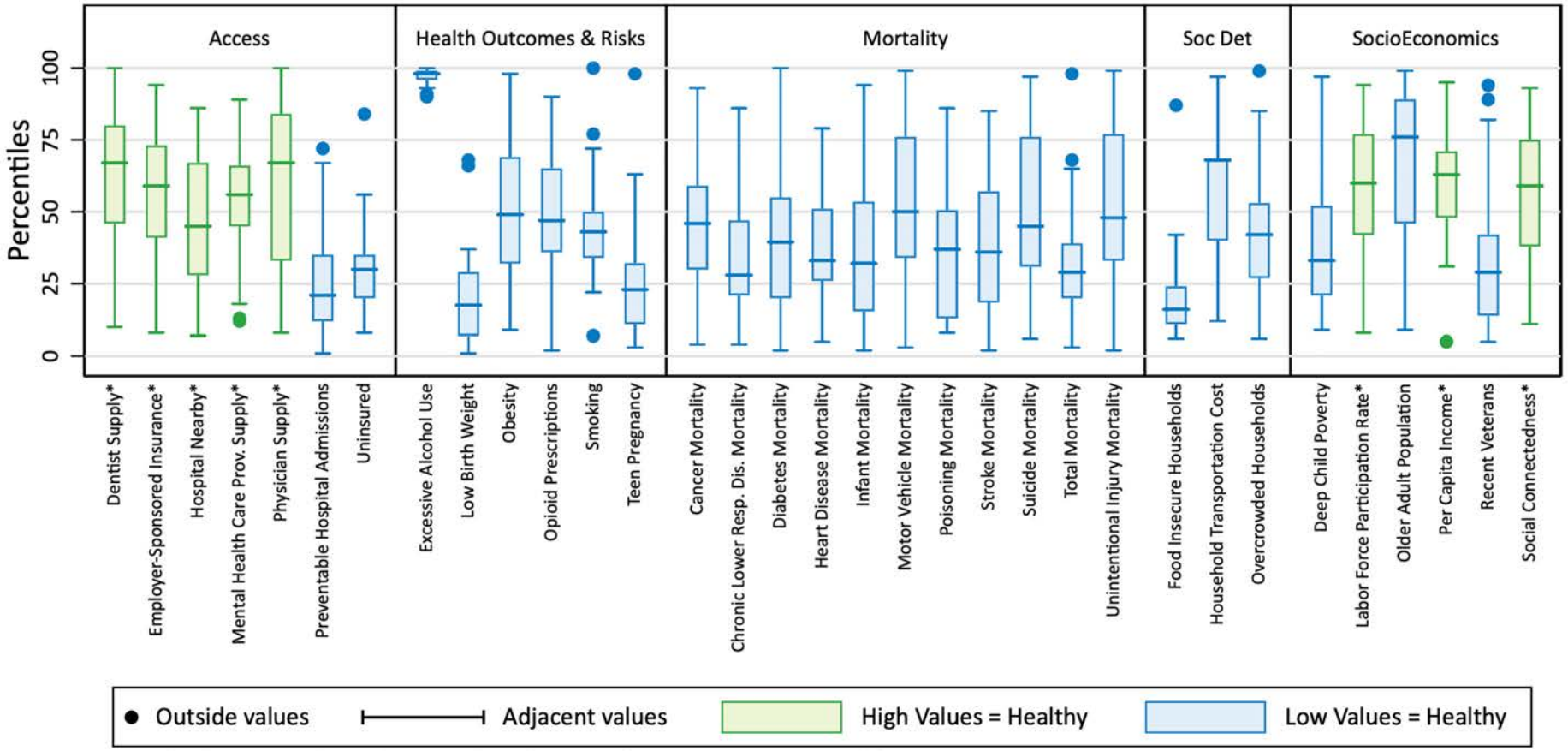
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

The chart shows that rural West Virginia generally had a poorer performance relative to the United States. Rural counties in the state had lower medians for all positive access indicators—dentist supply, employer-sponsored insurance, hospital nearby, mental health supply, and physician supply. Rural West Virginians also had higher medians for four of the six health outcomes and risks indicators: low birth weight, obesity, smoking, and teenage pregnancy. Excessive alcohol use was low. Mortality indicators were high. Deep child poverty and per capita income were also worse for rural counties.

Definitions and Data Sources

Rural/Urban National Averages

Wisconsin Summary



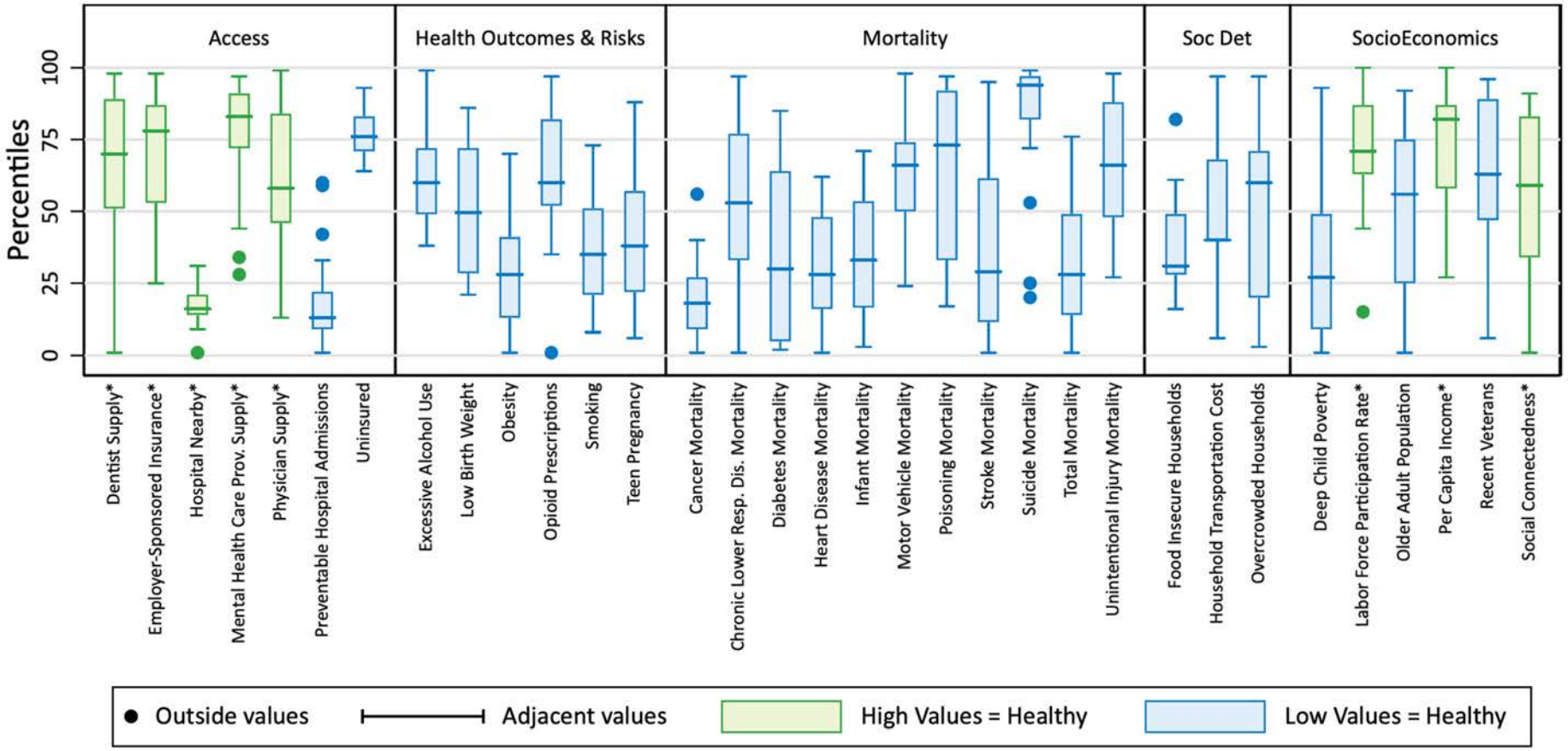
Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Wisconsin generally had a strong performance relative to the United States. Rural counties in the state had medians that were at or below the U.S. median for all but one of the health outcomes and risks indicators; alcohol use was high. Rural medians were at or below the U.S. median for all mortality domains. Among the socioeconomic domain, rural counties in Wisconsin also had lower medians for deep child poverty, as well as higher medians for the labor force and per capita income indicators.

Definitions and Data Sources

Rural/Urban National Averages

Wyoming Summary



Note: Blue boxes are for indicators where higher values denote worse health.
Green indicators, also denoted with a * in the label, are indicators where higher values denote better health.

Rural Wyoming had a mixed performance relative to the United States. Provider supply was high except for hospital nearby. The uninsured rates were high, but preventable hospital admissions were low. For health outcomes and risks indicators, obesity, smoking, and teen pregnancy were lower. Rural Wyoming had lower medians for six of the mortality indicators [cancer (<25th percentile), chronic lower respiratory disease, diabetes, heart disease, infant mortality, and stroke]. Suicide, however, was high. Per capita income was higher (>75th percentile).

Definitions and Data Sources

Rural/Urban National Averages

REFERENCES AND NOTES

1. Clawar M, Thompson K, Pink G. Range Matters: Rural Averages Can Conceal Important Information. NC Rural Health Research Program, UNC Sheps Center. January 2018. FB 143. Available at: https://www.shepscenter.unc.edu/download/15861/.
2. 2014 National Healthcare Quality and Disparities Report Chartbook on Rural Health Care. Rockville, MD: Agency for Healthcare Research and Quality. August 2015. AHRQ Pub. No. 15-0007-9-E. Available at: https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/index.html.
3. Meit MB, Knudson AD, Gilbert T, Yu T-C, Tanenbaum ER, Ormson AE, TenBroeck S, Bayne AA, Popat P. The 2014 Update of the Rural-Urban Chartbook. 2014 Bethesda, MD: NORC Walsh Center for Rural Health Analysis. Available at: http://www.norc.org/Research/Projects/Pages/2014-update-of-the-rural-urban-chartbook.aspx.
4. Williams DR, Collins C. US Socioeconomic and Racial Differences in Health: Patterns and Explanations. *Annual Review of Sociology*. 1995 Aug;21(1):349-386. Available at: https://www.annualreviews.org/doi/10.1146/annurev.so.21.080195.002025.
5. Richardson LD, Norris M. Access to Health and Health Care: How Race and Ethnicity Matter. *Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine*. 2010 Mar 1;77(2):166-177. Available at: https://pubmed.ncbi.nlm.nih.gov/20309927/.
6. Nelson AR, Stith AY, Smedley BD, editors. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (full printed version). National Academies Press. November 2002. Available at: https://nap.nationalacademies.org/catalog/12875/unequal-treatment-confronting-racial-and-ethnic-disparities-in-health-care.
7. The 2008 Report to the Secretary: Rural Health and Human Services. The National Advisory Committee on Rural Health and Human Services. April 2008. Available at: https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/rural/reports-recommendations/2008-report-to-secretary.pdf.
8. Davis JC, Rupasingha A, Cromartie J, Sanders A. Rural America at a Glance: 2022 Edition. Economic Research Service, USDA. Economic Information Bulletin No. (EIB-246). November 2022. Available at: https://www.ers.usda.gov/publications/pub-details/?pubid=105154.
9. 182 Rural Hospital Closures since January 2005. NC Rural Health Research Program, Cecil G. Sheps Center for Health Services Research, UNC-Chapel Hill. Accessed 8/17/2022. Available at: https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/.
10. Rural Hospital Closures: Affected Residents Had Reduced Access to Health Care Services. Government Accountability Office. Available at: https://www.gao.gov/products/gao-21-93. January 2021.
11. Ellison A. Why Rural Hospital Closures Hit a Record High in 2020. *Becker's Hospital Review*. March 2021. Available at: https://www.beckershospitalreview.com/finance/why-rural-hospital-closures-hit-a-record-high-in-2020.html.
12. Defining Rural Population. Health Resources and Services Administration. Available at: https://www.hrsa.gov/rural-health/about-us/definition/index.html.
13. Collaboratory for Health Justice (2021): Best Practices for Using Race in Public Health Research. University of Illinois at Chicago. Report. Available at: https://indigo.uic.edu/articles/report/Best_Practices_for_Using_Race_in_Public_Health_Research/15159393.
14. U.S. Department of Health and Human Services Office of Minority Health. Explanation of Data Standards for Race, Ethnicity, Sex, Primary Language, and Disability. Accessed 11/10/22. Available at: https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=54.
15. Office of Management and Budget. Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. *Federal Register*. 1997 Oct 30;62(201):8=58782. Available at: https://www.govinfo.gov/content/pkg/FR-1997-10-30/pdf/97-28653.pdf.

16. Arias E, Heron M, Hakes JK. The Validity of Race and Hispanic-origin Reporting on Death Certificates in the United States: An Update. National Center for Health Statistics. *Vital Health Stat.* 2016 Aug;2(172). Available at: https://www.cdc.gov/nchs/data/series/sr_02/sr02_172.pdf.
17. National Academies of Sciences, Engineering, and Medicine. 2022. Measuring Sex, Gender Identity, and Sexual Orientation. Washington, DC: The National Academies Press. Available at: https://nap.nationalacademies.org/catalog/26424/measuring-sex-gender-identity-and-sexual-orientation.
18. Centers for Medicare & Medicaid Services. Cell Size Suppression Policy. Accessed 10/12/21. Available at: https://resdac.org/articles/cms-cell-size-suppression-policy.
19. Data Use Restrictions, CDC WONDER. Centers of Disease Control and Prevention. Accessed 10/12/21. Available at: https://wonder.cdc.gov/datause.html.
20. Ahima RS, Lazar MA. The Health Risk of Obesity—Better Metrics Imperative. *Science*. 2013 Aug 23;341(6148):856-8. Available at: https://www.science.org/doi/10.1126/science.1241244.
21. Centers for Disease Control and Prevention. Body Mass Index: Considerations for Practitioners. 2/8/11. Available at: https://stacks.cdc.gov/view/cdc/25368.
22. Harvard T.H. Chan School of Public Health. Obesity Prevention Source. Ethnic Differences in BMI and Disease Risk. Accessed 10/11/22. Available at: https://www.hsph.harvard.edu/obesity-prevention-source/ethnic-differences-in-bmi-and-disease-risk/#References.
23. Stern C. Why BMI is a Flawed Health Standard, Especially for People of Color. *The Washington Post*. May 5, 2021. Available at: https://www.washingtonpost.com/lifestyle/wellness/healthy-bmi-obesity-race-/2021/05/04/655390f0-ad0d-11eb-acd3-24b44a57093a_story.html.
24. Stanford FC, Lee M, Hur C. Race, Ethnicity, Sex, and Obesity: Is It Time to Personalize the Scale? *Mayo Clin Proc*. 2019 Feb;94(2):362-363. Available at: https://www.mayoclinicproceedings.org/article/S0025-6196(18)30807-3/fulltext.
25. Blake KS, Kellerson RL, Simic A. Measuring Overcrowding in Housing. U.S. Department of Housing and Urban Development Office of Policy Development and Research. September 2007. Available at: https://www.census.gov/content/dam/Census/programs-surveys/ahs/publications/Measuring_Overcrowding_in_Hsg.pdf.
26. Moseson H, Fix L, Ragosta S, Forsberg H, Hastings J, Stoeffler A, Lunn MR, Flentje A, Capriotti MR, Lubensky ME, Obedin-Maliver J. Abortion Experiences and Preferences of Transgender, Nonbinary, and Gender-expansive People in the United States. *Am J Obstet Gynecol*. 2021 Apr;224(4):376.e1-376.e11. Available at: https://www.ajog.org/article/S0002-9378(20)31126-1/fulltext.
27. Primary care providers include doctors of medicine (MDs), and doctors of osteopathic medicine (DOs), but do not include obstetrics and gynecology as primary care physician type.
28. The U.S. Census Bureau measures this by using the number of membership associations per 10,000 population. Examples include: alumni associations, granges, automobile clubs (except travel), parent-teacher associations, booster clubs, scouting organizations, ethnic associations, social clubs, fraternal lodges, veterans' membership organizations. For more information see: U.S. Census Bureau. North American Industry Classification System. 813410 Civic and Social Organizations, 2012-2016. Accessed 10/11/22. Available at: https://www.census.gov/naics/?input=membership&year=2022&details=813410.