HEALTH

IN RURAL MISSOURI

Biennial Report

2024-2025

MISSOURI DEPARTMENT OF
HEALTH &
SENIOR SERVICES

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Executive Summary

The Missouri Office of Rural Health (MORH), located within the Office of Rural Health and Primary Care (ORHPC), Division of Community and Public Health (DCPH), Department of Health and Senior Services (DHSS), biennially reports its activities and recommendations to the Governor and members of the General Assembly on or before November 15th of odd-numbered years, as set forth in Missouri Revised Statute §192.604.

The Office of Rural Health promotes and develops innovative health care services and models in rural areas and works closely with local health advocates and stakeholders on a variety of community development activities designed to increase access to quality health care services and improve the health of Missourians. This report highlights this work, makes recommendations for public policies to encourage continued viability of quality and cost-effective rural health care delivery and identifies conditions hindering the delivery of essential health care services to rural Missouri. This report also demonstrates the impacts of current conditions on the health of Missouri's 2.06 million rural residents. It includes information about Missouri's aging population; social drivers of health (SDOH), such as poverty, access to care, education, unemployment and transportation; leading causes of death and infant mortality.

The 2024-2025 Health in Rural Missouri Biennial Report reveals that Missourians living in rural counties continue to experience barriers to being healthy at a high rate, have poor health outcomes and face challenges with accessing necessary health care services that are specific to rural counties. Many of the findings in this report mirror the previous report, indicating little to no change among the health of rural Missourians. The 2024-2025 Health in Rural Missouri Biennial Report key findings include:

- Since 2014, 24 Missouri hospitals closed, 12 of which were located in rural counties. These closures left 47 rural counties without a general acute care hospital.
- Forty-seven rural counties and one urban county (42% of the 115 counties) do not have a hospital. Douglas, Ozark, Reynolds and Wayne counties all have an average distance to a hospital of 45 minutes or more.
- Poverty is much more prevalent in rural communities. Nineteen of the 20 counties with the highest poverty rates were rural, with 15.3 percent of rural residents and 11.9 percent of urban residents living in poverty.
- Missouri's 99 rural counties had a 0.4 percent population decline, whereas the state's 16 urban counties saw an increase of 1.6 percent.
- Rural Missourians have more barriers for accessing health services including distance to a health care provider, lower rates of insurance coverage and limited availability of public transportation for residents that do not own a vehicle or who are unable to drive.
- More of Missouri's rural residents are uninsured than urban residents (12.6% versus 9.1%, respectively).
- Rural populations have higher rates than urban populations in 9 of the top causes of death (Alzheimer's disease being the one exception).
- Missouri continues to have rural regions, such as the Southeast region, and sub-populations with higher rates of disease and death, in-part due to the conditions where they live and work.
- Black/African American populations in rural counties continue to have a higher rate of preterm births (14.8%) compared to white populations in rural counties (10.5%).
- Much of rural Missouri is designated by the federal government as a primary care health professional shortage area in medical, dental and mental health.

Introduction

The General Assembly established the Missouri Office of Rural Health (MORH) in 1990 (192.604 RSMo), to "assume a leadership role in working or contracting with state and federal agencies, universities, private interest groups, communities, foundations, and local health centers to develop rural health initiatives and maximize the use of existing resources without duplicating existing effort." This report fulfills the statute requirement of reporting rural health activities and making recommendations biennially to the Governor and members of the General Assembly.

The 2024-2025 Health in Rural Missouri Biennial Report describes the health status of rural Missourians compared to urban Missourians including the leading causes of death and key maternal and child health indicators. The report also highlights differences in the factors or conditions known to influence health, such as demographic differences, economic factors, access to environments that support healthy behaviors and health care access.

This report focuses on the health of rural Missourians. However, to help put rural health activities and recommendations into context, urban Missouri data is included. This data also allows for a natural and readily understandable comparison to better highlight and understand health in rural Missouri and presents compelling evidence that geographic location in Missouri has a significant bearing on health.

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Defining Rural Health

The United States (U.S.) Census Bureau and various federal agencies have many different methods to define the rural population. Each definition uses different criteria, such as commuting patterns, population size or population density. For the purposes of this report, a county is considered rural if:

- There are fewer than 150 people per square mile.
- It does not contain at least 10 percent of a central city in a Metropolitan Statistical Area (MSA).

Based on the above and using 2023 population estimates, Missouri has:

- 99 rural counties
- 16 urban counties*

*St. Louis City is an independent city that functions as its own county. It is included among the 16 urban counties.

Urban Counties

Boone	Clay	Jefferson	St. Louis City
Buchanan	Cole	Newton	
Cape Girardeau	Greene	Platte	
Cass	Jackson	St. Charles	
Christian	Jasper	St. Louis	

Metropolitan and Micropolitan Statistical Areas

The U.S. Census Bureau has additional methods for further classifying rural counties as a Metropolitan Statistical Area (Metro) or Micropolitan Statistical Area (Micro). The Metro Areas combine the urban counties with other rural counties adjacent to and somewhat integrated with their nearest urban population center. Micro Areas either contain or are socially and economically associated with smaller city hubs that do not meet the population size to be classified as a Metro Area. Nineteen counties do not meet the population density requirement to be classed as urban in this report but are still in a Census-defined Metro Area. There are an additional 21 counties in the micro area. Missouri has 59 rural counties that do not meet either of these criteria and are classed as Other Rural. This report utilizes this more detailed method of further classifying rural counties to analyze population trends over the past five years.

Rural Counties

Adair	Dent	Maries	Ray
Andrew	Douglas	Marion	Reynolds
Atchison	Dunklin	McDonald	Ripley
Audrain	Franklin	Mercer	Saline
Barry	Gasconade	Miller	Schuyler
Barton	Gentry	Mississippi	Scotland
Bates	Grundy	Moniteau	Scott
Benton	Harrison	Monroe	Shannon
Bollinger	Henry	Montgomery	Shelby
Butler	Hickory	Morgan	St. Clair
Caldwell	Holt	New Madrid	St. Francois
Callaway	Howard	Nodaway	Ste. Genevieve
Camden	Howell	Oregon	Stoddard
Carroll	Iron	Osage	Stone
Carter	Johnson	Ozark	Sullivan
Cedar	Knox	Pemiscot	Taney
Chariton	Laclede	Perry	Texas
Clark	Lafayette	Pettis	Vernon
Clinton	Lawrence	Phelps	Warren
Cooper	Lewis	Pike	Washington
Crawford	Lincoln	Polk	Wayne
Dade	Linn	Pulaski	Webster
Dallas	Livingston	Putnam	Worth
Daviess	Macon	Ralls	Wright
DeKalb	Madison	Randolph	

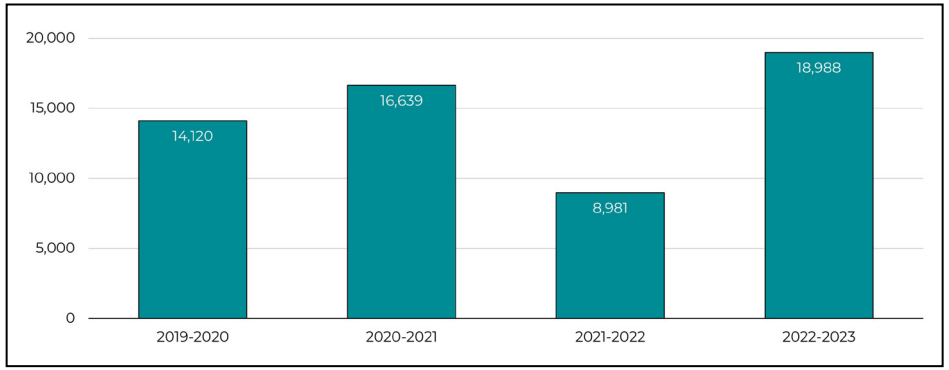
Population Distribution and Trends

The U.S. Census Bureau Population Branch estimates Missouri's population in 2023 at 6,196,156 residents. The population in rural counties is 2.06 million people, or 33.2 percent, of Missouri's population. The remaining 66.8 percent (or 4.14 million people) resided in urban counties.

Missouri's population increased by just over 58,700 people from 2019 to 2023.

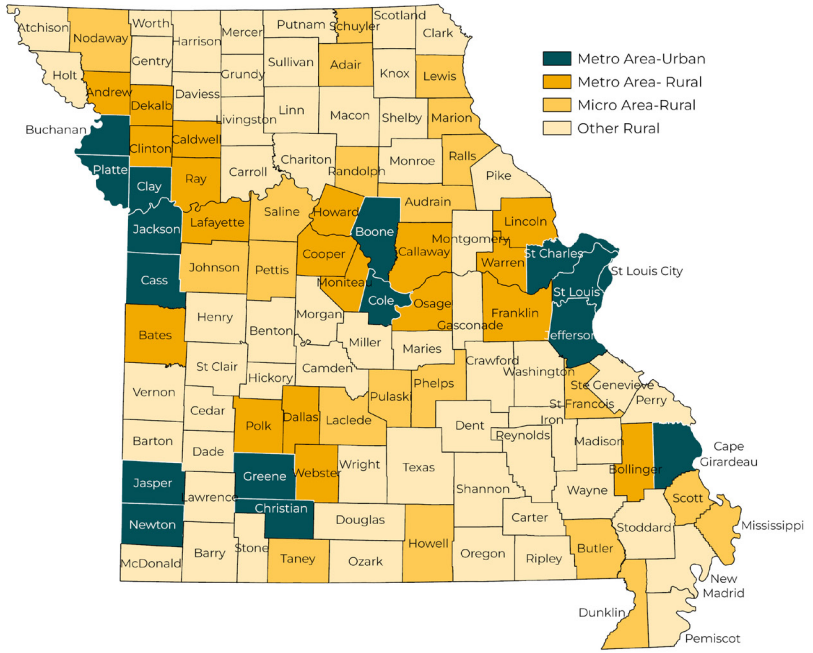
Broken down by year, every year saw an increase in the number of residents. The average annual increase was 14,675. The smallest increase was 8,891 experienced from 2021 to 2022. The largest increase was the very next year (2022-2023) at 18,988.

Annual Population Increase
Missouri, 2019-2023



Source: Source: Missouri Vital Statistics Files. Bureau of Health Care Analysis and Data Dissemination

Metropolitan and Micropolitan Statistical Areas



Source: Missouri Census Data Center[i]

Missouri's total population increased by 1.0 percent from 2019 to 2023, which was half of the overall U.S. national average population increase of 2.0 percent. Additionally, Missouri ranked 37th among the 50 states and the District of Columbia for population increase. Kansas, a neighboring state to Missouri, also experienced a population increase of 1.0 percent. Other Midwest states, such as Iowa and Arkansas, saw more of a population increase at 1.7 percent, while Illinois saw a 1.0 percent decrease in population.

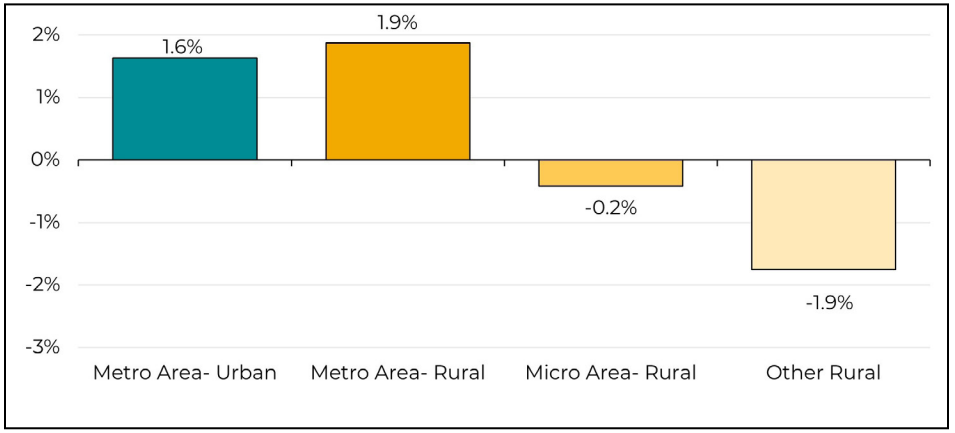
Population Change

Among Missouri's 99 rural counties, the population declined by 0.4 percent (this is the calculation of the percentage change for the three yellow bars in the Population Change graph) from 2019 to 2023. In contrast, Missouri's 16 urban counties' population increased by 1.6 percent. Using the Metro Area and Micro Area classification to analyze further trends, rural counties in Metro Areas had a population increase of 1.9 percent, which is an increase greater than Missouri's urban counties (1.6%). Rural counties in Micro Areas had a population decrease of 0.2 percent, and other rural-classified counties saw the greatest population decline of 1.9 percent.

Sixty-three (55%) of Missouri's counties had a population decline between 2019 and 2023. While only three of Missouri's urban counties lost population, 60 rural counties lost population. Fifty-two counties had population gains between 2019 and 2023, consisting of 13 urban counties and 39 rural counties. Other notable population trends include:

- Forty-four counties experienced a population increase between 2019 and 2023 greater than the state average of 1.0 percent.
- Eight rural counties had a population increase of over 5.0 percent. Lincoln County, located within the St. Louis Metropolitan Statistical Area in the eastern part of the state, had the largest population increase at 9.6 percent.
- Twelve urban counties had population growth of at least 2.0 percent, with four of those counties experiencing a population increase of 5.0 percent or greater. Platte County near Kansas City and Christian County near Springfield had the second and third largest population increases (behind Lincoln County) of 7.2 percent and 6.6 percent, respectively. Cass County and Cape Girardeau County were the other two urban counties with population increases above 5.0 percent.

Population Change in Missouri 2019-2023



Source: Source: U.S. Census Bureau[ii]

- St. Louis City, Buchanan and St. Louis County were the three urban counties to lose population. St. Louis City and Buchanan County lost between 5.0 and 6.0 percent of their population during the 5-year period, while St. Louis County only lost 0.7 percent of its population.
- Nine counties experienced a population decline of over 10 percent. All counties were rural, with seven of the nine located in the Southeast region of the state. DeKalb County had the highest percentage decrease at 21.1 percent.

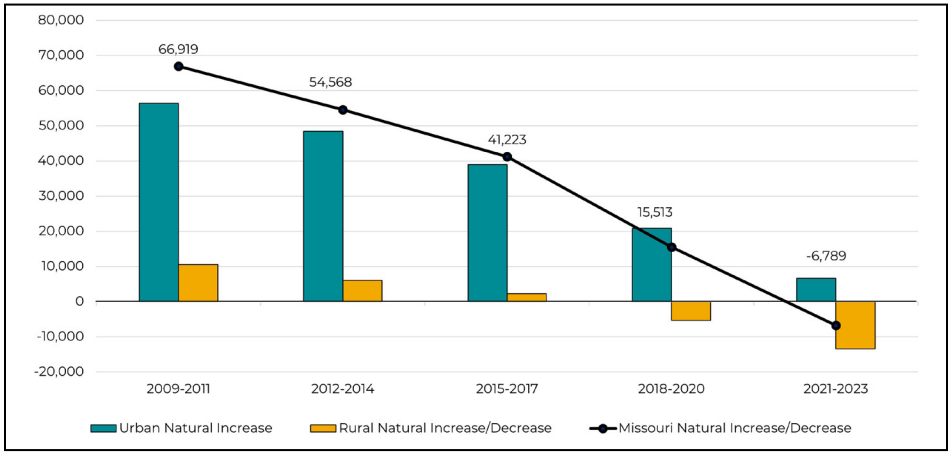
44 Missouri counties had population increase of greater than 1% between 2019 and 2023.

Natural Increase

Natural increase is a common tool used to track population trends. It is calculated by subtracting the total number of deaths for a specific area from the total number of births for the same area. When the area has more births than deaths, it has a natural increase, indicating population growth. When the location has more deaths than births, there is a natural decrease in population.

The year 2020 was unique in Missouri Vital Statistics. This was the first year that Missouri had more deaths than births since Missouri began keeping centralized vital statistics in 1911. COVID-19 is largely responsible for this trend. This trend continued in 2021 and 2022, when Missouri also experienced a natural decrease. While Missouri had been experiencing a decline in natural increase for the last 15 years, the pace of the change dramatically accelerated during these three years. Natural increase declined by approximately 77 percent from 66,919 in 2009-2011 to 15,513 in 2018-2020. In the next three-year interval (2021-2023), the natural increase became a natural decrease of 6,789. This natural decrease was driven by rural counties.

Natural Increase Over Time
Missouri, 2009-2023



Source: Missouri Vital Statistics Files. Bureau of Health Care Analysis and Data Dissemination

Other key findings related to urban and rural patterns include:

- From 2021 to 2023, the rural population had just over 13,400 more deaths than births. For every one death, there were 0.84 births.
- Even as Missouri experienced a natural decrease, the urban population still saw a natural increase from 2021-2023. The urban counties' ratio of over 1.05 indicated that there were slightly more births than deaths.
- Between 2009-2011 and 2021-2023, rural counties experienced a faster decline in natural increase, as compared to urban counties:
  - Urban counties decreased 88.2 percent from approximately 56,400 to 6,600.
  - Rural counties decreased 227.3 percent from approximately 10,500 to -13,400.

Natural Increase/Decrease, 2019-2023

Year	2019	2020	2021	2022	2023
Natural Increase/ Decrease	9,948	-4,606	-4,562	-2,822	595

Natural Increase/Decrease, 2021-2023

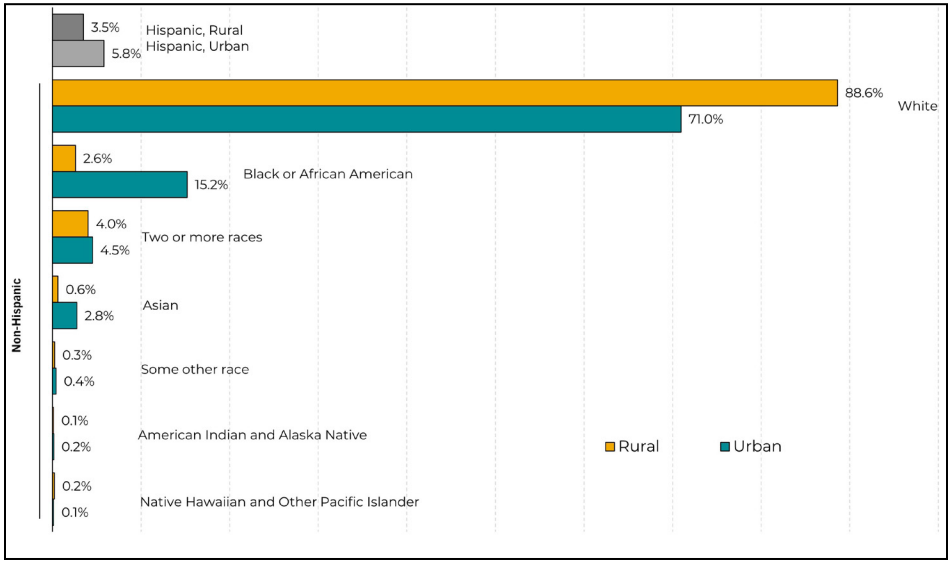
	Births	Deaths	Natural Increase/ Decrease	Number of Births for Every One Death
Missouri Total	205,288	212,077	-6,789	0.97
Rural Counties	69,690	83,388	-13,428	0.84
Urban Counties	135,328	128,686	6,642	1.05

Source: Missouri Vital Statistics Files. Bureau of Health Care Analysis and Data Dissemination

Race and Ethnicity

Missouri's non-Hispanic white population constitutes a majority in both rural and urban areas. However, the non-Hispanic white population represents significantly higher percentages of the rural population. During the 2019-2023 period, 11.4 percent of the rural population identified as a race and ethnicity combination other than non-Hispanic white, compared to 29 percent of urban residents. Data from 2014-2018 showed that approximately nine percent of rural Missouri residents and 26 percent of urban Missouri residents identified as a race and ethnicity other than white non-Hispanic. Therefore, the minority population in urban and rural areas both increased over the last half-decade.

Racial and Ethnic Composition in Rural and Urban Counties Missouri, 2019-2023



Source: U.S. Census Bureau[iii]

Note: In the rest of the report, when race is discussed or displayed, only white and Black/African American statistics are included due to low counts for the other race groups.

Other notable findings include:

- In urban counties, the non-Hispanic Black/African American population comprised 15.2 percent of the total population, making it the second largest racial group. However, in rural counties, the non-Hispanic Black/African American population comprised 2.6 percent of the total population, a percentage nearly six times less than in urban counties.
- Compared to 2017-2021 data, residents who identified as two or more races increased by 0.7 percentage points in urban areas and by 1.0 percentage points in rural areas. This was the only category that increased in both urban and rural counties.
- The non-Hispanic white population had the greatest decrease in population, decreasing by 1.5 percentage points in urban counties and 1.0 percentage points in rural counties.
- Missouri's Hispanic population is dispersed throughout the state. Estimates show that the Hispanic population was approximately 5.8 percent of urban counties and 3.5 percent of rural counties.
- In Missouri's urban counties, the Hispanic population is most concentrated in Jackson County, which accounts for 33.1 percent of the state's urban Hispanic residents. St. Louis County follows with 15.5 percent and Clay County with 8.2 percent.
- In rural Missouri, Pulaski County has the highest concentration of Hispanic residents, representing 8.6 percent of the rural Hispanic population. Taney County follows with 5.9 percent and Pettis County with 5.7 percent.

Aging in Missouri

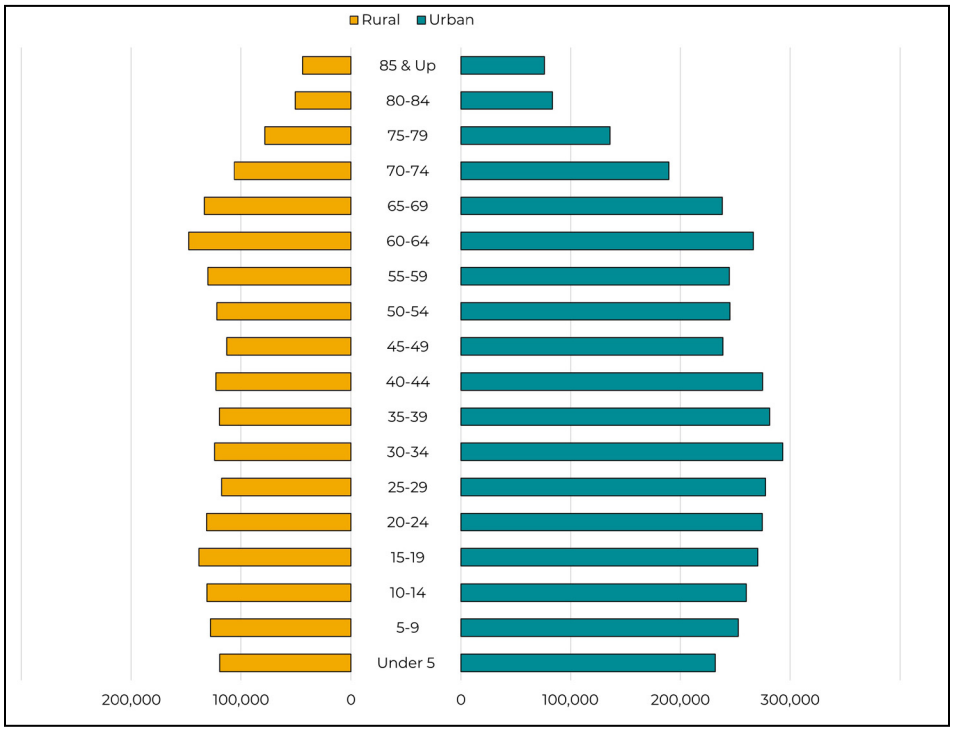
Age pyramids are a visual representation of age structure differences within a population. The age pyramid illustrates Missouri's 2023 population, broken down into five-year age groups. The pyramid is separated by rural (left side) and urban (right side) counties. As shown in the pyramid, the urban population is often double the size of the rural population for each age group. However, they do share some similar patterns, such as the Baby Boomer generation being an important age cohort for both geographies. Other key statistics include:

- The largest rural age group was 60- to 64-year-olds, which made up 2.4 percent of Missouri's total population in 2023.
- The largest age group for urban counties was 30- to 34-year-olds, who comprised 4.7 percent of Missouri's total population.
- Missouri's urban counties had a higher percentage of their population ages 20 to 54 compared to rural counties (45.6 vs 41.3). This may be due to workforce-related migration and the presence of educational and economic opportunities.
- Rural areas had a higher percentage of residents aged 54 and older, reflecting a more aged population structure. For example, 7.2 percent of rural residents were aged 60 to 64 compared to 6.4 percent in urban areas, and 6.5 percent of rural residents were aged 65 to 69 compared to 5.8 percent of urban residents.

In Missouri, the senior population (ages 60 and older) is showing notable growth, with a total population of 1,550,953 individuals. Of these, 560,791 seniors reside in rural areas, accounting for approximately 27.2 percent of the rural population, while 990,162 seniors live in urban areas, making up about 23.9 percent of the urban population. The senior population grew by 3.0 percent in rural counties and 3.5 percent in urban counties. This distribution highlights the significant presence of seniors in both rural and urban settings, with rural areas supporting a substantial portion of the aging population.

*Note: Age structures in individual counties may differ significantly, especially in areas influenced by colleges, prisons or military bases, which tend to have younger populations.

Rural vs. Urban Population
Missouri, 2023



Source: U.S. Census Bureau[iv]

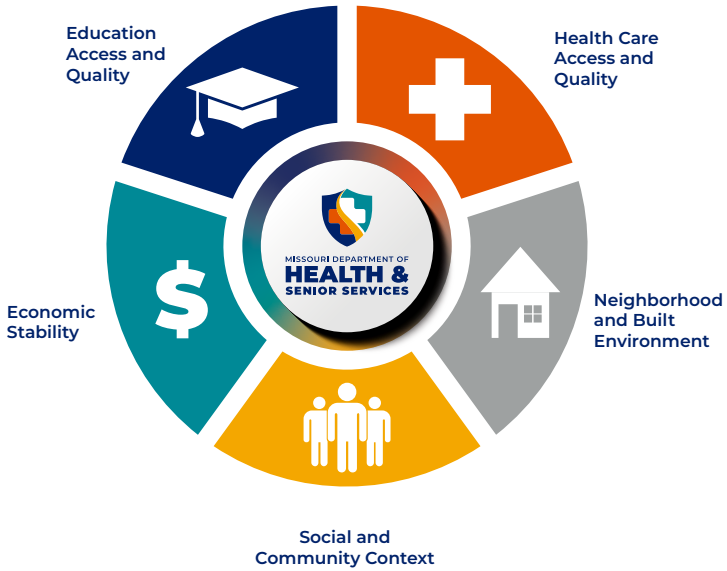
Social Drivers of Health

Impact on Health of Rural Missourians

Healthy People 2030 defines social determinants of health as the non-medical factors and conditions in the environment and places where people are born, live, age, learn, work, play and worship that influence and affect a wide range of functioning, quality-of-life and health risks and outcomes.[v] However, "determinants" suggests we can do nothing to change health outcomes. Instead, this report uses the term "drivers" to reframe the conversation around health for Missourians.

Social Drivers of Health (SDOH) pose distinct obstacles in rural communities, including limited access to health care services, transportation barriers, higher rates of concentrated poverty, fewer economic opportunities, income inequality, racial and ethnic disparities and limited access to affordable housing and healthy food options.[vi] Addressing these obstacles is vital to promote health equity and reduce disparities among Missouri's population.

Social Drivers of Health



Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved [Sept. 18, 2025], from health.gov/healthypeople/objectives-and-data/social-determinants-health

Social drivers of health (SDOH) are the non-medical factors and conditions in the environment and places where people are born, live, age, learn, work, play and worship that influence and affect a wide range of functioning, quality-of-life and health risks and outcomes.

Poverty

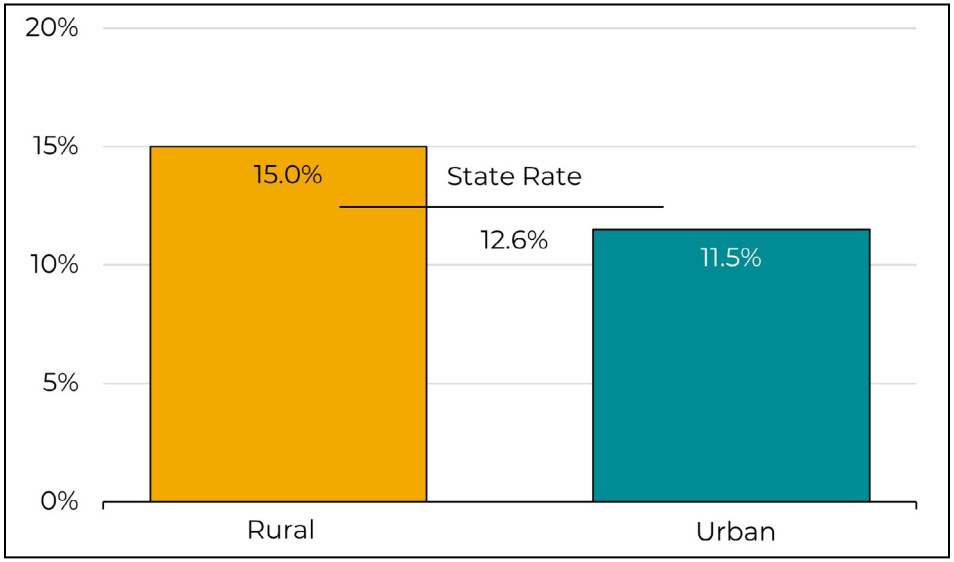
Missouri has made modest statewide progress in reducing poverty. Rates decreased from 14.2 percent in 2014-2018 to 12.6 percent in 2019-2023. However, rural areas continue to have higher rates than urban areas. Low poverty rates in urban counties like St. Charles (4.7%) contrast sharply with high rates in rural counties, including Pemiscot (27.4%) and Wayne (25.1%). These differences magnify health risks, as rural residents face limited health care access, food insecurity and higher chronic disease rates. Livable wages and steady income could allow individuals to afford preventive care, specialist visits and medications for chronic conditions. However, many people have difficulty finding and keeping a job, leading to chronic poverty. Poverty ranks just behind smoking among risk factors for death.[vii] Seniors in high-poverty counties are particularly vulnerable due to fixed incomes and rising health care costs.

County Differences

Nineteen of the top 20 counties with the highest poverty rates were rural. St. Louis City, the only urban county in the top 20, ranked 13th.

- Counties with the lowest poverty rates include St. Charles (4.7%), Cass (6.5%) and Platte (6.8%).
- The counties with the highest poverty rates are all rural and include Pemiscot (27.4%), Wayne (25.1%) and Mississippi (23%).
- The urban counties with the highest poverty rates are St. Louis City (19.8%), Jasper (18.4%) and Boone (17.1%).
- Twelve rural counties exceeded 20 percent poverty; 81 counties exceeded the state average.

Total Population Poverty Rates
Missouri, 2019-2023



Source: U.S. Census Bureau[viii]

Differences by Sex and Race

Missouri females experienced consistently higher poverty rates than males, with higher poverty rates in 89 of 99 rural counties and in all urban counties.

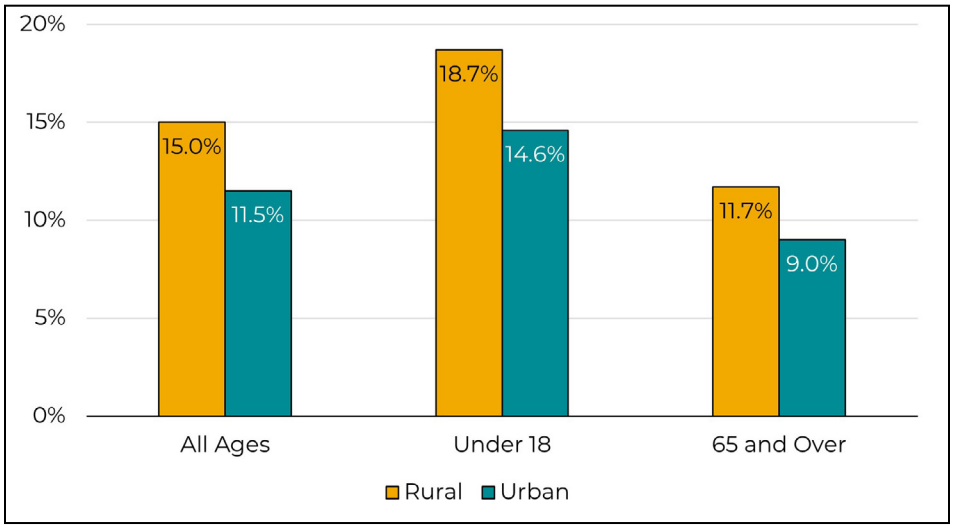
Grundy County in Missouri's Northeast region had the largest gap of poverty between males and females, with 11.4 percent of males and 22.1 percent of females living in poverty.

Black/African American residents had the highest level of poverty in rural and urban counties compared to all other races. In rural counties from 2019 to 2023, Black/African American (30.2%) residents experienced poverty at more than double the rate of white residents (14.2%). Likewise, in urban counties, Black/African American residents (22.5%) face significantly higher rates than white residents (8.7%).

Childhood Poverty

In Missouri, children under five years of age have the highest rate of poverty. The rate is higher in rural counties (20.3%) compared to urban counties (16.3%). The counties with the highest poverty rate for children under five years were Pemiscot (49.7%) and Mississippi (46.9%). The state rate for childhood poverty (children under age 18) declined from 16.9 percent (2017–2021) to 16.0 percent (2019–2023). Rural areas had similar decreases in childhood poverty, which decreased from 20.5 percent to 18.7 percent.

Poverty Rates by Age
Missouri, 2019-2023

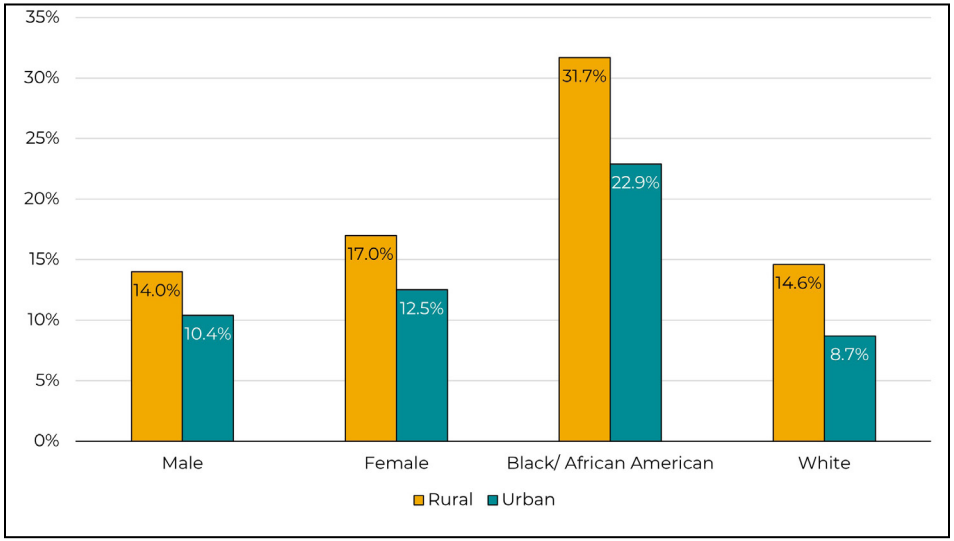


Source: U.S. Census Bureau[ix]

Senior Poverty

Missouri is experiencing significant population growth among its older adult population. Over the past 10 years, the 65 years and older population has increased by 21.9 percent and by 7.0 percent in the past five years. This growth is significant to public health as older people are often economically vulnerable due to fixed incomes. Data covering 2019 to 2023 found senior poverty at 10.0 percent, an increase from the last biennial report, which reported a poverty rate of 8.9 percent among seniors. Additionally, senior poverty occurred more in rural counties (11.7%) than in urban counties (9.0%).

Poverty Rates by Sex/Race
Missouri, 2019-2023



Source: U.S. Census Bureau[ix]

Education

The Healthy People 2030 framework identifies Education Access and Quality as a key factor influencing health. Rural areas face challenges such as teacher shortages, limited course offerings and distance from higher education institutions.[x]

In Missouri:

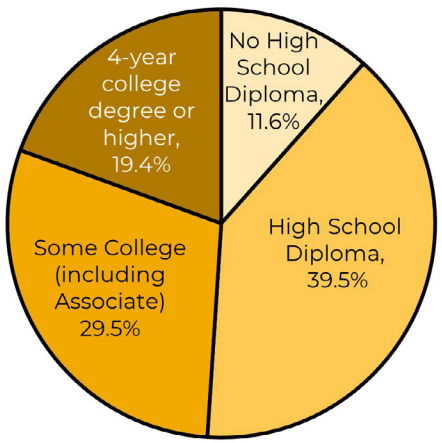
- The 2023 high school graduation rate was 91.6 percent.
- From 2019 to 2023, 11.6 percent of rural residents lacked a high school diploma, compared to 6.8 percent in urban areas.
- 39.5 percent of rural adults (25+) had only a high school diploma, versus 25.8 percent in urban areas.
- Fewer rural students pursue postsecondary education.

County highlights:

- Highest high school diploma attainment in rural counties: Nodaway, Pulaski and Andrew (~94%).
- Lowest: Scotland (78.4%), Dunklin (80.0%) and Morgan (80.1%). Jasper was lowest among urban counties (88.8%).
- Adair had the highest rural bachelor's degree rate (35.0%).
- Mississippi had the lowest college attendance (32.3%). Platte County had the highest college attendance (75.6%).

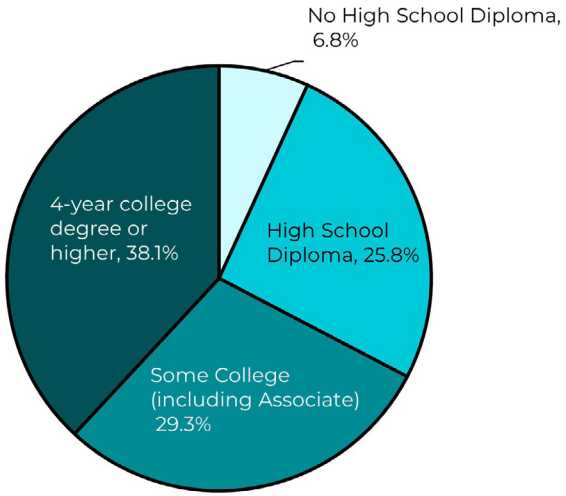
Compared to 2014-2018, rural counties saw a 2.3 percentage point increase in four-year college degree attainment or higher and nearly a three percentage point decrease in residents without a high school diploma.

Educational Attainment for Adults 25+
Missouri, 2019-2023
Rural



Source: U.S. Census Bureau[xi]

Educational Attainment for Adults 25+
Missouri, 2019-2023
Urban



Source: U.S. Census Bureau[xi]

Unemployment

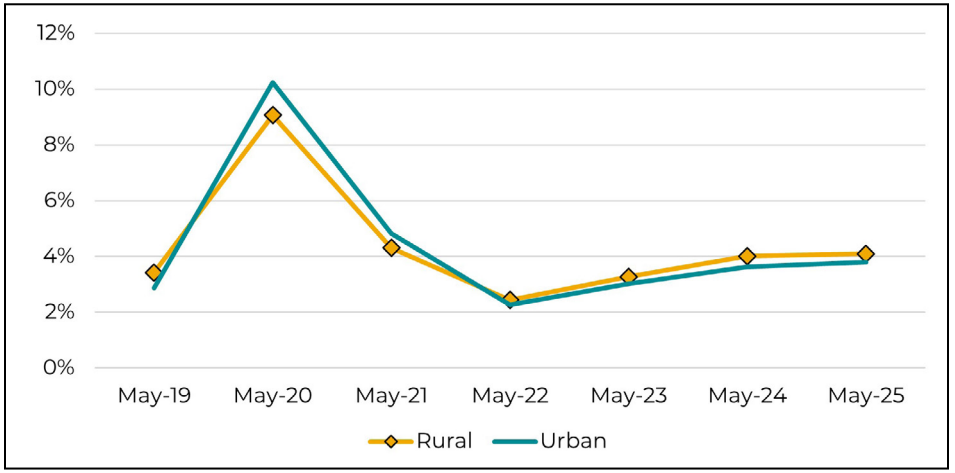
As of May 2025, Missouri's civilian labor force, which includes individuals who are employed and those who are jobless but actively sought employment in the past four weeks, consisted of about 3.2 million people.[xii] In the Healthy People 2030 SDOH framework, unemployment falls under the Economic Stability domain. Because employment is closely linked to health insurance, becoming unemployed can mean losing access to affordable health care. This can lead to negative mental and physical health effects for unemployed individuals, including depression, anxiety, high blood pressure and heart disease. On the other hand, being employed can have a positive impact on one's health through benefits such as employer-sponsored health insurance, paid sick leave and parental leave.[xiii]

The latest unemployment data from May 2025 show the statewide rate at 3.9 percent, an increase of 0.8 percentage points since 2023. The rate for Missouri's rural counties was 4.1 percent, and the rate for urban counties was 3.8 percent. Nationally, the U.S. unemployment rate for May 2025 was 4.0 percent.[xiv]

Other Missouri unemployment trends include:

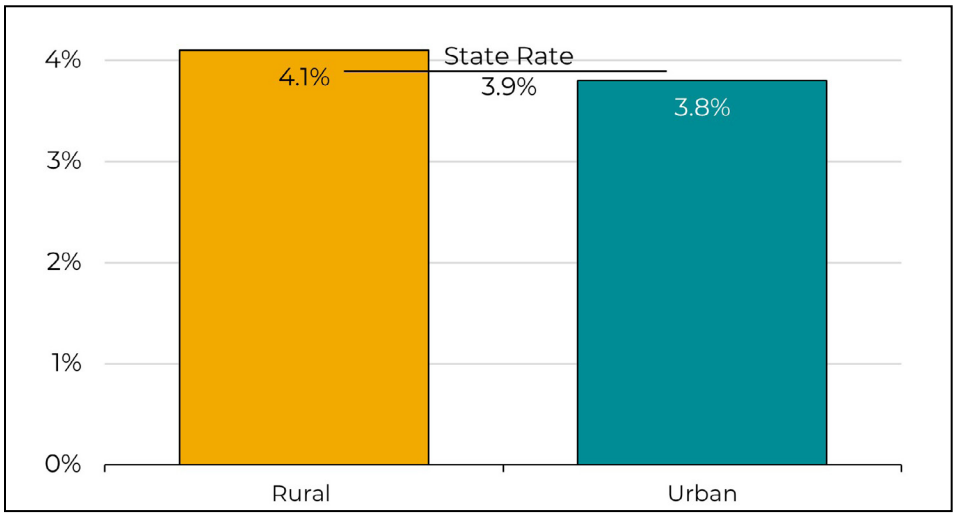
- The U.S. Census Bureau calculates an annual average unemployment estimate for each state and its counties. The latest figure includes data from January through December 2024 and shows the statewide unemployment rate at 3.7 percent. The rural rate was slightly higher at 4.0 percent, while the urban rate was slightly lower at 3.5 percent.
- Compared to the annual average for 2019, the 2024 unemployment rate was up 0.3 percentage points in Missouri's rural counties and rose to 0.5 percentage points in urban counties.
- In 2024, three counties (Hickory, Ozark and Mississippi) had an annual average unemployment rate at or above 6.0 percent.
- Five of the 10 lowest unemployment rates in Missouri were rural counties, with Nodaway in Northwest Missouri having the lowest rate (2.8%). The urban county with the lowest unemployment rate was Cole (3.0%), with the third lowest rate overall.

Unemployment Rates*
Missouri, May 2019 - May 2025



*Unemployment rates are not seasonally adjusted
Source: Missouri Economic Research and Information Center (MERIC). Local Area Unemployment Statistics.

Unemployment Rates*
Missouri, May 2025



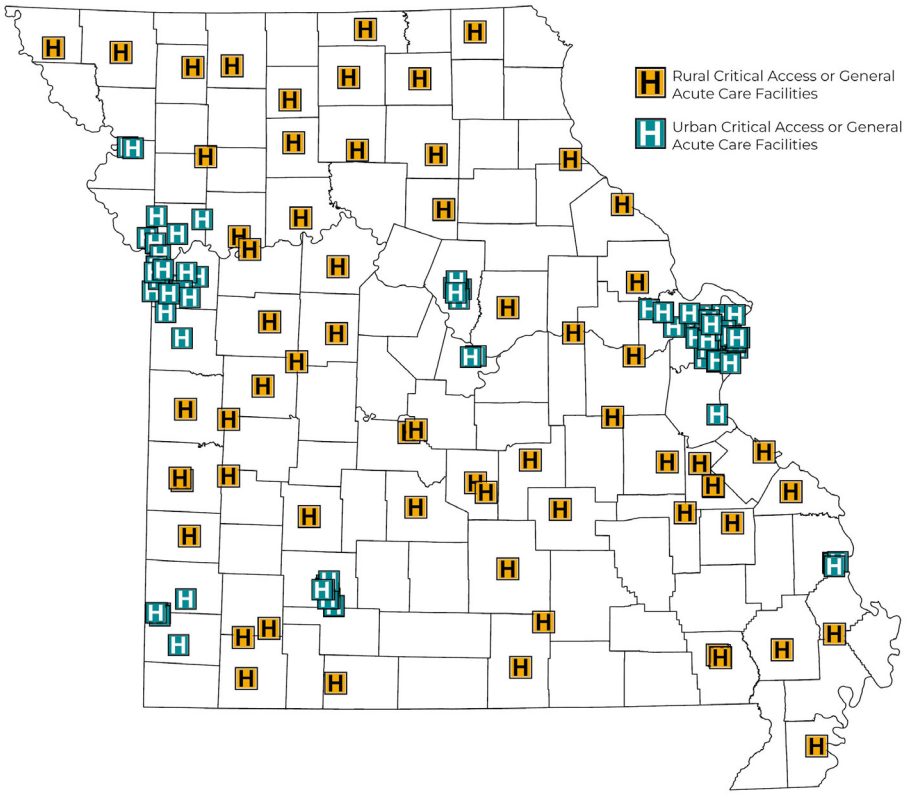
*Unemployment rates are not seasonally adjusted
Source: Missouri Economic Research and Information Center (MERIC). Local Area Unemployment Statistics

Transportation

Transportation is a key aspect of Missourians' daily lives, including travel to work and access to critical services, such as health care. Between 2019 and 2023, in Missouri, people spent an average of 23.7 minutes driving to work. In many rural counties, the average driving time is even longer. Sixteen counties had an average commute to work of 30 minutes or longer, and all but one of these counties were rural. Washington and Ripley Counties had the highest average commute times, with an average drive time to work of over 34 minutes. Residents of rural counties had a slightly longer average commute to work at 24.8 minutes, whereas residents of urban counties had, on average, a 23.2-minute commute. These are just average drive times; over 25 percent of the workforce (16 years of age and over who did not work from home) in 14 rural counties drove over 45 minutes to work.

Road conditions have a major impact on travel. According to the Missouri Department of Transportation, driving on deteriorated roads costs Missouri motorists $4.3 billion a year ($998 per driver) in the form of additional repairs, faster vehicle depreciation, increased fuel use and tire wear. Road conditions, distracted drivers and longer commutes lead to negative outcomes such as anger and anxiety from traffic, lost time at home, less time for social activities and long periods of time sitting. These issues also correlate with many negative physical and mental health indicators, including higher blood pressure and cholesterol levels, reduced sleep, lower productivity at work and home and a higher risk of depression and anxiety.

Hospital Facilities
Missouri, 2023



Source: Missouri Division of Regulation and Licensure.

Transportation Access

Missourians' access to transportation is a vital component of their health. Without transportation, people:

- Are unable to access health care services to get medicine and treatment when needed.
- May ignore health issues until emergency care is needed.
- Experience less independence, decreasing their ability to engage in healthy habits.

A major driver of positive health outcomes is travel time to a hospital. In an emergency, drive time and available transportation can be critical. Currently, only 52 rural counties have a general acute or critical access hospital.[xv] Citizens in these counties often face long drives to get care in emergency situations. One way to measure the challenges these counties face is to calculate the distance to the nearest hospital from the most populous city without a hospital in each rural county. Using this metric, four counties had a drive of 45 minutes or longer.

Citizens in:

- Gainesville in Ozark County in southern Missouri had a 49-minute drive to Ozarks Healthcare in West Plains.
- Ellington in Reynolds County in southeastern Missouri had a 48-minute drive to Iron County Medical Center in Pilot Knob.
- Piedmont in Wayne County in southeastern Missouri had a 46-minute drive to Poplar Bluff Regional Medical Center in Poplar Bluff.

A lack of transportation can also negatively impact the health care system. Many rural counties have residents without access to a vehicle. Missouri has an estimated 163,178 (6.6%) households without a vehicle. Thirty-six counties average at or above the state average for households without a vehicle. Of those 36 counties, 31 are rural. St. Louis City had the highest percentage of households without a vehicle at 17.9 percent, followed by Mississippi County at 16 percent, Grundy County at 11.6 percent and Carter County at 10.9 percent. When patients miss appointments, providers lose revenue, insurance reimbursement and time for caring for other patients.

While public transportation in rural areas may not match the diverse services available in urban regions, public transportation options are still available in many areas of the state. Options include rides provided through organizations like OATS Transit, which serves 87 counties, and volunteer driver programs like Healthtran. The QR code shows a Rural Transit Map of all the services for each county.

Missouri Rural Transit Map
MoDOT.org/missouri-rural-transit-map

Access to Health Care: Health Insurance

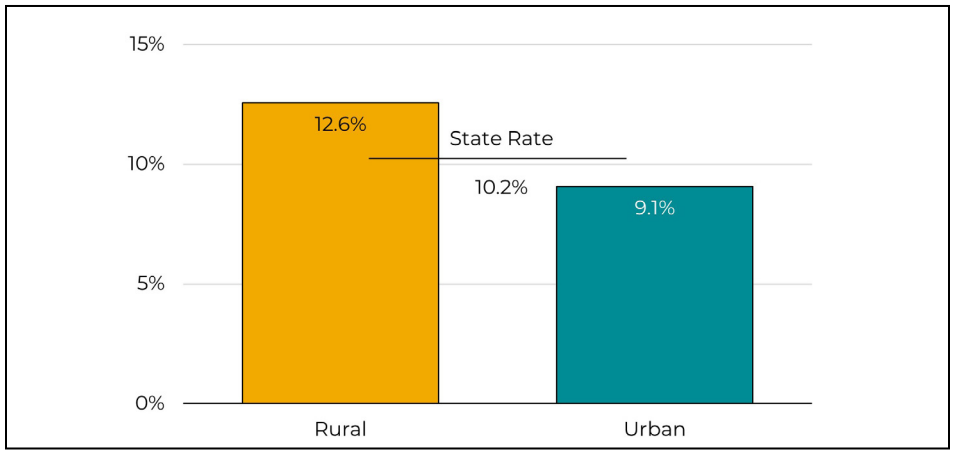
Health Care Access and Quality is another key domain in the Healthy People 2030 SDOH framework. In the United States for 2022, approximately 1 in 11 persons (9.5%) of the population 65 years of age and younger were without health insurance.[xvi] Individuals without health insurance are less likely to have a primary care physician and may struggle to afford health services and medications.[xvii] Without a primary care provider, individuals may be less likely to get necessary health screenings for important preventive care services. Furthermore, many individuals may not have the means to travel to see their medical provider or face challenges finding providers nearby that accept their insurance plan.

The Small Area Health Insurance Estimates (SAHIE) program through the U.S. Census Bureau provides data that allows for analysis by rural and urban counties for a variety of demographic indicators.[xviii] Because it is a national survey, confidence intervals or statistical significance cannot be determined for any of the comparison groups. Additionally, since most people 65 and older receive Medicare benefits, this analysis is limited to the under-65 population.

SAHIE data from 2022 shows that the Missouri statewide percentage of uninsured individuals was 10.2 percent. Missouri's rural counties had a higher percentage of uninsured individuals than urban counties (12.6% versus 9.1%, respectively).

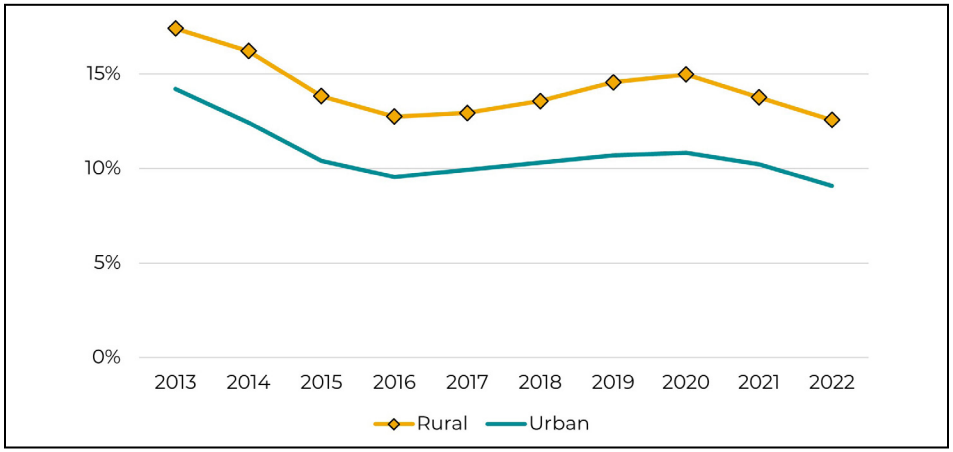
The difference between rural and urban counties has been consistent over the last decade, averaging a 3.5 percentage point difference. The largest gap between rural and urban counties in people without health insurance was in 2020 at 4.1 percentage points. Following 2020, uninsured rates have been declining for both rural and urban counties in Missouri.

Percent Without Health Insurance*
Missouri, 2022



*Percent of population under age 65
Source: U.S. Census Bureau, 2022 Small Area Health Insurance Estimates (SAHIE) using the American Community Survey (ACS)

Percent Without Health Insurance by Year*
Missouri, 2013-2022

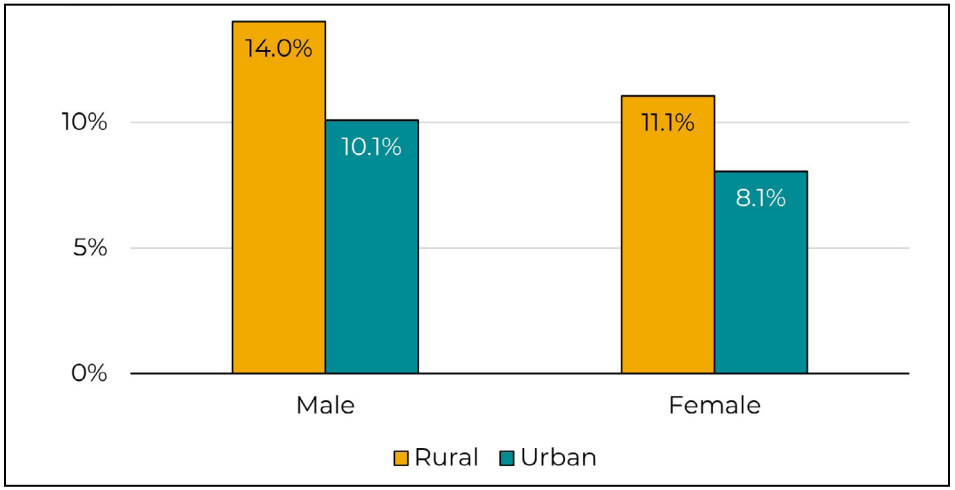


*Percent of population under age 65
Source: U.S. Census Bureau, 2013-2022 Small Area Health Insurance Estimates (SAHIE) using the American Community Survey (ACS)

Other notable demographic trends for 2022 include:

- The percentage of males who were uninsured was higher than that of females in both rural and urban counties. The disparity between males and females is slightly higher in rural areas, where the difference is nearly three percentage points, compared to two percentage points for urban counties.
- In both rural and urban counties, the percentage of uninsured individuals under the age of 19 was lower, at 7.1 percent and 4.7 percent, respectively.
- The rate of uninsured people between the ages of 21 and 64 was higher than the state average. Individuals in rural counties had a rate of 15.0 percent compared to 10.8 percent in urban counties.
- Individuals at or below 200 percent of the federal poverty level show a higher uninsured rate at 16.9 percent. However, for this subgroup, there is little disparity between rural and urban counties (17.3% for rural counties and 16.6% for urban counties).

Percent Without Health Insurance by Sex*
Missouri, 2022



*Percent of population under age 65
Source: U.S. Census Bureau, 2022 Small Area Health Insurance Estimates (SAHIE) using the American Community Survey (ACS)

Scotland County had the highest uninsured rate.

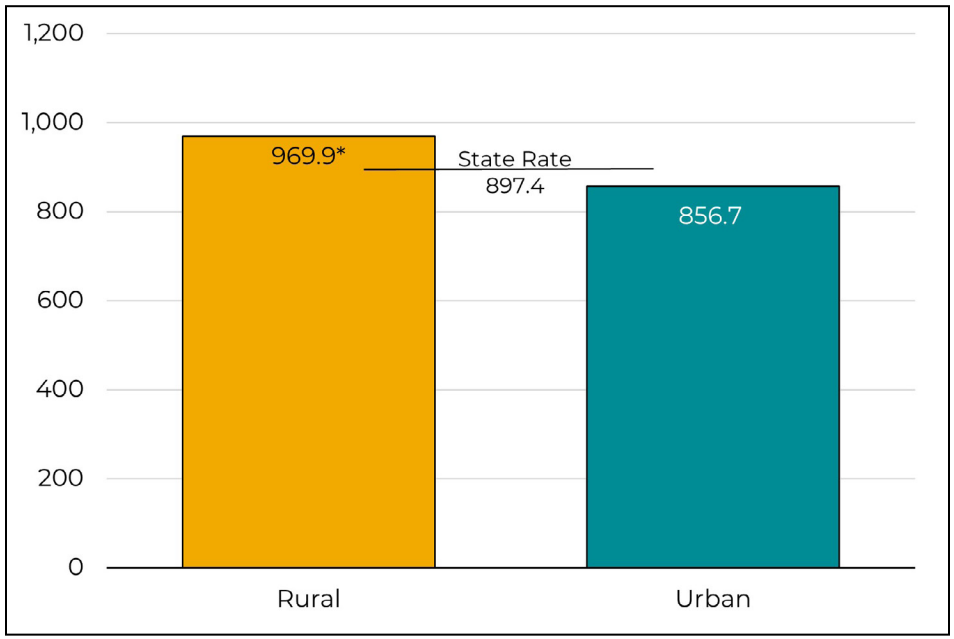
- Individuals at or below 400 percent of the federal poverty level show an uninsured rate of 13.7 percent. However, the rural/urban difference is greater at 7.2 percentage points (14.8% for rural counties versus 7.6% for urban counties).
- The 26 counties with the highest percentage of uninsured were all rural. Scotland County, located in the Northeastern region of Missouri, had the highest rate at 23.0 percent.
- Fifteen counties had an uninsured rate below 10 percent. Ten of those counties were urban. St. Charles County had the lowest uninsured rate at 6.2 percent.

Death: All Causes

Missouri experienced a total of 348,115 deaths between 2019 and 2023, for an annual average of 69,623 deaths. Because Missouri's population is aging, the death counts for more recent years have been greater than in the past (e.g., the annual average for 2014-2018 was 60,550). The age-adjusted death rate for Missouri was 897.4 (per 100,000 population) for 2019-2023. Age-adjusting for death rates controls for differences in the age structure of different geographies and across time. Statewide rates have fluctuated, increasing between 2019 and 2021, then decreasing between 2021 and 2023.

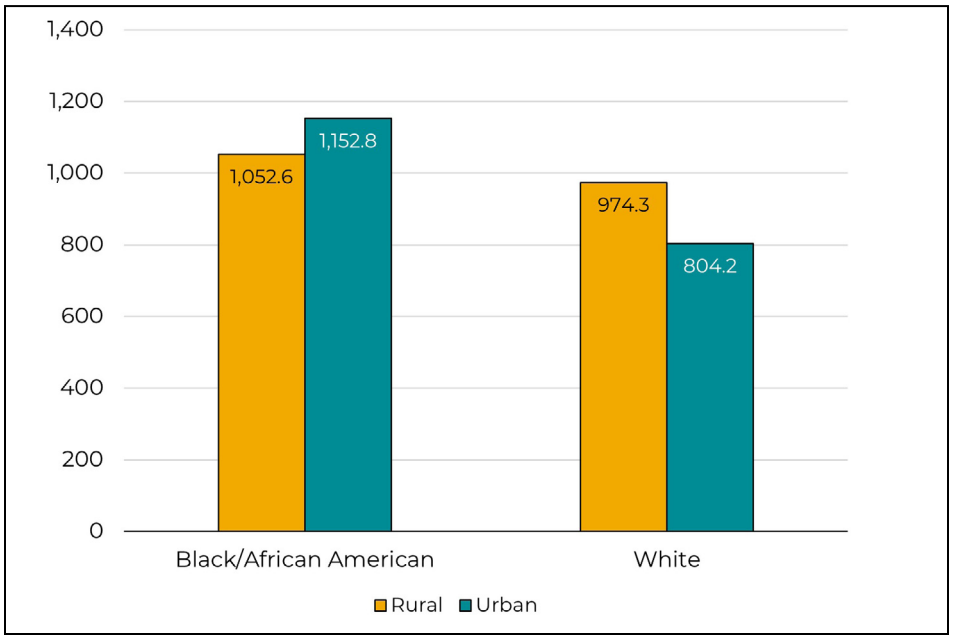
One consistent statistical trend is a higher rural death rate than urban death rate. The 13.2 percent higher rate in rural areas for 2019-2023 was statistically significant.

All Causes Death Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population
*Indicates a rate is statistically significantly higher using 95% confidence intervals

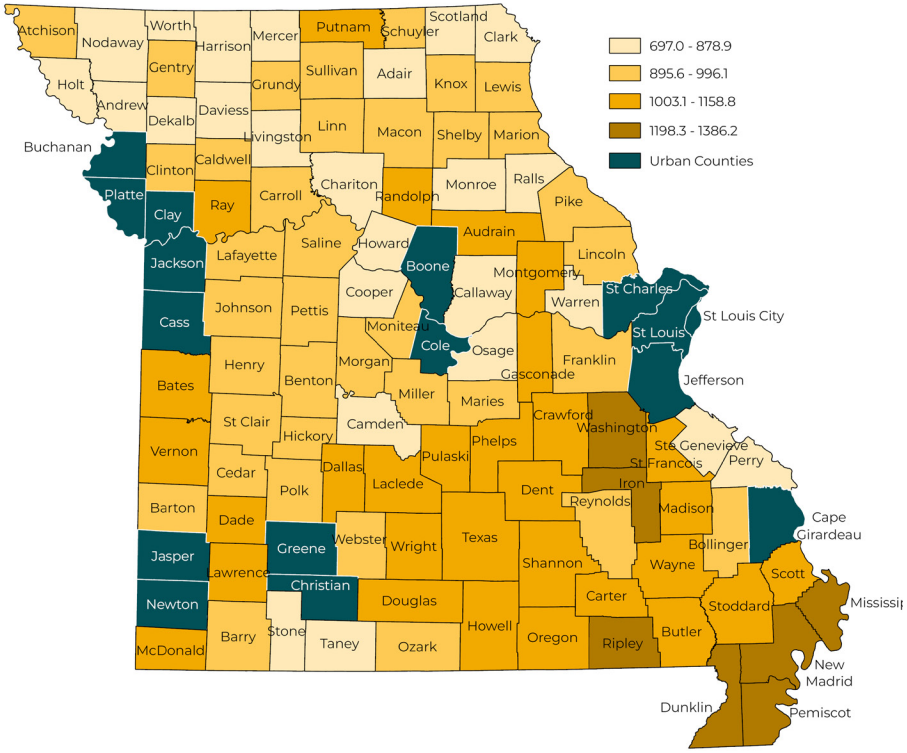
Death Rates from All Causes by Race
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- The five counties with the highest death rates (in order) were Pemiscot, Dunklin, Ripley, New Madrid and Iron. All five counties are in the Southeast region of Missouri, and three of these are in the Missouri Bootheel area.
- The five counties with the lowest death rates were Boone, Andrew, St. Charles, Platte and Nodaway.

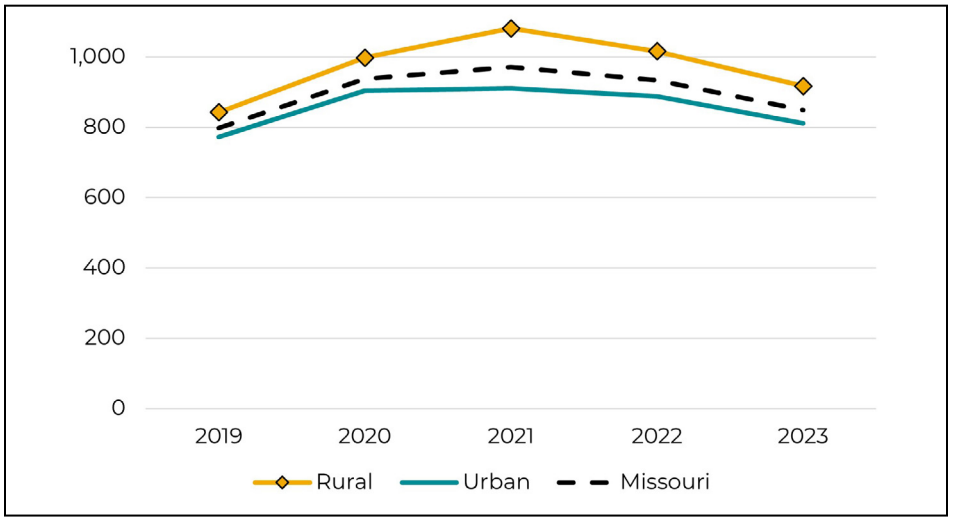
Death Rates From All Causes
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- Pemiscot County had the highest death rate at 1,386.2, which is nearly twice the Nodaway County rate, which was the lowest at 696.9.
- Southeast Missouri had a death rate of 1,068.2, which is the highest compared to any other region. Two clusters of counties in this region had death rates higher than any other part of the state.
- As shown in the chart, there has been a decrease in death rates since 2021 for rural and urban areas. This is attributed to the decline in COVID-19 fatalities, which peaked in 2021.

Death Rates from All Causes by Year
Missouri, 2019 - 2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Leading Causes of Death

The National Center for Health Statistics (NCHS) has a well-established approach to ranking different causes of death. Instead of using the age-adjusted death rate, the ranking is determined based on the actual number of deaths recorded. In the table provided, the causes of death are presented in a sequence that reflects the primary causes for individuals statewide.

Examining the data on mortality frequencies in Missouri's rural and urban areas yielded valuable observations regarding the factors contributing to the deaths of residents in these regions. The data showed that rural areas had higher death rates across almost all 10 causes compared to urban areas. The lone exception was Alzheimer's disease. Heart disease and cancer continue as the top two leading causes of death, just as they have for the last decade. Slightly less than half (42.2%) of all deaths in rural areas can be attributed to one of these two causes. This denotes a decrease compared to the 2014-2018 period, when cancer and heart disease accounted for 47.0 percent of rural deaths.

Leading Causes of Death Summary Table
Missouri, 2019-2023

Rank	Cause	Missouri Frequency	Missouri Rate	Rural Frequency	Rural Rate	Urban Frequency	Urban Rate
Rank 1	Heart Disease	77,849	195.5	31,482	218.5	46,366	182.6
Rank 2	Cancer	65,081	160.3	25,959	176.1	39,122	151.5
Rank 3	Accidents/ Unintentional Injuries	22,643	70.0	7,707	71.2	14,935	69.4
Rank 4	COVID 19	20,313	51.2	8,574	59.5	11,738	46.5
Rank 5	Chronic Lower Respiratory Diseases	18,794	45.9	9,121	60.5	9,673	37.5
Rank 6	Stroke (cerebrovascular diseases)	15,776	39.6	5,981	41.3	9,795	38.8
Rank 7	Alzheimer's Disease	13,308	33.6	4,756	32.4	8,552	34.2
Rank 8	Diabetes	9,109	23.0	4,055	28.3	5,054	20.0
Rank 9	Kidney Disease (nephritis, nephrotic syndrome and nephrosis)	8,097	20.4	3,126	21.6	4,971	19.6
Rank 10	Suicide	5,774	18.4	2,101	20.3	3,673	17.4

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

When comparing the leading causes of death for 2014-2018 and 2019-2023 periods, the addition of COVID-19 (ranked 4th in 2019-2023) caused several disease categories to fall in the rankings.

The following pages describe rural trends for the top six leading causes of death. A section on suicide is also included due to its increase in recent years.

Heart Disease

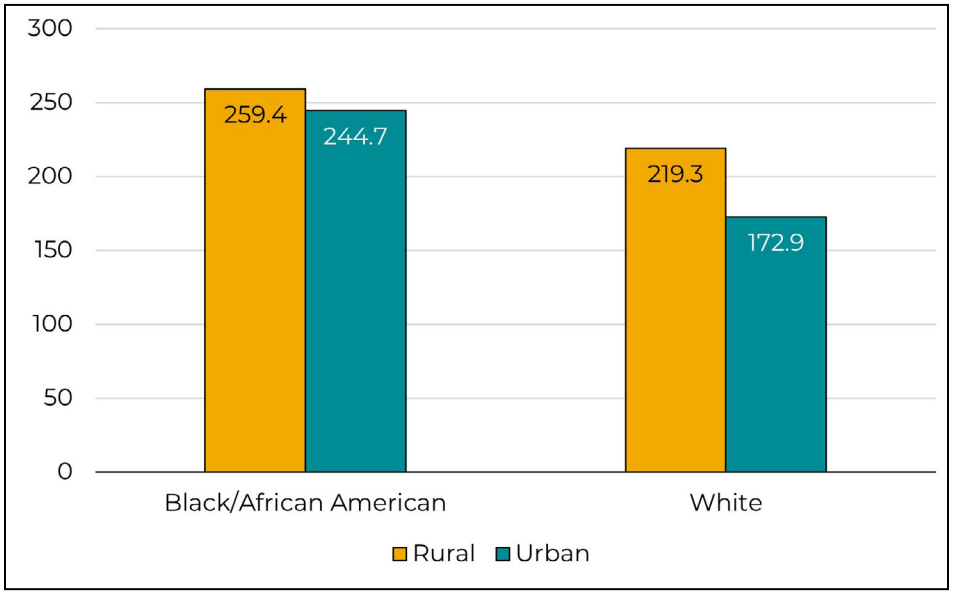
Heart disease was the leading cause of death for 31,482 rural Missourians between 2019 and 2023, making it the leading cause of death in rural Missouri. The heart disease death rate for rural Missouri counties (218.5) was 19.7 percent higher than urban counties (182.6) during this time. Heart disease death rates increased by 3.2 percent in rural counties and 0.1 percent in urban counties during this five-year span.

Heart Disease Death Rates
Missouri, 2019-2023

Rank	Rural	Urban
Frequency	31,482	46,366
Rate	218.5	182.6
Percent Change (2019-2023)	+3.2%	+0.1%

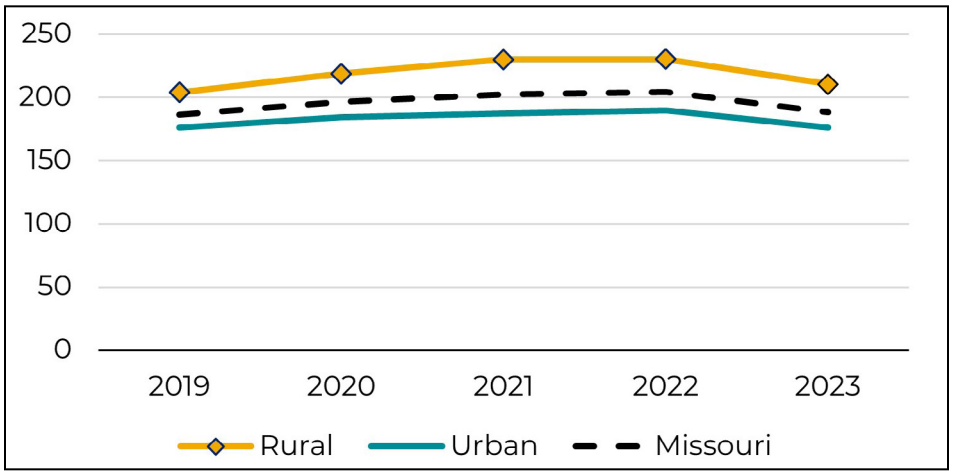
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Heart Disease Death Rates by Race
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Heart Disease Death Rates by Year
Missouri, 2019-2023

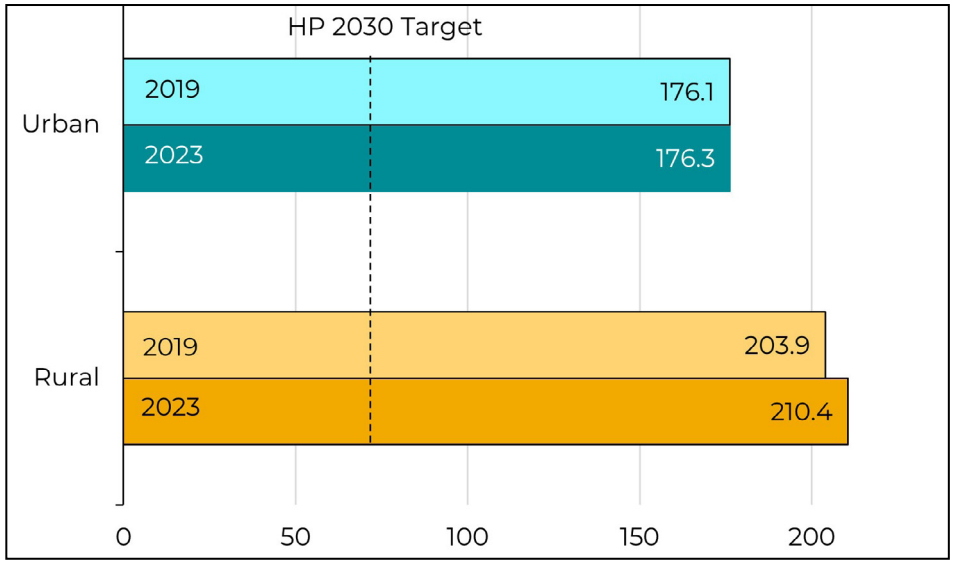


Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Other findings include:

- Pemiscot County had the highest heart disease death rate among rural counties, with a rate of 433.0. Jasper County had the highest heart disease death rate among urban counties, with a rate of 240.3.
- The 25 counties with the highest death rates from heart disease were rural. Eight of the ten highest death rates were in the Southeast region of the state.
- Rural heart disease death rates were higher for both Black/African American and white residents. The rural white death rate was 26.8 percent higher than the urban white rate. In contrast, the rural Black/African American rate was just six percent higher than the urban Black/African American rate.

Heart Disease Death Rates
Missouri, 2019 and 2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- Black/African American populations in rural counties experienced death from heart disease at higher rates compared to rural and urban white populations. The death rate for Black/African American populations in rural counties was 18.3 percent higher than that of rural white populations and 50.1 percent higher than that of urban white populations.
- The male rate for heart disease deaths in rural Missouri counties was 16.3 percent higher compared to males living in urban counties. The female rate in rural counties was 20.4 percent higher compared to urban counties.

Healthy People 2030 set a target goal of 71.1 heart disease deaths per 100,000 population for 2030.[xix] In 2023, rural and urban Missouri counties had rates that were, respectively, nearly three times (210.4) and two and a half times (176.3) higher than the Healthy People 2030 target (71.1).

The risk of heart disease increases for men after age 45, and for women after age 55. The American Heart Association has identified multiple risk factors for heart disease, such as[xx]:

- High cholesterol
- High blood pressure
- Diabetes
- Obesity
- Sedentary lifestyle or physical inactivity
- Age, sex and family history

Ways to reduce the risk of heart disease[xxi]:

- See your doctor regularly to help prevent or treat medical conditions that contribute to heart disease.
- Eat a diet that is high in fiber and low in saturated fat and cholesterol.
- Limit your intake of salt or sodium to lower blood pressure.
- Keep a healthy weight to lower stress on the heart.
- Be active.

Cancer

Cancer was the underlying cause of death for 25,959 rural Missourians from 2019 to 2023, making it the second leading cause of death. Rural Missouri counties had a higher rate of deaths from cancer (176.1) compared to Missouri's urban counties (151.5).

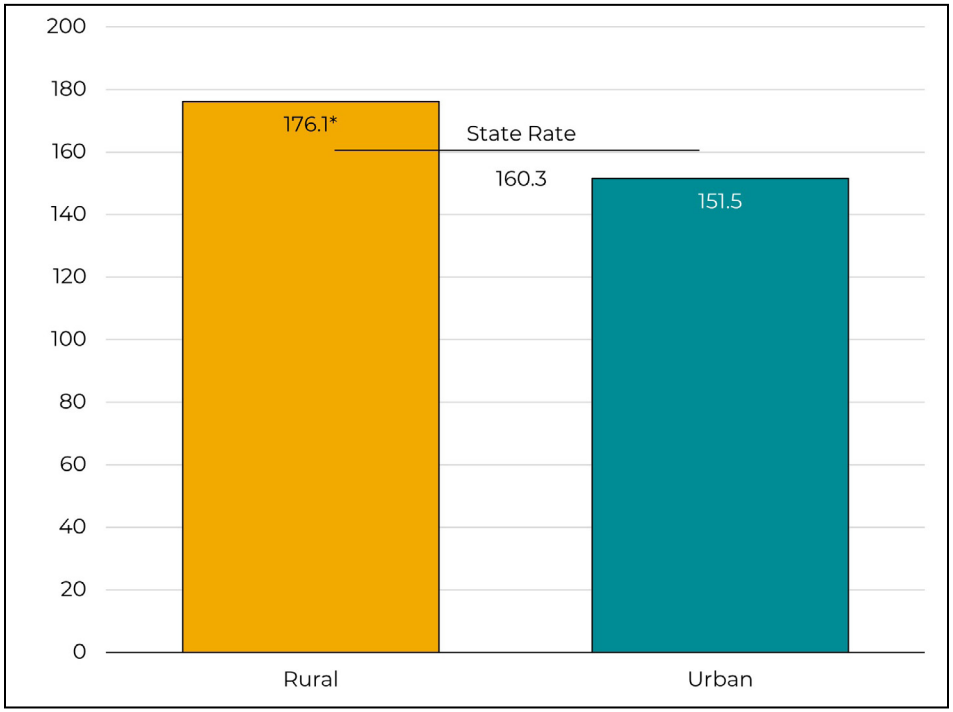
Cancer Death Rates
Missouri, 2019-2023

Rank	Rural	Urban
Frequency	25,959	39,122
Rate	176.1	151.5
Percent Change (2019-2023)	+5.9%	-3.6%

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- The 36 highest cancer death rates from 2019 to 2023 all belonged to rural Missouri counties.
- Ripley County had the highest rate (236.2). Buchanan County had the highest urban rate (180.2). The difference between cancer death rates in rural and urban counties has continued to widen over the past five years. In 2023, rural Missourians were 19.5 percent more likely to die from cancer than their urban counterparts, compared to only 8.9 percent in 2019.
- Males had higher rates of cancer death than females. Rural males had the highest rate at 208.1 compared to urban males at 179.3. Rural females were also affected at a higher rate than urban females.
- The Healthy People 2030 goal is a cancer-related death rate of 122.7 per 100,000 or lower by 2030. Data from 2019 to 2023 shows Missouri is still 31 percent over this target, with the rural rate 40 percent over the Healthy People target.
- Rural Missouri had an increase in the cancer death rate from 2019 to 2021. Since 2021, the rate has declined slightly for rural and urban counties.

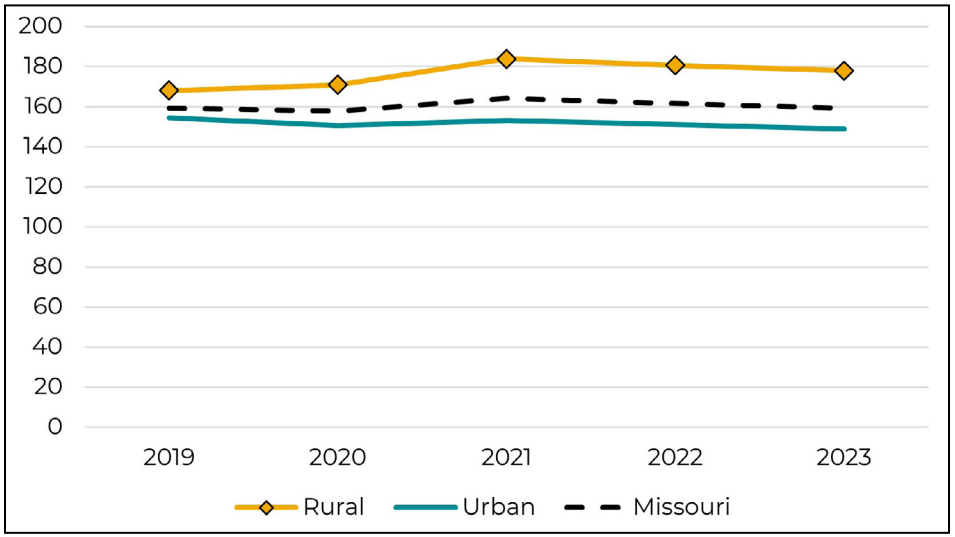
Cancer Death Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population
*Indicates a rate is statistically significantly higher using 95% confidence intervals

Cancer deaths are categorized into different subtypes. The five cancer types listed in the table accounted for 54 percent of all cancer deaths from 2019 to 2023. Rural Missouri counties had a higher death rate for each cancer type. More than 17,000 Missourians died of lung cancer from 2019 to 2023, making it the leading cause of cancer deaths across the state.

Cancer Death Rates by Year
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Leading Causes of Cancer Death
Missouri, 2019-2023

		Rural		Urban	
Rank	**Cause**	**Count**	**Rate**	**County**	**Rate**
Rank 1	Lung/Trachea/Bronchus	7,444	48.9	9.743	36.8
Rank 2	Colon/Rectum/Anus	2,350	16.5	3,311	13.1
Rank 3	Pancreas	1,809	12.2	3,038	11.6
Rank 4	Breast*	1,544	20.6	2,740	19.7
Rank 5	Prostate**	1,243	19.1	1,899	18.0

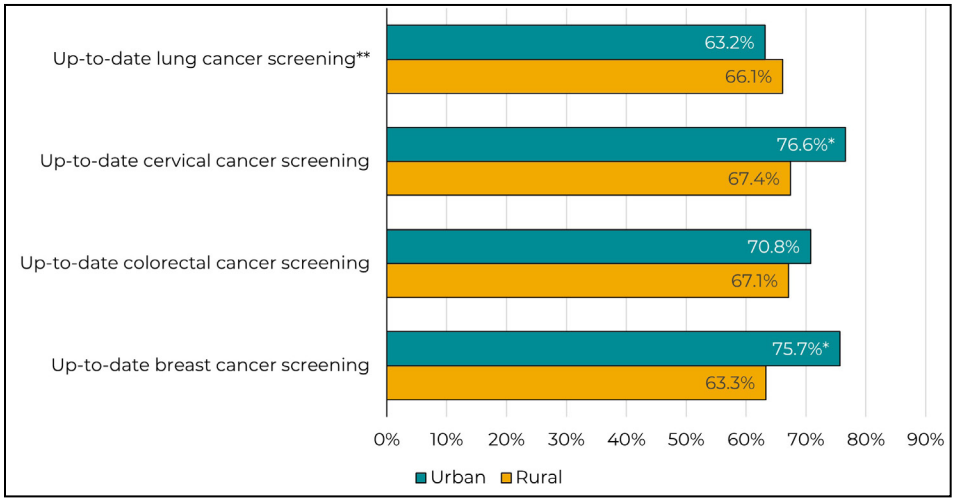
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population
*Only female population counts are used to calculate the death rates for breast cancer.
**Only male population counts are used to calculate the death rates for prostate cancer

Cancer screening increases the chances of finding cancer early in the disease process, before signs or symptoms appear. Screening is recommended for individuals at risk and specific age groups.

- People at average risk should begin screening for colon and rectal cancer at age 45.
- Women should begin cervical cancer screening at the age of 25 and start screening for breast cancer at age 45.

According to the Missouri Behavioral Risk Factor Surveillance System (BRFSS), in 2024, women in urban counties were significantly more likely to get timely cervical and breast cancer screenings. In the same year, adults in rural counties (66.1%) were more likely to have up-to-date lung cancer screenings compared to adults in urban counties (63.2%).

Cancer Screening Adherence
Missouri BRFSS, 2024



Missouri Behavioral Risk Factor Surveillance System (BRFSS)
*Indicates a rate is statistically significantly higher using 95% confidence intervals
**Lung cancer screening reports the percentage of those eligible according to the U.S. Preventive Services Task Force (USPSTF) standards

Screening tests help to find cancer before someone shows symptoms.

Accidental/Unintentional Injuries

Between 2019 and 2023, there were 7,707 accidental deaths in rural Missouri, ranking it the third leading cause of death. The most frequent types of accidental deaths during this period were:

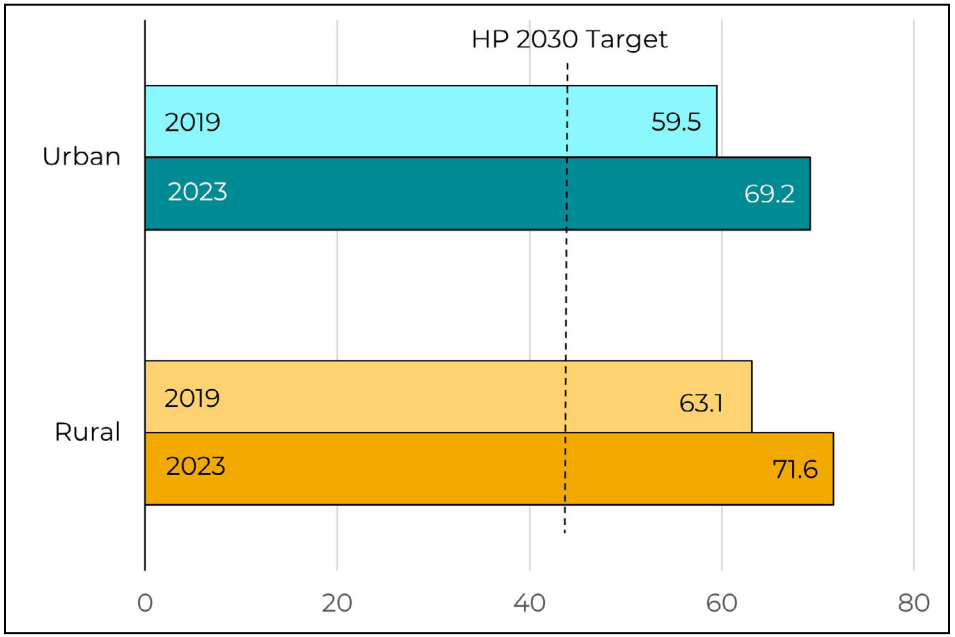
- Drug overdoses and poisonings
- Motor vehicle accidents (MVA)
- Falls
- Fires
- Drownings

Accidental/Unintentional Injury Death Rates
Missouri, 2019-2023

Rank	Rural	Urban
Frequency	7,707	14,935
Rate	71.2	69.4
Percent Chan (2019-2023)	+13.5.%	+16.4%

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Accidental/Unintentional Injury Death Rates
Missouri, 2019-2023

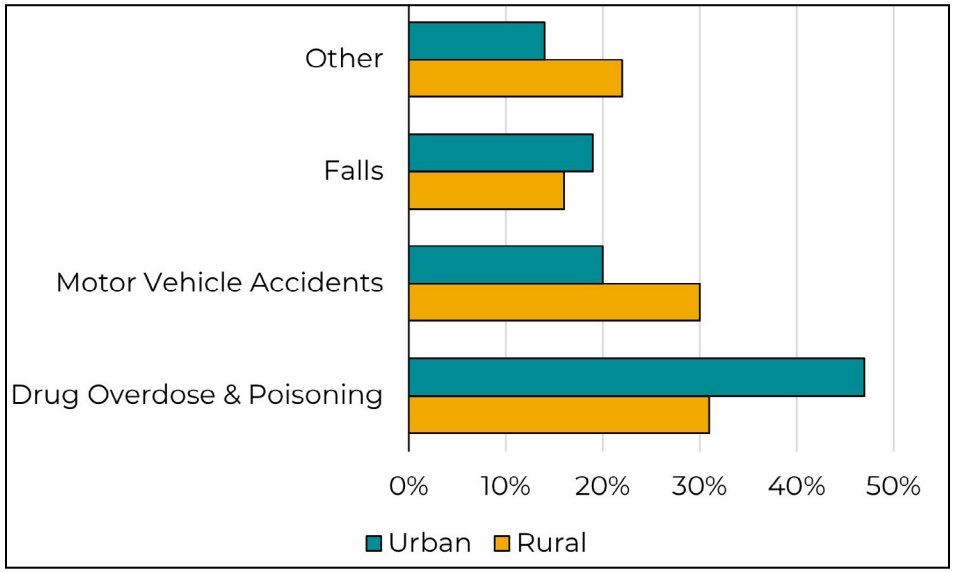


Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Rural Missouri counties have slightly higher rates of death from accidents/unintentional injuries (71.2) compared to urban counties (69.4) over the 2019-2023 period. Other important unintentional injury statistics include:

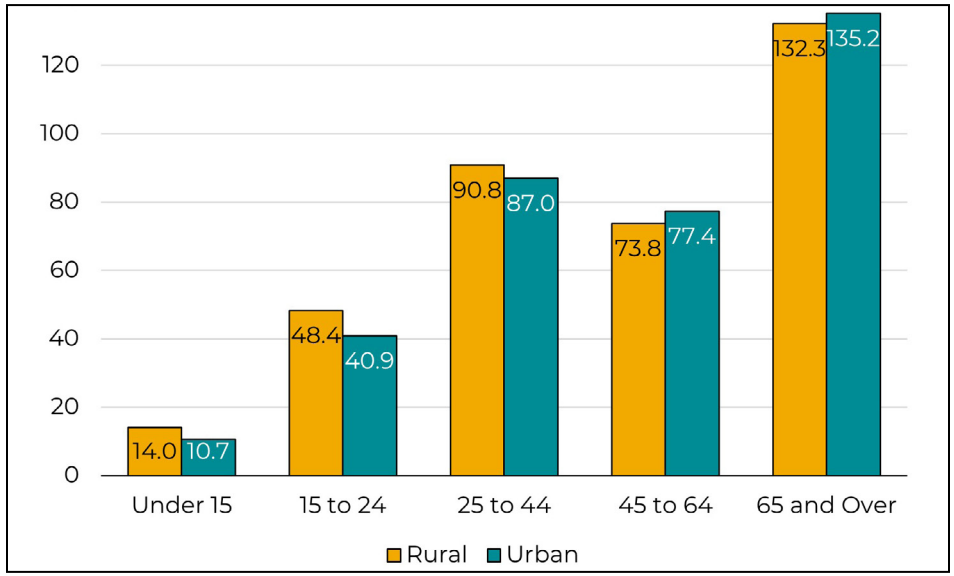
- The Healthy People 2030 goals set a target of 43.2 unintentional injury deaths per 100,000 by 2030.[xxii] Neither rural nor urban counties are on track to meet this goal. Accidental death rates were already well above the HP 2030 target in 2019 for rural and urban counties (63.1 and 59.5), and both areas experienced increases (13.5% and 16.4%, respectively) in their rate between 2019 and 2023.
- The 45-64 and 65 and older age groups were the only age groups where the rural rates were lower than the urban rates.
- Males, rural and urban, are significantly more likely to die from accidental injuries than females. Rural males (95.8) have a similar rate compared to their urban counterparts (95.9). Both were more than double the rural and urban female rates of 46.4 and 44.6, respectively.
- Drug overdose deaths (discussed in more detail in the next section) accounted for 30.8 percent of accidental deaths for rural residents compared to 46.7 percent for urban residents.
- Motor vehicle accidents made up 30.2 percent of accidental deaths for rural residents and 19.0 percent for urban residents.

Accidental/Unintentional Injury Death Rates by Cause of Death
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Rate per 100 accidental injury deaths

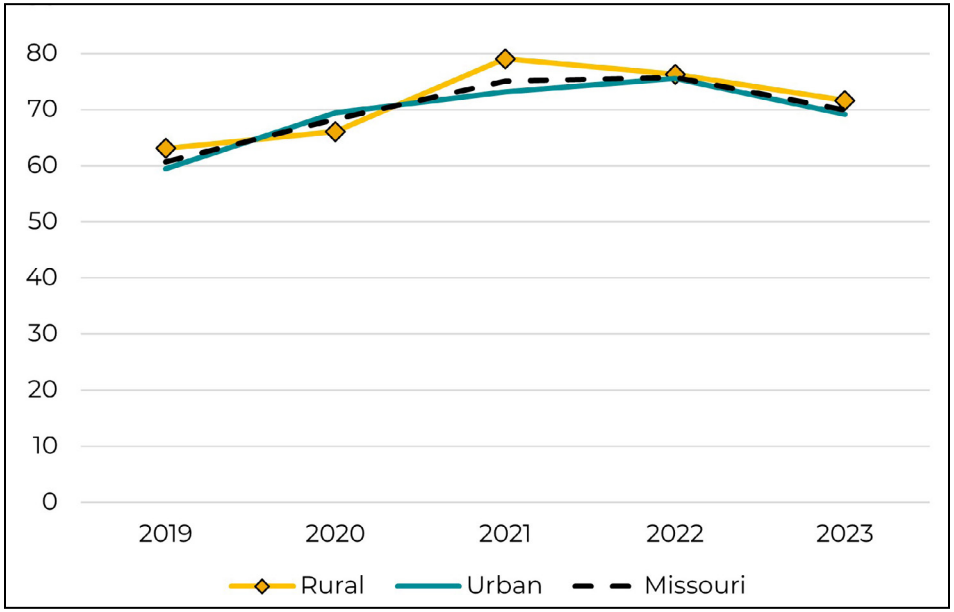
Accidental/Unintentional Injury Death Rates by Age
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- The difference in the rural and urban accidental death rates is decreasing. From 2014 to 2018, the rural rate was 9.6 percent higher than the urban rate (58.7 vs. 53.6). In contrast, from 2019 to 2023, the rural rate was only 2.6 percent higher than the urban rate. Drug overdose deaths in urban counties, especially with the introduction of fentanyl, are the primary reason for the gap closing.

Accidental/Unintentional Injury Death Rates by Year
Missouri, 2019-2023



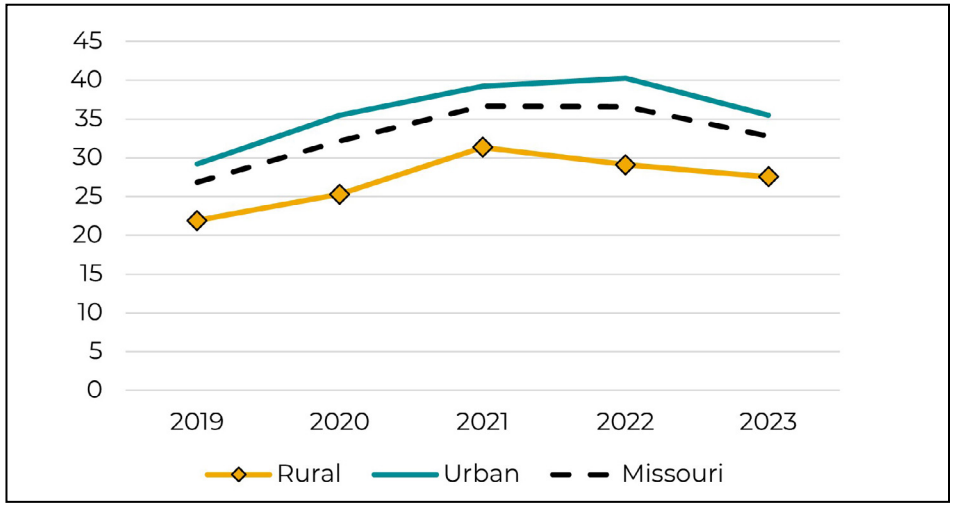
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Drug Overdose

Between 2019 and 2023, there were 2,494 drug overdose deaths in rural Missouri. Drug overdose deaths of all types were included in this analysis to be consistent with other reports. In this time, 94.7 percent of drug overdose deaths in Missouri were unintentional. Some important drug overdose statistics for the 2019-2023 period include:

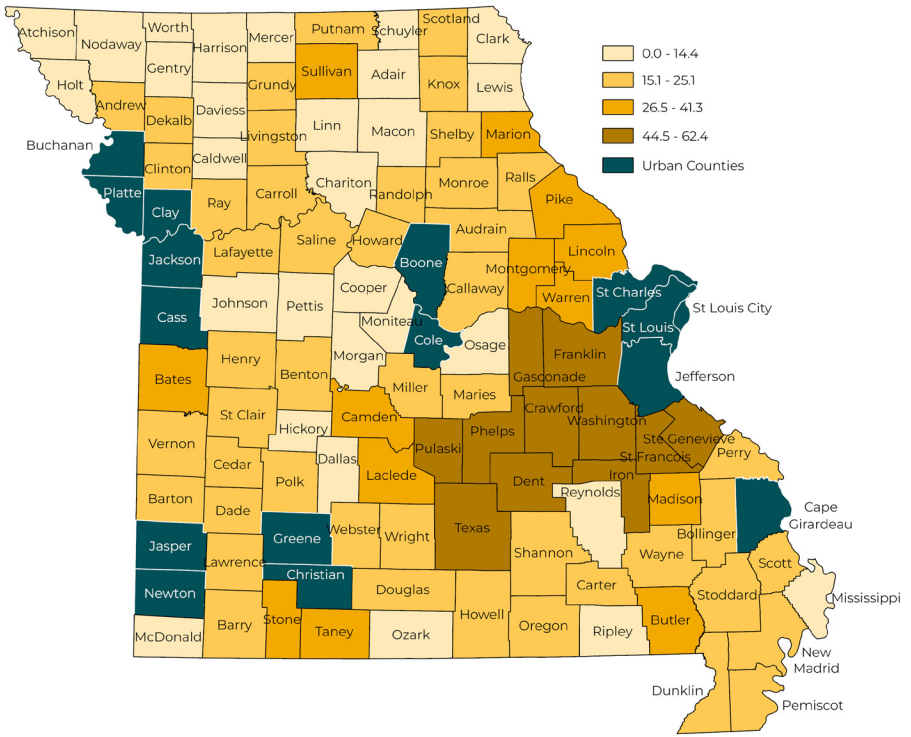
- The 2019-2023 state rate of drug overdose-related mortality was 33.0, which was higher than the national rate of 29.2.[xxiii]
- The rate of overdose deaths in Missouri's rural counties was 24.8 percent lower than the urban rate (27.0 versus 36.0). The rural rate of overdose deaths was 7.4 percent lower than the national rate, while the urban overdose death rate was 23.2 percent higher than the national rate.
- The rate of drug overdose deaths in rural and urban areas increased by over 20 percent (25.7% and 21.3%, respectively).

All Drug Overdose Death Rates by Year
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

All Drug Overdose Death Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

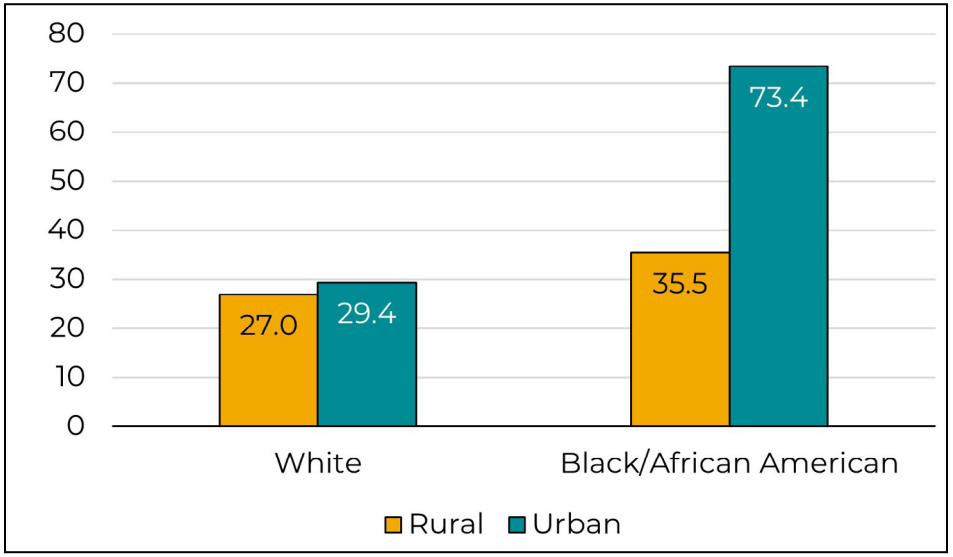
Drug Overdose Death Rates
Missouri, 2019-2023

Rank	Rural	Urban
Frequency	2,494	7,255
Rate	27.0	36.0
Percent Change (2019-2023)	+25.7%	+21.3%

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- Males in rural areas of Missouri are more likely to experience a fatal overdose compared to females. Between 2019 and 2023, the rate of fatal drug overdoses for rural males (34.7) was 82.7 percent higher than the rural female rate (19.0).
- In rural areas, the fatal drug overdose rate for Black/African American Missourians was 31.6 percent higher than for white Missourians. However, Black/African American Missourians in urban areas experienced fatal drug overdoses at more than double the rate of white Missourians.

All Drug Overdose Death Rates by Race
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

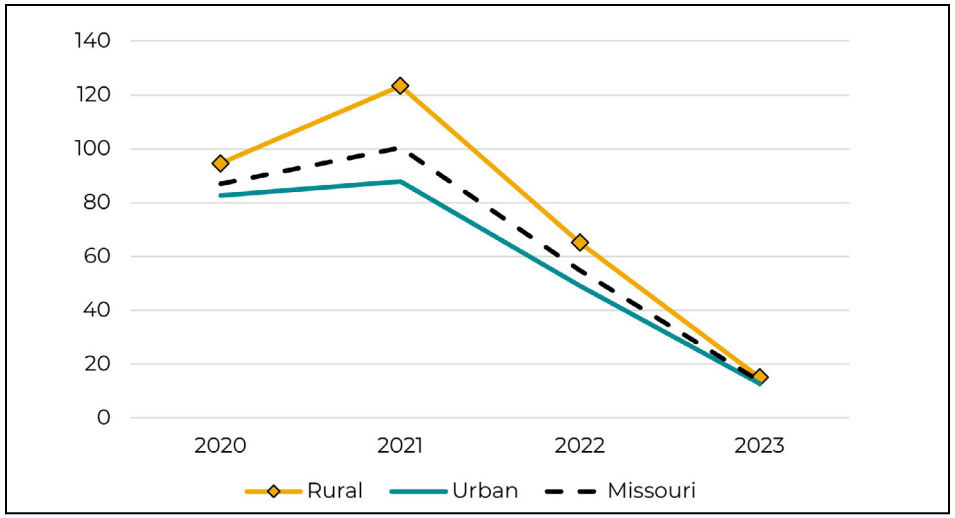
Drug Overdose Dashboard
Health.Mo.Gov/opioids

COVID-19

The 2024-2025 Biennial Rural Health Report focuses on the five-year span of 2019 to 2023. However, relevant statistics and data for COVID-19 are available for the years 2020-2023. In this four-year time span, rural Missouri saw 8,574 deaths attributed to COVID-19. The rural death rates for COVID-19 were significantly higher than the urban death rates across the period.

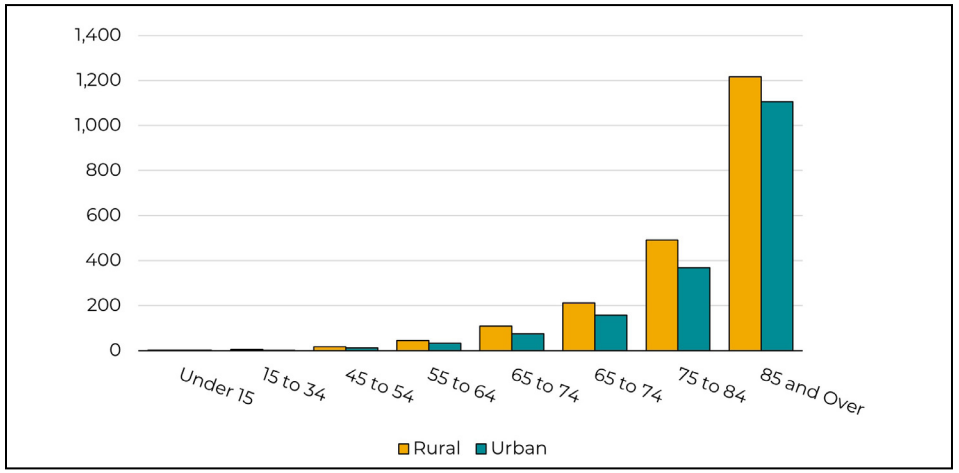
- Rural counties experienced a higher COVID-19 death rate in all four years, but the gap was especially large in 2021. While the urban death rate increased by only 1.6 percent from 2020 to 2021, the rural death rate increased by 19.4 percent. Over this two-year span, the rural death rate was 29.5 percent higher than the urban death rate.
- In the next two years, 2021 to 2022, rural and urban counties saw a significant decrease in COVID-19 deaths, with the deaths falling 45.9 percent and 43.2 percent, respectively. In the next two years, from 2022 to 2023, Missouri experienced an even steeper decline, 75.7 percent for rural areas and 73.8 percent for urban areas.
- The 2022 to 2023 death rates were half the death rates of the 2020 to 2021 period for both urban and rural counties.

COVID-19 Death Rates
Missouri, 2020-2023



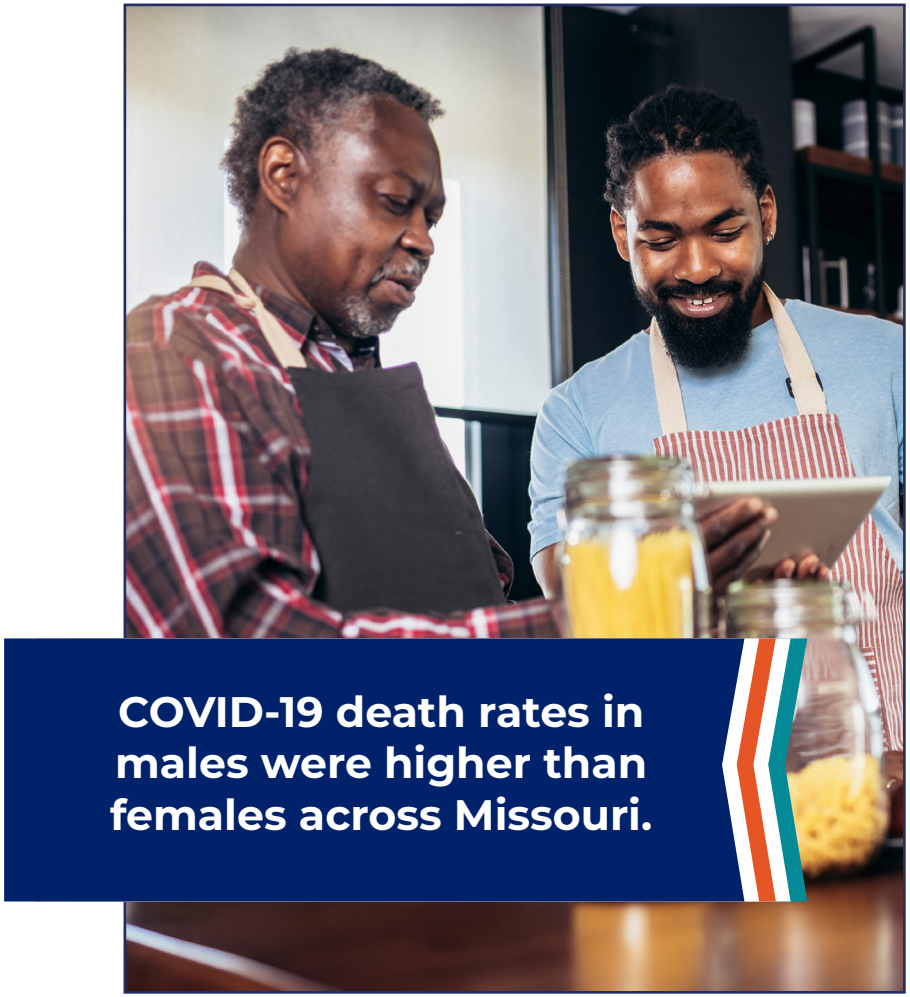
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

COVID-19 Death Rates by Age
Missouri, 2020-2023



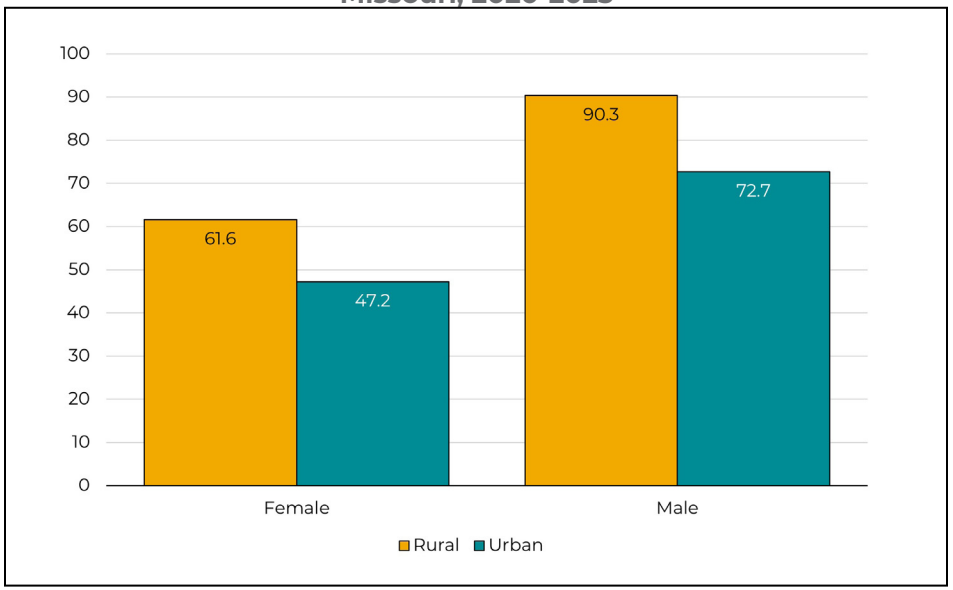
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- The virus was overall much more deadly for older age groups, with death rates for Missourians aged 75 to 84 and 85 and over significantly higher than rates for younger age groups. The 85 and older population experienced the highest rates.
- In every age group, the rural rate was higher than the urban rate.



- Across the state, male COVID-19 death rates were higher than female. Rural counties had male rates 46.6 percent higher than female rates, and urban counties had male rates 54.0 percent higher than females.
- On average, rural males and females had higher death rates than their urban counterparts. Rural males had the highest death rates at 90.3 per 100,000 Missouri residents during this time.
- Black/African American Missourians experienced death rates that were 29.1 percent higher in rural counties and 53.9 percent higher in urban counties compared to white Missourians.
- The rural Black/African American population had the highest death rate of 95.9 per 100,000 Missourians during this time, identifying an especially at-risk demographic group.

COVID-19 Death Rates by Sex
Missouri, 2020-2023



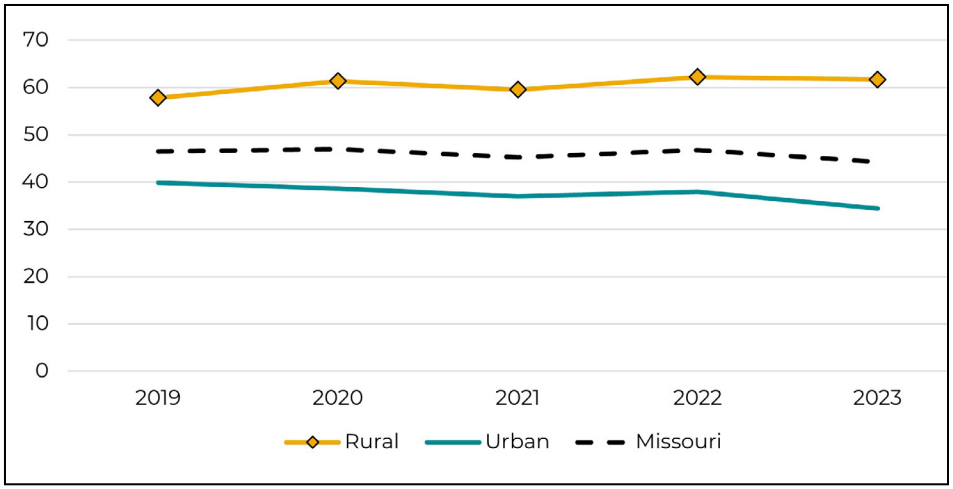
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Chronic Lower Respiratory Disease

Chronic lower respiratory disease (CLRD) is a group of lung conditions that block airways and make breathing difficult. The most common CLRDs are chronic obstructive pulmonary disease (COPD) and asthma. From 2019 to 2023, CLRD was the cause of death for 9,121 rural Missourians.

For many years, rural Missouri counties have had higher CLRD death rates than urban counties. This is in large part due to higher smoking rates in rural areas. Between 2019 and 2023, rural Missouri experienced a higher CLRD death rate (60.5) compared to urban Missouri (37.5). The difference between rural and urban CLRD death rates appears to be increasing. The widest gap between rural and urban counties occurred in 2023, when the rural rate was 79.4 percent higher.

Chronic Lower Respiratory Disease Death Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Chronic Lower Respiratory Disease Death Rates
Missouri, 2019-2023

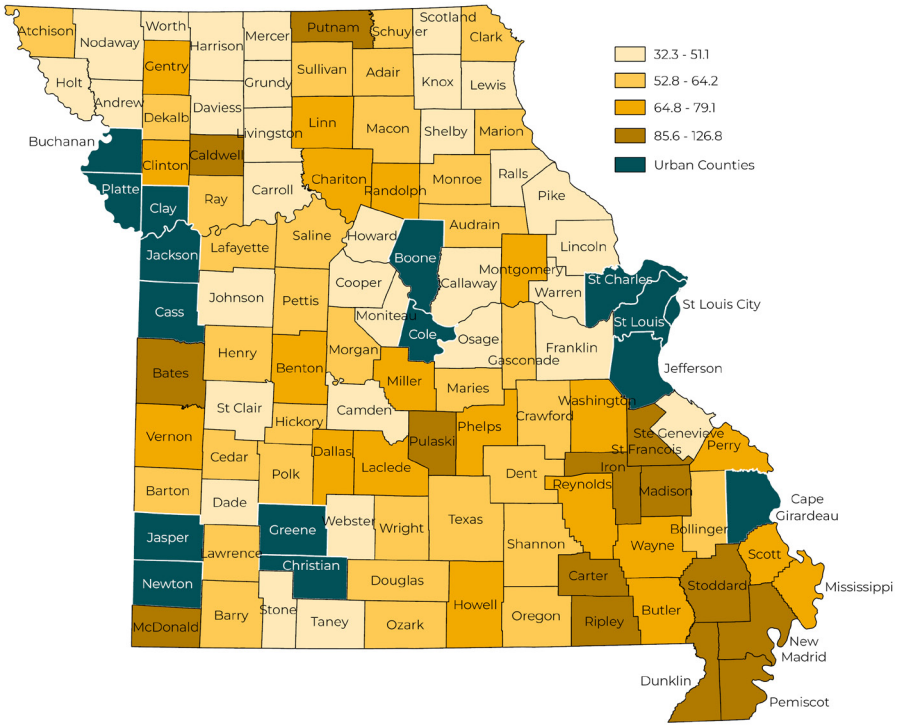
Rank	Rural	Urban
Frequency	9,121	9,673
Rate	60.5	37.5
Percent Chan (2019-2023)	+6.7%	-13.6%

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

- Missouri's rural counties had a 6.7 percent increase in CLRD death rates since 2019. In contrast, urban counties experienced a 13.6 percent decline.

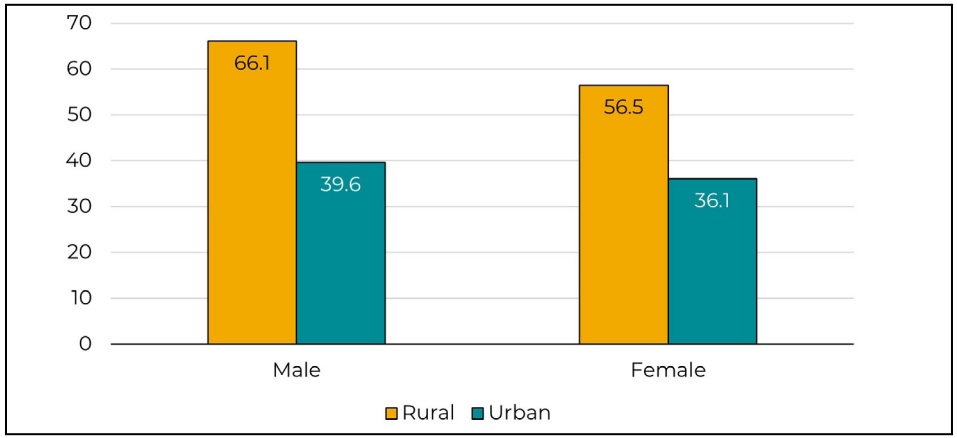
- Seven of the top 10 counties with the highest CLRD death rates were in Southeast Missouri. These counties are Dunklin, New Madrid, Carter, Stoddard, Ripley, Madison and St. Francois.
- Males and females in rural Missouri counties had higher CLRD death rates. Rural male rates were 66.9 percent higher than urban male rates. Rural female rates were 56.5 percent higher than urban female rates.

Chronic Lower Respiratory Disease Death Rates Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

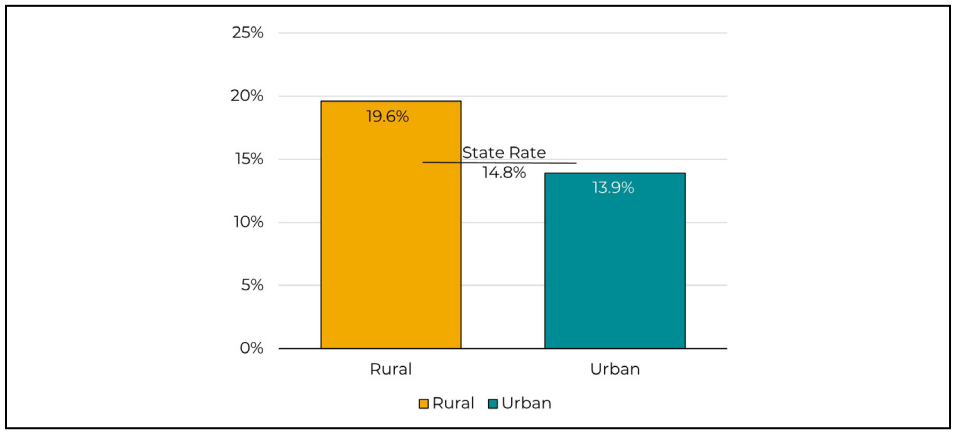
Chronic Lower Respiratory Disease Death Rates by Sex Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

One of the modifiable risk factors for developing CLRD is smoking tobacco. Nearly 8 out of 10 COPD-related deaths are caused by smoking. Smoking damages the airways and small air sacs in the lungs. The damage makes it hard for the lungs to get oxygen to the rest of the body.[xxiv] Quitting smoking reduces the risk of developing COPD and slows the progression for those who have been diagnosed.[xxv]

Current Smoking Rates Missouri BRFSS, 2024

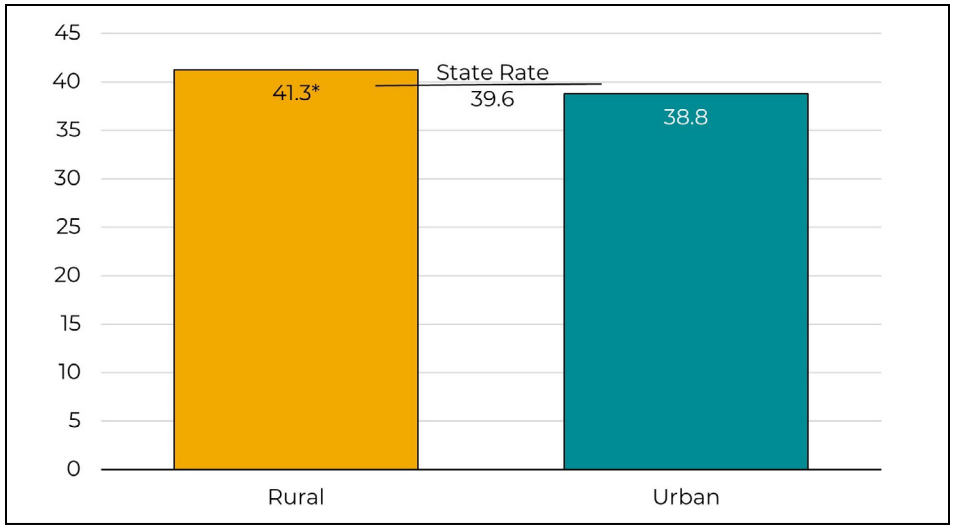


Missouri Behavioral Risk Factor Surveillance System (BRFSS)

Stroke

Stroke was the underlying cause of death for 5,981 rural Missourians at a rate of 41.3 deaths per 100,000 residents over 2019-2023. At this rate, stroke death is the sixth leading cause of death in rural Missouri. The death rate for rural counties was statistically significantly higher (41.3) than the rate in urban counties (38.8).

Stroke Death Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population
*Indicates a rate is statistically significantly higher using 95% confidence intervals

Stroke Death Rates
Missouri, 2019-2023

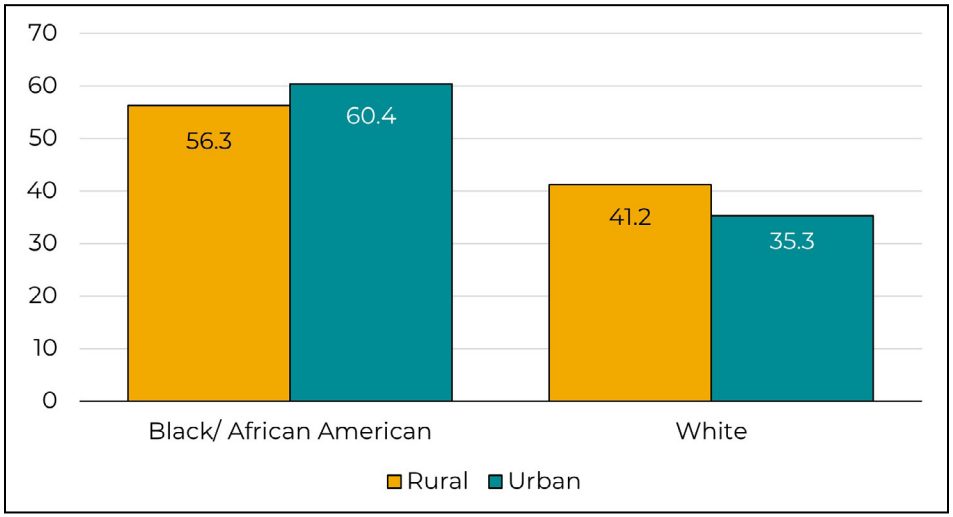
Rank	Rural	Urban
Frequency	5,981	9,765
Rate	41.3	38.8
Percent Change (2019-2023)	+4.9%	+4.3%

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Other county trends include:

- Three of the four highest county rates for stroke deaths are rural counties found in the Bootheel region: New Madrid (69.9), Dunklin (67.6), and Mississippi (67.6). The top 31 counties in stroke death rates are all rural counties, with St. Louis City (46.8) having the highest urban county rate.
- Four of the lowest seven county rates for stroke deaths were found in northwestern Missouri: Nodaway (26.7), Worth (26.8), Andrew (27.2) and DeKalb (23.9).

Stroke Death Rates by Race
Missouri, 2019-2023



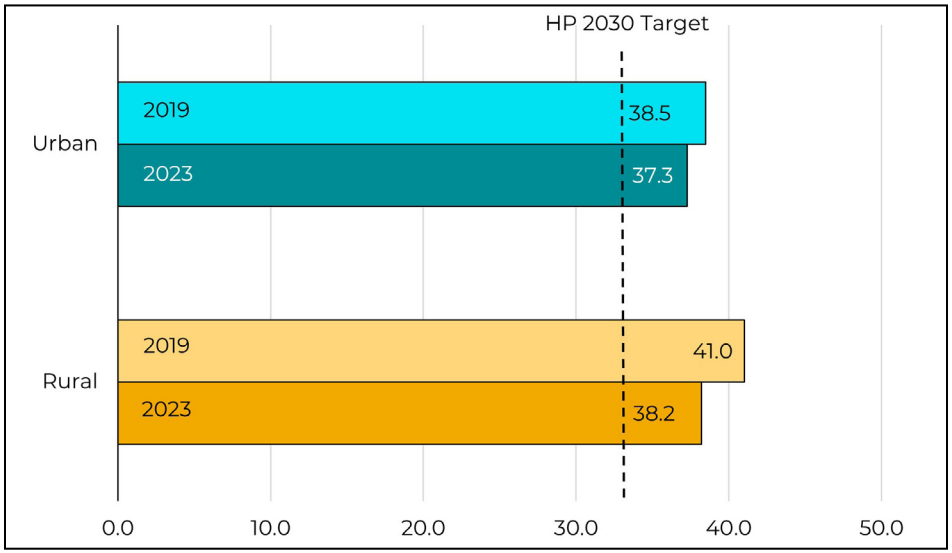
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

In both rural and urban counties, Black/African American Missourians have a higher death rate from strokes than their white counterparts. While the rural disparity between white and Black/African American stroke death rates is only 36.6 percent, which is still significant, the urban disparity is 71.1 percent, nearly twice as large a gap.

Unlike other leading causes of death, the stroke death rate for Black/African American Missourians in urban areas is higher (60.4) than the death rate (56.3) for Black/African American Missourians living in rural areas.

The Healthy People 2030 goals set a target of a 10 percent reduction in stroke deaths, from the baseline rate of 37.1 in 2018, to 33.4.[xxvi] However, the most recent data for the United States shows the national rate has increased to 39.0. Over a five-year span from 2019 to 2023, the statewide rate for Missouri comes in right above the national rate, at 39.6. For 2023, both rural and urban rates are lower than they were in 2019, but neither is below the Healthy People 2030 baseline.

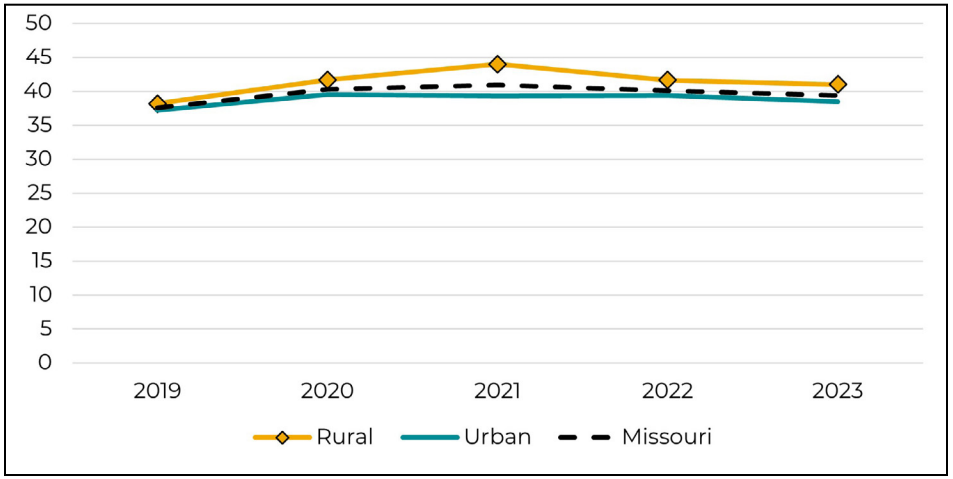
Stroke Death Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

The largest difference between urban and rural rates during this period occurred in 2021. In that year, rural counties' death rates were 12.0 percent higher than urban counties' death rates. By 2023, the gap had decreased to 6.5 percent, primarily due to steeper declines in the rural rate.

Stroke Death Rates by Year
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Suicide

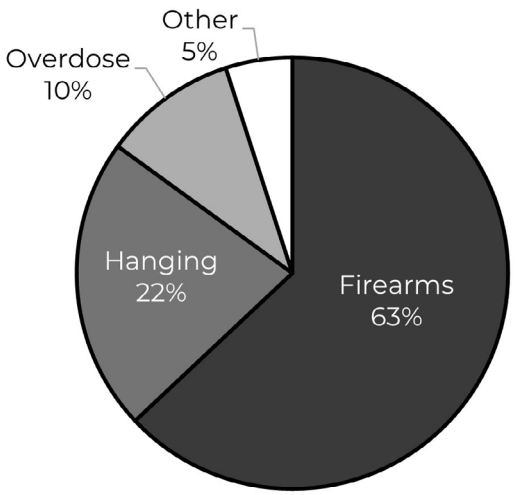
Deaths from suicide were the tenth leading cause of death for Missourians, with 2,101 suicides in rural Missouri between 2019 and 2023. Suicides are a growing public health concern not only in Missouri but in the U.S. According to the Centers for Disease Control and Prevention (CDC), suicide and suicide attempts can cause physical and emotional turmoil for the person attempting suicide as well as their friends and family.[xxvii]

Suicide Death Rates
Missouri, 2019-2023

Rank	Rural	Urban
Frequency	2,101	3,673
Rate	20.3	17.4
Percent Chan (2019-2023	+4.9%	-4.7%

Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Suicide Causes of Death
Missouri, 2019-2023

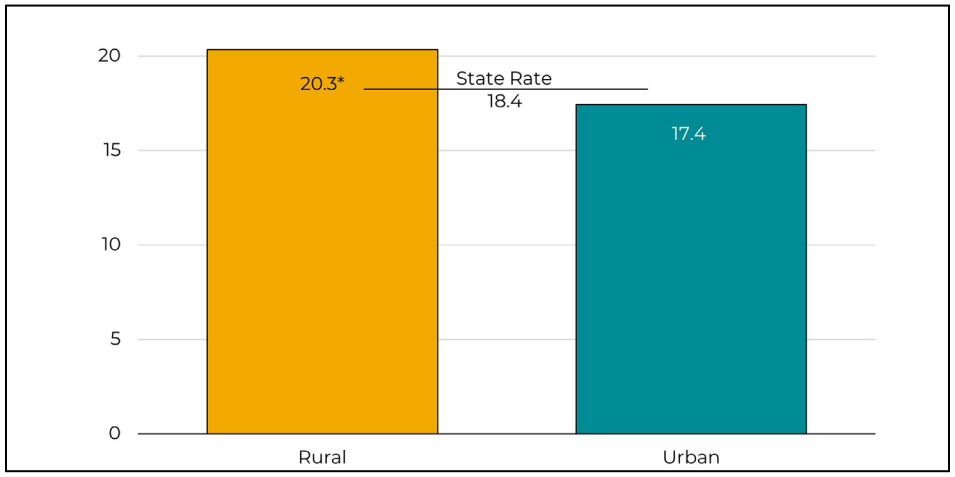


Source: Missouri Vital Statistics Death File
Rate per 100 suicide deaths

The rural suicide rate of 20.3 was statistically significantly higher than the urban rate of 17.4. Both rates were higher than the Healthy People 2030 target of 12.8 suicides per 100,000 population. Other suicide-related trends include the following:

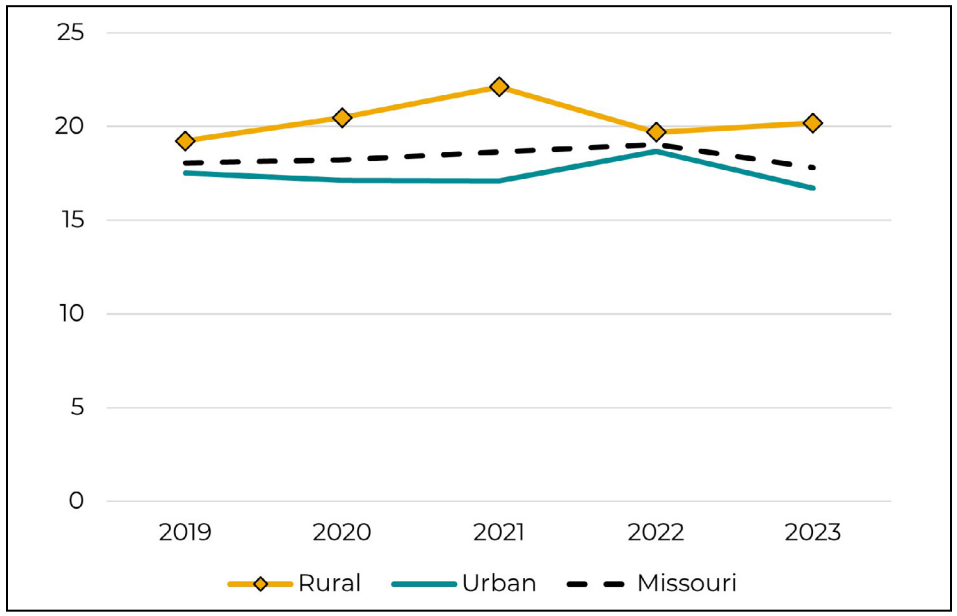
- For all years between 2019 and 2023, the rural and urban suicide rates were higher than the 2030 Healthy People goal of 12.8.[xxviii]
- In 2023, rural suicide rates were 57.8 percent higher than the Healthy People 2030 target, while urban suicide rates were 30.5 percent above the threshold.
- Between 2019 and 2023, the rural suicide rate was higher than the urban rate every year. The disparity was greatest in 2021 when the rural rate of 22.1 was 29.4 percent higher than the urban rate of 17.1.
- Rural Missouri's rate of death from suicide increased 4.9 percent while the rate in urban areas decreased 4.7 percent between 2019 and 2023.
- Suicide deaths in both rural and urban Missouri counties were much higher for males compared to females. In addition, the rural male suicide rate of 33.8 was significantly higher than the urban male rate of 29.0 from 2019-2023. In contrast, the female rate was the same for rural and urban areas at 6.8.
- Across all age groups, the rates were higher in rural areas except for the Under 15 age group, where the urban rate was slightly higher. The 25-44 age group had the highest rate of suicide for both rural and urban counties (29.0 and 23.6, respectively).
- The 36 highest rates of suicide mortality, ranging from 23.5 to 43.4, were all in rural counties.
- Caldwell County in northeastern Missouri had the highest suicide rate at 43.4. The top five also included Sullivan, Montgomery, Macon and Bollinger County, which all had rates above 31.0.

Suicide Death Rates
Missouri, 2019-2023



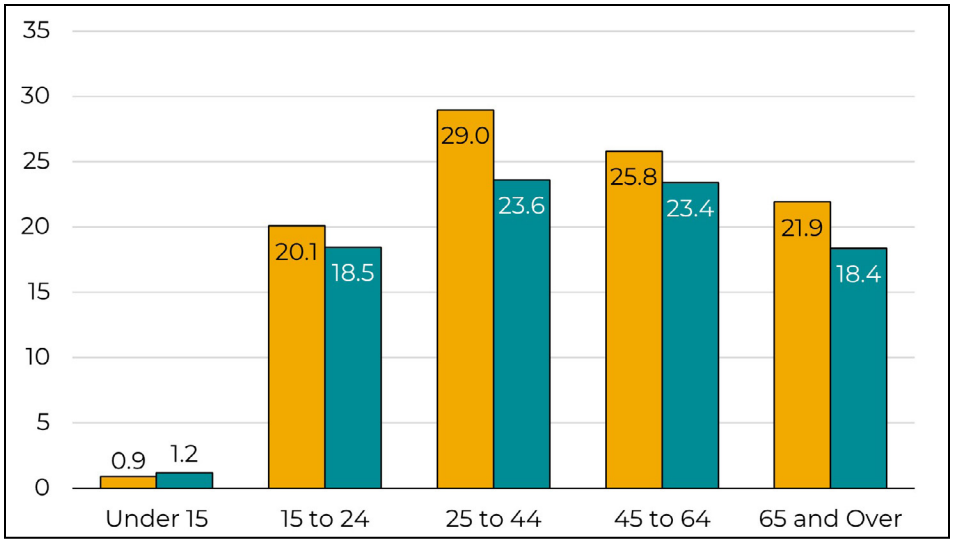
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population
*Indicates a rate is statistically significantly higher, using 95% confidence intervals

Suicide Death Rates by Year
Missouri, 2019-2023



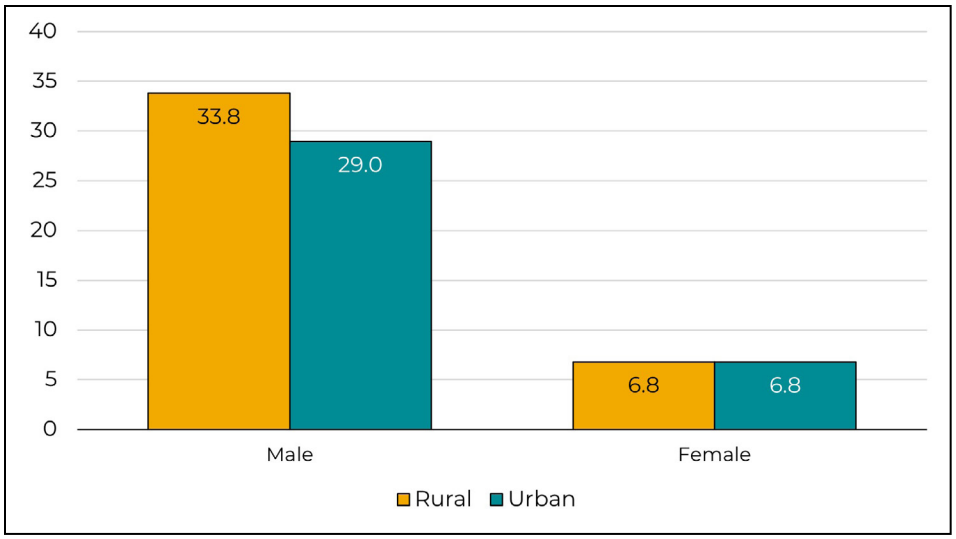
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Suicide Death Rates by Age
Missouri, 2019-2023



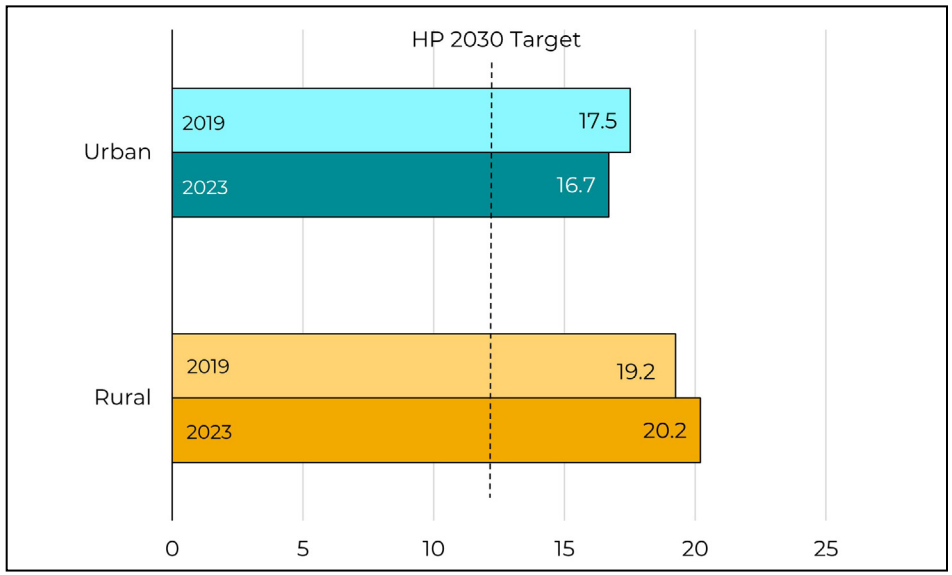
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Suicide Death Rates by Sex
Missouri, 2019-2023



Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Suicide Death Rates by Sex
Missouri, 2019-2023



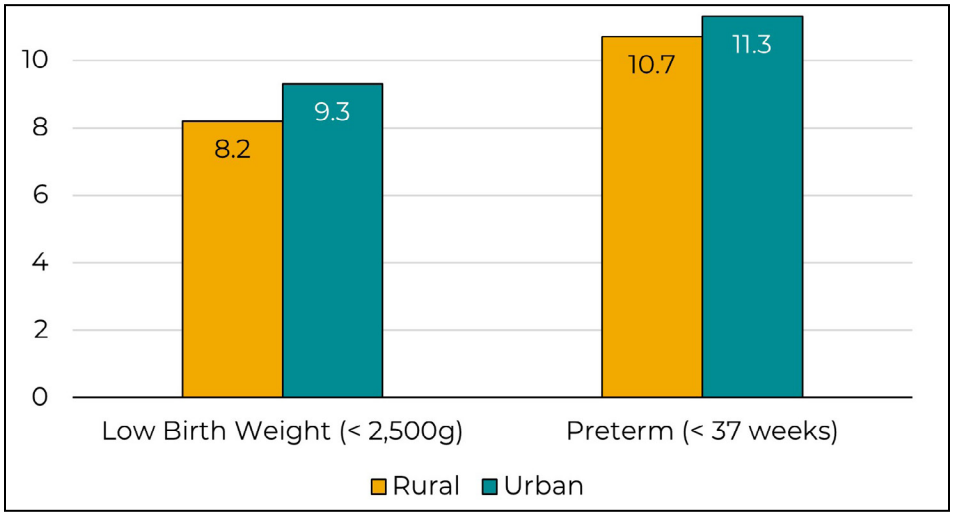
Source: Missouri Vital Statistics Death File
Age-adjusted rates per 100,000 population

Maternal, Infant and Child Health

Maternal, infant and child health (MCH) indicators provide an important source of information about the well-being of some of Missouri's most vulnerable populations. These indicators include information about pregnancy, childbirth, newborn care and postpartum care. MCH indicators can also be a good gauge of a community's overall health status.

At 37 weeks, pregnancies are considered full-term with the average baby weighing between 3,000 and 4,000 grams (6-8 pounds). In comparison, pregnancies can also result in a preterm birth (defined as a baby born less than 37 weeks gestation) or low birth weight (defined as a baby weighing less than 2,500 grams or 5.5 pounds). These indicators occur independently but are often intertwined. From 2019 to 2023, nearly 70 percent of infants born with a low birth weight in Missouri were also born prematurely. There are regional differences for these two indicators, with rural counties showing better birth outcomes compared to urban areas. These differences are likely due to differences in population demographics.

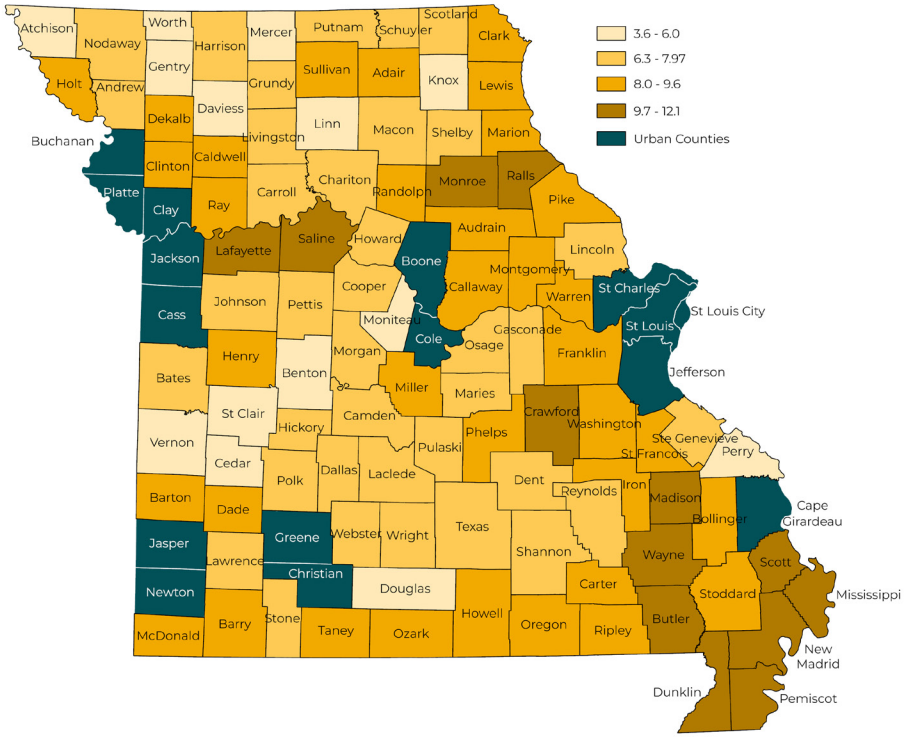
Low Birth Weight and Premature Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Birth File
Rates per 100 live births

- From 2019 to 2023, the rate for low birth weight in rural counties (8.2) was lower than the rate in urban counties (9.3) and the state (8.9).
- There were 31 counties with a rate for low birth weight higher than the state rate. Among the top 10 counties with the highest rates of low birth weight, eight rural counties are in the Southeast region. Out of the eight rural counties, five are situated in the Bootheel.
- Pemiscot County had the highest rate for low birth weight among rural counties (12.1), and St. Louis City had the highest rate among urban counties (12.6). Counties with rates above 10.0 for low birth weight included St. Louis City, Pemiscot, Dunklin, Scott, New Madrid, Madison, Monroe, Butler, Mississippi, Wayne, St. Louis County, Crawford and Ralls.
- For preterm births, the rate in rural counties (10.7) was also lower than the rate in urban counties (11.3) and the state (11.1).
- There were 39 counties with a preterm birth rate higher than the state rate. Counties from the Southeast region represented 7 of the 10 counties with the highest preterm rates. Dunklin County had the highest preterm birth rate for rural counties (14.5), and St. Louis City had the highest rate for urban counties (13.0). Counties with preterm birth rates above 13.0 include Dunklin, Wayne, Butler, Clark, New Madrid, Mississippi, Pemiscot, Iron and St. Louis City.

Low Birth Weight
Missouri, 2019-2023



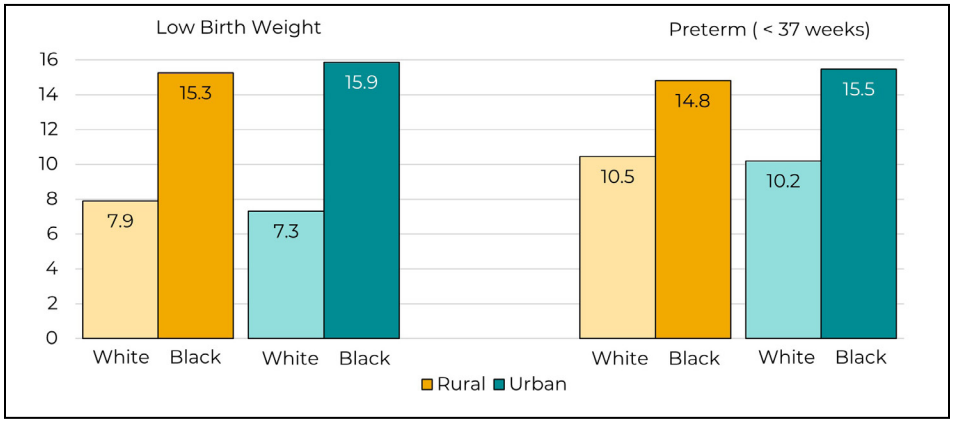
Source: Missouri Vital Statistics Birth File
Rates per 100 live births

Even though MCH indicators overall were comparatively better in rural counties, there were subpopulations with poorer health outcomes. From 2019 to 2023, the rate of low birth rate among the Black/African American population was just over double the rate of the white population. The higher rate among Black/African Americans was true for both rural (15.3) and urban (15.9) counties.

Similar patterns were also found for other indicators:

- The rate of preterm births among Black/African American Missourians in rural counties (14.8) was higher than white Missourians in these counties (10.5).

Low Birth Weight and Preterm Rates by Race
Missouri, 2019-2023



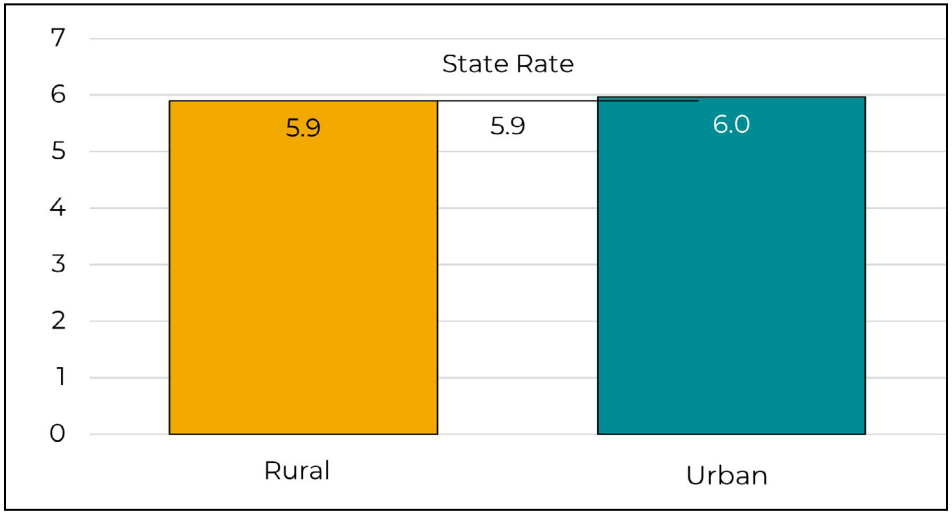
Source: Missouri Vital Statistics Birth File
Rates per 100 live births

Infant Mortality

Infant mortality includes deaths that occur after birth but prior to a child's first birthday. Usually calculated as deaths per 1,000 live births, the infant mortality rate can provide key information about maternal and infant health. It has become an important measure for understanding the overall health of a population. It can also be used to assess other indicators like poverty and health care access.[xxix]

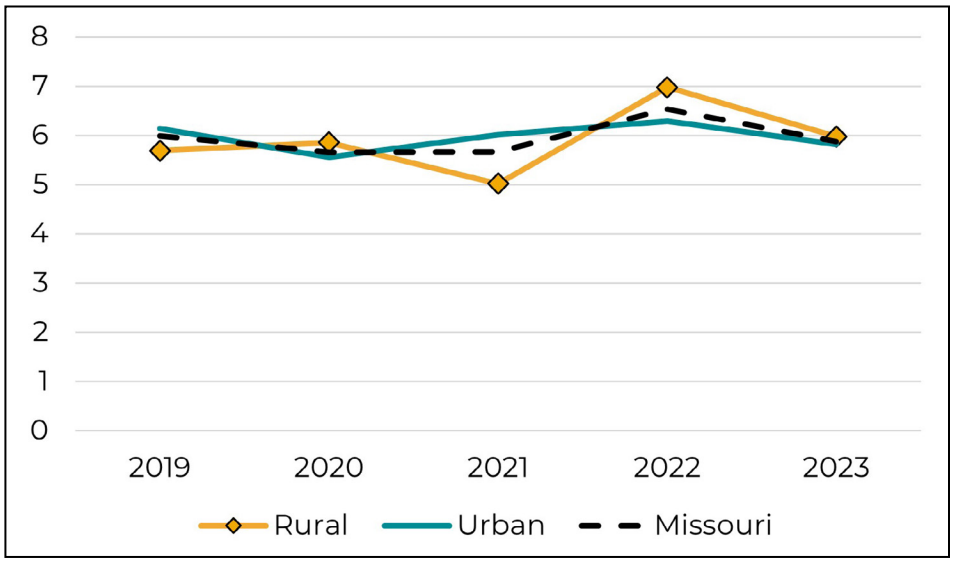
In Missouri, infant mortality has been declining for many years. From 1996 to 2021, the infant mortality rate declined by 25.0 percent from 7.6 to 5.7. Missouri observed its first increase in the rate seen in decades, rising by 3.5 percent from 2021 to 2023. The mortality rate peaked in 2022 at 6.5 and declined to 5.9 in 2023. On average, there were 412 infant deaths per year in Missouri from 2019 to 2023.

Infant Mortality Rates
Missouri, 2019-2023



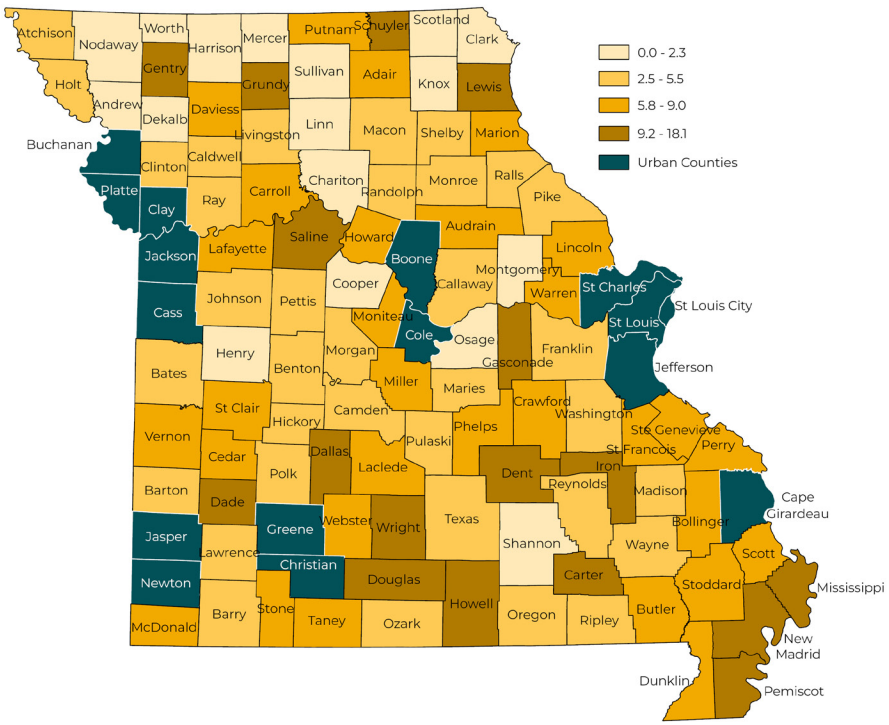
Source: Missouri Vital Statistics Birth File
Rates per 1,000 live births

Infant Mortality Rates
Missouri, 2019-2023



Source: Missouri Vital Statistics Birth File
Rates per 1,000 live births

Infant Mortality Rates
Missouri, 2019-2023

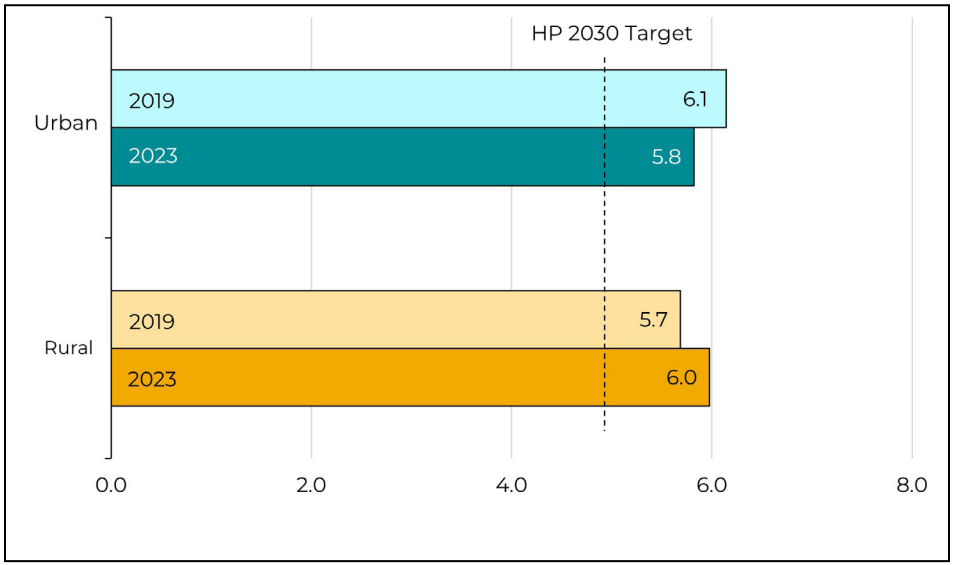


Source: Missouri Vital Statistics Birth File
Rates per 1,000 live births

50 Missouri counties had infant mortality rates above the state rate.

- Fifty counties had infant mortality rates above the state rate. Dade County had the highest infant mortality rate for rural counties (18.1), while St. Louis City had the highest rate for urban counties (9.1). The 10 highest infant mortality rates (all above 10.0) were all in rural counties and included Dade, Dallas, Dent, New Madrid, Lewis, Grundy, Iron, Pemiscot, Douglas and Carter County.
- In 2021, rural counties achieved the Healthy People 2030 Target rate of 5.0 for infant mortality; however, the rate increased to 7.0 in 2022 and 6.0 in 2023.
- The infant mortality rate among Black/African American people increased by 11.8 percent from 2019 (11.7) to 2023 (13.1). In 2023, the infant mortality rate for Black/African American Missourians was more than double the Healthy People 2030 Target.
- Among the rural Black/African American population, the infant mortality rate was nearly double the rate for the rural white population (10.2 versus 5.7). Urban white individuals had the lowest infant mortality rate at 4.2, while the rate for urban Black/African American individuals was three times higher at 12.5.

Infant Mortality Rates by Race
Missouri, 2019 and 2023



Source: Missouri Vital Statistics Birth File, Healthy People 2030.[xxx]
Rates per 1,000 live births

Health Care in Rural Missouri

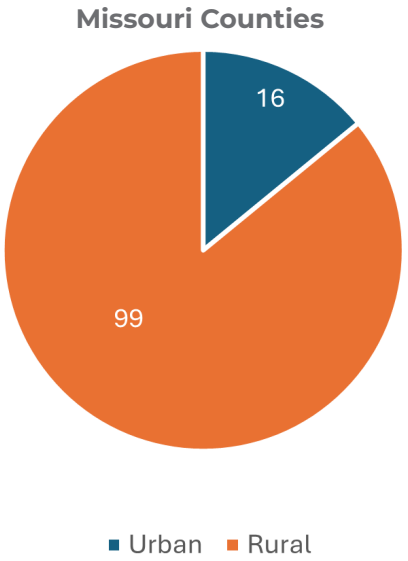
Basic access to primary care, mental and dental health providers, and specialty care services improves overall health and contributes significantly to an area's economic vitality. People in rural areas generally have less access to health care compared to people in urban areas, even for those who have health insurance, are financially stable and have access to transportation. Fewer primary care practitioners, mental health programs, and health care facilities often mean less preventive care and longer response times in emergencies.

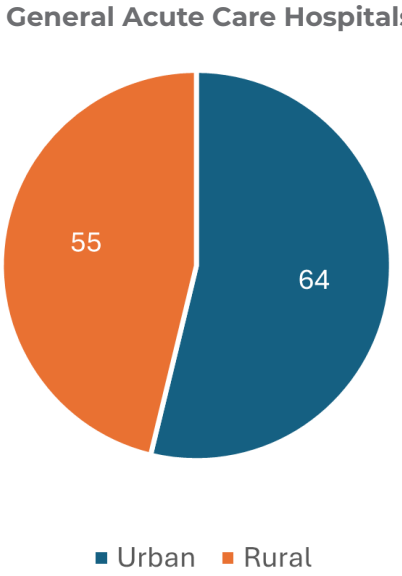
As of September 2025, Missouri had 163 licensed hospitals[xxxi], this includes general acute care (119), rehabilitation (23), psychiatric (20) and rural emergency (1). Only 62 of these hospitals (38%) are in rural counties; despite 99 of Missouri's 115 counties being rural (86%). The hospitals located in rural counties include:

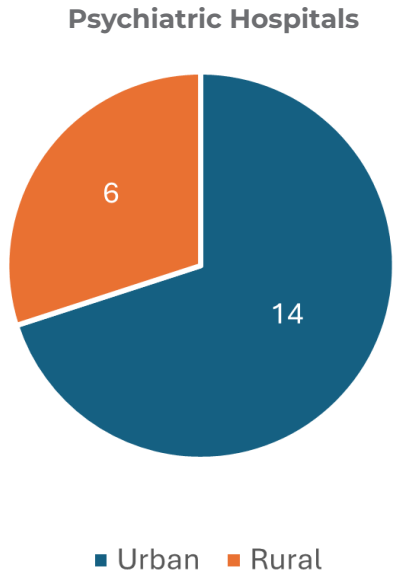
- 55 general acute care hospitals.
- 1 rural emergency hospital.
- 6 psychiatric hospitals.

General acute care hospitals are equipped to provide short-term inpatient medical services along with 24/7 emergency care and lab and radiology diagnostic testing. Rural general acute hospitals can also be designated as a critical access hospital (CAH) and/or a small rural hospital.

Rural emergency hospitals (REHs) also provide continuous access to emergency care and diagnostic testing but do not provide inpatient services. Psychiatric hospitals are staffed to provide treatment solely for mental health conditions.







[xxxii]MO Hospital Profiles By County

Rural Hospitals

Critical Access Hospitals (CAHs)

Missouri has 35 CAHs. The Centers for Medicare and Medicaid Services (CMS) designates eligible rural hospitals as critical access hospitals. CMS designed the designation to keep essential services in rural communities and improve access to health care while reducing the financial vulnerability of rural hospitals through cost-based Medicare reimbursement. Hospitals must meet the following criteria to receive CAH designation:

- Have 25 or fewer acute care inpatient beds.
- Be more than 35 miles from another hospital.
- Have an average length of stay of no more than 96 hours for acute care patients.
- Provide 24/7 emergency care services.

Small Rural Hospitals

Missouri has 42 small rural hospitals. A small rural hospital is defined as a non-federal, short-term, general acute care hospital. These hospitals must be in a rural area and have 49 or fewer available beds as reported on the hospital's most recently filed Medicare Cost Report. Small rural hospitals may be for-profit or not-for-profit.

Rural Emergency Hospitals

On January 1, 2023, CMS began designating rural emergency hospitals (REHs). CMS designed the REH designation to maintain access to critical outpatient hospital services in communities that may not be able to support or sustain a CAH or small rural hospital. REHs receive enhanced Medicare payments for certain outpatient services and additional monthly payments.

Facilities eligible for conversion to a REH include CAHs and small rural hospitals that were in operation as of December 27, 2020, or after. Facilities that closed after December 27, 2020, are eligible to reopen as a REH if they meet the REH conditions of participation.

Rural emergency hospitals are required to provide the following services:

- 24-hour emergency services.
- Laboratory services identified in the CAH conditions of participation and consistent with the needs of the patient population.
- Diagnostic radiologic services.
- Pharmacy or drug storage area.
- Discharge planning by, or under the supervision of, a registered nurse, social worker or other qualified professional.

In January 2024, Parkland Health Center in St. Francois County became the first REH in Missouri and remains Missouri's only REH at the time of report publication.

Hospital Closures

Rural hospitals are a crucial component for a community's well-being. In addition to providing primary, acute and long-term care, they are often a significant employer and leader in community-based health programs and initiatives. Most rural hospitals are the only source of medical care in their community. Many hospitals struggle financially due to numerous factors; however, reimbursement issues are significant. These issues include claim denials, increasing administrative burdens from insurers, and systemic inefficiencies like slow payment cycles and complex billing. These issues are worsened by staffing shortages, frequent policy changes and difficulties with prior authorization.

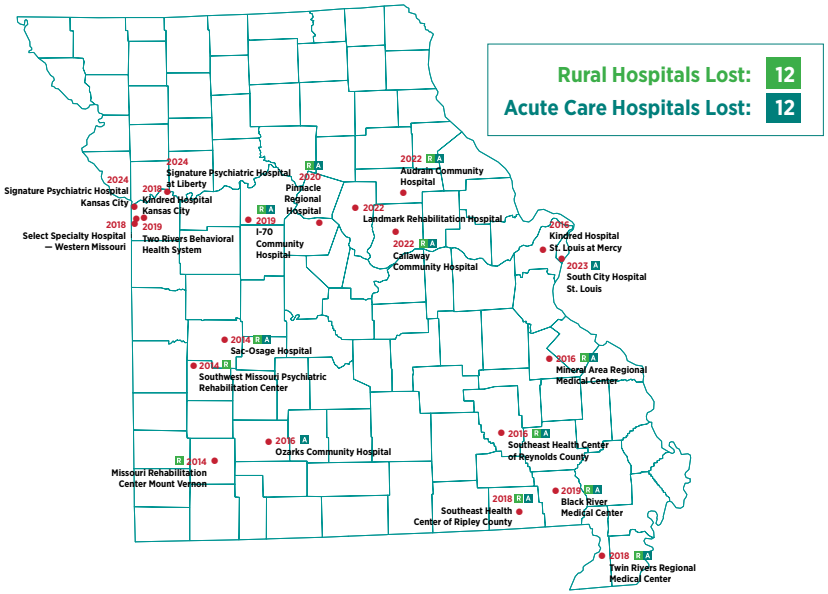
From 2014 through the time of this publication, 24* Missouri hospitals have closed; 12 were in rural counties. Closure of rural hospitals reduces access to needed medical care and worsens health outcomes for residents in those communities. Hospital closures also create an economic impact as hospitals are often one of the largest employers and economic drivers of their community. Forty-seven rural counties are now without a general acute care hospital.

*Please note that above map does not include hospital closures of St. Luke's Des Peres (St. Louis), Homer G. Phillips (St. Louis) and Landmark Hospital (Cape Girardeau) that occurred in 2025.

MHA
MISSOURI HOSPITAL ASSOCIATION

21 Hospital Closures in Missouri

Since 2014



- → **Southwest Missouri Psychiatric Rehab Center,** El Dorado Springs, in 2014 R
- → **Sac-Osage Hospital,** Osceola, in 2014 R A
- → **Missouri Rehabilitation Center,** Mount Vernon, in 2014 R
- → **Mineral Area Regional Medical Center,** Farmington, in 2016 R A
- → **Southeast Health Center of Reynolds County,** Ellington, in 2016 R A
- → **Ozarks Community Hospital,** Springfield, in 2016 A
- → **Kindred Hospital St. Louis at Mercy,** St. Louis, in 2016
- → **Kindred Hospital Kansas City**, in 2018
- → **Select Specialty Hospital – Western Missouri,** Kansas City (non-member), in 2018
- → **Twin Rivers Regional Medical Center,** Kennett, in 2018 R A
- → **Southeast Health Center of Ripley County,** Doniphan, in 2018 R A
- → **Two Rivers Behavioral Health System,** Kansas City, in 2019
- → **Black River Medical Center,** Poplar Bluff, in 2019 R A
- → **I-70 Community Hospital,** Sweet Springs, in 2019 R A
- → **Pinnacle Regional Hospital,** Boonville, in 2020 R A
- → **Callaway Community Hospital,** Fulton, in 2022 R A
- → **Audrain Community Hospital,** Mexico, in 2022 R A
- → **Landmark Rehabilitation Hospital,** Columbia, in 2022
- → **South City Hospital,** St. Louis, in 2023 A
- → **Signature Psychiatric Hospital,** Liberty, in 2024
- → **Signature Psychiatric Hospital,** Kansas City, in 2024

Source: mhanet.com/mhaimages/advocacy/missouri_hospital_closures.pdf

Outpatient Facilities

Federally Qualified Health Centers

Federally qualified health centers (FQHCs) are local, nonprofit, community-driven health care providers delivering health care services to Missouri's low-income and medically underserved populations in rural and urban areas. They provide high-quality, affordable primary care and preventive services, often including dental, pharmaceutical, mental health, and substance abuse services. Missouri FQHCs serve individuals from every county, including the City of St. Louis. As of September 2025, Missouri has 436 FQHC service delivery sites.

The Office of Management and Budget recognizes FQHCs as one of the most effective providers as they reduce the need for more expensive inpatient and specialty care, saving taxpayers millions of dollars. FQHCs are the medical home for over 628,000 Missourians and provide over 2.4 million encounters yearly.[xxxiii] FQHCs serve a disproportionate level of patients living in poverty and those without insurance or depend on Medicaid.

Deemed a "safety net" provider, FQHCs must meet the following qualifications: [xxxiv]

- Offer services regardless of the person's ability to pay.
- Offer a sliding fee discount program.
- Be community-based, with patients making up the majority of its governing board.
- Serve a medically underserved area or population.
- Provide comprehensive primary care services.
- Have an ongoing quality assurance program.

Rural Health Clinics

Missouri has 344 rural health clinics (RHCs). These clinics are public, nonprofit, or for-profit health care facilities intended to increase access to primary care in rural areas. RHCs utilize a team approach of physicians and advanced practice practitioners (APPs) to provide quality health care services to Missouri's rural populations. APPs include nurse practitioners (NPs), physician assistants (PAs) and certified nurse midwives (CNMs). The primary advantage of RHC certification is enhanced reimbursement rates for providing Medicare and Medicaid covered services. RHCs are required to adhere to the following requirements, among others:[xxxv]

- Be in a rural, underserved area.
- Be staffed at least 50% of the time with a NP, PA and/or CNM.
- Provide outpatient primary care services.
- Provide basic laboratory services.
- Provide "first response" services to common life-threatening injuries and acute illnesses.

Health Professional Shortage Area (HPSA)

The Health Resources and Services Administration (HRSA) designates Health Professional Shortage Areas (HPSAs) based on geography (a county, defined service area or census tract), population-base (including specific population groups such as low income or Medicaid-eligible) or facility-type (including correctional facilities, state/county mental hospitals, rural health clinics (RHCs), FQHCs and other auto-HPSA facilities). HPSAs can occur when there are too few, if any, providers in an area; when there are more patients than providers can see; or when transportation barriers prevent patients from reaching providers. There are three types of HPSA designations: primary care, dental health and mental health and how their scores are calculated is specific to the HPSA type.[xxxvi] While HPSA designations change frequently, as of September 2025, Missouri had 924 designations.

Many federal and state programs use HPSA designations to determine if a facility, program or area is eligible for federal funding.[xxxvii]

HPSAs are found in both urban and rural settings. Large sections of Missouri, especially rural Missouri, are designated HPSAs due to low-income populations and the lack of providers to meet the needs of the population. Missouri only has one county (Cass) that does not have a geographic or population-based HPSA; or a primary care, dental health, or mental health HPSA. According to the HRSA Shortage Designation Management System, Missouri has a total of 7,212 primary care, mental health, and dental health providers, of which 1,530 (21%) practice in rural counties. Even though 33.2 percent of Missouri's population lives in rural areas, only 21 percent of available health care providers deliver services in rural counties.

Designation Type	Discipline	Number of Designations
Facility-based: RHC, FQHC, correctional facility, FQHC look-a-like	Primary Care	237
	Mental Health	235
	Dental Health	233
Geographic or Population	Primary Care	103
	Mental Health	24
	Dental Health	92

Office of Rural Health and Primary Care

The Department of Health and Senior Services (DHSS) serves the citizens of Missouri by working to improve the health and quality of life for Missourians of all ages. The Division of Community and Public Health is responsible for supporting and operating more than 100 programs and initiatives addressing a variety of public health topics, such as communicable disease control, disease management, health promotion and prevention of disease, maternal and child health, vital statistics, and health care access. The division also assures the continuity of essential public health services to all citizens of and visitors to the state of Missouri.

VISION

Optimal health and safety for all Missourians, in all communities, for life.

MISSION

To promote health and safety through prevention, collaboration, education, innovation and response.

The Missouri Office of Rural Health and Primary Care (ORHPC) is located within the Missouri Department of Health and Senior Services (DHSS). This organizational structure enables a unique environment in which to engage in close collaboration enhancing quality health care services to rural and underserved populations and communities.

The ORHPC's programs focus on increasing access to quality health care, increasing the health care workforce in health care professional shortage areas, and targeting health improvements in rural and underserved areas. These programs serve and support communities, health care providers, federally qualified health care centers (FQHCs), rural health clinics and hospitals, and critical access hospitals (CAHs). The ORHPC also enhances access to health care services for rural and underserved populations through partnerships with local health advocates and other stakeholders. The ORHPC initiatives and priorities include:

- Identifying the obstacles and needs of health care providers, health care facilities, and the Missourians they serve in rural and underserved areas.
- Workforce development to improve access to care in areas of need.
- Collaborating with partners to implement strategies and create impactful outcomes to address barriers to health care.
- Addressing social drivers of health (SDOH) as a primary approach to improving health outcomes.

Missouri Office of Rural Health

Health.Mo.Gov/ruralhealth

The Missouri General Assembly established the MORH in 1990 with the intent to support rural health care delivery systems and communities. The office achieves its goals through the following activities:

- Acting as a central hub for the collection and dissemination of information related to rural health care, including research findings related to rural health;
- Monitoring, coordinating, and facilitating rural health efforts with a focus on avoiding duplication and inefficiencies;
- Providing technical assistance and educational opportunities to rural health stakeholders to support and improve efforts on quality, operational, and financial outcomes;
- Promoting and developing diverse and innovative health care service models;
- Recommending appropriate public policies to ensure the viability of rural health care delivery; and
- Biennially reporting activities and recommendations to the governor and members of the general assembly, to include an overview of health data and issues in rural Missouri.

The MORH connects with rural partners in a variety of ways including the Rural Health webpage (Health.Mo.Gov/ruralhealth) which provides educational resources, such as publications, trainings, events, toolkits, infographics, fact sheets, rural health policy announcements and funding opportunities. The MORH also publishes and maintains the Rural Spotlight (ruralhealthinfocenter.health.mo.gov). This curated blog is filled with news from federal and state partners, associations and organizations such as information about funding opportunities, federal policy updates, research updates, learning opportunities and new resources.

The MORH manages three federally funded grants with multiple strategies within each grant that are specifically designed to strengthen the viability of rural health care providers, hospitals and clinics, while improving their quality of care.

State Office of Rural Health (SORH)

Health.Mo.Gov/ruralhealth

The SORH grant supports the creation of an institutional framework to link rural communities with state and federal resources to develop long-term solutions to support rural health problems. The grant requires a $3 state match for every $1 federal dollar received. The grant has three primary areas of focus:

- Dissemination of Missouri rural health information.
- Coordination of Missouri-based activities related to rural health care; including providing support for grant proposals, providing resources and facilitating connections.
- Facilitation of rural recruitment and retention by providing access to a platform for job postings and assisting with recruitment services and training.

Small Rural Hospital Improvement Program (SHIP)

Health.Mo.Gov/ruralhealth/ship

The SHIP grant provides funding for small rural hospitals to implement quality and operational improvement efforts to meet their organization's value-based payment care goals. SHIP also assists eligible hospitals to participate in delivery system reforms such as becoming or joining a Medicare Shared Saving Program or Accountable Care Organization (ACO), or other shared saving programs. Additionally, SHIP participants may use funds to purchase hardware, software and telemedicine equipment to assist in meeting Medicare data system requirements.

Medicare Rural Hospital Flexibility Program (Flex)

Health.Mo.Gov/living/families/ruralhealth/rural-health-hospitals.php

The Flex grant provides support to critical access hospitals (CAHs) emphasizing continuous quality improvement, quality reporting, performance improvement and benchmarking to improve patient care, financial practices and hospital operations. Flex also assists facilities with establishing or expanding rural emergency medical services.

Flex focuses on:

- Increasing the number of CAHs consistently reporting quality data.
- Improving the quality of patient care in CAHs.
- Maintaining and improving the financial viability of CAHs.
- Building the capacity of CAHs to achieve measurable improvements in the health outcomes of rural communities.

Missouri Primary Care Office (PCO)

Health.Mo.Gov/primarycare

The PCO aims to improve access to comprehensive primary care services for rural and urban underserved populations through increasing health care workforce availability to meet the needs of the Missouri underserved populations. The PCO supports and enhances health systems to optimize effectiveness and eliminate health disparities.

Access to quality preventive and primary care services remains central to improving the health status of Missourians. The PCO efforts are vital to ensuring the state takes actions to address the availability of primary care services for Missourians. The PCO collaborates with various state and federal organizations, coordinates activities in the state related to the delivery of primary care services and supports facilitation of the recruitment and retention of health care providers. The PCO initiatives and priorities include:

- Conducting a Statewide Community Needs Assessment to measure access to primary care through health care workforce and shortage designation analysis and implementing strategies to reduce the health care professional shortages.
- Recruitment and retention efforts for a diverse workforce of medical, dental, mental and public health providers in underserved areas.
- Managing the Conrad State 30/J-1Visa Waiver Program, National Interest Waiver Program, Missouri Graduate Medical Education Grant Program, Community-Based Faculty Preceptor Tax Credit Program, and Health Professional Student Loan and Loan Repayment programs.
- Providing technical assistance to organizations and facilities applying for HPSA designations where the need exists to improve access to health care.
- Collaborating with stakeholders working to increase access to primary care services.

J-1 Visa Waiver Program (Conrad 30 Waiver Program)

Health.Mo.Gov/j1visa

- The J-1 Visa waives the two-year home residency requirement allowing a foreign medical graduate to attend an advanced training program in the United States and waives the requirement for graduates to return to their native country.
- The J-1 Visa waiver is granted in exchange for an obligation to practice in a federally designated HPSA or Medically Underserved Area (MUA).
- Section 214(l) of the Immigration Nationality Act allots each state 30 recommendations each federal fiscal year.

The table below shows the number of J-1 Visa Waivers supported, percentage distribution in rural and urban underserved areas, and percentage distribution of primary care physicians and specialist physicians for 2022-2024.

The J-1 Visa waiver is granted in exchange for an obligation to practice in a federally designated HPSA or Medically Underserved Area

Yea	Number of J-1 Visa Applications Supported	Percent of Employed in Rural Areas	Percent Employed in Urban Areas	Percent Primary Care Physicians	Percent Specialist Physicians
202	30	17%	83%	7%	93%
202	30	7%	93%	7%	93%
2024	30	3%	97%	0%	100%

National Interest Program (NIW)

Health.Mo.Gov/j1visa/niw

The NIW Program effectively helps foreign physicians attain permanent residency status in the U.S and increases access to care in Missouri's underserved areas. The employment of these professionals greatly benefits Missouri and the nation. The program allows professionals of exceptional ability to request a waiver of the U.S. Immigration labor certification requirements, based on a letter of recommendation from the PCO. The PCO provides an official letter to the U.S. Citizenship and Immigration Services, housed within the Department of Homeland Security.

- Physicians applying for a NIW are required to work full-time for five years in a Missouri HPSA. They may count time spent in H1-B status to fulfill J-1 Visa Waiver requirements towards the five-year term. Find data on the geographic, population and facility HPSA designations at data.hrsa.gov/tools/shortage-area/hpsa-find.

Health Professional Student Loan and Loan Repayment Programs

Health.Mo.Gov/hpl-lr

The PCO administers the loan repayment programs which aim to increase access to health care for Missourians located in HPSAs. Helping to pay educational debt of health care providers in exchange for a service obligation is one strategy to improve care for the underserved.

This table shows the number of NIW requests DHSS supported, percentage distribution in rural and urban underserved areas, and percentage distribution of primary care physicians and specialist physicians for 2020-2024.

Year	Number of NIW Requests Supported	Percent Employed in Rural Areas	Percent Employed in Urban Areas	Percent Primary Care Physicians	Percent Specialist Physicians
2020	30	12%	88%	12%	88%
2021	10	1%	99%	0%	100%
2022	8	2%	98%	1%	99%
2023	6	2%	98%	0%	100%
2024	16	3%	97%	6%	94%

State Loan Repayment Program (SLRP)

Health.Mo.Gov/loanrepayment/slrp

The SLRP is a federally funded grant with dollar-to-dollar state matching funding. The PCO awards SLRP funding to eligible Missouri licensed providers practicing psychiatry, primary care and dental health (osteopathic and allopathic providers of the following disciplines: general obstetrics/gynecology, pediatrics, family practice, internal medicine, psychiatry and dentistry), in exchange for services in Missouri areas with a shortage of primary care, dental health or mental health professionals. Recipients earn forgiveness of their award with a two-year, full-time service obligation in a qualifying location.

The two tables below illustrate the number of SLRP recipients, who were fulfilling their service obligations per specialty and rural or urban service area in SFY 2023-2025.

SFY 2023-2025 SLRP Completing Obligation by Rural vs. Urban

	Rural	Urban	Total
2023	34	18	52
2024	41	17	58
2025	27	11	38
Total	**102**	**46**	**148**

SLRP Awards by Specialty SFY 2023-2025

Specialty	2023	2024	2025	Total 2023-2025
Family Medicine	21	25	19	65
Family Medicine Obstetrics	1	2	2	5
Internal Medicine	0	2	3	5
Pediatrics	4	1	0	5
Obstetrics and Gynecology	2	1	1	4
Psychiatry	1	4	3	8
Dentistry	22	22	9	53
Pediatric Dentist	1	1	1	3
Total Per Year	**52**	**58**	**38**	**148**

During SFY 2023 through SFY 2025, 69% of SLRP recipients fulfilled their service obligations in rural areas of the state, and 38% served in underserved urban areas.

Health Professional Loan Repayment Program (HPLRP)

Health.Mo.Gov/living/families/primarycare/hpl-lr

The Health Professional Loan Repayment Program (HPLRP) is a competitive state program that began in state fiscal year 2024. The HPLRP provides forgivable loans for the purpose of repaying existing educational related loans for health care, mental health and public health professionals, in exchange for a 2-year, full-time service obligation in an underserved area. Eligible professions are subject to change each application cycle based on gaps in Missouri's current workforce. Those selected may receive an award up to the maximum amount allowed for their degree type, not to exceed their qualifying educational debt. The table below reflects the maximum award amounts for each degree type.

Professional Area	Degree	Award Amount
Licensed health or mental health practioners	Doctorate	$65,000.00
Licensed health or mental health providers	Bachelor's or Master's	$35,000.00
Public health professionals	Bachelor's or higher	$20,000.00
Licensed health or mental health providers	Associate's	$10,000.00

HPLRP Awards by Specialty
SFY 2024 and 2025

Specialty	2024	2025	Total
Cardiologist	0	0	0
Physical Therapist	3	9	12
Occupational Therapist	5	10	15
Respiratory Therapist	0	3	3
Licensed and Provisional Professional Counselor	3	8	11
Licensed Behavioral Anayst	0	1	1
Liensed Assistant Behavior Analyst	0	0	0
Licensed and Provisional Licensed Psychologist	4	8	12
Public Health Nurse	18	33	51
Total Per year	**33**	**72**	**105**

Telehealth and Broadband Internet Access

Telehealth expands access to many services by offering:

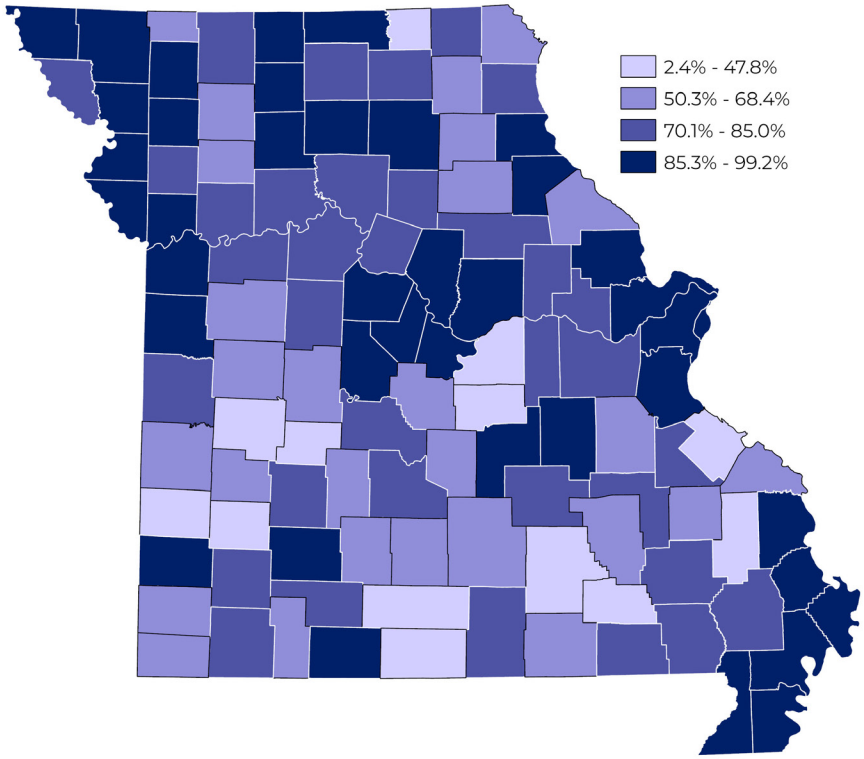
- Virtual visits for primary care, urgent care needs and management of chronic conditions.
- Counseling and therapy for mental health conditions.
- Access to specialty care such as gastroenterology, dermatology and cardiology.
- Remote patient monitoring such as using devices to track blood pressure or blood sugar.
- Opportunities for medication management.

Health care providers are progressively using telehealth technologies as a cost-effective and high-quality method for delivering and accessing services. Benefits of telehealth include increased access to care in areas with provider shortages; reduced health care expenses, unnecessary emergency room visits and patient travel; and shorter wait times for appointments.

As telehealth progressively becomes a part of the nation's health care delivery system, access to health care is increasingly being linked to access to broadband.

The Federal Communications Commission defines broadband internet as a minimum speed of 25 megabits per second (Mbps) in downloads and 3 Mbps in uploads. According to BroadbandNow, 85 percent of Missourians have access to internet that meets the broadband criteria. Numerous rural counties have broadband access well below the 85 percent average with the worst counties being Barton (19%) and Bollinger (2.4%). Christian (83.8%) and Newton (67.3%) counties are the only two urban counties that fall below the state average. Missouri currently ranks 43rd among states in BroadbandNow's annual rankings of internet coverage, speed and availability.[xxxviii] The limited availability to broadband internet is an additional barrier that can prevent many rural Missourians from receiving health care.

Percentage of Broadband Access in Missouri by County



BroadBandNow. Missouri Internet Coverage & Availability in 2025. BroadBandNow. broadbandnow.com/Missouri. Accessed September 30, 2025

Community Health Workers

Community health workers (CHWs) are frontline public health workers who are trusted members of and/or have a close understanding of the communities served. This trusting relationship enables CHWs to link health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. They advocate for and promote public health within the community and in health care settings. CHWs are an excellent resource for citizens throughout the state and are especially valuable for the health of rural counties. The lack of health care infrastructure in rural locations can make it difficult for residents to find specialized care. CHWs may act as a liaison to help extend health services to span a larger geographic region than health care facilities could ordinarily reach.

Some of the services CHWs provide include:

- Facilitating transportation to and from appointments.
- Helping patients enroll in preventive health programs.
- Working with patients to alleviate barriers to health care such as insurance coverage and payment issues.
- Ongoing peer-to-peer engagement to provide encouragement and social support to help individuals with goal setting.
- Recognizing gaps and advocating for individual and community health needs.

To become a CHW in Missouri, individuals are encouraged to complete a DHSS certified training program. Upon completiion, CHWs are well equipped to provide services within the community and are eligible for credentialing through the Missouri Credentialing Board.

Community Health Worker Certified Course Training
Health.Mo.Gov/chw/curriculum#C1

Recommendations

As demonstrated throughout this report, Missouri's rural areas present a unique set of challenges that affect health outcomes. Limited access to health care providers, economic challenges, geographic barriers, lack of transportation, and limited broadband services are some factors that disproportionately affect rural communities. Rural hospitals, clinics, and providers have limited resources, experience payer reimbursement issues, and serve a population characterized by poorer health, lower education levels, less income and lack of insurance. While urban health facilities face many unique challenges, regulations and policies that may support providers in large urban areas may not be ideal for rural areas. Therefore, it is imperative that system changes address those differences and focus on health for rural Missourians.

Addressing the significant differences in health outcomes and barriers to accessing care of rural Missourians requires a systemic approach, innovative initiatives, collaboration and partnership. Efforts should consider:

- Developing the rural workforce through recruitment and retention initiatives, educating Missouri's youth about health professional careers and exposing them to rural practice, and assisting career and technical schools to expand training opportunities for health professional careers.
- Improving collaboration across state agencies serving rural Missouri and within communities and other stakeholders to improve efficiencies across programs and services to address the most pressing health needs.
- Shifting and maximizing state and federal resources to address the differences in health outcomes between rural and urban areas, such as through the Rural Transformation Grant.
- Strengthening local public health agencies' capability to address chronic disease prevention and management as one of the core functions of public health.
- Addressing the drivers of health beyond access to care, including transportation, education and broadband access and quality.

Access to health care services, including access to broadband, needs continual improvement throughout rural Missouri.

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This publication was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $216,666 with zero percentage financed with non-governmental sources. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS or the U.S. Government.