MISSOURI STATE HEALTH ASSESSMENT

MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES

2024

OUR VISION IS

OPTIMAL HEALTH AND SAFETY

FOR ALL MISSOURIANS, IN ALL COMMUNITIES, FOR LIFE.

Our mission is to promote health and safety through prevention, collaboration, education, innovation and response.

MISSOURI DEPARTMENT OF
HEALTH &
SENIOR SERVICES

Dear Missourians,

I am pleased to share Missouri's 2024 State Health Assessment (SHA). This assessment reflects the current status of health in our state. The three components are: We are Missouri, Missouri Voices, and the State of Missouri Health by the Numbers. These three sub-reports provide the full picture of data analysis, community view of population health, gaps and strengths of the public health system and factors that may affect the health system.

I want to thank our many partners, community stakeholders and Department of Health and Senior Services (DHSS) team members who devoted significant time to provide input on topics such as beliefs and perceptions of the health of Missourians, as well as the strengths and weaknesses of the statewide public health system. The development of the SHA was a collaborative effort between the DHSS and the State Health Partner Group, which encompasses stakeholders from throughout the Missouri public health system.

This SHA will guide our work on the five-year State Health Improvement Plan (SHIP). The emergence of COVID-19 and our response fighting the disease have placed an even greater importance on the need for a robust public health system. Our SHIP is designed to be a living document and will encompass areas of focus to achieve better health in Missouri. Improvement in the priority areas will be possible by developing strategies and approaches to address the key health issues and disparities. The SHIP directly addresses prominent challenges to Missourians living long and healthy lives, like infant and maternal health, social drivers of health and health behaviors.

Addressing these health issues will require collaborative effort across our communities with health care partners and stakeholders. Development of the SHA and the SHIP are a first step in this work. I look forward to working with you for these crucial efforts.

Sincerely,

Paula F. Nickelson

Paula F. Nickelson
Director

Contents

List of Steering Committee Members

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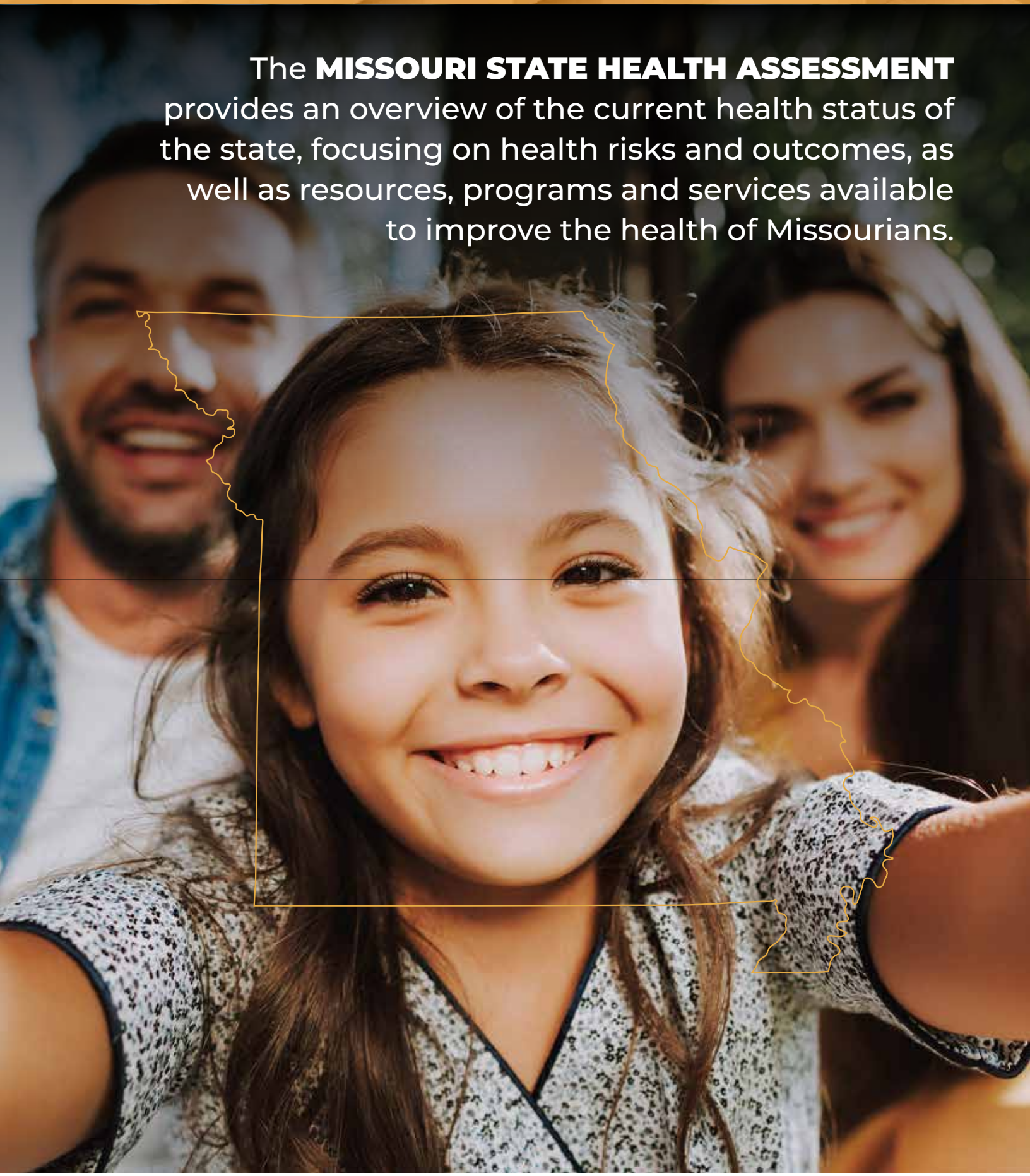
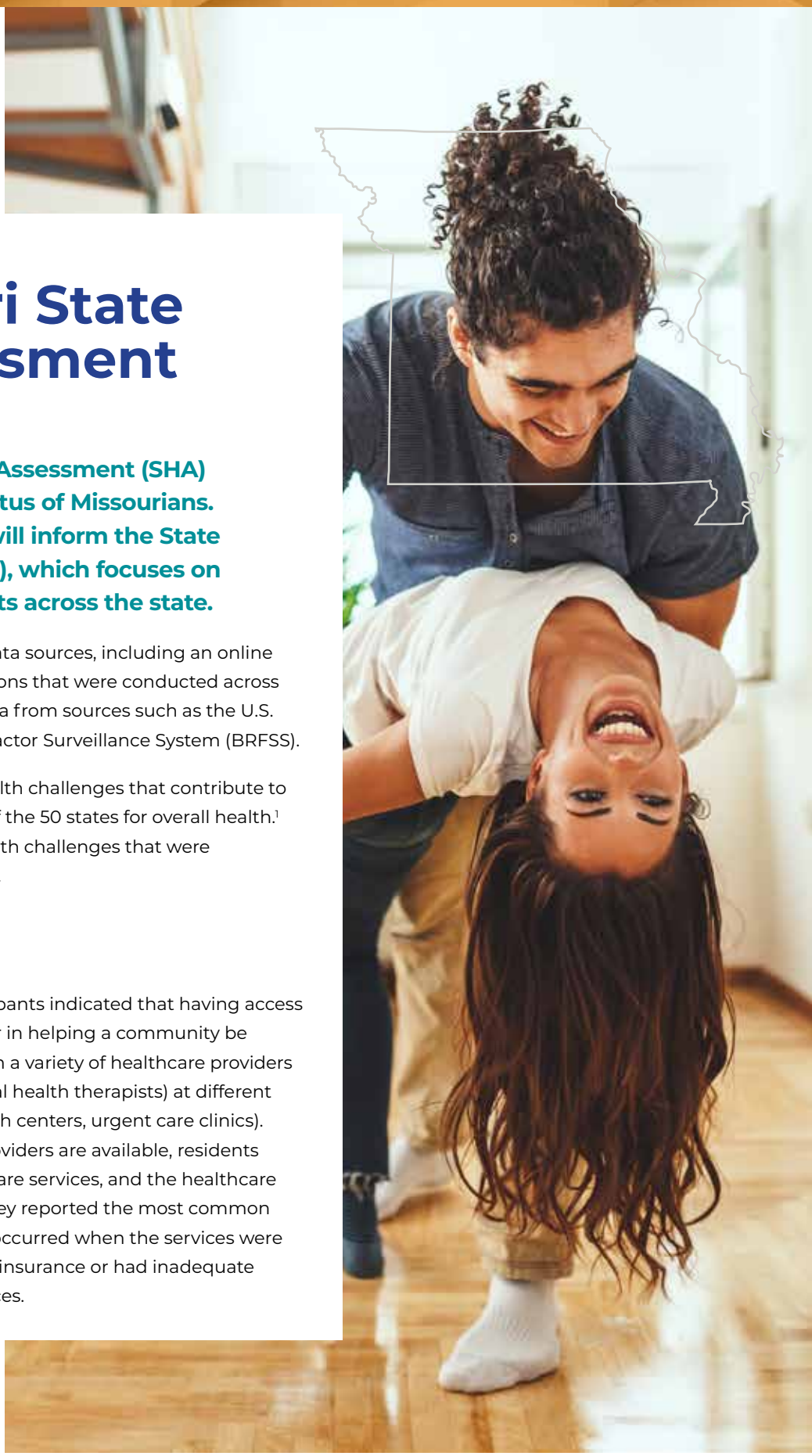
The **MISSOURI STATE HEALTH ASSESSMENT** provides an overview of the current health status of the state, focusing on health risks and outcomes, as well as resources, programs and services available to improve the health of Missourians.





EXECUTIVE SUMMARY

2024 Missouri State Health Assessment

The 2024 Missouri State Health Assessment (SHA) identifies the current health status of Missourians. Insights from this assessment will inform the State Health Improvement Plan (SHIP), which focuses on improving the health of residents across the state.

The SHA was developed using multiple data sources, including an online SHA Survey and in-person Listening Sessions that were conducted across Missouri. Additionally, the SHA utilizes data from sources such as the U.S. Census Bureau and the Behavioral Risk Factor Surveillance System (BRFSS).

Overall, Missouri has some significant health challenges that contribute to its ranking near the bottom at 40th out of the 50 states for overall health.[1] Below is an overview of several major health challenges that were identified through the 2024 Missouri SHA.

Access to Care

IN SHA LISTENING SESSIONS, participants indicated that having access to healthcare is the most important factor in helping a community be healthy. Access includes getting care from a variety of healthcare providers (e.g., nurses, pediatricians, dentists, mental health therapists) at different locations (e.g., hospitals, community health centers, urgent care clinics). Access also means needed healthcare providers are available, residents have the transportation to access healthcare services, and the healthcare is affordable. Participants in the SHA Survey reported the most common barriers to accessing healthcare services occurred when the services were too costly or when residents did not have insurance or had inadequate insurance to address the cost of the services.

Social drivers of health (SDOH) can affect people's access to healthcare. SDOH refer to the social, economic and environmental factors that influence an individual's or a community's health and well-being.[2] In the SHA Survey, participants who had higher incomes were more likely to report they had quality healthcare where they live than participants who had lower incomes. This result illustrates how an individual's level of income can impact overall health. In Listening Sessions, rural participants often described difficulty getting to healthcare services that were far away from where they lived. Those on Medicaid discussed the limitations they faced in finding providers who accepted this form of payment, and some residents talked about not being able to locate healthcare providers who understood their culture. A variety of individuals mentioned they did not qualify for government healthcare coverage, but also did not have sufficient income to pay for the services they needed and thus felt like they were in a healthcare trap.

Chronic Disease

Chronic diseases have a major impact on the health of Missourians. Heart disease is the leading cause of death in Missouri, with heart disease death rates increasing by 5.7% in the last 10 years.[3] The counties with the highest heart disease death rates are in rural regions, and rates of death due to heart disease are higher for Black/African American residents than white residents.

Cancer is the second leading cause of death in Missouri, and cancer death rates are greater among Black/African American residents than white residents. However, over the last 10 years, Missouri has seen a 9.4% decline in cancer death rates.[3]

Another chronic disease representing a significant health challenge is obesity, which is on the rise. Missouri ranked 16th out of 50 states for the highest rate of adult obesity, as nearly 37% of Missourians are considered obese.[4] Black/African American residents exhibit the highest prevalence of obesity at 43.8%, while Hispanic residents have witnessed the most significant increase in obesity rates over the years, rising from 25.5% in 2011 to 34.6% in 2022.

Obesity significantly increases the risk of developing Type II diabetes, and in 2022, 11.7% of Missourians had diabetes.[4] Black/African American residents had the highest rate of diabetes of all racial/ethnic groups in Missouri at 14.4%.

Aging Population

Missouri's population is growing older. The number of Missouri citizens who are 65 years and older has grown nearly 23% from 2012-2021, and the median age has increased from 38.0 to 39.2 over the last 10 years.[5] Missouri's median age is also older than the U.S. median age overall (39.2 versus 38.8).[6]

Health conditions that occur with increased aging are also on the rise. Alzheimer's Disease (AD) is the sixth leading cause of death among adults in Missouri.[7] Between the years 2000-2019, the number of AD-associated deaths rose by 143.1% in Missouri.[3] In addition, over 120,000 Missourians currently live with Alzheimer's or related dementia.[8]

Infant and Maternal Health

Inadequate prenatal care occurs when pregnant women do not obtain recommended prenatal care visits early in their pregnancy and/or the visits are not sustained until delivery.[8] Nationwide, an average of 14.5% of pregnant women received inadequate prenatal care. The 2021

Missouri rate of 15.8% was slightly higher than the U.S. average, indicating that more mothers in Missouri did not get the recommended level of care.[9]

Pregnancy-related deaths occur when the cause of death is directly tied to being pregnant. The pregnancy-related death ratio for Missouri mothers from 2018-2020 was 32 deaths per 100,000 live births. This was an increase from 25.2 per 100,000 as reported in the previous multi-year report for 2017-2019.[10] Pregnancy-related death rates among Black/African American mothers were three times higher than for white mothers.

According to the Centers for Disease Control and Prevention (CDC), 19,920 infants died nationwide in 2021,[11] and 393 of those deaths occurred in Missouri.[3] Missouri ranked 31st for infant mortality, with a rank of 50th being the worst.[12] However, the infant mortality rate in Missouri has declined almost 14% from 2012-2021.

Mental Health and Substance Use

The number of Missourians reporting 14 or more poor mental health days per month increased from 11.7% in 2014 to 17.3% in 2022.[13] American Indian/Alaskan Native residents were the racial/ethnic group to report the highest rate of poor mental health days at 29.2%, followed by Hispanic residents at 20.2%, Black/African American residents at 17.1%, and white residents at 16.5%. In 2022, 21.6% of female Missourians reported having 14 or more poor mental health days compared to 12.6% of males. Additionally, over the past five years there has been a steady increase in the number of female Missourians reporting poor mental health days, while the number of male Missourians reporting poor mental health days has remained relatively consistent.

Suicide rates increased by 27.0% in Missouri from 2011-2021.[3] Suicide rates were four times higher for males than females and more than double for white residents than Black/African American residents. Macon County in the north central part of the state had the highest rate of death due to suicide among the 115 Missouri counties during this 10-year period.

Drug use and overdose rates continue to pose a significant challenge in Missouri. Fatal overdoses from all drugs more than doubled from a rate of 16.0 in 2012 to 36.7 in 2021.[3] The highest rates of drug overdose were found in the St. Louis area and in rural areas west and south of this region. Statewide, rates of drug overdose were 73.2% higher among Black/African American residents than white residents.

Infectious and Communicable Disease

From 2012-2022, the increase in primary and secondary syphilis rates were greater than that of any other sexually transmitted infections in the state. From 2012-2022, cases of primary and secondary syphilis increased by 824.8%.[14]

In 2022, 44.9% of newly diagnosed human immunodeficiency virus (HIV) cases were among Black/African American residents.[15] Of the reported cases of HIV in 2022, 79.0% were males and 21.0% were females. The majority of all new HIV cases diagnosed in 2022 were among people in Missouri aged 19-34.

INTRODUCTION

2024 Missouri Health Assessment

What is a State Health Assessment (SHA)?

The Missouri SHA provides an overview of the current health status of the state, focusing on health risks and outcomes, as well as resources, programs and services available to improve the health of Missourians. This assessment is meant to empower community partners, local public health agencies, individuals and other groups to make decisions and positive changes for the health of the state's citizens.

While the SHA characterizes the health of Missouri, it also conveys the experiences and aspirations of people across the state who are striving for better health outcomes for themselves, their families and their neighbors.

State Health Assessment Process

The Missouri SHA is the result of a comprehensive process meant to understand the current state of health in Missouri. The process was guided by a Steering Committee of community health partners from across the state.

In line with the vision of the Department of Health and Senior Services (DHSS) to promote health and safety through prevention, collaboration, education, innovation and response, the approach to this assessment was a systematic process of collecting, analyzing and interpreting state and national-level data. The information presented in this report represents the perspectives of people from unique and common walks of life in Missouri.

The SHA process included six steps:

- Set Priorities
- Collect Information and Data
- Analyze Information and Data
- Write Findings
- Review the Report
- Share the Report

In January 2023, a SHA Steering Committee was established to guide the development of this assessment. They were charged with providing the Missouri DHSS with guidance on priorities and processes for the creation of the SHA. This included determining what information should be gathered, the timeframe to collect it, and where information should be obtained.

A priority of this SHA was to ensure it included input from Missourians across the state. Thus, multiple methods for gathering information

from Missouri citizens were identified. This included an online SHA Survey that allowed Missourians to provide their perspectives quickly and anonymously on the health challenges they experienced and the health resources available in their communities. Additionally, large focus groups, called Listening Sessions, were conducted across the state to gain even more robust insight from Missourians living in different communities. The Steering Committee helped develop the questions used in these data collection efforts and the processes employed to gather the information.

In addition to this new information that was collected, the SHA also includes information from important existing data sources such as the U.S. Census Bureau, the BRFSS Survey, and other state and national government reports and data.

What follows is a report on the health needs, challenges and resources that were identified through analyzing these data. The report begins with **Section I: The People of Missouri**, which provides a snapshot of Missouri citizens, including a general description of the population and demographics related to SDOH. SDOH include aspects of everyday life that can influence health beyond a person's control, such as education, employment and income. These factors are important as good health starts in our homes, neighborhoods, schools, workplaces and social circles.

Section II: Missouri Voices – Opportunities and Barriers to Good Health covers community members' health beliefs and experiences that were collected through the online SHA Survey and Listening Sessions conducted across the state. Through this survey and these sessions, Missourians shared their beliefs about what factors contribute to a healthy community, the ways they saw health being promoted where they lived, why they believed health equity was important, what additional health resources were needed in their communities and more.

Following the summary of health perceptions and experiences of community members, **Section III: State of Missouri Health by the Numbers** provides a detailed overview of Missouri state health based on comprehensive measures of health, chronic disease, environmental health, maternal, infant and child health, mental health, substance use, oral health, sexual health and mortality.

The data collected for this project were analyzed by staff from the Missouri DHSS and the University of Missouri Department of Public Health to identify current health trends, challenges related to the health of Missourians and opportunities for community health improvement. Ongoing meetings were held to discuss how to write the final SHA report. The final written report was reviewed by the Steering Committee and finalized for publication.

About Us:

The Missouri Department of Health and Senior Services

DHSS is committed to promoting health and safety for all Missourians, through prevention, collaboration, education, innovation and response. The Division of Community and Public Health administers programs that impact family health, the prevention of chronic diseases, nutrition and other programs that improve the health of communities. Statewide work is conducted toward increasing resources and expertise in the areas of disease and injury prevention, environmental health, connection to care, and maternal, child and family health. This is Missouri's Foundational Public Health Services Model, which ensures essential foundational services are provided in every Missouri community.[16] The 2024 Missouri State Health Assessment is designed to inform Missouri residents and stakeholders on community health issues and successes, as well as the factors that influence both.

Public Health Accreditation Board (PHAB)

The Public Health Accreditation Board (PHAB) is a non-profit entity that provides oversight for a voluntary accreditation process for public health agencies. PHAB works to promote the quality and performance of public health departments and has a stated vision of: "... a high-performing governmental public health system that will make the United States a healthier nation."[17]

The PHAB accreditation processes requires that DHSS document programs, activities, and data are used to achieve the 10 essential public health services.[18] While there are many components to accreditation, two important components are the development of a State Health Assessment (SHA) and State Health Improvement Plan (SHIP). The SHA describes the current view of Missouri's health system, its capacity, and the overall health of Missourians. The companion document, the SHIP, provides steps to address key state health issues over the next five years.

WE ARE Missouri

SECTION I:

The People of Missouri

There are over six million people who call Missouri home. While being from a similar geographic location makes them all Missourians, they also represent the numerous and distinct communities of the state. Many current residents were born in Missouri, while others relocated to the state from other parts of the U.S. and abroad. Missourians include people with disabilities and pre-existing health conditions. The residents of this state are students, veterans and others working in a variety of different fields and professions.

In this section, we provide a wide range of information about Missouri residents because health and well-being are impacted by where we live, our education, income and other social drivers of health. Currently, Missouri is ranked near the bottom (40 out of all 50 states) in overall health outcomes – behavioral health, mortality and physical health.[1] Awareness of each aspect of life that influences an individual's health and subsequently our community health, allows us to identify priorities for public health planning.

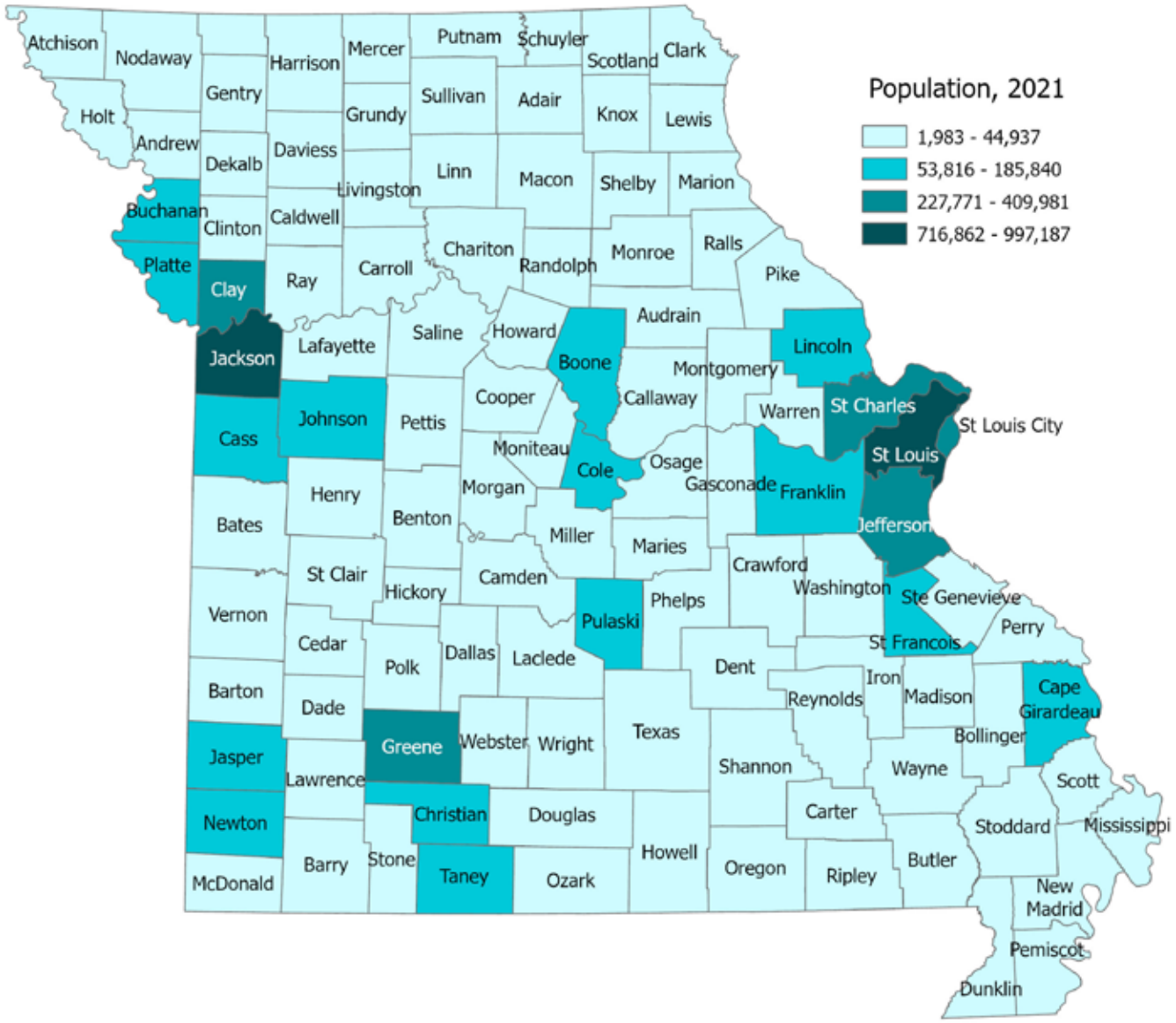
We Are Missouri

AS OF 2021, the population of Missouri is 6.17 million people.[2] Since 2012, the state population has grown by 2.4%.

The metropolitan areas in Missouri with the largest populations are St. Louis, Kansas City, Springfield, Columbia, Joplin, Jefferson City, St. Joseph and Cape Girardeau. Most of the counties outside these metropolitan areas have fewer than 44,000 people. Missouri has large urban and suburban centers surrounded by wide swaths of rural areas.

FIGURE 1:

Population of Missouri Counties in 2021



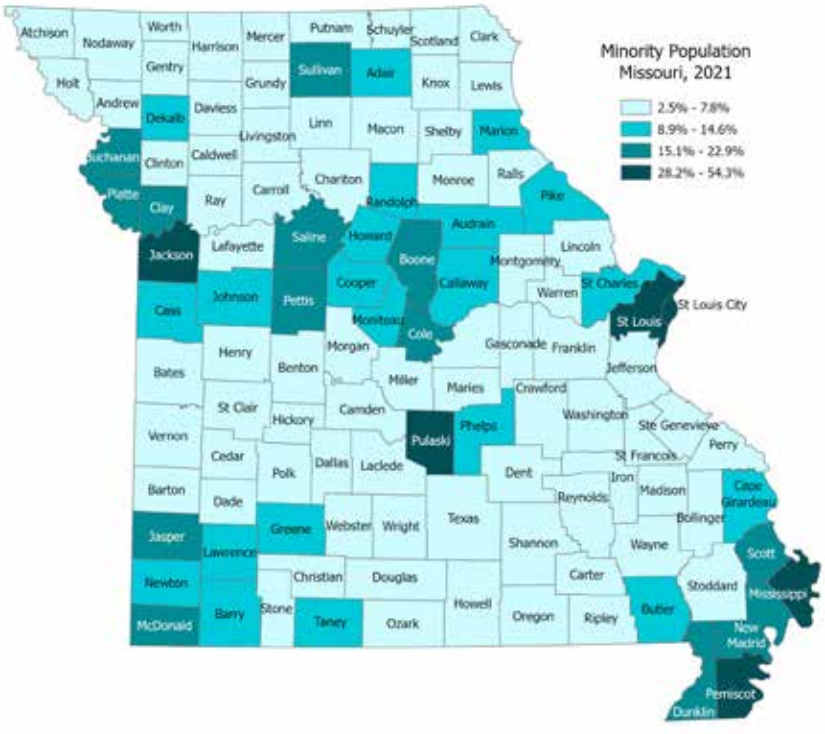
Source: Missouri Department of Health and Senior Services, Population Statistics

FIGURE 2:
Racial-Ethnic Minority Resident Population in Missouri from 2012-2021

Race and Ethnicity

IN 2021, the residents of Missouri were 84.0% white, 12.6% Black, 2.6% Asian, and 0.8% American Indian.[3] Additionally, 4.7% of residents identify as Hispanic ethnicity.

The greatest proportion of racial-ethnic minority residents in Missouri live in urban centers such as St. Louis and Kansas City, as well as counties in the Southeast portion of the state, including the counties of Mississippi, Pemiscot and Pulaski. The racial-ethnic minority population is defined as all residents except those who identify as white non-Hispanic.



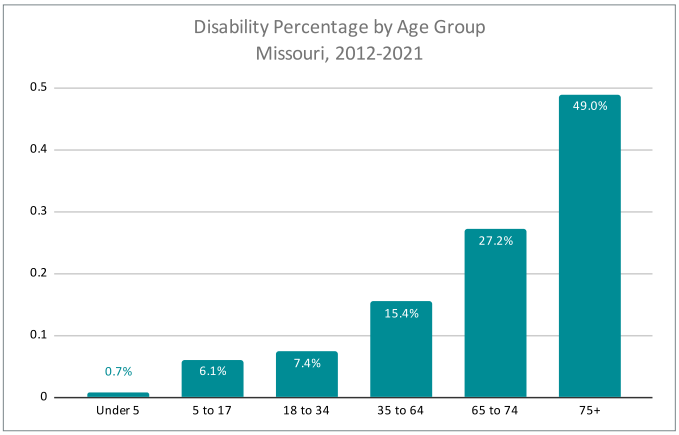
Source: Missouri Department of Health and Senior Services, Population Statistics

Age and Disability

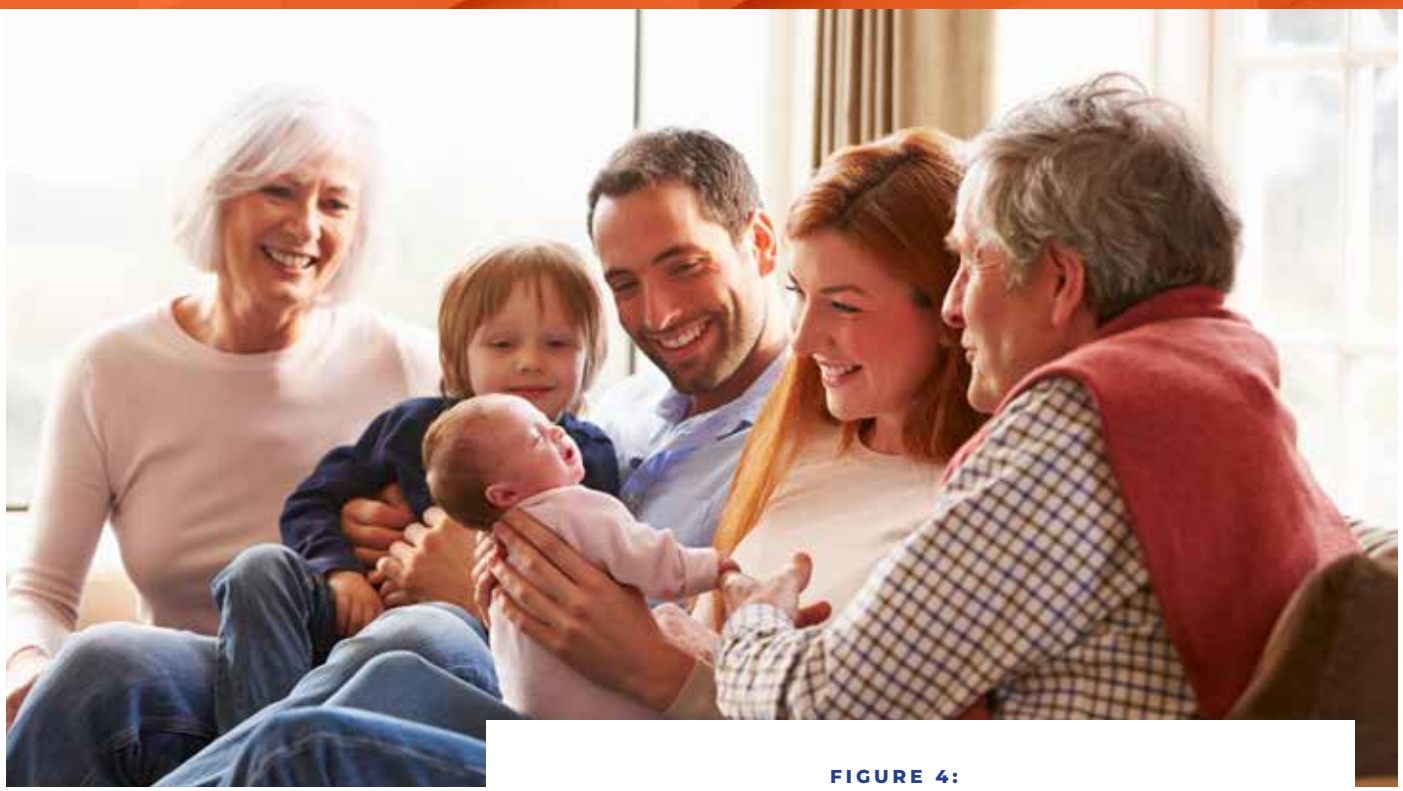
THE POPULATION of Missouri citizens who are 65 years and older has grown nearly 23% from 2012 to 2021.[4] Inversely, the number of Missourians who are under age 18 (infants, children, adolescents) has decreased by 1.4% during this same period. The data shows that overall, Missouri's population is getting older. The median age has increased from 38.0 to 39.2 in Missouri over the last ten years. In 2021, the Missouri population was also older than the U.S. median age (39.2 versus 38.8).[5]

Among Missouri's civilian noninstitutionalized population, the number of individuals with a disability has remained stable at approximately 14%-15% over the last 10 years. In total, an average of 14.6% of the Missouri population had a disability. Additionally, almost half of those individuals 75 years of age and older lived with a disability (49.0%).[6]

FIGURE 3:
Disability in Missouri



Source: U.S. Census Bureau, 2012-2016 & 2017-2021, American Community Survey 5-year Estimates, Table S1810.



Social Drivers of Health

HEALTHY PLACES create an environment for healthy people. Where people live, work and socialize directly impacts the quality of their life and health. The daily conditions that people experience have an impact on their ability to access and utilize healthcare programs and services. Social drivers of health (SDOH) refer to the social, economic and environmental factors that influence an individual's or a community's health and well-being. According to the U.S. Department of Health and Human Services there are five SDOH domains: education, healthcare, economic stability, social and community context, and the built environment.[7] In the following section we provide an overview of several social drivers of health in Missouri.

FIGURE 4:
Social Drivers of Health

Source: Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.

FIGURE 5:

Missouri Household Income

Source: U.S. Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table S1901. ***Note:*** The Census Bureau did not release its standard 2020 ACS 1-year estimates because of the impacts of the COVID-19 pandemic

Income and Poverty

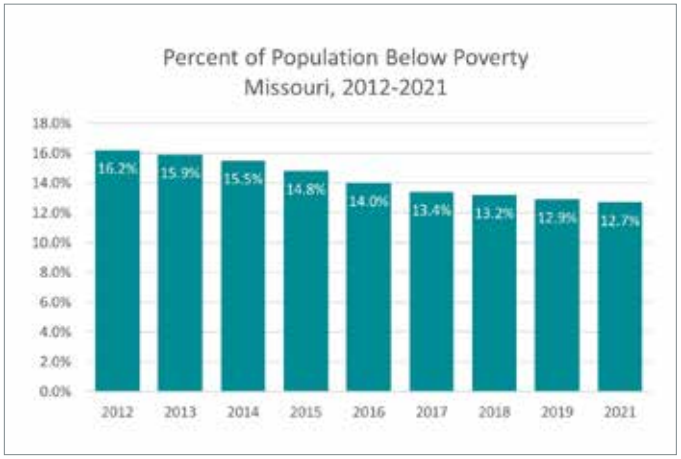
THE AMOUNT OF INCOME that people have available can impact their health. Individuals and families with higher income typically have better access to healthcare services such as medical care and prescription medications. Those with higher income can better afford health insurance, which often leads to earlier diagnosis and treatment of health conditions, ultimately resulting in better health outcomes. Thus, understanding state rates of household income and poverty are important.

The average household income in Missouri has continued to increase since 2012. In 2021, the median Missouri household income was $61,847, compared to $45,321 in 2012.[8] During this same time, the Missouri figure has lagged behind the U.S. median household income.

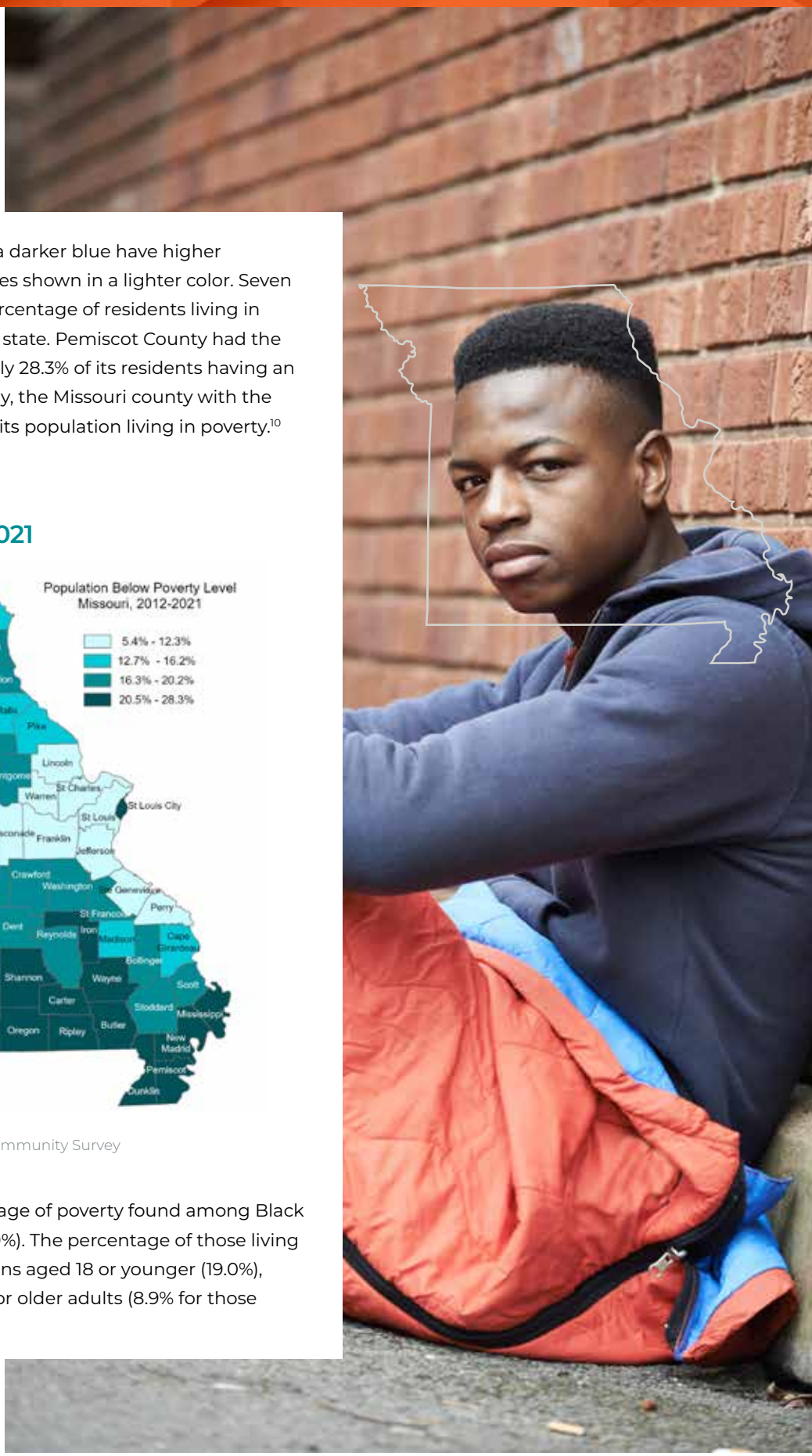
Data collected over the last 10 years indicates a steady decrease in the number of Missourians living in poverty, as shown in the figure below. As of 2021, the number of Missourians living in poverty totaled 761,311, which represents 12.7% of the state. This amount is slightly lower than the national average of 12.8%.[9] Over the past 10 years Missouri has nearly mirrored the U.S. average.

FIGURE 6:

Poverty Rates in Missouri



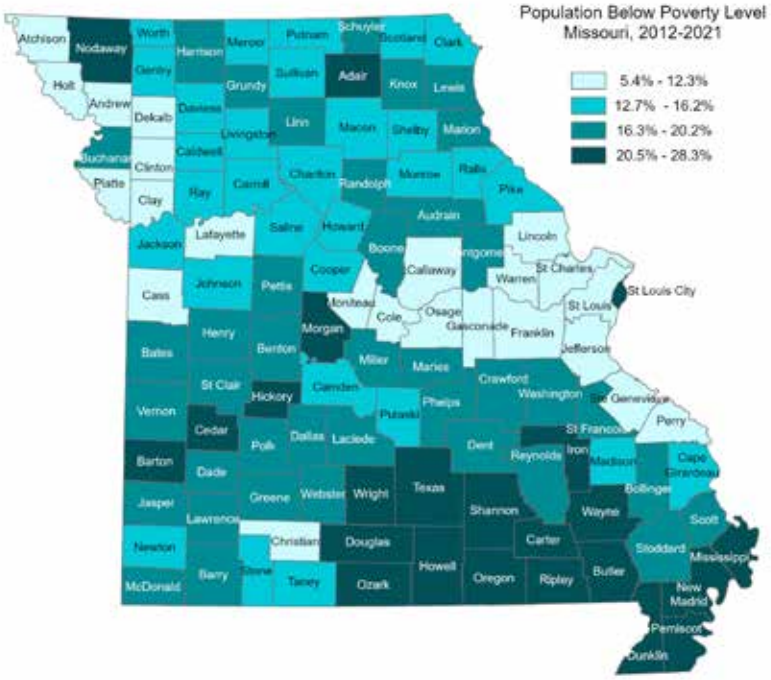
Source: U.S. Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table S1701. ***Note:*** The Census Bureau did not release its standard 2020 ACS 1-year estimates because of the impacts of the COVID-19 pandemic.



In the map below, the counties shown in a darker blue have higher concentrations of poverty than the counties shown in a lighter color. Seven out of the 10 counties with the highest percentage of residents living in poverty are in the Southeast region of the state. Pemiscot County had the highest level of poverty, with approximately 28.3% of its residents having an income below the poverty level. Conversely, the Missouri county with the lowest rate is St. Charles with only 5.4% of its population living in poverty.[10]

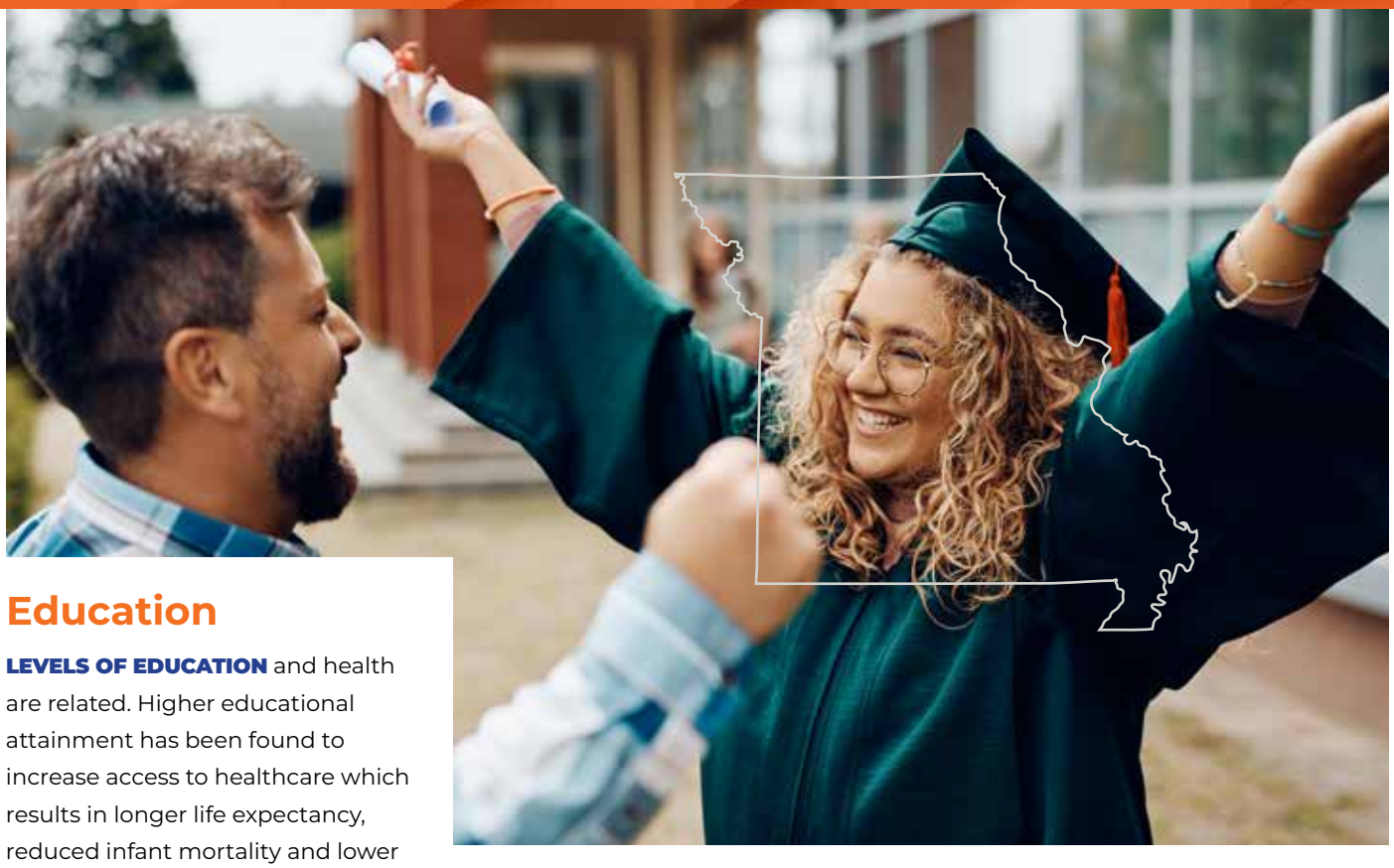
FIGURE 7:

Percent of Population Below Poverty Level Missouri, 2012-2021



Source: U.S. Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table S1701.

Across the state, there is a higher percentage of poverty found among Black residents (25.9%) than white residents (11.9%). The percentage of those living in poverty is the highest among Missourians aged 18 or younger (19.0%), while the percentage of poverty is lower for older adults (8.9% for those aged 65 and over).[11]



Education

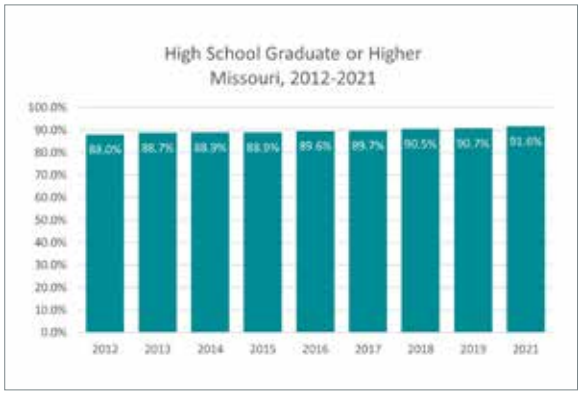
LEVELS OF EDUCATION and health are related. Higher educational attainment has been found to increase access to healthcare which results in longer life expectancy, reduced infant mortality and lower levels of chronic disease.[12]

Trends of educational attainment between 2012 and 2021 among Missouri residents 25 years and older are shown to the right. In 2021, 91.6% of Missourians aged 25 or older had obtained a high school diploma or equivalent certification. The percent of Missourians with a high school diploma or equivalent has gradually increased since 2012 when the figure was 87.9%.

The six counties with the lowest percentage of high school educational attainment - Mississippi, Dunklin, Reynolds, Pemiscot, McDonald and Wayne – are in the Southeast region of Missouri. Only 76.2% of Mississippi County residents aged 25 years and older have graduated high school, which represents the lowest level in the state. Conversely, 96.0% of Platte County residents are high school graduates, followed by St. Charles County and Boone County, both with slightly over 94.0%.[13]

FIGURE 8:

High School Educational Attainment

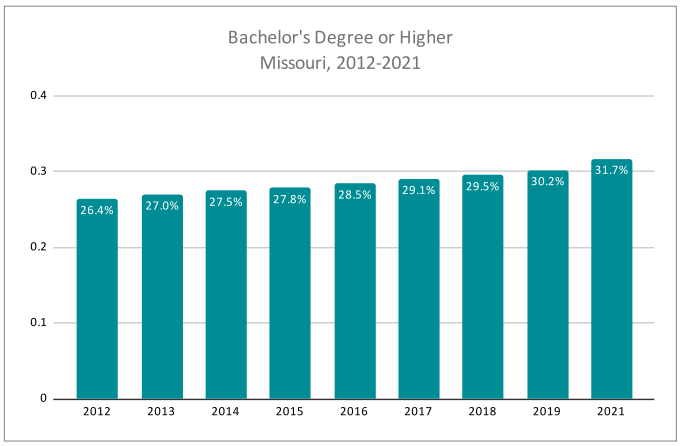


Source: U.S. Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table S1501. Note: The Census Bureau did not release its standard 2020 ACS 1-year estimate because of the impacts of the COVID-19 pandemic.

The percentage of Missourians aged 25 or older who completed a bachelor's degree or higher increased by five percentage points since 2012. In 2021, 31.7% of Missourians held a bachelor's degree or higher, which is up from 2012 when the figure was 26.4%. Using 2012-2021 data by race shows that 59.7% of Asian Missourians obtained a bachelor's degree or higher, as did 30.1% of white Missourians and 18.5% of Black Missourians.

FIGURE 9:

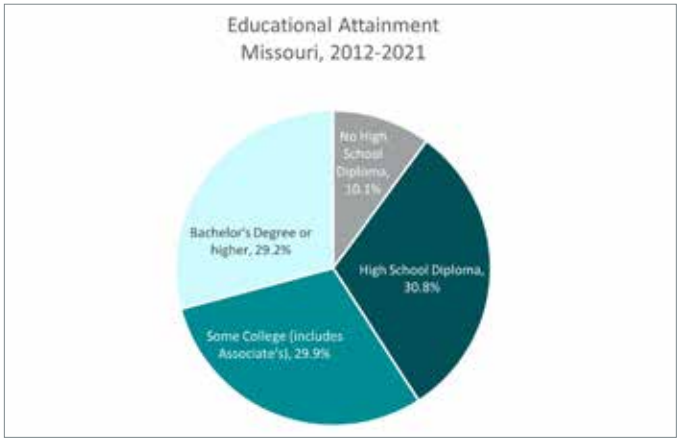
College Educational Attainment



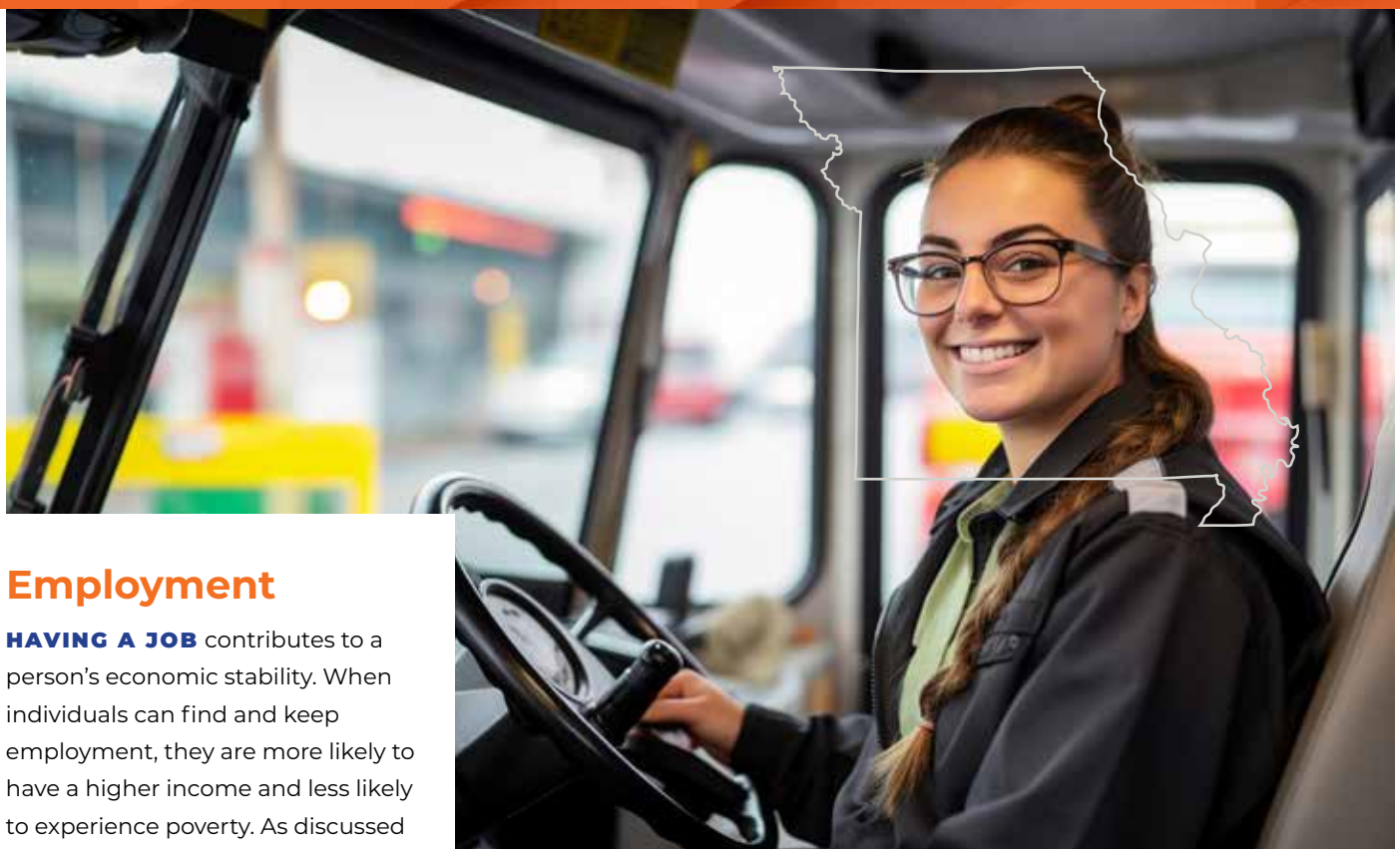
Source: U.S. Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table S1501. Note: The Census Bureau did not release its standard 2020 ACS 1-year estimate because of the impacts of the COVID-19 pandemic.

FIGURE 10:

Educational Attainment Missouri, 2012-2021



Source: U.S. Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table S1501. Note: The Census Bureau did not release its standard 2020 ACS 1-year estimate because of the impacts of the COVID-19 pandemic.



Employment

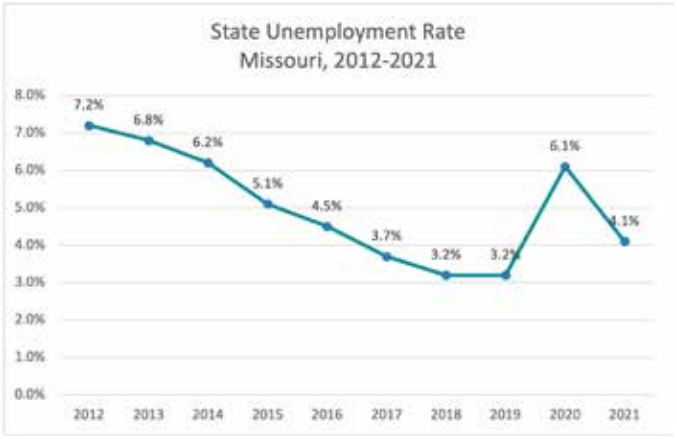
HAVING A JOB contributes to a person's economic stability. When individuals can find and keep employment, they are more likely to have a higher income and less likely to experience poverty. As discussed previously, higher income is related to better overall health.

Over the last 10 years, Missouri has experienced a decrease in unemployment rates, going from a 7.2% unemployment rate in 2012 to 4.1% in 2021.[14]

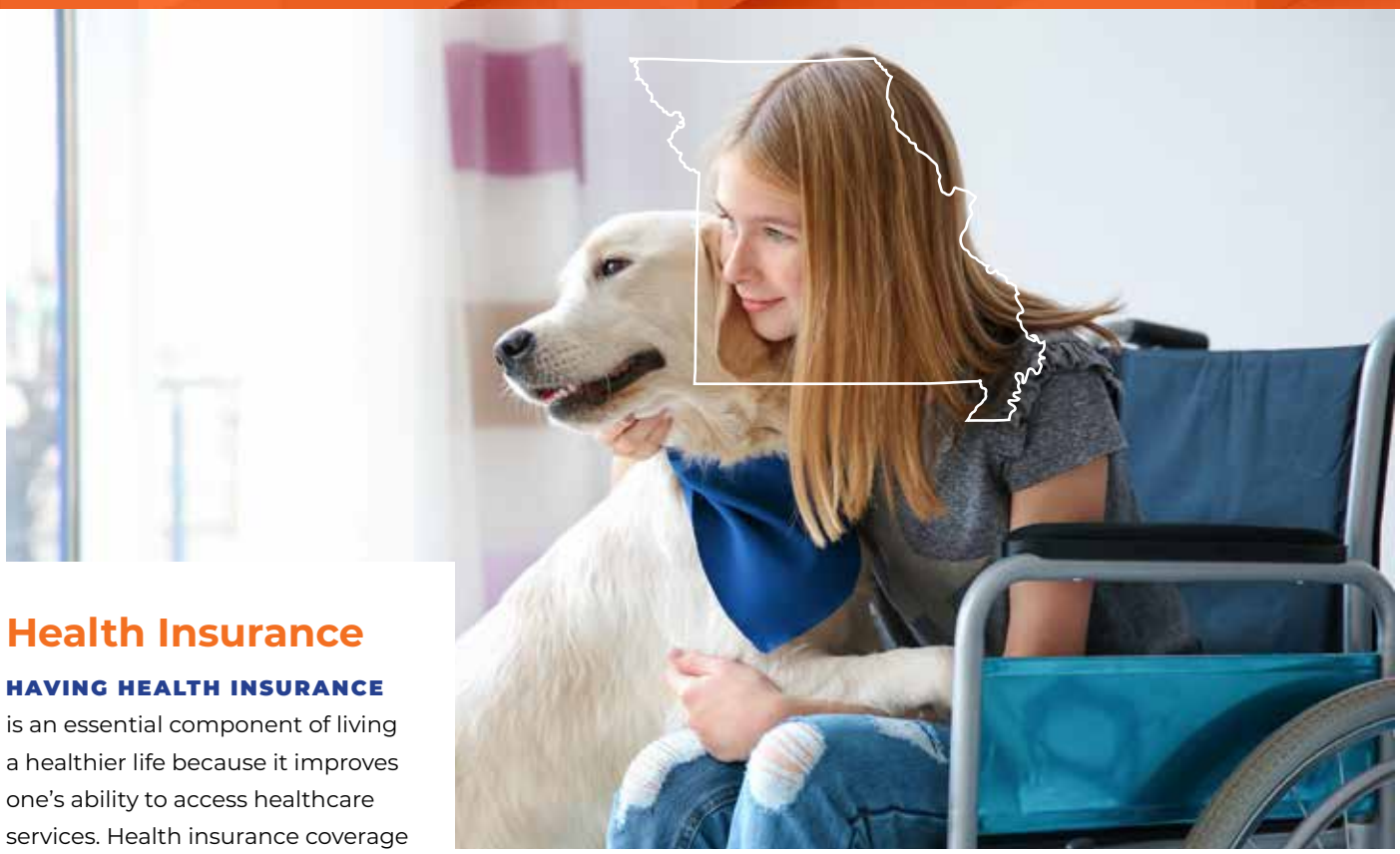
Among the 35 counties in Missouri with the highest unemployment rates, all were rural counties apart from one: St. Louis City. The counties with the highest unemployment rates during this period were Taney, Pemiscot, Iron, Stone and Dunklin.

FIGURE 11:

Missouri Unemployment Rate



Source: Missouri Economic Research and Information Center (MERIC). Local Area Unemployment Statistics. https://meric.mo.gov/data/economic/local-area-unemployment-statistics/laus. Accessed August 22nd, 2023. ***Note:*** Data are not seasonally adjusted. Data are annual averages.

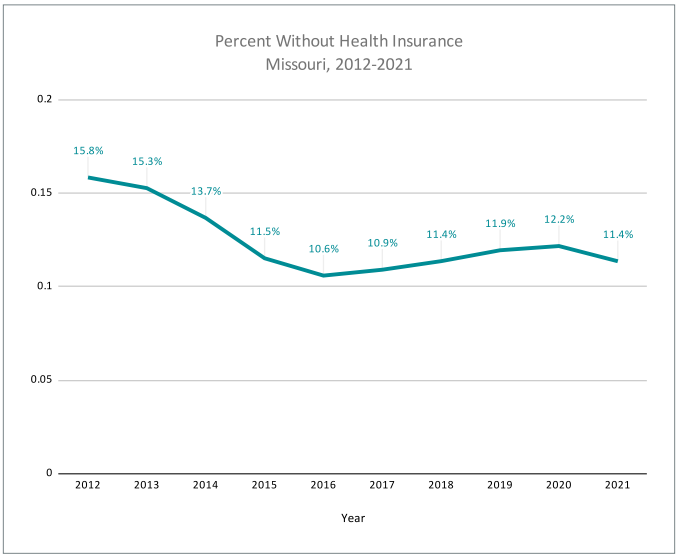


Health Insurance

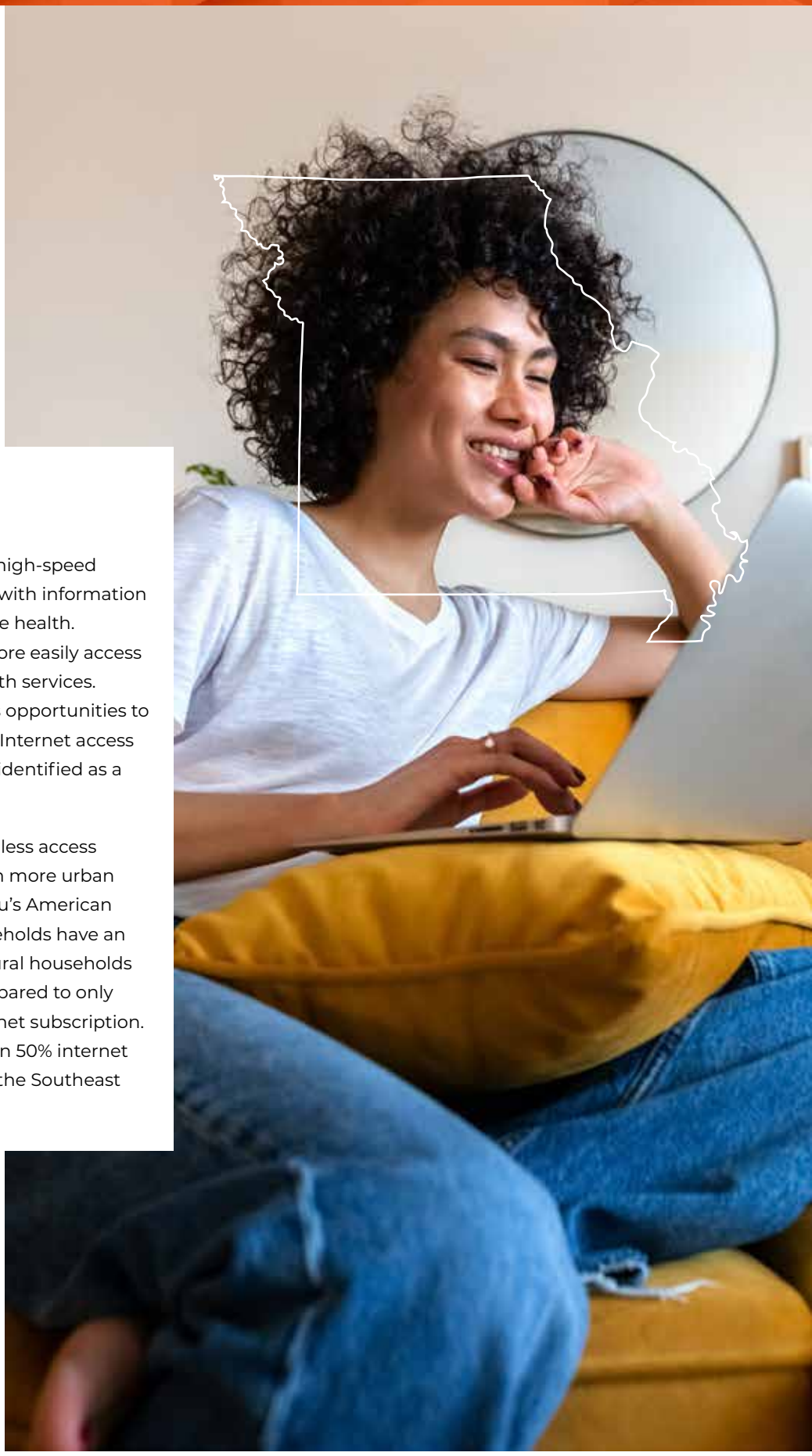
HAVING HEALTH INSURANCE is an essential component of living a healthier life because it improves one's ability to access healthcare services. Health insurance coverage reduces healthcare out-of-pocket costs, while also increasing access to the preventative services needed to help lower the risk of illness. Compared to those with health insurance, uninsured Missourians are more likely to go without routine care. They are also more likely to experience higher rates of emergency room visits, hospitalizations and death than people who are insured.[15]

According to the U.S. Census Bureau, the percentage of people who are uninsured in Missouri has decreased from 15.8% in 2012 to 11.4% in 2021. The counties with the lowest percentages of uninsured residents are all located in the St. Louis and Kansas City metro regions (St. Charles County, 7.3%; Platte County, 8.4%; St. Louis County, 9.2%; Clay County, 9.7%). There were three counties (McDonald, Scotland and Morgan) with uninsured rates above 20%.[16]

FIGURE 12:
Missourians Without Health Insurance



Source: United States Census Bureau. (2022). 2008 - 2021 Small Area Health Insurance Estimates (SAHIE) using the American Community Survey (ACS).



Broadband Access (High-speed Internet)

BROADBAND ACCESS, also known as high-speed internet access, allows people to connect with information and services that can support and improve health. Individuals with broadband access can more easily access health information and details about health services. Additionally, high-speed internet provides opportunities to receive healthcare via telehealth services. Internet access is so important to health that is has been identified as a social determinant of health.[17]

In Missouri, rural communities often have less access to high-speed internet than those living in more urban areas. According to the U.S. Census Bureau's American Community Survey, 85% of Missouri households have an internet subscription.[18] However, 20% of rural households do not have an internet subscription compared to only 12% of urban households without an internet subscription. There are nine rural counties with less than 50% internet access, and most of these counties are in the Southeast region of the state.

MISSOURI VOICES
Opportunities and Barriers to Good Health

SECTION II:

Missouri Voices – Opportunities and Barriers to Good Health

A key part of this State Health Assessment was hearing from Missouri residents about the resources and services that help them be healthy, as well as any health challenges they face. We also engaged Missourians to understand what their most important health issues are. To gain this input, we conducted an online State Health Assessment Survey and held Listening Sessions across the state.

State Health Assessment Survey

The 2023 State Health Assessment Survey was conducted online on July 5 to August 9, 2023. The survey link was shared on the Missouri Department of Health and Senior Services social media and website, and distributed to community partners across the state. The survey was provided in multiple languages to ensure accessibility and was open to any resident of Missouri age 18 or older. The survey asked participants to answer questions about how healthy their community is, about barriers to being healthy, and about services in their neighborhood or community that needed improvement. All survey responses were anonymous.

Overall, 840 participants completed the survey. Most participants (77.5%) were female, while 19.6% were male and 2.9% reported another gender or preferred not to answer. Regarding the race and ethnicity of participants, 70.1% identified as white, 16.1% identified as Black, 5.8% identified as Hispanic, 4.9% identified as another race or multiple races, 1.1% identified as Asian, and 2.0% preferred not to answer. Participants came from a variety of age groups; 17.2% were 18-29, 29.6% were 30-44, 19.5% were 45-54, 20.5% were 55-64, 12.0% were 65 or older, and 1.1% preferred not to report their age. For annual household income, 23.1% of participants reported an income of less than $25,000, 22.4% reported $25,000 to $49,999, 27.4% reported $50,000 to $100,000, 14.3% reported $100,001 to $200,000, 3.3% reported more than $200,000, and 9.5% did not know their annual income or preferred not to say. Additionally, 19.9% of participants reported having a disability, 4.6% were Veterans, and 8.9% identified as LGBTQ.

Listening Sessions

In addition to conducting an online State Health Assessment Survey, we also held Listening Sessions across the state of Missouri to help understand the unique health experiences of Missouri residents. The Listening Sessions were large focus groups, with approximately 20 participants at each session. The Listening Sessions were facilitated by a team from the Department of

- **18 Listening Sessions**
- Different locations across the state (e.g., Cape Girardeau, Hannibal, Jefferson City, Joplin, Kansas City, Kennett, Kirksville, Poplar Bluff, Springfield, St. Charles, St. Joseph, St. Louis).
- Other Listening Sessions were conducted with healthcare and public health organizations in Jefferson City, Kansas City, Springfield and St. Louis.
- Additionally, we held sessions with LGBTQ and Veteran groups in Columbia.

Public Health at the University of Missouri. Participants were recruited through community organizations and social media. For attending a session, participants were provided with a meal and $25 gift card.

Eighteen Listening Sessions were held during the summer of 2023. Most were conducted with community members in different locations across the state (e.g., Cape Girardeau, Hannibal, Jefferson City, Joplin, Kansas City, Kennett, Kirksville, Poplar Bluff, Springfield, St. Charles, St. Joseph, St. Louis). Other Listening Sessions were conducted with healthcare and public health organizations in Jefferson City, Kansas City, Springfield and St. Louis. Additionally, we held sessions with LGBTQ and Veteran groups in Columbia.

Across all Listening Sessions, a total of 275 Missouri residents participated. A wide range of age groups were represented at the sessions; 18% of participants were 20-34, 20% were 35-44, 20% were 45-54, 17% were 55-64, and 25% were 65 or older. Most participants were female (74%), while 24% were male, and 2% were another gender or preferred not to answer. Regarding race and ethnicity, 70% of participants identified as white, 21% as Black, 2% as Hispanic, 1% as Asian, 2% as multiple races, and 4% as another race or preferred not to answer. For annual household income, 18% of participants reported an income of less than $25,000, 15% reported $25,000 to $49,999, 31% reported $50,001 to $100,000, 21% reported $100,001 to $200,000, 6% reported more than $200,000, and 9% did not know their annual income or preferred not to say. Eleven percent of participants were Veterans.

During the Listening Sessions, we asked participants to think about health in terms of the health of the communities in which they lived and worked. First, participants shared what they thought a healthy community looked like to them, then we spent time learning from participants what they believed were the barriers and opportunities present in their community related to health and being a healthy community.

After the Listening Sessions concluded, members of the University of Missouri Department of Public Health spent time organizing, analyzing and interpreting the information participants shared at all sessions. We wanted to identify participants' leading health experiences as understood in terms of strengths, opportunities and barriers occurring throughout Missouri. Results from the Listening Sessions and the State Health Assessment Survey are provided in the rest of this section.

Statewide Health Perceptions

Being healthy means doing well physically, mentally and socially. The World Health Organization states that "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[1] The State Health Assessment Survey and Listening Sessions gave Missourians a chance to reflect on the opportunities and barriers to health in their communities.

A core issue emerged from the State Health Assessment Survey and Listening Sessions: **Access.** Access applies to issues like healthcare, healthy food and health information, among others. What follows is a discussion of the features of a healthy community as shared by Missouri residents and details about the factors that impact the ability of individuals to experience good health.

Access

Access relates to people being able to obtain the things they need to be healthy. Access includes having culturally appropriate and affordable health resources in the community and being able to get to those resources. On the following page we discuss specific issues related to access to healthcare and a variety of other health resources.

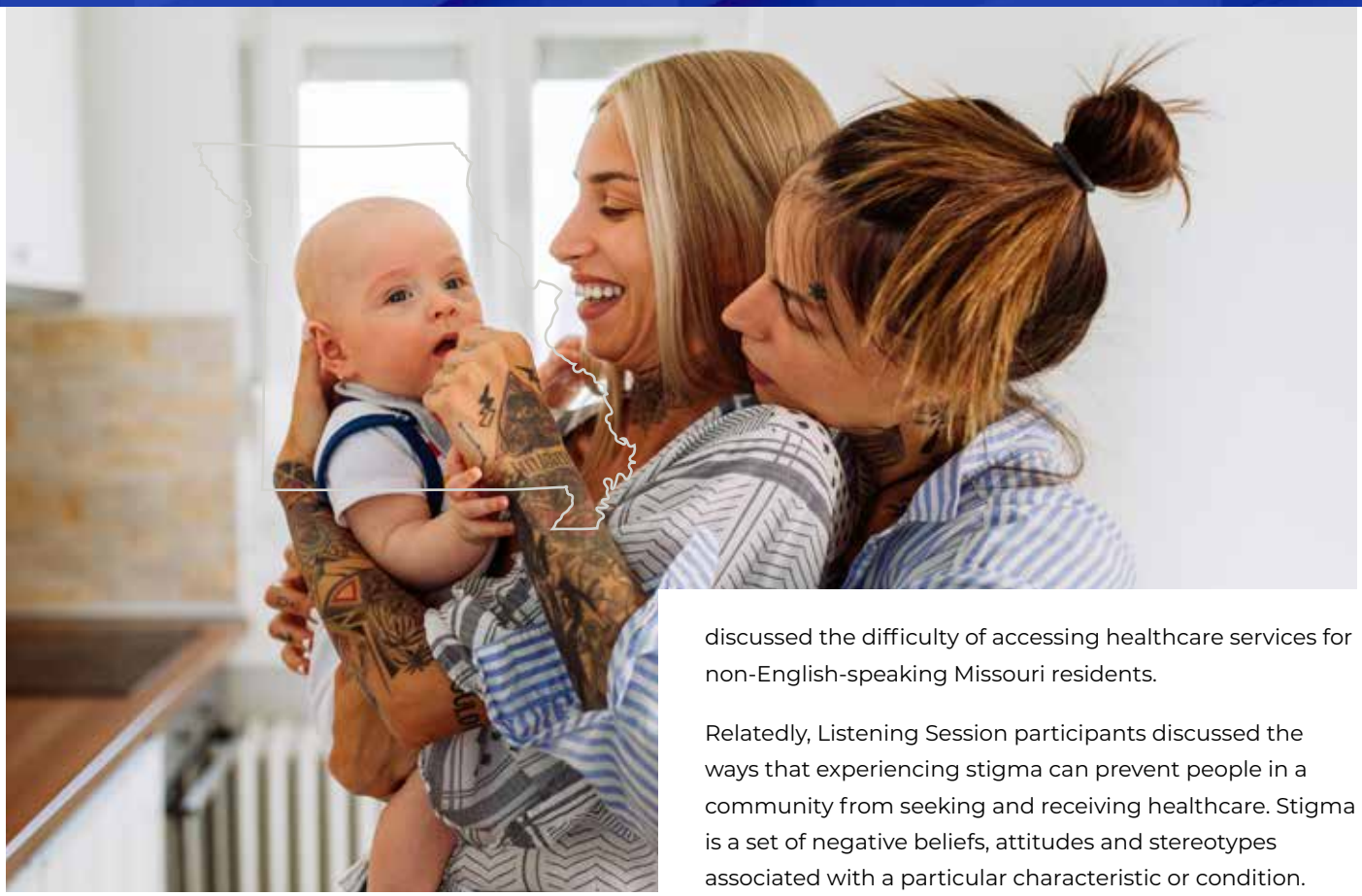
Access to Healthcare

ACCORDING TO MISSOURIANS who attended our Listening Sessions, having access to healthcare is the most important characteristic of a healthy community. This includes access to all providers who support health: nurses, pediatricians, family physicians, specialists, surgeons, dentists, mental health therapists, substance use counselors and more. It also includes access to different places to get healthcare, such as urgent care clinics and hospitals. Although some Missourians live near healthcare providers who can address various health needs, others live far from available healthcare, particularly specialists, hospitals, urgent care centers and dentists. In our Listening Sessions, those Missourians often discussed how difficult it is to stay healthy when healthcare is hard to access.

Access to healthcare does not just mean that a healthcare provider is available, it also means that an individual can afford to use that provider. Some Missourians have good health insurance and enough personal income to pay for any healthcare services that they or their family members might need. Other Missourians have limited personal income to help pay for healthcare services and rely on government programs such as Medicaid. These Missourians often have difficulty finding healthcare providers who will accept Medicaid. They also might encounter a variety of Medicaid restrictions that prevent them from accessing the healthcare that would be most beneficial to their well-being.

Healthcare limitations related to Medicaid were frequently discussed at our Listening Sessions. We also heard from many Missourians who earned too much income to qualify for programs such as Medicaid, but still did not have enough money to pay for some of the healthcare services they really needed. These Missourians felt like they were in a healthcare trap of having too much money to obtain social assistance but not enough money to access necessary healthcare.

Listening Session participants also discussed the importance of being able to access healthcare providers who understand them. Some Missourians talked about how hard it can be to find providers who really know about their lives, cultures and values. For example, several Black Listening Session participants noted a lack of accessible Black healthcare providers in the community that they lived, resulting in situations where they felt like they were not fully understood or heard in their healthcare interactions. Other participants



> *"... efforts are needed to focus on minimizing the stigma associated with accessing resources and elevate embracing all people in* **MISSOURI** *with different needs and at different stages of life."*

discussed the difficulty of accessing healthcare services for non-English-speaking Missouri residents.

Relatedly, Listening Session participants discussed the ways that experiencing stigma can prevent people in a community from seeking and receiving healthcare. Stigma is a set of negative beliefs, attitudes and stereotypes associated with a particular characteristic or condition. When people feel stigmatized because of a health issue, they may experience discrimination related to that issue or may worry about the level of care they will receive in a healthcare interaction. For example, our Listening Session participants discussed that being obese, having a substance use disorder, not speaking the English language fluently, being a member of the LGBTQ community, having a mental health disorder, or being unhoused may be situations in which individuals would be worried about seeking healthcare or could be concerned about the type of care they receive. To provide full access to healthcare in their community, participants described that these stigmas need to broken. As one Listening Session participant explained, "efforts are needed to focus on minimizing the stigma associated with accessing resources and elevate embracing all people in Missouri with different needs and at different stages of life."

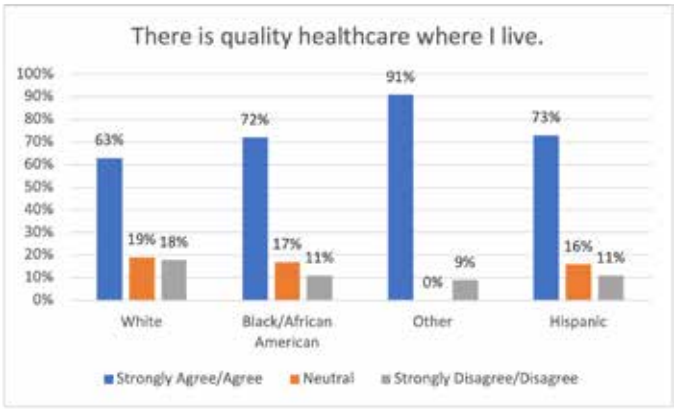
Accessing healthcare also means you can get to your healthcare appointments and services. This includes having access to the necessary transportation. Many of our Listening Session participants discussed transportation challenges that make accessing healthcare difficult. This occurs both for people who live in rural areas and are thus often far away from healthcare services, as well as those

who live in more urban settings and have to rely on public transportation. Accessing healthcare also entails having the necessary childcare to allow a parent to get the care they need or being able to take time off from work for appointments and procedures. Again, some Missourians have all the transportation, childcare and flexible work they need to access necessary care, while other Missourians lack the resources that make accessing healthcare possible.

State Health Assessment Survey participants indicated whether they agreed or disagreed that there was quality healthcare where they live. Overall, 66% of Missouri survey participants strongly agreed or agreed that quality healthcare was available in their community, while 16% strongly disagreed or disagreed that they had quality healthcare in their community.[2] Survey participants who identified as white were the least likely among all racial/ethnic groups to agree that there was quality healthcare where they lived. Additionally, survey participants with a higher income were more likely than participants with a lower income to agree that quality healthcare was available in their community. These survey results illustrate the pattern we heard in our Listening Sessions, wherein Missourians with more income often had more access to quality healthcare than did Missourians with less income.

FIGURE 13:

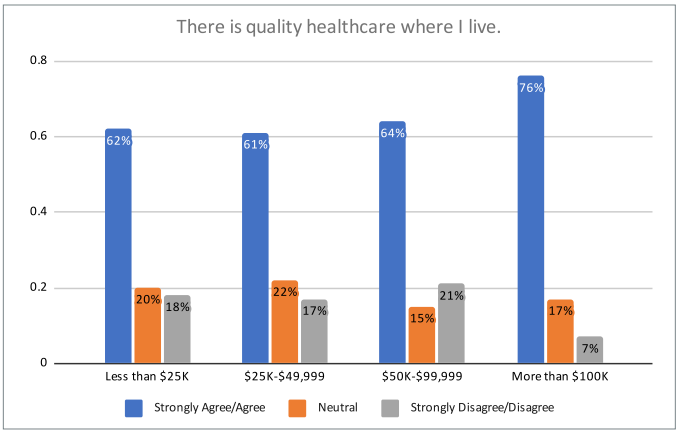
Availability of Quality Healthcare and Race/Ethnicity



2023 Missouri State Health Assessment Survey. Note: The other category includes participants who identified as Asian, another race, multiple races, or did not know or preferred not to answer.

FIGURE 14:

Availability of Quality Healthcare and Income

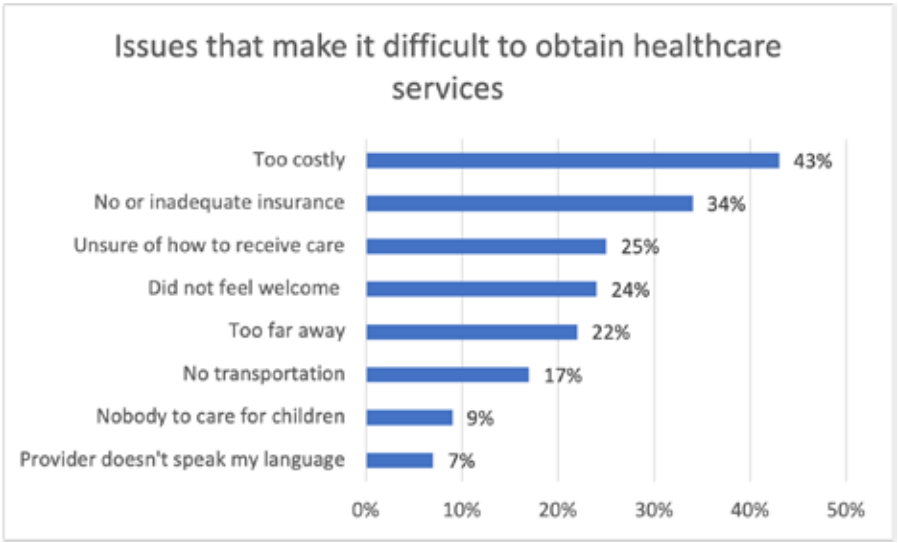


2023 Missouri State Health Assessment Survey. 2023 Missouri State Health Assessment Survey

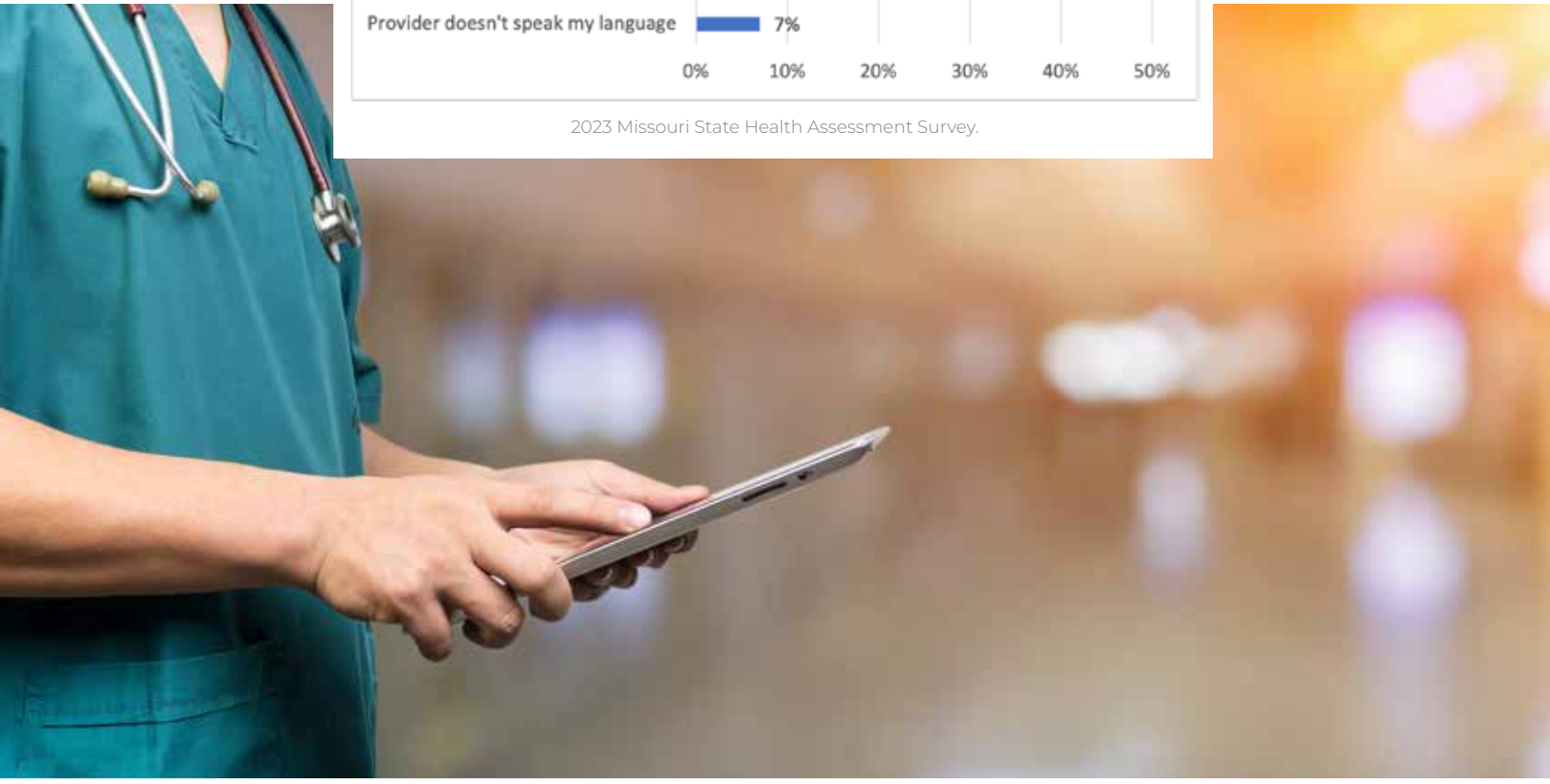
We also asked survey participants to identify the issues that make it difficult for them to obtain healthcare services (see figure below). The two most commonly selected were financial issues: the high cost of healthcare and lack of insurance to help pay for healthcare. The next most common barriers were participants not knowing how to get the care they need and not feeling welcome seeking care. Transportation issues were also often selected as participants reported that not having transportation was a barrier to receiving care as was the services being located too far away.

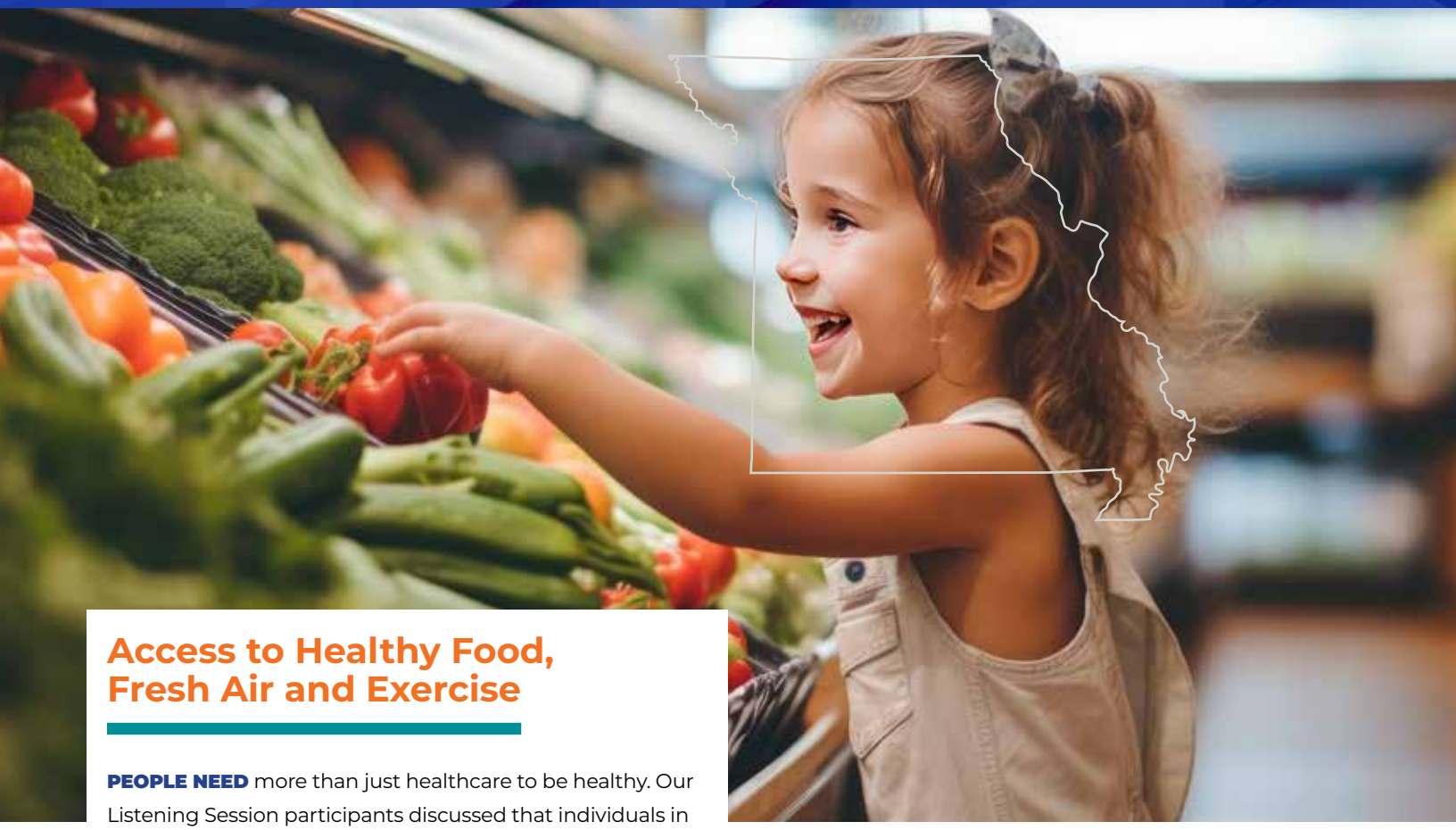
FIGURE 15:

Barriers to Receiving Healthcare Services



2023 Missouri State Health Assessment Survey.





Access to Healthy Food, Fresh Air and Exercise

PEOPLE NEED more than just healthcare to be healthy. Our Listening Session participants discussed that individuals in a healthy community need to have access to healthy food, fresh air and opportunities to exercise and have fun.

In terms of food, access to affordable and quality food in particular is important to health. This access is known as food security, which is the consistent ability of a household to have the financial and social ability to access enough varieties of nutritious food for each person to live a healthy and active life.[3] When Listening Session participants lacked food security, they described their neighborhoods and communities as food deserts, reflecting an inability to access healthy and affordable food inclusive of fresh fruits, vegetables and meat. Participants also talked about how many community members lack access to information and opportunities to be educated about nutrition, which is an aspect of health literacy. Health literacy can be thought of as the ability to find, understand and use information to make healthy choices. Participants emphasized that too often people lack an understanding about which foods are healthy or how to prepare and cook healthy foods.

Food banks were viewed across all Listening Sessions as a critical resource for providing a variety of foods to community members. At the same time, participants said food banks do not always have fresh fruits, vegetables and meat. Community gardens are one option for providing some residents with fresh vegetables, though Listening Session participants noted that affordable grocery stores with fresh and healthy foods are essential for community health.

In addition to healthy food, our Listening Session participants often discussed that having access to fresh air, nature, exercise and fun was important for people living in the community. This includes parks, community centers, neighborhood pools and more. These places provide residents with opportunities to get exercise, which is good for physical health. Additionally, they provide the chance to experience the outdoors and nature, which can contribute to positive mental health. Moreover, these locations offer the ability to socialize and interact with other people in the community. For these parks, community centers and pools to be truly accessible to the community, they need to be safe and clean. Additionally, people need to be able to easily travel to them through private or public transportation. Overall, when a community provides a variety of nutritious food and safe options for exercise and fun activities, the people living in that community have more opportunities to be healthy.

Access to Community Connections

LISTENING SESSION PARTICIPANTS often discussed that a healthy community is a place where community members are connected to each other. Healthy communities were described as cohesive communities. Participants described a healthy community as a place where neighbors care for each other, demonstrate support and acceptance of one another, and represent diverse social, professional, religious, racial and ethnic backgrounds. Participants discussed how an inclusive community creates opportunities for a safer, healthier and economically stable place to live. In a connected community, people know who their neighbors are, have access to community events and spaces, feel safe and can get around their community.

Participants discussed that connected communities often have good public transportation, maintained sidewalks and protected bike lanes. These elements help community members participate in community events and socializing. Connected communities have community centers, parks, pools and other places for children, adolescents, teens, adults and seniors to engage in activities and interact with each other. Listening Session participants discussed that connected communities often have programming related to the arts, athletics, music, history, cultural diversity, as well as education on emergency preparedness, healthy living and disease prevention. Connected communities provide a sense of safety so that individuals feel free to attend events and interact with each other. Connected communities have clean water and air, and parks, roads and sidewalks free of debris for safe participation in the community. They also allow all the different people in a community to interact, even if they represent different races, genders, religions, professions and more. As one Listening Session participants stated, "As I have gotten older, I realize that diversity is very important to the strength and health of a community. When I was growing

> *"As I have gotten older, I realize that* ***DIVERSITY*** *is very important to the strength and health of a community."*

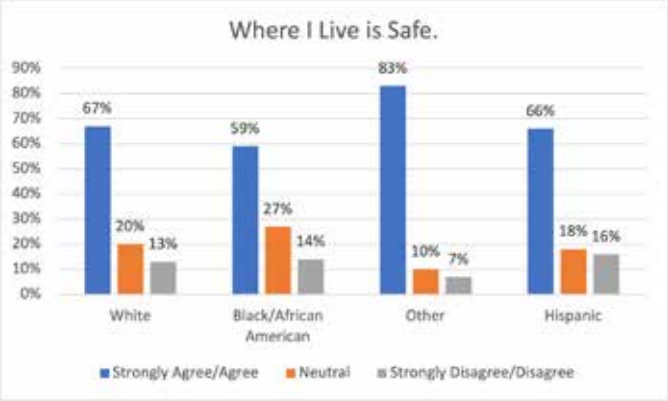
up it was mostly about diversity of religion and race. Now it is much more, and it is all important."

When considering community connections as part of a healthy community, Listening Session participants believed their communities should be welcoming and safe, made up of neighbors who are connected through shared spaces, actively participate in community programming and events, and have an abundance of methods to access opportunities and services with ease.

In our State Health Assessment Survey, 66% of all participants agreed that the place they lived in was safe.[4] Somewhat fewer Black respondents (59%) agreed that where they lived was safe compared to other racial/ethnic groups. Additionally, respondents who reported lower household incomes reported that they felt less safe where they lived than did respondents with higher incomes.

FIGURE 16:

Community Safety and Race/Ethnicity

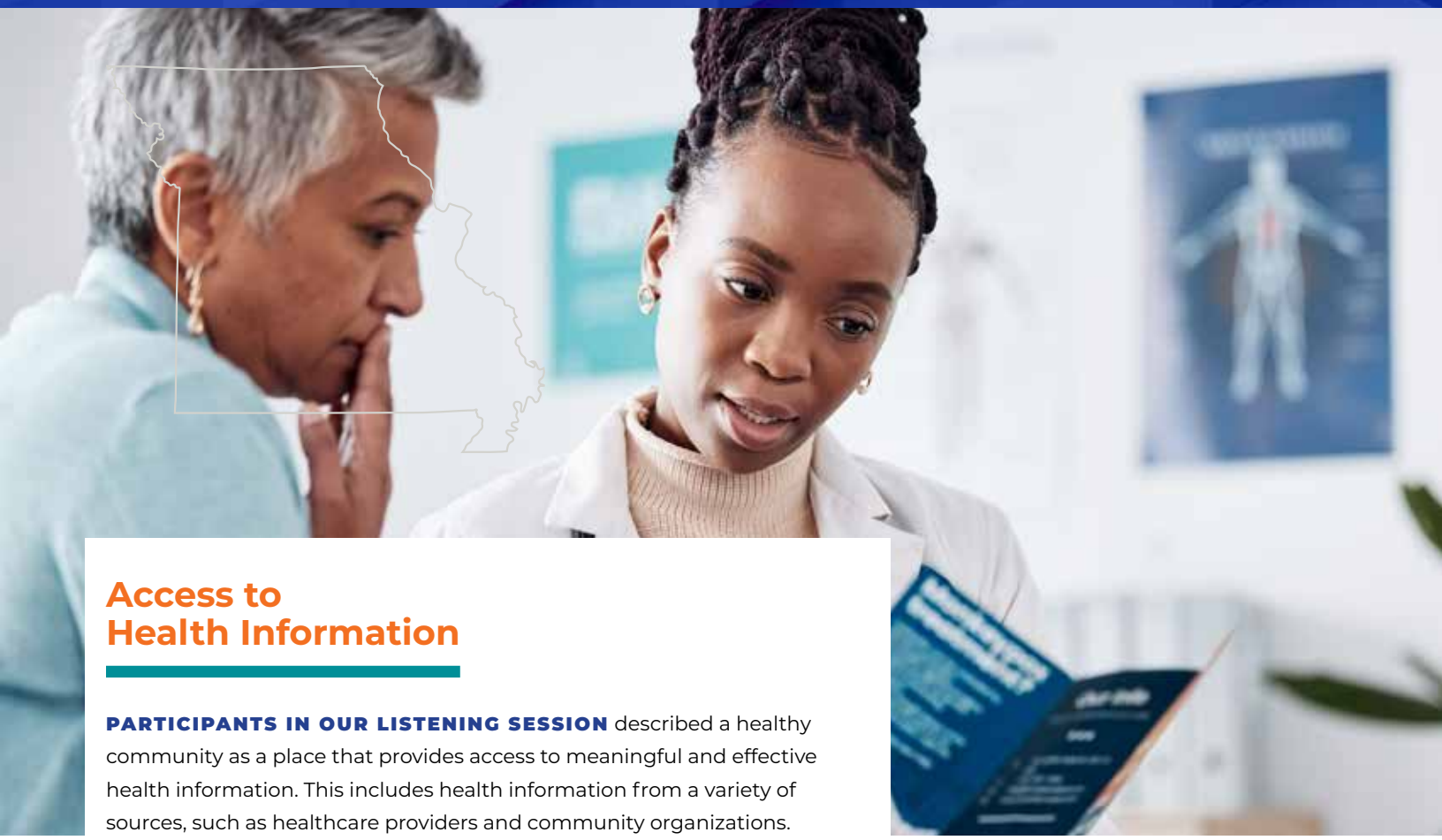


2023 Missouri State Health Assessment Survey. Note: The other category includes participants who identified as Asian, another race, multiple races, or did not know or preferred not to answer.

FIGURE 17:

Community Safety and Income

2023 Missouri State Health Assessment Survey



Access to Health Information

PARTICIPANTS IN OUR LISTENING SESSION described a healthy community as a place that provides access to meaningful and effective health information. This includes health information from a variety of sources, such as healthcare providers and community organizations.

Listening Session participants discussed three main components of useful health information: ease, variety and consistency. Ease of access to health information means that the information is not hard to find or understand. A variety of health information refers to the ability to gain health information from healthcare providers, healthcare organizations, community organizations, local businesses, government agencies, friends, family and more. Variety also refers to health information about different health topics and resources. This could include information ranging from how to prevent a specific disease to how to find community assistance with transportation to doctor's visits. Consistency of health information means that the needed information is always available and reliable.

Many of the participants in our Listening Sessions described barriers to accessing health information. These barriers included a lack of high-speed or broadband Internet access in many rural settings, which prevent participants from getting health information that could be useful online. Other participants described not knowing where to go to get the health information they need, including having trouble navigating complicated health information portals or understanding confusing messaging when accessing health information sources. Other participants discussed having difficulty understanding the information provided by healthcare providers. Some participants mentioned a disconnect between the communication styles of healthcare providers and "everyday folks." These encounters often left participants discouraged or prevented them from seeking out additional

3 Main Components of Useful Health Information:

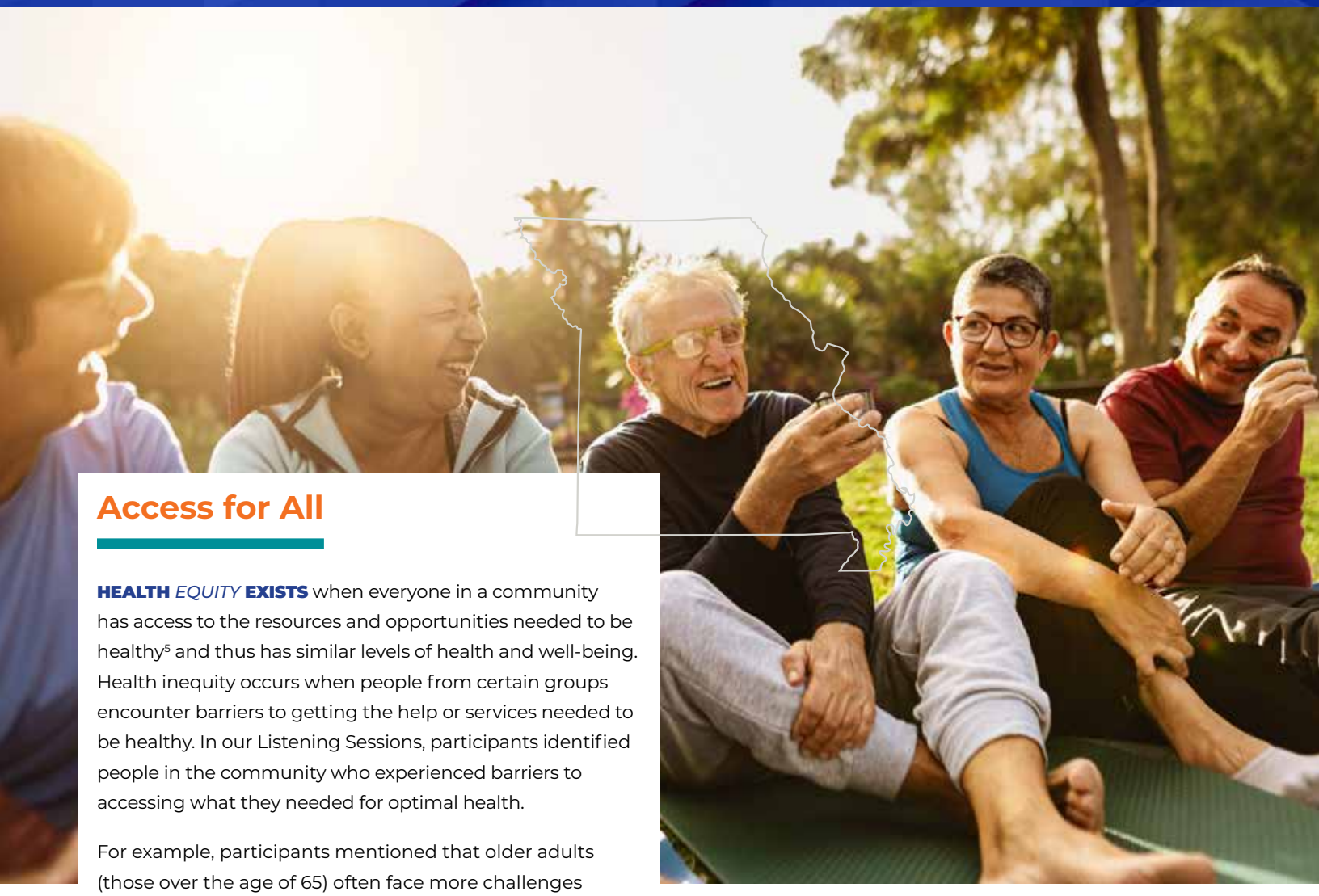
- **Ease** of access to health information means that the information is not hard to find or understand.
- **Variety** of health information refers to the ability to gain health information from healthcare providers, healthcare organizations, community organizations, local businesses, government agencies, friends, family and more. **Variety** also refers to health information about different health topics and resources.
- **Consistency** of health information means that the needed information is always available and reliable.

information, asking questions or feeling confident that they understood the healthcare instructions they had been provided. Participants also discussed the need for information that was culturally appropriate and available in a variety of languages.

When discussing access to health information, many participants expressed concern about health misinformation, or information that is wrong or misleading. Listening Session participants discussed the spread of misinformation on the internet and social media. Participants discussed how it can often be difficult to tell if online information was accurate. They also discussed how the current politically polarized environment often exacerbates misinformation, with one side having a specific belief about a health issue and another side having the opposite belief. The politicization of health issues in an environment of frequent misinformation has made accessing reliable health information and knowing what to trust difficult.

Participants provided suggestions about what good access to health information looks like. First, information should be offered in multiple formats – online, television, radio programs, brochures, newsletters, fliers, internet, text alerts, town hall meetings, public service announcements and educational programs. Participants also said that the information should be easy to understand and provided in multiple languages. Listening Session participants discussed the need for a centralized location to access information. These centralized sources of information could be facilitated by community organizations.

Listening Session participants discussed that reliable health information is especially important for their neighbors who are more vulnerable, experiencing the greatest barriers to health. Participants felt that when health information is offered by trusted sources, accessible in multiple formats and languages, and uses familiar terms, that there would be increased use of this content. Additionally, if health communication is consistent, flowing regularly between healthcare providers and individuals, as well as local and state organizations, it would lead to healthier communities.



Access for All

HEALTH *EQUITY* **EXISTS** when everyone in a community has access to the resources and opportunities needed to be healthy[5] and thus has similar levels of health and well-being. Health inequity occurs when people from certain groups encounter barriers to getting the help or services needed to be healthy. In our Listening Sessions, participants identified people in the community who experienced barriers to accessing what they needed for optimal health.

For example, participants mentioned that older adults (those over the age of 65) often face more challenges in being healthy than younger adults. Participants also mentioned that people of color, individuals with disabilities and folks with less income often have more challenges in accessing sufficient resources to be healthy. Additionally, individuals who are unhoused may have much more difficulty getting connected to health resources than do people with housing, which constitutes an inequity. People living in a rural part of the state may be much further away from health services and resources than others, which can cause inequities in health. Not having health insurance or being underinsured may also prevent people from getting the care they need to be healthy. Some pre-existing conditions, such as a substance use disorder or a mental health disorder, may put people at a disadvantage for accessing healthcare, which can cause inequities.

Participants often described the barriers experienced by those who lack adequate insurance. For example, participants discussed the difficulty in being healthy when an insurance plan does not cover needed services, like mental health counseling or psychiatric services. Other participants discussed high deductibles that prevent individuals from accessing needed health services. Each of these scenarios can result in barriers to resources and services needed for better health outcomes. Thus, not having sufficient income or healthcare coverage can result in a significant inequity in which folks who fall into these categories do not have the same opportunities for health than do Missourians with more money and insurance.

After we learned which groups in Missouri communities were impacted most by health barriers, we asked participants if they believed health equity mattered and why. Our Listening Session participants discussed that health equity is important because having access to the resources necessary to be healthy is a basic right, from their perspectives. Further, participants believe that when all individuals have access to adequate health resources

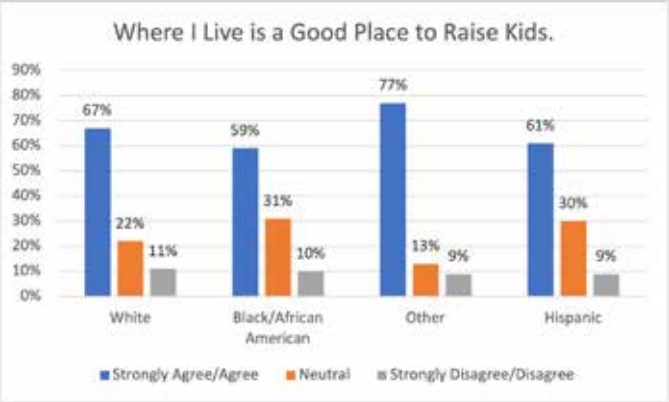
> *"Health begets health; more people being healthy makes us a better community and a stronger society."*

and services it creates a healthier community. One Listening Session participant explained: "Health begets health; more people being healthy makes us a better community and a stronger society." Across our Listening Sessions, participants knew other people in their lives who were at a disadvantage to being healthy, and our participants expressed a desire for changes that would eliminate these existing inequities and allow more Missourians to be as healthy as possible.

As part of our State Health Assessment Survey, we asked participants if they thought their community was a good place to raise kids, a good place to grow old, and a place that was diverse and inclusive. Participants with higher income were more likely than those with a lower income to agree that their community was a good place to raise kids and a good place to grow old. Regarding community diversity and inclusivity, white participants were less likely to believe that their community was diverse and inclusive than participants from other racial and ethnic groups.

FIGURE 18:

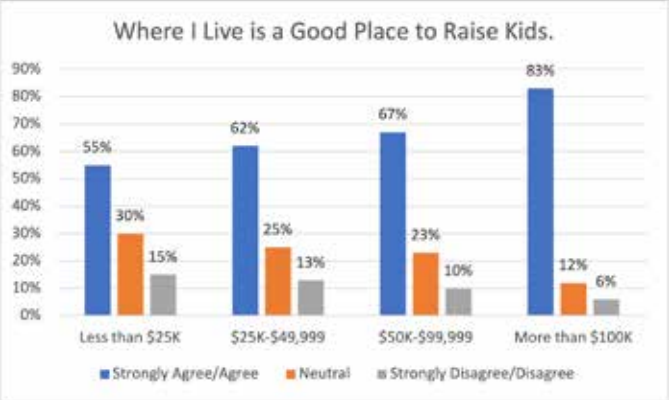
Raising Children in Community and Race/Ethnicity



2023 Missouri State Health Assessment Survey. Note: The other category includes participants who identified as Asian, another race, multiple races, or did not know or preferred not to answer.

FIGURE 19:

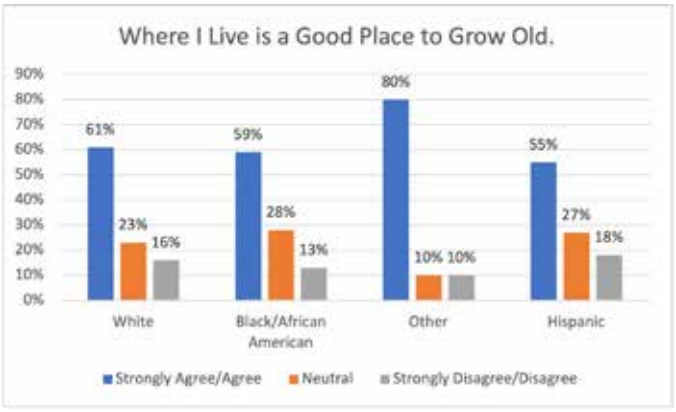
Raising Children in Community and Income



2023 Missouri State Health Assessment Survey

FIGURE 20:

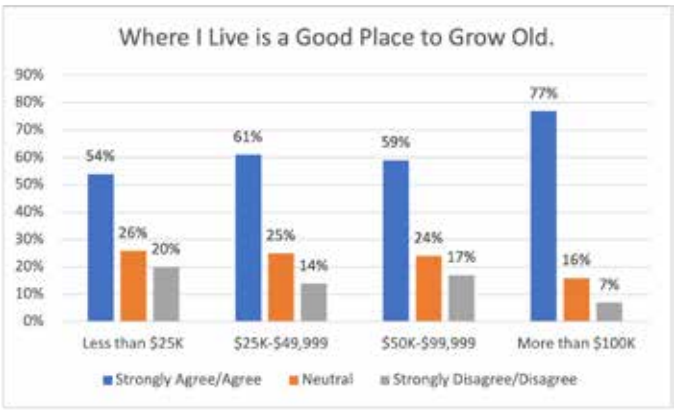
Growing Old in Community and Race/Ethnicity



2023 Missouri State Health Assessment Survey. Note: The other category includes participants who identified as Asian, another race, multiple races, or did not know or preferred not to answer.

FIGURE 21:

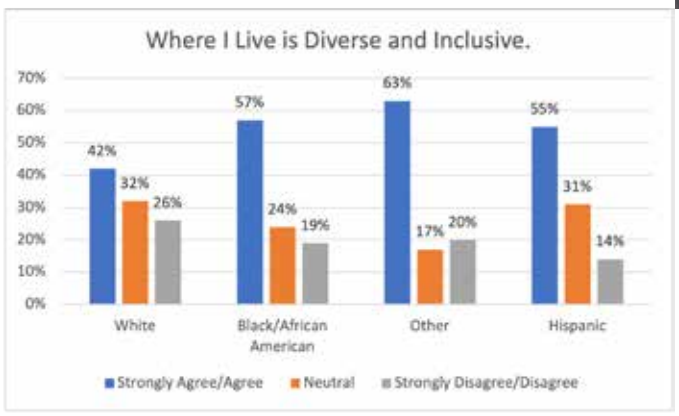
Growing Old in Community and Income



2023 Missouri State Health Assessment Survey

FIGURE 22:

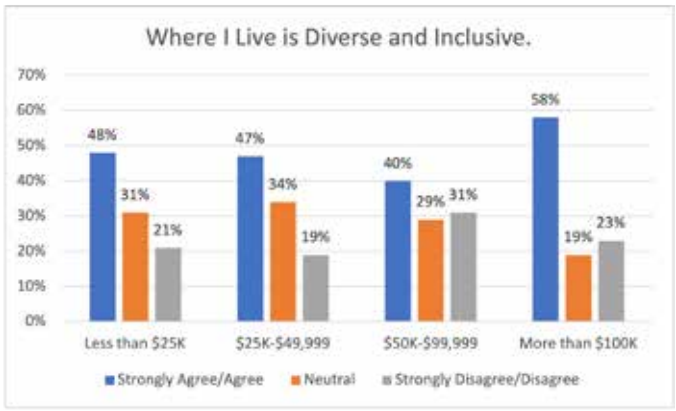
Community Diversity/ Inclusivity and Race



2023 Missouri State Health Assessment Survey. Note: The other category includes participants who identified as Asian, another race, multiple races, or did not know or preferred not to answer.

FIGURE 23:

Community Diversity/ Inclusivity and Income



2023 Missouri State Health Assessment Survey

Access to Community Health Organizations and Services

IN A HEALTHY COMMUNITY, a variety of organizations provide resources and information to help support community health. This includes government agencies, nonprofit organizations, businesses, faith-based institutions and more. Our Listening Session participants often discussed the groups in their communities that were active in supporting the health of Missourians across the state.

For example, local public health agencies (LPHAs) were often mentioned by Listening Session participants as providing health resources for community members. There are 115 LPHAs across Missouri and each is independently operated by an elected board of trustees or elected local government officials. Therefore, local public health agencies function independently of each other and separately from the state and federal government. However, LPHAs do work collaboratively with the Missouri Department of Health and Senior Services and a variety of federal entities to enhance public health initiatives.

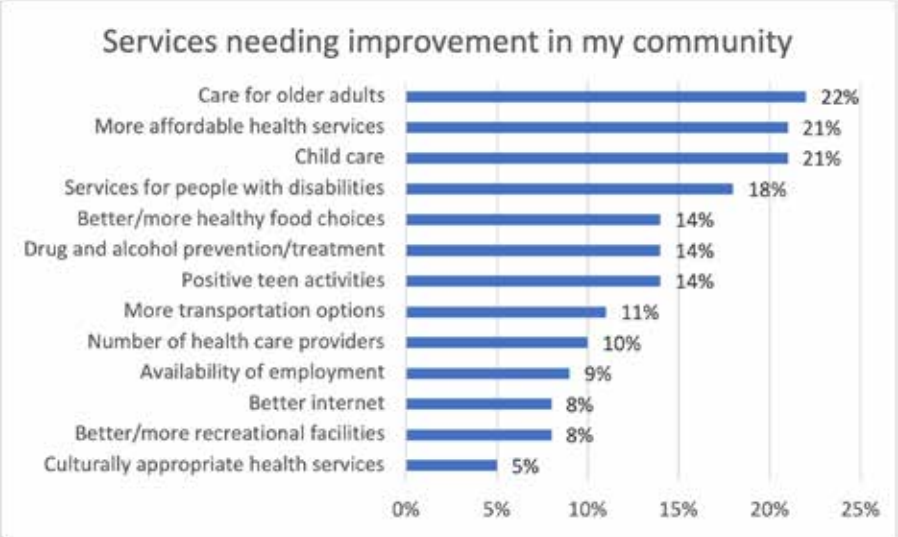
Listening Session participants mentioned that LPHAs often provide immunizations, wellness and prevention services, early childhood screenings and oral health care. Participants also mentioned that LPHAs sometimes coordinate local health fairs for the community. One Listening Session participant described a community health fair as "one-stop shopping" for health resources and information. Community health fairs can include a variety of groups who provide resources and services that can impact community health, including representatives from medical care, social service organizations, community organizations and more.

Beyond LPHAs, our Listening Session participants discussed many different organizations in the community that can have a positive impact on health. These are organizations in addition to healthcare organizations such as hospitals, clinics and more that have previously been discussed. Important community health organizations can include mental health service providers, substance use and recovery agencies, infant and maternal health groups, child-serving organizations, violence prevention programs, community centers, housing authorities, organizations providing financial assistance and transportation, sexual health groups, food banks, immigration groups, community gardens, faith-based institutions and more. Many of these groups provide some health services such as testing, screenings and prevention programs. Others help people access healthcare settings by providing transportation, funding or other support. Community organizations also often provide information about health issues or accessing health services.

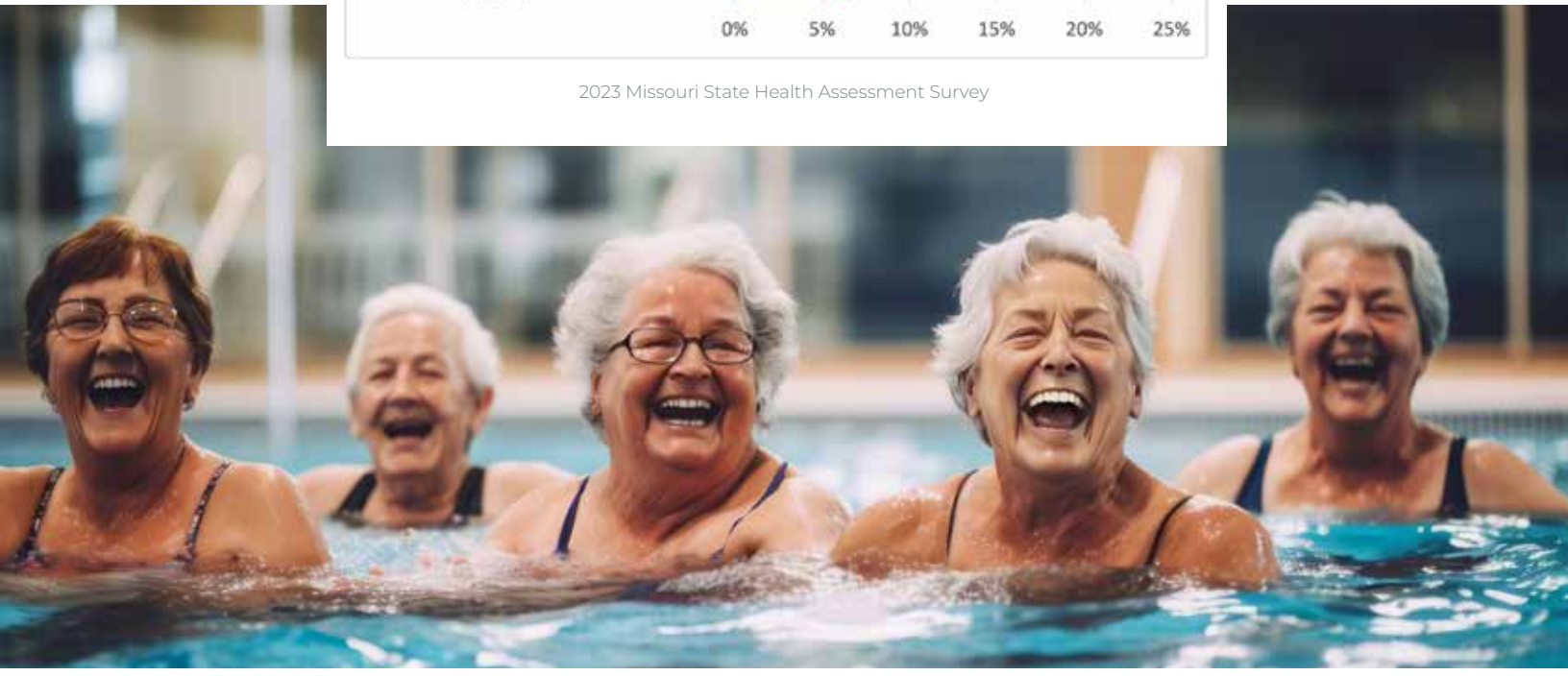
As part of the State Health Assessment Survey, participants were provided a list of 13 different services that can help support community health. They were then asked to list up to three service needs in their community that need the most improvement. The figure below shows the services that were most often selected by participants as needing improvement in their community. Participants most often identified needing more care for children, older adults and individuals with disabilities. Needing more affordable healthcare was also often mentioned by participants. Additionally, more healthy food choices, drug and alcohol prevention and treatment, and positive teen activities were selected by participants, illustrating the variety of services that are important for a healthy community.

FIGURE 24:

Services in Need of Improvement



2023 Missouri State Health Assessment Survey



MISSOURI
Health by the Numbers

SECTION III:

State of Missouri Health by the Numbers

Understanding the health of Missourians is necessary to identify the programs, policies and strategies that are needed to support or improve well-being across the state. In this section, we present population health data to provide insights about Missouri's health issues and needs. We also provide information about Missouri's health disparities, defined as the way health issues differ based on race/ethnicity, sex, age and the part of the state in which people live. The health data we review transcends mere numbers, encapsulating the lived experiences, challenges and successes of Missouri communities. These data help tell the story of Missouri's health. Understanding the health and well-being of Missourians is the cornerstone upon which effective public health initiatives are built. This section begins with data about Missourians' perception of their overall health and then reviews specific health conditions and issues.

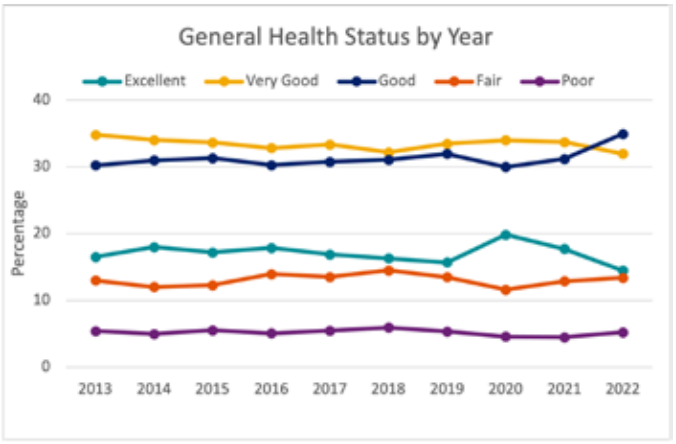
General Health Status

General health status refers to an overall assessment of a person's health. Missourians' perceptions of general health status for 2013 through 2022 are presented on the following page. These data come from Missouri's Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is an ongoing phone survey of adults that is conducted across the U.S. and is supported by the Centers for Disease Control and Prevention (CDC).[1] The survey collects information on health conditions, behaviors, preventive practices and access to health care. Annually, thousands of Missourians participate in the Missouri BRFSS. Households are randomly selected to participate in the survey using landline and cell phone numbers. BRFSS data are included throughout this section of the Missouri State Health Assessment.

To assess general health status, BRFSS survey participants were asked: "Would you say that in general your health is excellent, very good, good, fair, or poor?" Figure 25 on the following page shows the results for this question from 2013-2022. In this survey, the percentage of people reporting that their general health was "excellent" decreased from 17.7% in 2021 to 14.5% in 2022.[2] This is a statistically significant 3.2 percentage point decrease.

FIGURE 25:

General Health Status by Year

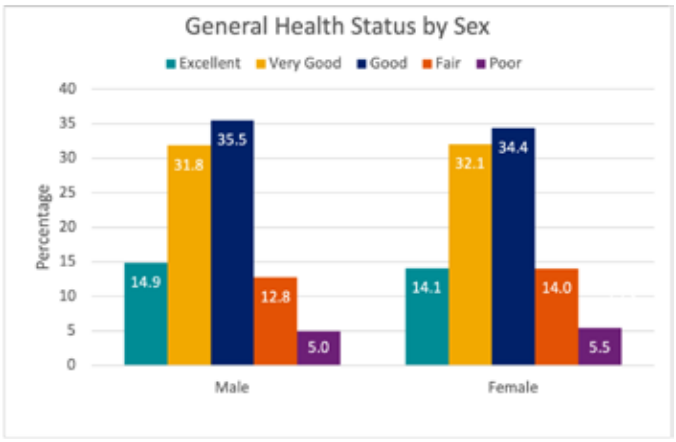


Source: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2013-2022.

Figure 26 shows general health status broken down for male and female survey respondents. In these results, females more often described their general health as "fair" or "poor" compared to males.[2]

FIGURE 26:

General Health Status by Sex

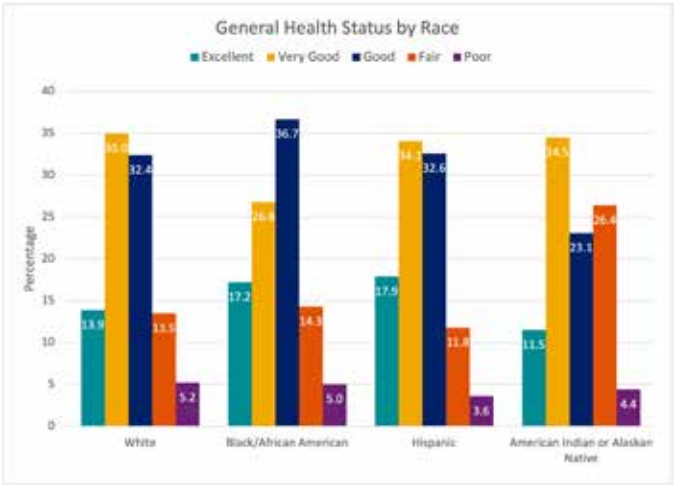


Source: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2022.

Finally, the Missouri County-Level Study (CLS) asked the same general health question of survey participants in 2011, 2016 and 2022. The CLS is another phone survey about health issues that is conducted across the state.[3] It is a much larger survey than BRFSS and therefore allows for more geographic and demographic analysis, but it is not conducted as often. 2022 CLS data are shown in the figure below, broken down by race/ethnicity.

FIGURE 27:

General Health Status by Race/Ethnicity



Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS) 2022

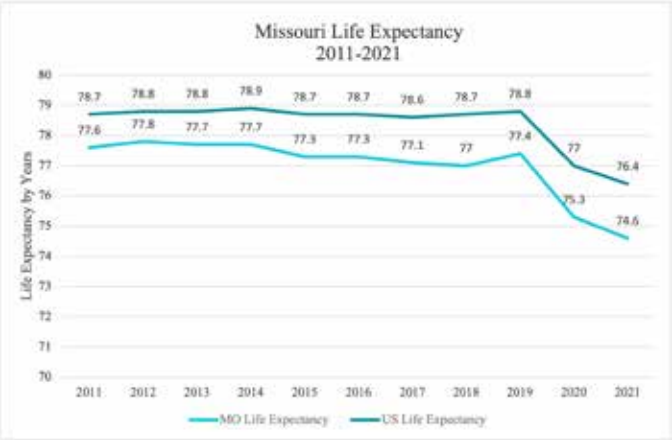
Life Expectancy

Life expectancy is the average number of years a person can expect to live.[4] Higher rates of life expectancy can mean that people have access to better healthcare, engage in healthier lifestyles and have more resources overall.[5]

As of 2021, the average life expectancy of the United States population was 76.4 years,[6] which was greater than Missouri's average of 74.6 years.[7] As shown in the figure below, Missouri's life expectancy has remained lower than the U.S. average between 2011 and 2021. The U.S. and Missouri life expectancy trend lines were largely consistent through 2019, only to decrease drastically in 2020 and 2021. The CDC indicates that 62% of this decline in life expectancy beginning in 2020 was a result of the loss of life due to the COVID-19 pandemic.[8]

FIGURE 28:

Life Expectancy of Missouri and the U.S.

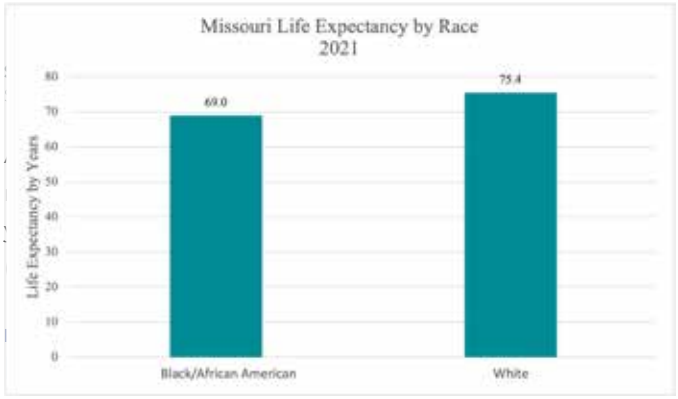


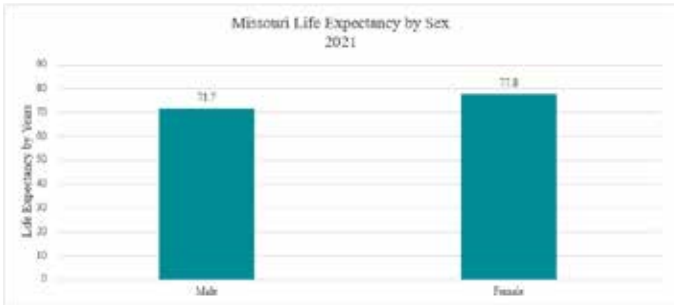
Sources: Missouri Department of Health and Senior Services, Vital Statistics and Population Statistics and the National Center for Health Statistics.

As of 2021, the St. Louis and Kansas City metropolitan areas had the highest life expectancies at 75.2 and 75.6 years, respectively.[7] The Southeast region of the state had the lowest life expectancy of 71.5 years. Examining life expectancy by race, Black/African American Missourians had an average life expectancy of 69.0 years, whereas white Missourians had an average life expectancy of 75.4 years of age.

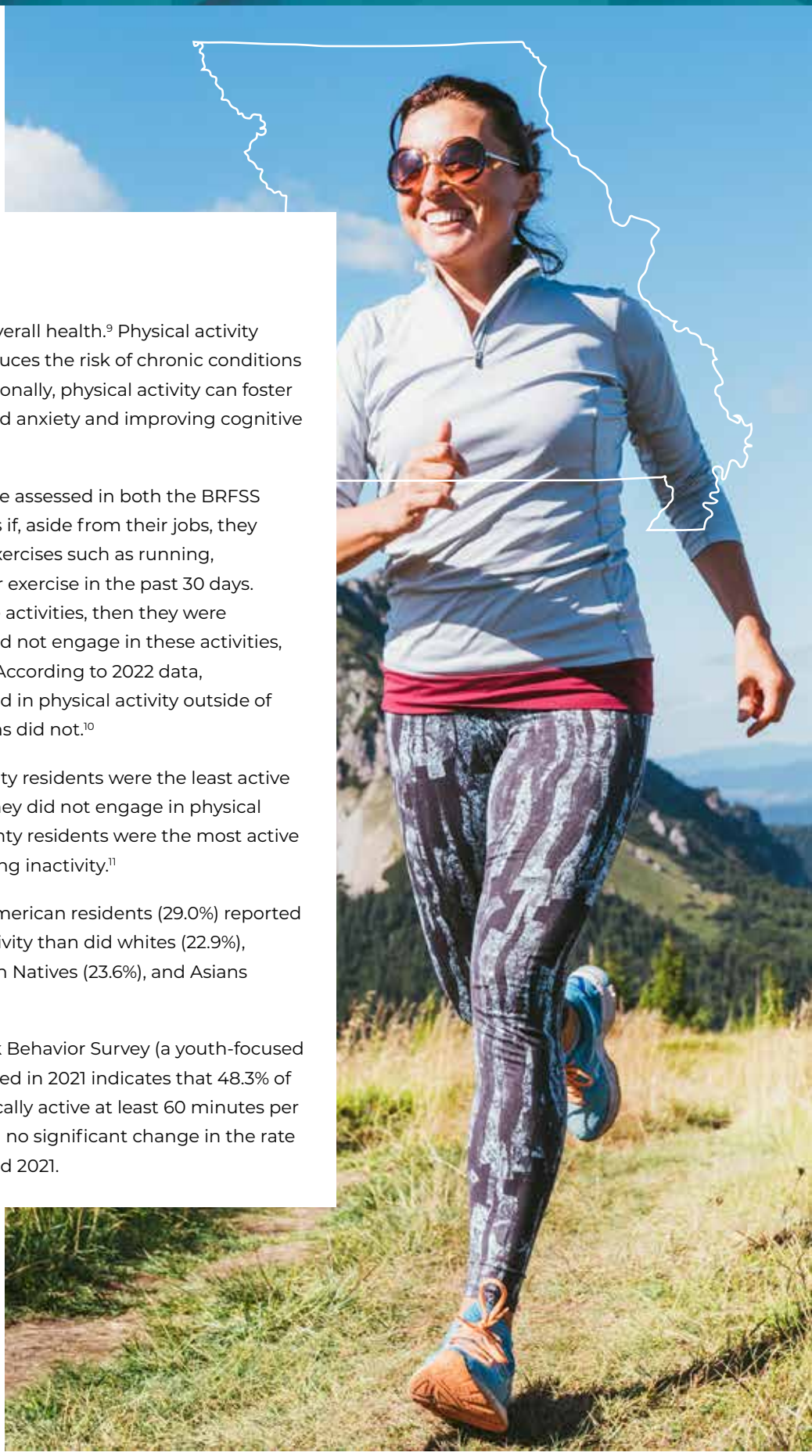
FIGURE 29:

Missouri Life Expectancy by Race





Sources: Missouri Department of Health and Senior Services, Vital Statistics and Population Statistics.



Physical Activity

PHYSICAL ACTIVITY is important for overall health.[9] Physical activity supports cardiovascular health, which reduces the risk of chronic conditions such as heart disease and diabetes. Additionally, physical activity can foster good mental health by reducing stress and anxiety and improving cognitive function overall.

Physical activity levels for Missourians were assessed in both the BRFSS and CLS. These surveys asked participants if, aside from their jobs, they participated in any physical activities or exercises such as running, calisthenics, golf, gardening or walking for exercise in the past 30 days. If participants reported engaging in these activities, then they were considered physically active, and if they did not engage in these activities, they were considered physically inactive. According to 2022 data, approximately 75% of Missourians engaged in physical activity outside of work, while slightly over 25% of Missourians did not.[10]

Among all counties in 2022, Dunklin County residents were the least active with 40.7% of individuals reporting that they did not engage in physical activity outside of work, while Boone County residents were the most active overall with only 15.9% of residents reporting inactivity.[11]

Regarding race/ethnicity, Black/African American residents (29.0%) reported significantly higher rates of physical inactivity than did whites (22.9%), Hispanics (19.7%), American Indian/Alaskan Natives (23.6%), and Asians (19.5%).[11]

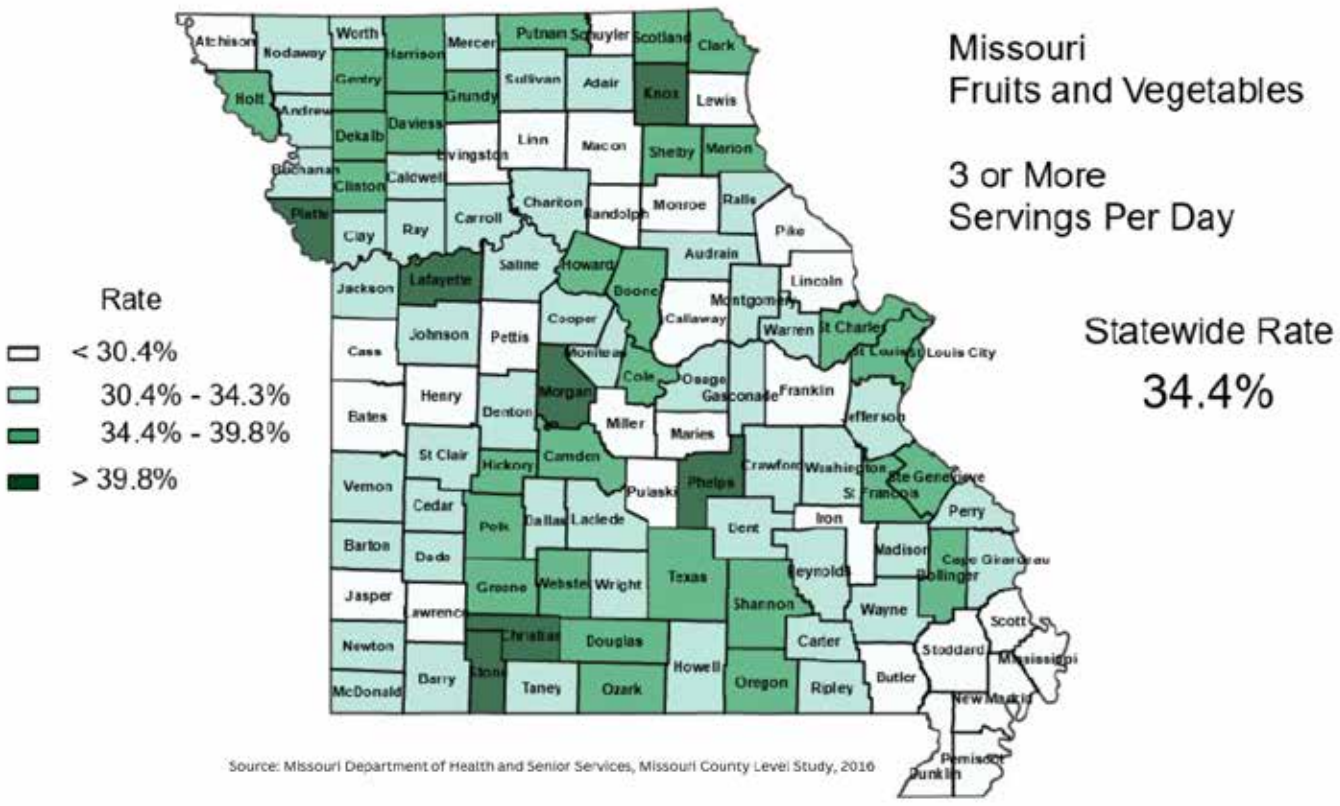
Information obtained from the Youth Risk Behavior Survey (a youth-focused health and risk behavior survey)[12] conducted in 2021 indicates that 48.3% of Missouri high school students were physically active at least 60 minutes per day for five or more days[13]. There has been no significant change in the rate of youth physical activity between 2013 and 2021.

Healthy Eating

A HEALTHY LIFESTYLE includes eating a healthy diet. Good nutrition is fundamental to development early in life and avoiding illness and disease across the lifespan. One of the main risk factors contributing to developing a chronic illness is poor nutrition.[14] According to the CDC, people can reduce their risk of chronic illness by adopting a diet filled with adequate daily servings of fruits and vegetables. The USDA Dietary Guidelines for Americans, 2020-2025, suggests eating two and a half cups of vegetables and two cups of fruit daily.[15] Furthermore, a diet low in sugar, sodium and saturated fat is more likely to increase longevity.

The map below reflects rates of fruit and vegetable consumption by county, with the darkest green color indicating counties where 39.8% or more of the population ate three or more servings of fruits and vegetables daily and the lightest (white) color indicating counties where less than 30.4% of residents ate three or more servings of fruits and vegetables per day.[16]

FIGURE 31:
Missouri Fruits and Vegetable Servings



Preventable Hospitalizations

Preventable hospitalizations are instances where hospital admissions could have been potentially avoided through effective preventative and primary healthcare measures.[17] Rates of preventable hospitalization provide insight into barriers experienced by Missourians related to accessing quality health care, providers, services and programs. Tracking preventable hospitalizations helps identify which Missourians are experiencing these healthcare barriers. This information can help communities eliminate health inequity related to receiving and accessing adequate management and treatment of health conditions before a hospital admission becomes necessary.

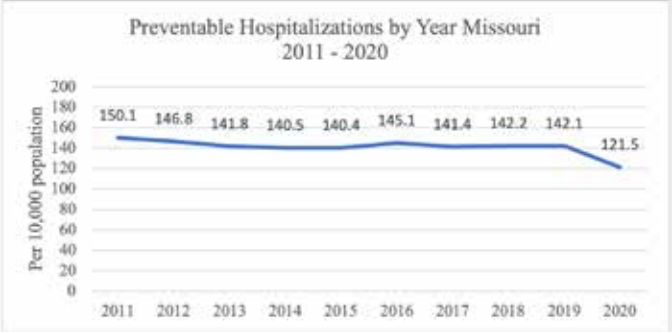
In Missouri, the number of preventable hospitalizations declined from 2011-2015. In 2016 there was a slight increase before dropping back down between 2017-2019.[18] In 2020, there was a more significant decrease of 14.6% in the preventable hospitalization rate. This was part of a general pattern of lower volume of hospital visits that can be attributed to the COVID-19 pandemic.

Compared to males, females had a higher rate of preventable hospitalizations over the 10-year period (146.5 versus 136.0 per 10,000 population).[18]

Preventable hospitalizations between 2011 and 2020 were most likely to occur due to dehydration, diabetes, bacterial pneumonia, chronic obstructive pulmonary disease (COPD) and cellulitis.[18]

FIGURE 32:

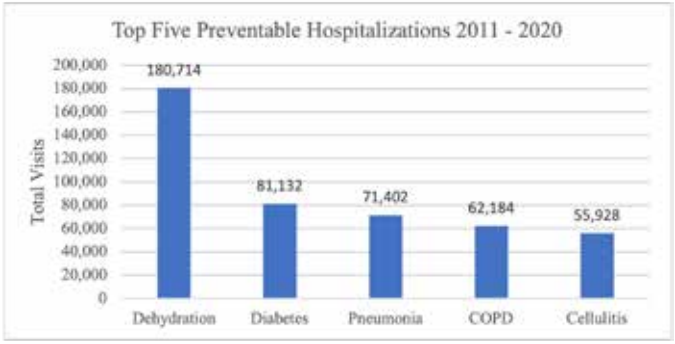
Preventable Hospitalization Rates



Source: Missouri Department of Health and Senior Services, Patient Abstract System. Note: Age-adjusted rates per 10,000 population.

FIGURE 33:

Top Five Preventable Hospitalizations



Source: Missouri Department of Health and Senior Services, Patient Abstract System.

Environmental Health

There are many aspects of the environment that can impact health. For example, exposure to poor air quality and pollutants such as lead are environmental factors that can contribute to the development of various health problems.

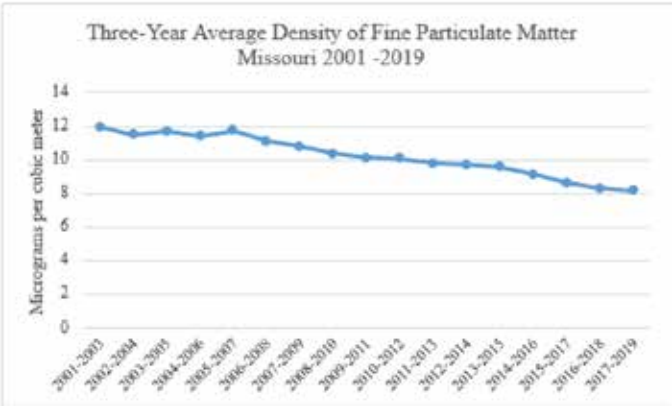
Air Pollution

All Missourians need clean air, as air pollution can harm children and adults. Air pollution has been associated with respiratory disorders, cancer and cardiovascular disease.[19] Air pollutants include inhalable particulate matter such as soot, dust, smoke and liquid droplets that come from both human-caused and natural sources, such as power plants, automobile exhaust and wildfires. Fine particulate matter can be breathed deeply into the lungs and may even enter the bloodstream.

The air that Missourians breathe is cleaner now than 20 years ago. From 2001-2019, the three-year average density of fine particulate matter in outdoor air, has decreased by 31.8%.[20] The 2001-2003 statewide average was 11.9 micrograms/cubic meter (µg/m3) and for 2017-2019 declined to 8.2 µg/m3.

FIGURE 34:

Three-Year Average Density of Fine Particulate Matter



Source: National Environmental Public Health Tracking. https://ephtracking.cdc.gov/DataExplorer. Accessed on 09/06/2023.

Lead Poisoning

Lead poisoning is one of the most common and preventable environmental health pollutants. Lead is found on surfaces, is airborne and can be absorbed, ingested or inhaled. Exposure to lead causes negative health effects, because once in the body it is immediately absorbed into the bloodstream. Lead poisoning impacts children more severely than adults because a child's body absorbs up to five times more lead.[21] The negative impact on a child's health can cause damage to the nervous system as well as auditory and verbal disorders.[22] People with the greatest risk of lead exposure are those who live in housing built before 1950. In Missouri, 18.5% of housing units were built before 1950, which is above the U.S. national average of 17.2%.[23]

Lead poisoning is detected through a blood test. In 2011, among the children less than 72 months of age who were screened, 6.1% had elevated blood lead levels. Ten years later, only 2.3% of children less than 72 months of age who were tested had elevated blood lead levels.[23]

Chronic Disease

CHRONIC DISEASES are the number one cause of disability and death[24] and include the most expensive and preventable health issues in the United States.[25] A health condition is chronic when it lasts for one or more years and requires ongoing healthcare provider monitoring. Chronic disease also may interfere with an individual's ability to complete daily routines.

Heart disease and cancer are chronic degenerative diseases that have been the leading causes of death in the United States and in Missouri for decades.[26] Other chronic diseases are obesity, diabetes and Alzheimer's disease. This next section takes a closer look at the rates of chronic disease experienced by Missourians.

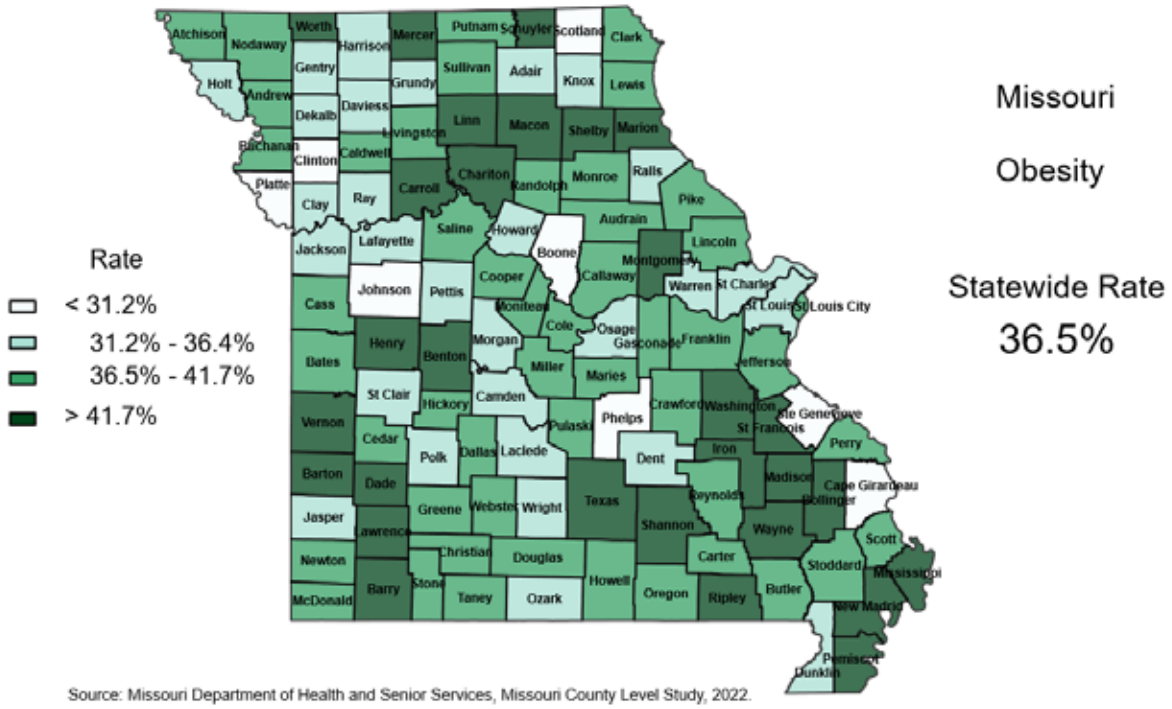
Obesity

Obesity is characterized by a body mass index (BMI) of 30 or higher. Obesity is a complex disease of multiple etiologies with far-reaching implications for an individual's health. Those who fall into the category of obese face a heightened risk of severe health issues, both as exacerbations of existing conditions and as susceptibility to new, potentially perilous illnesses. This complexity arises from a web of contributing factors, encompassing family genetics, prenatal care, environmental circumstances, social influences and personal behaviors.[27]

Obesity represents one of the most significant public health concerns in the United States, and Missouri had the 16th highest adult obesity rates among all states. Despite significant efforts to curb obesity over the last ten years, obesity rates have steadily increased in Missouri. In 2011, an average of 29.4% of Missourians were identified as being obese, while in 2022 the average increased to nearly 37%.[2] The figure on the next page shows rates of obesity by county compiled from the 2022 CLS survey. Counties shown in lighter shades of green to white have lower percentages of obesity than counties with darker shades of green.

Data from the 2022 CLS showed that Schuyler County, located in the Northeast region of the state, has the highest average rate of obesity (49.5%), while Ste. Genevieve County, located in the Southeast region, is the county with the lowest obesity prevalence in Missouri (26.3%).[16]

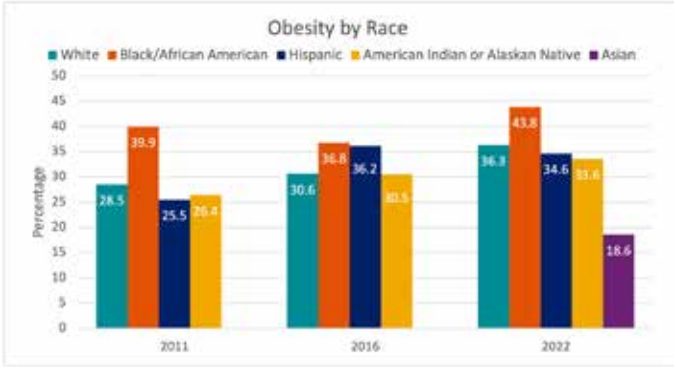
FIGURE 35:
Missouri Obesity



Source: Missouri Department of Health and Senior Services, Missouri County Level Study, 2022.

Data from 2022 highlighted significant disparities in obesity rates among different racial and ethnic groups within Missouri. Black/African American residents exhibit the highest prevalence of obesity at 43.8%, surpassing white residents (36.3%), Hispanic residents (34.6%), American Indian/Alaskan Native residents (33.6%), and Asian residents (18.6%).[16] Hispanic residents have witnessed the most significant increase in obesity rates over the years, with a rise from 25.5% in 2011 to 34.6% in 2022.

FIGURE 36:
Obesity by Race



Sources: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS) 2011, 2016 and 2022.

Diabetes

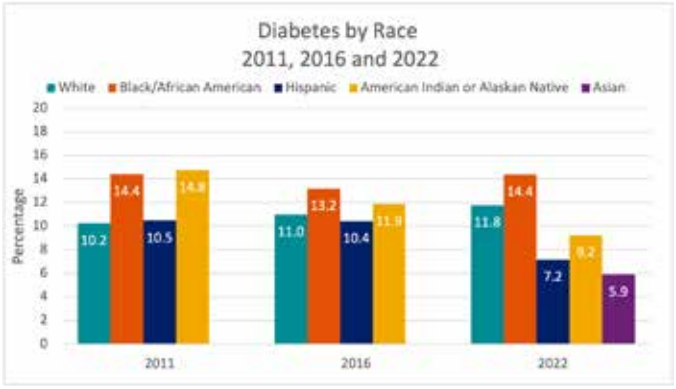
The interrelationship between obesity and diabetes is a complex and closely intertwined health phenomenon.[28] Obesity significantly increases the risk of developing Type II diabetes (T2D), as excess body fat can lead to insulin resistance and subsequently, elevated blood sugar levels (hyperglycemia) by which diabetes is defined. Many of the chronic health conditions that are associated with obesity are consequential to the effects of chronic hyperglycemia. While these two conditions are strongly related and the risk of diabetes is increased with obesity, diabetes prevalence has remained largely unchanged over the last ten years.

In 2011, 10.7% of the population had been diagnosed with diabetes and in 2022 this rate increased by only one percentage point to 11.7%.[29] In 2022, Reynolds County had the highest prevalence of diabetes among all Missouri counties, 22.6%; whereas Phelps County, located in the Central region of Missouri, reported the lowest prevalence at 6.8%.

Disparities in diabetes rates exist among different racial and ethnic groups within Missouri. Diabetes was more prevalent among Black/African American residents in 2022, affecting 14.4% of this demographic, compared to American Indian/Alaskan Native residents (9.2%), white residents (11.8%), Hispanic residents (7.2%), and Asian residents (5.9%).[11] American Indian/Alaskan Native residents witnessed a notable decrease in diabetes rates, declining from 14.8% in 2011 to 9.2% in 2022. Additionally, diabetes rates decreased among Hispanic residents since 2011, with a 3 percentage point reduction, while white Missourians experienced a 1.6 percentage point increase over the same period.

FIGURE 37:

Diabetes by Race



Sources: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2011, 2016 and 2022.

Diabetes rates for males in 2022 was 11.9%, which was slightly higher than females at an average of 11.5%.[10] Finally, 11.7% of non-diabetic Missourians have been diagnosed with pre-diabetes or borderline diabetes.[30]

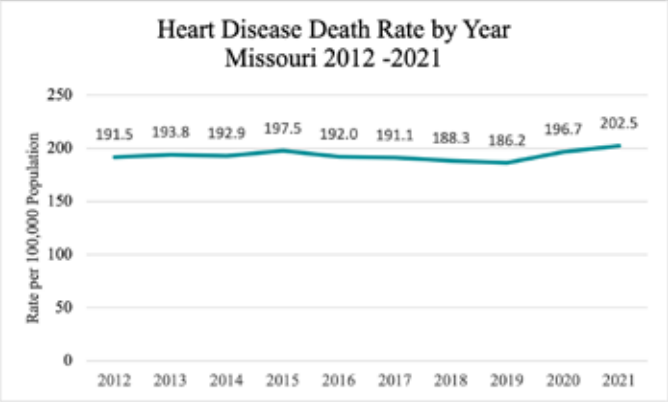
Heart Disease

The leading cause of death in the United States[31] and Missouri[32] is heart disease. There has been a 5.7% increase in heart disease death rates over the last ten years. Since 2012, the rate of death from heart disease was lowest in 2019 and increased in the two years that followed, reaching an all-time high in 2021.

The 20 Missouri counties with the highest heart disease death rates are in rural regions of the state. Pemiscot County, in the Southeast portion of the state, had the highest heart disease death rate in Missouri from 2012-2021.[32]

FIGURE 38:

Heart Disease Death Rate

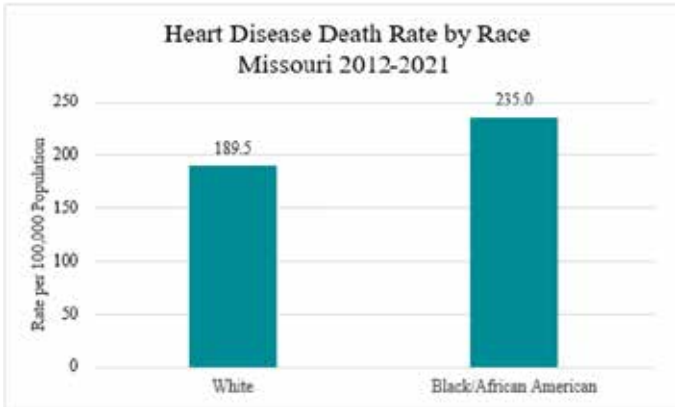


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

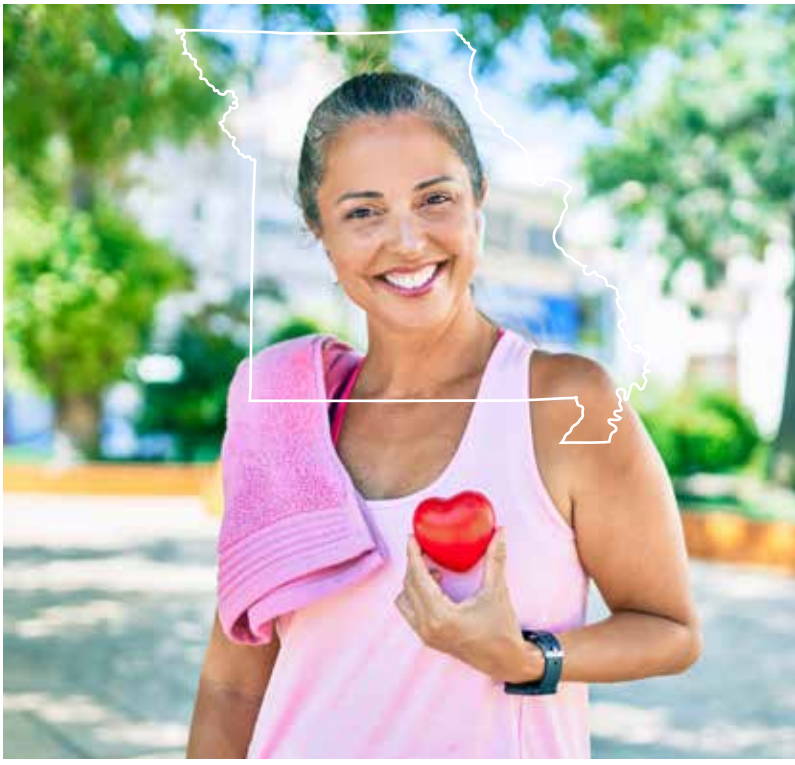
Rates of death due to heart disease were 24% higher for Black/African American residents than white residents.[32] Male heart disease death rates were 61% higher than females.

FIGURE 39:

Heart Disease Rate by Race



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

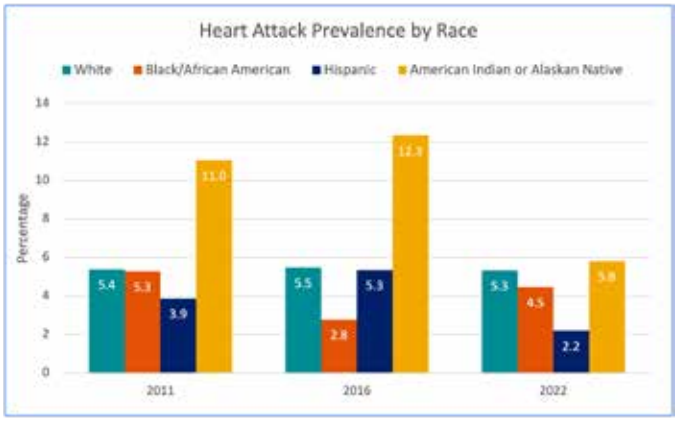


Heart Attack and Stroke

According to the 2022 CLS, 5.2% of living Missourians had previously experienced a heart attack and 3.7% had experienced a stroke, rates which have not changed significantly between 2011 and 2022.[10] Among all Missouri counties in 2022, Wayne County had the highest reported rate of residents who had previously suffered a heart attack (12.5%) and Ripley County had the highest stroke prevalence (11.1%). Conversely, the county with the lowest rate of residents who have experienced a heart attack is Lincoln County at 2.6% and the county with the lowest rate of stroke is Ozark County at 1.1%.

FIGURE 40:

Heart Attack Prevalence by Race

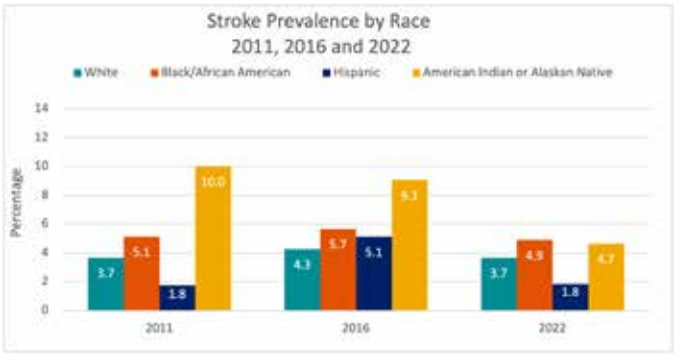


Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2011, 2016 and 2022.

In 2022, the prevalence of heart attack amongst males (6.6%) was significantly higher than it was in females (3.8%).[10] There was a negligible difference in the prevalence of stroke between males (3.9%) and females (3.6%) in the same year.

FIGURE 41:

Stroke Prevalence by Race



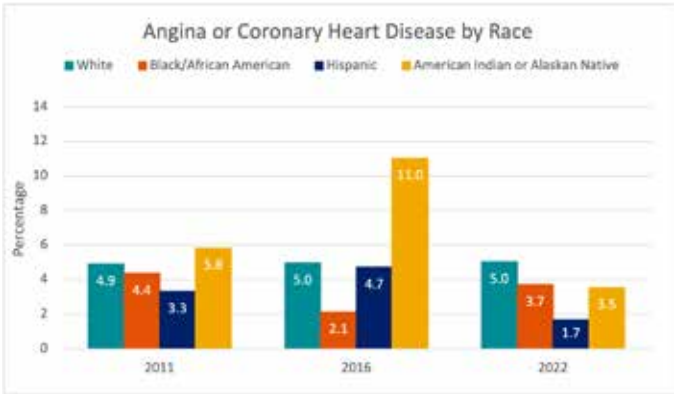
Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2011, 2016 and 2022.

Coronary Heart Disease

Angina and coronary heart disease (CHD) are crucial facets of cardiovascular health. The overall prevalence of angina or coronary heart disease among Missourians in 2022 was 4.8%.[10] Carter County in Southeast Missouri had the highest prevalence in 2022 at 14.0% and Platte County had the lowest prevalence at 2.8% of residents. In 2022, the reported rates of angina or coronary heart disease were lowest among Hispanic residents, at 1.7%. White residents experienced the highest rates, at 5.0%.

FIGURE 42:

Angina or Coronary Heart Disease by Race



Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2011, 2016, and 2022.

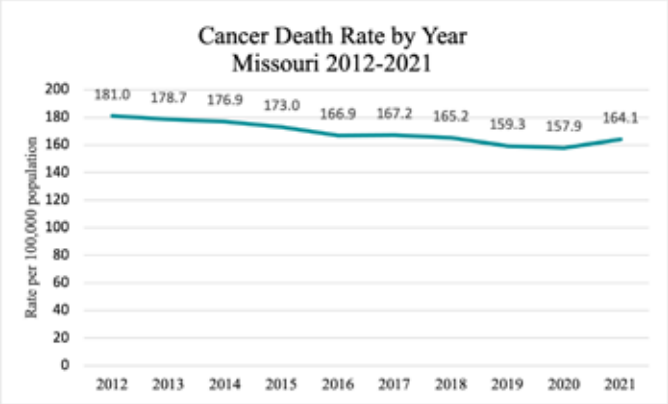
Cancer

Cancer was the number two leading cause of death in Missouri from 2012-2021.[10] Over the last 10 years, Missouri has experienced a 9.4% decrease in cancer death rates. Pemiscot County had the highest cancer death rate in Missouri from 2012-2021. Among the top 30 counties with the highest cancer death rates, all were in rural regions of Missouri, with the top three located in the Southeast region.[32]

Cancer of the lung, trachea and bronchus was the leading cause of death among cancer sub-types, with a rate triple the second highest sub-type, which was colon cancer. Cancer death rates among Black/African American residents were 18.7% higher than white residents.[32] Missouri males experienced cancer death rates that were 39.7% higher than females.

FIGURE 43:

Cancer Death Rate



Source: Missouri Department of Health and Senior Services, Vital Statistics.

The skin cancer prevalence rate (not including melanoma) for Missouri residents was 5.8% in 2022.[10] White Missourians report the highest rates of skin cancer at 7.1%, followed by American Indian/Alaskan Native residents at 5.6%. Hispanic residents and Black/African American residents reported having the lowest skin cancer rates among all Missourians, 1.2% and 0.9% respectively.

Alzheimer's Disease

Alzheimer's Disease (AD) and Related Dementias (ADRDs) represent a significant public health issue in Missouri. Alzheimer's Disease is the most common form of dementia, accounting for up to 60-80% of all diagnoses, and is the sixth leading cause of death among adults in Missouri.[33] These diseases can progress rapidly and are typically characterized by profound memory loss, confusion, cognitive and physical impairments, and changes in mood or behavior.[34] Individuals with Alzheimer's or other forms of dementia frequently have co-occurring chronic diseases. The process of managing chronic disease for individuals with dementia is complicated and can worsen other health conditions.

In Missouri, there are approximately 120,000 individuals aged 65 and over who have AD, and between the years 2000 and 2019, the number of AD-associated deaths rose by 143.1% in Missouri.[35]

According to the 2019 BRFSS, Missourians who reported worsening memory loss in the previous 12 months were 2.8 times as likely to suffer from a chronic disease as those not experiencing cognitive decline.[36] Furthermore, individuals living in households with an annual income of less than $35,000 were nearly 3.5 times more likely than those with a household income over $50,000 to experience cognitive decline. In addition, those who did not finish high school were 3.4 times more likely to experience cognitive decline than those who completed college.

Maternal, Infant and Child Health

MATERNAL, INFANT AND CHILD HEALTH refers to the well-being of women during pregnancy, childbirth and the postpartum period, as well as the health and development of infants, children and adolescents. Maternal, infant and child health directly impacts the well-being of individuals and communities, affecting healthy growth and development and establishing the foundation for a thriving society. Comprehensive maternal and child health initiatives encompass prenatal care, immunizations, nutritional support and education, aiming to address both immediate health needs and long-term outcomes for mothers and their children.

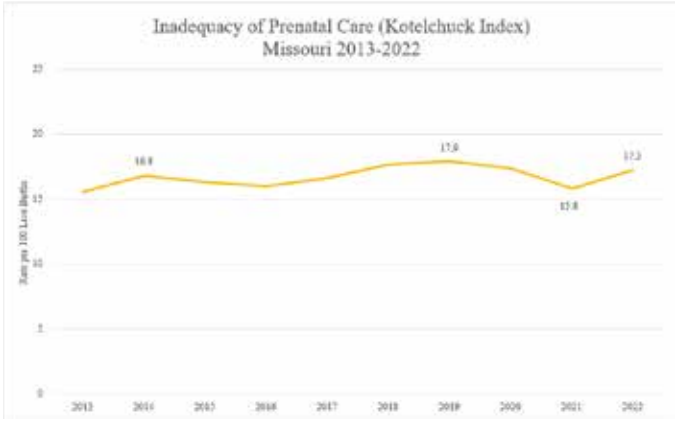
Inadequate Prenatal Care

Inadequate prenatal care occurs when pregnant women do not obtain recommended prenatal care visits early in their pregnancy and/or the visits are not sustained until delivery.[37] Nationwide an average of 14.5% of pregnant women received inadequate prenatal care.[38] The 2021 Missouri rate of 15.8% was slightly higher, indicating more mothers in Missouri did not get the recommended level of care. While national figures are not available for 2022, the Missouri inadequate prenatal care rate increased to 17.3%.

From 2013-2022, Webster County had the highest rate of prenatal care inadequacy in Missouri averaging 35.8%, which is in part due to their large Amish community.[32] Over the last 10 years, Missouri experienced an increase in the rate of prenatal care inadequacy, from 15.5% of live births in 2013 to 17.3% in 2022.

FIGURE 44:

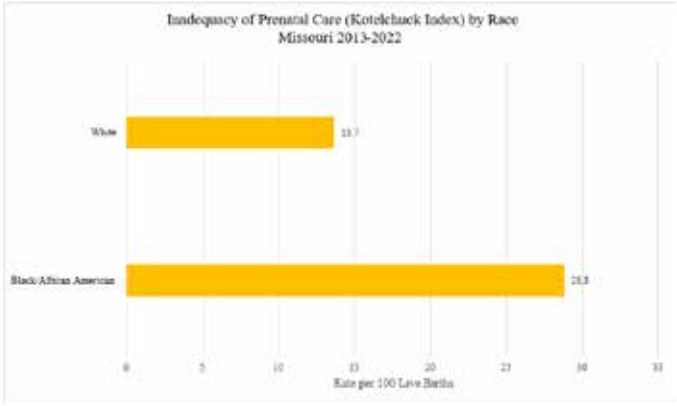
Inadequacy of Prenatal Care



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Rate per 100 live births.

FIGURE 45:

Inadequacy of Prenatal Care by Race



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Rate per 100 live births.

Disparities by race exist related to prenatal care. From 2013-2022, the rate of inadequate prenatal care for Black/African American women was over double the rate for white women (28.8 versus 13.7 per 100 live births).[32]

Maternal Mortality

A pregnant mother's health directly impacts the health and wellness of her unborn child, family and community. The loss of a mother due to a maternal mortality event has a devastating impact to all involved in the life of the mother and child. Tracking maternal mortality events, which happen when a mother dies during pregnancy or within a year of the end of a pregnancy, is necessary to reduce future occurrences.

In 2020, there were almost 1.2 million women in Missouri of reproductive age (15-44).[39] There were an average of 71,554 live births per year from 2018-2020. The Missouri Department of Health and Senior Services investigates all pregnancy-associated deaths through the Missouri Pregnancy Associated Mortality Review (PAMR). The Missouri PAMR report found 210 mothers died from 2018-2020. Of these deaths, an average of 70 deaths per year occurred while pregnant or within one year of pregnancy. Eighty-five pregnancy deaths occurred in 2020, which was the highest number of pregnancy-associated deaths for this period.[40]

Pregnancy-associated deaths can be further broken down into pregnancy-related deaths. These are deaths where the cause of death was directly tied to being pregnant. The pregnancy-related ratio for 2018-2020 was 32 deaths per 100,000 live births, representing an increase from 25.2 per 100,000 as reported in the previous multi-year report for 2017-2019.[41] Among all pregnancy-related deaths, almost half happened between 43 days and one year after pregnancy.

Pregnancy-related death rates among Black/African American mothers were three times higher than white mothers.[42] Of the 68 pregnancy-related deaths, 57 (84%) were preventable. Further, the number of preventable deaths was 9% higher than the previous multi-year report.

Pregnancy-related mortality rate was the highest among those who were obese, with a rate of 31 deaths per 100,000 live births. Hypertensive disorders of pregnancy was another factor associated with maternal mortality, accounting for about 17% of cases nationally.[43] Other underlying factors associated with pregnancy-related deaths include mental health issues, substance use disorder, cardiovascular disease and homicides. Pregnancy-related deaths were twice as likely to occur in metropolitan counties as compared with rural counties.

Infant Mortality

The loss of an infant is a traumatizing experience that impacts families and communities. Infant mortality is defined as any death occurring before one year of age. According to the Centers for Disease Control and Prevention (CDC), 19,920 infants died nationwide in 2021,[44] and 393 of those deaths occurred in Missouri.[32] Missouri ranked 31st for infant mortality (with 50th being the worst).[45] Overall, the infant mortality rate in Missouri has declined almost 14% from 2012-2021.

FIGURE 46:

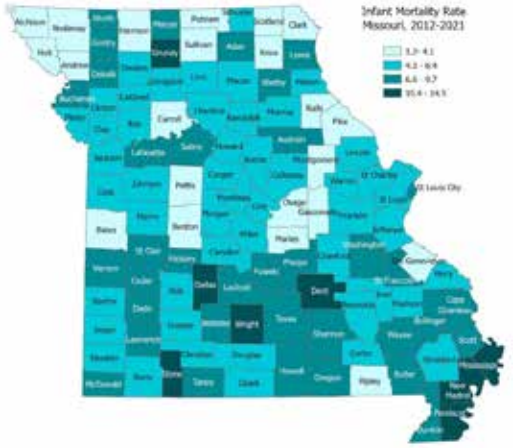
Missouri Infant Mortality Rate by Year

Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Rate per 1,000 live births.

The map to the right shows infant mortality rates across Missouri. Counties shown in a lighter blue color have lower rates of infant mortality while counties in darker blue have higher rates. There were 8 counties that had infant mortality rates above 10 per 1,000 live births. Mississippi County in Southeast Missouri had the highest rate at 14.5. Pemiscot, Dent, Grundy, Stone, Wright, New Madrid and Dallas were the other counties with rates above 10.0.[32]

FIGURE 47:

Infant Mortality Rate Missouri

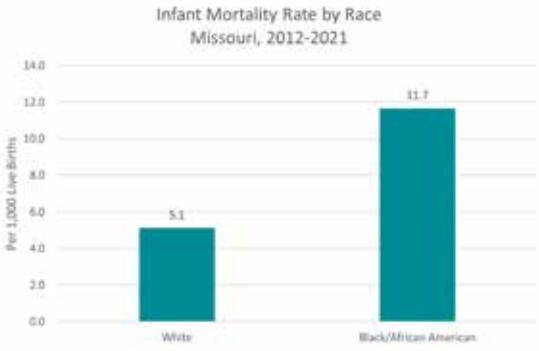


Source: Missouri Department of Health and Senior Services, Vital Statistics.

The infant mortality rate among Black/African American residents was over double the rate for white residents (11.7 versus 5.1).[32]

FIGURE 48:

Missouri Infant Mortality Rate by Race



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Rate per 1,000 live births.

Immunizations

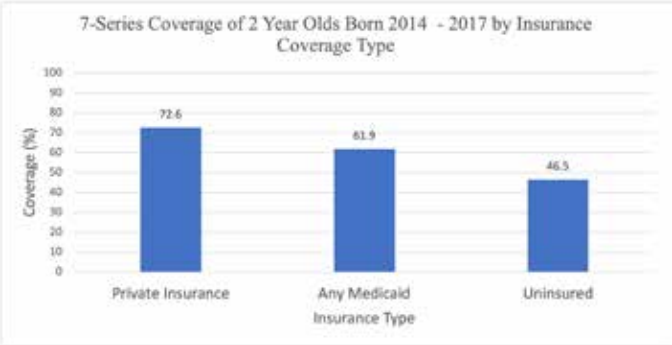
Immunizations are important because they help prevent the spread of infectious diseases, protect individuals and communities from serious illnesses, and contribute to overall public health by fostering disease immunity. The U.S. has enjoyed a history of success in eliminating disease, preventing hospitalizations and reducing deaths often attributed to the Vaccines for Children Program that began in 1994.[46]

Coverage Rates

Childhood immunization coverage rates are characterized by the percentage of children who receive all the recommended doses of the standard seven series of vaccines: diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine; measles, mumps and rubella (MMR) vaccine; poliovirus vaccine; *Haemophilus influenzae* type b (Hib) vaccine; hepatitis B (HepB) vaccine; varicella vaccine; and pneumococcal conjugate vaccine (PCV).[47] In Missouri, for two-year-olds born between 2014-2017 the highest immunization coverage rate was for children who had private insurance (72.6%), then those with any type of Medicaid insurance (61.9%), and the lowest were children without insurance (46.5%).[48] The rate of vaccination coverage between children with private insurance is 26.1 percentage points higher than those without insurance.

FIGURE 49:

7-Series Immunization Coverage by Insurance Coverage

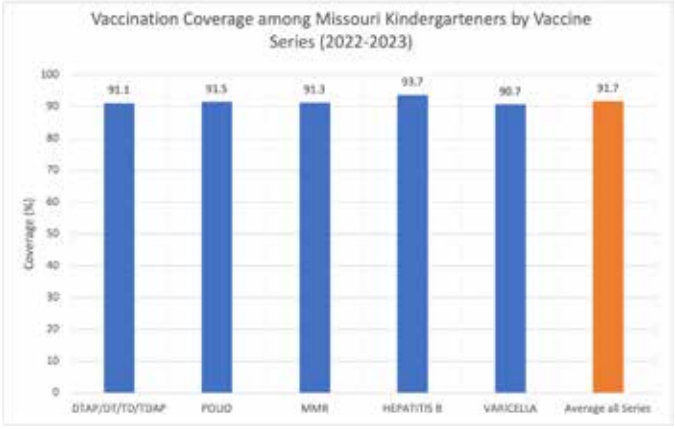


Source: Centers for Disease Control and Prevention (CDC). https://data.cdc.gov/Child-Vaccinations/Vaccination-Coverage-among-Young-Children-0-35-Mon/fhky-rtsk

During the 2022-2023 school year, the average immunization rate for kindergarteners across all vaccine series (DTaP, polio, MMR, Hepatitis B and varicella) was 91.7%.[49]

FIGURE 50:

Proportion of MO Children Up to Date on Vaccination Upon Entering Kindergarten



Source: 2022-2023 Summary Report of Immunization Status of Missouri Public, Private, Parochial and Parish School Children.

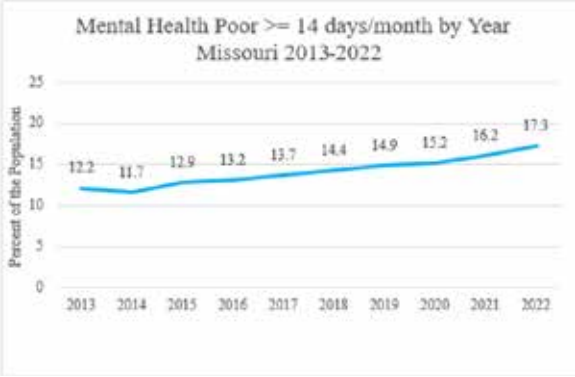
Mental Health

Mental health is an important part of overall health as it influences an individual's emotional well-being, cognitive function, interpersonal relationships and ability to cope with life's challenges, ultimately impacting overall quality of life.[50]

Missourians who participated in the BRFSS and CLS surveys were asked to think about their mental health, which included stress, depression and problems with emotions, and to report how many days during the past 30 days their mental health was not good. The figure below shows how many Missourians reported having 14 or more poor mental health days during the past month. The number of Missourians reporting poor mental health increased from 11.7% in 2014 to 17.3% in 2022.[2]

FIGURE 51:

Poor Mental Health

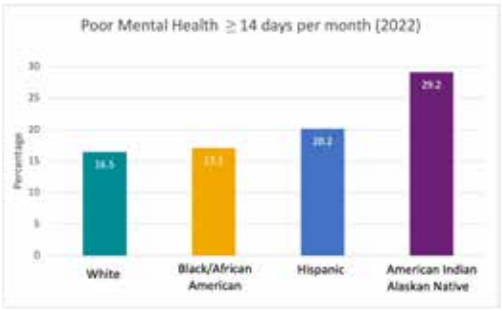


Source: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2013-2022.

Regarding race/ethnicity and mental health, 29.2% of all American Indian/Alaskan Native residents experienced 14 or more days of poor mental health, followed by 20.2% of Hispanic residents, 17.1% of Black/African American residents, and 16.5% of white residents.[16]

FIGURE 52:

Poor Mental Health by Race



Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2022.

The 2022 BRFSS survey revealed a notable gender disparity in mental health among Missourians, with women reporting significantly more poor mental health days compared to men. Specifically, 21.6% of female respondents reported experiencing 14 or more days of poor mental health in a month, as opposed to 12.6% of males.[2] Over the previous five years, there has been a consistent upward trend in the number of women in Missouri reporting poor mental health, while the rate among men has remained relatively stable across the same time period.

FIGURE 53:

Poor Mental Health by Sex

Source: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022.

Substance Use

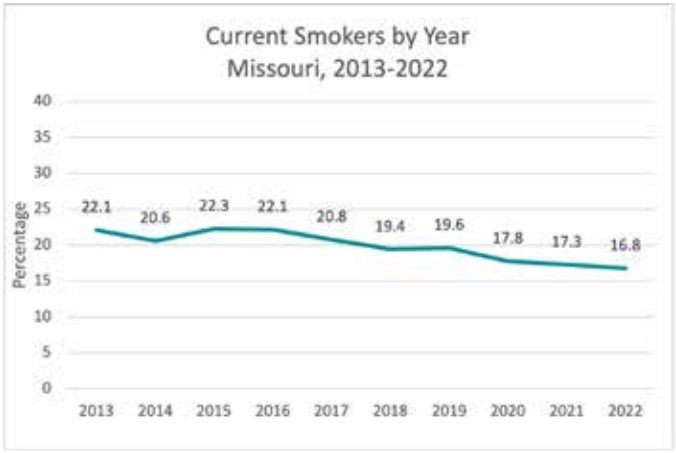
The use and misuse of substances like tobacco, alcohol, drugs and prescription medications can impact the mental, physical and social health of Missourians. Tobacco use, smoking and vaping can cause damage to virtually all the organs in the body.[51] Excessive alcohol use negatively impacts the brain, heart, liver, immune system and other functions in the body.[52] Drug and prescription medication use can lead to addiction. Addiction is complicated and poses harm to both an individual's health and to their community.

Tobacco and Smoking

The Centers for Disease Control and Prevention (CDC) estimates that annually about 41,000 adults and 400 infants die because of passive smoke or secondhand smoke.[53] While reductions in cigarette smoking have occurred, the options for tobacco use have evolved over the last decade with the introduction of e-cigarettes. E-cigarettes have been determined to be unsafe, especially for youth, young adults and adults who do not currently use tobacco. Hospitalizations, death and injury to the lungs have been attributed to e-cigarettes because of cancer causing-chemicals and nicotine contained in them.[54]

Overall, the number of Missourians who smoke has declined over the last ten years. Smoking among all Missourians in 2022 decreased by 5.3 percentage points from 2013 (22.1%) to 2022 (16.8%).[10] Among all counties in Missouri, Mississippi County had the highest smoking rate in 2022 (33.0%), whereas Clay County had the lowest smoking rate (9.5%).

FIGURE 54:
Current Smokers

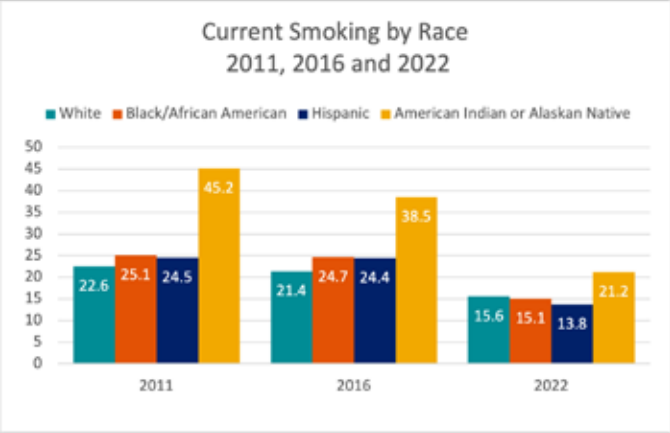


Sources: Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2013-2022.

Regarding race/ethnicity and smoking, American Indian/Alaskan Native Missourians reported a significantly higher rate of smoking than all other races in 2011. By 2022, the percentage of American Indian/Alaskan Native residents who smoked was reduced by more than half (45.2% to 21.2%), representing the largest decrease among all racial groups.[11] The next largest decrease in rate of smoking from 2011 to 2022 occurred among Hispanic residents, followed by Black/African American residents, and then white residents.

FIGURE 55:

Current Smoking by Race/Ethnicity

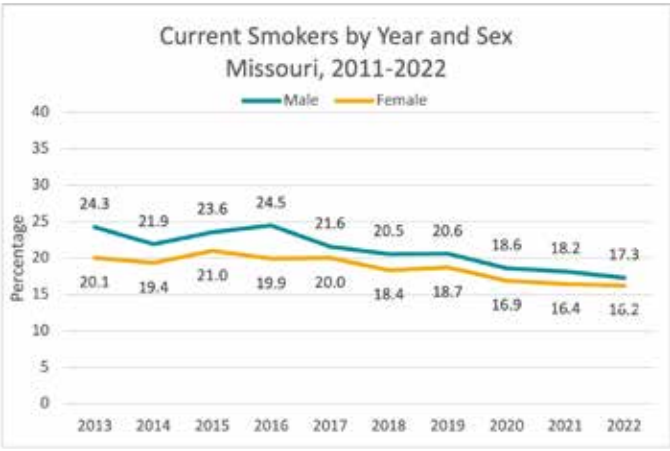


Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2011, 2016 and 2022.

Males in Missouri reported smoking at a higher rate than females.[10] At the same time, both males and females exhibited reductions in the percentage of residents who smoked between 2013 and 2022.

FIGURE 56:

Current Smokers by Sex



Sources: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2013-2022.

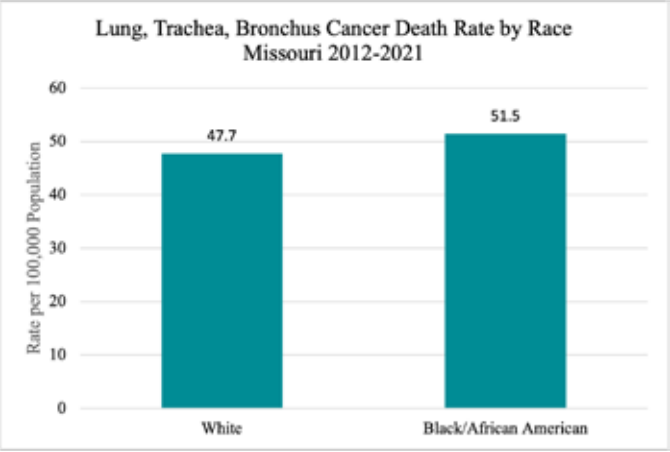
Chronic Illness and Tobacco Use

In this section, we provide data on some of the chronic illnesses that are associated with tobacco use. Lung/trachea/bronchus cancer has the highest death rate among cancer sub-types. Tobacco use is a major risk factor for this cancer type. In recent years, Missouri has experienced a steady decrease in lung/trachea/bronchus death rates. Over the last decade, Missouri's rate has declined 24.8%.[32] The top 25 counties in Missouri with the highest lung/trachea/bronchus cancer death rates during these years were all rural counties. Dunklin County had the highest rate of lung/trachea/bronchus cancer deaths with an age-adjusted rate of 78.9 per 100,000. Nine of the ten counties with the highest rates are located in the Southeast region of Missouri.

Missouri males experienced rates of death related to lung/trachea/bronchus cancer that were 46.5% higher than females (58.1 versus 39.7).[32] Also, Black/African American residents experienced a higher death rate due to these forms of cancer at 51.5 compared to 47.7 for white residents.

FIGURE 57:

Lung, Trachea, Bronchus Cancer Death Rate by Race

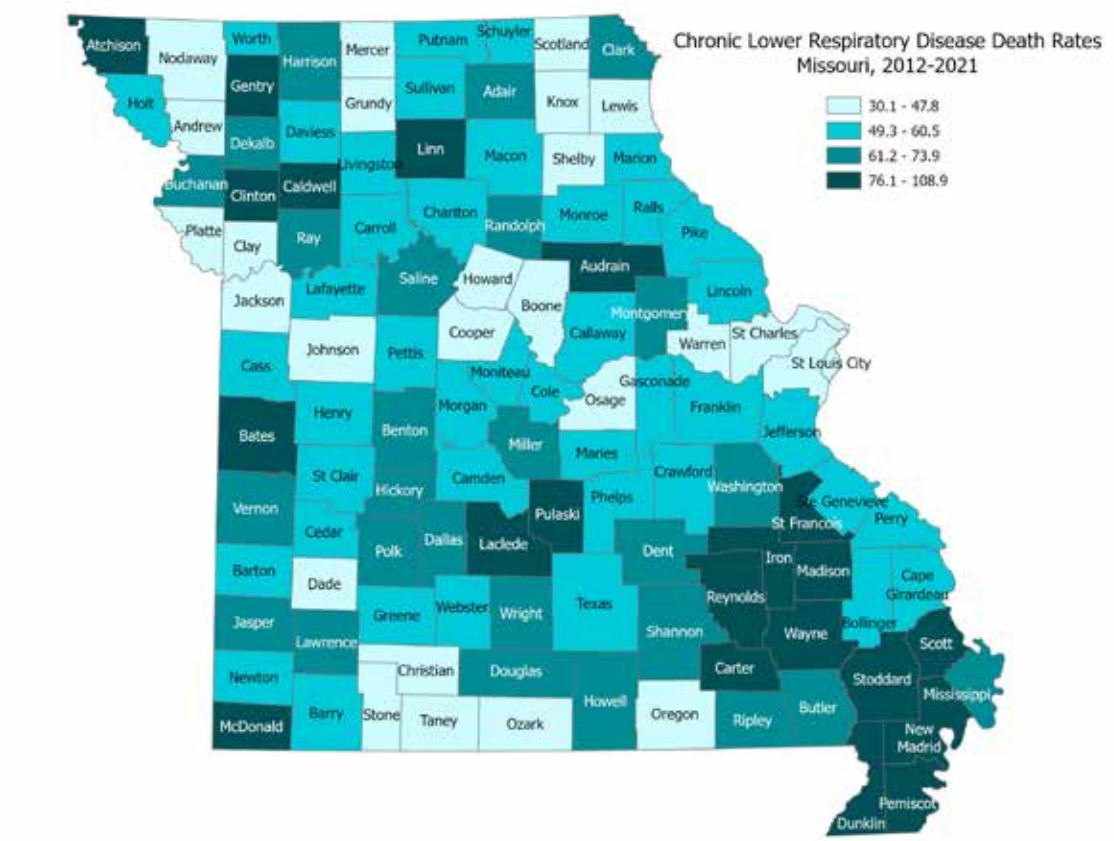


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Another chronic illness associated with tobacco use is chronic lower respiratory disease (CLRD). This category includes diseases (such as chronic obstructive pulmonary disease [COPD], asthma, emphysema and bronchitis) that obstruct airflow affecting airways and lung structures. From 2012-2021, CLRD was the third leading cause of death among Missourians. However, in the last decade the state has experienced a 12.3% decrease in CLRD death rates, going from a rate of 51.6 to 45.2 per 100,000 population.[32] CLRD death rates are highest in rural areas where in 2021 the rural rate was 60.9% higher than their urban counterparts. In fact, the 20 counties with the highest rates were all rural. The highest cluster of rates is found in Southeast Missouri. Dunklin County had the highest CLRD death rate in Missouri from 2012-2021 (108.9 per 100,000 population). The map on the following page shows county rates of CLRD deaths by shades of blue. Darker blue counties have higher rates of CLRD death, while lighter colored counties have lower rates of CLRD death.

FIGURE 58:

Chronic Lower Respiratory Disease (CLRD) Death Rates

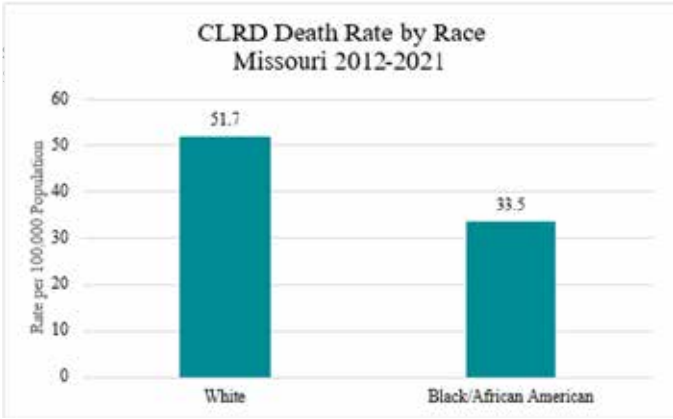


Source: Missouri Department of Health and Senior Services, Vital Statistics.

Males in Missouri experienced CLRD death rates that were 19.1% higher than females.[32] Also, white Missourians had a rate of CLRD death nearly 55% higher than Black/African American Missourians (51.7 versus 33.5 per 100,000 population).

FIGURE 59:

CLRD Death Rate by Race



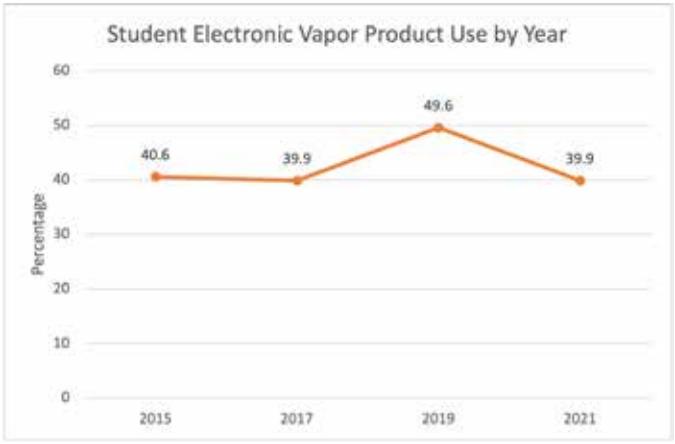
Youth Tobacco Use

The Youth Risk Behavior Survey in 2021 indicates that male students had a higher prevalence of currently smoking cigarettes at 7.1% than did females at 3.0%.[55] The overall percentage of high school students who currently smoke has substantially decreased from an average of 39.8% in 1995 to 5.1% in 2021.[56] Further, 5.5% of high school students reported ever using chewing tobacco, a decrease from 11.1% in 2019. Male students were more likely to have ever used chewing tobacco products than female students.

While rates of smoking cigarettes decreased among this population since 1995, in 2021 40% of high school students reported trying an electronic vapor product (EVP), and 20% admitted to using them currently (at least 1 day during the past 30 days).[57] The number of high school students trying and using EVPs has not changed significantly since 2015, as shown in the figure to the right. However, from 2015-2021, the percentage of Missouri high school students who used electronic vapor products frequently (20 or more days per month) increased significantly from 2.8% to 9.5%.

FIGURE 60:

Trends of Student Electronic Vapor Product Use



Source: Missouri Department of Health and Senior Services. Youth Risk Behavior Survey, 2015-2021.

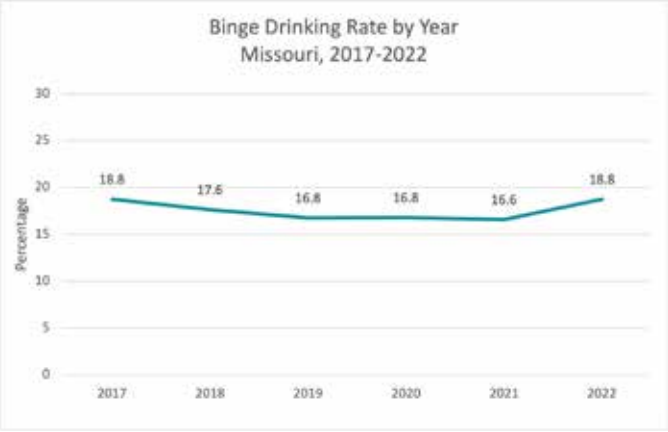
Alcohol Use

Alcohol consumption among adults of legal age should be limited to two drinks or less per day for males and one drink or less for females.[58] Consuming alcohol in excess of these recommendations poses a variety of immediate and long-term health risks. These risks include poor decision-making that can lead to hazardous behaviors, injuries, violence and alcohol poisoning. Risks that can occur over time include developing chronic illnesses such as liver disease, heart disease, cancer, alcohol dependence, cognitive problems and death.[59]

The Missouri BRFSS and CLS each examined excessive use of alcohol in terms of heavy drinking and binge drinking between 2017 and 2022. Heavy drinking occurs when males have more than two drinks per day and females have more than one drink per day, thus exceeding the guidelines mentioned previously. Binge drinking occurs when, on one occasion, males have five or more drinks and females have four or more drinks.

In 2022, 18.8 percent of Missouri residents engaged in binge drinking at least once in the previous 30 days.[60] The overall binge drinking trend across five years is shown in the figure below. In 2022, Osage County reported the greatest binge drinking rate in Missouri (30.8%) and Dunklin County reported the lowest rate (6.3%).

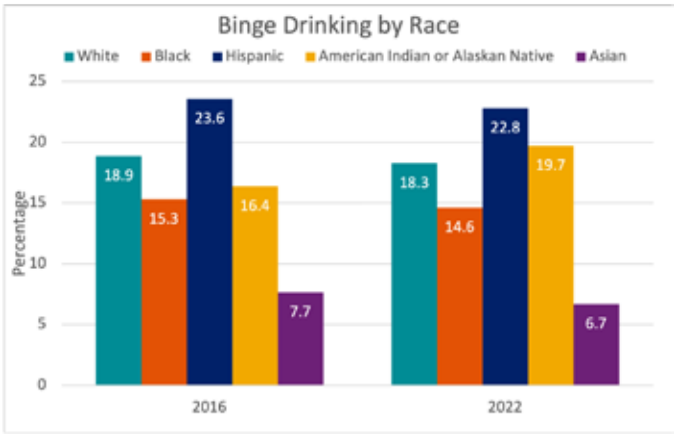
FIGURE 61:
Binge Drinking Rate



Sources: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2017-2022.

In 2022, the number of males who engaged in binge drinking was 9.1 percentage points higher than that of females, 23.5% and 14.4% respectively.[11] Black/African American residents reported lower rates of binge drinking than white, American Indian/Alaskan Natives or Hispanic residents. Asian residents reported the lowest rates of binge drinking among all racial groups and Hispanic residents had the highest rates of binge drinking.

FIGURE 62:
Binge Drinking by Race



Source: Missouri Department of Health and Senior Services, Missouri County Level Study (CLS), 2016 and 2022.

Underage Alcohol Use

Underage drinking presents risk to brain development and increases long term likelihood of developing an alcohol use disorder later in life. The Missouri Youth Risk Behavior Survey asks Missouri high school students about their binge drinking behaviors. Binge drinking was defined in these surveys as having four or more drinks of alcohol in a row for females or five or more drinks of alcohol in a row for males, within a couple of hours, on at least 1 day during the 30 days before the survey.

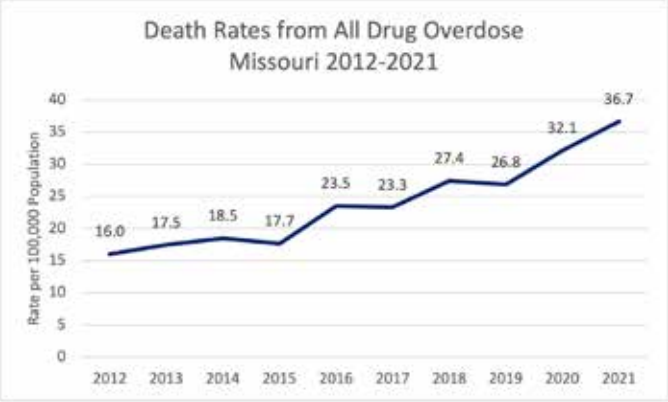
Results from this survey indicated that binge drinking decreased over the last five years by approximately three percentage points.[61] Specifically in 2021, 14.1% of high school students reported binge drinking alcohol, compared to 15.0% in 2019, and 17.0% in 2017. White students were more likely to binge drink (16.4%) than either Hispanic or Black/African American students, at 13.1 % and 5.0% respectively. However, rates have increased since 2017 among Hispanic students, whereas rates have decreased in both Black/African American and white students. Overall, binge drinking prevalence was greater in high school females (15.7%) than males (12.7%) in 2021.

Drug Overdose

Over the last 10 years, the rate of fatal overdoses from drugs in Missouri has more than doubled from a rate of 16.0 per 100,000 population in 2012 to 36.7 in 2021.[32] This steep upward trend has accelerated in the most recent years with the rate increasing by 37% from 2019 to 2021. The all drug overdose category includes opioids, cocaine and amphetamines, among others but excludes alcohol-related deaths.

FIGURE 63:

Death Rates from All Drug Overdose

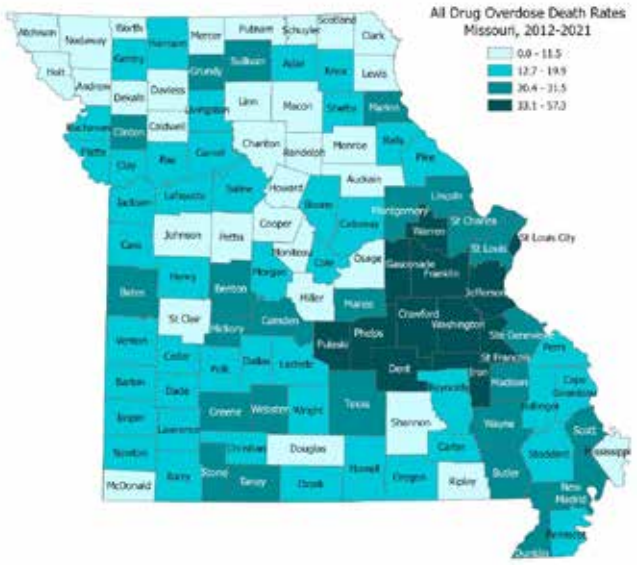


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

The map to the right shows rates of drug overdoses across the state of Missouri with the highest rates shown in dark blue and the lower rates shown in lighter blue. The highest rates are found in the eastern part of the state in the St. Louis area and in rural areas south and west of the metropolitan region.[32] St. Louis City had the highest rate (57.3 per 100,000 population) of fatal overdoses due to all drugs in Missouri from 2012-2021. In addition, Jefferson and Gasconade counties both had rates above 40.0.

FIGURE 64:

All Drug Overdose Rates

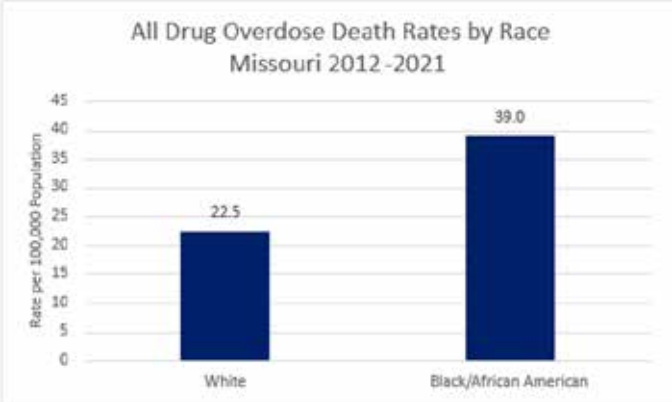


Source: Missouri Department of Health and Senior Services, Vital Statistics

Black/African American residents had a fatal drug overdose rate from 2012-2021 that was 73.2% higher than white residents.[32] Further analysis shows that the Black/African American male overdose rate of 109.2 per 100,000 population was more than double other race-gender combinations. The white male and Black/African American female rates were similar (41.5 and 37.2 respectively) and white females were the lowest at 19.7.

FIGURE 65:

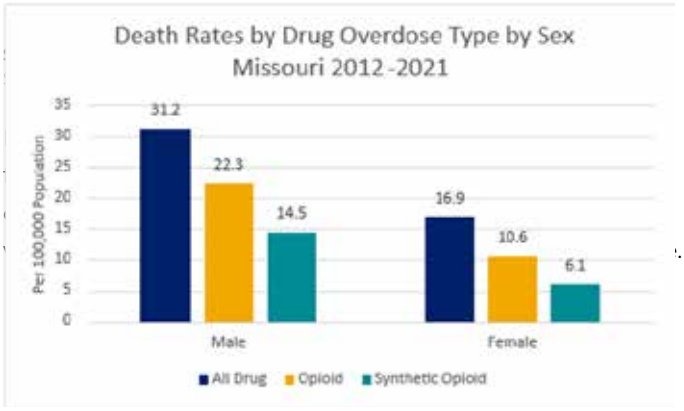
Drug Overdose and Race



Source: Missouri Department of Health and Senior Services, Vital Statistics. Missouri Vital Statistics Death File.
Note: Age-adjusted rates per 100,000 population.

FIGURE 66:

Death Rates by Drug Overdose Type by Sex



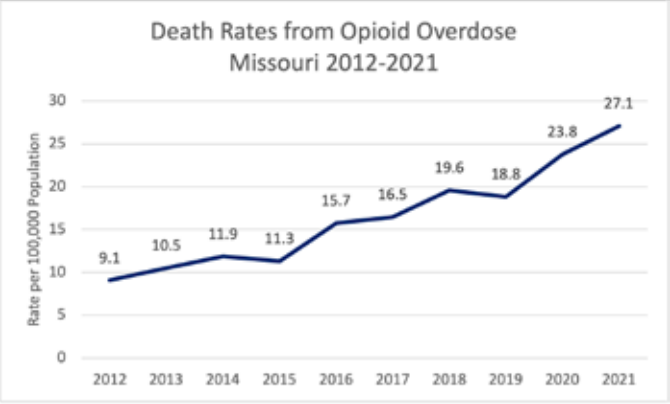
Opioid Overdose

Opioids are a class of drugs that interact with the opioid receptors in the brain and body, which can result in pain relief and at times a sense of euphoria.[62] Opioids can be prescribed for pain management, but they can also be misused, which can lead to addiction, overdose and other negative health effects. Opioids include natural derivatives such as morphine, which comes from the opium poppy plant, and synthetic opioids such as fentanyl, which is created in laboratories.

Over the last 10 years (from 2012-2021), the rate of fatal overdoses due to opioids in Missouri increased by 198.6%.[32] The rate of fatal overdoses due to synthetic opioids in Missouri has seen the most dramatic increase, going from 1.0 in 2012 to 25.0 in 2021.[63] Consistent with all drug overdoses, St. Louis City had the highest rate of fatal overdoses due to opioids and synthetic opioids in Missouri from 2012-2021. Outside of the St Louis metro area, some of the highest rates for opioids and synthetic opioid deaths were found in rural areas to the south and west of St. Louis and include Gasconade, Franklin, Pulaski, Dent, Crawford, Warren and Phelps counties.

FIGURE 67:

Death Rates from Opioid Overdose Missouri



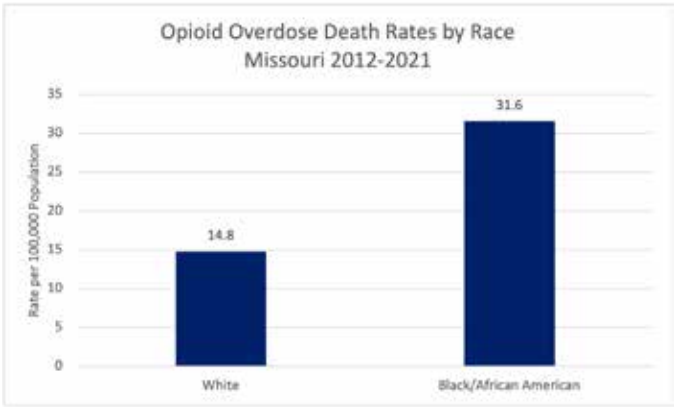
Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Black/African American residents in Missouri accounted for the highest fatal drug overdose rate due to opioids, a rate that was 113.4% higher than found among white residents.[32]

Black/African American Missourians' fatal drug overdose rate due to synthetic opioids was 186.8% higher than white Missourians.

FIGURE 68:

Opioid Overdoes Death Rates by Race



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Oral Health

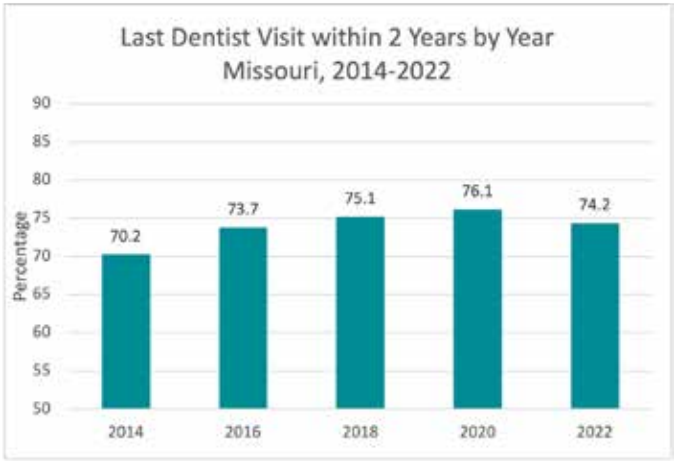
Oral health is important to overall health because the mouth serves as a gateway to the body, and oral health can impact various overall health factors.[64] Visiting a dentist is important to oral health as regular check-ups and cleanings help prevent and detect dental issues early, ensuring proper oral hygiene, addressing potential problems, and promoting overall well-being.[65] Poor oral health has been linked to an increased risk of several chronic diseases, including cardiovascular disease, diabetes and respiratory infections.

As of 2019, Missouri had one dentist for every 1,996 residents, which ranked Missouri near the bottom at 39th out of the 50 states and was well below the national average of one dentist for every 1,664 residents.[66] Furthermore, according to BRFSS data, 15.3% of Missourians over the age of 65 have had all of their natural teeth removed, compared to a national rate of 11.8%.[2]

As part of the BRFSS survey, Missourians were asked how long it has been since they last visited a dentist, with response options of "within the past year", "within the past two years", "within the last five years", "5 years or more", or "never". Most Missourians (74.2% in 2022) had visited a dentist within the last two years.[67]

FIGURE 69:

Last Dentist Visit within 2 Years



Sources: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2014-2022.

Females reported a higher rate of visiting a dentist within the last two years than males in Missouri.[67]

FIGURE 70:

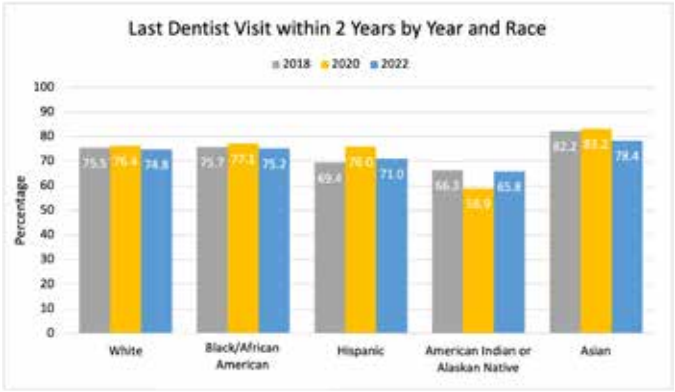
Last Dentist Visit and Sex

Sources: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2014-2022.

American Indian/Alaskan Native residents reported a lower tendency to see the dentist in the last two years, whereas Asian Missourians had a higher rate of dental visits in the past two years.[68]

FIGURE 71:

Last Dentist Visit within 2 Years by Race



Sources: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2018, 2020 and 2022.

From 2016 to 2022, the percentage of Missourians who could not see a dentist because of cost in the past 12 months decreased from 18.9% to 15.1%.[11] The cost of dental care prevented more Hispanic Missourians and people between 25-34 years of age from receiving dental care.

According to the Youth Risk Behavior Survey, 68.8% of high school students visited a dentist in the previous year.[57] This percentage has not changed significantly since 2015 and did not notably differ when considering sex, race and ethnicity.

Sexual Health

Early detection and treatment of sexually transmitted infections (STI) is important to prevent further spread in the community and to prevent health complications in untreated individuals, such as cervical cancer, immunodeficiencies, infertility, and congenital or perinatal infections in infants.[69] Rates of most STIs, including chlamydia, gonorrhea and syphilis, have increased statewide over the past 10 years and are reviewed below.

Chlamydia

The number of chlamydia cases in Missouri has increased 18.3%, from 27,328 in 2013 to 32,335 in 2022.[70] Following a steady increase from 2012 to a peak in 2018, the rate of chlamydia cases in 2022 has decreased 4.6% among men and 8.7% among women since 2018. In 2022, chlamydia rates were the highest among Black/African American Missourians, occurring at a rate 6.7 times higher than rates of white residents. Missourians aged 15 to 29 represented approximately 80% of all chlamydia cases in 2022.

Gonorrhea

In 2020, there were 16,855 reported cases of gonorrhea, which is more than double the 7,387 cases reported in 2014.[70] However, between 2020 and 2022 reported cases of gonorrhea did decrease by 9.8%. In 2022 gonorrhea rates were the highest among Black/African American Missourians, as gonorrhea occurred about 10 times more frequently for Black/African American residents compared to white residents.

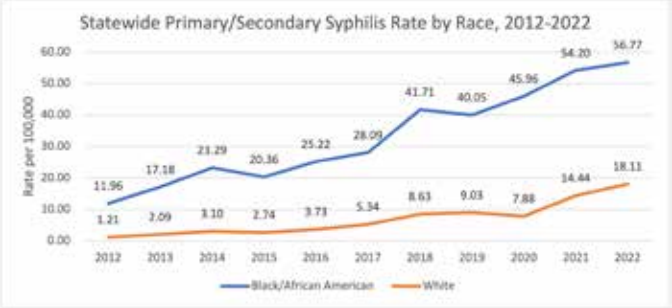
Syphilis

In Missouri, from 2012 to 2022, the increase in primary and secondary syphilis rates was greater than that of any other sexually transmitted infections in the state. From 2012 to 2022, cases of primary and secondary syphilis increased by 824.8%.[70] Residents ages 30 to 34 years had the highest rate of reported cases of primary and secondary syphilis in 2022, equaling 64 cases for every 100,000 people in this age group.

Increased rates of syphilis have been observed among both Black/African American and white Missourians since 2012.[70] However, since 2020 the rate of syphilis among white Missourians has increased at a higher rate than that for Black/African American residents.

FIGURE 72:

Statewide Syphilis Rates by Race

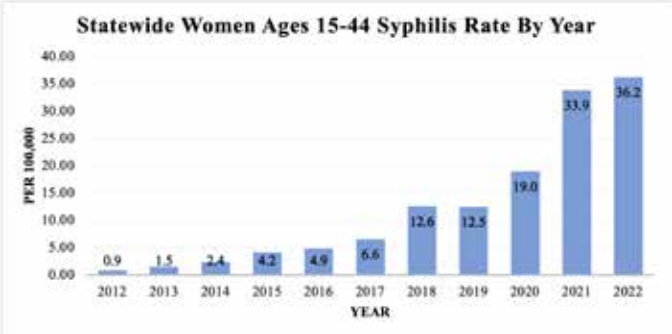


Source: Missouri Department of Health and Senior Services, Office of Epidemiology, Missouri Health Surveillance Information System (WebSurv) 2012-2022. Note: Rate per 100,000 population.

Between 2012 and 2022, rates of syphilis among females in Missouri increased 3,982.1% and 543.2% among males.[70] Among women of childbearing age, 15-44, rates increased by 4,163.5%. In 2012 there were 10 cases in this sub-group and by 2022 the count was 428. The growth of syphilis diagnoses among childbearing-aged women is reflected in the figure below.

FIGURE 73:

Syphilis Rate among Females

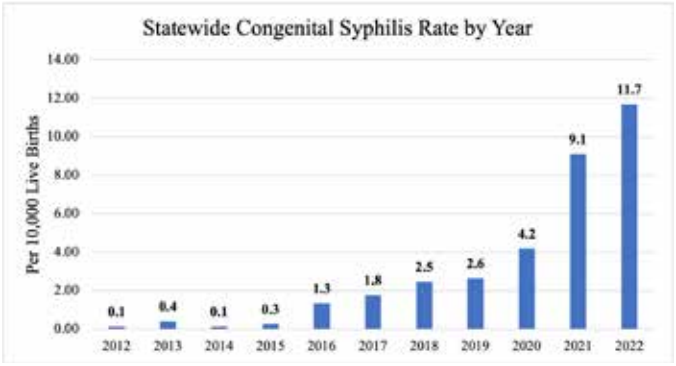


Source: Missouri Department of Health and Senior Services, Office of Epidemiology, Missouri Health Surveillance Information System (WebSurv) 2012-2022. Note: Rate per 100,000 population.

As rates of syphilis rose most among Missouri females aged 15-44, there was also an increase in rates of congenital syphilis among newborns, which is a form of syphilis that is transmitted from a pregnant person to their baby. Reported cases of newborns with congenital syphilis increased by 8,892.3% from 0.1 cases for every 10,000 live births in 2012 to 11.7 cases for every 10,000 live births in 2022.[70]

FIGURE 74:

Statewide Congenital Syphilis Rate



Source: Missouri Department of Health and Senior Services, Office of Epidemiology, Missouri Health Surveillance Information System (WebSurv) 2012-2022. Note: Rate per 100,000 population.

Human Immunodeficiency Virus (HIV)

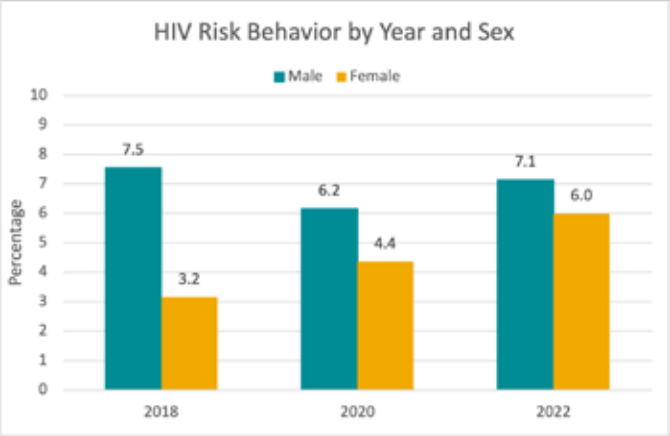
In 2022, 44.9% of Black/African American residents accounted for newly diagnosed HIV cases.[71] Further, 34.6% of Missourians diagnosed were white, 11.6% Hispanic, 1.3% Asian, 0.2% American Indian/Alaskan Natives, and 7.4% of the cases were people of other races or their race was unknown. Of all HIV cases diagnosed in 2022, 74% of people impacted resided in either the St. Louis (46%) or Kansas City (28%) areas.

Among the reported cases of HIV in 2022, 79.0% were male and 21.0% were females.[71] The majority of all new HIV cases diagnosed in 2022 were among people in Missouri aged 19-34.

The BRFSS survey asked Missourians about their engagement in behaviors during the past year that can increase the risk of exposure to HIV. These behaviors include using intravenous drugs, having multiple sexual partners and being treated for a sexually transmitted disease. In 2022, Black/African American (9.5%) Missourians reported significantly greater rates of engaging in HIV-associated risky behavior than white Missourians (5.7%).[2] Males typically report a higher rate of risky HIV behavior than females. In 2022, males engaged in HIV-associated risky behavior at a greater rate (7.2%) than females (6.0%).

FIGURE 75:

HIV Risk Behavior by Year and Sex

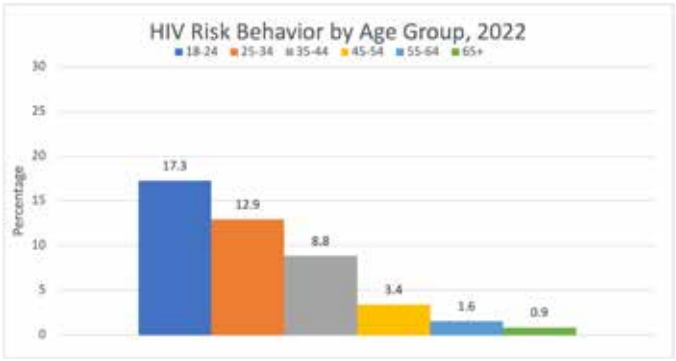


Source: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2018, 2020 and 2022.

The relationship between HIV-associated risky behavior and age is shown below. Among all age groups, younger Missourians (18-24) reported the highest rate of HIV-associated risky behavior in 2022 at 17.3%.[2] As Missourians age, they engage in fewer behaviors that place them at risk for HIV.

FIGURE 76:

HIV Risk Behavior by Age Group Year



Source: Missouri Department of Health and Senior Services, Missouri Behavioral Risk Factor Surveillance System (BRFSS), 2022.

Mortality

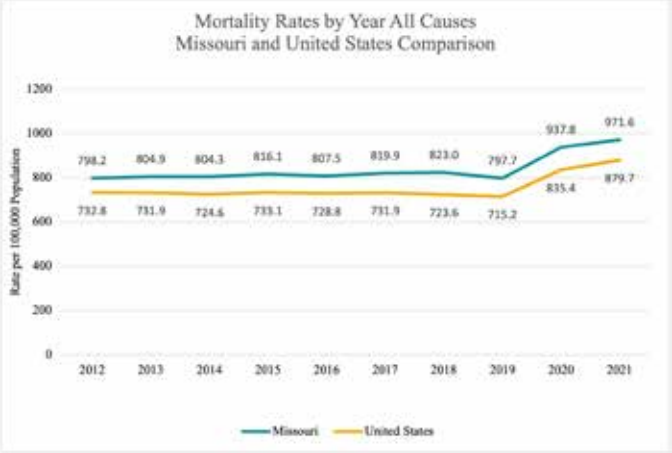
Mortality rates, or the rates of death in a population during a specific time, are important because they provide an essential insight into the overall health of a population and can be useful for identifying ongoing and emerging health threats.

All Cause Mortality

The age-adjusted mortality rate in Missouri from 2012 to 2021 was 11.1% higher than the U.S. rate (839.1 vs 754.7).[72] Since 2012, the Missouri mortality rate increased by 21.7%, which was similar to the 20.0% national rate increase over the same time period. Missouri's mortality rate was 9-14% higher than the national rate for all individual years between 2012 and 2021.

FIGURE 77:

Mortality Rates from All Causes



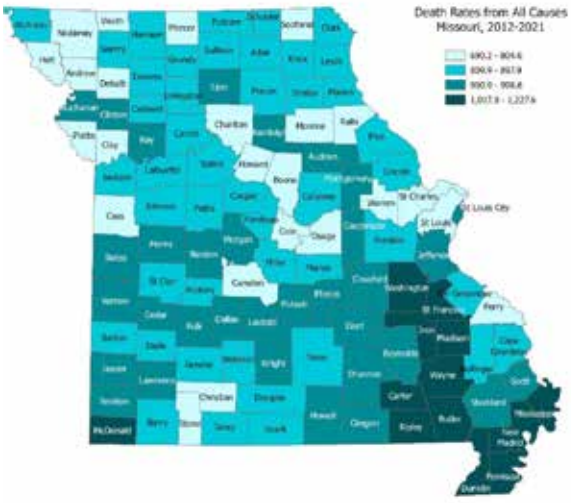
Source: Missouri Department of Health and Senior Services, Vital Statistics. Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System. Accessed at http://wonder.cdc.gov/mcd-icd10-provisional.html on Aug 14, 2023 11:21:07 AM

Among the 15 leading causes of death nationwide, Missouri's rate for 13 of these causes was higher than the U.S. rate.[72] Diabetes and chronic liver disease were the only two leading causes for mortality for which the Missouri rate was lower than the national rate.

The highest rates for all cause mortality were located in Southeast Missouri. Pemiscot County had the highest mortality rate for all causes of death in Missouri, at 1,227.6 per 100,000 population.[32] There were 12 additional counties with mortality rates above 1,000. Eleven of the 12 counties were in the Southeast region, with McDonald County being the exception.

FIGURE 78:

Death Rates from All Causes Missouri, 2012-2021

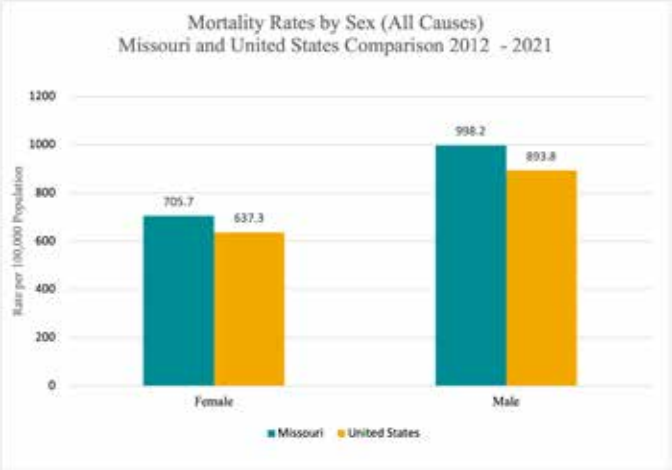


Source: Missouri Department of Health and Senior Services, Vital Statistics.

The mortality rate for all causes of death was approximately 40% higher among males compared to females both in the U.S and Missouri.[32] The Missouri male rate (998.2) was higher than the corresponding U.S male rate (893.8). The same pattern was also noted when comparing the rate of Missouri females (705.7) to U.S females (637.3).

FIGURE 79:

Mortality Rates by Sex

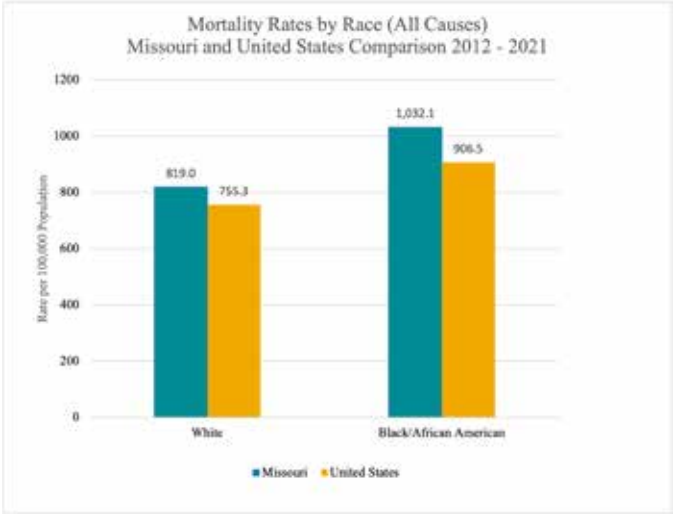


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Between 2012 and 2021, the mortality rate for all causes was 26.0% higher for Black/African American Missourians than for white Missourians.[32] This racial disparity in Missouri was somewhat higher than the 20% difference in death rates by race observed at the national level.

FIGURE 80:

2012-2021 Mortality Rates by Race

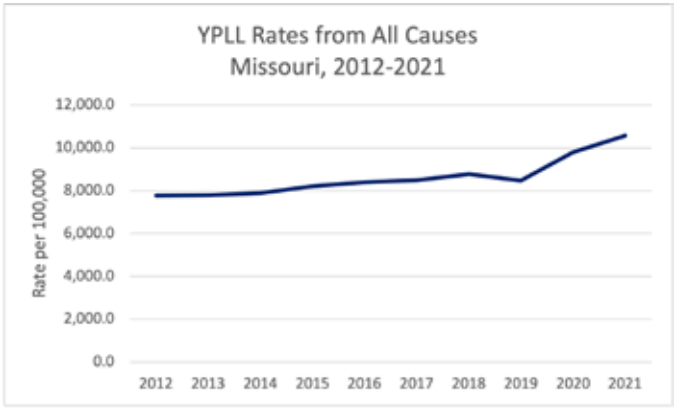


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Premature Death

Years of potential life lost (YPLL) estimates the number of years lost to premature deaths. The YPLL formula places extra emphasis on deaths to younger residents. Similar to life expectancy, YPLL is a good measure of the overall health of an area. Like most federal and state agencies, Missouri uses age 75 as the benchmark for YPLL calculations. This means that a person who dies at age 75 or above is not considered to have died prematurely and would not be included in the YPLL calculation. Over the last 10 years, the rate of YPLL (or premature death) of Missourians increased by 36.0%. While rates had been gradually increasing over the last decade, YPLL rates were sharply higher in 2020 and 2021.[32] Three of the four counties with the highest YPLL rates over the last decade were in Southeast Missouri including Pemiscot County, which had the highest overall rate. St. Louis City was the only urban county in the top 10 for highest YPLL rate.

FIGURE 81:
Premature Death Rates



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Accidental Deaths

Accidental deaths affect younger populations at much higher rates. Twenty years ago, motor vehicle accidents were the most frequent type of accidental deaths. In more recent years, drug overdose is now the leading cause (accounting for 39.2% of all accidental deaths based on data from 2017-2021).[32] Motor vehicle accidents are now second at 23.9% with falls third at 19.5%. Younger populations are affected most by drug overdose and motor vehicle accidents, while seniors have the highest death frequencies from falls. Deaths due to fire and drowning make up much smaller percentages (~2% each).

Analyzing the last decade of data indicates accidental mortality rates have increased by 57.1% in Missouri from 2012-2021.[32] Reynolds County in Southeast Missouri had the highest rate of deaths due to accidental injury. Other counties in the top five are all either in the St. Louis region or adjacent to it and include Gasconade, Washington, Franklin and St. Louis City.

FIGURE 82:

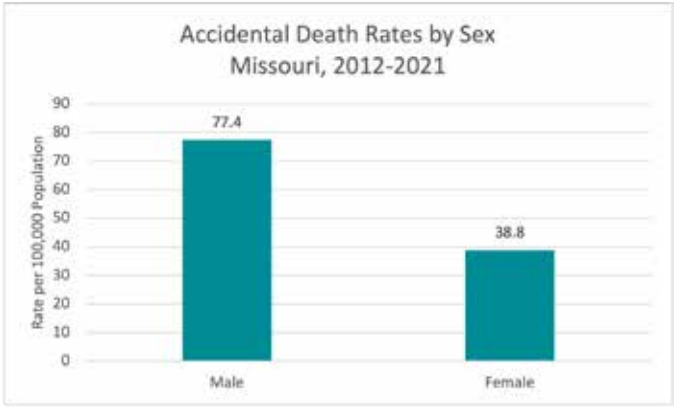
Accidental Death Rates Missouri

Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Males experienced accidental death rates approximately double that of females (77.4 versus 38.8 per 100,000).[32] Likewise, Black/African American Missourians had a death rate 33.3% higher than white Missourians (74.1 versus 55.6).

FIGURE 83:

Accidental Death Rates by Sex



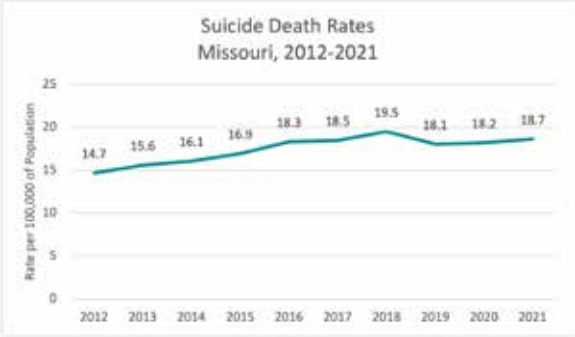
Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Suicide

The suicide rate increased in Missouri by 27.0% between 2012 and 2021, with the ten-year rate being 17.5 per 100,000. The highest suicide rate occurred in 2018, with a rate of 19.5 deaths by suicide. There was a total of 1,230 suicide deaths in Missouri that year.[32] The three most common methods of suicide were firearms, hanging (strangulation or suffocation) and overdose or self-poisoning. Across Missouri, Macon County in Northeast Missouri had the highest rate of death due to suicide at 32.2. Other counties with high rates were scattered throughout the state and included Stone, Montgomery, Benton and Caldwell counties.

FIGURE 84:

Suicide Death Rates Missouri

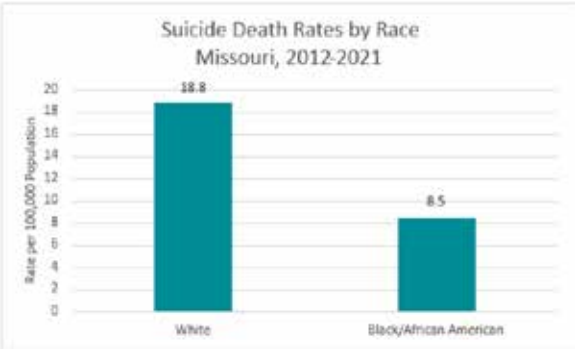


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Suicide rates in 2012-2021 for white residents were more than double the Black/African American resident rate (18.8 versus 8.5 per 100,000).[32]

FIGURE 85:

Suicide Death Rates by Race

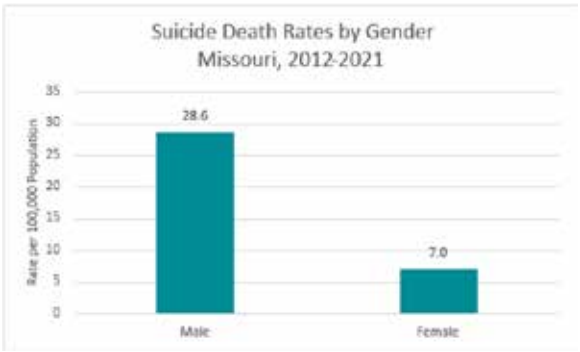


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Suicide rates were dramatically higher for males in comparison to females between 2012 and 2021. The male suicide count (8,648) was almost four times as much as the female count (2,198) in the ten-year period.[32]

FIGURE 86:

Suicide Death Rates by Gender



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

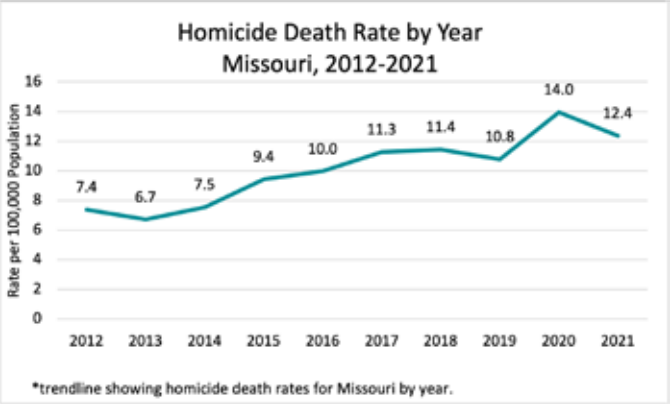
Homicide

Missouri experienced an increase of 67.3% in the rate of homicide deaths over the last decade with rates going up from 7.4 per 100,000 population in 2012 to 12.4 in 2021. The homicide rate peaked in 2020 with a 14.0 rate.[32] There was a decrease of 11.4% in the homicide rate from 2020-2021, but the 2021 rate of 12.4 was still the second highest annual rate in the last 10 years.

The highest homicide rates in Missouri over the last decade were in the St. Louis and Kansas City areas. The St. Louis City homicide rate of 42.5 per 100,000 population was over double the next highest rate of Jackson County (20.8). The highest homicide rate in rural Missouri was Pemiscot County which had the third highest rate in the state (19.4).[32]

FIGURE 87:

Homicide Death Rates by Year Missouri, 2012-2021

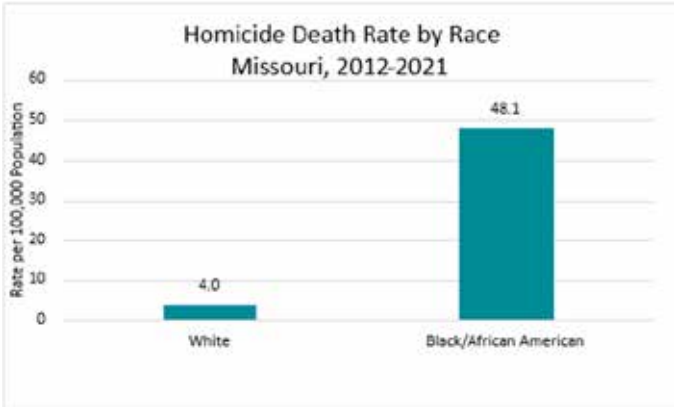


Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Black/African American Missourians experienced homicide rates around 12 times higher than the rate for white residents. Also, males in Missouri had a homicide rate just over 4 times higher than females (16.2 versus 4.0).[32]

FIGURE 88:

Homicide Death Rates by Race



Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

FIGURE 89:

Homicide Death Rates by Sex

Source: Missouri Department of Health and Senior Services, Vital Statistics. Note: Age-adjusted rates per 100,000 population.

Introduction

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Section 1

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[5] U.S Census Bureau, 2012-2021 American Community Survey 1-Year Estimates, Table B01001

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APPENDIX A

Languages spoken in Missouri

DHSS communications are culturally and age appropriate, accessible for those with all reading and ability levels, and available both in urban and rural communities.

According to the U.S. Census, approximately 94% of Missouri residents, age 5 and older, speak English at home. This leaves 6% of Missourians who speak a language other than English at home. Nearly half of Missourians who do not speak English at home speak Spanish. German, Chinese, French, Serbo-Croatian, Vietnamese, Arabic and Russian make up the largest percentages of languages spoken other than English and Spanish.

MISSOURI DEPARTMENT OF
HEALTH & SENIOR SERVICES

5-Year Priorities

- Invest in innovation to modernize infrastructure
- Re-envision and strengthen the workforce
- Build and strengthen partnerships
- Use clear and consistent communication to educate and build trust
- Expand access to services
- Include diversity and inclusion in all practices, programs and services
- Plan for the increase in the aging population

Mission:

Promote health and safety through prevention, collaboration, education, innovation and response.

Vision:

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

Our Values

Excellence

We strive to empower our team members to deliver quality services and exceed the needs of Missourians

Collaboration

We engage and communicate openly with a diverse group of partners to improve health for all Missourians

Access

We deliver services to Missourians in a manner that is sensitive to their unique needs and circumstances while reflecting our rich, diverse community

Integrity

We conduct services with a consistency of character in a highly principled manner by honoring our commitments and maintaining our ethics

Accountability

We embrace responsibility for our work and ensure Missourians view us as a trusted source of information

MISSOURI DEPARTMENT OF
HEALTH &
SENIOR SERVICES

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