



HEALTH

in RURAL MISSOURI

Biennial Report
2020-2021

EXECUTIVE SUMMARY

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

The ORHPC promotes and develops diverse and innovative health care services and models in rural areas and has selected several initiatives for inclusion in the *2020-2021 Health in Rural Missouri Biennial Report*. This report demonstrates the initiatives to educate the public and recommends appropriate public policies regarding the continued viability of rural health care delivery in Missouri, as well as the quality and cost-effectiveness of such care and identify conditions obstructing or hindering that delivery of essential health care services to rural Missouri. This report demonstrates the impacts on Missouri's 2.06 million rural residents and includes Missouri's aging population, social determinants of health (SDOH), poverty, education, unemployment, transportation, COVID-19, leading causes of death, infant and child mortality and access to care.

The *2020-2021 Health in Rural Missouri Biennial Report* analyzed the SDOH to examine health behaviors, health outcomes and access to healthcare issues by addressing Missourians' barriers or disparities associated with where they are born, live, learn, work, play and worship. This report focuses on the 5 SDOHs impacting Missourians and rural health: economic stability, education access and quality, health care access and quality, neighborhoods and built environment, and social and community context. This report addresses creating social, physical and economic environments that promote health equity and decreasing health disparities by achieving the full potential for health and well-being for all.

This report reveals that Missourians living in rural counties seem to experience higher instances of health disparities, when compared to urban counties, which produces worsening health behaviors, health outcomes, and more difficulty accessing necessary health care services as compared to urban Missourians. The *2020-2021 Health in Rural Missouri Biennial Report* key findings include:

- Rural populations have higher rates than urban populations in each of the top 10 causes of death.
- Poverty is much more prevalent in rural areas than in urban areas, with 16.5% of rural residents and 12.3% of urban residents in poverty. Rural Missouri also has much higher percentages of children and elderly living in poverty.
- Rural Missourians have a more difficult time accessing health services for reasons including distance to a healthcare provider, lower rates of insurance coverage, and cost.
- Rural Missouri experienced a higher COVID-19 mortality rate (94.2) than both statewide (87.3) and urban rates (83.2). Black/African American persons living in rural areas were 80% more likely to die from COVID-19 than White persons living in rural areas.
- The rate of opioid-related deaths in Missouri's rural areas (8.7) was 16.6% lower than the national rate (10.4). Missouri's urban death rate for opioids was 44.8% above the national average. Opioid overdose death rates are highest in rural and urban counties in the eastern portion of the state.
- Infant mortality rate in rural Missouri declined by 24.9% between 2009 and 2019. However, the rural rate for infant mortality was 6.8% higher than the urban rate (6.3%).

EXECUTIVE SUMMARY (CONT'D)

- The infrastructure for Community Health Workers is being built to increase frontline public health workers with experience in the communities they serve.
- Accessing basic hospital services is becoming increasingly difficult due to hospital closures and fewer available hospital beds in rural areas. Since the last published *Health in Rural Missouri Biennial Report* in 2019, one rural, general acute care hospital closed bringing the number of hospital closures to 15 leaving 55 counties without a hospital. Many health services available in rural areas are provided by clinics, although they are not equipped to handle medical emergencies.
- Much of rural Missouri is designated by the federal government as a Primary Care Health Professional Shortage Area in medical, dental and mental health.

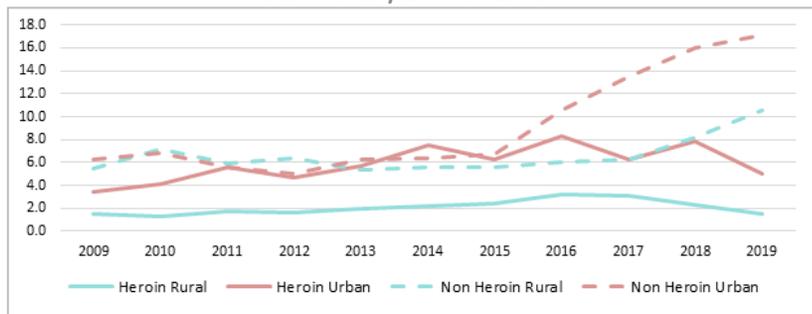
and access to care for Missourians, especially in rural areas. Recognizing health equity and SDOH prospective for policy implications associated with accessibility as a fundamental move to focus on patients and considerations for health literacy, culturally competent communication, patient-centered standards, and simplifying and streamlining cost and complexity of the health care system. Throughout the evaluation in this report, it was evident that rural Missourians have the greatest unmet health care needs. However, all Missourians suffer from high mortality rates, chronic diseases, poor access to care and health behaviors, high levels of unmet health care needs, which exhibits the need for analysis of social systems and evaluation of resources, impactful programs and funding allocations to reduce and prevent poor health quality of Missourians.

A broad, systematic, policy-level approach is needed that brings new and innovative strategies to reduce barriers while improving access to care. The data provided in this report illustrates the ongoing need to improve the health status



The rise of illicitly manufactured fentanyl and other synthetic opioids are changing overdose patterns, causing heroin rates to decline and non-heroin rates to escalate quickly. It is common for fentanyl to be found combined with other drugs such as heroin, counterfeit pills, or cocaine.²⁹ Over recent years, there has been a decline in heroin rates for both rural and urban areas across Missouri. Because of illicit fentanyl, over the last several years, non-heroin rates climbed steadily for both areas.

Heroin and Non-Heroin Opioid Overdose Death Rates by Year Missouri, 2009-2019



Age-adjusted rates per 100,000 population

STROKE

Stroke was the fifth leading cause of death for Missouri, with 33,176 deaths during the years 2009-2019. Missouri's stroke death rate in 2019 (37.6) was not statistically different from the stroke death rate in the U.S. (37.0).³⁰ Certain demographic characteristics correspond with higher rates of stroke deaths in Missouri:

- Rural counties in Missouri had a statistically significantly higher stroke death rate than both the state and urban counties.
- In 2009-2019, the top 10 counties for stroke death rate were all rural, with rates ranging from 66.6 to 53.0. Five of the top 10 counties were located in Southeastern Missouri: Dunklin (66.6), Iron (57.8), Carter (57.7), Mississippi (56.4), and Butler (53.9).
- The urban county with the highest stroke death rate was Buchanan, ranking fourteenth with a rate of 51.4.
- Statewide from 2009-2019, Black/African American residents were 40.5% more likely to die from a stroke than White residents. This trend was similar and statistically significant in both rural and urban areas.

Stroke Death Rates Missouri, 2009-2019

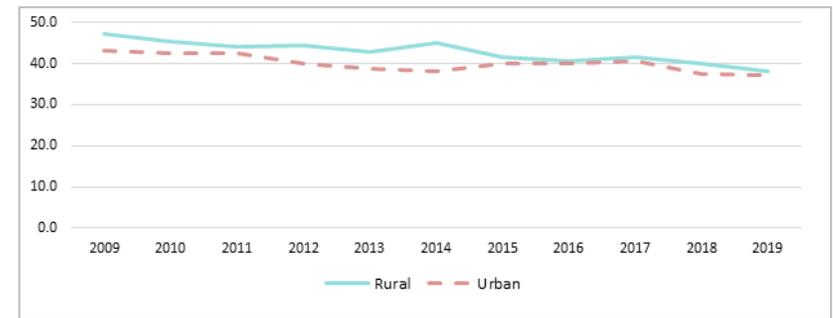
	Rural	Urban
Frequency	12,951	20,225
Rate	42.7	40.0
Percent Change (2009-2019)	-19.4%	-13.8%

Age-adjusted rates per 100,000 population

Fortunately, stroke mortality has been declining in the past decade, and the gap between rural and urban areas is shrinking. Cardiovascular health efforts, such as hypertension and blood sugar screening and control as well as smoking cessation programs, are likely contributing to this decline in stroke incidence and death.³¹

- The Healthy People 2020 goals set a target of a 20% reduction in deaths due to stroke from 2007 to 2020, from 43.5 deaths to 34.8 deaths per 100,000 residents.³² Both rural and urban Missouri stroke death rates in 2019 exceeded the 2020 target death rate of 34.8, but rural Missouri saw a significant 30% decrease in deaths due to stroke from 2007 to 2019.
- Although total deaths due to stroke are decreasing, stroke deaths for Black/African American Missourians continued to increase since 2014. For residents aged 50 years old and over, which comprised of 97.3% of Missouri stroke deaths, the gap in stroke death rates between White and Black/African American residents widened.

Stroke Death Rates by Year Missouri, 2017- 2019



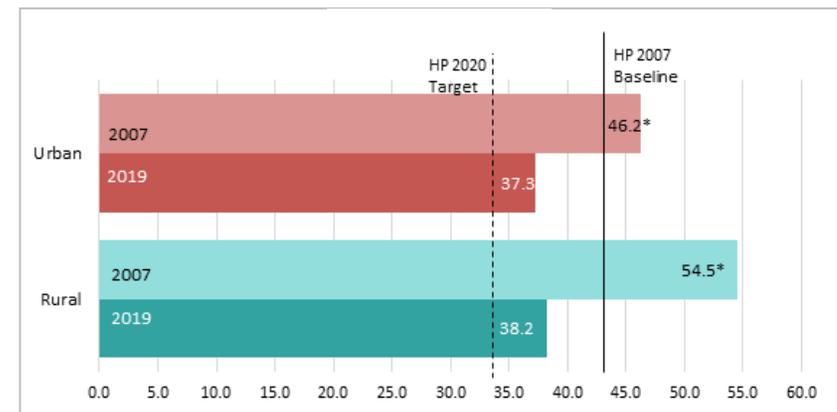
Age-adjusted rates per 100,000 population

Stroke Death Rates Missouri, 2009-2019



*Indicates a rate that is statistically significantly higher, using 95% confidence intervals
Age-adjusted rates per 100,000 population

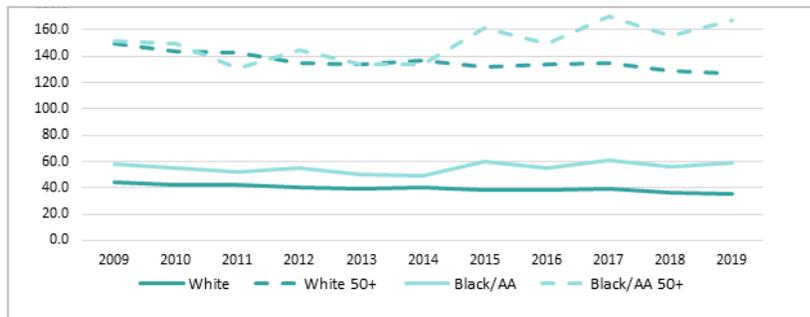
Stroke Death Rate Missouri, 2007 and 2019



*Indicates a rate that is statistically significantly higher, using 95% confidence intervals
Age-adjusted rates per 100,000 population

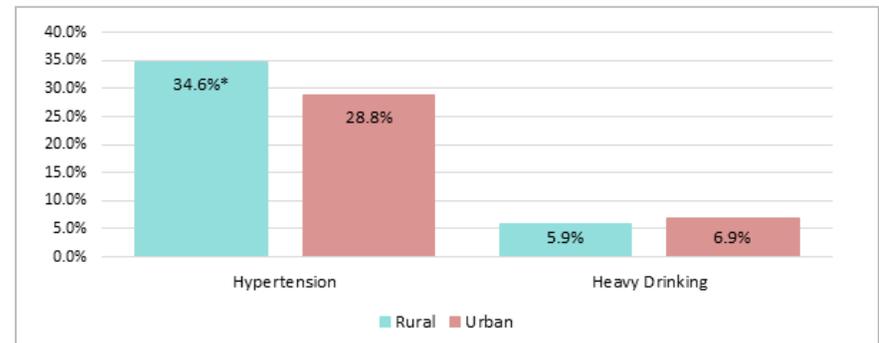
The leading causes of stroke are high blood pressure, high cholesterol, smoking, and diabetes.³³ According to Missouri BRFSS, a significantly higher percentage of people in rural counties reported having hypertension (34.6%) than in urban counties (28.8%). Heavy drinking, another risk factor, was shown to be higher in urban areas (6.9%) than in rural areas (5.9%). It was estimated that up to 80% of strokes are preventable. Maintaining good blood pressure control and healthy levels of cholesterol, as well as limiting intake of alcohol and tobacco products, lowers the risk of stroke remarkably.³³

Stroke Death Rates by Race and Age Missouri, 2009-2019



Rates for race populations are either age-specific or age-adjusted as appropriate and all rates are per 100,000

Stroke Risk Factors Missouri, BRFSS, 2009-2019



*Indicates a rate that is statistically significantly higher, using 95% confidence intervals. Results are based on a response of “yes” to the questions “Have you ever been told by a medical professional you have high blood pressure?” and for men, “Do you have more than 14 drinks per week?” or for women, “Do you have more than 7 drinks per week?”

