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%).

TRANSPORTATION: WORK COMMUTE

The availability and accessibility of transportation is important for many aspects of Missourians' daily lives, including travel to work. Longer daily work commutes correlate with many negative physical and mental health indicators, including, higher blood pressure and cholesterol levels,[11] reduction in sleeping times,[12] and higher risk of depression and anxiety.[13]

In Missouri from 2015-2019, people spent an average of 23.9 minutes driving to work, which was a little less than the national average of 26.9 minutes. Fourteen counties had a 30 minute or longer average commute to work, and 13 of those counties were rural. On average, residents of rural counties had a slightly longer commute to work at 24.8 minutes, whereas residents of urban counties had a 22.7 minute commute to work. Jefferson County was the only urban county demonstrated in the chart below.

Average Minutes to Work
Missouri, 2015-2019

Rank	County	Average Minutes to Work
1	Worth	34.5
2	Lincoln	33.8
3	Maries	33.4
4	Caldwell	33.1
5	Clinton	32.7
6	Washington	32.4
7	Bates	31.9
8	Bollinger	31.9
9	Ozark	31.7
10	Hickory	31.4
11	Jefferson	31.2
12	Warren	30.7
13	Dallas	30.2
14	Monroe	30.0

Source: United States Census Bureau, American Community Survey 2019 5-year Estimates. Table S0801.

TRANSPORTATION: HOSPITAL COMMUTE

Time spent driving to necessary health care services can significantly impact health outcomes. Hospitals typically offer a large variety of health services, provide emergency and acute care, and may be the only available point of care for many people in rural areas. In emergency medical situations, especially in areas where available transportation is sparse, drive time to hospitals is critical, and often means life or death.

Missouri had 46 counties without a general acute care hospital, 45 of which were rural counties. Therefore, demonstrating that due to longer travel distances over 45% of Missouri's rural counties (45 out of 99) had inadequate access to necessary hospital health care services. From the most populous city in each rural county without a hospital, it took an average of 31 minutes to drive to a hospital. The shortest drive to a hospital in these cities was 17 minutes from New London in Ralls County to Hannibal Regional Hospital, and the longest drive was 65 minutes from Ava, in Douglas County, to Mercy Hospital, in Springfield. In 6 of the 45 rural counties without a general hospital, the drive to the nearest hospital from the most populous city was over 40 minutes. However, this does not address the large disparity in access to clinics, health care services, and health care providers.

Access to health care continues to be a significant challenge for rural residents due to the limited availability of transportation but also travel time and travel costs. Rural residents' lack of access to healthcare providers increases the distances rural residents must travel for healthcare.

Average Time to a Hospital

Rank	County	Time to Hospital (minutes)	From City
1	Douglas	65	Ava
2	Ozark	52	Gainesville
3	Reynolds	50	Ellington
4	Wayne	47	Piedmont
5	Dade	45	Greenfield
6	Morgan	45	Versailles
43	Caldwell	19	Hamilton
44	New Madrid	19	Portageville
45	Ralls	17	New London

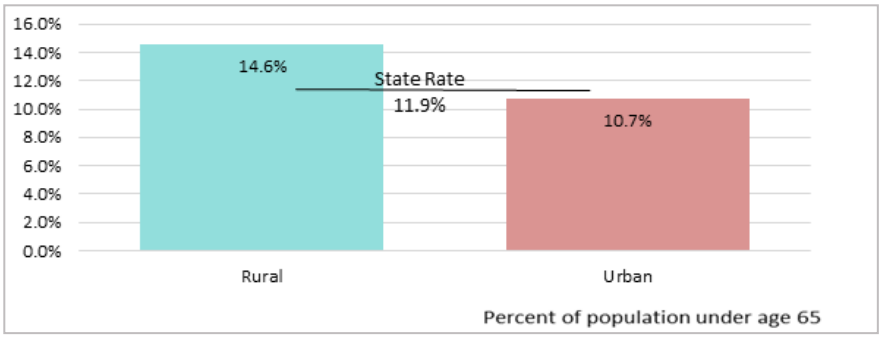
ACCESS TO HEALTH CARE: HEALTH INSURANCE

Health care access and quality is identified as 1 of the 5 key areas in the SDOH framework by Healthy People 2030. Available transportation options and driving distance to quality health care services at hospitals or clinics impacts health care access just as significantly as access to insurance. Insurance status impacts access to health care services, especially in situations when primary care physicians can coordinate so a patient can receive the appropriate health screenings. Individuals without health insurance are 'less likely to have a primary care provider, and they may not be able to afford health care services and medications they need.' [15]

In Missouri, the Small Area Health Insurance Estimates Program (SAHIE) provides data that allows for analysis by rural and urban metrics for a variety of demographic indicators. Due to SAHIE being a national survey, neither confidence intervals nor statistical significance for any of the comparison groups in Missouri could be determined. Because most persons 65 and older receive Medicare coverage, analysis was limited to the under 65 population.

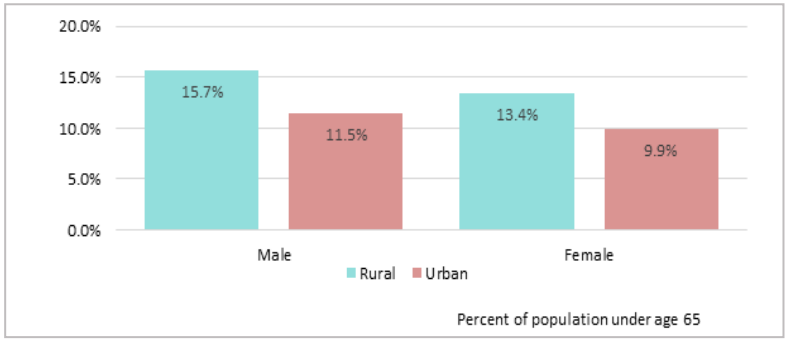
Estimates based on county data from 2019 revealed that the uninsured rate for the under age 65 population was 3.9 percentage points higher in rural areas compared to their urban counterparts (14.6% versus 10.7%). The uninsured rate improved over the last decade with both rural and urban rates decreased by slightly more than 3 percentage points. In 2009, the rural uninsured rate was 17.9% and the urban rate was 13.9% for the under age 65 population.

Percent Without Health Insurance
Missouri, 2019



Source: United States Census Bureau, Small Area Health Insurance Estimates. https://www.census.gov/data/datasets/time-series/demo/sahie/estimates-acs.html. Accessed July 23, 2021.

Percent Without Health Insurance by Sex
Missouri, 2019



Source: United States Census Bureau, Small Area Health Insurance Estimates. https://www.census.gov/data/datasets/time-series/demo/sahie/estimates-acs.html. Accessed July 23, 2021.

HEALTH CARE IN RURAL MISSOURI

Basic access to primary care physicians, psychiatrists, dentists, in-patient and out-patient, hospital, and specialty care services improve overall health and contribute significantly to an area's economic vitality. However, in rural Missouri, access to these health care services are limited, even for those who have health insurance, are financially stable, and have access to transportation. Furthermore, there are vast differences between urban and rural access to hospital, specialty care, and primary care services.

People in rural areas generally have less access to healthcare than their urban counterparts. Fewer primary care practitioners, mental health programs, and healthcare facilities in these areas often mean less preventative care and longer response times in emergencies.

SPECIALTY SERVICES

The lack of access to and sufficient number of hospital and specialty services in rural Missouri is one of the contributors to the higher death rates seen in the Health Status section of this report. Given the lower incomes and increased age of rural residents compared to urban counterparts, the lack of specialty care services can mean no access to or less consistent care for vulnerable populations. Rural Missourians generally have to travel long distances to obtain specialty care, such as cardiology, oncology, and nephrology. Additionally, only 28 rural communities have access to the specialty emergency care necessary to save lives when minutes matter.

No rural Missouri counties have a Level 1 Trauma Center, Pediatric Trauma Center, Stroke Center, or STEMI Center as this level of care is only available in urban Missouri. STEMI (ST-Elevation Myocardial Infarction) is the term used for a type of serious heart attack where 1 of the major arteries that supply oxygen and blood to the heart is blocked.

Designated Hospitals: Rural vs. Urban

	LEVEL 1		LEVEL 2		LEVEL 3		LEVEL 4	
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
TRAUMA CENTER	0	19	0	8	5	4	N?A	N/A
STROKE CENTER	0	11	3	24	23	4	3	0
STEMI CENTER	0	19	6	17	8	0	8	0

Source: https://health.mo.gov/living/healthcondiseases/chronic/tcdsystem/designatedhospitals.php

RURAL HOSPITALS

Rural hospitals are a crucial component of a community's wellbeing. In addition to providing primary, acute, and long-term care they are often a major employer and natural leader in community-based health programs and initiatives. However, low reimbursement rates from Medicare, Medicaid, and other types of insurance, and increased regulation, reduced patient volumes, and unpaid patient medical bills have caused many rural hospitals to struggle financially.[86]

From 2014-2020, a total of 15 Missouri hospitals have closed, of which 10 were located in rural counties. Hospital closures have increased the number of rural counties without a hospital from 51, in 2017, to 55, in 2020. All 15 hospitals were in located in geographic and population based HPSAs.