2021
COMMUNITY HEALTH NEEDS ASSESSMENT

Capital Region Medical Center Service Area
Cole, Callaway, Miller, Moniteau & Osage Counties, Missouri

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INTRODUCTION

PROJECT OVERVIEW

Project Goals

This Community Health Needs Assessment is a systematic, data-driven approach to determining the health status, behaviors, and needs of residents in the service area of Capital Region Medical Center. Subsequently, this information may be used to inform decisions and guide efforts to improve community health and wellness.

A Community Health Needs Assessment provides information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status. This Community Health Needs Assessment will serve as a tool toward reaching three basic goals:

- To improve residents' health status, increase their life spans, and elevate their overall quality of life. A healthy community is not only one where its residents suffer little from physical and mental illness, but also one where its residents enjoy a high quality of life.

- To reduce the health disparities among residents. By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at-risk for various diseases and injuries. Intervention plans aimed at targeting these individuals may then be developed to combat some of the socio-economic factors that historically have had a negative impact on residents' health.

- To increase accessibility to preventive services for all community residents. More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans, and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

This assessment was conducted on behalf of Capital Region Medical Center by PRC, a nationally recognized health care consulting firm with extensive experience conducting Community Health Needs Assessments in hundreds of communities across the United States since 1994.

Methodology

This assessment incorporates data from multiple sources, including primary research (through the PRC Community Health Survey and PRC Online Key Informant Survey), as well as secondary research (vital statistics and other existing health-related data). It also allows for comparison to benchmark data at the state and national levels.

PRC Community Health Survey

Survey Instrument

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by Capital Region Medical Center and PRC.

Community Defined for This Assessment

The study area for the survey effort (referred to as the "Total Service Area" in this report) is defined as each of the residential ZIP Codes primarily associated with Cole, Miller, Moniteau, and Osage Counties. Three ZIP Codes in Callaway County are also included (and combined with Osage County in the analysis of survey data). This community definition, determined based on the ZIP Codes of residence of recent patients of Capital Region Medical Center, is illustrated in the following map.
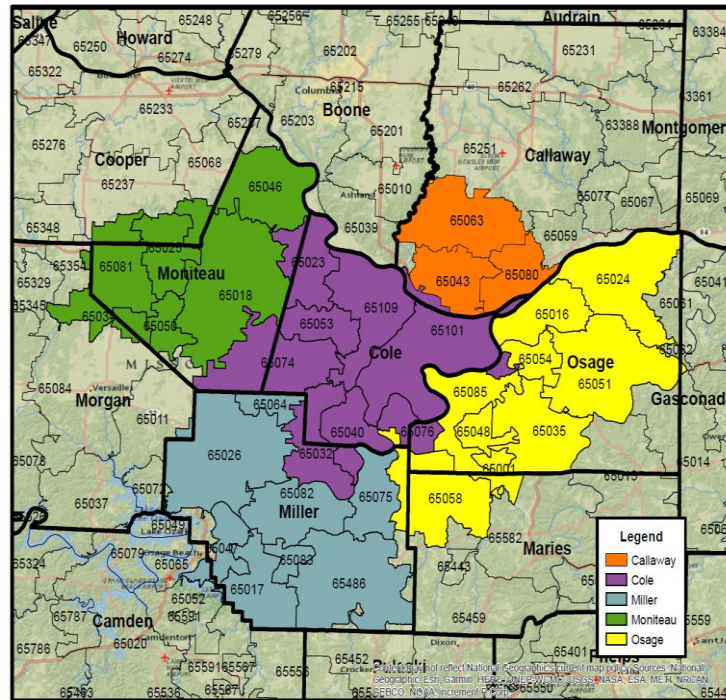
Sample Approach & Design

A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the PRC Community Health Survey. Thus, to ensure the best representation of the population surveyed a mixed-mode methodology was implemented. This included surveys conducted via telephone (landline and cell phone), as well as through online questionnaires.

In all, 449 surveys were collected for this study among residents age 18 and older in the Total Service Area, including 400 completed through random, targeted telephone surveying and 49 collected online via an internet link promoted by Capital Region Medical Center.

For statistical purposes, the maximum rate of error associated with a sample size of 449 respondents is ±4.6% at the 95 percent confidence level.

Expected Error Ranges for a Sample of 449 Respondents at the 95 Percent Level of Confidence
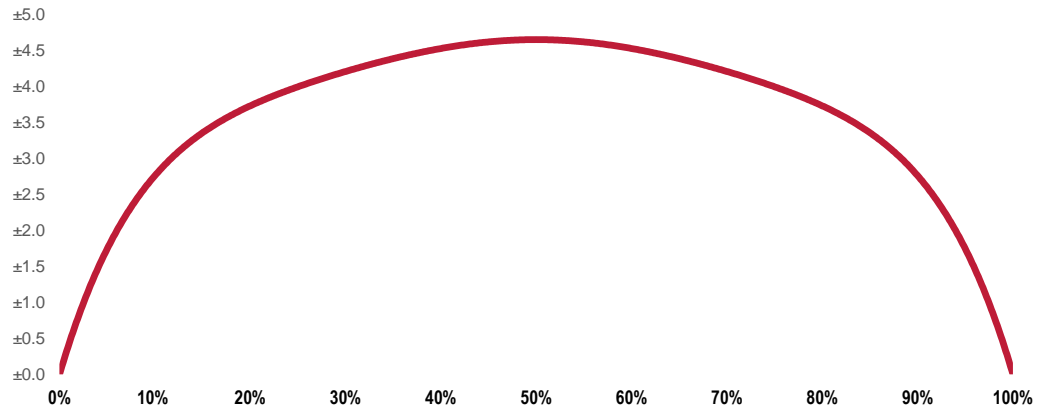
Note: ● The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

Examples: ● If 10% of the sample of 449 respondents answered a certain question with a "yes," it can be asserted that between 7.2% and 12.8% (10% ± 2.8%) of the total population would offer this response.

● If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 45.4% and 54.6% (50% ± 4.6%) of the total population would respond "yes" if asked this question.

Sample Characteristics

To accurately represent the population studied, PRC strives to minimize bias through application of a proven telephone methodology and random-selection techniques. While this random sampling of the population produces a highly representative sample, it is a common and preferred practice to "weight" the raw data to improve this representativeness even further. This is accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (poststratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely sex, age, race, ethnicity, and poverty status), and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The following chart outlines the characteristics of the Total Service Area sample for key demographic variables, compared to actual population characteristics revealed in census data. [Note that the sample consisted solely of area residents age 18 and older; data on children were given by proxy by the person most responsible for that child's health care needs, and these children are not represented demographically in this chart.]

Population & Survey Sample Characteristics
(Total Service Area, 2021)

■ Actual Population ■ **Final Survey Sample**

	Actual Population	Final Survey Sample
Men	50.5%	**50.6%**
Women	49.5%	**49.4%**
18 to 39	37.2%	**37.0%**
40 to 64	44.0%	**43.9%**
65+	18.8%	**19.1%**
White (Non-Hisp)	88.9%	**88.9%**
Other (Non-Hisp)	9.3%	**9.3%**
Hispanic	1.8%	**1.8%**
<200% FPL	31.3%	**29.3%**

Other races include:
Black — 7.2%
American Native — 1.0%
Asian — 0.5%
Multiple/Other — 0.6%
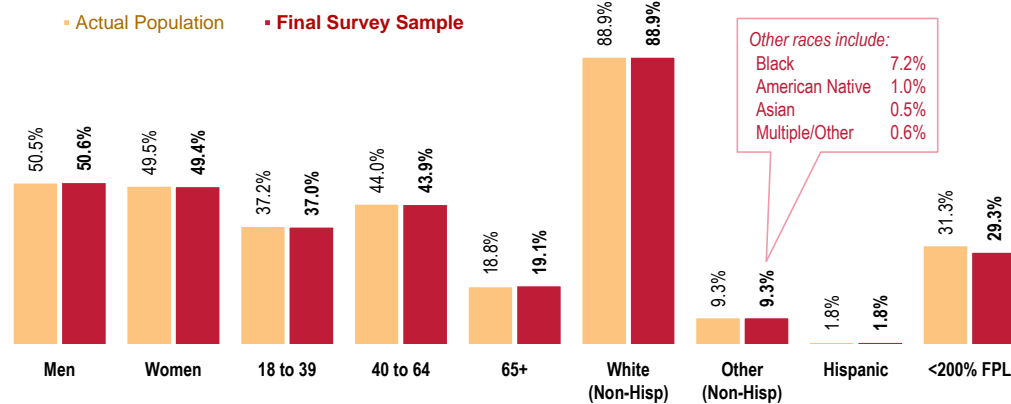
Sources: ● US Census Bureau, 2011-2015 American Community Survey.
● 2021 PRC Community Health Survey, PRC, Inc.
Notes: ● FPL is federal poverty level, based on guidelines established by the US Department of Health & Human Services.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

INCOME & RACE/ETHNICITY

INCOME ▶ Poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household (e.g., the 2020 guidelines place the poverty threshold for a family of four at $26,200 annual household income or lower). In sample segmentation: "low income" refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice (<200% of) the poverty threshold; "mid/high income" refers to those households living on incomes which are twice or more (≥200% of) the federal poverty level.

RACE & ETHNICITY ▶ While the survey data are representative of the racial and ethnic makeup of the population, the samples for Hispanic and non-White race groups were not of sufficient size for independent analysis.

Online Key Informant Survey

To solicit input from key informants, those individuals who have a broad interest in the health of the community, an Online Key Informant Survey also was implemented as part of this process. A list of recommended participants was provided by Capital Region Medical Center; this list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the survey online; reminder emails were sent as needed to increase participation. In all, 26 community stakeholders took part in the Online Key Informant Survey, as outlined below:

ONLINE KEY INFORMANT SURVEY PARTICIPATION	
KEY INFORMANT TYPE	NUMBER PARTICIPATING
Physicians	1
Public Health Representatives	2
Other Health Providers	2
Social Services Providers	9
Other Community Leaders	12

Final participation included representatives of the organizations outlined below.

- 1st Choice Employment
- American Red Cross
- Big Brothers Big Sisters
- Boys & Girls Club
- Capital Region Medical Center
- Cargill
- Central Missouri Community Action (CMCA)
- City of Jefferson
- Cole County Health
- Common Ground
- Council for Drug Free Youth

- Homemaker Health Care
- Jefferson City Public Schools
- Missouri Dept. of Health & Human Services
- Missouri Hospital Association
- Osage Ambulance District
- Osage County Special Services
- Rape & Abuse Crisis Services
- Special Learning Center
- United Way of Central Missouri
- University of Missouri

Through this process, input was gathered from several individuals whose organizations work with low-income, minority, or other medically underserved populations.

In the online survey, key informants were asked to rate the degree to which various health issues are a problem in their own community. Follow-up questions asked them to describe why they identify problem areas as such and how these might better be addressed. Results of their ratings, as well as their verbatim comments, are included throughout this report as they relate to the various other data presented.

NOTE: These findings represent qualitative rather than quantitative data. The Online Key Informant Survey was designed to gather input regarding participants' opinions and perceptions of the health needs of the residents in the area.

Public Health, Vital Statistics & Other Data

A variety of existing (secondary) data sources was consulted to complement the research quality of this Community Health Needs Assessment. Data for the Total Service Area were obtained from the following sources (specific citations are included with the graphs throughout this report):

- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension, SparkMap (sparkmap.org)
- Centers for Disease Control & Prevention, Office of Infectious Disease, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

- Centers for Disease Control & Prevention, Office of Public Health Science Services, Center for Surveillance, Epidemiology and Laboratory Services, Division of Health Informatics and Surveillance (DHIS)

- Centers for Disease Control & Prevention, Office of Public Health Science Services, National Center for Health Statistics

- ESRI ArcGIS Map Gallery

- National Cancer Institute, State Cancer Profiles

- OpenStreetMap (OSM)

- US Census Bureau, American Community Survey

- US Census Bureau, County Business Patterns

- US Census Bureau, Decennial Census

- US Department of Agriculture, Economic Research Service

- US Department of Health & Human Services

- US Department of Health & Human Services, Health Resources and Services Administration (HRSA)

- US Department of Justice, Federal Bureau of Investigation

- US Department of Labor, Bureau of Labor Statistics

Note that secondary data reflect county-level data. (In the case of Callaway County, whereas survey data are exclusive to three specific ZIP Codes in the county, secondary data reflect the entirety of Callaway County.)

Benchmark Data

Missouri Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data represent the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trends Data* published online by the Centers for Disease Control and Prevention. State-level vital statistics are also provided for comparison of secondary data indicators.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts, are taken from the *2020 PRC National Health Survey*; the methodological approach for the national study is similar to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence. National-level vital statistics are also provided for comparison of secondary data indicators.

Healthy People 2030

Healthy People provides 10-year, measurable public health objectives — and tools to help track progress toward achieving them. Healthy People identifies public health priorities to help individuals, organizations, and communities across the United States improve health and well-being. Healthy People 2030, the initiative's fifth iteration, builds on knowledge gained over the first four decades.

Healthy People 2030's overarching goals are to:

- Attain healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death.

- Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all.

- Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all.

- Promote healthy development, healthy behaviors, and well-being across all life stages.

- Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.

The Healthy People 2030 framework was based on recommendations made by the Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030. After getting feedback from individuals and organizations and input from subject matter experts, the U.S. Department of Health and Human Services (HHS) approved the framework which helped guide the selection of Healthy People 2030 objectives.

Determining Significance

Differences noted in this report represent those determined to be significant. For survey-derived indicators (which are subject to sampling error), statistical significance is determined based on confidence intervals (at the 95 percent confidence level), using question-specific samples and response rates. For the purpose of this report, "significance" of secondary data indicators (which do not carry sampling error but might be subject to reporting error) is determined by a 15% variation from the comparative measure.

Information Gaps

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups — such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish — are not represented in the survey data. Other population groups — for example, pregnant women, lesbian/gay/bisexual/ transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups — might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly medical conditions that are not specifically addressed.

Public Comment

Capital Region Medical Center made its prior Community Health Needs Assessment (CHNA) report publicly available through its website; through that mechanism, the hospital requested from the public written comments and feedback regarding the CHNA and implementation strategy. At the time of this writing, Capital Region Medical Center had not received any written comments. However, through population surveys and key informant feedback for this assessment, input from the broader community was considered and taken into account when identifying and prioritizing the significant health needs of the community. Capital Region Medical Center will continue to use its website as a tool to solicit public comments and ensure that these comments are considered in the development of future CHNAs.

IRS FORM 990, SCHEDULE H COMPLIANCE

For non-profit hospitals, a Community Health Needs Assessment (CHNA) also serves to satisfy certain requirements of tax reporting, pursuant to provisions of the Patient Protection & Affordable Care Act of 2010. To understand which elements of this report relate to those requested as part of hospitals' reporting on IRS Schedule H (Form 990), the following table cross-references related sections.

IRS FORM 990, SCHEDULE H (2019)	See Report Page
Part V Section B Line 3a A definition of the community served by the hospital facility	6
Part V Section B Line 3b Demographics of the community	31
Part V Section B Line 3c Existing health care facilities and resources within the community that are available to respond to the health needs of the community	152
Part V Section B Line 3d How data was obtained	6
Part V Section B Line 3e The significant health needs of the community	14
Part V Section B Line 3f Primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups	Addressed Throughout
Part V Section B Line 3g The process for identifying and prioritizing community health needs and services to meet the community health needs	14
Part V Section B Line 3h The process for consulting with persons representing the community's interests	9
Part V Section B Line 3i The impact of any actions taken to address the significant health needs identified in the hospital facility's prior CHNA(s)	156

SUMMARY OF FINDINGS

Significant Health Needs of the Community

The following "Areas of Opportunity" represent the significant health needs of the community, based on the information gathered through this Community Health Needs Assessment. From these data, opportunities for health improvement exist in the area with regard to the following health issues (see also the summary tables presented in the following section).

The Areas of Opportunity were determined after consideration of various criteria, including: standing in comparison with benchmark data (particularly national data); the preponderance of significant findings within topic areas; the magnitude of the issue in terms of the number of persons affected; and the potential health impact of a given issue. These also take into account those issues of greatest concern to the community stakeholders (key informants) giving input to this process.

AREAS OF OPPORTUNITY IDENTIFIED THROUGH THIS ASSESSMENT	
ACCESS TO HEALTH CARE SERVICES	▪ Barriers to Access – Appointment Availability ▪ Primary Care Physician Ratio ▪ Eye Exams ▪ Ratings of Local Health Care
CANCER	▪ Leading Cause of Death ▪ Lung Cancer Deaths
DIABETES	▪ Diabetes Deaths
HEART DISEASE & STROKE	▪ Leading Cause of Death ▪ High Blood Pressure Prevalence ▪ Overall Cardiovascular Risk
INJURY & VIOLENCE	▪ Motor Vehicle Crash Deaths ▪ Firearm-Related Deaths
KIDNEY DISEASE	▪ Kidney Disease Deaths ▪ Hypertensive Renal Disease Deaths
MENTAL HEALTH	▪ Suicide Deaths ▪ Key Informants: Mental health ranked as a top concern.
NUTRITION, PHYSICAL ACTIVITY & WEIGHT	▪ Fruit/Vegetable Consumption ▪ Overweight & Obesity [Adults]
POTENTIALLY DISABLING CONDITIONS	▪ High-Impact Chronic Pain
RESPIRATORY DISEASE	▪ Lung Disease Deaths
SUBSTANCE ABUSE	▪ Use of Prescription Opioids ▪ Sought Help for Alcohol/Drug Issues ▪ Key Informants: Substance abuse ranked as a top concern.

Community Feedback on Prioritization of Health Needs

Prioritization of the health needs identified in this assessment ("Areas of Opportunity" above) was determined based on a prioritization exercise conducted among community stakeholders (representing a cross-section of community-based agencies and organizations) in conjunction with the administration of the Online Key Informant Survey.

In this process, these key informants were asked to rate the severity of a variety of health issues in the community. Insofar as these health issues were identified through the data above and/or were identified as top concerns among key informants, their ranking of these issues informed the following priorities:

1. Mental Health
2. Substance Abuse
3. Diabetes
4. Heart Disease & Stroke
5. Nutrition, Physical Activity & Weight
6. Disability & Chronic Pain
7. Cancer
8. Kidney Disease
9. Access to Healthcare Services
10. Injury & Violence
11. Respiratory Diseases

Hospital Implementation Strategy

Capital Region Medical Center will use the information from this Community Health Needs Assessment to develop an Implementation Strategy to address the significant health needs in the community. While the hospital will likely not implement strategies for all of the health issues listed above, the results of this prioritization exercise will be used to inform the development of the hospital's action plan to guide community health improvement efforts in the coming years.

Note: An evaluation of the hospital's past activities to address the needs identified in prior CHNAs can be found as an appendix to this report.

Summary Tables:
Comparisons With Benchmark Data

Reading the Summary Tables

⬛ In the following tables, Total Service Area results are shown in the larger, gray column.

🟦 The columns to the left of the Total Service Area column provide comparisons among the five counties, identifying differences for each as "better than" (☀), "worse than" (👹), or "similar to" (🔺) the combined opposing areas.

🟪 The columns to the right of the Total Service Area column provide comparisons between local data and any available state and national findings, and Healthy People 2030 objectives. Again, symbols indicate whether the Total Service Area compares favorably (☀), unfavorably (👹), or comparably (🔺) to these external data.

> Note that blank table cells signify that data are not available or are not reliable for that area and/or for that indicator.
>
> In the case of Callaway County, whereas survey data are exclusive to three specific ZIP Codes in the county, secondary data reflect the entirety of Callaway County.
>
> *Tip: Indicator labels beginning with a "%" symbol are taken from the PRC Community Health Survey; the remaining indicators are taken from secondary data sources.*

DISPARITY AMONG COUNTIES | TOTAL SERVICE AREA vs. BENCHMARKS

Icons: ☀ = better, ☁ = similar, 🌧 = worse

SOCIAL DETERMINANTS	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
Linguistically Isolated Population (Percent)	☁ 0.5	☁ 0.5	☀ 0.3	☀ 0.1	🌧 2.2	0.6	☀ 1.1	☀ 4.3	
Population in Poverty (Percent)	☁ 10.4	☁ 10.6	☀ 7.4	🌧 16.9	☁ 12.0	11.3	☀ 13.7	☀ 13.4	🌧 8.0
Children in Poverty (Percent)	☁ 14.3	🌧 17.8	☀ 8.7	🌧 27.4	☁ 15.1	16.7	☁ 18.7	☁ 18.5	🌧 8.0
No High School Diploma (Age 25+, Percent)	☀ 7.7	☁ 13.8	☀ 10.1	☁ 12.7	☁ 14.6	10.8	☁ 10.1	☁ 12.0	
% Unable to Pay Cash for a $400 Emergency Expense	☁ 10.8	🌧 52.7	☀ 2.5	☁ 13.3	☁ 7.0	13.3		☀ 24.6	
% Worry/Stress Over Rent/Mortgage in Past Year	☀ 14.7	🌧 52.0	☁ 12.6	☁ 26.8	☁ 12.5	18.9		☀ 32.2	
% Unhealthy/Unsafe Housing Conditions	🌧 5.8	☁ 2.7	☀ 0.0	☁ 1.1	☀ 0.0	3.9		☀ 12.2	
% Food Insecure	☁ 10.3	☁ 7.5	☀ 1.3	🌧 23.5	☀ 4.6	10.4		☀ 34.1	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better ☁ similar 🌧 worse

DISPARITY AMONG COUNTIES | TOTAL SERVICE AREA vs. BENCHMARKS

OVERALL HEALTH	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% "Fair/Poor" Overall Health	☀ 18.7	🌧 52.5	☁ 15.2	☁ 29.7	☁ 21.1	22.6	☁ 18.9	🌧 12.6	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better ☁ similar 🌧 worse

ACCESS TO HEALTH CARE	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% [Age 18-64] Lack Health Insurance						8.7	☀ 16.8	☁ 8.7	☁ 7.9
% Difficulty Accessing Health Care in Past Year (Composite)	☁ 37.4	☀ 24.2	☁ 46.8	🌧 60.5	☀ 21.4	38.9		☁ 35.0	
% Cost Prevented Physician Visit in Past Year	☁ 12.0	☁ 5.7	☁ 5.1	☁ 16.6	☀ 0.0	10.3	☀ 14.3	☁ 12.9	
% Cost Prevented Getting Prescription in Past Year	🌧 12.1	☀ 1.7	☁ 5.9	☁ 5.9	☀ 0.0	8.8		☀ 12.8	
% Difficulty Getting Appointment in Past Year	☁ 22.3	☁ 14.2	☁ 32.6	☁ 32.8	☀ 8.5	22.8		🌧 14.5	
% Inconvenient Hrs Prevented Dr Visit in Past Year	☀ 7.9	☁ 6.6	☁ 19.8	🌧 42.7	☁ 7.1	13.5		☁ 12.5	
% Difficulty Finding Physician in Past Year	☁ 12.1	☁ 7.0	☀ 3.2	☁ 15.9	☀ 1.6	10.4		☁ 9.4	
% Transportation Hindered Dr Visit in Past Year	☀ 2.3	☁ 6.3	☁ 6.9	☁ 6.1	☁ 7.5	4.0		☀ 8.9	
% Language/Culture Prevented Care in Past Year	☁ 0.0	☁ 1.3	☁ 0.0	☁ 3.5	☁ 0.0	0.6		☀ 2.8	
% Skipped Prescription Doses to Save Costs	🌧 12.3	☁ 8.0	☁ 13.1	☀ 1.2	☀ 0.3	9.4		☁ 12.7	
% Difficulty Getting Child's Health Care in Past Year						4.3		☁ 8.0	
Primary Care Doctors per 100,000	☀ 70.5	☀ 37.8	🌧 14.6	☁ 27.8	🌧 12.5	46.5	🌧 70.0	🌧 76.7	

ACCESS TO HEALTH CARE (continued)	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
% Have a Specific Source of Ongoing Care	(similar) 74.6	(worse) 47.8	(similar) 79.6	(similar) 73.8	(similar) 61.5	71.7		(similar) 74.2	(worse) 84.0
% Have Had Routine Checkup in Past Year	(better) 78.9	(similar) 81.6	(worse) 49.1	(similar) 61.2	(similar) 60.5	72.0	(worse) 77.5	(similar) 70.5	
% Child Has Had Checkup in Past Year						92.1		(better) 77.4	
% Two or More ER Visits in Past Year	(similar) 7.1	(similar) 12.0	(similar) 14.4	(similar) 11.3	(similar) 8.1	8.8		(similar) 10.1	
% Eye Exam in Past 2 Years	(better) 58.1	(worse) 34.4	(similar) 42.6	(similar) 50.4	(similar) 49.4	53.0		(worse) 61.0	(worse) 61.1
% Rate Local Health Care "Fair/Poor"	(similar) 12.9	(better) 4.5	(similar) 10.9	(similar) 16.7	(better) 5.3	12.1		(worse) 8.0	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

(sun) better (cloud) similar (rain) worse

CANCER	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
Cancer (Age-Adjusted Death Rate)	(similar) 140.4	(worse) 183.0	(similar) 163.2	(similar) 151.4	(similar) 132.7	153.7	(similar) 164.1	(similar) 149.3	(worse) 122.7
Lung Cancer (Age-Adjusted Death Rate)						44.0	(similar) 44.3	(worse) 34.9	(worse) 25.1
Prostate Cancer (Age-Adjusted Death Rate)						14.8	(better) 17.7	(better) 18.6	(similar) 16.9
Female Breast Cancer (Age-Adjusted Death Rate)						22.0	(similar) 19.9	(similar) 19.7	(worse) 15.3

CANCER (continued)	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
							TOTAL SERVICE AREA vs. BENCHMARKS		
Colorectal Cancer (Age-Adjusted Death Rate)						10.0	☀ 14.3	☀ 13.4	☁ 8.9
Cancer Incidence Rate (All Sites)	☁ 441.8	☁ 447.5	☁ 450.0	☁ 446.3	☁ 400.5	441.0	☁ 454.9	☁ 448.7	
Female Breast Cancer Incidence Rate	☁ 132.9	☁ 122.8	☁ 107.6	☁ 126.2	☁ 112.1	125.7	☁ 130.5	☁ 125.9	
Prostate Cancer Incidence Rate	🌧 98.1	☁ 90.1	☁ 76.9	☁ 82.0	☀ 65.1	89.0	☁ 91.4	☀ 104.5	
Lung Cancer Incidence Rate	☁ 62.9	☁ 71.5	☀ 44.8	☁ 76.2	☁ 67.4	66.0	☁ 72.0	☁ 58.3	
Colorectal Cancer Incidence Rate	☁ 38.6	☁ 43.6	☁ 36.9	🌧 48.4	☁ 37.8	41.2	☁ 40.5	☁ 38.4	
% Cancer	☁ 10.0	☁ 5.1	☀ 2.0	☁ 10.8	☁ 18.1	9.7	☀ 13.9	☁ 10.0	
% [Women 50-74] Mammogram in Past 2 Years						79.6	☁ 75.2	☁ 76.1	☁ 77.1
% [Women 21-65] Cervical Cancer Screening						82.4	☁ 79.8	☀ 73.8	☁ 84.3
% [Age 50-75] Colorectal Cancer Screening						79.6	☀ 69.8	☁ 77.4	☀ 74.4

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀	☁	🌧
better	similar	worse

DIABETES

DIABETES	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
Diabetes (Age-Adjusted Death Rate)	30.2 (better)	32.2 (better)		43.9 (similar)	112.5 (worse)	40.2	20.9 (worse)	21.5 (worse)	
% Diabetes/High Blood Sugar	12.8 (similar)	20.5 (similar)	14.0 (similar)	16.2 (similar)	4.5 (better)	13.2	10.3 (similar)	13.8 (similar)	
% Borderline/Pre-Diabetes	6.3 (similar)	4.2 (similar)	8.5 (similar)	0.6 (better)	11.3 (similar)	6.1		9.7 (better)	
% [Non-Diabetics] Blood Sugar Tested in Past 3 Years						43.5		43.3 (similar)	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

Legend: sun = better, cloud = similar, rain = worse

HEART DISEASE & STROKE

HEART DISEASE & STROKE	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
Diseases of the Heart (Age-Adjusted Death Rate)	151.5 (similar)	165.7 (similar)	158.7 (similar)	180.7 (similar)	165.4 (similar)	161.6	188.8 (better)	163.4 (similar)	127.4 (worse)
% Heart Disease (Heart Attack, Angina, Coronary Disease)	6.6 (similar)	4.4 (similar)	3.6 (similar)	7.1 (similar)	0.6 (better)	5.7	7.5 (similar)	6.1 (similar)	
Stroke (Age-Adjusted Death Rate)	30.9 (similar)	34.9 (similar)		39.8 (similar)		33.1	39.1 (better)	37.2 (similar)	33.4 (similar)
% Stroke	3.5 (similar)	0.7 (better)	0.3 (better)	6.8 (similar)	6.1 (similar)	3.7	4.0 (similar)	4.3 (similar)	
% Told Have High Blood Pressure	43.2 (similar)	76.5 (worse)	48.3 (similar)	53.7 (similar)	35.5 (similar)	46.4	30.9 (worse)	36.9 (worse)	27.7 (worse)
% Told Have High Cholesterol	33.7 (similar)	28.8 (similar)	34.1 (similar)	34.9 (similar)	23.6 (similar)	32.6		32.7 (similar)	

HEART DISEASE & STROKE

	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
HEART DISEASE & STROKE	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
% 1+ Cardiovascular Risk Factor	☁ 90.2	☁ 92.5	☁ 88.7	☁ 83.7	☁ 79.8	88.4		🌧 84.6	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better	☁ similar	🌧 worse

INFANT HEALTH & FAMILY PLANNING

	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
INFANT HEALTH & FAMILY PLANNING	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
Low Birthweight Births (Percent)	☁ 8.2	☁ 8.0	☁ 7.2	☁ 8.2	☀ 6.0	7.8	☁ 8.5	☁ 8.2	
Infant Death Rate						4.8	☀ 6.2	☀ 5.6	☁ 5.0
Births to Adolescents Age 15 to 19 (Rate per 1,000)	☁ 21.0	☁ 21.2	☀ 9.6	🌧 37.3	🌧 25.6	22.8	☁ 24.3	☁ 20.9	☀ 31.4

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better	☁ similar	🌧 worse

INJURY & VIOLENCE

	DISPARITY AMONG COUNTIES					Total Service Area	TOTAL SERVICE AREA vs. BENCHMARKS		
INJURY & VIOLENCE	Cole County	Callaway County	Osage County	Miller County	Moniteau County		vs. MO	vs. US	vs. HP2030
Unintentional Injury (Age-Adjusted Death Rate)	☀ 39.4	☁ 47.9	☁ 58.0	🌧 64.2		47.0	☀ 60.5	☁ 48.9	☁ 43.2
Motor Vehicle Crashes (Age-Adjusted Death Rate)	☀ 10.9	🌧 18.0				14.4	☁ 14.9	🌧 11.3	🌧 10.1
[65+] Falls (Age-Adjusted Death Rate)						40.9	☀ 68.2	☀ 65.1	☀ 63.4

DISPARITY AMONG COUNTIES | TOTAL SERVICE AREA vs. BENCHMARKS

INJURY & VIOLENCE (continued)	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
Firearm-Related Deaths (Age-Adjusted Death Rate)						17.0	☀ 21.2	🌧 11.9	🌧 10.7
Homicide (Age-Adjusted Death Rate)						6.3	☀ 11.2	☁ 6.1	☁ 5.5
Violent Crime Rate	☁ 318.7	🌧 433.3	☀ 30.0	☁ 276.3	☀ 129.0	303.0	☀ 524.3	☀ 416.0	
% Victim of Violent Crime in Past 5 Years	🌧 2.9	☀ 0.0	☀ 0.0	☁ 1.1	☀ 0.0	1.9		☀ 6.2	
% Victim of Intimate Partner Violence	☁ 13.2	☁ 11.6	☀ 0.9	☁ 14.5	☁ 14.6	12.2		☁ 13.7	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better   ☁ similar   🌧 worse

DISPARITY AMONG COUNTIES | TOTAL SERVICE AREA vs. BENCHMARKS

KIDNEY DISEASE	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
Kidney Disease (Age-Adjusted Death Rate)	☁ 18.2	☁ 20.7				18.3	☁ 19.0	🌧 12.9	
% Kidney Disease	☀ 4.1	☁ 10.7	☁ 5.9	🌧 16.9	☁ 6.7	6.7	🌧 3.1	☁ 5.0	
Hypertensive Renal Disease (Age-Adjusted Death Rate)	☀ 23.6	☀ 14.2		☁ 32.3	🌧 51.3	24.3	🌧 7.5	🌧 8.9	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better   ☁ similar   🌧 worse

MENTAL HEALTH

Legend: ☀ better · ☁ similar · 🌧 worse

MENTAL HEALTH	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% "Fair/Poor" Mental Health	☁ 17.4	☁ 20.0	☁ 9.4	☁ 21.9	☁ 14.2	17.2		☁ 13.4	
% Diagnosed Depression	☁ 25.9	☁ 22.9	☀ 15.0	☁ 36.2	☀ 13.6	24.9	☁ 22.8	☁ 20.6	
% Symptoms of Chronic Depression (2+ Years)	🌧 38.3	☁ 33.6	☀ 15.5	☁ 39.9	☀ 10.7	33.4		☁ 30.3	
% Typical Day Is "Extremely/Very" Stressful	☁ 7.5	☁ 8.5	☁ 7.9	☁ 17.6	☁ 5.8	8.8		☀ 16.1	
Suicide (Age-Adjusted Death Rate)	☁ 17.0	☁ 15.4				17.9	☁ 18.7	🌧 14.0	🌧 12.8
Mental Health Providers per 100,000	☀ 69.2	☀ 77.8		🌧 15.9	🌧 12.5	53.3	☀ 35.5	☁ 55.5	
% Taking Rx/Receiving Mental Health Trtmt	☁ 20.2	☁ 24.5	☀ 4.8	☁ 25.8	☁ 17.9	19.6		☁ 16.8	
% Unable to Get Mental Health Svcs in Past Yr	☁ 5.8	☀ 0.0	☀ 1.3	☁ 8.7	☀ 0.0	4.8		☀ 7.8	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀ better ☁ similar 🌧 worse

NUTRITION, PHYSICAL ACTIVITY & WEIGHT

NUTRITION, PHYSICAL ACTIVITY & WEIGHT	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
Population With Low Food Access (Percent)	🌧 30.0	🌧 19.8	☁ 10.2	☀ 8.1	☁ 10.2	20.9	☀ 25.6	☁ 22.4	
% "Very/Somewhat" Difficult to Buy Fresh Produce	☁ 10.0	☁ 15.1	☁ 11.5	🌧 25.2	☀ 4.8	12.1		☀ 21.1	

NUTRITION, PHYSICAL ACTIVITY & WEIGHT (continued)	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% 5+ Servings of Fruits/Vegetables per Day	☁ 23.4	☁ 20.3	☁ 32.7	☁ 32.3	☁ 29.7	25.7		🌧 32.7	
% No Leisure-Time Physical Activity	☁ 19.9	☁ 31.3	🌧 35.2	☁ 27.7	☁ 14.3	22.7	☀ 30.6	☀ 31.3	☁ 21.2
% Meeting Physical Activity Guidelines	☀ 23.7	🌧 6.3	🌧 6.9	☁ 11.4	☁ 21.9	19.0	☁ 17.1	☁ 21.4	🌧 28.4
% Child [Age 2-17] Physically Active 1+ Hours per Day						53.7		☀ 33.0	
Recreation/Fitness Facilities per 100,000	☀ 1.5	🌧 0.0	☁ 0.0	☁ 0.0	☁ 0.0	0.6			
% Healthy Weight (BMI 18.5-24.9)	🌧 19.3	☁ 18.4	☀ 36.6	☁ 27.4	☁ 30.0	22.9	🌧 30.3	🌧 34.5	
% Overweight (BMI 25+)	☁ 77.1	☁ 81.5	☁ 63.4	☁ 72.4	☁ 69.9	74.9	🌧 68.1	🌧 61.0	
% Obese (BMI 30+)	☁ 46.8	🌧 64.3	☁ 48.6	☁ 53.3	☁ 54.1	49.9	🌧 34.8	🌧 31.3	🌧 36.0
% Children [Age 5-17] Healthy Weight						68.1		☀ 47.6	
% Children [Age 5-17] Overweight (85th Percentile)						24.6		☁ 32.3	
% Children [Age 5-17] Obese (95th Percentile)						16.9		☁ 16.0	☁ 15.5

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

TOTAL SERVICE AREA vs. BENCHMARKS

☀ better ☁ similar 🌧 worse

ORAL HEALTH

DISPARITY AMONG COUNTIES

ORAL HEALTH	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% Have Dental Insurance	70.5	90.0	62.6	60.3	22.6	65.3		68.7	59.8
% [Age 18+] Dental Visit in Past Year	61.0	64.7	60.5	39.7	64.0	58.6	63.3	62.0	45.0
% Child [Age 2-17] Dental Visit in Past Year						92.3		72.1	45.0

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better / similar / worse

POTENTIALLY DISABLING CONDITIONS

DISPARITY AMONG COUNTIES

POTENTIALLY DISABLING CONDITIONS	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% 3+ Chronic Conditions	35.8	31.8	37.2	47.5	30.8	36.8		32.5	
% Activity Limitations	31.6	21.7	12.4	32.9	17.7	27.9		24.0	
% With High-Impact Chronic Pain	24.6	22.8	13.5	19.5	14.9	21.8		14.1	7.0
Alzheimer's Disease (Age-Adjusted Death Rate)	20.4	24.3		25.7		19.9	33.1	30.4	
% Caregiver to a Friend/Family Member	21.4	21.0	22.9	26.3	23.1	22.3		22.6	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

better / similar / worse

DISPARITY AMONG COUNTIES / TOTAL SERVICE AREA vs. BENCHMARKS

RESPIRATORY DISEASE	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
CLRD (Age-Adjusted Death Rate)	56.4 (similar)	51.5 (similar)	40.8 (better)	66.2 (similar)	62.7 (similar)	**55.8**	49.2 (similar)	39.6 (worse)	
Pneumonia/Influenza (Age-Adjusted Death Rate)						**14.6**	16.2 (similar)	13.8 (similar)	
% [Age 65+] Flu Vaccine in Past Year						**78.5**	67.9 (better)	71.0 (similar)	
% [Adult] Asthma	15.5 (worse)	10.8 (similar)	0.9 (better)	11.7 (similar)	0.4 (better)	**11.9**	10.1 (similar)	12.9 (similar)	
% [Child 0-17] Asthma						**6.9**		7.8 (similar)	
% COPD (Lung Disease)	7.0 (similar)	20.0 (worse)	1.3 (better)	13.5 (similar)	1.2 (better)	**7.8**	8.8 (similar)	6.4 (similar)	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

Legend: sun = better, cloud = similar, rain = worse

DISPARITY AMONG COUNTIES / TOTAL SERVICE AREA vs. BENCHMARKS

SEXUAL HEALTH	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
HIV Prevalence Rate	151.9 (worse)	198.8 (worse)		47.4 (better)	82.6 (better)	**142.1**	245.6 (better)	372.8 (better)	
Chlamydia Incidence Rate	610.1 (worse)	479.7 (worse)	168.4 (better)	178.4 (better)	292.6 (similar)	**452.2**	568.1 (better)	539.9 (better)	
Gonorrhea Incidence Rate	256.8 (worse)	266.5 (worse)	58.6 (better)	67.4 (similar)	74.7 (similar)	**200.3**	246.8 (better)	179.1 (similar)	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

Legend: sun = better, cloud = similar, rain = worse

SUBSTANCE ABUSE	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
Cirrhosis/Liver Disease (Age-Adjusted Death Rate)						11.5	(worse) 9.7	(similar) 11.1	(similar) 10.9
% Excessive Drinker	(worse) 29.9	(better) 11.8	(worse) 42.7	(better) 4.5	(better) 10.7	24.5	(worse) 18.1	(similar) 27.2	
Unintentional Drug-Related Deaths (Age-Adjusted Death Rate)						11.5	(better) 23.5	(better) 18.8	
% Illicit Drug Use in Past Month	(similar) 2.6	(similar) 2.0	(better) 0.0	(better) 0.0	(better) 0.0	1.7		(similar) 2.0	(better) 12.0
% Used a Prescription Opioid in Past Year	(similar) 15.3	(similar) 18.4	(better) 3.7	(worse) 35.3	(similar) 22.6	17.8		(worse) 12.9	
% Ever Sought Help for Alcohol or Drug Problem	(similar) 0.9	(similar) 1.7	(worse) 0.0	(similar) 5.0	(worse) 0.0	1.3		(worse) 5.4	
% Personally Impacted by Substance Abuse	(similar) 25.6	(similar) 32.1	(better) 16.7	(similar) 39.3	(worse) 42.9	28.8		(better) 35.8	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

Legend: (sun) better   (cloud) similar   (rain) worse

| DISPARITY AMONG COUNTIES | | | | | | | TOTAL SERVICE AREA vs. BENCHMARKS | | |
TOBACCO USE	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	vs. MO	vs. US	vs. HP2030
% Current Smoker	☀ 9.0	🌧 56.7	☁ 21.0	☁ 16.5	☁ 17.1	15.5	☀ 19.6	☁ 17.4	🌧 5.0
% Someone Smokes at Home	☁ 9.3	☁ 18.8	☁ 5.2	☁ 11.6	☁ 4.6	9.5		☀ 14.6	
% [Household With Children] Someone Smokes in the Home						6.2		☀ 17.4	
% [Smokers] Received Advice to Quit Smoking						51.0		☁ 59.6	🌧 66.6
% Currently Use Vaping Products	☀ 3.3	☀ 1.3	🌧 14.6	☁ 6.3	☁ 8.4	5.0	☁ 5.2	☀ 8.9	

Note: In the section above, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

☀	☁	🌧
better	similar	worse

COMMUNITY DESCRIPTION

POPULATION CHARACTERISTICS

Total Population

The Total Service Area, the focus of this Community Health Needs Assessment, encompasses 391.51 square miles and houses a total population of 76,723 residents, according to latest census estimates.

Total Population
(Estimated Population, 2015-2019)

	TOTAL POPULATION	TOTAL LAND AREA (square miles)	POPULATION DENSITY (per square mile)
Cole County	76,723	391.51	195.97
Callaway County	44,889	834.57	53.79
Osage County	13,615	606.58	22.45
Miller County	25,201	592.60	42.53
Moniteau County	16,046	415.03	38.66
Total Service Area	176,474	2,840.29	62.13
Missouri	6,104,910	68,746.51	88.80
United States	324,697,795	3,532,068.58	91.93

Population Change 2000-2010

A significant positive or negative shift in total population over time impacts health care providers and the utilization of community resources.

Between the 2000 and 2010 US Censuses, the population of the Total Service Area increased by 12,829 persons, or 7.9%.

DISPARITY ► At 9.3%, Cole County had the highest percentage increase in population.

Change in Total Population
(Percentage Change Between 2000 and 2010)

An increase of
12,829 persons

9.3%	8.8%	6.3%	5.0%	5.3%	7.9%	7.1%	9.8%
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
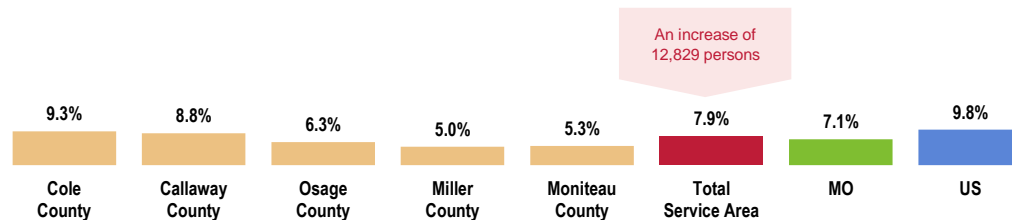
Sources:
- US Census Bureau Decennial Census (2000-2010).
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
- A significant positive or negative shift in total population over time impacts health care providers and the utilization of community resources.

This map shows the areas of greatest population change between 2000 and 2010.

Map Legend

Population Change, Percent by Tract, US
Census 2000 - 2010

- Over 10.0% Increase (+)
- 1.0 - 10.0% Increase (+)
- Less Than 1.0% Change (+/-)
- 1.0 - 10.0% Decrease (-)
- Over 10.0% Decrease (-)
- No Population or No Data

Report Location, County

SparkMap
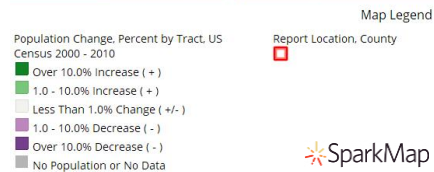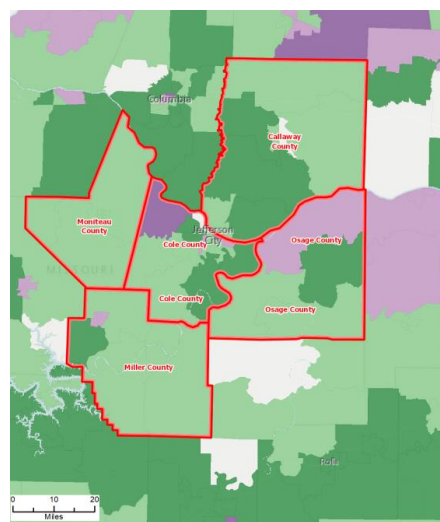
Urban/Rural Population

Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

The Total Service Area is slightly more rural, with 52.4% of the population living in areas designated as rural.

BENCHMARK ► Less urban than state and US populations.

Urban and Rural Population
(2010)

■ % Urban   ■ % Rural

County	% Urban	% Rural
Cole County	70.9%	29.1%
Callaway County	38.0%	62.0%
Osage County	0.0%	100.0%
Miller County	20.2%	79.8%
Moniteau County	47.3%	52.7%
Total Service Area	47.6%	52.4%
MO	70.4%	29.6%
US	80.9%	19.1%
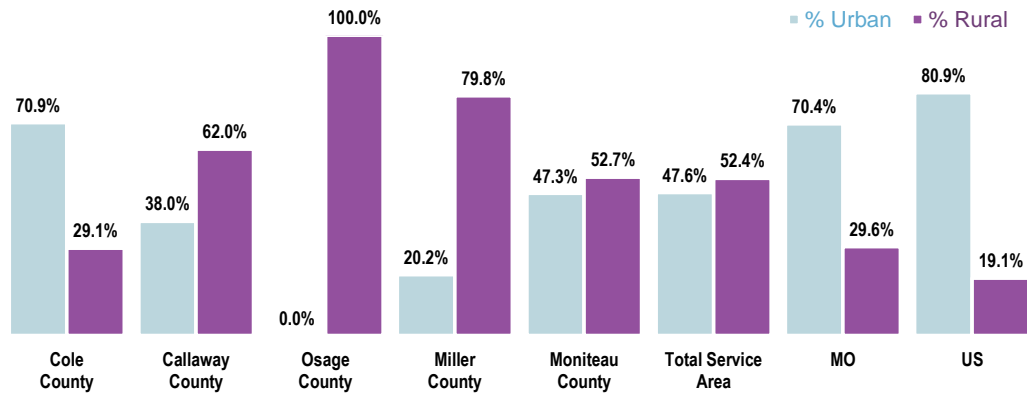
Sources:
- US Census Bureau Decennial Census.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
- This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

Map Legend

Urban Population, Percent by Tract, US Census 2010

Report Location, County

- 100% Urban Population
- 90.1 - 99.9%
- 50.1 - 90.0%
- Under 50.1%
- No Urban Population
- No Data or Data Suppressed

SparkMap
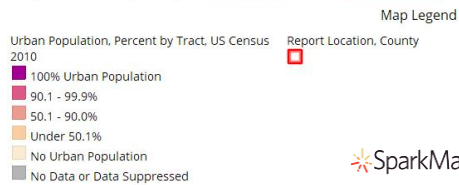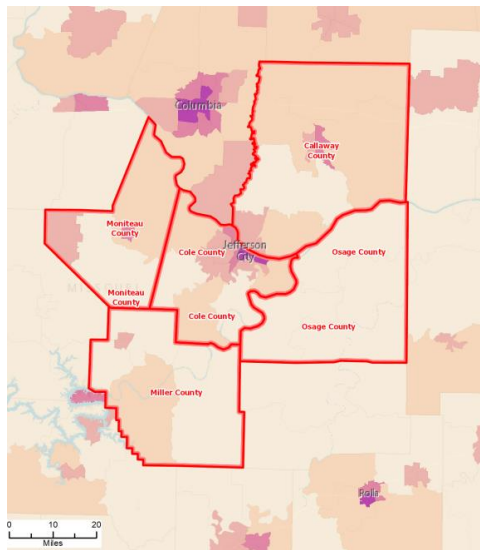
Age

It is important to understand the age distribution of the population, as different age groups have unique health needs that should be considered separately from others along the age spectrum.

In the Total Service Area, 22.6% of the population are children age 0-17; another 61.0% are age 18 to 64, while 16.4% are age 65 and older.

BENCHMARK ► Similar to the state and national proportions.

Total Population by Age Groups
(2015-2019)
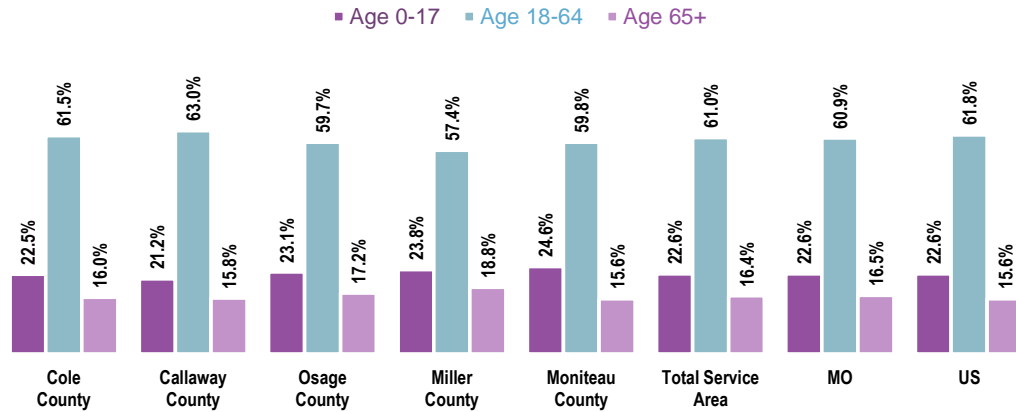
■ Age 0-17   ■ Age 18-64   ■ Age 65+

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Median Age

The Total Service Area is similar to the state and the nation in median age.

Median Age
(2015-2019)
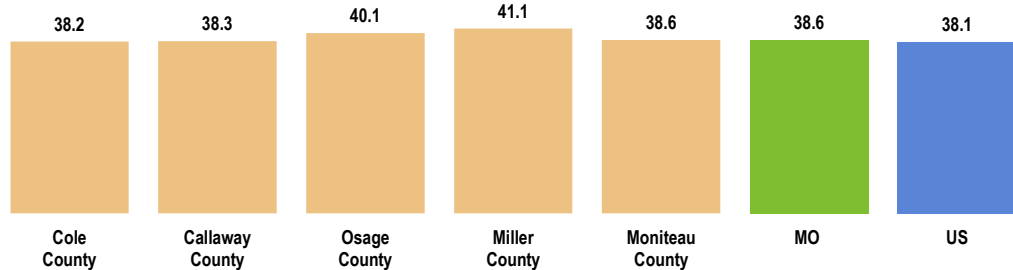
Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

The following map provides an illustration of the median age in the Total Service Area.

Map Legend

Median Age by Tract, ACS 2015-19
- Over 45.0
- 40.1 - 45.0
- 35.1 - 40.0
- Under 35.1
- No Data or Data Suppressed

Report Location, County

☀SparkMap
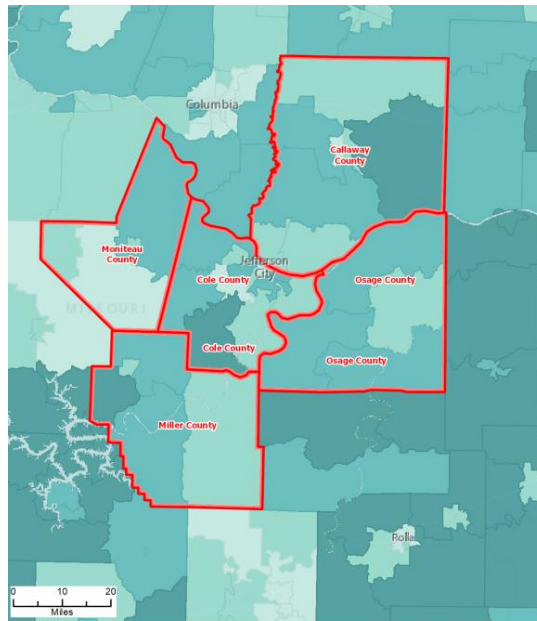
Race & Ethnicity

Race

In looking at race independent of ethnicity (Hispanic or Latino origin), 90.1% of residents of the Total Service Area are White and 6.5% are Black.

BENCHMARK ► Higher proportion of White residents and lower proportion of Black residents than was found across the state and nation.

Total Population by Race Alone
(2015-2019)
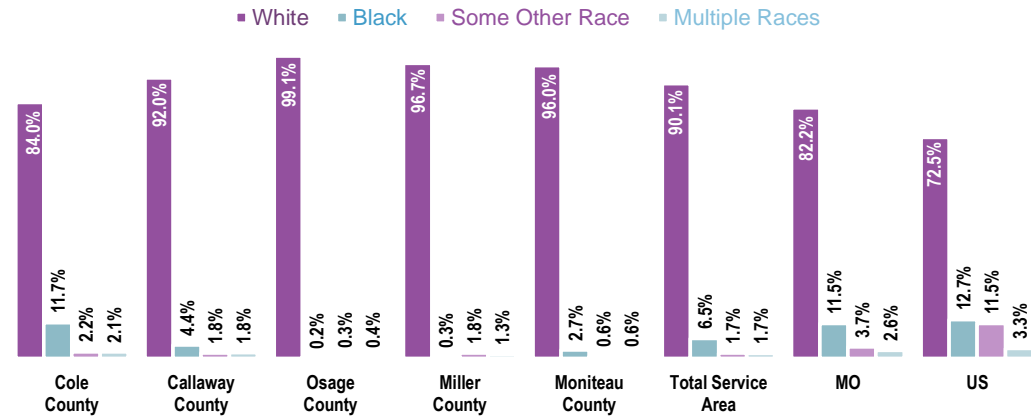
■ White ■ Black ■ Some Other Race ■ Multiple Races

	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
White	84.0%	92.0%	99.1%	96.7%	96.0%	90.1%	82.2%	72.5%
Black	11.7%	4.4%	0.2%	0.3%	2.7%	6.5%	11.5%	12.7%
Some Other Race	2.2%	1.8%	0.3%	1.8%	0.6%	1.7%	3.7%	11.5%
Multiple Races	2.1%	1.8%	0.4%	1.3%	0.6%	1.7%	2.6%	3.3%

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Ethnicity

A total of 2.6% of Total Service Area residents are Hispanic or Latino.

BENCHMARK ► Much lower proportion of Hispanic residents than was found across the US.

DISPARITY ► Among the counties, Moniteau County has the highest proportion of Hispanic residents.

Hispanic Population
(2015-2019)
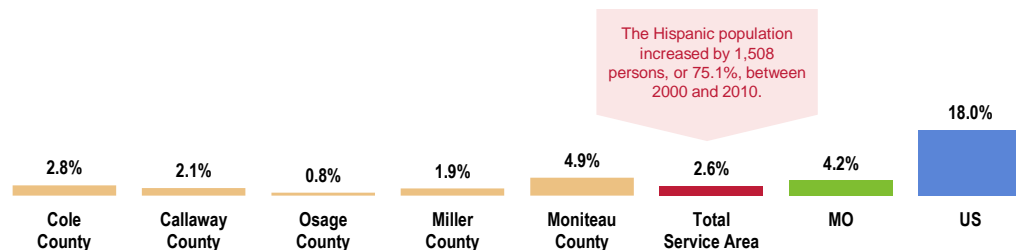
The Hispanic population increased by 1,508 persons, or 75.1%, between 2000 and 2010.

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
2.8%	2.1%	0.8%	1.9%	4.9%	2.6%	4.2%	18.0%

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
- Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

Linguistic Isolation

A total of 0.6% of the area's population age 5 and older live in a home in which <u>no</u> person age 14 or older is proficient in English (speaking only English or speaking English "very well").

BENCHMARK ► More favorable than state and national percentages.

DISPARITY ► Unfavorably high in Moniteau County.

Linguistically Isolated Population
(2015-2019)
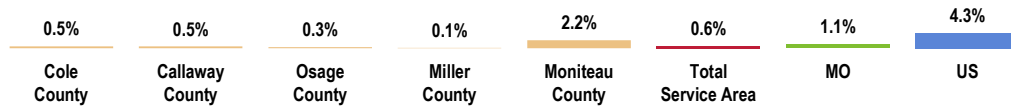
0.5%	0.5%	0.3%	0.1%	2.2%	0.6%	1.1%	4.3%
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US

Sources: ● US Census Bureau American Community Survey 5-year estimates.
          ● Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
Notes: ● This indicator reports the percentage of the population age 5+ who live in a home in which no person age 14+ speaks only English, or in which no person age 14+ speak a non-English language and speak English "very well."

Note the following map illustrating linguistic isolation throughout the Total Service Area.

Map Legend

Population in Linguistically Isolated Households, Percent by Tract, ACS 2015-19
- Over 3.0%
- 1.1 - 3.0%
- 0.1 - 1.1%
- No Population in Linguistically Isolated Households
- No Data or Data Suppressed

Report Location, County

SparkMap
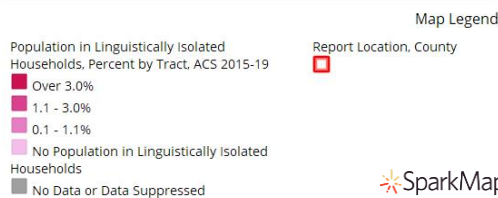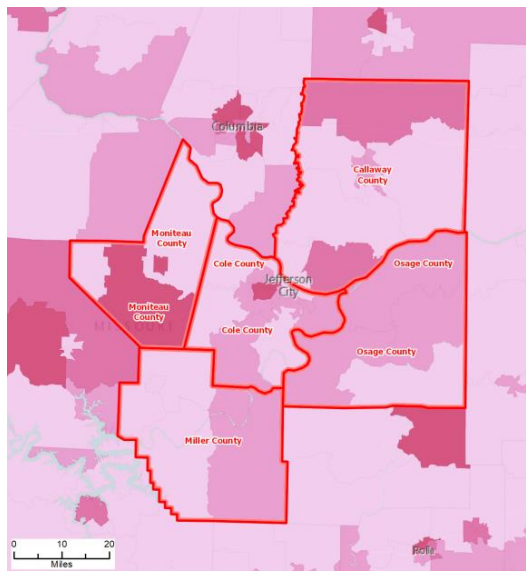
SOCIAL DETERMINANTS OF HEALTH

ABOUT SOCIAL DETERMINANTS OF HEALTH

Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Social determinants of health (SDOH) have a major impact on people's health, well-being, and quality of life. Examples of SDOH include:

– Safe housing, transportation, and neighborhoods
– Racism, discrimination, and violence
– Education, job opportunities, and income
– Access to nutritious foods and physical activity opportunities
– Polluted air and water
– Language and literacy skills

SDOH also contribute to wide health disparities and inequities. For example, people who don't have access to grocery stores with healthy foods are less likely to have good nutrition. That raises their risk of health conditions like heart disease, diabetes, and obesity — and even lowers life expectancy relative to people who do have access to healthy foods.

Just promoting healthy choices won't eliminate these and other health disparities. Instead, public health organizations and their partners in sectors like education, transportation, and housing need to take action to improve the conditions in people's environments.

– Healthy People 2030 (https://health.gov/healthypeople)

Poverty

The latest census estimate shows 11.3% of the Total Service Area total population living below the federal poverty level.

BENCHMARK ► More favorable than state and US percentages. Fails to satisfy the Healthy People 2030 target of 8.0% or lower.

Among just children (ages 0 to 17), this percentage in the Total Service Area is 16.7% (representing an estimated 6,539 children).

BENCHMARK ► Fails to satisfy the Healthy People 2030 target of 8.0% or lower.

Population in Poverty
(Populations Living Below the Poverty Level; 2015-2019)
Healthy People 2030 = 8.0% or Lower

■ Total Population   ■ Children
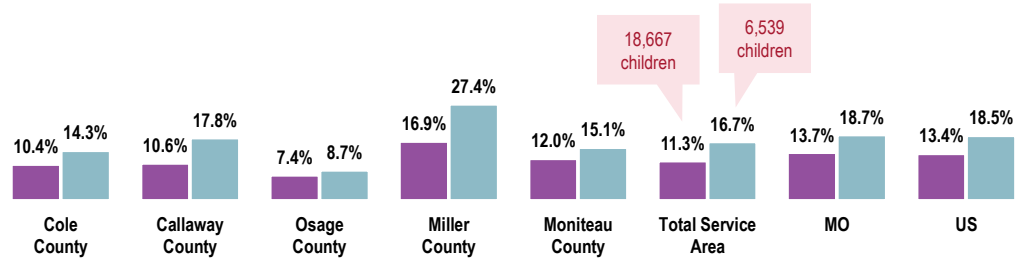
	Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
Total Population	10.4%	10.6%	7.4%	16.9%	12.0%	11.3%	13.7%	13.4%
Children	14.3%	17.8%	8.7%	27.4%	15.1%	16.7%	18.7%	18.5%

18,667 children

6,539 children

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Poverty is considered a key driver of health status. This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

The following maps highlight concentrations of persons living below the federal poverty level.

Map Legend

Population Below the Poverty Level, Percent by Tract, ACS 2015-19

Report Location, County

- Over 20.0%
- 15.1 - 20.0%
- 10.1 - 15.0%
- Under 10.1%
- No Data or Data Suppressed

SparkMap
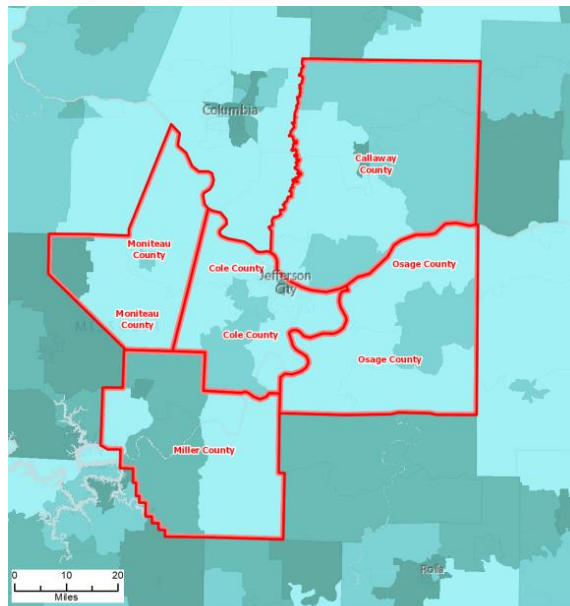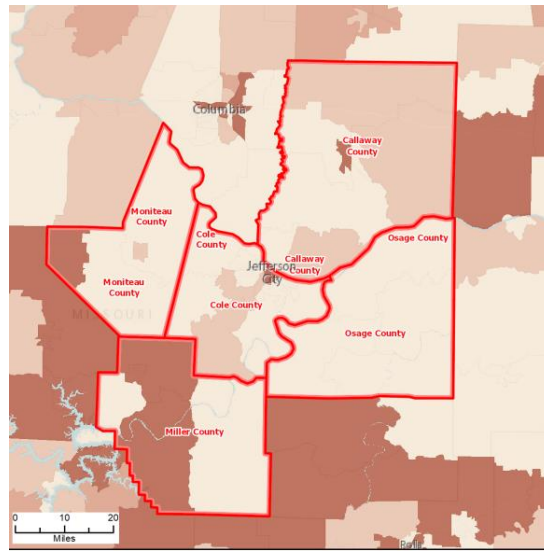
Map Legend

Population Below the Poverty Level, Children (Age 0-17), Percent by Tract, ACS 2015-19

- ■ Over 30.0%
- ■ 22.6 - 30.0%
- ■ 15.1 - 22.5%
- □ Under 15.1%
- □ No Population Age 0-17 Reported
- ■ No Data or Data Suppressed

Report Location, County
□

SparkMap

Education

Among the Total Service Area population age 25 and older, an estimated 10.8% (over 13,000 people) do not have a high school education.

DISPARITY ► Favorably lower in Cole and Osage counties.

Population With No High School Diploma
(Population Age 25+ Without a High School Diploma or Equivalent, 2015-2019)
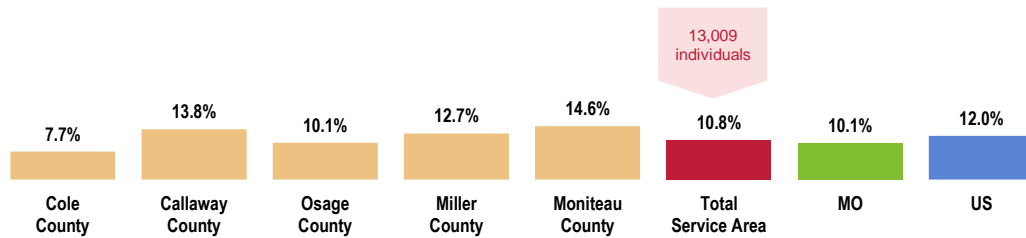
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
7.7%	13.8%	10.1%	12.7%	14.6%	10.8% (13,009 individuals)	10.1%	12.0%

Sources:
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
- This indicator is relevant because educational attainment is linked to positive health outcomes.
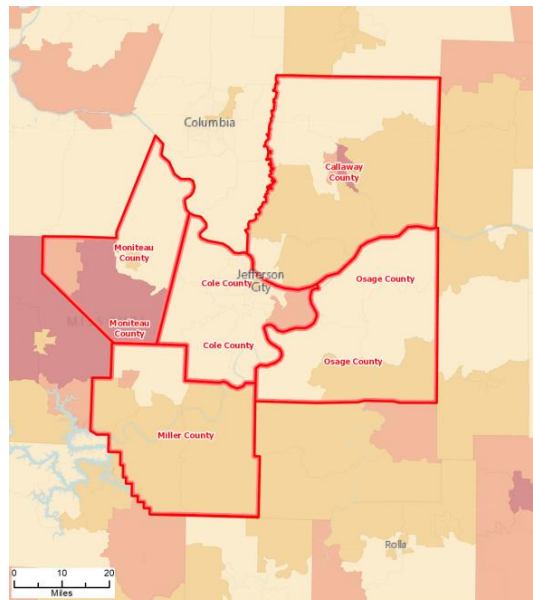
Map Legend

Population with No High School Diploma (Age 25+), Percent by Tract, ACS 2015-19

- Over 21.0%
- 16.1 - 21.0%
- 11.1 - 16.0%
- Under 11.1%
- No Data or Data Suppressed

Report Location, County

SparkMap

Financial Resilience

A total of 13.3% of Total Service Area residents would <u>not</u> be able to afford an unexpected $400 expense without going into debt.

BENCHMARK ► Better than the national percentage.

DISPARITY ► Unfavorably high in the Callaway ZIP Codes. Higher among adults age 45 to 64 and low-income residents especially.

NOTE: For indicators derived from the population-based survey administered as part of this project, text describes significant differences determined through statistical testing. The reader can assume that differences (against or among local findings) that are not mentioned are ones that are not statistically significant.

Charts throughout this report (such as that here) detail survey findings among key demographic groups – namely by sex, age groupings, and income (based on poverty status).

Here, "low income" refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice (<200% of) the poverty threshold; "mid/high income" refers to those households living on incomes which are twice or more (≥200% of) the federal poverty level.

Do Not Have Cash on Hand to Cover a $400 Emergency Expense

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
10.8%	52.7%	2.5%	13.3%	7.0%	13.3%	24.6%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 63]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Includes respondents who say they would not be able to pay for a $400 emergency expense either with cash, by taking money from their checking or savings account, or by putting it on a credit card that they could pay in full at the next statement.

Do Not Have Cash on Hand to Cover a $400 Emergency Expense
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
11.4%	15.2%	12.1%	19.1%	3.7%	30.6%	10.0%	13.3%
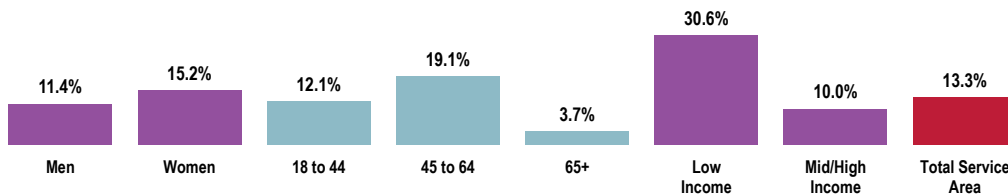
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 63]

Notes:
- Asked of all respondents.
- Includes respondents who say they would not be able to pay for a $400 emergency expense either with cash, by taking money from their checking or savings account, or by putting it on a credit card that they could pay in full at the next statement.

Housing

Housing Insecurity

Most surveyed adults rarely, if ever, worry about the cost of housing.

Frequency of Worry or Stress
Over Paying Rent or Mortgage in the Past Year
(Total Service Area, 2021)

- ■ Always
- ■ Usually
- ■ Sometimes
- ■ Rarely
- ■ Never

1.6%
3.3%
14.0%
10.5%
70.6%
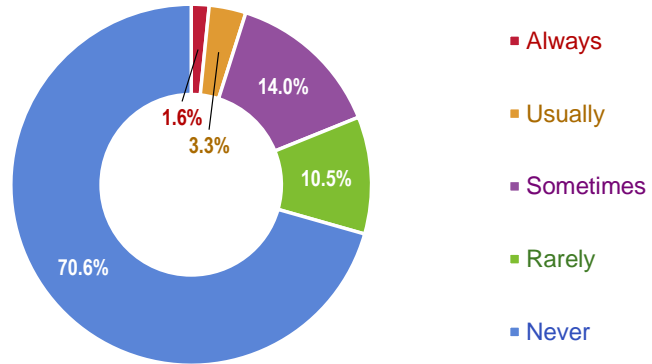
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 66]
Notes: ● Asked of all respondents.

However, a considerable share (18.9%) report that they were "sometimes," "usually," or "always" worried or stressed about having enough money to pay their rent or mortgage in the past year.

BENCHMARK ▶   Better than the national finding.

DISPARITY ▶   Unfavorably high in the Callaway ZIP Codes. Higher among women and adults younger than 65.

"Always/Usually/Sometimes" Worried
About Paying Rent/Mortgage in the Past Year

14.7%	52.0%	12.6%	26.8%	12.5%	18.9%	32.2%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 66]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

"Always/Usually/Sometimes" Worried
About Paying Rent/Mortgage in the Past Year
(Total Service Area, 2021)

14.4%	23.3%	26.5%	16.0%	7.9%	26.0%	16.0%	18.9%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area

Unhealthy or Unsafe Housing

A total of 3.9% of Total Service Area residents report living in unhealthy or unsafe housing conditions during the past year.

BENCHMARK ► Lower than the national percentage.

DISPARITY ► Higher among Cole County residents.
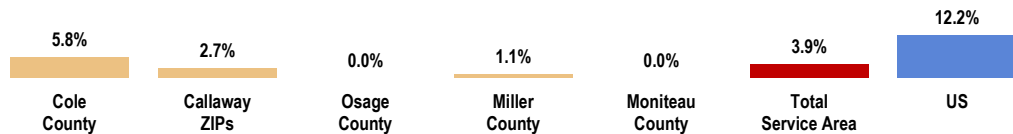
Respondents were asked: "Thinking about your current home, over the past 12 months have you experienced ongoing problems with water leaks, rodents, insects, mold, or other housing conditions that might make living there unhealthy or unsafe?"

Unhealthy or Unsafe Housing Conditions in the Past Year

5.8%	2.7%	0.0%	1.1%	0.0%	3.9%	12.2%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US

Unhealthy or Unsafe Housing Conditions in the Past Year
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
2.3%	5.5%	4.7%	4.0%	1.9%	2.4%	5.7%	3.9%
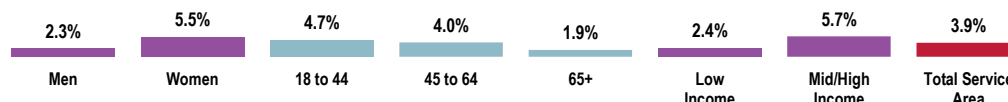
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 65]
Notes: ● Asked of all respondents.
● Includes respondents who say they experienced ongoing problems in their current home with water leaks, rodents, insects, mold, or other housing conditions that might make living there unhealthy or unsafe.

Food Access

Low Food Access

US Department of Agriculture data show that 20.9% of the Total Service Area population (representing over 36,000 residents) have low food access, meaning that they do not live near a supermarket or large grocery store.

BENCHMARK ► More favorable than the statewide percentage.

DISPARITY ► Found to be less favorable in Cole and Callaway counties.

Low food access is defined as living more than ½ mile from the nearest supermarket, supercenter, or large grocery store.
RELATED ISSUE
See also *Nutrition*, *Physical Activity* & *Weight* in the **Modifiable Health Risks** section of this report.

Population With Low Food Access
(Percent of Population That Is Far From a Supermarket or Large Grocery Store, 2015)

36,546 individuals have low food access

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
30.0%	19.8%	10.2%	8.1%	10.2%	20.9%	25.6%	22.4%
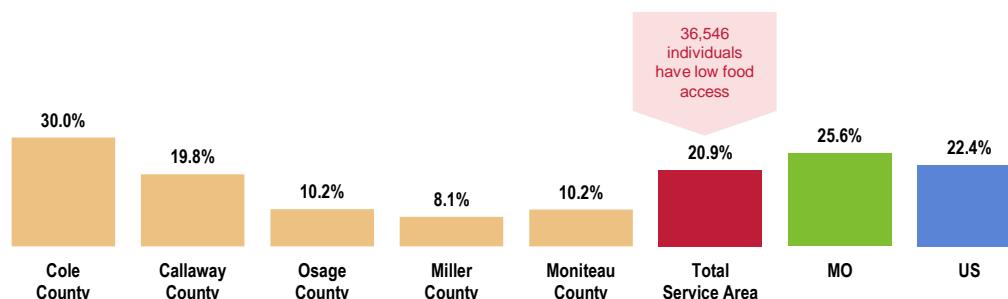
Sources: ● US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas (FARA).
● Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
Notes: ● This indicator reports the percentage of the population with low food access. Low food access is defined as living more than ½ mile from the nearest supermarket, supercenter, or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity.

Map Legend

Population with Limited Food Access, Percent by Tract, USDA - FARA 2015

- Over 50.0%
- 20.1 - 50.0%
- 5.1 - 20.0%
- Under 5.1%
- No Low Food Access

Report Location, County ▭

SparkMap
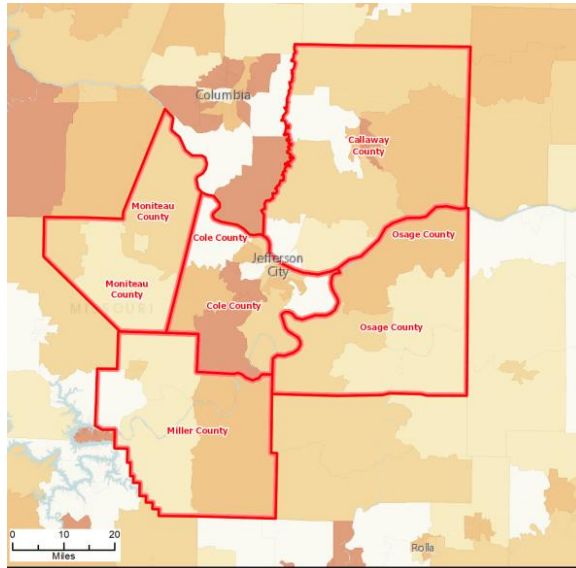
Food Insecurity

Overall, 10.4% of community residents are determined to be "food insecure," having run out of food in the past year and/or been worried about running out of food.

BENCHMARK ► Much more favorable than the US percentage.

DISPARITY ► Food insecurity is higher among Miller County residents and low-income residents.

Food Insecurity

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
10.3%	7.5%	1.3%	23.5%	4.6%	10.4%	34.1%
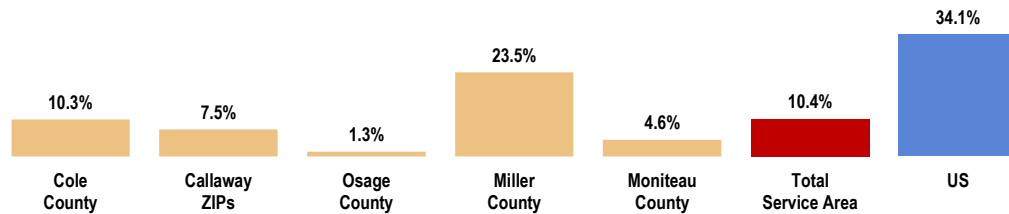
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 112]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.

Food Insecurity
(Total Service Area, 2021)

Category	Percentage
Men	6.0%
Women	14.8%
18 to 44	9.3%
45 to 64	13.0%
65+	6.1%
Low Income	25.5%
Mid/High Income	6.6%
Total Service Area	10.4%
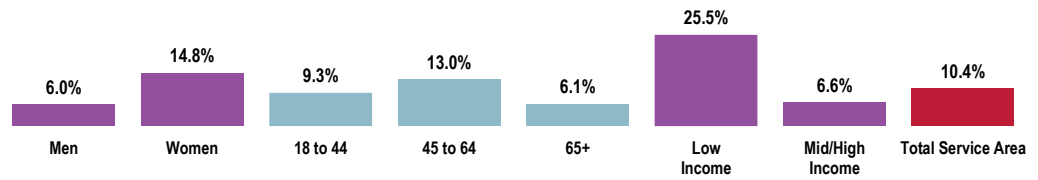
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 112]
Notes: ● Asked of all respondents.
● Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.

HEALTH STATUS

OVERALL HEALTH STATUS

Most Total Service Area residents rate their overall health favorably (responding "excellent," "very good," or "good").

Self-Reported Health Status
(Total Service Area, 2021)
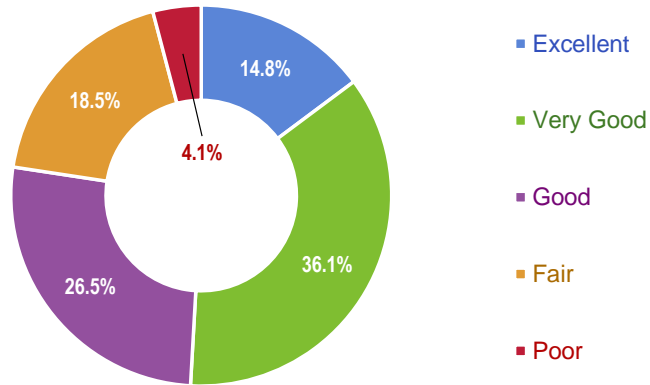
- ■ Excellent — 14.8%
- ■ Very Good — 36.1%
- ■ Good — 26.5%
- ■ Fair — 18.5%
- ■ Poor — 4.1%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 5]
Notes: ● Asked of all respondents.

However, 22.6% of Total Service Area adults believe that their overall health is "fair" or "poor."

BENCHMARK ► Higher than the national percentage.

DISPARITY ► Higher in the Callaway ZIP Codes.

Experience "Fair" or "Poor" Overall Health

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
18.7%	52.5%	15.2%	29.7%	21.1%	22.6%	18.9%	12.6%
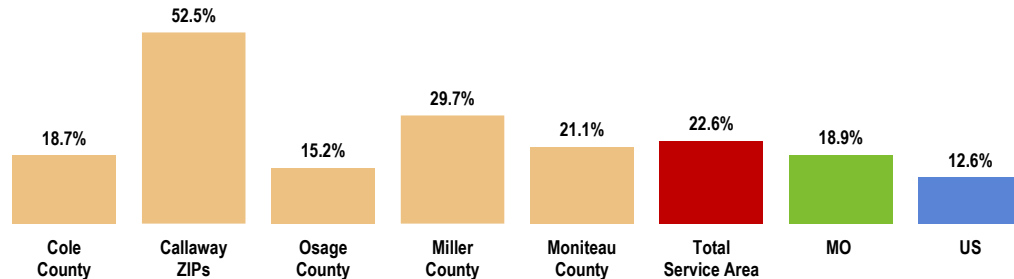
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 5]
● Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Experience "Fair" or "Poor" Overall Health
(Total Service Area, 2021)

23.9%	21.4%	21.5%	22.9%	24.5%	28.0%	18.8%	22.6%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
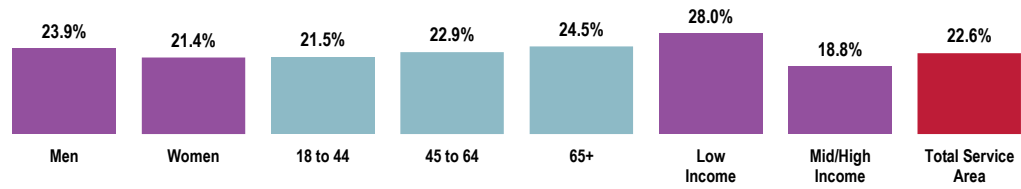
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 5]
Notes: ● Asked of all respondents.

MENTAL HEALTH

ABOUT MENTAL HEALTH & MENTAL DISORDERS

About half of all people in the United States will be diagnosed with a mental disorder at some point in their lifetime. …Mental disorders affect people of all age and racial/ethnic groups, but some populations are disproportionately affected. And estimates suggest that only half of all people with mental disorders get the treatment they need.

In addition, mental health and physical health are closely connected. Mental disorders like depression and anxiety can affect people's ability to take part in healthy behaviors. Similarly, physical health problems can make it harder for people to get treatment for mental disorders. Increasing screening for mental disorders can help people get the treatment they need.

– Healthy People 2030 (https://health.gov/healthypeople)

Mental Health Status

Most Total Service Area adults rate their overall mental health favorably ("excellent," "very good," or "good").

"Now thinking about your mental health, which includes stress, depression, and problems with emotions, would you say that, in general, your mental health is: Excellent, Very Good, Good, Fair, or Poor?"

Self-Reported Mental Health Status
(Total Service Area, 2021)

- Excellent — 20.1%
- Very Good — 41.7%
- Good — 21.0%
- Fair — 13.1%
- Poor — 4.1%
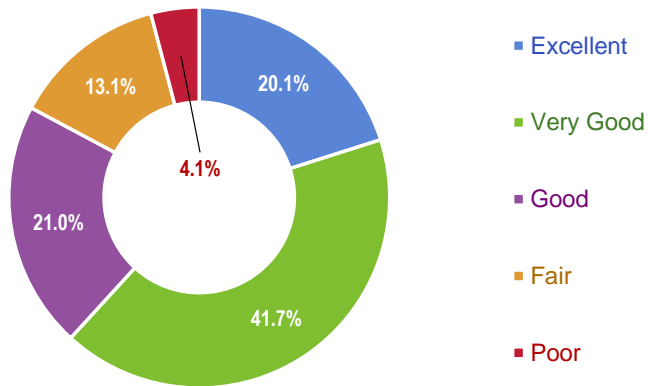
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 90]
Notes: ● Asked of all respondents.

However, 17.2% believe that their overall mental health is "fair" or "poor."

Experience "Fair" or "Poor" Mental Health

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
17.4%	20.0%	9.4%	21.9%	14.2%	17.2%	13.4%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 90]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
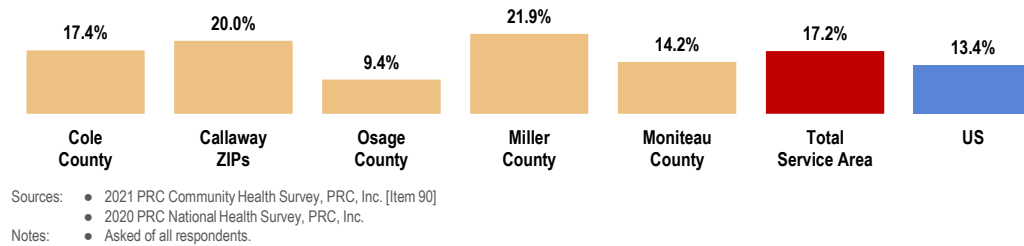
Depression

Diagnosed Depression

A total of 24.9% of Total Service Area adults have been diagnosed by a physician as having a depressive disorder (such as depression, major depression, dysthymia, or minor depression).

DISPARITY ► Favorably lower in Osage and Moniteau counties.

Have Been Diagnosed With a Depressive Disorder

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
25.9%	22.9%	15.0%	36.2%	13.6%	24.9%	22.8%	20.6%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 93]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Depressive disorders include depression, major depression, dysthymia, or minor depression.

Symptoms of Chronic Depression

A total of 33.4% of Total Service Area adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (symptoms of chronic depression).

DISPARITY ► Unfavorably high in Cole County (note that Miller County results are not statistically high due to the smaller sample size there). Women, adults younger than 65, and low-income respondents are more likely to report having symptoms of chronic depression.

Have Experienced Symptoms of Chronic Depression

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
38.3%	33.6%	15.5%	39.9%	10.7%	33.4%	30.3%
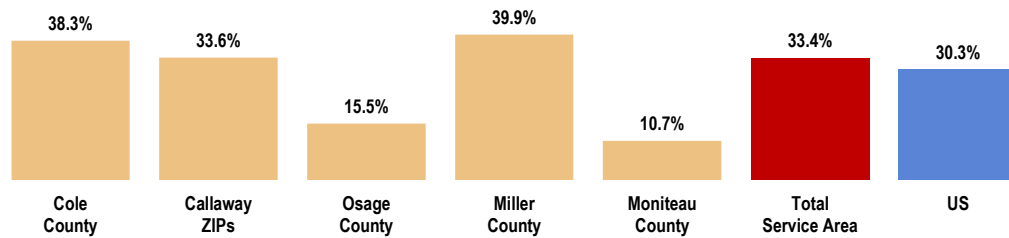
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 91]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.

Have Experienced Symptoms of Chronic Depression
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
26.5%	40.5%	38.9%	34.3%	21.0%	55.8%	25.2%	33.4%
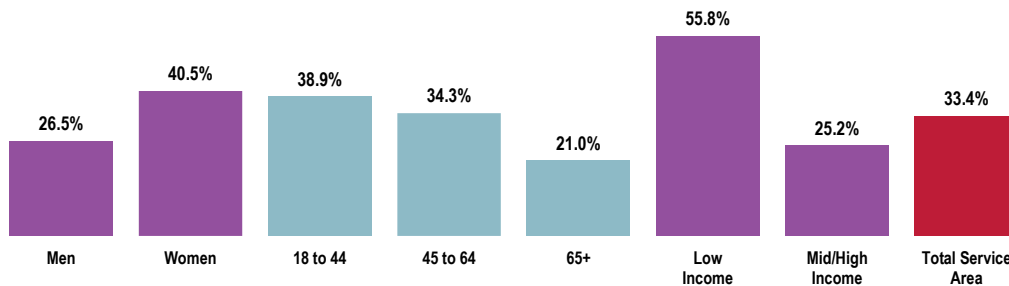
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 91]

Notes:
- Asked of all respondents.
- Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.

Stress

The vast majority of surveyed adults characterize most days as no more than "moderately" stressful.

Perceived Level of Stress On a Typical Day
(Total Service Area, 2021)
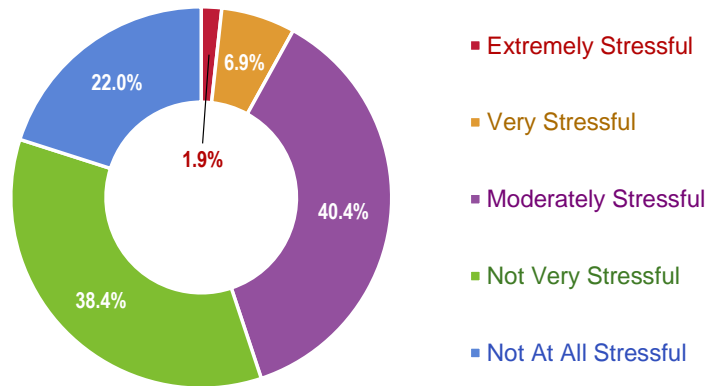
- **Extremely Stressful**
- **Very Stressful**
- **Moderately Stressful**
- **Not Very Stressful**
- **Not At All Stressful**

6.9%
1.9%
22.0%
40.4%
38.4%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 92]
Notes: ● Asked of all respondents.

In contrast, 8.8% of Total Service Area adults feel that most days for them are "very" or "extremely" stressful.

BENCHMARK ▶ Lower than the national percentage.

DISPARITY ▶ Higher among women and adults age 45 to 64.

Perceive Most Days as "Extremely" or "Very" Stressful

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
7.5%	8.5%	7.9%	17.6%	5.8%	8.8%	16.1%
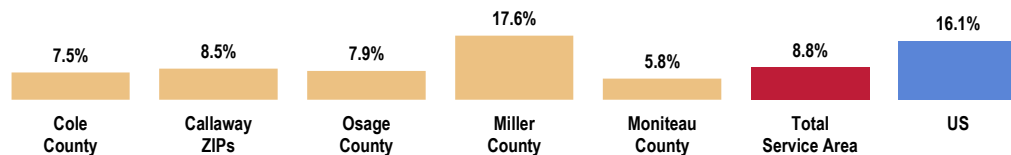
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 92]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Perceive Most Days as "Extremely" or "Very" Stressful
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
4.1%	13.7%	8.4%	12.9%	1.7%	9.7%	10.1%	8.8%
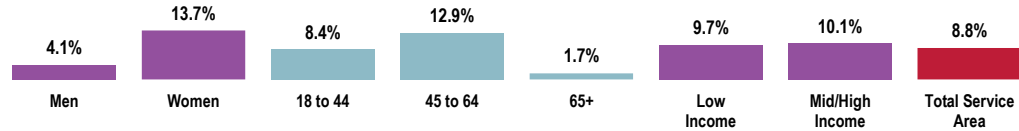
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 92]
Notes: • Asked of all respondents.

Suicide

In the Total Service Area, there were 17.9 suicides per 100,000 population (2017-2019 annual average age-adjusted rate).

BENCHMARK ► Worse than the US rate. Fails to satisfy the Healthy People 2030 target of 12.8 or lower.

Note that in charts such as that presented below, "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Suicide: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 12.8 or Lower

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
17.0	15.4	N/A	N/A	N/A	17.9	18.7	14.0

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov
Notes: • "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Mental Health Treatment

Mental Health Providers

In the Total Service Area in 2020, there were 53.3 mental health providers for every 100,000 population.

BENCHMARK ► Higher than the statewide proportion.

DISPARITY ► Lower in Miller and Moniteau counties.

Here, "mental health providers" includes psychiatrists, psychologists, clinical social workers, and counsellors who specialize in mental health care. Note that this indicator only reflects providers practicing in the Total Service Area and residents in the Total Service Area; it does not account for the potential demand for services from outside the area, nor the potential availability of providers in surrounding areas.

Access to Mental Health Providers
(Number of Mental Health Providers per 100,000 Population, 2020)

County	Value
Cole County	69.2
Callaway County	77.8
Osage County	N/A
Miller County	15.9
Moniteau County	12.5
Total Service Area	53.3 (94 Mental Health Providers)
MO	35.5
US	55.5
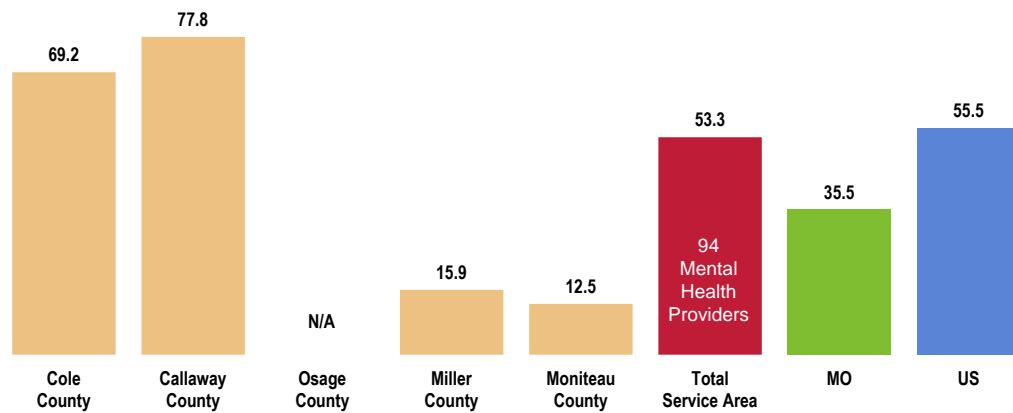
Sources: • University of Wisconsin Population Health Institute, County Health Rankings.
• Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
Notes: • This indicator reports the rate of the county population to the number of mental health providers including psychiatrists, psychologists, clinical social workers, and counsellors that specialize in mental health care.
• "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Currently Receiving Treatment

A total of 19.6% of surveyed adults are currently taking medication or otherwise receiving treatment from a doctor or other health professional for some type of mental health condition or emotional problem.

DISPARITY ► Much lower in Osage County.

Currently Receiving Mental Health Treatment

> Among respondents ever diagnosed with a depressive disorder, 65.6% are currently receiving treatment.

20.2%	24.5%	4.8%	25.8%	17.9%	19.6%	16.8%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Items 94]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- "Treatment" can include taking medications for mental health.
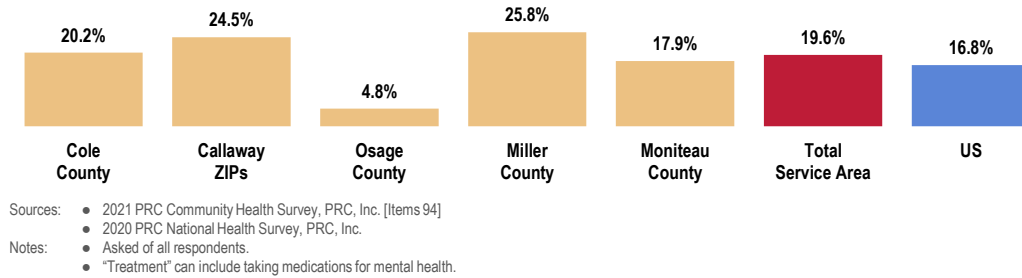
Difficulty Accessing Mental Health Services

A total of 4.8% of Total Service Area adults report a time in the past year when they needed mental health services but were not able to get them.

BENCHMARK ▶ Better than the US percentage.

DISPARITY ▶ More favorable in the Callaway ZIP Codes and Osage and Moniteau counties. Less favorable among adults younger than 65.

Unable to Get Mental Health Services When Needed in the Past Year
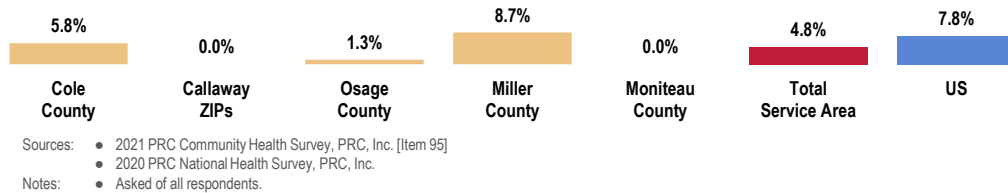
5.8%	0.0%	1.3%	8.7%	0.0%	4.8%	7.8%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 95]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.

Unable to Get Mental Health Services
When Needed in the Past Year
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
4.3%	5.4%	6.6%	5.1%	0.6%	4.7%	6.2%	4.8%
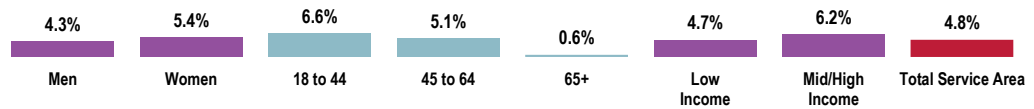
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 95]
Notes: ● Asked of all respondents.

Key Informant Input: Mental Health

The greatest share of key informants taking part in an online survey characterized *Mental Health* as a "major problem" in the community.

Perceptions of Mental Health
as a Problem in the Community
(Key Informants, 2021)
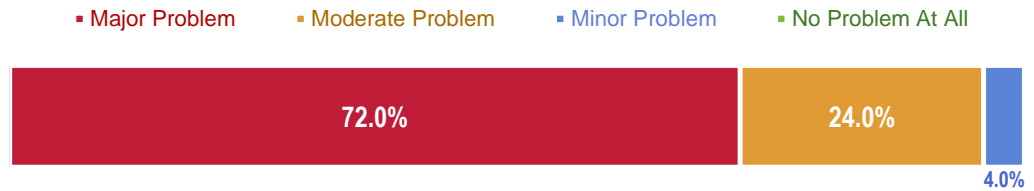
■ Major Problem ■ Moderate Problem ■ Minor Problem ■ No Problem At All

Major Problem	Moderate Problem	Minor Problem
72.0%	24.0%	4.0%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Access to Care/Services

Lack of safety net. Access to mental health professionals, referral system, education, etc. – Community Leader

Having more access to getting mental health help. Takes weeks sometimes months to even get in to see a therapist or psych doctor. – Other Health Provider

There are no mental health facilities in our area and transportation becomes a huge problem. – Social Services Provider

I think the challenges are for the people trying to help more so than the people who are suffering. – Other Health Provider

Lack of comprehensive resources, stigma and the trauma of COVID-19 have increased incidence, prevalence and severity of mental health. – Community Leader

Lack of services. – Physician

> Mental health has always been a taboo with limited resources for inpatient care in our communities. – Community Leader

> Insufficient number of professionals. Waiting times involved for new patients. Inadequacy of public financial support for mental health treatment, public attitudes toward mental illness and disabilities. – Community Leader

> Not enough resources to help people, always full. – Community Leader

> Access to counseling and/or stigma related to mental health. – Community Leader

> Finding providers and availability of doctors outside of regular office hours. Also many may not think they need mental health services. Stigma, negative perception if you have mental health issues. – Community Leader

> Access to doctors and enough providers. – Community Leader

COVID-19

> Depression and mental health issues were identified in the last CHNA as a challenge for Central MO. The COVID pandemic has exacerbated the issue. – Community Leader

> I believe after COVID-19, this has gotten worse. Many people suffer from anxiety and confusion. There is a shortage of providers and people are unaware they need help or do not know how to access help. – Social Services Provider

Impact on Quality of Life

> We see rising cases of children and adults that have trauma in their lives and mental health challenges that have lasting effects on their lives. We also see that there aren't adequate resources available for children that need help in this area. – Social Services Provider

Transportation

> Lack of transportation and lack of jobs. Individuals cant get to the appointments they need to. There is also a huge gap of resources regarding those with mental health issues. – Social Services Provider

Follow-Up/Support

> Continual care and placement with proper pre-screening capabilities. – Community Leader

DEATH, DISEASE & CHRONIC CONDITIONS

LEADING CAUSES OF DEATH

Distribution of Deaths by Cause

Together, cancers and heart disease accounted for more than 40% of all deaths in the Total Service Area in 2019.

Leading Causes of Death
(Total Service Area, 2019)
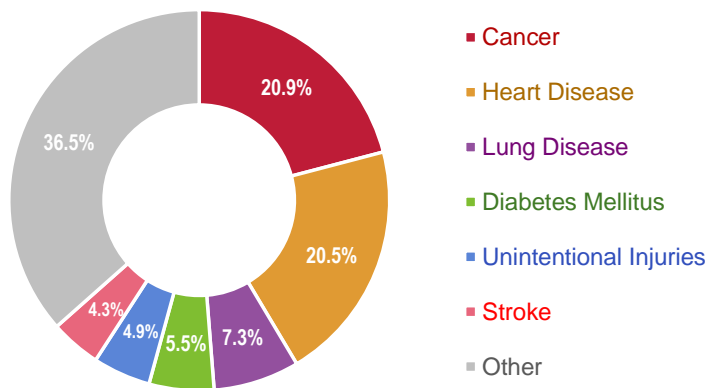
- Cancer — 20.9%
- Heart Disease — 20.5%
- Lung Disease — 7.3%
- Diabetes Mellitus — 5.5%
- Unintentional Injuries — 4.9%
- Stroke — 4.3%
- Other — 36.5%

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
Notes: ● Lung disease is CLRD, or chronic lower respiratory disease.

Age-Adjusted Death Rates for Selected Causes

AGE-ADJUSTED DEATH RATES

In order to compare mortality in the region with other localities (in this case, Missouri and the United States), it is necessary to look at rates of death — these are figures which represent the number of deaths in relation to the population size (such as deaths per 100,000 population, as is used here).

Furthermore, in order to compare localities without undue bias toward younger or older populations, the common convention is to adjust the data to some common baseline age distribution. Use of these "age-adjusted" rates provides the most valuable means of gauging mortality against benchmark data, as well as Healthy People 2030 objectives.

Note that deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

The following chart outlines 2017-2019 annual average age-adjusted death rates per 100,000 population for selected causes of death in the Total Service Area.

Each of these is discussed in greater detail in subsequent sections of this report.

Age-Adjusted Death Rates for Selected Causes
(2017-2019 Deaths per 100,000 Population)

	Total Service Area	Missouri	US	HP2030
Diseases of the Heart	161.6	188.8	163.4	127.4*
Malignant Neoplasms (Cancers)	153.7	164.1	149.3	122.7
Chronic Lower Respiratory Disease (CLRD)	55.8	49.2	39.6	n/a
Unintentional Injuries	47.0	60.5	48.9	43.2
Fall-Related Deaths (65+)	40.9	68.2	65.1	63.4
Diabetes Mellitus	40.2	20.9	21.5	n/a
Cerebrovascular Disease (Stroke)	33.1	39.1	37.2	33.4
Alzheimer's Disease	19.9	33.1	30.4	n/a
Kidney Diseases	18.3	19.0	12.9	n/a
Intentional Self-Harm (Suicide)	17.9	18.7	14.0	12.8
Firearm-Related	17.0	21.2	11.9	10.7
Pneumonia/Influenza	14.6	16.2	13.8	n/a
Motor Vehicle Deaths	14.4	14.9	11.3	10.1
Drug-Induced	11.5	23.5	18.8	n/a
Cirrhosis/Liver Disease	11.5	9.7	11.1	10.9
Homicide	6.3	11.2	6.1	5.5

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov.

Note:
- *The Healthy People 2030 Heart Disease target is adjusted to account for all diseases of the heart.

CARDIOVASCULAR DISEASE

ABOUT HEART DISEASE & STROKE

Heart disease is the leading cause of death in the United States, and stroke is the fifth leading cause. …Heart disease and stroke can result in poor quality of life, disability, and death. Though both diseases are common, they can often be prevented by controlling risk factors like high blood pressure and high cholesterol through treatment.

In addition, making sure people who experience a cardiovascular emergency — like stroke, heart attack, or cardiac arrest — get timely recommended treatment can reduce their risk for long-term disability and death. Teaching people to recognize symptoms is key to helping more people get the treatment they need.

— Healthy People 2030 (https://health.gov/healthypeople)

Age-Adjusted Heart Disease & Stroke Deaths

Heart Disease Deaths

Between 2017 and 2019, there was an annual average age-adjusted heart disease mortality rate of 161.6 deaths per 100,000 population in the Total Service Area.

BENCHMARK ► Lower than was found across the state. Fails to satisfy the Healthy People 2030 target of 127.4 or lower.

The greatest share of cardiovascular deaths is attributed to heart disease.

Heart Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 127.4 or Lower (Adjusted)

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
151.5	165.7	158.7	180.7	165.4	161.6	188.8	163.4

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov
Notes: ● The Healthy People 2030 Heart Disease target is adjusted to account for all diseases of the heart.

Stroke Deaths

Between 2017 and 2019, there was an annual average age-adjusted stroke mortality rate of 33.1 deaths per 100,000 population in the Total Service Area.

BENCHMARK ▶ Lower than was found across the state. Satisfies the Healthy People 2030 target of 33.4 or lower.
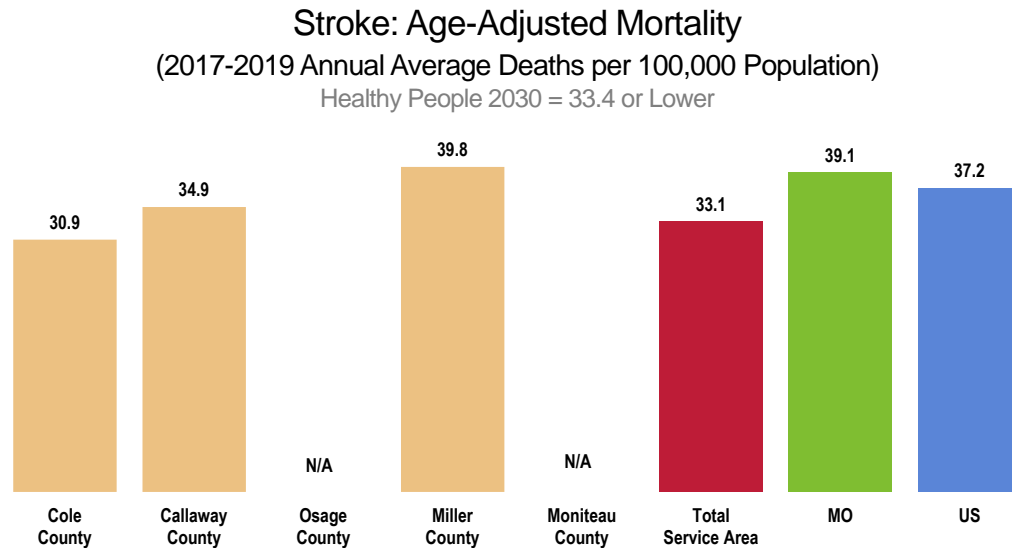
Stroke: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 33.4 or Lower

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
30.9	34.9	N/A	39.8	N/A	33.1	39.1	37.2

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Prevalence of Heart Disease & Stroke

Prevalence of Heart Disease

A total of 5.7% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina, or heart attack.

DISPARITY ▶ Lower in Moniteau County. Higher among adults age 65+.

Prevalence of Heart Disease

					18 to 44	2.3%		
					45 to 64	5.1%		
					65+	14.7%		

6.6%	4.4%	3.6%	7.1%	0.6%	5.7%	7.5%	6.1%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
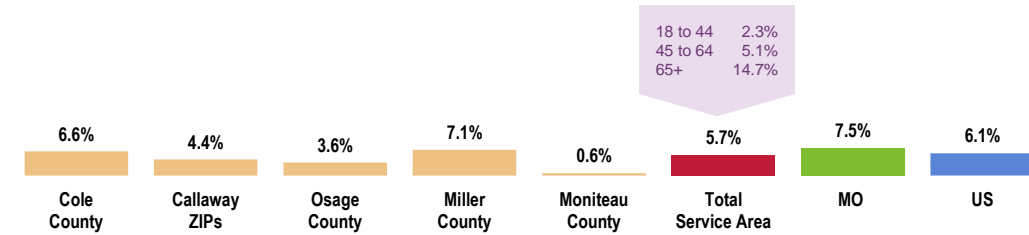
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 114]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Includes diagnoses of heart attack, angina, or coronary heart disease.

Prevalence of Stroke

A total of 3.7% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).

DISPARITY ► Lower in the Callaway ZIP Codes and Osage County. Higher among adults age 45+.

Prevalence of Stroke

					18 to 44	0.0%		
					45 to 64	5.1%		
					65+	9.2%		

3.5%	0.7%	0.3%	6.8%	6.1%	3.7%	4.0%	4.3%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
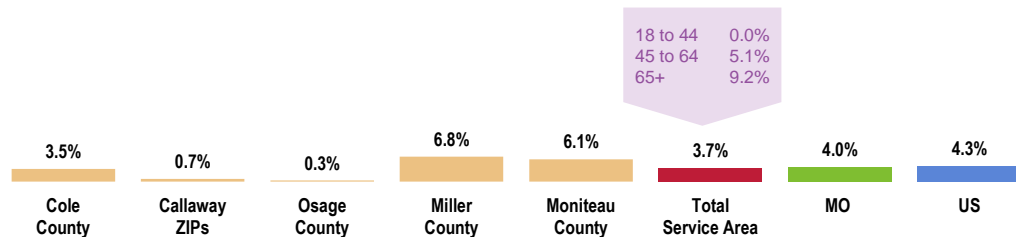
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 29]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.

Cardiovascular Risk Factors

Blood Pressure & Cholesterol

A total of 46.4% of Total Service Area adults have been told by a health professional at some point that their blood pressure was high.

BENCHMARK ► Higher than state and national findings. Fails to satisfy the Healthy People 2030 target of 27.7% or lower.

A total of 32.6% of adults have been told by a health professional that their cholesterol level was high.

Prevalence of High Blood Pressure
Healthy People 2030 = 27.7% or Lower

46.4%	30.9%	36.9%
Total Service Area	MO	US
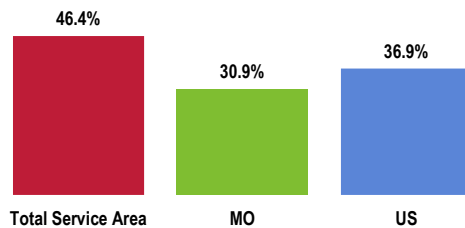
Prevalence of High Blood Cholesterol

32.6%	32.7%
Total Service Area	US
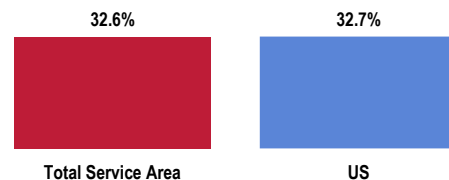
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Items 35, 36]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Total Cardiovascular Risk

Total cardiovascular risk reflects the individual-level risk factors which put a person at increased risk for cardiovascular disease, including:

- High Blood Pressure
- High Blood Cholesterol
- Cigarette Smoking
- Physical Inactivity
- Overweight/Obesity

Modifying these behaviors and adhering to treatment for high blood pressure and cholesterol are critical both for preventing and for controlling cardiovascular disease.

A total of 88.4% of Total Service Area adults report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

BENCHMARK ► Worse than the US percentage.

DISPARITY ► Higher among men and adults age 45 to 64.

Present One or More Cardiovascular Risks or Behaviors

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
90.2%	92.5%	88.7%	83.7%	79.8%	88.4%	84.6%
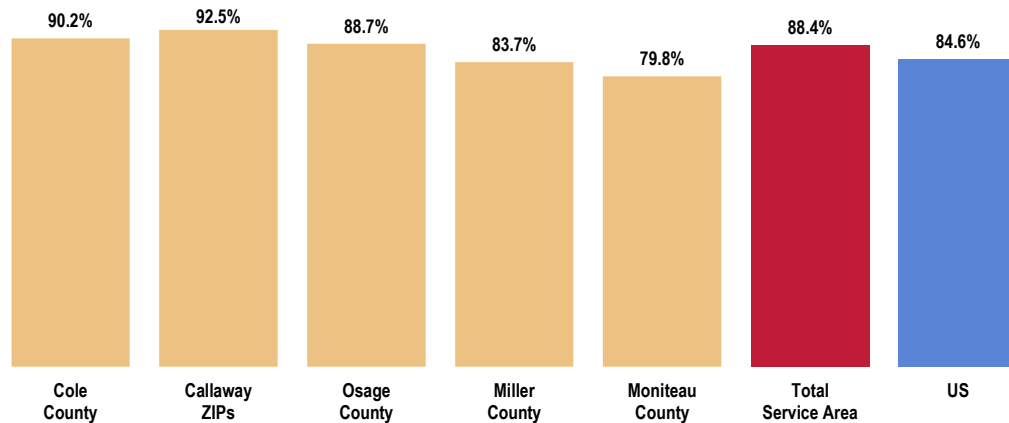
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 115]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Reflects all respondents.
● Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) high blood pressure; 4) high blood cholesterol; and/or 5) being overweight/obese.

Present One or More Cardiovascular Risks or Behaviors
(Total Service Area, 2021)

Category	Value
Men	94.4%
Women	81.7%
18 to 44	82.4%
45 to 64	94.2%
65+	90.7%
Low Income	94.6%
Mid/High Income	89.5%
Total Service Area	88.4%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 115]
Notes: ● Reflects all respondents.
● Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) high blood pressure; 4) high blood cholesterol; and/or 5) being overweight/obese.

Key Informant Input: Heart Disease & Stroke

The greatest share of key informants taking part in an online survey characterized *Heart Disease & Stroke* as a "moderate problem" in the community.

Perceptions of Heart Disease and Stroke
as a Problem in the Community
(Key Informants, 2021)
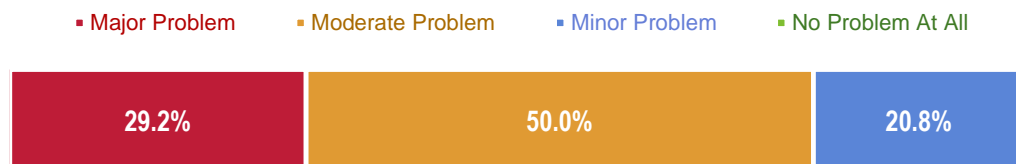
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

Major Problem	Moderate Problem	Minor Problem
29.2%	50.0%	20.8%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Incidence/Prevalence

Number-one cause of death. – Community Leader

Widespread, dangerous. – Community Leader

See it in my professional role with elder/disabled. – Other Health Provider

I see a lot of people have issues with heart disease. – Social Services Provider

These conditions are consistently listed as the top causes of death for Cole County. – Community Leader

Contributing Factors

Poor general health and community health initiatives. Bike paths, green space, dog park. – Community Leader

It is a major problem within the United States everywhere due to the amount of fast foods, sugars, and processed foods consumed. – Community Leader

CANCER

ABOUT CANCER

Cancer is the second leading cause of death in the United States. …The cancer death rate has declined in recent decades, but over 600,000 people still die from cancer each year in the United States. Death rates are higher for some cancers and in some racial/ethnic minority groups. These disparities are often linked to social determinants of health, including education, economic status, and access to health care.

Interventions to promote evidence-based cancer screenings — such as screenings for lung, breast, cervical, and colorectal cancer — can help reduce cancer deaths. Other effective prevention strategies include programs that increase HPV vaccine use, prevent tobacco use and promote quitting, and promote healthy eating and physical activity. In addition, effective targeted therapies and personalized treatment are key to helping people with cancer live longer.

– Healthy People 2030 (https://health.gov/healthypeople)

Age-Adjusted Cancer Deaths

All Cancer Deaths

Between 2017 and 2019, there was an annual average age-adjusted cancer mortality rate of 153.7 deaths per 100,000 population in the Total Service Area.

BENCHMARK ► Fails to satisfy the Healthy People 2030 target of 122.7.

DISPARITY ► Higher in Callaway County.
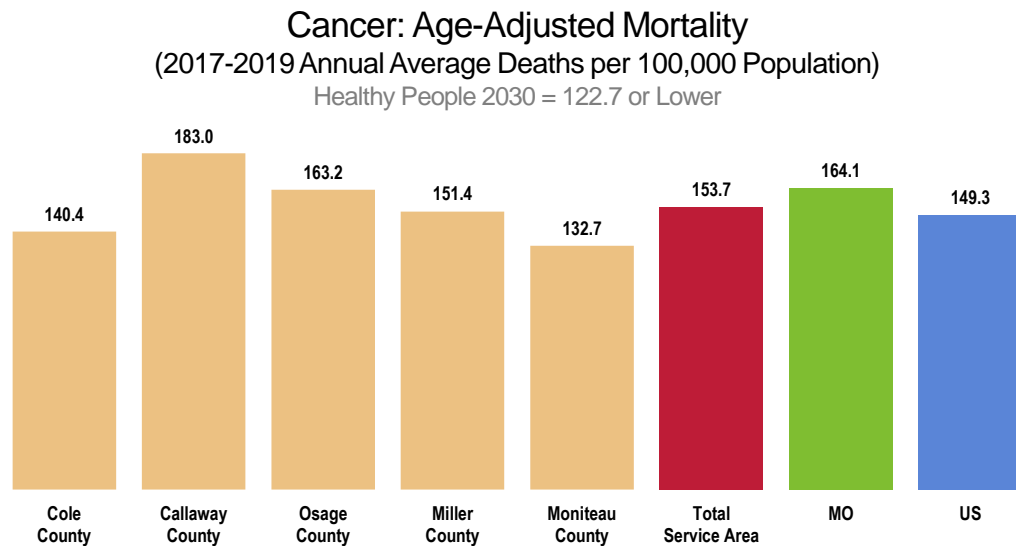
Cancer: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 122.7 or Lower

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
140.4	183.0	163.2	151.4	132.7	153.7	164.1	149.3

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Cancer Deaths by Site

Lung cancer is by far the leading cause of cancer deaths in the Total Service Area.

Other leading sites include female breast cancer, prostate cancer, and colorectal cancer (both sexes).

BENCHMARK

Lung Cancer ► Higher than the national rate. Fails to satisfy the Healthy People 2030 objective.

Female Breast Cancer ► Fails to satisfy the Healthy People 2030 objective.

Prostate Cancer ► Lower than both state and national rates. Satisfies the Healthy People 2030 objective.

Colorectal Cancer ► Lower than both state and national rates. Similar to the Healthy People 2030 objective.

Age-Adjusted Cancer Death Rates by Site
(2017-2019 Annual Average Deaths per 100,000 Population)

	Total Service Area	Missouri	US	HP2030
ALL CANCERS	153.7	164.1	149.3	122.7
Lung Cancer	44.0	44.3	34.9	25.1
Female Breast Cancer	22.0	19.9	19.7	15.3
Prostate Cancer	14.8	17.7	18.6	16.9
Colorectal Cancer	10.0	14.3	13.4	8.9

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Cancer Incidence

"Incidence rate" or "case rate" is the number of newly diagnosed cases in a given population in a given year, regardless of outcome. These rates are also age-adjusted. It is usually expressed as cases per 100,000 population per year.

The highest cancer incidence rates are for female breast cancer and prostate cancer.

BENCHMARK

Prostate Cancer ► Lower than the national rate.

Cancer Incidence Rates by Site
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2013-2017)

■ Total Service Area ■ MO ■ US

	All Sites	Female Breast Cancer	Prostate Cancer	Lung Cancer	Colon/Rectal Cancer
Total Service Area	441.0	125.7	89.0	66.0	41.2
MO	454.9	130.5	91.4	72.0	40.5
US	448.7	125.9	104.5	58.3	38.4
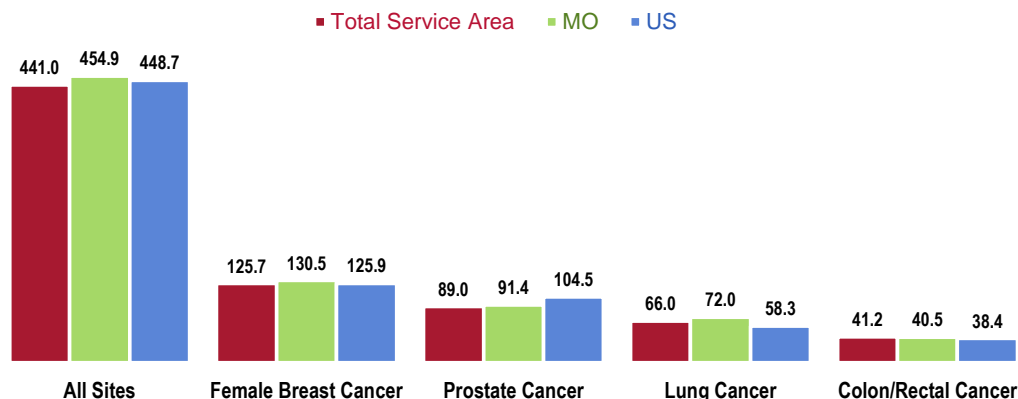
Sources:
- State Cancer Profiles.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
- This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Prevalence of Cancer

A total of 9.7% of surveyed Total Service Area adults report having ever been diagnosed with cancer. The most common types include skin cancer, breast cancer, prostate cancer, and kidney cancer.

BENCHMARK ▶ More favorable than the statewide finding.

DISPARITY ▶ More favorable in Osage County. Less favorable among adults age 45 and older.

Prevalence of Cancer

The most common types of cancers cited locally include:
1) Skin Cancer   24.1%
2) Breast Cancer   18.1%
3) Prostate Cancer 14.8%
4) Kidney Cancer   12.8%

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
10.0%	5.1%	2.0%	10.8%	18.1%	9.7%	13.9%	10.0%
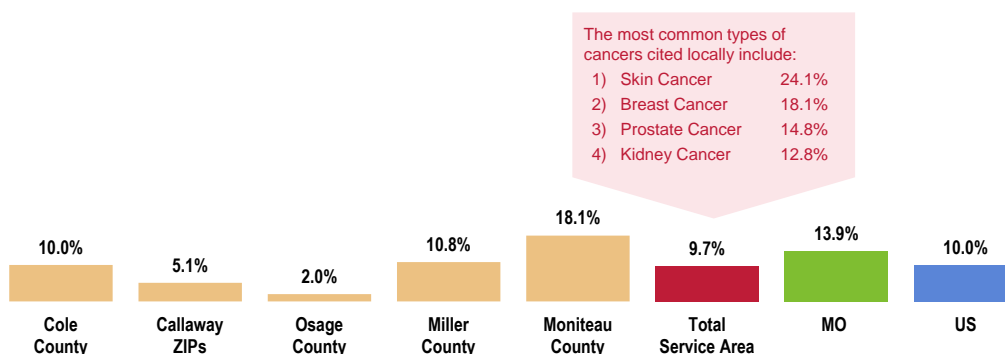
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Items 25-26]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Reflects all respondents.

Prevalence of Cancer
(Total Service Area, 2021)

9.9%	9.5%	0.0%	15.8%	18.2%	6.6%	10.6%	9.7%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
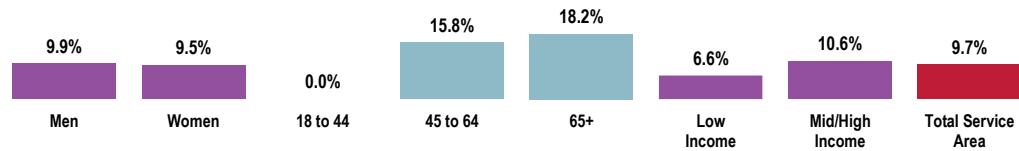
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 25]
Notes: ● Reflects all respondents.

ABOUT CANCER RISK

Reducing the nation's cancer burden requires reducing the prevalence of behavioral and environmental factors that increase cancer risk.

- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
- According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and physical activity factors, including obesity.

– National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

RELATED ISSUE
See also *Nutrition*, *Physical Activity & Weight* and *Tobacco Use* in the **Modifiable Health Risks** section of this report.

Cancer Screenings

The American Cancer Society recommends that both men and women get a cancer-related checkup during a regular doctor's checkup. It should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Screening levels in the community were measured in the PRC Community Health Survey relative to three cancer sites: female breast cancer (mammography); cervical cancer (Pap smear/HPV testing); and colorectal cancer (colonoscopy/sigmoidoscopy and fecal occult blood testing).

FEMALE BREAST CANCER

The US Preventive Services Task Force (USPSTF) recommends biennial screening mammography for women aged 50 to 74 years.

CERVICAL CANCER

The US Preventive Services Task Force (USPSTF) recommends screening for cervical cancer every 3 years with cervical cytology alone in women aged 21 to 29 years. For women aged 30 to 65 years, the USPSTF recommends screening every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting). The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion (i.e., cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer.

COLORECTAL CANCER

The US Preventive Services Task Force (USPSTF) recommends screening for colorectal cancer starting at age 50 years and continuing until age 75 years.

– US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Among women age 50-74, 79.6% have had a mammogram within the past 2 years.

BENCHMARK ► Satisfies the Healthy People 2030 target of 77.1% or higher.

Among Total Service Area women age 21 to 65, 82.4% have had appropriate cervical cancer screening.

BENCHMARK ► Better than the US percentage. Similar to the Healthy People 2030 target of 84.3% or higher.

"Appropriate cervical cancer screening" includes Pap smear testing (cervical cytology) every three years in women age 21 to 29 and Pap smear testing and/or HPV testing every 5 years in women age 30 to 65. Women 21 to 65 with hysterectomy are excluded.

Among all adults age 50-75, 79.6% have had appropriate colorectal cancer screening.

BENCHMARK ► Better than the statewide percentage. Satisfies the Healthy People 2030 target of 74.4% or higher.

Breast Cancer Screening
(Women Age 50-74)
Healthy People 2030 = 77.1% or Higher

79.6%	75.2%	76.1%
Total Service Area	MO	US

Cervical Cancer Screening
(Women Age 21-65)
Healthy People 2030 = 84.3% or Higher

82.4%	79.8%	73.8%
Total Service Area	MO	US

Colorectal Cancer Screening
(All Adults Age 50-75)
Healthy People 2030 = 74.4% or Higher

79.6%	69.8%	77.4%
Total Service Area	MO	US

Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Items 116, 117, 118]
● Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
● 2020 PRC National Health Survey, PRC, Inc.
● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
● Each indicator is shown among the gender and/or age group specified.

Key Informant Input: Cancer

The greatest share of key informants taking part in an online survey characterized *Cancer* as a "moderate problem" in the community.

Perceptions of Cancer
as a Problem in the Community
(Key Informants, 2021)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

13.6%	72.7%	13.6%
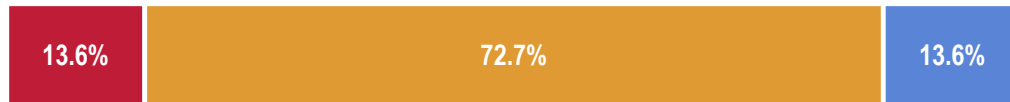
Sources:
● PRC Online Key Informant Survey, PRC, Inc.
Notes:
● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Incidence/Prevalence

It is such a dangerous disease that brings with it so much fear. – Community Leader

Lack of Providers

I know many people are challenged by a cancer diagnosis and there are not enough local providers. – Community Leader

RESPIRATORY DISEASE

ABOUT RESPIRATORY DISEASE

Respiratory diseases affect millions of people in the United States. …More than 25 million people in the United States have asthma. Strategies to reduce environmental triggers and make sure people get the right medications can help prevent hospital visits for asthma. In addition, more than 16 million people in the United States have COPD (chronic obstructive pulmonary disease), which is a major cause of death. Strategies to prevent the disease — like reducing air pollution and helping people quit smoking — are key to reducing deaths from COPD.

Interventions tailored to at-risk groups can also help prevent and treat other respiratory diseases — for example, pneumonia in older adults and pneumoconiosis in coal miners. And increasing lung cancer screening rates can help reduce deaths from lung cancer through early detection and treatment.

– Healthy People 2030 (https://health.gov/healthypeople)

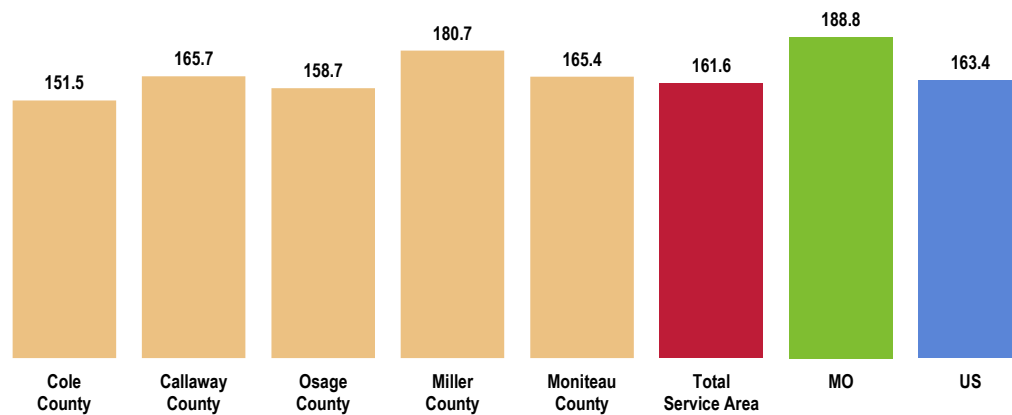## Age-Adjusted Respiratory Disease Deaths

Chronic Lower Respiratory Disease Deaths (CLRD)

Between 2017 and 2019, there was an annual average age-adjusted CLRD mortality rate of 55.8 deaths per 100,000 population in the Total Service Area.

BENCHMARK ► Less favorable than the US rate.

DISPARITY ► Lowest in Osage County.

Note: Chronic lower respiratory disease (CLRD) includes lung diseases such as emphysema, chronic bronchitis, and asthma.

CLRD: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
56.4	51.5	40.8	66.2	62.7	55.8	49.2	39.6

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
Notes: ● CLRD is chronic lower respiratory disease.

Pneumonia/Influenza Deaths

ABOUT INFLUENZA & PNEUMONIA

Influenza (flu) is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness. Serious outcomes of flu infection can result in hospitalization or death. Some people, such as older people, young children, and people with certain health conditions, are at high risk of serious flu complications. There are two main types of influenza (flu) virus: Types A and B. The influenza A and B viruses that routinely spread in people (human influenza viruses) are responsible for seasonal flu epidemics each year. The best way to prevent flu is by getting vaccinated each year.

Pneumonia is an infection of the lungs that can cause mild to severe illness in people of all ages. Depending on the cause, doctors often treat pneumonia with medicine. In addition, vaccines can prevent some types of pneumonia. However, it is still the leading infectious cause of death in children younger than 5 years old worldwide. Common signs of pneumonia include cough, fever, and difficulty breathing. You can help prevent pneumonia and other respiratory infections by following good hygiene practices. These practices include washing your hands regularly and disinfecting frequently touched surfaces. Making healthy choices, like quitting smoking and managing ongoing medical conditions, can also help prevent pneumonia.

Vaccines help prevent pneumococcal disease, which is any type of illness caused by *Streptococcus pneumoniae* bacteria.

– Centers for Disease Control and Prevention (CDC – www.cdc.gov)

Between 2017 and 2019, the Total Service Area reported an annual average age-adjusted pneumonia influenza mortality rate of 14.6 deaths per 100,000 population.

Pneumonia/Influenza: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
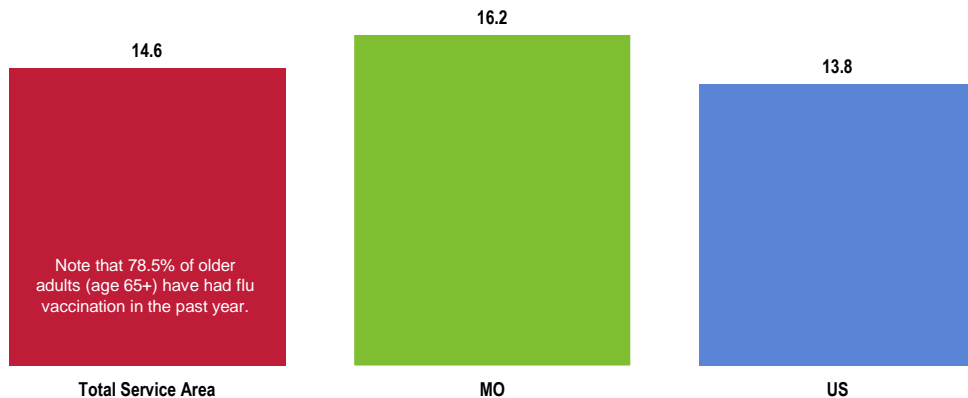
14.6	16.2	13.8
Note that 78.5% of older adults (age 65+) have had flu vaccination in the past year.		
Total Service Area	MO	US

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.

Prevalence of Respiratory Disease

Asthma

Adults

A total of 11.9% of Total Service Area adults currently suffer from asthma.

DISPARITY ► Highest in Cole County. More often reported among women and adults age 45 to 64.

Prevalence of Asthma

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
15.5%	10.8%	0.9%	11.7%	0.4%	11.9%	10.1%	12.9%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 119]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Includes those who have ever been diagnosed with asthma and report that they still have asthma.

Prevalence of Asthma
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
8.2%	15.6%	11.4%	14.9%	5.4%	11.5%	12.5%	11.9%
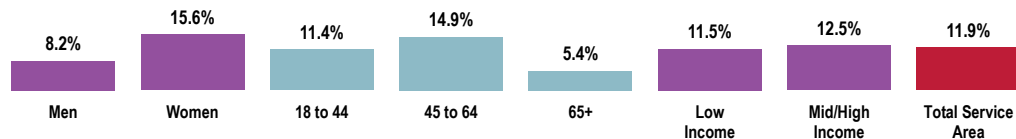
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 119]

Notes:
- Asked of all respondents.
- Includes those who have ever been diagnosed with asthma and report that they still have asthma.

Children

Among Total Service Area children under age 18, 6.9% currently have asthma.

Prevalence of Asthma in Children
(Parents of Children Age 0-17)

6.9%	**7.8%**
Total Service Area	US

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 120]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents with children 0 to 17 in the household.
- Includes children who have ever been diagnosed with asthma and are reported to still have asthma.

Chronic Obstructive Pulmonary Disease (COPD)

A total of 7.8% of Total Service Area adults suffer from chronic obstructive pulmonary disease (COPD, including emphysema and bronchitis).

DISPARITY ► Higher in the Callaway County ZIP Codes.

Note: COPD includes lung diseases such as emphysema and chronic bronchitis.

Prevalence of
Chronic Obstructive Pulmonary Disease (COPD)
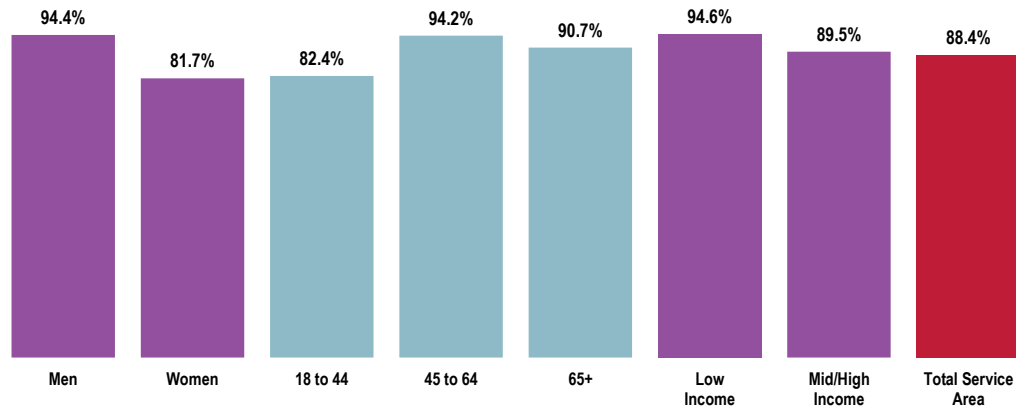
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
7.0%	20.0%	1.3%	13.5%	1.2%	7.8%	8.8%	6.4%
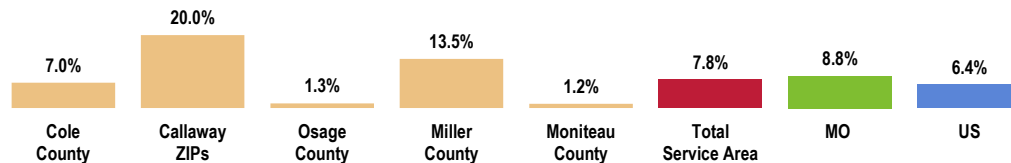
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 23]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Includes those having ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.

Key Informant Input: Respiratory Disease

The greatest share of key informants taking part in an online survey characterized *Respiratory Disease* as a "moderate problem" in the community.

Perceptions of Respiratory Diseases
as a Problem in the Community
(Key Informants, 2021)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

4.2%	62.5%	29.2%	4.2%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.
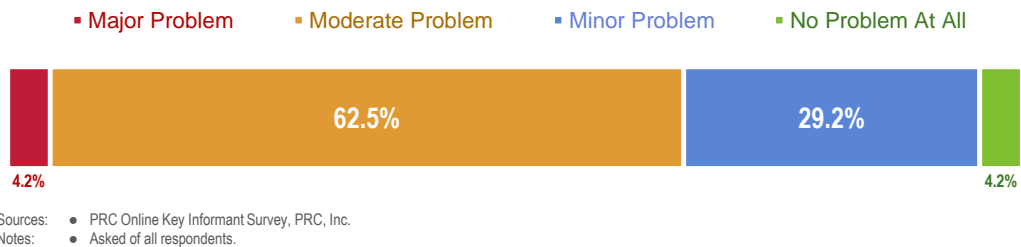
Among those rating this issue as a "major problem," reasons related to the following:

Tobacco Use

> Prevalence of smoking/vaping, potential long-term effect of COVID. – Community Leader

Key Informant Input: Coronavirus Disease/COVID-19

The greatest share of key informants taking part in an online survey characterized *Coronavirus Disease/COVID-19* as a "moderate problem" in the community.

Perceptions of Coronavirus Disease/COVID-19
as a Problem in the Community
(Key Informants, 2021)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

28.0%	56.0%	16.0%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.
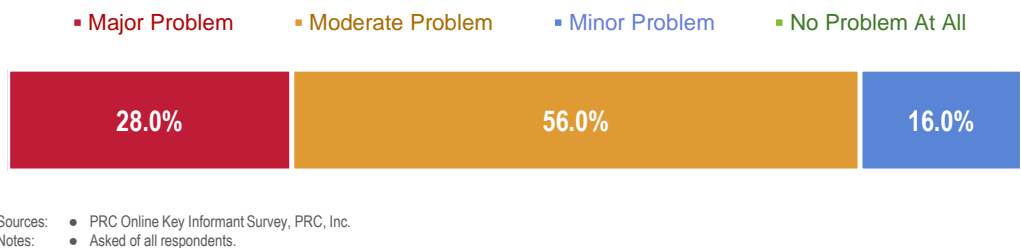
Among those rating this issue as a "major problem," reasons related to the following:

Vaccine Awareness/Education

> Many individuals do not believe the disease is real and are not vaccinated, wear masks or social distance. – Community Leader

> Vaccine hesitancy related to social media. – Community Leader

> As we progress into this disease it is unclear as to how to get a test and what to do if we test positive. I have had so many people contact me asking what to do next. Access to meds that I feel help people thru this COVID -19 are not readily available. Only certain doctors will supply the meds to people...It seems to be confusing and hard to deal with. – Social Services Provider

> Low uptake of the vaccine within our community. – Physician

> So many people decline to get vaccinated or to use safe practices. – Community Leader

Long-Term COVID

> The Delta variant and potential for future mutations are causing an extended pandemic with increasing risk of morbidity and mortality that may have been avoided with better community adoption of mitigation and vaccination practices. Further, the long-term effect of COVID-19 still is unknown but of concern. I predict a subset of this generation, similar to the polio generation, may experience life-long effects from this disease. – Community Leader

Incidence/Prevalence

> The cases are going up quickly and I see very little effort to prevent its spread in the community. – Social Services Provider

INJURY & VIOLENCE

ABOUT INJURY & VIOLENCE

INJURY ► In the United States, unintentional injuries are the leading cause of death in children, adolescents, and adults younger than 45 years. …Many unintentional injuries are caused by motor vehicle crashes and falls, and many intentional injuries involve gun violence and physical assaults. Interventions to prevent different types of injuries are key to keeping people safe in their homes, workplaces, and communities.

Drug overdoses are now the leading cause of injury deaths in the United States, and most overdoses involve opioids. Interventions to change health care providers' prescribing behaviors, distribute naloxone to reverse overdoses, and provide medications for addiction treatment for people with opioid use disorder can help reduce overdose deaths involving opioids.

VIOLENCE ► Almost 20,000 people die from homicide every year in the United States, and many more people are injured by violence. …Many people in the United States experience physical assaults, sexual violence, and gun-related injuries. Adolescents are especially at risk for experiencing violence. Interventions to reduce violence are needed to keep people safe in their homes, schools, workplaces, and communities.

Children who experience violence are at risk for long-term physical, behavioral, and mental health problems. Strategies to protect children from violence can help improve their health and well-being later in life.

– Healthy People 2030 (https://health.gov/healthypeople)

Unintentional Injury

Age-Adjusted Unintentional Injury Deaths

Between 2017 and 2019, there was an annual average age-adjusted unintentional injury mortality rate of 47.0 deaths per 100,000 population in the Total Service Area.

BENCHMARK ►   More favorable than the statewide rate. Similar to the Healthy People 2030 target of 43.2 or lower.

DISPARITY ►   Less favorable in Miller County.

Unintentional Injuries: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 43.2 or Lower
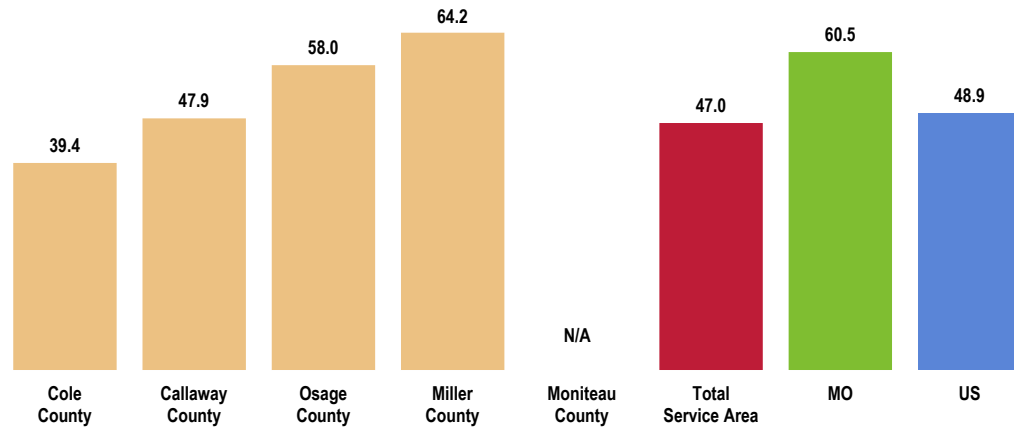
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
39.4	47.9	58.0	64.2	N/A	47.0	60.5	48.9

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov
Notes: ● "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Leading Causes of Unintentional Injury Deaths

Motor vehicle crashes and poisoning (including unintentional drug overdose) accounted for just over one-half of unintentional injury deaths in the Total Service Area between 2017 and 2019.

Leading Causes of Unintentional Injury Deaths
(Total Service Area, 2017-2019)
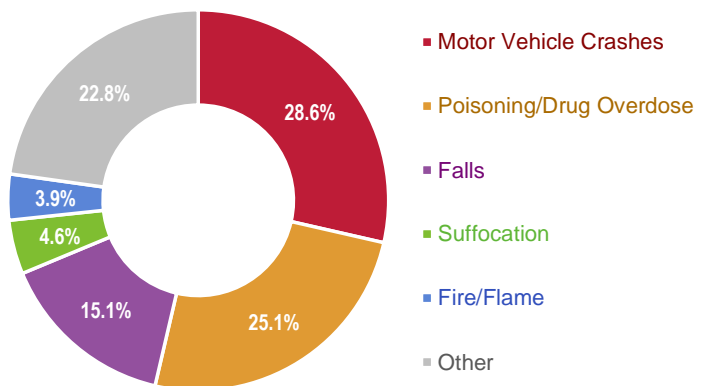
- Motor Vehicle Crashes — 28.6%
- Poisoning/Drug Overdose — 25.1%
- Falls — 15.1%
- Suffocation — 4.6%
- Fire/Flame — 3.9%
- Other — 22.8%

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.

Intentional Injury (Violence)

Age-Adjusted Homicide Deaths

In the Total Service Area, there were 6.3 homicide deaths per 100,000 population (2017-2019 annual average age-adjusted rate).

BENCHMARK ► Better than the statewide rate.

Homicide: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 5.5 or Lower
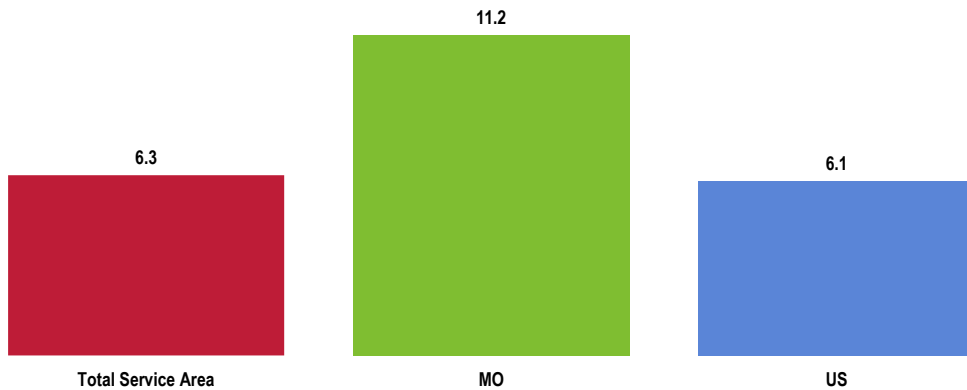
Total Service Area	MO	US
6.3	11.2	6.1

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Violent Crime

Violent Crime Rates

Between 2015 and 2017, there were a reported 303.0 violent crimes per 100,000 population in the Total Service Area.

BENCHMARK ► Lower than state and US findings.

DISPARITY ► Within the Total Service Area, highest in Callaway County.

Violent crime is composed of four offenses (FBI Index offenses): murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault.

Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.

Violent Crime
(Rate per 100,000 Population, 2015-2017)

318.7	433.3	30.0	276.3	129.0	303.0	524.3	416.0
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
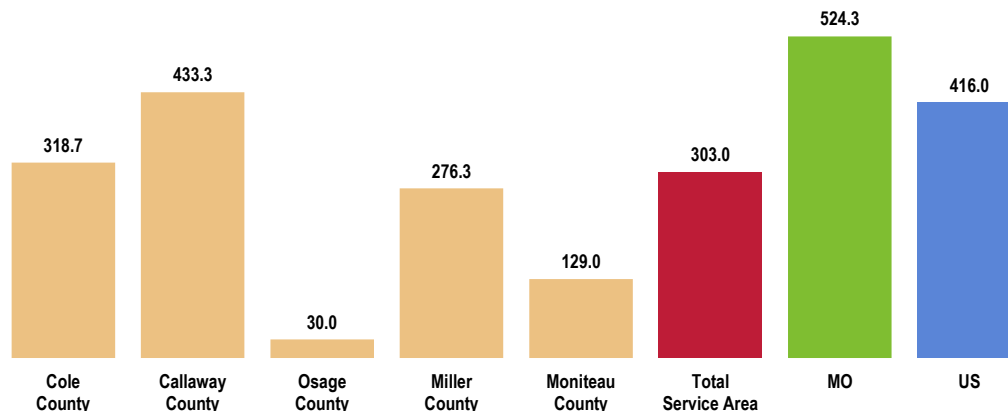
Sources:
- Federal Bureau of Investigation, FBI Uniform Crime Reports.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
- This indicator reports the rate of violent crime offenses reported by the sheriff's office or county police department per 100,000 residents. Violent crime includes homicide, rape, robbery, and aggravated assault. This indicator is relevant because it assesses community safety.
- Participation by law enforcement agencies in the UCR program is voluntary. Sub-state data do not necessarily represent an exhaustive list of crimes due to gaps in reporting. Also, some institutions of higher education have their own police departments, which handle offenses occurring within campus grounds; these offenses are not included in the violent crime statistics but can be obtained from the Uniform Crime Reports Universities and Colleges data tables.

Community Violence

A total of 1.9% of surveyed Total Service Area adults acknowledge being the victim of a violent crime in the area in the past five years.

BENCHMARK ► Lower than the national finding.

DISPARITY ► Higher in Cole County. Women and low-income adults are more likely to report being a victim of violent crime.

Victim of a Violent Crime in the Past Five Years

2.9%	0.0%	0.0%	1.1%	0.0%	1.9%	6.2%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
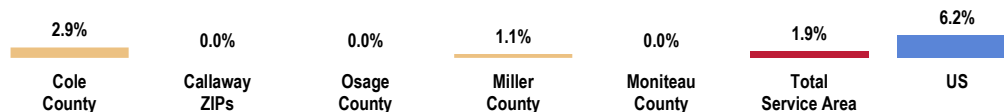
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 38]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.

Victim of a Violent Crime in the Past Five Years
(Total Service Area, 2021)

0.0%	3.8%	2.4%	2.1%	0.4%	5.9%	0.3%	1.9%
Men	**Women**	**18 to 44**	**45 to 64**	**65+**	**Low Income**	**Mid/High Income**	**Total Service Area**

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 38]
Notes: ● Asked of all respondents.

Family Violence

A total of 12.2% of Total Service Area adults acknowledge that they have ever been hit, slapped, pushed, kicked, or otherwise hurt by an intimate partner.

DISPARITY ► Particularly low in Osage County.

> Respondents were read: "By an intimate partner, I mean any current or former spouse, boyfriend, or girlfriend. Someone you were dating, or romantically or sexually intimate with would also be considered an intimate partner."

Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner

13.2%	11.6%	0.9%	14.5%	14.6%	12.2%	13.7%
Cole County	**Callaway ZIPs**	**Osage County**	**Miller County**	**Moniteau County**	**Total Service Area**	**US**

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 39]
　　　　● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Key Informant Input: Injury & Violence

The largest share of key informants taking part in an online survey characterized *Injury & Violence* as a "moderate problem" in the community.

Perceptions of Injury and Violence
as a Problem in the Community
(Key Informants, 2021)
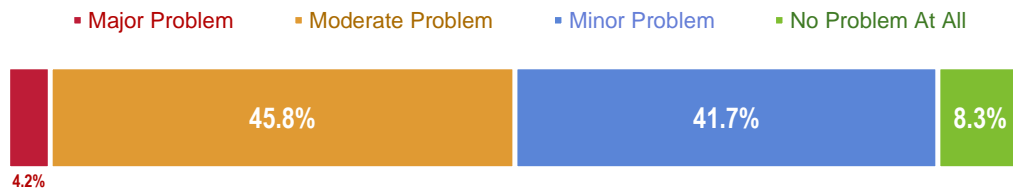
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

4.2%	45.8%	41.7%	8.3%

Sources: ●   PRC Online Key Informant Survey, PRC, Inc.
Notes: ●   Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Law Enforcement

> Individuals don't reach out to law enforcement, as they don't trust them. The areas are more rural, those tend to have more violence. – Social Services Provider

Domestic Violence

> Abuse of women and children because of its apparent expansion and the difficulties in addressing and solving its problems. – Community Leader

DIABETES

ABOUT DIABETES

More than 30 million people in the United States have diabetes, and it's the seventh leading cause of death. …Some racial/ethnic minorities are more likely to have diabetes. And many people with diabetes don't know they have it.

Poorly controlled or untreated diabetes can lead to leg or foot amputations, vision loss, and kidney damage. But interventions to help people manage diabetes can help reduce the risk of complications. In addition, strategies to help people who don't have diabetes eat healthier, get physical activity, and lose weight can help prevent new cases.

– Healthy People 2030 (https://health.gov/healthypeople)
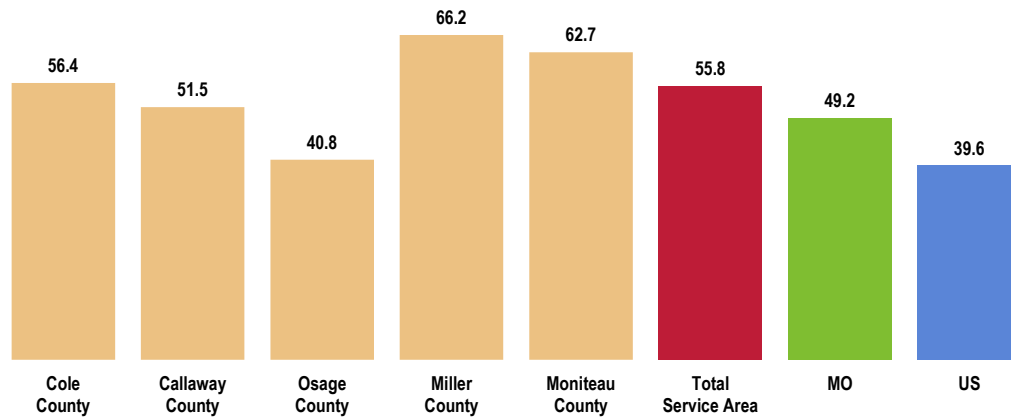
Age-Adjusted Diabetes Deaths

Between 2017 and 2019, there was an annual average age-adjusted diabetes mortality rate of 40.2 deaths per 100,000 population in the Total Service Area.

BENCHMARK ► Less favorable than found across the state and nation.

DISPARITY ► Especially high in Moniteau County.

Diabetes: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
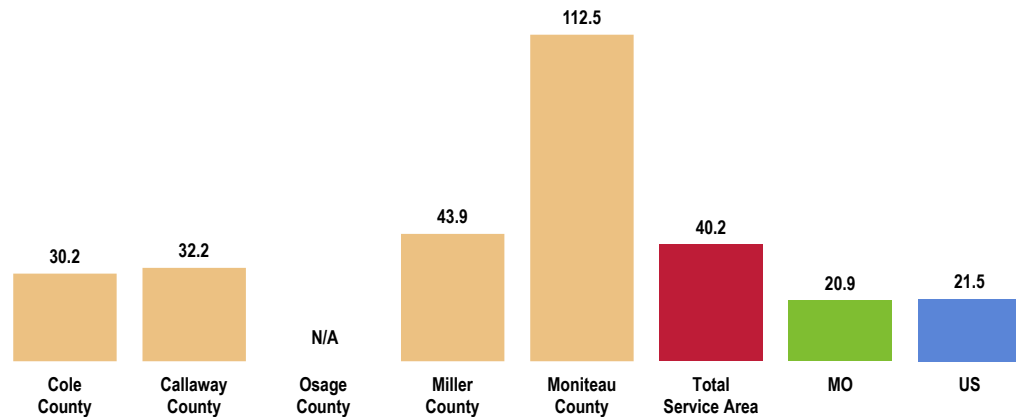
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
30.2	32.2	N/A	43.9	112.5	40.2	20.9	21.5

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
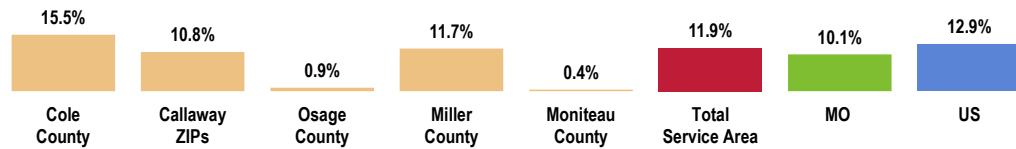
Notes: • "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Prevalence of Diabetes

A total of 13.2% of Total Service Area adults report having been diagnosed with diabetes.

DISPARITY ► Lower in Moniteau County. Less favorable among adults age 45 and older.

Prevalence of Diabetes

Another 6.1% of adults have been diagnosed with "pre-diabetes" or "borderline" diabetes.

12.8%	20.5%	14.0%	16.2%	4.5%	13.2%	10.3%	13.8%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
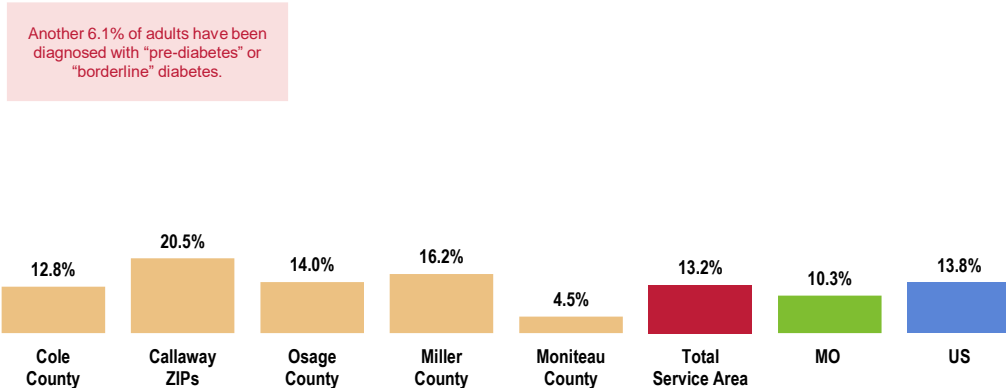
Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Item 121]
● Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
● 2020 PRC National Health Survey, PRC, Inc.

Notes:
● Asked of all respondents.

Prevalence of Diabetes
(Total Service Area, 2021)

Note that among adults who have not been diagnosed with diabetes, 43.5% report having had their blood sugar level tested within the past three years.

13.0%	13.4%	3.5%	20.1%	19.6%	16.0%	11.8%	13.2%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
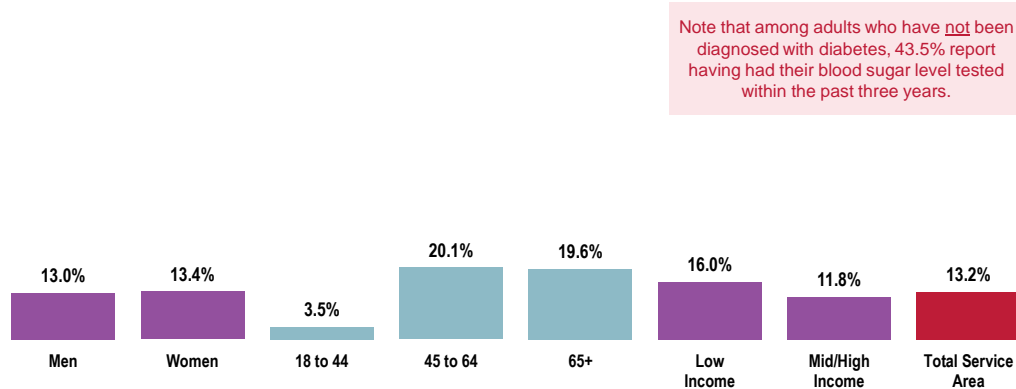
Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Item 121]

Notes:
● Asked of all respondents.
● Excludes gestational diabetes (occurring only during pregnancy).

Key Informant Input: Diabetes

A high percentage of key informants taking part in an online survey characterized *Diabetes* as a "moderate problem" in the community.
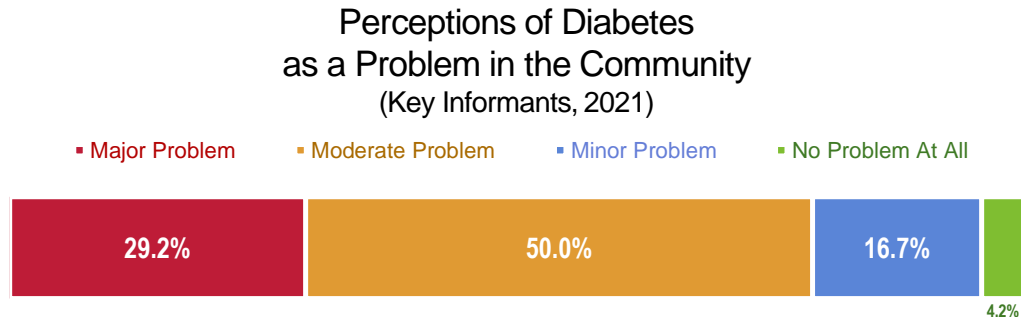
Perceptions of Diabetes
as a Problem in the Community
(Key Informants, 2021)

▪ Major Problem   ▪ Moderate Problem   ▪ Minor Problem   ▪ No Problem At All

29.2%	50.0%	16.7%	

4.2%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Contributing Factors

Cost of supplies for individuals with diabetes with a low income or retirement income. We also have elderly individuals who cannot care for themselves properly or have transportation. There are also those that refuse to comply with physician suggestions regarding their condition. – Community Leader

In my position, I see people that ask for help paying for insulin. I also see people that are homeless and don't have places to store food, so they end up eating convenience foods that are cheaper and less healthy. – Social Services Provider

Knowledge to create nutritional meals, access to create healthy meals and money to purchase healthy meals. – Community Leader

Prevention/Screenings

Diabetes (Type 2) is a pandemic and largely could be prevented or better controlled with modest lifestyle changes for the majority population. – Community Leader

Prevention services are lacking. Diabetes medication and supplies are expensive. – Community Leader

Cost of Medication

Affording medications. – Physician

KIDNEY DISEASE

ABOUT KIDNEY DISEASE

More than 1 in 7 adults in the United States may have chronic kidney disease (CKD), with higher rates in low-income and racial/ethnic minority groups. And most people with CKD don't know they have it. …People with CKD are more likely to have heart disease and stroke — and to die early. Managing risk factors like diabetes and high blood pressure can help prevent or delay CKD. Strategies to make sure more people with CKD are diagnosed early can help people get the treatment they need.

Recommended tests can help identify people with CKD to make sure they get treatments and education that may help prevent or delay kidney failure and end-stage kidney disease (ESKD). In addition, strategies to make sure more people with ESKD get kidney transplants can increase survival rates and improve quality of life.

    – Healthy People 2030 (https://health.gov/healthypeople)

Age-Adjusted Kidney Disease Deaths

Between 2017 and 2019, there was an annual average age-adjusted kidney disease mortality rate of 18.3 deaths per 100,000 population in the Total Service Area.

BENCHMARK ► Worse than the national rate.

Kidney Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
18.2	20.7	N/A	N/A	N/A	18.3	19.0	12.9
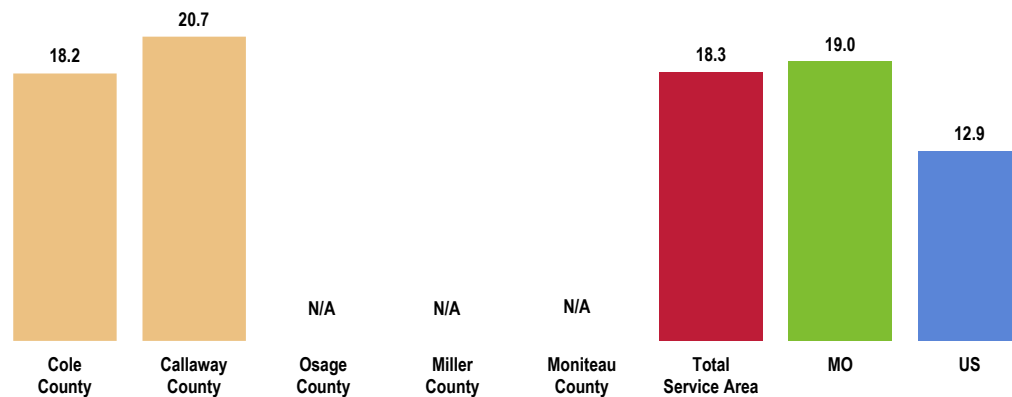
Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.

Notes: ● "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Age-Adjusted Hypertensive Renal Disease Deaths

Between 2017 and 2019, the Total Service Area reported an annual average age-adjusted death rate of 24.3 per 100,000 population due to hypertensive renal disease.

BENCHMARK ▶ Considerably higher than the Missouri and US death rates.

DISPARITY ▶ Unfavorably high in Moniteau County.

Hypertensive Renal Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
23.6	14.2	N/A	32.3	51.3	24.3	7.5	8.9

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.

Notes: ● "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Prevalence of Kidney Disease

A total of 6.7% of Total Service Area adults report having been diagnosed with kidney disease.

BENCHMARK ▶ Higher than the statewide prevalence.

DISPARITY ▶ Relatively high in Miller County. More often reported among adults age 45 to 64.

Prevalence of Kidney Disease

4.1%	10.7%	5.9%	16.9%	6.7%	6.7%	3.1%	5.0%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
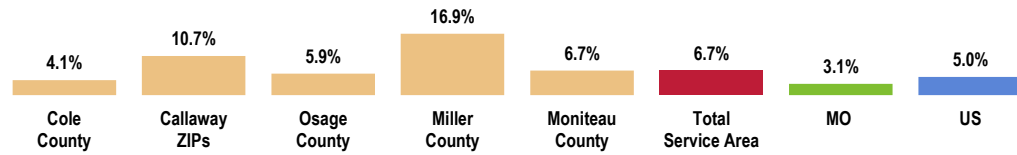
Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Item 24]
● Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
● 2020 PRC National Health Survey, PRC, Inc.

Notes:
● Asked of all respondents.

Prevalence of Kidney Disease
(Total Service Area, 2021)

7.4%	6.1%	2.2%	11.9%	6.6%	11.1%	4.7%	6.7%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
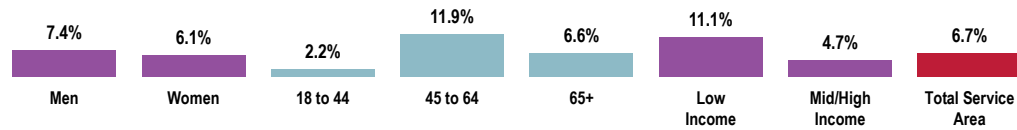
Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Item 24]

Notes:
● Asked of all respondents.

Key Informant Input: Kidney Disease

Key informants taking part in an online survey were equally likely to give "moderate" and "minor" ratings of *Kidney Disease* as a community issue.

Perceptions of Kidney Disease
as a Problem in the Community
(Key Informants, 2021)
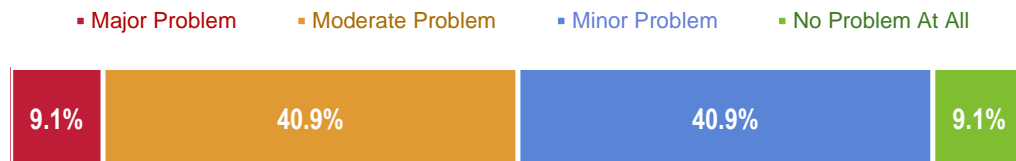
▪ Major Problem   ▪ Moderate Problem   ▪ Minor Problem   ▪ No Problem At All

9.1%	40.9%	40.9%	9.1%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Diagnosis/Treatment

> Data show chronic kidney disease is an under-screened and underdiagnosed condition during early phases of risk and detection. Simple screening would prevent chronic kidney disease. Community may be no different than the nation. – Community Leader

Incidence/Prevalence

> I know many are challenged by kidney disease. – Community Leader

POTENTIALLY DISABLING CONDITIONS

Multiple Chronic Conditions

Among Total Service Area survey respondents, over 80% report currently having at least one chronic health condition.

Number of Current Chronic Conditions
(Total Service Area, 2021)
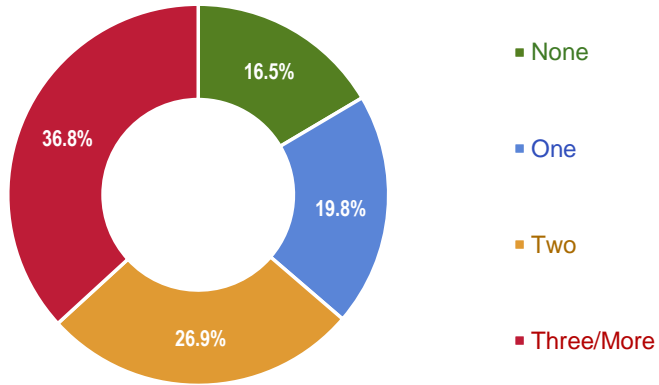
- None: 16.5%
- One: 19.8%
- Two: 26.9%
- Three/More: 36.8%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 123]
Notes: ● Asked of all respondents.
● In this case, chronic conditions include lung disease, cancer, kidney disease, heart attack/angina, stroke, asthma, high blood pressure, high blood cholesterol, diabetes, high-impact chronic pain, obesity, and/or diagnosed depression.

In fact, 36.8% of Total Service Area adults report having <u>three</u> or more chronic conditions.

DISPARITY ► More often reported among women and adults age 45 and older.

Currently Have Three or More Chronic Conditions

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
35.8%	31.8%	37.2%	47.5%	30.8%	36.8%	32.5%
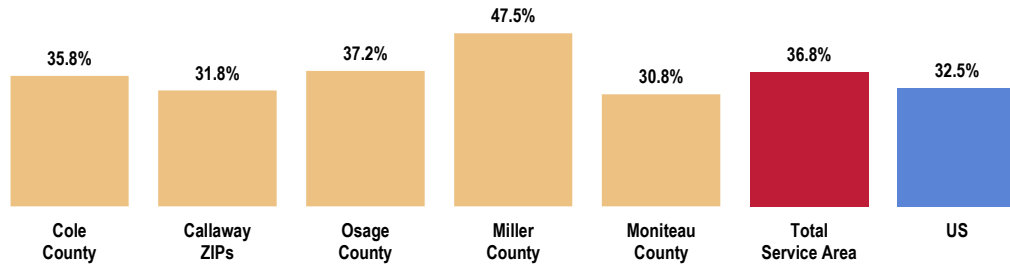
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 143]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.
● In this case, chronic conditions include lung disease, cancer, kidney disease, heart attack/angina, stroke, asthma, high blood pressure, high blood cholesterol, diabetes, high-impact chronic pain, obesity, and/or diagnosed depression.

Currently Have Three or More Chronic Conditions
(Total Service Area, 2021)
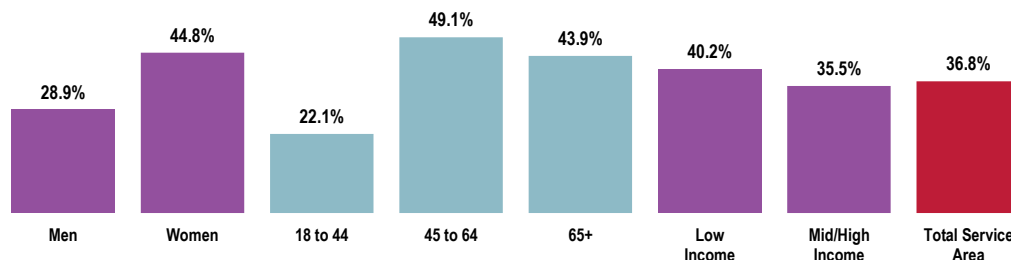
Men	28.9%
Women	44.8%
18 to 44	22.1%
45 to 64	49.1%
65+	43.9%
Low Income	40.2%
Mid/High Income	35.5%
Total Service Area	36.8%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 123]
Notes: ● Asked of all respondents.
   ● In this case, chronic conditions include lung disease, cancer, kidney disease, heart attack/angina, stroke, asthma, high blood pressure, high blood cholesterol, diabetes, high-impact chronic pain, obesity, and/or diagnosed depression.

Activity Limitations

ABOUT DISABILITY & HEALTH

Studies have found that people with disabilities are less likely to get preventive health care services they need to stay healthy. Strategies to make health care more affordable for people with disabilities are key to improving their health.

In addition, people with disabilities may have trouble finding a job, going to school, or getting around outside their homes. And they may experience daily stress related to these challenges. Efforts to make homes, schools, workplaces, and public places easier to access can help improve quality of life and overall well-being for people with disabilities.

  – Healthy People 2030 (https://health.gov/healthypeople)

A total of 27.9% of Total Service Area adults are limited in some way in some activities due to a physical, mental, or emotional problem.

DISPARITY ► Particularly high in Cole County (note that Miller County results are not statistically high due to the smaller sample size there). Activity limitations are also more often reported among adults age 45 and older and low-income residents.

Limited in Activities in Some Way
Due to a Physical, Mental or Emotional Problem

Most common conditions:
• Back/neck problems
• Mental health
• Bone/joint injury
• Arthritis
• Difficulty walking
• Lung/breathing issue

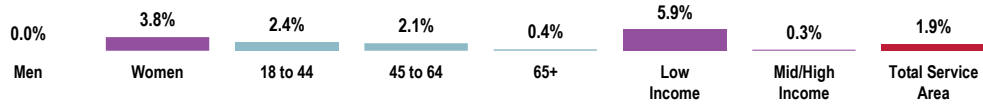|						
31.6%	21.7%	12.4%	32.9%	17.7%	27.9%	24.0%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
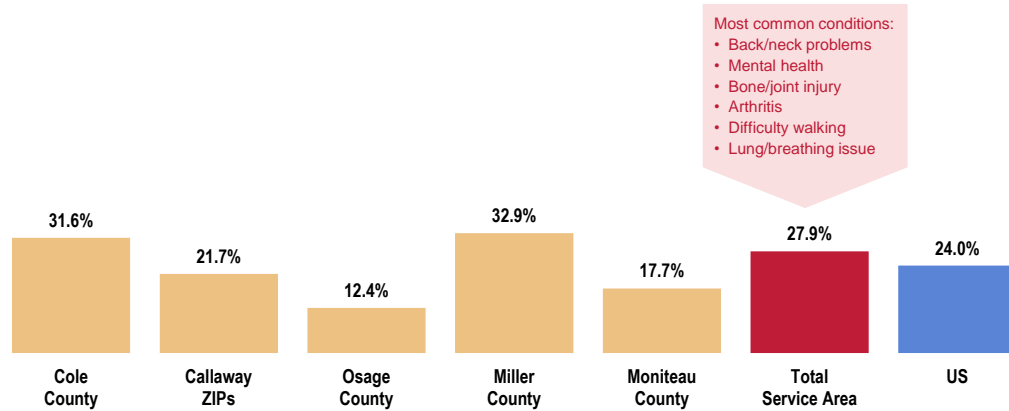
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Items 96-97]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Limited in Activities in Some Way
Due to a Physical, Mental or Emotional Problem
(Total Service Area, 2021)

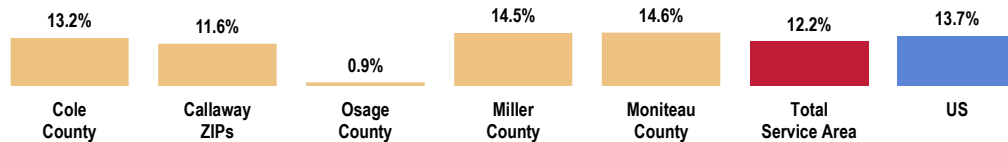|							
25.0%	31.0%	19.4%	34.0%	33.8%	37.4%	23.1%	27.9%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
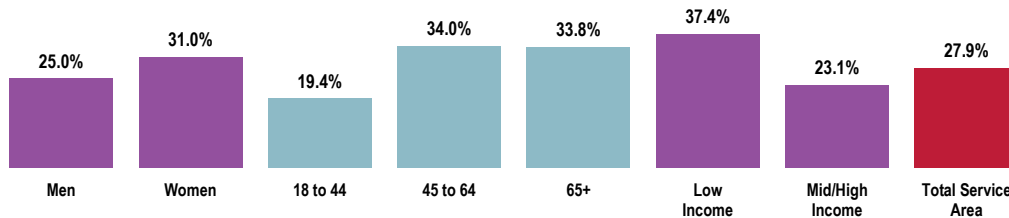
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 96]
Notes: ● Asked of all respondents.

Chronic Pain

A total of 21.8% of Total Service Area adults experience high-impact chronic pain, meaning physical pain that has limited their life or work activities "every day" or "most days" during the past six months.

BENCHMARK ► Higher than the US percentage. Fails to satisfy the Healthy People 2030 target of 7.0% or lower.

DISPARITY ► Higher among those age 45 to 64.

Experience High-Impact Chronic Pain
Healthy People 2030 = 7.0% or Lower
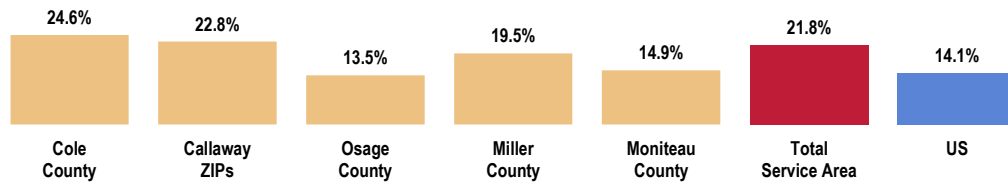
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
24.6%	22.8%	13.5%	19.5%	14.9%	21.8%	14.1%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 37]
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.
- High-impact chronic pain includes physical pain that limits life or work activities on "most days" or "every day" of the past six months.

Experience High-Impact Chronic Pain
(Total Service Area, 2021)
Healthy People 2030 = 7.0% or Lower
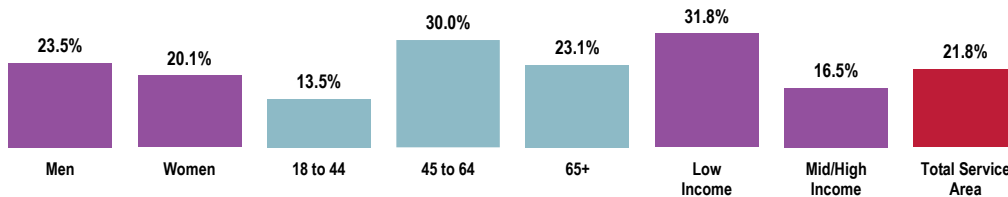
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
23.5%	20.1%	13.5%	30.0%	23.1%	31.8%	16.5%	21.8%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 37]
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.
- High-impact chronic pain includes physical pain that limits life or work activities on "most days" or "every day" of the past six months.

Key Informant Input: Disability & Chronic Pain

Key informants taking part in an online survey most often characterized *Disability & Chronic Pain* as a "moderate problem" in the community.

Perceptions of Disability & Chronic Pain
as a Problem in the Community
(Key Informants, 2021)
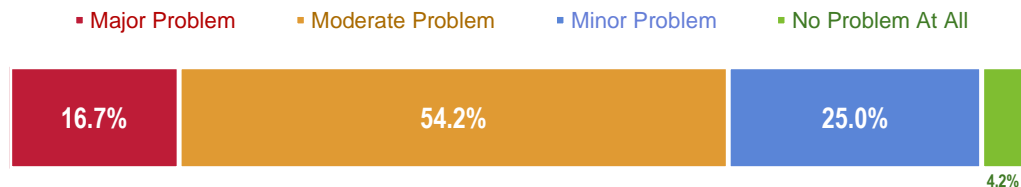
■ Major Problem ■ Moderate Problem ■ Minor Problem ■ No Problem At All

16.7%	54.2%	25.0%	4.2%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Contributing Factors

Aging population, expanding number of people who have disabilities. – Community Leader

Lack of jobs and transportation leads to lack of health care for those who need it. They can't get to it or they lead hard lives that has cause multiple injuries. A lot of people in the counties are farmers. – Social Services Provider

Addiction

Although the mass distribution of narcotics by physicians has improved, there still remain individuals who remain dependent on pain medications to solve their issues. We as well have individuals who do not have access to elective surgery services that can assist in improvement of their condition. – Community Leader

Incidence/Prevalence

Seeing it in my community as well as in my professional role. – Other Health Provider

Alzheimer's Disease

ABOUT DEMENTIA

Alzheimer's disease is the most common cause of dementia and the sixth leading cause of death in U.S. adults.1 Nearly 6 million people in the United States have Alzheimer's, and that number will increase as the population ages.

Dementia refers to a group of symptoms that cause problems with memory, thinking, and behavior. People with dementia are more likely to be hospitalized, and dementia is linked to high health care costs.

While there's no cure for Alzheimer's disease, early diagnosis and supportive care can improve quality of life. And efforts to make sure adults with symptoms of cognitive decline — including memory loss — are diagnosed early can help improve health outcomes in people with dementia. Interventions to address caregiving needs can also help improve health and well-being in people with dementia.

– Healthy People 2030 (https://health.gov/healthypeople)

Age-Adjusted Alzheimer's Disease Deaths

Between 2017 and 2019, there was an annual average age-adjusted Alzheimer's disease mortality rate of 19.9 deaths per 100,000 population in the Total Service Area.

BENCHMARK ► Lower than state and US rates.

DISPARITY ► Among counties with available data, lowest in Cole County.

Alzheimer's Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)

Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
20.4	24.3	N/A	25.7	N/A	19.9	33.1	30.4
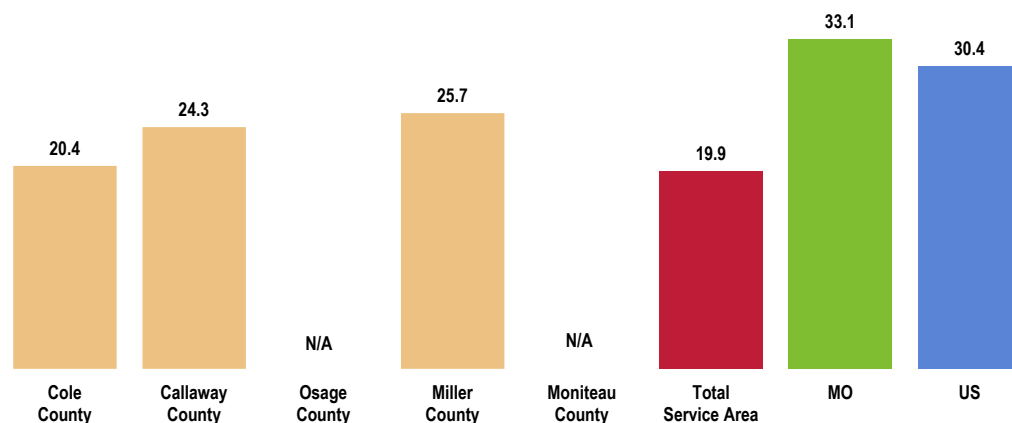
Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.

Notes: • "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

Key Informant Input: Dementia/Alzheimer's Disease

Key informants taking part in an online survey are most likely to consider *Dementia/ Alzheimer's Disease* as a "moderate problem" in the community.

Perceptions of Dementia/Alzheimer's Disease as a Problem in the Community
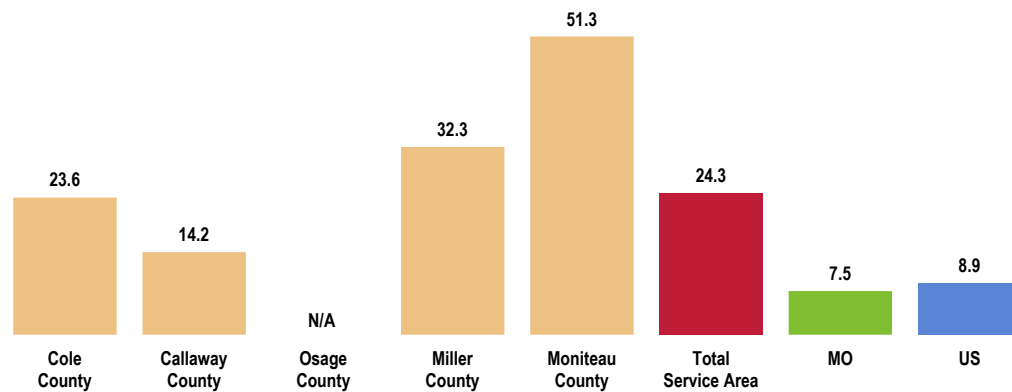#### (Key Informants, 2021)
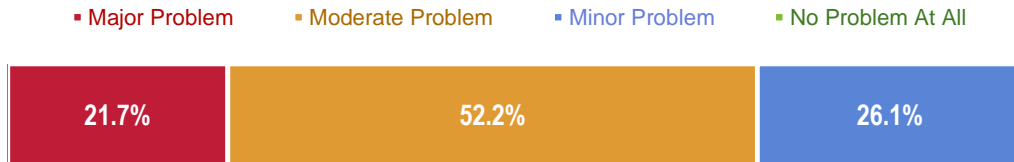
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

21.7%	52.2%	26.1%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Incidence/Prevalence

> I am seeing it in my community and frequently in my professional day-to-day work. – Other Health Provider

> As our population ages and people are living longer, more people are challenged by dementia/Alzheimer's. – Community Leader

Impact on Caregivers/Families

> It is an increasing cause of morbidity and mortality without treatment and places an enormous burden on family, caretakers, and community resources. – Community Leader

Caregiving

A total of 22.3% of Total Service Area adults currently provide care or assistance to a friend or family member who has a health problem, long-term illness, or disability.

Act as Caregiver to a Friend or Relative with a Health Problem, Long-Term Illness, or Disability
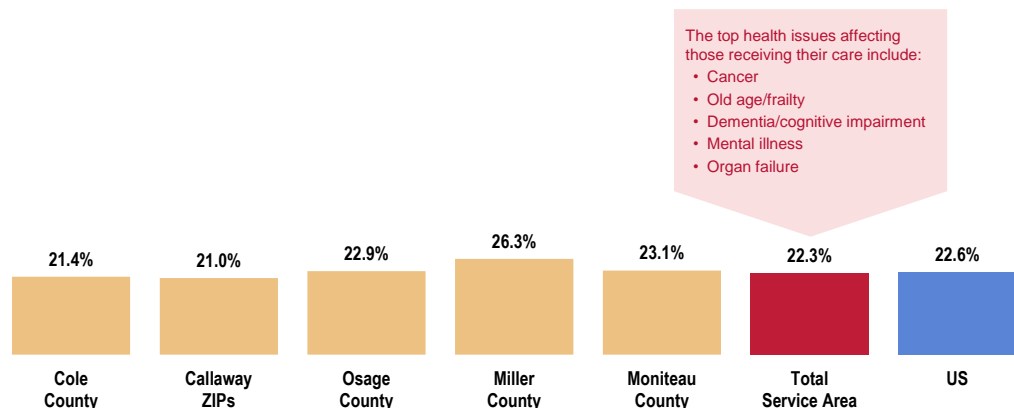
The top health issues affecting those receiving their care include:
- Cancer
- Old age/frailty
- Dementia/cognitive impairment
- Mental illness
- Organ failure

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
21.4%	21.0%	22.9%	26.3%	23.1%	22.3%	22.6%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Items 98-99]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

BIRTHS

BIRTH OUTCOMES & RISKS

Low-Weight Births

A total of 7.8% of 2013-2019 Total Service Area births were low-weight.

DISPARITY ► Slightly lower in Moniteau County.

Low-Weight Births
(Percent of Live Births, 2013-2019)
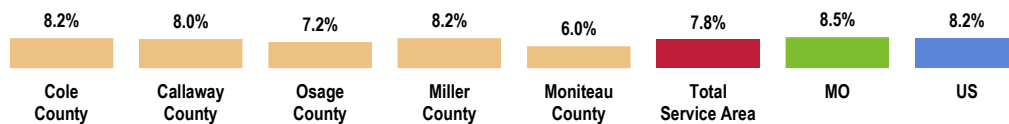
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
8.2%	8.0%	7.2%	8.2%	6.0%	7.8%	8.5%	8.2%

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted July 2021.

Note:
- This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

Infant Mortality

Between 2017 and 2019, there was an annual average of 4.8 infant deaths per 1,000 live births.

BENCHMARK ► Lower than state and national rates. Satisfies the Healthy People 2030 target of 5.0 or lower.

Infant Mortality Rate
(Annual Average Infant Deaths per 1,000 Live Births, 2017-2019)
Healthy People 2030 = 5.0 or Lower
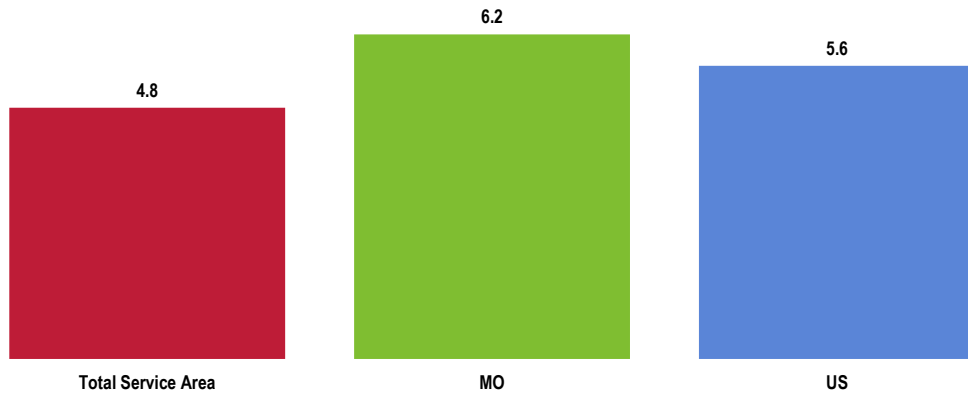
Total Service Area	MO	US
4.8	6.2	5.6

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted July 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Infant deaths include deaths of children under 1 year old.
- This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.

FAMILY PLANNING

ABOUT FAMILY PLANNING

Nearly half of pregnancies in the United States are unintended, and unintended pregnancy is linked to many negative outcomes for both women and infants. …Unintended pregnancy is linked to outcomes like preterm birth and postpartum depression. Interventions to increase use of birth control are critical for preventing unintended pregnancies. Birth control and family planning services can also help increase the length of time between pregnancies, which can improve health for women and their infants.

Adolescents are at especially high risk for unintended pregnancy. Although teen pregnancy and birth rates have gone down in recent years, close to 200,000 babies are born to teen mothers every year in the United States. Linking adolescents to youth-friendly health care services can help prevent pregnancy and sexually transmitted infections in this age group.

– Healthy People 2030 (https://health.gov/healthypeople)

Births to Adolescent Mothers

Between 2013 and 2019, there were 22.8 births to adolescents age 15 to 19 per 1,000 women age 15 to 19 in the Total Service Area.

BENCHMARK ► Satisfies the Healthy People 2030 target of 31.4 or lower.

DISPARITY ► Relatively high in Miller and Moniteau counties.

Teen Birth Rate
(Births to Adolescents Age 15-19 per 1,000 Females Age 15-19, 2013-2019)
Healthy People 2030 = 31.4 or Lower

Location	Rate
Cole County	21.0
Callaway County	21.2
Osage County	9.6
Miller County	37.3
Moniteau County	25.6
Total Service Area	22.8
MO	24.3
US	20.9
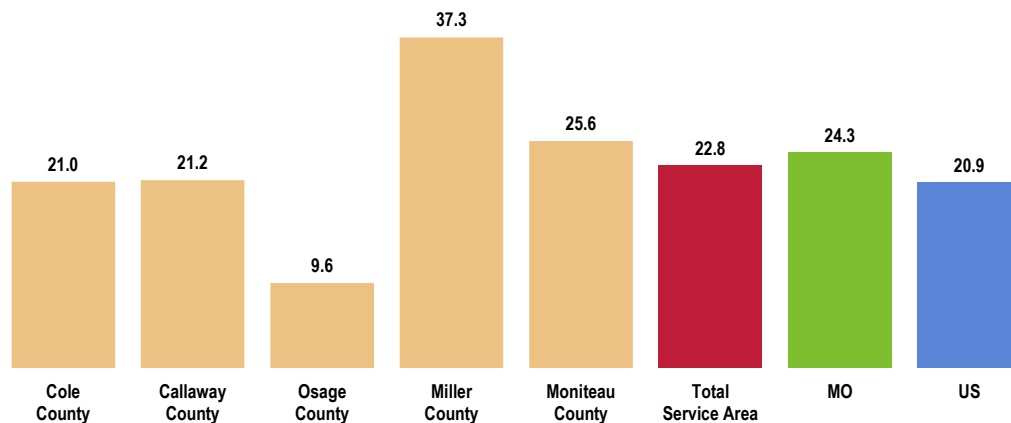
Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- This indicator reports the rate of total births to women under the age of 15–19 per 1,000 female population age 15–19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.

Key Informant Input: Infant Health & Family Planning

Key informants taking part in an online survey largely characterized *Infant Health & Family Planning* as a "moderate problem" in the community.

Perceptions of Infant Health and Family Planning
as a Problem in the Community
(Key Informants, 2021)

■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

52.2%	47.8%
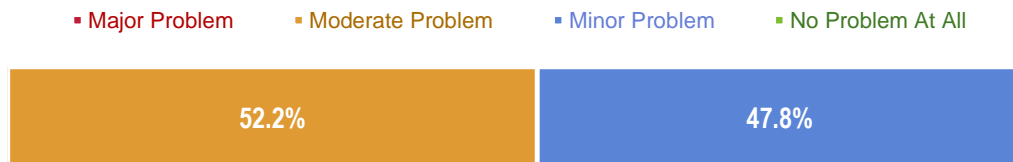
Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

None rated this issue as a "major problem."

MODIFIABLE HEALTH RISKS

NUTRITION

ABOUT NUTRITION & HEALTHY EATING

Many people in the United States don't eat a healthy diet. …People who eat too many unhealthy foods — like foods high in saturated fat and added sugars — are at increased risk for obesity, heart disease, type 2 diabetes, and other health problems. Strategies and interventions to help people choose healthy foods can help reduce their risk of chronic diseases and improve their overall health.

Some people don't have the information they need to choose healthy foods. Other people don't have access to healthy foods or can't afford to buy enough food. Public health interventions that focus on helping everyone get healthy foods are key to reducing food insecurity and hunger and improving health.

– Healthy People 2030 (https://health.gov/healthypeople)

Daily Recommendation of Fruits/Vegetables

A total of 25.7% of Total Service Area adults report eating five or more servings of fruits and/or vegetables per day.

BENCHMARK ► Lower than was found across the US.

DISPARITY ► Lowest among male respondents.

To measure fruit and vegetable consumption, survey respondents were asked multiple questions, specifically about the foods and drinks they consumed on the day prior to the interview.

Consume Five or More Servings of Fruits/Vegetables Per Day

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
23.4%	20.3%	32.7%	32.3%	29.7%	25.7%	32.7%
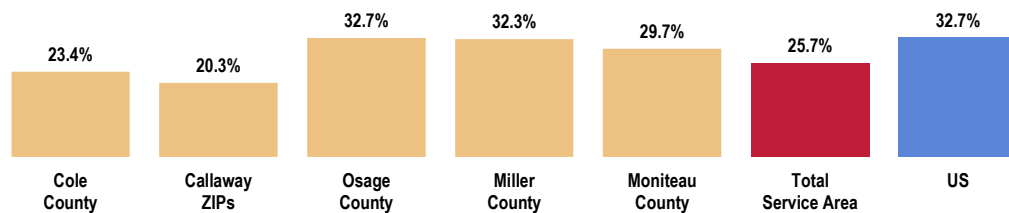
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 125]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.
● For this issue, respondents were asked to recall their food intake on the previous day.

Consume Five or More Servings of Fruits/Vegetables Per Day
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
19.5%	32.2%	24.9%	25.2%	27.9%	19.8%	26.8%	25.7%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 125]
Notes: ● Asked of all respondents.
● For this issue, respondents were asked to recall their food intake on the previous day.

Difficulty Accessing Fresh Produce

Most Total Service Area adults report little or no difficulty buying fresh produce at a price they can afford.

Respondents were asked: "How difficult is it for you to buy fresh produce like fruits and vegetables at a price you can afford? Would you say: Very Difficult, Somewhat Difficult, Not Too Difficult, or Not At All Difficult?"

RELATED ISSUE
See also *Food Access* in the **Social Determinants of Health** section of this report.

Level of Difficulty Finding Fresh Produce at an Affordable Price
(Total Service Area, 2021)

- Very Difficult — 2.8%
- Somewhat Difficult — 9.3%
- Not Too Difficult — 23.5%
- Not At All Difficult — 64.4%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 79]
Notes: ● Asked of all respondents.

However, 12.1% of Total Service Area adults find it "very" or "somewhat" difficult to access affordable fresh fruits and vegetables.

BENCHMARK ► Better than the national percentage.

DISPARITY ► Higher in Miller County. More often reported among women, adults age 45 to 64, and especially low-income residents.

Find It "Very" or "Somewhat" Difficult to Buy Affordable Fresh Produce

Cole County 10.0%	Callaway ZIPs 15.1%	Osage County 11.5%	Miller County 25.2%	Moniteau County 4.8%	Total Service Area 12.1%	US 21.1%
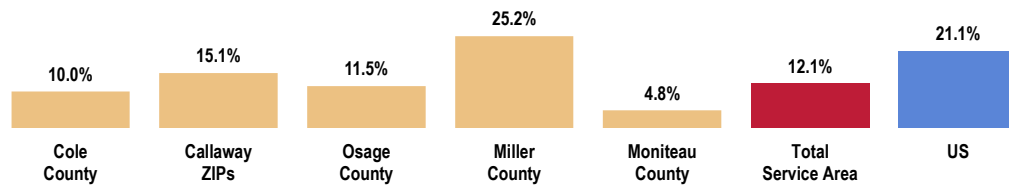
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 79]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Find It "Very" or "Somewhat" Difficult to Buy Affordable Fresh Produce
(Total Service Area, 2021)

Men 7.7%	Women 16.6%	18 to 44 9.5%	45 to 64 16.6%	65+ 8.8%	Low Income 22.0%	Mid/High Income 8.9%	Total Service Area 12.1%
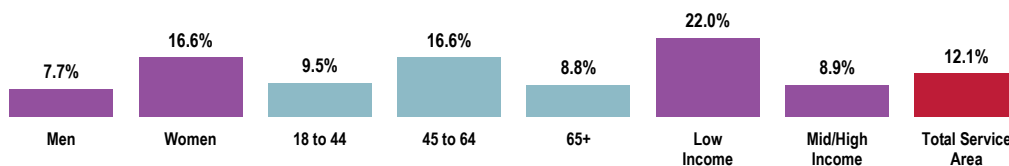
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 79]
Notes: ● Asked of all respondents.

PHYSICAL ACTIVITY

ABOUT PHYSICAL ACTIVITY

Physical activity can help prevent disease, disability, injury, and premature death. The Physical Activity Guidelines for Americans lays out how much physical activity children, adolescents, and adults need to get health benefits. Although most people don't get the recommended amount of physical activity, it can be especially hard for older adults and people with chronic diseases or disabilities.

Strategies that make it safer and easier to get active — like providing access to community facilities and programs — can help people get more physical activity. Strategies to promote physical activity at home, at school, and at childcare centers can also increase activity in children and adolescents.

  − Healthy People 2030 (https://health.gov/healthypeople)

Leisure-Time Physical Activity

Leisure-time physical activity includes any physical activities or exercises (such as running, calisthenics, golf, gardening, walking, etc.) which take place outside of one's line of work.

A total of 22.7% of Total Service Area adults report no leisure-time physical activity in the past month.

BENCHMARK ► Better than was found across Missouri and the US. Similar to the Healthy People 2030 target of 21.2% or lower.

DISPARITY ► Least favorable in Osage County.

No Leisure-Time Physical Activity in the Past Month
Healthy People 2030 = 21.2% or Lower

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
19.9%	31.3%	35.2%	27.7%	14.3%	22.7%	30.6%	31.3%
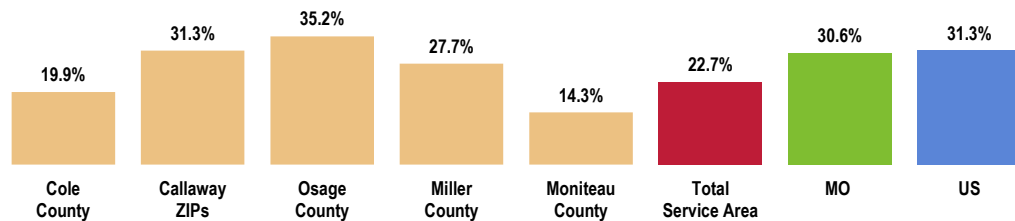
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 82]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Activity Levels

Adults

A total of 19.0% of Total Service Area adults regularly participate in adequate levels of both aerobic and strengthening activities (meeting physical activity recommendations).

BENCHMARK ► Fails to satisfy the Healthy People 2030 target of 28.4% or higher.

DISPARITY ► Unfavorably low in the Callaway ZIP Codes and Osage County. Lower among adults with low incomes.

Meets Physical Activity Recommendations
Healthy People 2030 = 28.4% or Higher

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
23.7%	6.3%	6.9%	11.4%	21.9%	19.0%	17.1%	21.4%

"Meeting physical activity recommendations" includes adequate levels of both aerobic and strengthening activities:

Aerobic activity is one of the following: at least 150 minutes per week of light to moderate activity, 75 minutes per week of vigorous activity, or an equivalent combination of both.

Strengthening activity is at least 2 sessions per week of exercise designed to strengthen muscles.

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 126]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice per week.

Meets Physical Activity Recommendations
(Total Service Area, 2021)
Healthy People 2030 = 28.4% or Higher

17.0%	21.1%	24.6%	15.6%	14.4%	8.6%	22.9%	19.0%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
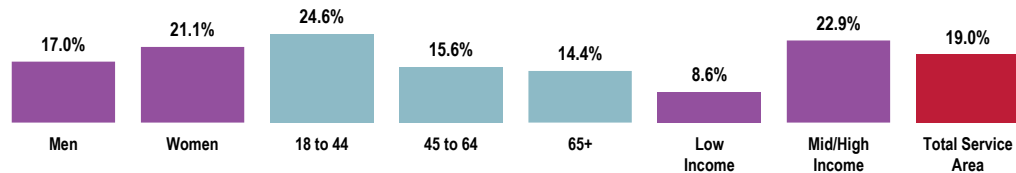
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 126]
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity *and* report doing physical activities specifically designed to strengthen muscles at least twice per week.

Children

CHILDREN: RECOMMENDED LEVELS OF PHYSICAL ACTIVITY

Children and adolescents should do 60 minutes (1 hour) or more of physical activity each day.

– 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. www.cdc.gov/physicalactivity

Among Total Service Area children age 2 to 17, 53.7% are reported to have had 60 minutes of physical activity on <u>each</u> of the seven days preceding the interview (1+ hours per day).

BENCHMARK ► Better than found nationally.

Child Is Physically Active for One or More Hours per Day
(Parents of Children Age 2-17)

53.7%	33.0%
Total Service Area	US
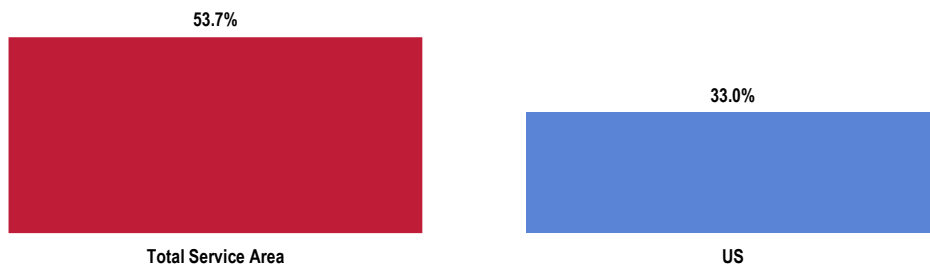
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 124]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents with children age 2-17 at home.
- Includes children reported to have one or more hours of physical activity on each of the seven days preceding the survey.

WEIGHT STATUS

ABOUT OVERWEIGHT & OBESITY

Obesity is linked to many serious health problems, including type 2 diabetes, heart disease, stroke, and some types of cancer. Some racial/ethnic groups are more likely to have obesity, which increases their risk of chronic diseases.

Culturally appropriate programs and policies that help people eat nutritious foods within their calorie needs can reduce overweight and obesity. Public health interventions that make it easier for people to be more physically active can also help them maintain a healthy weight.

– Healthy People 2030 (https://health.gov/healthypeople)

Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m^2). To estimate BMI using pounds and inches, use: [weight (pounds)/height squared ($inches^2$)] x 703.

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m^2 and obesity as a BMI ≥30 kg/m^2. The rationale behind these definitions is based on epidemiological data that show increases in mortality with BMIs above 25 kg/m^2. The increase in mortality, however, tends to be modest until a BMI of 30 kg/m^2 is reached. For persons with a BMI ≥30 kg/m^2, mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100 percent above that of persons with BMIs in the range of 20 to 25 kg/m^2.

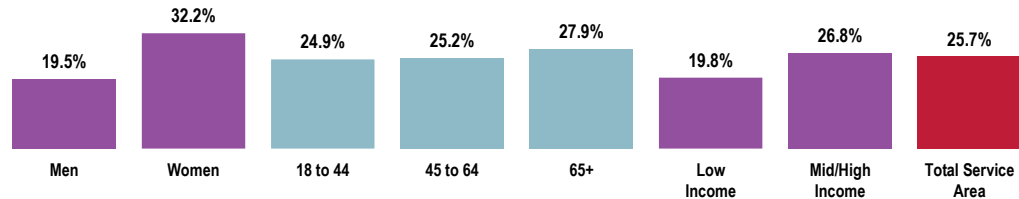– Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Adult Weight Status

CLASSIFICATION OF OVERWEIGHT AND OBESITY BY BMI	BMI (kg/m^2)
Underweight	<18.5
Normal	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥30.0

Source: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Overweight Status

Here, "overweight" includes those respondents with a BMI value ≥25.

Three-fourths (74.9%) of Total Service Area adults are overweight.

BENCHMARK ▶ Worse than state and national findings.

Prevalence of Total Overweight (Overweight and Obese)

Cole County	77.1%
Callaway ZIPs	81.5%
Osage County	63.4%
Miller County	72.4%
Moniteau County	69.9%
Total Service Area	74.9%
MO	68.1%
US	61.0%
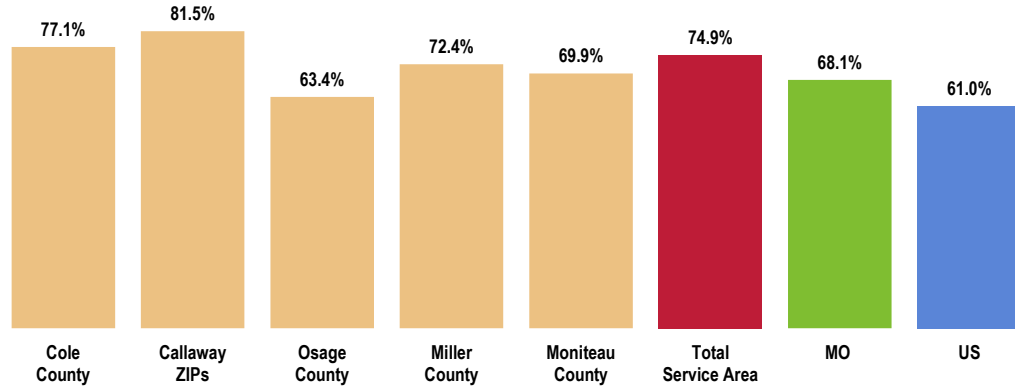
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Items 128]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

"Obese" (also included in overweight prevalence discussed previously) includes respondents with a BMI value ≥30.

The overweight prevalence above includes 49.9% of Total Service Area adults who are obese.

BENCHMARK ▶ Much worse than state and national findings. Fails to satisfy the Healthy People 2030 target of 36.0% or lower.

DISPARITY ▶ Particularly high in the Callaway ZIP Codes. Higher among adults younger than 65 and low-income respondents.

Prevalence of Obesity
Healthy People 2030 = 36.0% or Lower

Cole County	46.8%
Callaway ZIPs	64.3%
Osage County	48.6%
Miller County	53.3%
Moniteau County	54.1%
Total Service Area	49.9%
MO	34.8%
US	31.3%
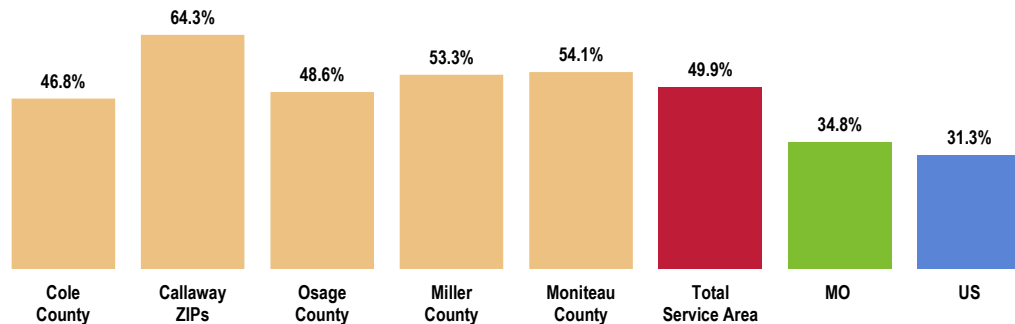
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 128]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

Prevalence of Obesity
(Total Service Area, 2021)
Healthy People 2030 = 36.0% or Lower

49.1%	50.7%	58.3%	51.3%	30.1%	60.3%	46.2%	49.9%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
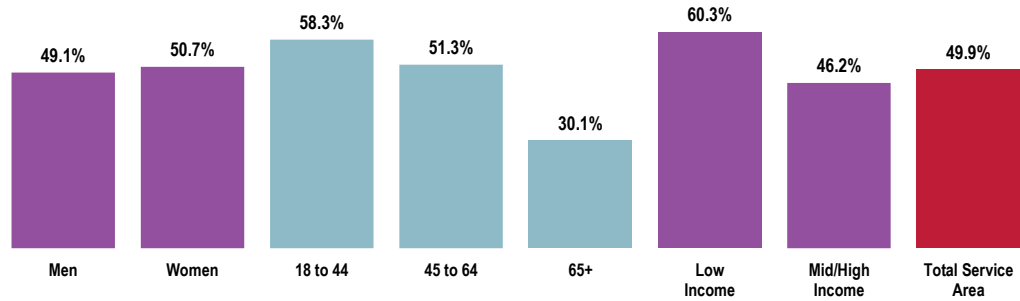
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 128]
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

Children's Weight Status

ABOUT WEIGHT STATUS IN CHILDREN & TEENS

In children and teens, body mass index (BMI) is used to assess weight status – underweight, healthy weight, overweight, or obese. After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child's BMI number among children of the same sex and age.

BMI-for-age weight status categories and the corresponding percentiles are shown below:

- Underweight   <5th percentile
- Healthy Weight   ≥5th and <85th percentile
- Overweight   ≥85th and <95th percentile
- Obese   ≥95th percentile

— Centers for Disease Control and Prevention

Based on the heights/weights reported by surveyed parents, 24.6% of Total Service Area children age 5 to 17 are overweight or obese (≥85th percentile).

Prevalence of Overweight in Children
(Parents of Children Age 5-17)
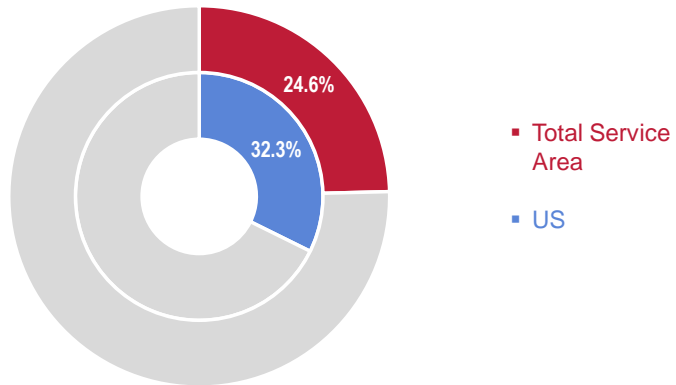
24.6%

32.3%

- Total Service Area
- US

The childhood overweight prevalence above includes 16.9% of area children age 5 to 17 who are obese (≥95th percentile).

Prevalence of Obesity in Children
(Children Age 5-17 Who Are Obese; BMI in the 95th Percentile or Higher)
Healthy People 2030 = 15.5% or Lower
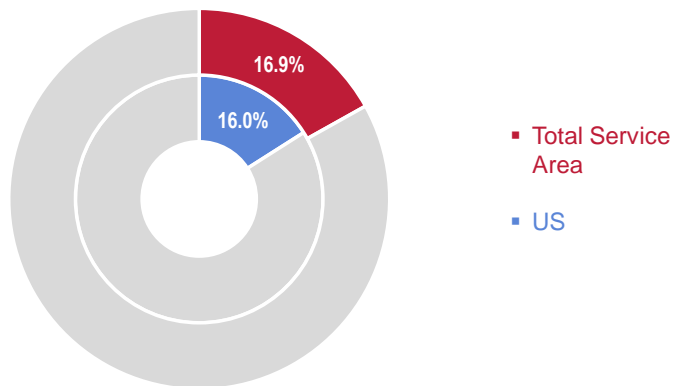
16.9%

16.0%

- Total Service Area
- US

Key Informant Input:
Nutrition, Physical Activity & Weight

Key informants taking part in an online survey most often characterized *Nutrition, Physical Activity & Weight* as a "moderate problem" in the community.

Perceptions of Nutrition, Physical Activity, and Weight
as a Problem in the Community
(Key Informants, 2021)
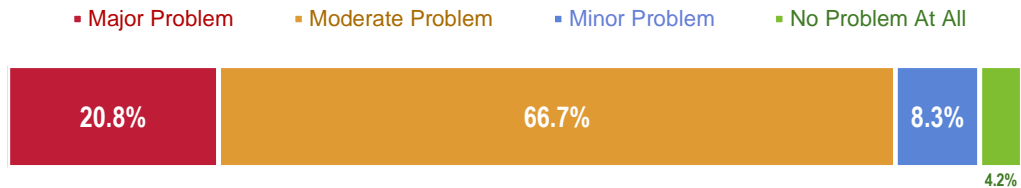
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

20.8%	66.7%	8.3%	

4.2%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Contributing Factors

Cost of quality food and motivation to work on physical activities. – Physician

Healthy food is expensive, takes time to prepare and is not as readily available as unhealthy food. As families get busy with activities, preparing healthy meals becomes harder. Some people don't know what a healthy meal should look like or what portions are healthy. As people get busier, it is also harder to find time to exercise and they might not realize the benefit. As schools have more requirements for the children and teachers, physical education programs and recess are usually cut. – Community Leader

Small rural community where gyms are not a common event. Fresh food grocery stores are not readily close. Minimal sports involvement is limited. – Community Leader

Obesity

Obesity causes many other health challenges. – Community Leader

SUBSTANCE ABUSE

ABOUT DRUG & ALCOHOL USE

More than 20 million adults and adolescents in the United States have had a substance use disorder in the past year. …Substance use disorders can involve illicit drugs, prescription drugs, or alcohol. Opioid use disorders have become especially problematic in recent years. Substance use disorders are linked to many health problems, and overdoses can lead to emergency department visits and deaths.

Effective treatments for substance use disorders are available, but very few people get the treatment they need. Strategies to prevent substance use — especially in adolescents — and help people get treatment can reduce drug and alcohol misuse, related health problems, and deaths.

－ Healthy People 2030 (https://health.gov/healthypeople)

Age-Adjusted Cirrhosis/Liver Disease Deaths

Between 2017 and 2019, the Total Service Area reported an annual average age-adjusted cirrhosis/liver disease mortality rate of 11.5 deaths per 100,000 population.

BENCHMARK ► Higher than was found statewide. Similar to the Healthy People 2030 target of 10.9 or lower.

Cirrhosis/Liver Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 Objective = 10.9 or Lower
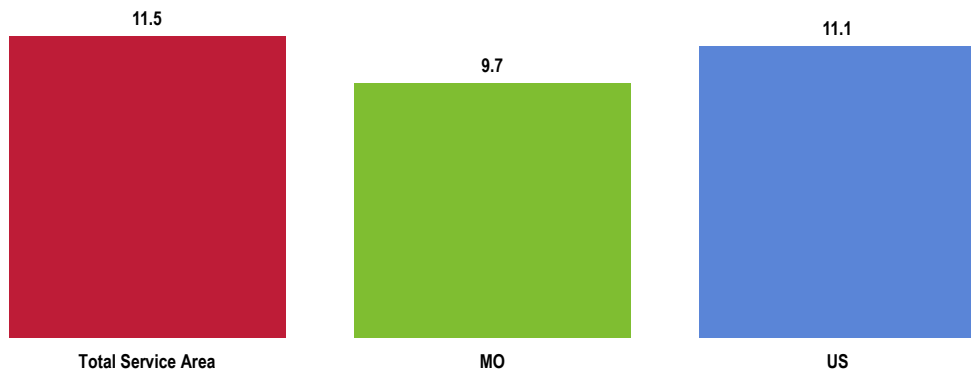
Total Service Area	MO	US
11.5	9.7	11.1

Sources:
● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.
● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Alcohol Use

Excessive Drinking

Excessive drinking includes heavy and/or binge drinkers:

- HEAVY DRINKERS ► men reporting 2+ alcoholic drinks per day or women reporting 1+ alcoholic drink per day in the month preceding the interview.

- BINGE DRINKERS ► men reporting 5+ alcoholic drinks or women reporting 4+ alcoholic drinks on any single occasion during the past month.

A total of 24.5% of area adults are excessive drinkers (heavy and/or binge drinkers).

BENCHMARK ► Worse than was found across Missouri.

DISPARITY ► Higher in Cole and Osage counties. Higher among men and adults younger than 65.

Excessive Drinkers

29.9%	11.8%	42.7%	4.5%	10.7%	24.5%	18.1%	27.2%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
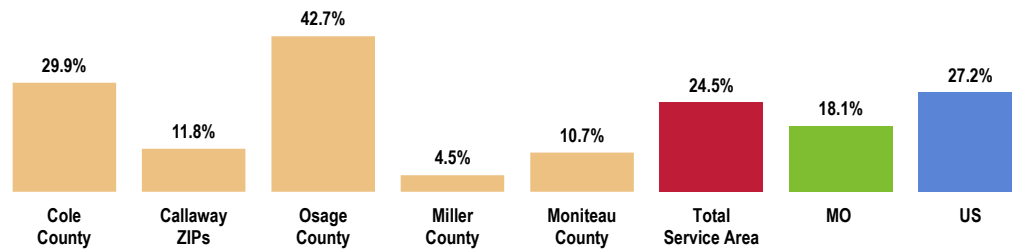
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 136]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

Excessive Drinkers
(Total Service Area, 2021)

29.8%	19.0%	37.4%	17.9%	10.8%	27.8%	28.3%	24.5%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
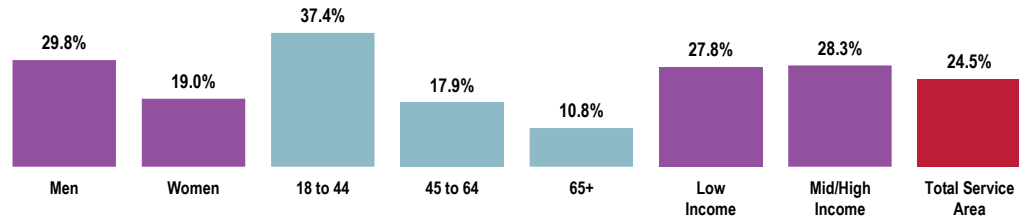
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 136]
Notes: ● Asked of all respondents.
● Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

Age-Adjusted Unintentional Drug-Related Deaths

Between 2017 and 2019, there was an annual average age-adjusted unintentional drug-related mortality rate of 11.5 deaths per 100,000 population in the Total Service Area.

BENCHMARK ▶ Better than the state and US rates.

Unintentional Drug-Related Deaths: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
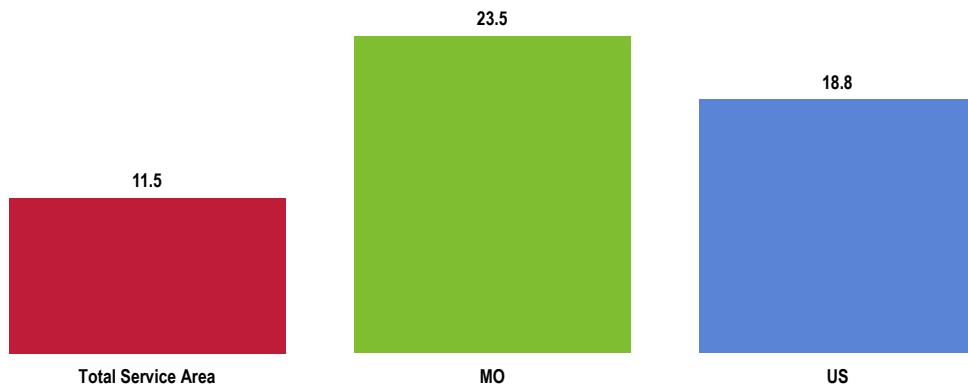
Total Service Area	MO	US
11.5	23.5	18.8

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2021.

Illicit Drug Use

For the purposes of this survey, "illicit drug use" includes use of illegal substances or of prescription drugs taken without a physician's order.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that actual illicit drug use in the community is likely higher.

A total of 1.7% of Total Service Area adults acknowledge using an illicit drug in the past month.

BENCHMARK ► Satisfies the Healthy People 2030 target of 12.0% or lower.

DISPARITY ► Null responses in Osage, Miller, and Moniteau counties. Found to be higher among women.

Illicit Drug Use in the Past Month
Healthy People 2030 = 12.0% or Lower

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
2.6%	2.0%	0.0%	0.0%	0.0%	1.7%	2.0%
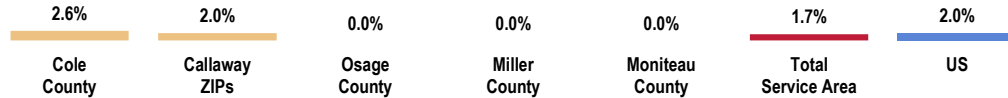
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 49]
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Illicit Drug Use in the Past Month
(Total Service Area, 2021)
Healthy People 2030 = 12.0% or Lower

Men	Women	Low Income	Mid/High Income	Total Service Area	US
0.0%	4.2%	1.9%	2.3%	1.7%	2.0%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 49]
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Use of Prescription Opioids

Opioids are a class of drugs used to treat pain. Examples presented to respondents include morphine, codeine, hydrocodone, oxycodone, methadone, and fentanyl. Common brand name opioids include Vicodin, Dilaudid, Percocet, OxyContin, and Demerol.

A total of 17.8% of Total Service Area adults report using a prescription opioid drug in the past year.

BENCHMARK ► Higher than the national percentage.

DISPARITY ► Highest in Miller County. Most often reported among adults age 45 to 64.

Used a Prescription Opioid in the Past Year

15.3%	18.4%	3.7%	35.3%	22.6%	17.8%	12.9%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 50]
          ● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Used a Prescription Opioid in the Past Year
(Total Service Area, 2021)
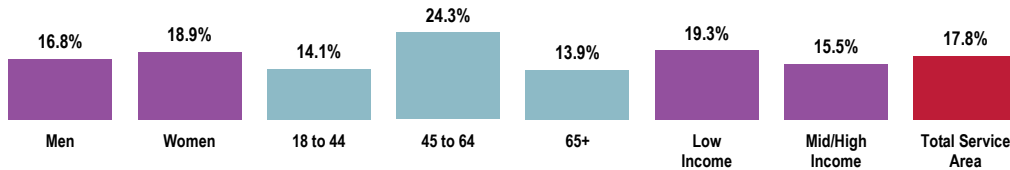
|							
16.8%	18.9%	14.1%	24.3%	13.9%	19.3%	15.5%	17.8%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 50]
          ● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Alcohol & Drug Treatment

A total of 1.3% of Total Service Area adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

BENCHMARK ► Lower than the national percentage.

DISPARITY ► Lowest (null responses) in Osage and Moniteau counties.

Have Ever Sought Professional Help for an Alcohol/Drug-Related Problem

0.9%	1.7%	0.0%	5.0%	0.0%	1.3%	5.4%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 51]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Personal Impact From Substance Abuse

Most Total Service Area residents' lives have <u>not</u> been negatively affected by substance abuse (either their own or someone else's).

Degree to Which Life Has Been Negatively Affected by Substance Abuse (Self or Other's)
(Total Service Area, 2021)
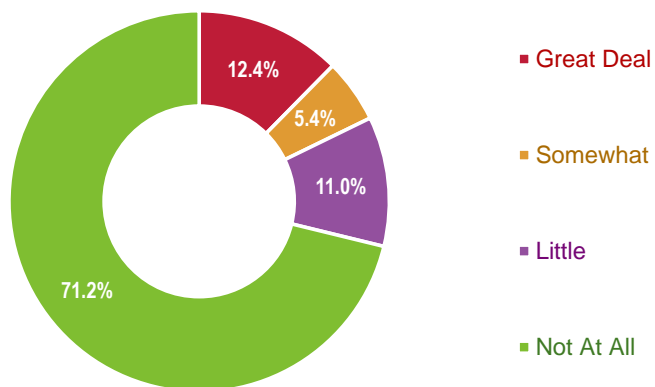
- 12.4%
- 5.4%
- 11.0%
- 71.2%

■ Great Deal

■ Somewhat

■ Little

■ Not At All

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 52]
Notes: ● Asked of all respondents.

However, 28.8% have felt a personal impact to some degree ("a little," "somewhat," or "a great deal").

BENCHMARK ► Lower than found among Americans overall.

DISPARITY ► Highest in Moniteau County. Higher among women and adults age 45 to 64.

Life Has Been Negatively Affected
by Substance Abuse (by Self or Someone Else)

25.6%	32.1%	16.7%	39.3%	42.9%	28.8%	35.8%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
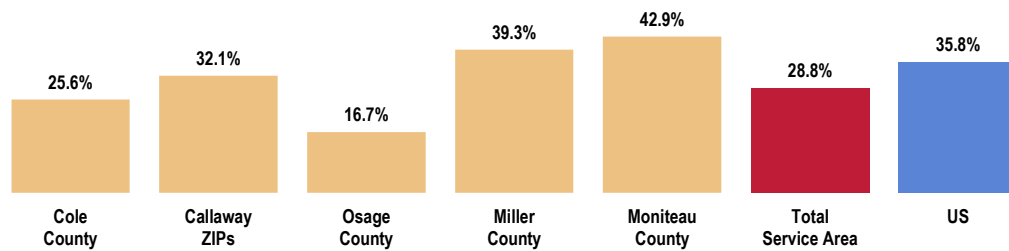
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 52]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.
● Includes response of "a great deal," "somewhat," and "a little."

Life Has Been Negatively Affected
by Substance Abuse (by Self or Someone Else)
(Total Service Area, 2021)
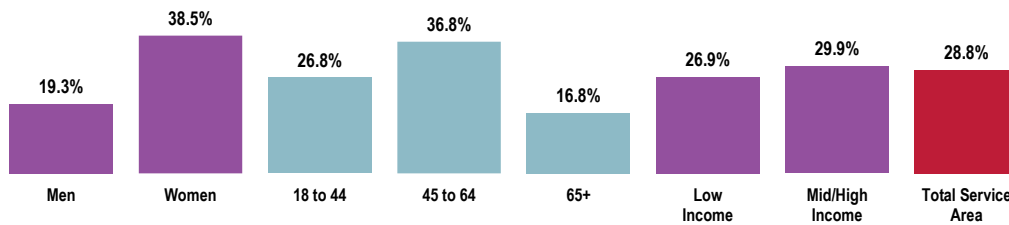
19.3%	38.5%	26.8%	36.8%	16.8%	26.9%	29.9%	28.8%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 52]
Notes: ● Asked of all respondents.
● Includes response of "a great deal," "somewhat," and "a little."

Key Informant Input: Substance Abuse

Key informants taking part in an online survey were equally likely to characterize *Substance Abuse* as a "major" or "moderate" problem in the community.

Perceptions of Substance Abuse
as a Problem in the Community
(Key Informants, 2021)
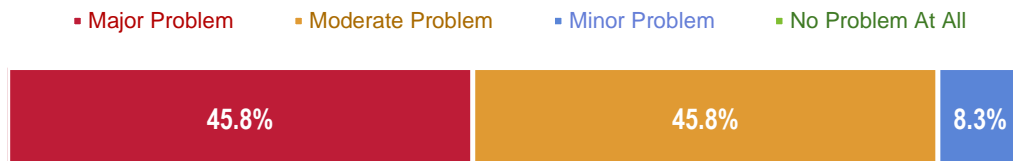
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

45.8%	45.8%	8.3%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Access to Care/Services

Availability of treatment centers. – Community Leader

Availability of resources. – Community Leader

Rehab facilities. – Other Health Provider

Lack of resources and transportation. – Social Services Provider

Awareness/Education

Knowing what to do when there is a problem and having access to care. – Social Services Provider

People not knowing about the programs. The programs don't have enough space. Stigma. Expense. – Community Leader

Affordable Care/Services

Cost, not many options for help. – Social Services Provider

Income/Poverty

Money and resources. – Community Leader

Lack of Providers

Enough providers and cost. – Community Leader

TOBACCO USE

ABOUT TOBACCO USE

More than 16 million adults in the United States have a disease caused by smoking cigarettes, and smoking-related illnesses lead to half a million deaths each year.

Most deaths and diseases from tobacco use in the United States are caused by cigarettes. Smoking harms nearly every organ in the body and increases the risk of heart disease, stroke, lung diseases, and many types of cancer. Although smoking is widespread, it's more common in certain groups, including men, American Indians/Alaska Natives, people with behavioral health conditions, LGBT people, and people with lower incomes and education levels.

Several evidence-based strategies can help prevent and reduce tobacco use and exposure to secondhand smoke. These include smoke-free policies, price increases, and health education campaigns that target large audiences. Methods like counseling and medication can also help people stop using tobacco.

– Healthy People 2030 (https://health.gov/healthypeople)

Cigarette Smoking

Cigarette Smoking Prevalence

A total of 15.5% of Total Service Area adults currently smoke cigarettes, either regularly (every day) or occasionally (on some days).

Cigarette Smoking Prevalence
(Total Service Area, 2021)

- 11.1% Every Day
- 4.4% Some Days
- 84.5% Not At All
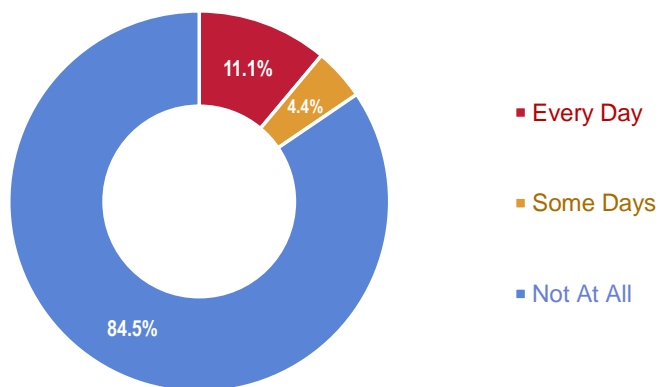
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 40]
Notes: ● Asked of all respondents.

Note the following findings related to cigarette smoking prevalence in the Total Service Area.

BENCHMARK ► Better than the statewide prevalence. Fails to satisfy the Healthy People 2030 target of 5.0% or lower.

DISPARITY ► Highest in the Callaway ZIP Codes. Higher among male respondents.

Current Smokers
Healthy People 2030 = 5.0% or Lower

9.0%	56.7%	21.0%	16.5%	17.1%	15.5%	19.6%	17.4%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
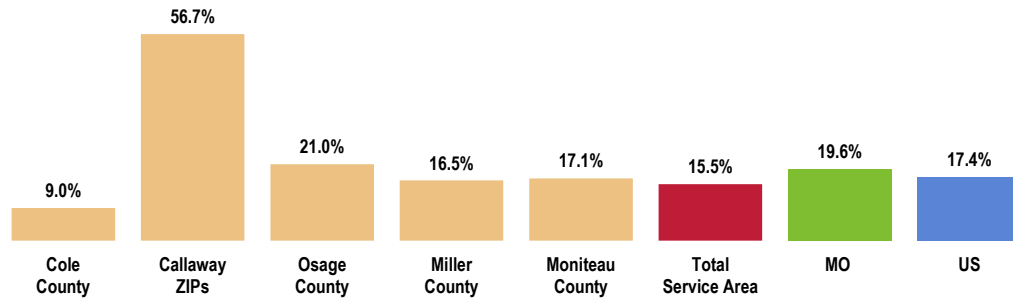
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 40]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.
- Includes regular and occasional smokers (those who smoke cigarettes every day or on some days).

Current Smokers
(Total Service Area, 2021)
Healthy People 2030 = 5.0% or Lower

20.6%	10.3%	15.9%	16.9%	12.5%	19.0%	17.6%	15.5%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
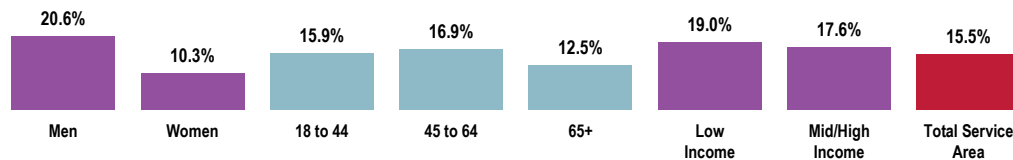
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 40]
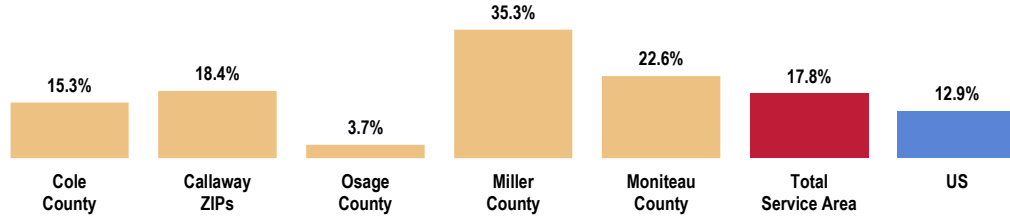- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.
- Includes regular and occasion smokers (every day and some days).

Environmental Tobacco Smoke

Among all surveyed households in the Total Service Area, 9.5% report that someone has smoked cigarettes in their home on an average of four or more times per week over the past month.

BENCHMARK ► Lower than found nationally.

Member of Household Smokes at Home

6.2% among households with children

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
9.3%	18.8%	5.2%	11.6%	4.6%	9.5%	14.6%
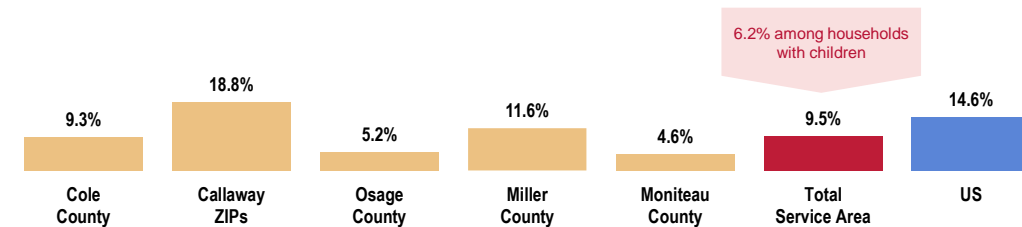
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Items 43, 134]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

Other Tobacco Use

Use of Vaping Products

Most Total Service Area adults have never tried electronic cigarettes (e-cigarettes) or other electronic vaping products.

Use of Vaping Products
(Total Service Area, 2021)
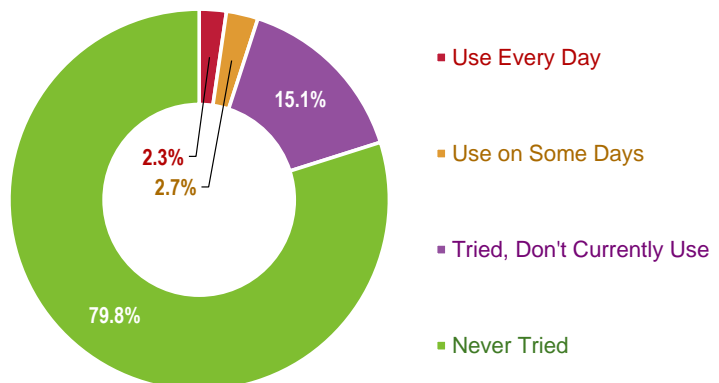
- Use Every Day — 2.3%
- Use on Some Days — 2.7%
- Tried, Don't Currently Use — 15.1%
- Never Tried — 79.8%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 135]

Notes:
- Asked of all respondents.

However, 5.0% of adults currently use vaping products either regularly (every day) or occasionally (on some days).

BENCHMARK ► More favorable than the US percentage.

DISPARITY ► Highest in Osage County. Younger adults are more likely to report vaping.

Currently Use Vaping Products
(Every Day or on Some Days)

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
3.3%	1.3%	14.6%	6.3%	8.4%	5.0%	5.2%	8.9%
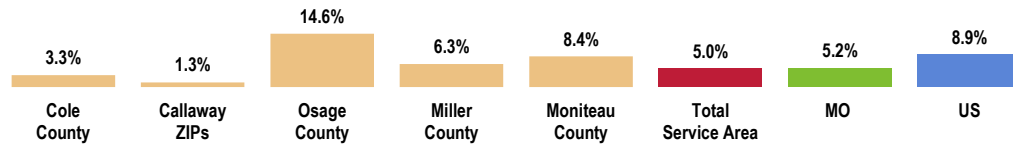
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 135]
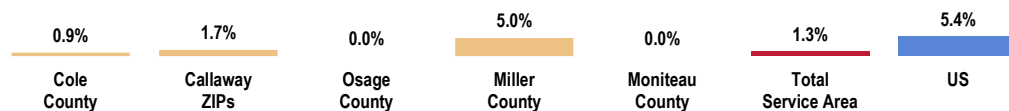● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.
● Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

Currently Use Vaping Products
(Total Service Area, 2021)
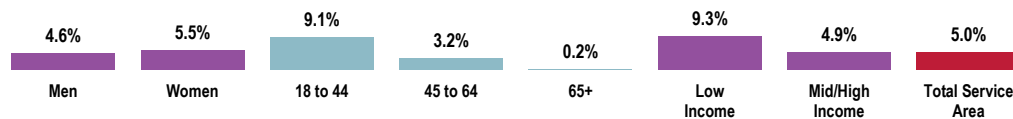
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
4.6%	5.5%	9.1%	3.2%	0.2%	9.3%	4.9%	5.0%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 135]
Notes: ● Asked of all respondents.
● Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

Key Informant Input: Tobacco Use

The greatest share of key informants taking part in an online survey characterized *Tobacco Use* as a "moderate problem" in the community.

Perceptions of Tobacco Use
as a Problem in the Community
(Key Informants, 2021)
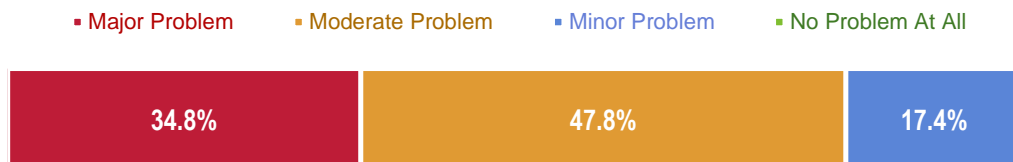
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

34.8%	**47.8%**	**17.4%**

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Incidence/Prevalence

Everyone chews in rural areas. – Social Services Provider

There are high rates of usage in our area. Low tobacco taxes make it cheap to buy. Resources to quit are not well known. – Community Leader

Rural community and family history. – Community Leader

Insurance Challenges

Most insurance companies will not help pay to help people quit. – Other Health Provider

SEXUAL HEALTH

ABOUT HIV & SEXUALLY TRANSMITTED INFECTIONS

Although many sexually transmitted infections (STIs) are preventable, there are more than 20 million estimated new cases in the United States each year — and rates are increasing. In addition, more than 1.2 million people in the United States are living with HIV (human immunodeficiency virus).

Adolescents, young adults, and men who have sex with men are at higher risk of getting STIs. And people who have an STI may be at higher risk of getting HIV. Promoting behaviors like condom use can help prevent STIs.

Strategies to increase screening and testing for STIs can assess people's risk of getting an STI and help people with STIs get treatment, improving their health and making it less likely that STIs will spread to others. Getting treated for an STI other than HIV can help prevent complications from the STI but doesn't prevent HIV from spreading.

    — Healthy People 2030 (https://health.gov/healthypeople)

HIV

HIV Prevalence

In 2018, there was a prevalence of 142.1 HIV cases per 100,000 population in the Total Service Area.

BENCHMARK ► Much lower than found across the state and US.

DISPARITY ► Locally higher in Cole and Callaway counties. Dramatically high in the Black community.

HIV Prevalence
(Prevalence Rate of HIV per 100,000 Population, 2018)
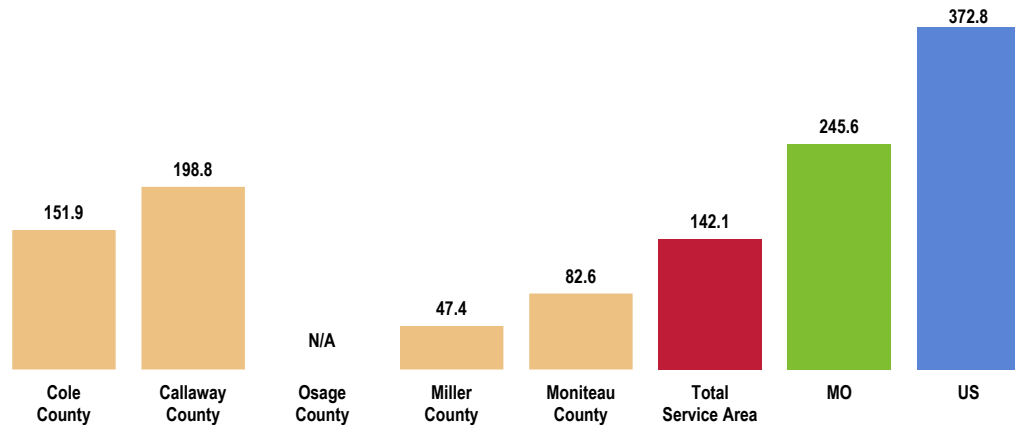
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
151.9	198.8	N/A	47.4	82.6	142.1	245.6	372.8

Sources: ● Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
       ● Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
Notes: ● This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.
       ● "N/A" means that county-level data cannot be shown individually; however, deaths from these counties are included in calculating the Total Service Area rate.

HIV Prevalence by Race/Ethnicity
(Rate per 100,000 Population, 2018)
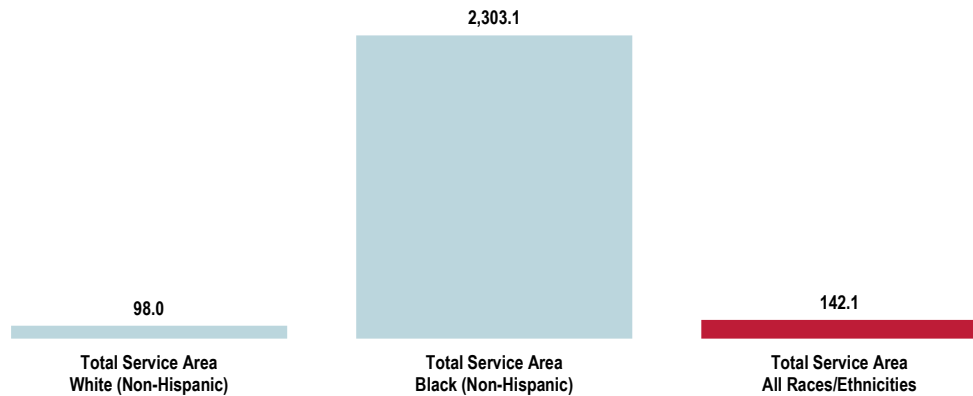
2,303.1

98.0

142.1

**Total Service Area
White (Non-Hispanic)**

**Total Service Area
Black (Non-Hispanic)**

**Total Service Area
All Races/Ethnicities**

Sources: ● Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
● Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
Notes: ● This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.

Sexually Transmitted Infections (STIs)

Chlamydia & Gonorrhea

In 2018, the chlamydia incidence rate in the Total Service Area was 452.2 cases per 100,000 population.

The Total Service Area gonorrhea incidence rate in 2018 was 200.3 cases per 100,000 population.

BENCHMARK ▶ Each is more favorable than the corresponding statewide rate. The regional chlamydia rate also is more favorable than found nationally.

Chlamydia & Gonorrhea Incidence
(Incidence Rate per 100,000 Population, 2018)
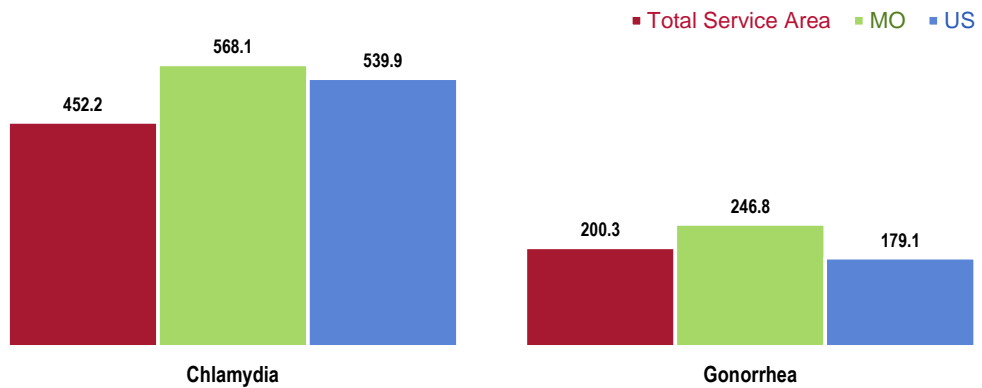
■ Total Service Area ■ MO ■ US

	Chlamydia	Gonorrhea
Total Service Area	452.2	200.3
MO	568.1	246.8
US	539.9	179.1

Sources: ● Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
● Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).
Notes: ● This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

Key Informant Input: Sexual Health

A plurality of key informants taking part in an online survey characterized *Sexual Health* as a "moderate problem" in the community.

Perceptions of Sexual Health
as a Problem in the Community
(Key Informants, 2021)
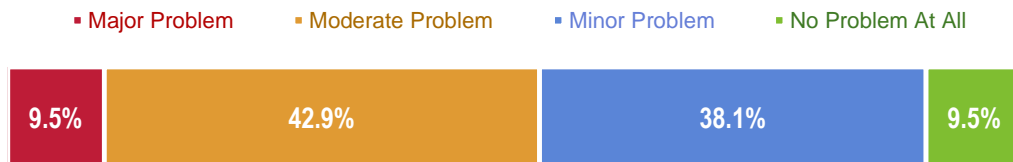
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

9.5%	42.9%	38.1%	9.5%

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Incidence/Prevalence

> Increased rates of all STIs. – Community Leader

ACCESS TO HEALTH CARE

HEALTH INSURANCE COVERAGE

Type of Health Care Coverage

A total of 74.8% of Total Service Area adults age 18 to 64 report having health care coverage through private insurance. Another 16.5% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

Health Care Insurance Coverage
(Adults Age 18-64; Total Service Area, 2021)

- Private Insurance
- VA/Military
- Medicaid/Medicare/ Other Gov't
- No Insurance/Self-Pay

8.7%
13.5%
3.0%
74.8%
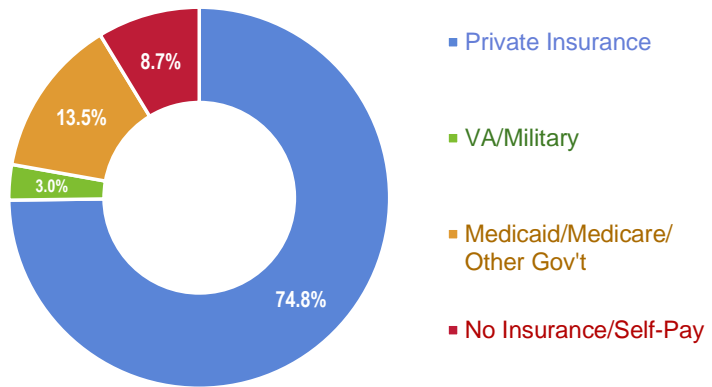
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 137]
Notes: ● Reflects respondents age 18 to 64.

Lack of Health Insurance Coverage

Among adults age 18 to 64, 8.7% report having no insurance coverage for health care expenses.

BENCHMARK ► More favorable than the Missouri percentage. Similar to the Healthy People 2030 target of 7.9% or lower.

DISPARITY ► As might be expected, those with low incomes are more likely to report not having health insurance.

Lack of Health Care Insurance Coverage
(Adults Age 18-64)
Healthy People 2030 = 7.9% or Lower

8.7%	16.8%	8.7%
Total Service Area	**MO**	**US**
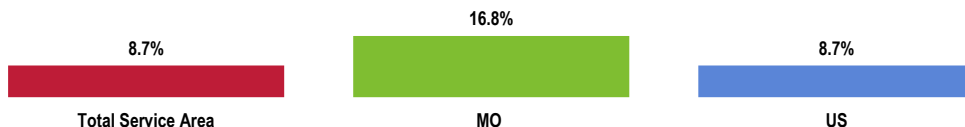
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 137]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents under the age of 65.

Lack of Health Care Insurance Coverage
(Adults Age 18-64; Total Service Area, 2021)
Healthy People 2030 = 7.9% or Lower

Men	Women	18 to 44	45 to 64	Low Income	Mid/High Income	Total Service Area
9.3%	8.0%	7.1%	10.4%	15.9%	2.9%	8.7%
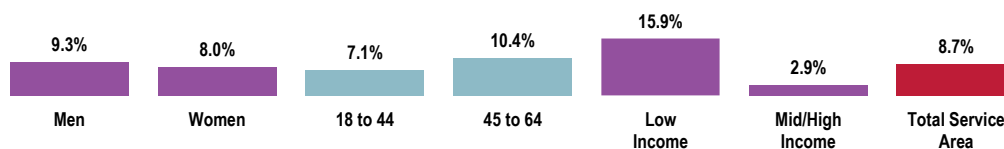
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 137]
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents under the age of 65.

DIFFICULTIES ACCESSING HEALTH CARE

ABOUT HEALTH CARE ACCESS

Many people in the United States don't get the health care services they need. …About 1 in 10 people in the United States don't have health insurance. People without insurance are less likely to have a primary care provider, and they may not be able to afford the health care services and medications they need. Strategies to increase insurance coverage rates are critical for making sure more people get important health care services, like preventive care and treatment for chronic illnesses.

Sometimes people don't get recommended health care services, like cancer screenings, because they don't have a primary care provider. Other times, it's because they live too far away from health care providers who offer them. Interventions to increase access to health care professionals and improve communication — in person or remotely — can help more people get the care they need.

– Healthy People 2030 (https://health.gov/healthypeople)

Difficulties Accessing Services

A total of 38.9% of Total Service Area adults report some type of difficulty or delay in obtaining health care services in the past year.

DISPARITY ► Highest in Miller County. More often reported among adults younger than 65.

This indicator reflects the percentage of the total population experiencing problems accessing health care in the past year, regardless of whether they needed or sought care. It is based on reports of the barriers outlined in the following section.

Experienced Difficulties or Delays of Some Kind in Receiving Needed Health Care in the Past Year

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
37.4%	24.2%	46.8%	60.5%	21.4%	38.9%	35.0%
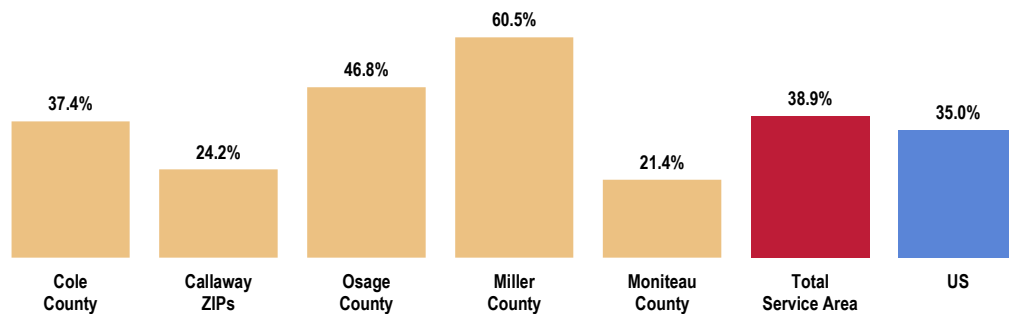
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 140]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.
- Percentage represents the proportion of respondents experiencing one or more barriers to accessing health care in the past 12 months.

Experienced Difficulties or Delays of Some Kind
in Receiving Needed Health Care in the Past Year
(Total Service Area, 2021)

35.3%	42.5%	44.2%	44.1%	18.4%	40.6%	34.7%	38.9%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
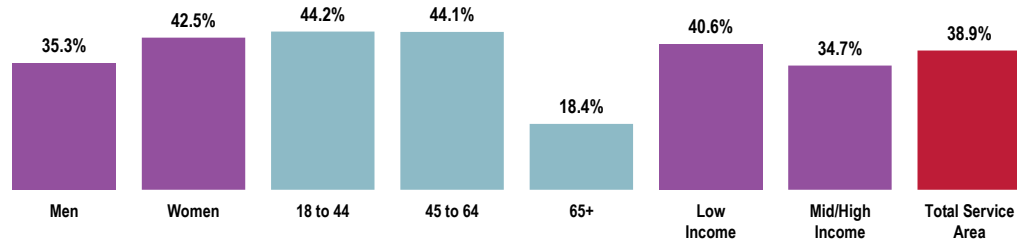
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 140]
Notes: ● Asked of all respondents.
● Percentage represents the proportion of respondents experiencing one or more barriers to accessing health care in the past 12 months.

Barriers to Health Care Access

Of the tested barriers, appointment availability impacted the greatest shares of Total Service Area adults.

BENCHMARK ► One barrier was found to be less favorable than the corresponding US percentage (getting an appointment), while three were more favorable (cost of prescriptions, lack of transportation, and language/cultural differences).

Note also the percentage of adults who have skipped or reduced medication doses in the past year in order to stretch a prescription and save costs.

To better understand health care access barriers, survey participants were asked whether any of seven types of barriers to access prevented them from seeing a physician or obtaining a needed prescription in the past year.

Again, these percentages reflect the total population, regardless of whether medical care was needed or sought.

Barriers to Access Have
Prevented Medical Care in the Past Year

■ Total Service Area   ■ US

In addition, 9.4% of adults have skipped doses or stretched a needed prescription in the past year in order to save costs.

	Getting a Dr Appointment	Inconvenient Office Hours	Finding a Doctor	Cost (Doctor Visit)	Cost (Prescriptions)	Lack of Transportation	Language/ Culture
Total Service Area	22.8%	13.5%	10.4%	10.3%	8.8%	4.0%	0.6%
US	14.5%	12.5%	9.4%	12.9%	12.8%	8.9%	2.8%
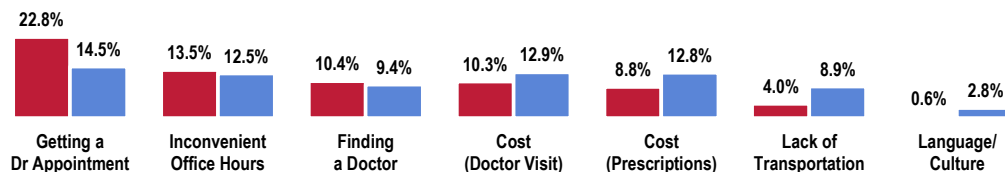
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Items 7-13]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Accessing Health Care for Children

A total of 4.3% of parents say there was a time in the past year when they needed medical care for their child but were unable to get it.

Had Trouble Obtaining Medical Care for Child in the Past Year
(Parents of Children 0-17)

4.3%

8.0%

- Total Service Area
- US
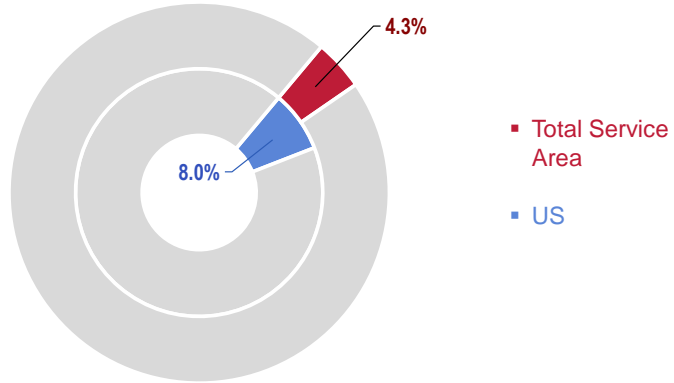
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 104]
         ● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents with children 0 to 17 in the household.

Key Informant Input: Access to Health Care Services

Key informants taking part in an online survey most often characterized *Access to Health Care Services* as a "moderate problem" in the community.

Perceptions of Access to Health Care Services
as a Problem in the Community
(Key Informants, 2021)
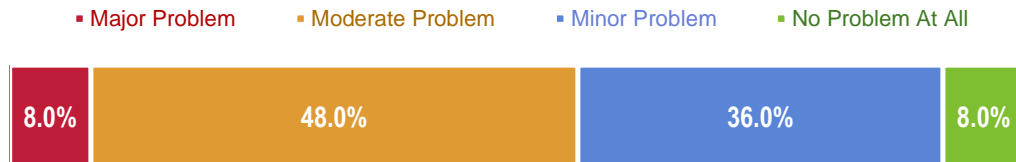
- Major Problem
- Moderate Problem
- Minor Problem
- No Problem At All

| 8.0% | 48.0% | 36.0% | 8.0% |

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Access to Care

> Transportation, ability to pay. – Community Leader

Vulnerable Populations

> Minority health outreach. – Community Leader

Specialists

> Occupational medicine, neurology. – Community Leader

PRIMARY CARE SERVICES

ABOUT PREVENTIVE CARE

Getting preventive care reduces the risk for diseases, disabilities, and death — yet millions of people in the United States don't get recommended preventive health care services.

Children need regular well-child and dental visits to track their development and find health problems early, when they're usually easier to treat. Services like screenings, dental check-ups, and vaccinations are key to keeping people of all ages healthy. But for a variety of reasons, many people don't get the preventive care they need. Barriers include cost, not having a primary care provider, living too far from providers, and lack of awareness about recommended preventive services.

Teaching people about the importance of preventive care is key to making sure more people get recommended services. Law and policy changes can also help more people access these critical services.

– Healthy People 2030 (https://health.gov/healthypeople)

Access to Primary Care

In 2017, there were 82 primary care physicians in the Total Service Area, translating to a rate of 46.5 primary care physicians per 100,000 population.

BENCHMARK ► Well below state and national rates.

DISPARITY ► Particularly low in Osage and Moniteau counties.

Access to Primary Care
(Number of Primary Care Physicians per 100,000 Population, 2017)
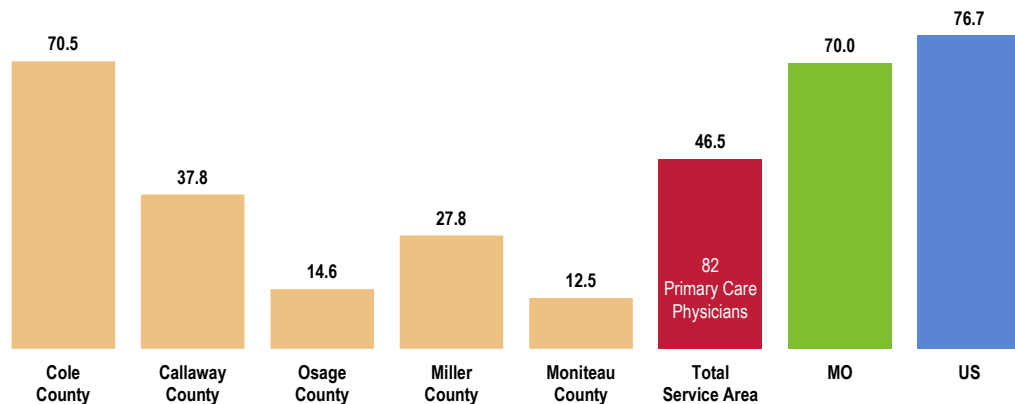
Cole County	Callaway County	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
70.5	37.8	14.6	27.8	12.5	46.5 (82 Primary Care Physicians)	70.0	76.7

Sources:
• US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File.
• Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved July 2021 via SparkMap (sparkmap.org).

Notes:
• Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs, and General Pediatrics MDs. Physicians age 75 and over and physicians practicing sub-specialties within the listed specialties are excluded. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Specific Source of Ongoing Care

A total of 71.7% of Total Service Area adults were determined to have a specific source of ongoing medical care.

Having a specific source of ongoing care includes having a doctor's office, clinic, urgent care center, walk-in clinic, health center facility, hospital outpatient clinic, HMO or prepaid group, military/VA clinic, or some other kind of place to go if one is sick or needs advice about his or her health. This resource is crucial to the concept of "patient-centered medical homes" (PCMH).

A hospital emergency room is not considered a specific source of ongoing care in this instance.

    BENCHMARK ▶ Fails to satisfy the Healthy People 2030 target of 84.0% or higher.

    DISPARITY ▶ Lowest in the Callaway ZIP Codes.

Have a Specific Source of Ongoing Medical Care
Healthy People 2030 = 84.0% or Higher

74.6%	47.8%	79.6%	73.8%	61.5%	71.7%	74.2%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
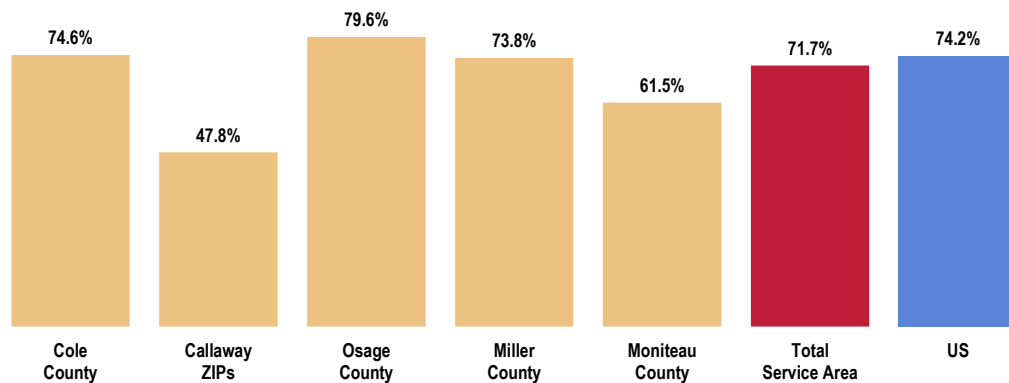
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 139]
          ● 2020 PRC National Health Survey, PRC, Inc.
          ● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov
Notes: ● Asked of all respondents.

Utilization of Primary Care Services

Adults

Nearly three-fourths of adults (72.0%) visited a physician for a routine checkup in the past year.

    BENCHMARK ▶ Less favorable than was found statewide.

    DISPARITY ▶ Particularly low in Osage County. Adults younger than 65 were less likely to report receiving a routine checkup.

Have Visited a Physician for a Checkup in the Past Year

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
78.9%	81.6%	49.1%	61.2%	60.5%	72.0%	77.5%	70.5%
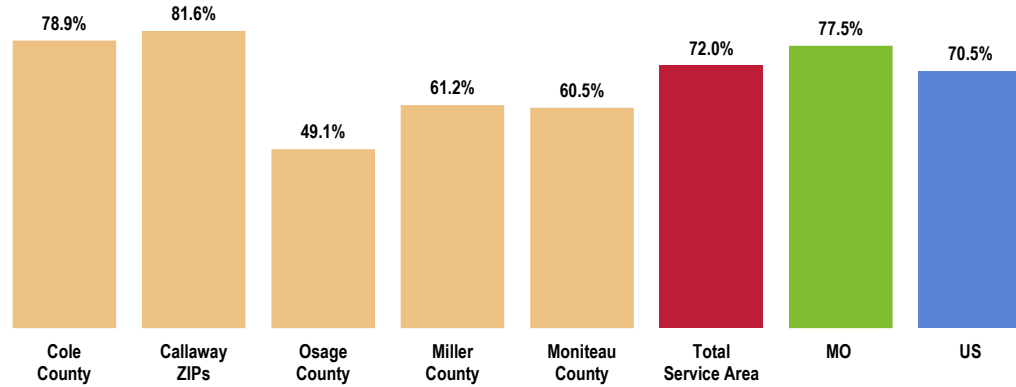
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 18]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:
- Asked of all respondents.

Have Visited a Physician for a Checkup in the Past Year
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
70.9%	73.1%	65.5%	70.9%	86.4%	73.4%	71.3%	72.0%

Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 18]

Notes:
- Asked of all respondents.

Children

Among surveyed parents, 92.1% report that their child has had a routine checkup in the past year.

BENCHMARK ► Better than the national percentage.

Child Has Visited a Physician
for a Routine Checkup in the Past Year
(Parents of Children 0-17)

77.4%

92.1%

- Total Service Area
- US
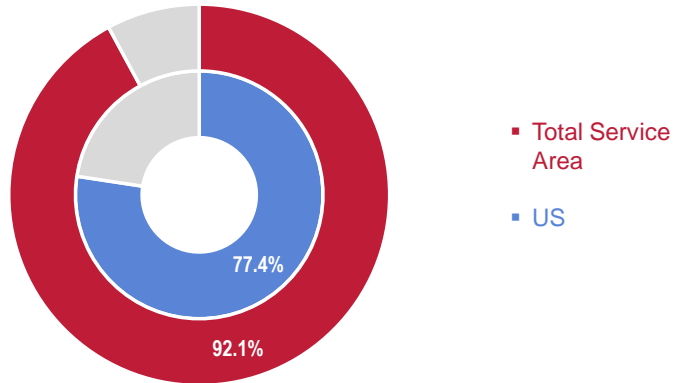
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 105]
 ● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents with children 0 to 17 in the household.

EMERGENCY ROOM UTILIZATION

A total of 8.8% of Total Service Area adults have gone to a hospital emergency room more than once in the past year about their own health.

DISPARITY ► Higher among low-income residents.

Have Used a Hospital
Emergency Room More Than Once in the Past Year

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
7.1%	12.0%	14.4%	11.3%	8.1%	8.8%	10.1%
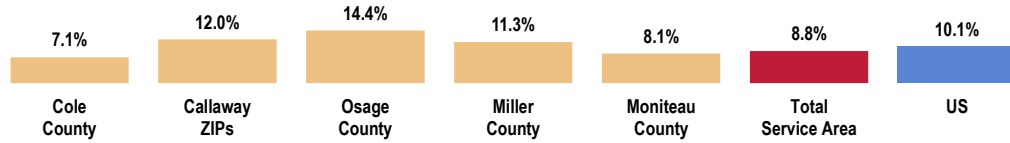
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 22]
         ● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Have Used a Hospital Emergency Room
More Than Once in the Past Year
(Total Service Area, 2021)

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
9.8%	7.8%	7.3%	8.4%	13.4%	15.5%	5.7%	8.8%
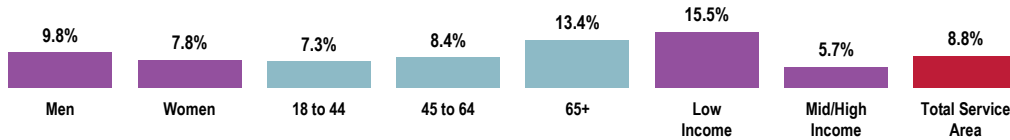
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 22]
Notes: ● Asked of all respondents.

ORAL HEALTH

ABOUT ORAL HEALTH

Tooth decay is the most common chronic disease in children and adults in the United States. …Regular preventive dental care can catch problems early, when they're usually easier to treat. But many people don't get the care they need, often because they can't afford it. Untreated oral health problems can cause pain and disability and are linked to other diseases.

Strategies to help people access dental services can help prevent problems like tooth decay, gum disease, and tooth loss. Individual-level interventions like topical fluorides and community-level interventions like community water fluoridation can also help improve oral health. In addition, teaching people how to take care of their teeth and gums can help prevent oral health problems.

– Healthy People 2030 (https://health.gov/healthypeople)

Dental Insurance

Nearly two-thirds of Total Service Area adults (65.3%) have dental insurance that covers all or part of their dental care costs.

BENCHMARK ► Satisfies the Healthy People 2030 goal of 59.8% or higher.

DISPARITY ► Particularly low in Moniteau County.

Have Insurance Coverage
That Pays All or Part of Dental Care Costs
Healthy People 2030 = 59.8% or Higher [Adults <65]

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
70.5%	90.0%	62.6%	60.3%	22.6%	65.3%	68.7%
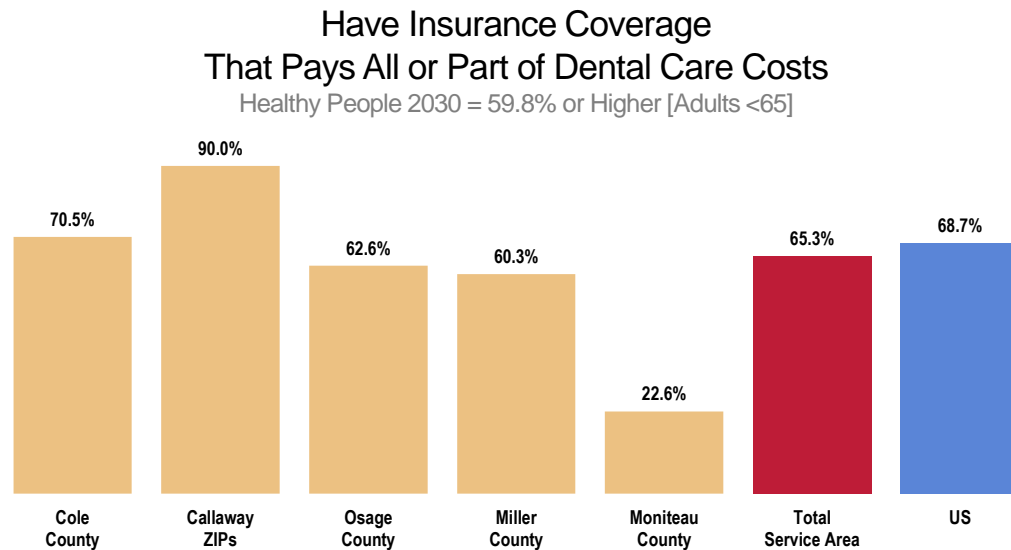
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 21]
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Dental Care

Adults

A total of 58.6% of Total Service Area adults have visited a dentist or dental clinic (for any reason) in the past year.

BENCHMARK ► Satisfies the Healthy People 2030 target of 45.0% or higher.

DISPARITY ► Lowest in Miller County. Especially low among low-income adults.

Have Visited a Dentist or Dental Clinic Within the Past Year
Healthy People 2030 = 45.0% or Higher

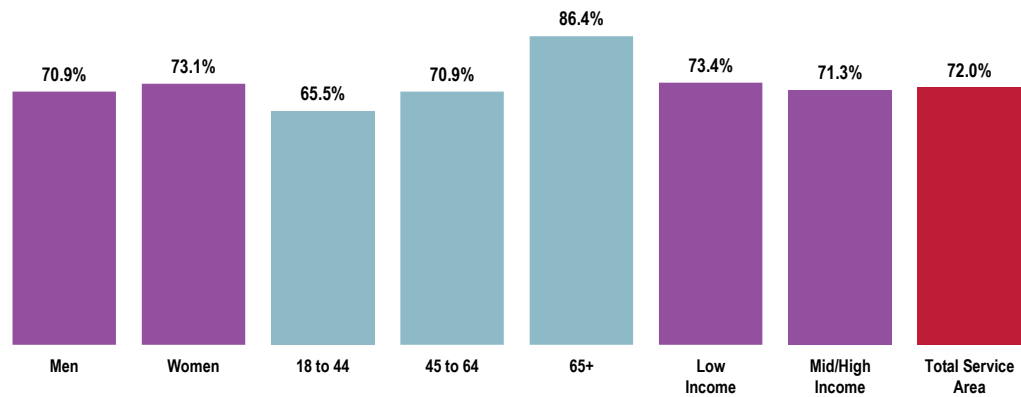| Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	MO	US
61.0%	64.7%	60.5%	39.7%	64.0%	58.6%	63.3%	62.0%
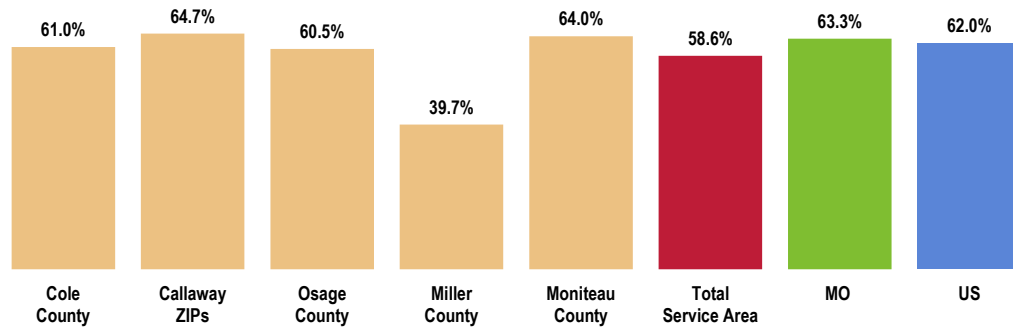
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 20]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Missouri data.
- 2020 PRC National Health Survey, PRC, Inc.
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Have Visited a Dentist or Dental Clinic Within the Past Year
(Total Service Area, 2021)
Healthy People 2030 = 45.0% or Higher

With Dental Insurance	62.2%
No Dental Insurance	51.8%

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
53.9%	63.5%	52.4%	62.5%	62.4%	28.9%	71.2%	58.6%
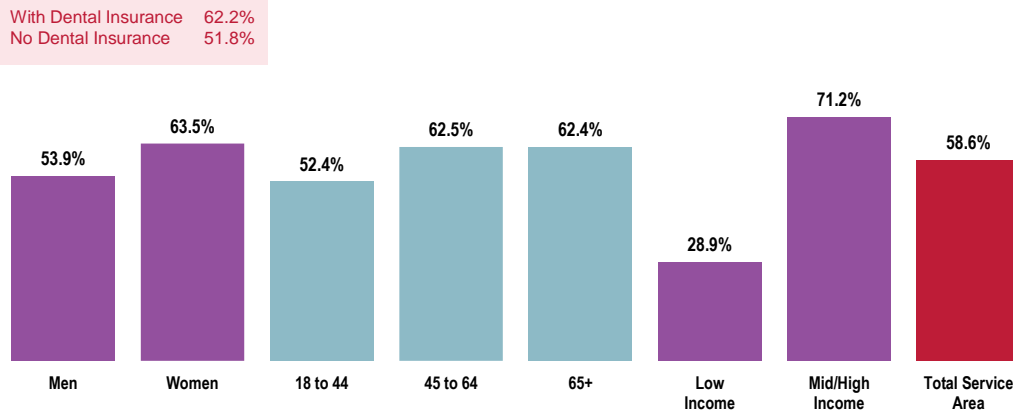
Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 20]
- US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
- Asked of all respondents.

Children

A total of 92.3% of parents report that their child (age 2 to 17) has been to a dentist or dental clinic within the past year.

BENCHMARK ▶ Better than national findings. Satisfies the Healthy People 2030 target.

Child Has Visited a Dentist or Dental Clinic Within the Past Year
(Parents of Children Age 2-17)
Healthy People 2030 = 45.0% or Higher

92.3%

72.1%

Total Service Area   US

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 108]
            ● 2020 PRC National Health Survey, PRC, Inc.
            ● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov
Notes: ● Asked of all respondents with children age 2 through 17.

Key Informant Input: Oral Health

Key informants taking part in an online survey most often characterized _Oral Health_ as a "moderate problem" in the community.

Perceptions of Oral Health
as a Problem in the Community
(Key Informants, 2021)
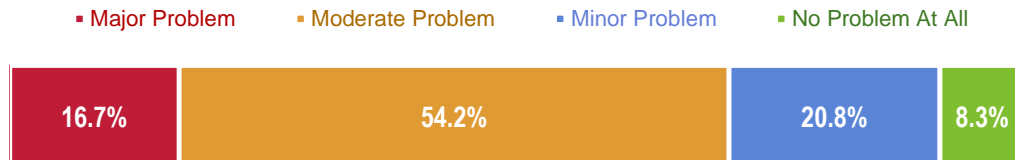
■ Major Problem   ■ Moderate Problem   ■ Minor Problem   ■ No Problem At All

| 16.7% | 54.2% | 20.8% | 8.3% |

Sources: ● PRC Online Key Informant Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Among those rating this issue as a "major problem," reasons related to the following:

Access to Care for Uninsured/Underinsured

Lack of dental insurance and providers accepting Medicaid resulting in lack of access. – Community Leader

Contributing Factors

Prevalence of low-income families and drug use, "meth mouth." – Community Leader

Employment Challenges

Lack of good jobs leads to lack of dental care. – Social Services Provider

VISION CARE

A total of 53.0% of Total Service Area residents had an eye exam in the past two years during which their pupils were dilated.

BENCHMARK ► Lower than the US percentage. Fails to satisfy the Healthy People 2030 target of 61.1% or higher.

DISPARITY ► Lowest in the Callaway ZIP Codes. Lower among adults younger than 45.

Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated
Healthy People 2030 = 61.1% or Higher

58.1%	34.4%	42.6%	50.4%	49.4%	53.0%	61.0%
Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
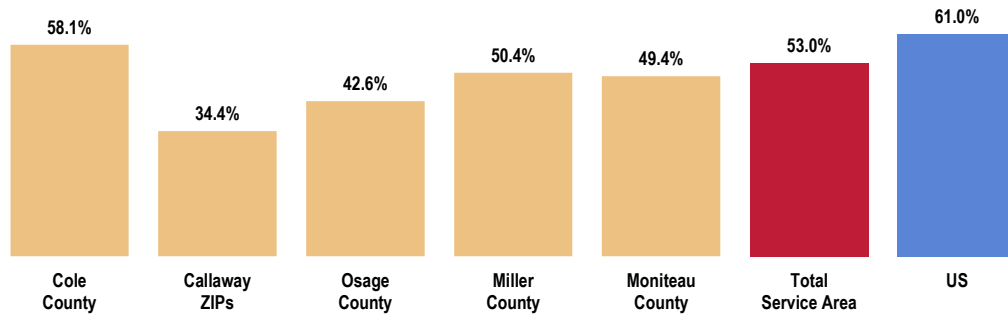
Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Item 19]
● 2020 PRC National Health Survey, PRC, Inc.
● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
● Asked of all respondents.

Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated
(Total Service Area, 2021)
Healthy People 2030 = 61.1% or Higher

48.2%	58.0%	39.2%	53.2%	81.7%	51.3%	52.0%	53.0%
Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
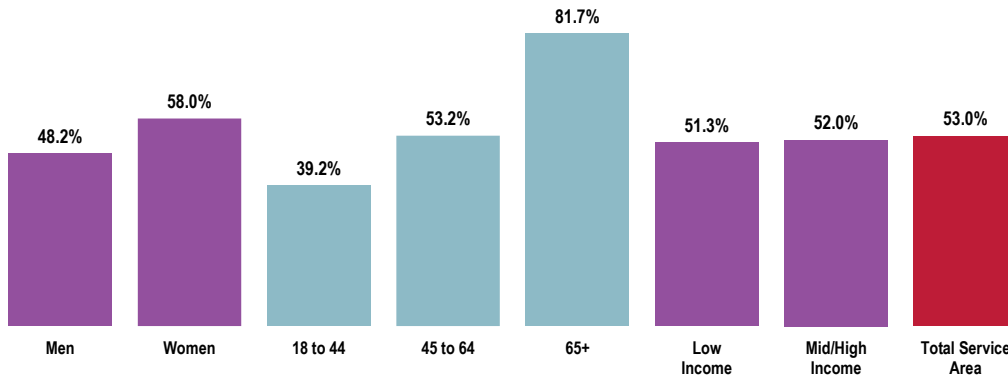
Sources:
● 2021 PRC Community Health Survey, PRC, Inc. [Item 19]
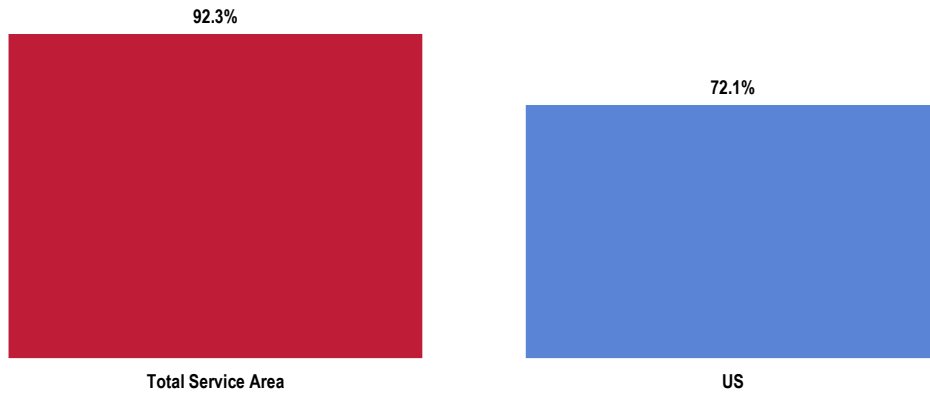● US Department of Health and Human Services. Healthy People 2030. August 2020. http://www.healthypeople.gov

Notes:
● Asked of all respondents.

LOCAL RESOURCES

PERCEPTIONS OF LOCAL HEALTH CARE SERVICES

Most Total Service Area adults rate the overall health care services available in their community as "excellent" or "very good."

Rating of Overall Health Care Services Available in the Community
(Total Service Area, 2021)
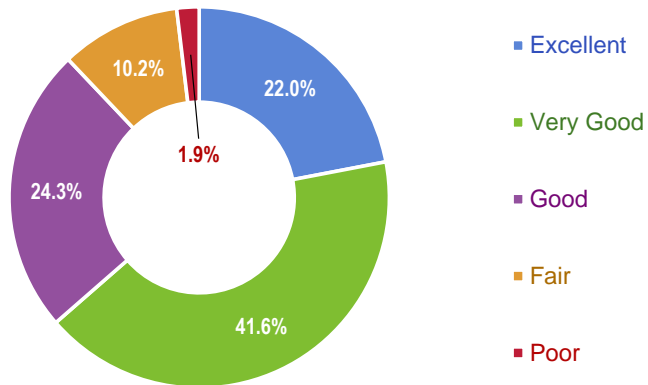
- Excellent — 22.0%
- Very Good — 41.6%
- Good — 24.3%
- Fair — 10.2%
- Poor — 1.9%

Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 6]
Notes: ● Asked of all respondents.

However, 12.1% of residents characterize local health care services as "fair" or "poor."

BENCHMARK ► Less favorable than the national percentage.

DISPARITY ► Favorably low in the Callaway ZIP Codes and Moniteau County. In contrast, note that those encountering access difficulties are more likely to rate local services as "fair" or "poor."

Perceive Local Health Care Services as "Fair/Poor"

Cole County	Callaway ZIPs	Osage County	Miller County	Moniteau County	Total Service Area	US
12.9%	4.5%	10.9%	16.7%	5.3%	12.1%	8.0%
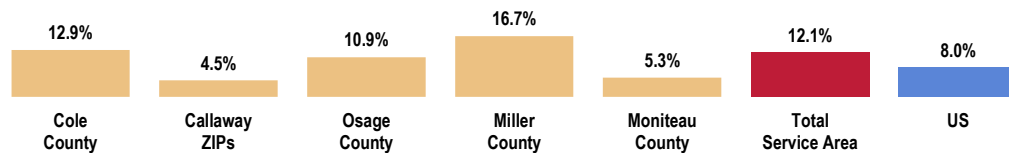
Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 6]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.

Perceive Local Health Care Services as "Fair/Poor"
(Total Service Area, 2021)

With Access Difficulty	20.6%
No Access Difficulty	6.4%

Men	Women	18 to 44	45 to 64	65+	Low Income	Mid/High Income	Total Service Area
14.5%	9.7%	14.0%	12.4%	7.4%	12.0%	9.5%	12.1%
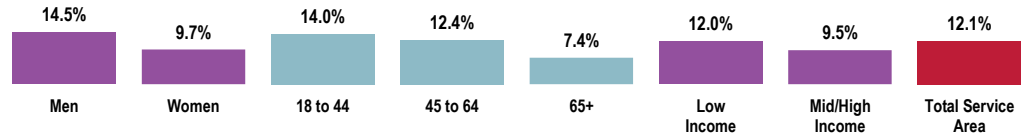
Sources: ●   2021 PRC Community Health Survey, PRC, Inc. [Item 6]
Notes: ●   Asked of all respondents.

HEALTH CARE RESOURCES & FACILITIES

Federally Qualified Health Centers (FQHCs)

The following map details Federally Qualified Health Centers (FQHCs) within the Total Service Area as of September 2020.
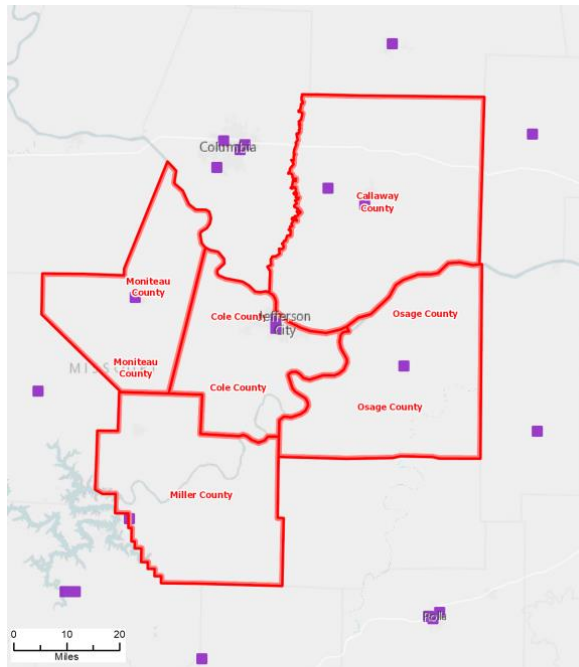
Resources Available
to Address the Significant Health Needs

The following represent potential measures and resources (such as programs, organizations, and facilities in the community) identified by key informants as available to address the significant health needs identified in this report. This list only reflects input from participants in the Online Key Informant Survey and should not be considered to be exhaustive nor an all-inclusive list of available resources.

Access to Health Care Services

- Alzheimer's Association
- Capital Region Medical Center
- Community Health Centers
- Compass Health
- Council for Drug Free Youth
- Medicaid
- Samaritan Center
- SSM St. Mary's Health Center

Cancer

- Goldschmidt Cancer Center

Chronic Kidney Disease

- Capital Region Medical Center

Coronavirus

- Capital Region Medical Center
- Cole County Health Department
- Community Health Centers
- Covid-19 Testing/Vaccination Clinics
- Doctor's Offices
- Health Department
- Jefferson City Medical Group
- Lake Regional Hospital
- Miller County Health Center
- Missouri Department of Health
- Mobile Food Pantries
- Moniteau County Health Department
- Pharmacies
- Religious Facilities
- SSM St. Mary's Health Center
- Urgent Care

Dementia/Alzheimer's Disease

- Alzheimer's Association
- Capital Region Medical Center
- Doctor's Offices

Diabetes

- Ambulance Service
- Capital Region Medical Center
- Catholic Charities
- Cole County Health Department
- Common Ground Community Building

- Community Health Center of Central Missouri
- Health Department
- Health Systems
- Jefferson City Medical Group
- Lake Regional Hospital
- Miller County Health Department
- Pharmacies
- Salvation Army
- SSM St. Mary's Health Center
- Walk With a Doc Program

Disabilities

- Assisted Living Centers
- Capital Region Medical Center
- Doctor's Offices
- Hospitals
- Nursing Homes
- Pain Clinic

Heart Disease

- Capital Region Medical Center
- Doctor's Offices
- Health Department
- Hospitals
- Jefferson City Medical Group
- Nursing Homes
- SSM St. Mary's Health Center

Injury and Violence

- Citizens Against Domestic Violence
- Rape and Abuse Crisis Service

Mental Health

- Burrell
- Capital Region Medical Center
- Churches
- Community Health Centers
- Compass Health
- Doctor's Offices
- Health Department
- Hospitals
- Life Song
- Mental Health Hotlines
- Missouri Behavioral Health Care Association
- New Horizons

Preferred Family Health Care

Private Counseling Services

Psychiatric Hospital

Rape and Abuse Crisis Service

SSM St. Mary's Health Center

Thompson Center

United Way

VA

Nutrition, Physical Activity, and Weight

Boys and Girls Club

Jefferson City Medical Group

YMCA

Oral Health

Cole County Health Department

Community Health Centers

Doctor's Offices

Health Department

Samaritan Center

School System

Sexual Health

Capital Region Medical Center

Cole County Health Department

Pregnancy Help Center

St. Mary's Hospital

Tobacco Use

Capital Region Medical Center

Council for Drug Free Youth

Doctor's Offices

Health Department

Pharmacies

Tobacco Free Missouri

Substance Abuse

AAA

Community Health Centers

Compass Health

Council for Drug Free Youth

Department of Mental Health

Health Department

Hospitals

New Horizons

Prenger Center

Salvation Army

St. Mary's Hospital

APPENDIX

EVALUATION OF PAST ACTIVITIES

Addressing Significant Health Needs

Capital Region Medical Center conducted its last CHNA in 2018 and reviewed the health priorities identified through that assessment. Taking into account the top-identified needs — as well as hospital resources and overall alignment with the hospital's mission, goals and strategic priorities — it was determined at that time that CRMC would focus on developing and/or supporting strategies and initiatives to improve:

- Access to Health Care and Support Services

- Mental Health Disorders and Substance Abuse

- Chronic Disease & Health Risks Prevention

- Improved Health Literacy

- Address Social Determinants of Health

Strategies for addressing these needs were outlined in CRMC's Implementation Strategy. Pursuant to IRS requirements, the following sections provide an evaluation of the impact of the actions taken by CRMC to address these significant health needs in our community.

Evaluation of Impact

Priority Area: Access to Health Care Services	
Community Health Need	Improve access to primary care services, mental/behavioral health care, substance abuse & addiction treatment and transportation
Goal(s)	• Improve overall access to health care providers • Increased attendance at primary care appointments • Improved access to mental health assessments

Strategy 1: Build the capacity of local community clinics to provide primary and preventive healthcare services.	
Strategy Was Implemented?	Yes
Target Population(s)	CRMC's Service Area
Partnering Organization(s)	Internal: Physician Recruitment External: YMCA, Greater Transit Authority
Results/Impact	• Successfully recruited Primary Care, Endocrinology, Cardiology, OB/GYN resulting in more access for patients in our service area.

Strategy 2: Collaborative effort to improve transportation for patients	
Strategy Was Implemented?	In Process – on hold due to COVID-19
Target Population(s)	Underserved patients in CRMC's service area without transportation
Partnering Organization(s)	Internal: CRMC Case Management External: United Way, SSM, Mo Rural Health Association
Results/Impact	• Still in evaluation

Strategy 3: Access to Mental Health Assessments	
Strategy Was Implemented?	Implemented a web based mental health assessment tool
Target Population(s)	CRMC's service area – specifically those seeking Mental Health resources
Partnering Organization(s)	Internal: CRMC Center for Mental Wellness External: CRMC Foundation
Results/Impact	The product is being utilized by the community facilitating a private assessment for the user

Priority Area: Mental Health Disorders and Substance Abuse

Community Health Need	Improved access to Substance Abuse Treatment Programs and Mental Health Resources
Goal(s)	• Expedite mental health treatment in the ED and Clinics • Reduce unused controlled substances in the Community

Strategy 1: Implement mental wellness evaluation in the ED and Primary Care Setting

Strategy Was Implemented?	Yes
Target Population(s)	Patients suffering from mental health illnesses or suicidal thoughts
Partnering Organization(s)	Internal: CRMC Case Management/Center for Mental Wellness External: Compass Health
Results/Impact	• Patients suffering from Mental Health Illnesses have easier access to LCSW or counselors while primary care and ED providers are able to care for other patients

Strategy 2: Install a controlled substance drop box in the Capital Care Pharmacy

Strategy Was Implemented?	Yes
Target Population(s)	Patients with unused controlled medications that could be misused.
Partnering Organization(s)	Internal: CRMC External:
Results/Impact	• Open to the public during business hours, community members have access to properly dispose of excess/unused medications

Strategy 3: Partnership with New Vision – inpatient detox/stabilization program

Strategy Was Implemented?	Yes
Target Population(s)	Patients facing addition to alcohol or controlled substances
Partnering Organization(s)	Internal: CRMC/Hospitalists External: New Visions
Results/Impact	• 311 patients have been provided stabilization efforts for through the new visions program.

Priority Area: Chronic Disease and Health Risk Prevention

Community Health Need	Improve education and access for the prevention and treatment of chronic illnesses
Goal(s)	• Reach and educate younger demographics through school-based programs • Smoking Cessation program

Strategy 1: Continue partnership with Missouri Foundation for Health (MFH) on the Healthy Schools, Healthy Community grant to address childhood obesity in Versailles and Jefferson City Public Schools systems.

Strategy Was Implemented?	Yes
Target Population(s)	Elementary school children in underserved schools
Partnering Organization(s)	Internal: CRMC External: Jefferson City, Morgan and Miller county school districts – MFH
Results/Impact	• Established school gardens and educational programs • Educated lives from kindergarten – eighth grade

Strategy 2: • Collaborate with other agencies on a Community Wellness Expo offering screening and education.

Strategy Was Implemented?	Yes
Target Population(s)	Underserved Community members
Partnering Organization(s)	Internal: CRMC External: YMCA, SSM Health St. Mary's, JCMG
Results/Impact	• More than 600 lives were screened at the event.

Strategy 3: Support of local farmer's market and community education on recipes for and teaching cooking techniques for fresh vegetables and fruit

Strategy Was Implemented?	In process
Target Population(s)	Underserved areas in food deserts
Partnering Organization(s)	Internal: CRMC External: Local Foods Local Places, LU, BCB
Results/Impact	• The program shifted from a farmers market group and is now being facilitated by the extension office of Lincoln University • LFLP workshops are scheduled for the fall of 2021

Priority Area: Improve Health Literacy

Community Health Need	Improve health literacy including chronic disease self-management, preventative care and life skills education, stress management and coping.
Goal(s)	- Reach more of CRMC's service area to improved health literacy - Improve understanding and awareness of service available - Improve access to information regarding care for chronic illnesses

Strategy 1: Host, participate in and support community health fairs and events to share health information and resources with targeted populations in the community

Strategy Was Implemented?	Yes – until COVID-19
Target Population(s)	Community members in underserved areas with limited access to specific health information
Partnering Organization(s)	Internal: CRMC External: Other local health entities and health promotion associations
Results/Impact	Provided education and monetary donations to advance health literacy in the communities we serve

Strategy 2: Continue to coordinate and provide community support groups for the following: Better Breathers, Stroke, Heart to Heart, AMI-Diabetes, Alzheimer's, Living in Recovery, Cancer (ETC, Men's), Social Skills, Wings of Hope and Parkinson's.

Strategy Was Implemented?	Yes – through early 2020
Target Population(s)	Groups with specific health conditions
Partnering Organization(s)	Internal: CRMC – various departments External: Alzheimer's association, Heart Association
Results/Impact	$22,885 community benefit 2,335 lives educated

Strategy 3: Provide health education opportunities toe community members monthly

Strategy Was Implemented?	Until the pandemic
Target Population(s)	Target demographic was dependent on the topic of the lunch and learn or educational event
Partnering Organization(s)	Internal: CRMC staff and physicians External: Local subject matter experts (financial institutions, mental health facilities, health departments, community health organizations)
Results/Impact	1,203 lives educated

Priority Area: Address Social Determinants of Health	
Community Health Need	Elevating the quality of living in the communities CRMC serves
Goal(s)	• Partner with local schools and health agencies to positively impact the quality of life for residents • Create sustainable programs

Strategy 1: Partnership between CRMC's Medical Education Program with the Community Health Center to serve low socioeconomic populations	
Strategy Was Implemented?	Yes
Target Population(s)	Community Health Center clients and patients
Partnering Organization(s)	Internal: CRMC External: Community Health Center
Results/Impact	• Residents receive experience serving an underserved demographic with variety in cases

Strategy 2: Provide low and/or no cost sports physicals to student athletes	
Strategy Was Implemented?	Yes
Target Population(s)	Adolescents ages 10 -18
Partnering Organization(s)	Internal: CRMC External: Local Schools (Elementary and Secondary)
Results/Impact	• 1190 participants

Strategy 3: Partner with Department of Health to assist Homeless Population	
Strategy Was Implemented?	Yes – however the Homeless Connect in person event was abbreviated in 2020
Target Population(s)	Homeless
Partnering Organization(s)	Internal: CRMC External: Department of Health
Results/Impact	• 350 Lives Impacted