

# COMMUNITY HEALTH NEEDS ASSESSMENT

OF CALLAWAY, COLE, MILLER, MONITEAU  
AND OSAGE COUNTIES

**2018**  
EXECUTIVE REPORT



Central Missouri  
Community Health  
Assessment  
Partnership

# Message to the Community



We are pleased to present the 2018 Community Health Assessment of Central Missouri. This report includes data reflecting the health status of Callaway, Cole, Osage, Miller and Moniteau Counties.



SSMHealth

This study was conducted from January through July 2018, to identify health issues of primary concern and to provide critical information to those in a position to make an impact on the health of our region including entities such as local governments, social service agencies, businesses, healthcare providers and consumers. The results enable all of us to more strategically establish priorities, develop interventions and commit resources to improve the health of our communities and the region.



Health is — and must be — an issue of concern and action for all of us. We hope the information in this study will encourage collaboration involving all agencies across county lines, between usual competitors and among funders to address the complex health needs of our communities.



This 2018 report identifies the following priorities for improving the health of residents in the five-county report area of Central Missouri and asks communities to work together to address the following issues that most influence health and well-being in our communities. They are listed below in alphabetical order and will be further explained in this report.



**Public Health**  
Prevent. Promote. Protect.  
**Callaway County**  
Health Department  
**Cole County**  
Health Department  
**Miller County**  
Health Department  
**Moniteau County**  
Health Department  
**Osage County**  
Health Department

- Access to Health Care and Support Services
- Chronic Disease & Health Risks Prevention
- Mental Health Disorders and Substance Abuse
- Healthy Literacy
- Social Determinants that Influence Health

This community health needs assessment is the third endeavor of the Central Missouri Community Health Assessment Partnership (CMCHAP). With reliable information as a foundation, CMCHAP can continue to work collaboratively to develop plans and resources to meet the community's needs.

The Community Health Needs Assessment is intended to be a tool in identifying and reaching collaborative goals.

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# About Us

The Central Missouri Community Health Assessment Partnership (CMCHAP) pulled together once again on a mission to improve the health of residents in the five counties of Callaway, Cole, Miller, Moniteau and Osage. The partnership worked collaboratively to collect and analyze health data and gather input from community members and those representing the board interest of the community to aid in assessing and prioritizing needs.

This unique partnership of health care and social services providers is sponsored by Capital Region Medical Center and SSM Health St. Mary's Hospital - Jefferson City, and includes nine additional partners: the Community Health Center of Central Missouri; Compass Health Network, Missouri Coalition for Community Behavioral Healthcare, the Public Health Departments of Callaway County, Cole County, Miller County, Moniteau County and Osage County; and United Way of Central Missouri.

## OUR COMMUNITY

The region surrounding Missouri's capital city is rich in health care resources that match its abundance of natural resources, educational opportunity and employment diversity - all of which work together to create a livable community. It is common for individuals and organizations to take the initiative to help others in the community. The collective response reflects the culture of a community that to partners to meet needs.

The CMCHAP conducted a comprehensive community health assessment using both secondary and primary analysis, which allowed us to measure perception, health risks, health factors, health outcomes and characteristics specific to the communities in these five central counties.

Data collected by various organizations, such as the U.S. Census, Centers for Disease Control and Prevention, Robert Wood Johnson Foundation, Community Commons, Missouri Hospital Association, and the Missouri Department of Health and Human Services were vital to this assessment. Valuable input from community members added depth and quality to the data.

This was the third comprehensive regional health assessment completed in this collaborative fashion by the CMCHAP. The objectives were to identify factors influencing health status, determine and prioritize issues of greatest concern, identify unmet health needs and produce a source of reliable information that will support the development of possible solutions.

A special caution: The data included in this report should not be cited or used out of the context of this report. It is not always valid to draw conclusions by linking data to show cause and effect. For example, the tendency to smoke is not caused by one's income status, even though low-income and tobacco use is frequently correlated. Instead, the only appropriate use for this information is as evidence of how resources might be most effectively used or coordinated to improve the health and well-being of our community.



# Acknowledgments

The Central Missouri Community Health Needs Assessment Partnership consists of the following organizations and their representatives, who formed the Steering Team and contributed much time and effort to this project:

- ❖ Capital Region Medical Center, [www.crmc.org](http://www.crmc.org)
  - ❖ Tiffany Rutledge
  - ❖ Paula Burnett
  - ❖ Betty Berendzen
  
- ❖ SSM Health St. Mary's Hospital- Jefferson City [www.ssmhealth.com](http://www.ssmhealth.com)
  - ❖ Beverly Stafford
  - ❖ Joshua Allee
  - ❖ Janet Wear-Enloe
  
- ❖ Callaway county Health Department <https://callawaycounty.org/health-department>
  - ❖ Sharon Lynch
  
- ❖ Cole County Health Department, [www.colehealth.org](http://www.colehealth.org)
  - ❖ Kristi Campbell
  - ❖ Mike Sapp
  - ❖ Mary Telthorst
  
- ❖ Community Health Center of Central Missouri, [www.chccmo.org](http://www.chccmo.org)
  - ❖ Jeff Davis
  
- ❖ Compass Health Network, <http://compasshealthnetwork.org>
  - ❖ Karen Cade
  
- ❖ Miller County Health Department, [www.millercountyhealth.com](http://www.millercountyhealth.com)
  - ❖ Mike Herbert
  - ❖ Bonnie Kempker
  
- ❖ Missouri Coalition for Community Behavioral Healthcare, <https://www.mocoalition.org>
  - ❖ Cindy Davis
  
- ❖ Moniteau County Health Department, [www.moniteaucountyhealth.org](http://www.moniteaucountyhealth.org)
  - ❖ Andrea Kincaid
  
- ❖ Osage County Health Department, [www.osagecountyhd.org](http://www.osagecountyhd.org)
  - ❖ Susan Long
  
- ❖ United Way of Central Missouri [www.unitedwaycemo.org](http://www.unitedwaycemo.org)
  - ❖ Ann Bax

In addition, special thanks is owed to individuals, organizations and community leaders who helped organize discussion groups, hosted meetings and provided their candid opinions.

# Methods of Analysis

This needs assessment was conducted using three methods: secondary data analysis, discussions with community groups and provider clients and surveys completed by community members, community leaders and local health and human service providers.

## Secondary Data Analysis

Existing data previously collected for other purposes, called secondary data, was used from a variety of credible public local, state and federal sources to provide a context for analysis and interpretation. Data is key to diagnosing and addressing some of our region's most pressing health issues, and by analyzing the information available to the public, furthers our missions to improve health and the well-being of our communities. The availability of new datasets enabled a more detailed level of analysis such as health and social factors at a county and zip code level. The secondary sources and links to the online datasets are also listed in Appendix A.

**Community Commons** <https://www.communitycommons.org> is an on-line assessment tool where data, interactive tools, and collaborations can be connected. Community Commons provides public access to thousands of meaningful data layers that allow mapping and reporting capabilities so anyone can explore community health. The ability to see your selected area's demographics and performance on a core set of community indicators linked to evidence-informed interventions. The default is to the "core outcome and action indicators framework" associated with The County Health Rankings/Roadmaps to Health, The Community Guide, Healthy People 2020, and other widely used sources of indicators and evidence-informed program activities. CHNA indicator sets can be drawn from the following sources:

- Centers for Disease Control and Prevention (CDC)
- Catholic Health Association
- County Health Rankings [www.countyhealthrankings.org](http://www.countyhealthrankings.org)
- Kaiser Permanente
- Healthy People 2020
- Health Resources and Services Administration
- National Quality Forum

**ExploreMOHealth** <https://exploremohealth.org> was created in partnership between Missouri Foundation for Health and the MHA Health Institute, the not-for-profit corporation affiliated with the Missouri Hospital Association. By combining their resources they have created a unique health-related dataset that provides Zip Code level analysis and arranges the data to include which health and social factors should be prioritized in each ZIP Code.

**Priority MICA** (Missouri Information for Community Assessment (MICA)

<https://webapp01.dhss.mo.gov/MOPHIMS/MICAHome> Additionally, data was collected and analyzed utilizing the Priority MICA, which provided a structured process to determine the priority health needs of a community. The Priority MICA allows a user to prioritize from a list of diseases or risk factors available in the application. The diseases/risk factors were selected for inclusion in the application based upon the Department of Health and Senior Services (DHSS) strategic plan, Healthy People 2020 and available data. Funding agencies can use the Priority MICA to determine priority areas for funding in an area, or a community can use the Priority MICA as part of a community assessment process.

## Community Input

Community discussion groups, much like town hall meetings, were organized and facilitated by members of the CMCHAP Steering Team. Throughout this process, more than 254 individuals participated in eight discussion groups and consumer interview sessions:

- ❖ Callaway County Community Leaders, Stakeholders & Concerned Citizens
- ❖ Cole County Communities Leaders & Elected Officials
- ❖ Cole County Community Stakeholders & Concerned Citizens – Afternoon Session
- ❖ Cole County Community Stakeholders & Concerned Citizens – Morning Session
- ❖ Miller County Leaders, Stakeholders & Concerned Citizens
- ❖ Moniteau County Related Services
- ❖ Osage County Leaders, Stakeholders & Concerned Citizens
- ❖ United Way Agency Leaders & Jefferson City Unmet Needs Committee

These discussions provided perspective on the health status of the community and enlightened the analysis of the secondary data relative to the most important health issues and challenges, key resources and advice on how to address the issues identified. The 50 most mentioned health issues and social determinants that rose from these discussion groups are listed in alphabetical order in Appendix D.

To stimulate discussion, the community discussion group agenda included the following questions:

- Describe your community, including general observations and rating of the perceived overall well-being and health status of your community on a scale of 1 to 5. (5=best)
- What are top issues and challenges that face your community?
- What local resources exist for addressing these issues and challenges?
- What advice do you have improve the health and well-being of your community?

During the input sessions, participants were also asked to review a listing of key indicators, factors and or determinants of health that had previously been identified to have some degree of variance in the report area. The list was derived from a Community Commons variance report. Each participant was asked to mark their top five concerns.

## Community Perception Survey

In addition to the review of demographics and secondary data, and the aforementioned discussion groups with key stakeholders and community representatives, a community perception survey was conducted to assess the perception of health care and health status across the five-county region in the analysis. The survey was made available on social media and internet sites, in physician offices, medical clinics and public health departments and various other locations, yielding a total of 855 responses from residents. The survey questions are listed in Appendix C. Analysis of the survey responses helped inform the secondary data and fueled the prioritization process.

# HEALTH STATUS of Our Community



# DEMOGRAPHICS, SOCIO & ECONOMIC FACTORS

The health assessment findings for the CMCHAP region are often shown here as combined data for the five counties and are presented as “Report Area.” Data specific to counties, is also included in the tables.

## Total Population

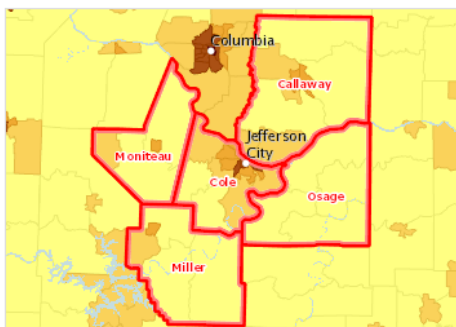
### Total Population

A total of 175,851 people live in the 2,840.28 square mile report area defined for this assessment according to the U.S. Census Bureau American Community Survey 2012-16 5-year estimates. The population density for this area, estimated at 61.91 persons per square mile, is less than the national average population density of 90.19 persons per square mile.

[Download Data](#)

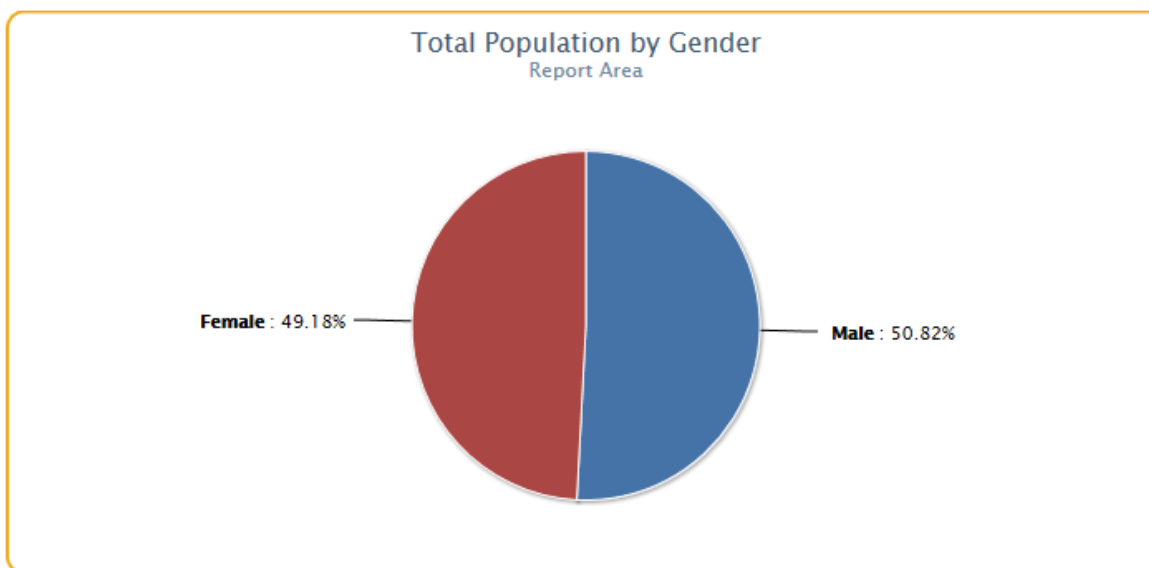
Report Area	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Report Area	175,851	2,840.28	61.91
Callaway County, MO	44,693	834.58	53.55
Cole County, MO	76,603	391.51	195.66
Miller County, MO	25,011	592.59	42.21
Moniteau County, MO	15,840	415.03	38.17
Osage County, MO	13,704	606.57	22.59
Missouri	6,059,651	68,746.51	88.14
United States	318,558,162	3,532,068.58	90.19

Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract



Population, Density (Persons per Sq Mile) by Tract, ACS 2012-16

- Over 5,000
- 1,001 - 5,000
- 501 - 1,000
- 51 - 500
- Under 51
- No Data or Data Suppressed
- Report Area



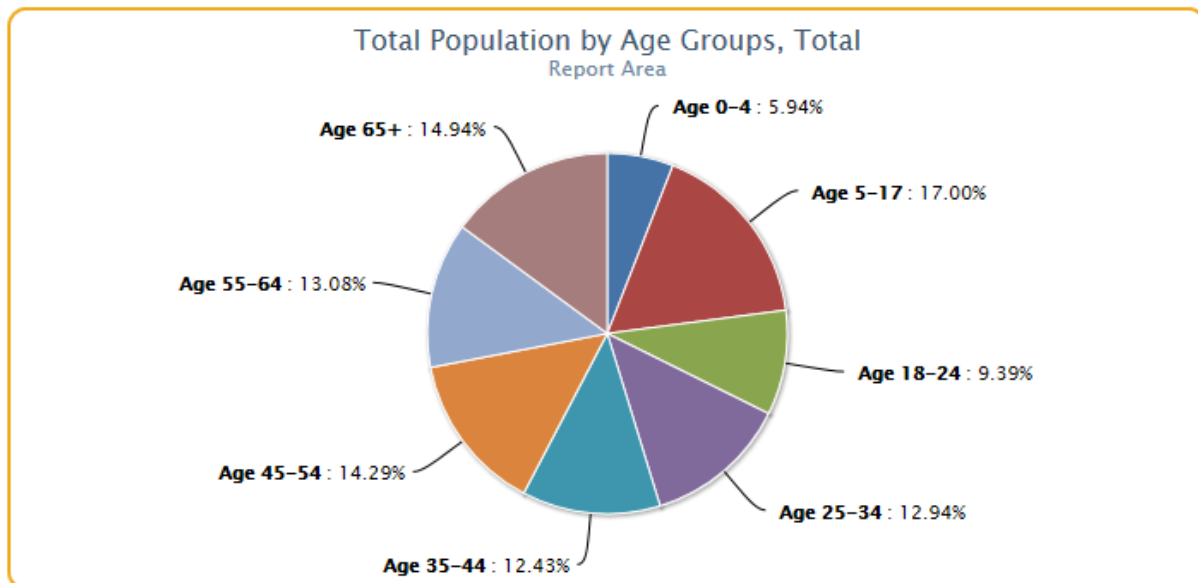
## Total Population by Age

Understanding that older populations generally have more chronic disease and face more barriers in accessing care, we noted that the concentration of the aging population in the rural counties where there are fewer services is of growing concern.

**Total Population by Age Groups, Total**

Report Area	Age 0-4	Age 5-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+
Report Area	10,441	29,893	16,509	22,750	21,857	25,124	23,004	26,273
Callaway County, MO	2,489	7,149	5,052	5,841	5,402	6,509	5,863	6,388
Cole County, MO	4,646	12,908	7,054	10,462	9,903	10,716	10,126	10,788
Miller County, MO	1,502	4,397	1,941	2,884	2,788	3,616	3,429	4,454
Moniteau County, MO	1,049	2,978	1,229	2,068	2,083	2,252	1,811	2,370
Osage County, MO	755	2,461	1,233	1,495	1,681	2,031	1,775	2,273
Missouri	374,010	1,021,114	591,150	800,229	731,234	820,875	791,105	929,934
United States	19,866,960	53,745,478	31,296,577	43,397,907	40,548,400	43,460,466	40,061,742	46,180,632

[Download Data](#)



### Median Age

This indicator reports population median age based on the 5-year American Community Survey estimate.

Report Area	Total Population	Median Age
Report Area	175,851	no data
Callaway County, MO	44,693	37.8
Cole County, MO	76,603	37.9
Miller County, MO	25,011	41.4
Moniteau County, MO	15,840	38
Osage County, MO	13,704	40
Missouri	6,059,651	38.3
United States	318,558,162	37.7

[Download Data](#)

Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

### Population Age 65+

An estimated 14.94% of the population in the report area is age 65 or older according to the U.S. Census Bureau American Community Survey 2012-16 5-year estimates. An estimated total of 26,273 older adults resided in the area during this time period. The number of persons age 65 or older is relevant because this population has unique health needs which should be considered separately from other age groups.

[Download Data](#)

Report Area	Total Population	Population Age 65+	Percent Population Age 65+
Report Area	175,851	26,273	14.94%
Callaway County, MO	44,693	6,388	14.29%
Cole County, MO	76,603	10,788	14.08%
Miller County, MO	25,011	4,454	17.81%
Moniteau County, MO	15,840	2,370	14.96%
Osage County, MO	13,704	2,273	16.59%
Missouri	6,059,651	929,934	15.35%
United States	318,558,162	46,180,632	14.5%

Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

## Total Population by Race/Ethnicity

The race/ethnicity distribution shows a population in the report area that is predominately White/Caucasian at 89.32% and 6.4% Black.

### Total Population by Race Alone, Percent

[Download Data](#)

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Report Area	89.32%	6.4%	0.85%	0.5%	0.04%	0.98%	1.9%
Callaway County, MO	91.68%	3.78%	0.9%	0.3%	0.01%	0.43%	2.9%
Cole County, MO	83.34%	11.48%	1.26%	0.45%	0.08%	1.49%	1.9%
Miller County, MO	96.25%	0.54%	0.42%	1.29%	0%	0.69%	0.81%
Moniteau County, MO	92.93%	3.36%	0.09%	0.3%	0%	1.15%	2.17%
Osage County, MO	98.2%	0.75%	0.06%	0.29%	0.03%	0.29%	0.37%
Missouri	82.53%	11.58%	1.78%	0.42%	0.11%	1.13%	2.44%
United States	73.35%	12.63%	5.22%	0.82%	0.18%	4.75%	3.06%

## Population Change

Current population demographics and changes in demographic composition over time play a determining role in the types of health and social services needed by communities. From 2000-2010 the population in the report area grew 7.93 percent and is becoming more diverse. Overall, the total population in the report area grew slightly faster than the growth rate for Missouri.

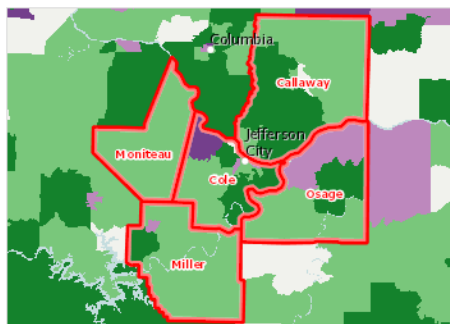
### Change in Total Population

According to the United States Census Bureau Decennial Census, between 2000 and 2010 the population in the report area grew by 12,829 persons, a change of 7.93%. A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

[Download Data](#)

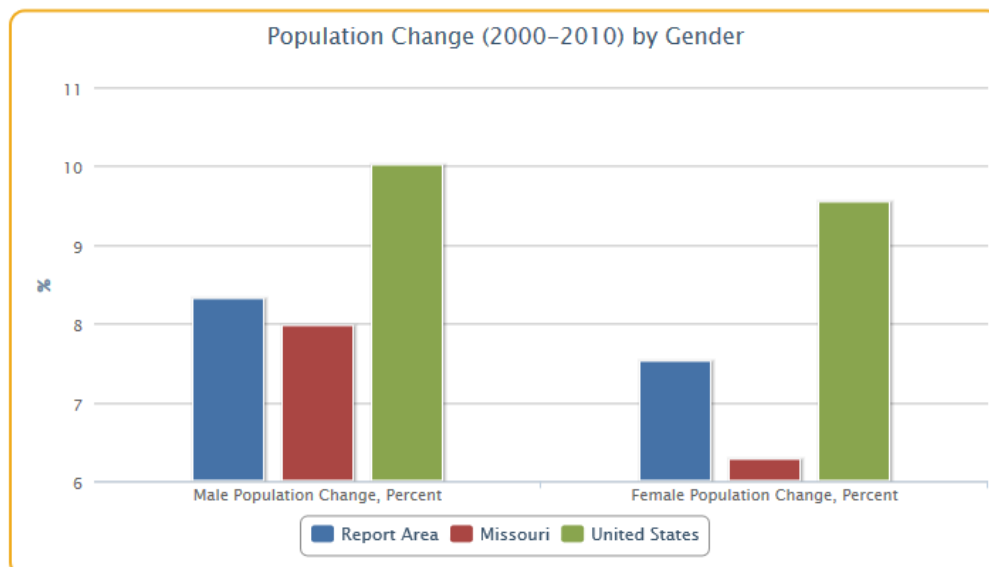
Report Area	Total Population, 2000 Census	Total Population, 2010 Census	Total Population Change, 2000-2010	Percent Population Change, 2000-2010
Report Area	161,726	174,555	12,829	7.93%
Callaway County, MO	40,766	44,332	3,566	8.75%
Cole County, MO	69,514	75,990	6,476	9.32%
Miller County, MO	23,564	24,748	1,184	5.02%
Moniteau County, MO	14,827	15,607	780	5.26%
Osage County, MO	13,055	13,878	823	6.3%
Missouri	5,591,987	5,988,927	396,940	7.1%
United States	280,405,781	307,745,539	27,339,758	9.75%

Data Source: US Census Bureau, [Decennial Census, 2000 - 2010](#). Source geography: Tract



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 Area



It was noted throughout the community discussion groups that minority and diverse groups are growing, specifically the Hispanic population in the report area with Callaway and Cole counties having the highest percentage of change.

**Population Change (2000-2010) by Hispanic Origin**

[Download Data](#)

Report Area	Hispanic Population Change, Total	Hispanic Population Change, Percent	Non-Hispanic Population Change, Total	Non-Hispanic Population Change, Percent
Report Area	1,508	75.14%	11,321	7.09%
Callaway County, MO	330	87.53%	3,236	8.01%
Cole County, MO	908	102.37%	5,568	8.11%
Miller County, MO	112	48.48%	1,072	4.59%
Moniteau County, MO	151	34.71%	629	4.37%
Osage County, MO	7	9.09%	816	6.29%
Missouri	94,137	79.55%	302,803	5.53%
United States	15,152,943	42.93%	12,099,099	4.92%

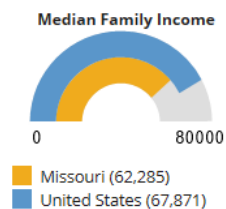
**Income**

Income - Median Family Income

This indicator reports median family income based on the latest 5-year American Community Survey estimates. A family household is any housing unit in which the householder is living with one or more individuals related to him or her by birth, marriage, or adoption. Family income includes the incomes of all family members age 15 and older.

[Download Data](#)

Report Area	Total Family Households	Average Family Income	Median Family Income
Report Area	43,267	\$74,561	no data
Callaway County, MO	10,482	\$72,329	<b>\$61,346</b>
Cole County, MO	19,082	\$80,450	<b>\$67,228</b>
Miller County, MO	6,287	\$65,511	<b>\$47,595</b>
Moniteau County, MO	3,874	\$68,344	<b>\$62,045</b>
Osage County, MO	3,542	\$72,309	<b>\$66,534</b>
Missouri	1,529,363	\$80,299	\$62,285
United States	77,608,829	\$90,960	\$67,871



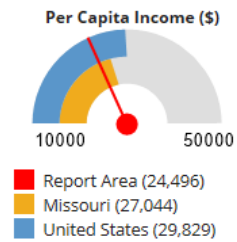
Note: This indicator is compared with the state average.  
 Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

**Income - Per Capita Income**

The per capita income for the report area is \$24,496. This includes all reported income from wages and salaries as well as income from self-employment, interest or dividends, public assistance, retirement, and other sources. The per capita income in this report area is the average (mean) income computed for every man, woman, and child in the specified area.

[Download Data](#)

Report Area	Total Population	Total Income (\$)	Per Capita Income (\$)
Report Area	175,851	\$4,307,666,100	<b>\$24,496</b>
Callaway County, MO	44,693	\$1,049,162,100	<b>\$23,474</b>
Cole County, MO	76,603	\$2,034,383,600	<b>\$26,557</b>
Miller County, MO	25,011	\$560,174,200	<b>\$22,397</b>
Moniteau County, MO	15,840	\$333,719,800	<b>\$21,068</b>
Osage County, MO	13,704	\$330,226,400	<b>\$24,097</b>
Missouri	6,059,651	\$163,880,073,200	\$27,044
United States	318,558,162	\$9,502,305,741,900	\$29,829



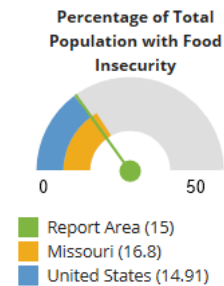
Note: This indicator is compared with the state average.  
 Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

**Food Insecurity Rate**

This indicator reports the estimated percentage of the population that experienced food insecurity at some point during the report year. Food insecurity is the household-level economic and social condition of limited or uncertain access to adequate food.

[Download Data](#)

Report Area	Total Population	Food Insecure Population, Total	Food Insecurity Rate
Report Area	175,345	26,310	<b>15%</b>
Callaway County, MO	44,483	6,550	<b>14.72%</b>
Cole County, MO	76,426	11,830	<b>15.48%</b>
Miller County, MO	24,905	4,100	<b>16.46%</b>
Moniteau County, MO	15,719	2,200	<b>14%</b>
Osage County, MO	13,812	1,630	<b>11.8%</b>
Missouri	6,063,589	1,019,350	16.8%
United States	318,198,163	47,448,890	14.91%



Note: This indicator is compared with the state average.  
 Data Source: [Feeding America](#), 2014. Source geography: County

## Insurance

Some gains in health insurance coverage have been made in the area over the past three years. Indicators reflect improvements in insurance coverage. The percentage of uninsured adults in the report area aged 18 to 64 has decreased from approximately 22 percent in 2010 to 13 percent in 2016. While the overall uninsured adult population ages 18 to 64 has decreased in the report area, the percent of uninsured children in the report area remains above the Missouri and US rates in four of the five counties. Miller county has the highest percentage of population receiving Medicaid at 21.26%.

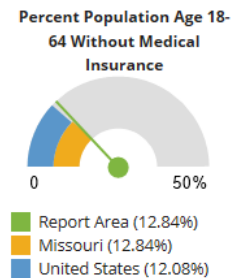
### Insurance - Uninsured Adults

The lack of health insurance is considered a *key driver* of health status.

This indicator reports the percentage of adults age 18 to 64 without health insurance coverage. This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

Report Area	Total Population Age 18 - 64	Population with Medical Insurance	Percent Population With Medical Insurance	Population Without Medical Insurance	Percent Population Without Medical Insurance
Report Area	99,393	86,634	87.16%	12,759	12.84%
Callaway County, MO	25,270	22,114	87.51%	3,156	12.49%
Cole County, MO	43,435	38,554	88.76%	4,881	11.24%
Miller County, MO	14,395	12,081	83.92%	2,314	16.08%
Moniteau County, MO	8,381	6,873	82.01%	1,508	17.99%
Osage County, MO	7,912	7,012	88.62%	900	11.38%
Missouri	3,615,438	3,151,069	87.16%	464,369	12.84%
United States	194,808,251	171,274,851	87.92%	23,533,400	12.08%

[Download Data](#)

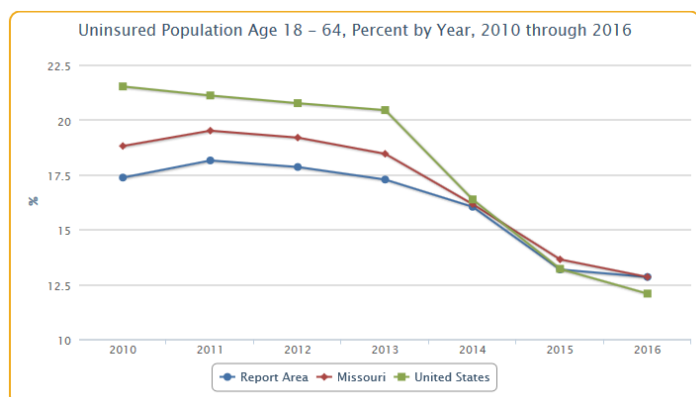
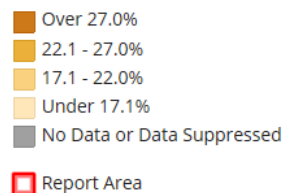


Note: This indicator is compared with the state average.

Data Source: US Census Bureau, [Small Area Health Insurance Estimates](#), 2016. Source geography: County



Uninsured Population, Age 18-64, Percent by County, SAHIE 2016



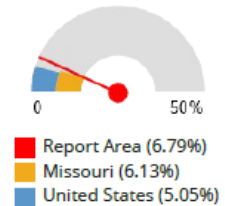
## Insurance - Uninsured Children

The lack of health insurance is considered a *key driver* of health status.

This indicator reports the percentage of children under age 19 without health insurance coverage. This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

Report Area	Total Population Under Age 19	Population with Medical Insurance	Percent Population With Medical Insurance	Population Without Medical Insurance	Percent Population Without Medical Insurance
Report Area	41,169	38,375	93.21%	2,794	<b>6.79%</b>
Callaway County, MO	9,668	9,074	93.86%	594	<b>6.14%</b>
Cole County, MO	18,063	17,024	94.25%	1,039	<b>5.75%</b>
Miller County, MO	6,078	5,611	92.32%	467	<b>7.68%</b>
Moniteau County, MO	4,105	3,657	89.09%	448	<b>10.91%</b>
Osage County, MO	3,255	3,009	92.44%	246	<b>7.56%</b>
Missouri	1,429,136	1,341,542	93.87%	87,594	6.13%
United States	76,217,025	72,369,595	94.95%	3,847,430	5.05%

**Percent Population Under Age 19 Without Medical Insurance**



Note: This indicator is compared with the state average.

Data Source: US Census Bureau, [Small Area Health Insurance Estimates](#), 2014. Source geography: County

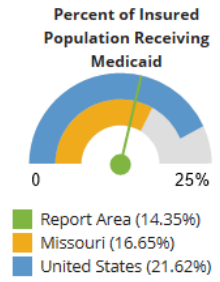


Insurance - Population Receiving Medicaid

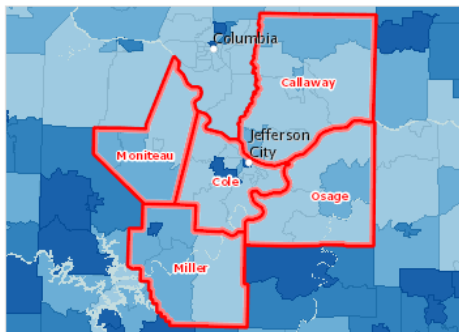
This indicator reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance). This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

[Download Data](#)

Report Area	Total Population (For Whom Insurance Status is Determined)	Population with Any Health Insurance	Population Receiving Medicaid	Percent of Insured Population Receiving Medicaid
Report Area	167,498	150,458	21,588	14.35%
Callaway County, MO	42,137	37,837	4,841	12.79%
Cole County, MO	72,589	65,939	9,062	13.74%
Miller County, MO	24,716	21,662	4,605	21.26%
Moniteau County, MO	14,490	12,314	1,778	14.44%
Osage County, MO	13,566	12,706	1,302	10.25%
Missouri	5,946,094	5,272,765	877,803	16.65%
United States	313,576,137	276,875,891	59,874,221	21.62%



Note: This indicator is compared with the state average.  
 Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract



Insured, Medicaid / Means-Tested Coverage, Percent by Tract, ACS 2012-16

- Over 25.0%
- 20.1 - 25.0%
- 15.1 - 20.0%
- Under 15.1%
- No Data or Data Suppressed
- Report Area

## Education

Education is recognized as a social determinant of health and directly influences the other factors later in life that contribute to health such as being able to gain solid employment, accessing stable housing and being able to make healthy food choices. Since education is a social factor that influences health, it is important to note the percent of population in the overall report area with a high school degree or higher is a negative variance.

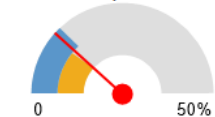
### Population with No High School Diploma

Within the report area there are 14,054 persons aged 25 and older without a high school diploma (or equivalency) or higher. This represents 11.81% of the total population aged 25 and older. This indicator is relevant because educational attainment is linked to positive health outcomes (Freudenberg & Ruglis, 2007).

Report Area	Total Population Age 25+	Population Age 25+ with No High School Diploma	Percent Population Age 25+ with No High School Diploma
Report Area	119,008	14,054	11.81%
Callaway County, MO	30,003	4,300	14.33%
Cole County, MO	51,995	4,518	8.69%
Miller County, MO	17,171	2,601	15.15%
Moniteau County, MO	10,584	1,741	16.45%
Osage County, MO	9,255	894	9.66%
Missouri	4,073,377	454,882	11.17%
United States	213,649,147	27,818,380	13.02%

[Download Data](#)

Percent Population Age 25+ with No High School Diploma



Report Area (11.81%)  
Missouri (11.17%)  
United States (13.02%)

Note: This indicator is compared with the state average.

Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

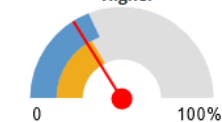
### Population with Associate's Level Degree or Higher

32.09% of the population aged 25 and older, or 38,190 have obtained an Associate's level degree or higher. This indicator is relevant because educational attainment has been linked to positive health outcomes.

Report Area	Total Population Age 25+	Population Age 25+ with Associate's Degree or Higher	Percent Population Age 25+ with Associate's Degree or Higher
Report Area	119,008	38,190	32.09%
Callaway County, MO	30,003	8,528	28.42%
Cole County, MO	51,995	20,760	39.93%
Miller County, MO	17,171	3,775	21.98%
Moniteau County, MO	10,584	2,459	23.23%
Osage County, MO	9,255	2,668	28.83%
Missouri	4,073,377	1,433,231	35.19%
United States	213,649,147	82,237,511	38.49%

[Download Data](#)

Percent Population Age 25+ with Associate's Degree or Higher



Report Area (32.09%)  
Missouri (35.19%)  
United States (38.49%)

Note: This indicator is compared with the state average.

Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

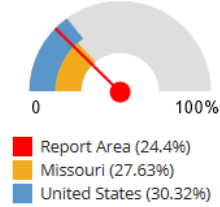
Population with Bachelor's Degree or Higher

24.4% of the population aged 25 and older, or 29,033 have obtained an Bachelor's level degree or higher. This indicator is relevant because educational attainment has been linked to positive health outcomes.

[Download Data](#)

Report Area	Total Population Age 25+	Population Age 25+ with Bachelor's Degree or Higher	Percent Population Age 25+ with Bachelor's Degree or Higher
Report Area	119,008	29,033	24.4%
Callaway County, MO	30,003	6,139	20.46%
Cole County, MO	51,995	16,503	31.74%
Miller County, MO	17,171	2,690	15.67%
Moniteau County, MO	10,584	1,935	18.28%
Osage County, MO	9,255	1,766	19.08%
Missouri	4,073,377	1,125,665	27.63%
United States	213,649,147	64,767,787	30.32%

Percent Population Age 25+ with Bachelor's Degree or Higher



Note: This indicator is compared with the state average.  
Data Source: US Census Bureau, [American Community Survey](#). 2012-16. Source geography: Tract

## Employment

The unemployment rate in each of the five counties (2.9%) was lower than Missouri's rate of 3.5%. It should be noted that the top four employment sectors in the central region consist of health and social services, public administration, education and retail trade. It is estimated that one in four jobs in Cole County is in the public administration sector, due primarily to Jefferson City's status as the state capital. Missouri state employees represent a large share of the local economy that state government expansions, cutbacks, salary stagnation or salary raises can significantly impact the local economy.

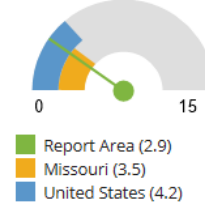
Unemployment Rate

Total unemployment in the report area for the current month was 2,579, or 2.9% of the civilian non-institutionalized population age 16 and older (non-seasonally adjusted). This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

[Download Data](#)

Report Area	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Report Area	87,428	84,849	2,579	2.9
Callaway County, MO	21,553	20,862	691	3.2
Cole County, MO	38,983	37,945	1,038	2.7
Miller County, MO	12,439	12,020	419	3.4
Moniteau County, MO	7,326	7,087	239	3.3
Osage County, MO	7,127	6,935	192	2.7
Missouri	3,112,524	3,003,584	108,940	3.5
United States	164,383,283	157,469,839	6,913,444	4.2

Unemployment Rate



Note: This indicator is compared with the state average.  
Data Source: US Department of Labor, [Bureau of Labor Statistics](#). 2018 - June. Source geography: County

## Poverty

Poverty is recognized as the single largest social determinant of health, and ill health is an obstacle to social and economic development. Poorer people live shorter lives and have poorer health than affluent people. Lower than average poverty rates provide evidence of a higher level of economic well-being in four of the five counties – Callaway (13%), Cole (12.6%), Moniteau (12.4%) and Osage (6.9%) when compared to Missouri (13.5%). Of the five, Miller County has the highest percentage of residents below the poverty level (19.3%). Miller County also reports a higher percentage of children in poverty (28.49%) when compared to 21% in Missouri.

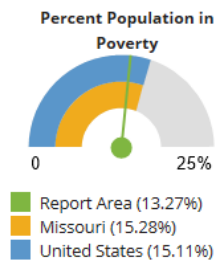
### Poverty - Population Below 100% FPL

Poverty is considered a *key driver* of health status.

Within the report area 13.27% or 21,886 individuals are living in households with income below the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

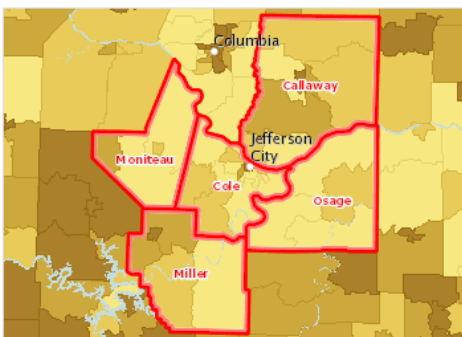
Report Area	Total Population	Population in Poverty	Percent Population in Poverty
Report Area	164,960	21,886	13.27%
Callaway County, MO	40,724	5,354	13.15%
Cole County, MO	71,679	9,067	12.65%
Miller County, MO	24,671	4,763	19.31%
Moniteau County, MO	14,453	1,779	12.31%
Osage County, MO	13,433	923	6.87%
Missouri	5,876,366	897,755	15.28%
United States	310,629,645	46,932,225	15.11%

[Download Data](#)



Note: This indicator is compared with the state average.

Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract



Population Below the Poverty Level, Percent by Tract, ACS 2012-16

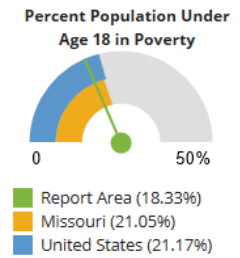
- Over 20.0%
- 15.1 - 20.0%
- 10.1 - 15.0%
- Under 10.1%
- No Data or Data Suppressed
- Report Area

**Poverty - Children Below 100% FPL**

In the report area 18.33% or 7,270 children aged 0-17 are living in households with income below the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

[Download Data](#)

Report Area	Total Population	Population Under Age 18	Population Under Age 18 in Poverty	Percent Population Under Age 18 in Poverty
Report Area	164,960	39,667	7,270	<b>18.33%</b>
Callaway County, MO	40,724	9,358	1,774	<b>18.96%</b>
Cole County, MO	71,679	17,299	2,919	<b>16.87%</b>
Miller County, MO	24,671	5,838	1,663	<b>28.49%</b>
Moniteau County, MO	14,453	3,976	706	<b>17.76%</b>
Osage County, MO	13,433	3,196	208	<b>6.51%</b>
Missouri	5,876,366	1,364,095	287,147	21.05%
United States	310,629,645	72,456,096	15,335,783	21.17%



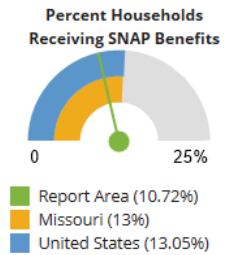
Note: This indicator is compared with the state average.  
 Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract

**Population Receiving SNAP Benefits (ACS)**

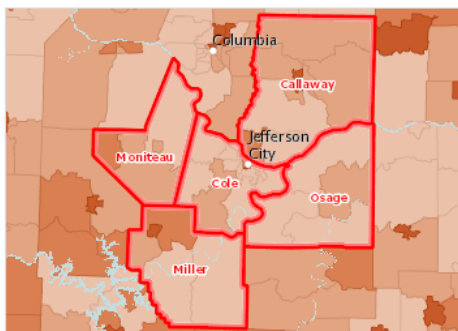
This indicator reports the estimated percentage of households receiving the Supplemental Nutrition Assistance Program (SNAP) benefits. This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrolment.

[Download Data](#)

Report Area	Total Households	Households Receiving SNAP Benefits	Percent Households Receiving SNAP Benefits
Report Area	65,622	7,032	<b>10.72%</b>
Callaway County, MO	16,018	1,758	<b>10.98%</b>
Cole County, MO	29,658	3,034	<b>10.23%</b>
Miller County, MO	9,408	1,329	<b>14.13%</b>
Moniteau County, MO	5,492	591	<b>10.76%</b>
Osage County, MO	5,046	320	<b>6.34%</b>
Missouri	2,372,362	308,375	13%
United States	117,716,237	15,360,951	13.05%



Note: This indicator is compared with the state average.  
 Data Source: US Census Bureau, [American Community Survey](#), 2012-16. Source geography: Tract



**Households Receiving SNAP Benefits, Percent by Tract, ACS 2012-16**

- Over 19.0%
- 14.1 - 19.0%
- 9.1 - 14.0%
- Under 9.1%
- No Data or Data Suppressed
- Report Area

## Teen Births

### Teen Births

This indicator reports the rate of total births to women 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.

Report Area	Female Population Age 15 - 19	Births to Mothers Age 15 - 19	Teen Birth Rate (Per 1,000 Population)
Report Area	5,924	206	34.77
Callaway County, MO	1,738	53	30.4
Cole County, MO	2,449	83	33.9
Miller County, MO	805	40	50
Moniteau County, MO	503	20	40.3
Osage County, MO	429	10	23
Missouri	206,847	8,170	39.5
United States	10,736,677	392,962	36.6

[Download Data](#)

Teen Birth Rate (Per 1,000 Population)



Report Area (34.77)  
Missouri (39.5)  
United States (36.6)

Note: This indicator is compared with the state average.

Data Source: US Department of Health & Human Services, [Health Indicators Warehouse](#), Centers for Disease Control and Prevention, [National Vital Statistics System](#). Accessed via [CDC WONDER](#), 2006-12. Source geography: County



Births to Females Age 15-19, Rate (Per 1,000 Pop.) by County, NVSS 2006-12

Over 60.0  
45.1 - 60.0  
30.1 - 45.0  
Under 30.1  
No Data or Data Suppressed  
Report Area

## Infant Mortality

### Infant Mortality

This indicator reports the rate of deaths to infants less than one year of age per 1,000 births. 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.

Report Area	Total Births	Total Infant Deaths	Infant Mortality Rate (Per 1,000 Births)
Report Area	11,005	91	8.3
Callaway County, MO	2,595	23	9
Cole County, MO	4,880	44	9
Miller County, MO	1,625	14	8.5
Moniteau County, MO	1,060	6	5.6
Osage County, MO	845	4	4.7
Missouri	399,460	2,876	7.2
United States	20,913,535	136,369	6.5
<a href="#">HP 2020 Target</a>			<= 6.0

Infant Mortality Rate (Per 1,000 Births)



Report Area (8.3)  
Missouri (7.2)  
United States (6.5)

Note: This indicator is compared with the state average.

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [Area Health Resource File](#), 2006-10. Source geography: County

# Social & Emotional Support

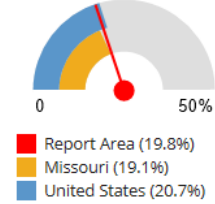
## Lack of Social or Emotional Support

This indicator reports the percentage of adults aged 18 and older who self-report that they receive insufficient social and emotional support all or most of the time. This indicator is relevant because social and emotional support is critical for navigating the challenges of daily life as well as for good mental health. Social and emotional support is also linked to educational achievement and economic stability.

[Download Data](#)

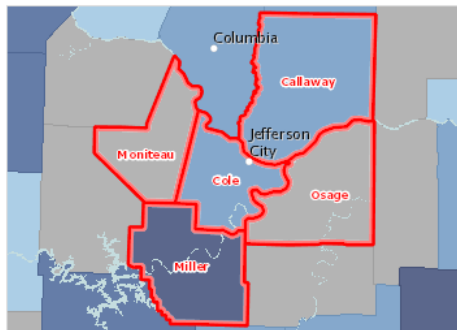
Report Area	Total Population Age 18+	Estimated Population Without Adequate Social / Emotional Support	Crude Percentage	Age-Adjusted Percentage
Report Area	132,166	21,465	19.5%	<b>19.8%</b>
Callaway County, MO	33,974	5,504	16.2%	<b>17.2%</b>
Cole County, MO	57,515	10,410	18.1%	<b>18.3%</b>
Miller County, MO	18,691	5,551	29.7%	<b>29.3%</b>
Moniteau County, MO	11,623	no data	suppressed	suppressed
Osage County, MO	10,363	no data	suppressed	suppressed
Missouri	4,532,155	865,642	19.1%	19.1%
United States	232,556,016	48,104,656	20.7%	20.7%

Percent Adults Without Adequate Social / Emotional Support (Age-Adjusted)



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#). 2006-12. Source geography: County



Inadequate Social/Emotional Support, Percent of Adults Age 18+ by County, BRFSS 2006-12

- Over 23.0%
- 19.1 - 23.0%
- 15.1 - 19.0%
- Under 15.1%
- No Data or Data Suppressed
- Report Area

## RISK FACTORS & HEALTH BEHAVIORS

Risk Factors and Health Behaviors is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, these indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

### Obesity & Overweight

A lack of physical activity and poor nutrition are contributing factors to being overweight. Obesity can also lead to a wide range of health problems and chronic diseases among all age groups. This includes high cholesterol, hypertension, diabetes, heart disease, stroke and some cancers. Nationally, the increase in both the prevalence of overweight and obesity and associated chronic diseases is well-documented, and has negative consequences for individuals and society. Low-income and poverty often contributes to poor nutrition and fitness.

The table below reveals that two of the five counties have a higher percentage of population that are obese as compared to the state rate. Overall the report area is more obese and overweight than the Missouri and US population.

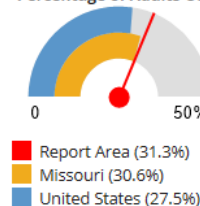
#### Obesity

31.3% of adults aged 20 and older self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese) in the report area. Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population Age 20+	Adults with BMI > 30.0 (Obese)	Percent Adults with BMI > 30.0 (Obese)
Report Area	130,410	41,242	31.3%
Callaway County, MO	33,344	11,437	34%
Cole County, MO	56,909	17,471	30.3%
Miller County, MO	18,571	5,720	30.4%
Moniteau County, MO	11,481	3,249	28%
Osage County, MO	10,105	3,365	33%
Missouri	4,487,602	1,380,352	30.6%
United States	234,188,203	64,884,915	27.5%

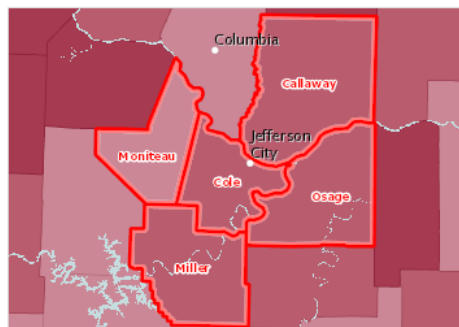
[Download Data](#)

Percentage of Adults Obese

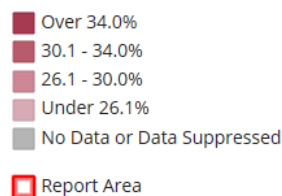


Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [National Center for Chronic Disease Prevention and Health Promotion](#), 2013. Source geography: County



Obese (BMI >= 30), Adults Age 20+, Percent by County, CDC NCCDPHP 2013





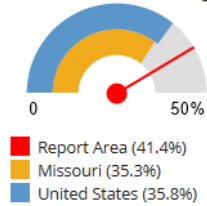
## Overweight

41.4% of adults aged 18 and older self-report that they have a Body Mass Index (BMI) between 25.0 and 30.0 (overweight) in the report area. Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

[Download Data](#)

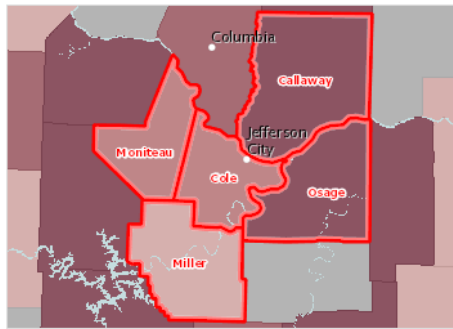
Report Area	Survey Population (Adults Age 18+)	Total Adults Overweight	Percent Adults Overweight
Report Area	125,478	51,946	41.4%
Callaway County, MO	33,896	18,686	55.1%
Cole County, MO	46,960	16,159	34.4%
Miller County, MO	16,104	3,515	21.8%
Moniteau County, MO	11,462	3,934	34.3%
Osage County, MO	17,056	9,652	56.6%
Missouri	4,363,655	1,541,649	35.3%
United States	224,991,207	80,499,532	35.8%

Percent Adults Overweight

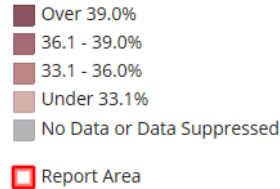


Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Additional data analysis by CARES, 2011-12. Source geography: County



Overweight (BMI 25.0-29.9), Adults Age 18+, Percent by County, BRFSS 2011-12



## Physical Inactivity

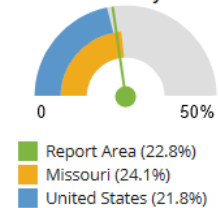
### Physical Inactivity

Within the report area, 30,839 or 22.8% of adults aged 20 and older self-report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?". This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

[Download Data](#)

Report Area	Total Population Age 20+	Population with no Leisure Time Physical Activity	Percent Population with no Leisure Time Physical Activity
Report Area	130,303	30,839	22.8%
Callaway County, MO	33,252	9,111	26.6%
Cole County, MO	56,889	11,321	19.3%
Miller County, MO	18,584	4,646	23.4%
Moniteau County, MO	11,478	3,145	26.5%
Osage County, MO	10,100	2,616	24.5%
Missouri	4,486,311	1,120,890	24.1%
United States	234,207,619	52,147,893	21.8%

Percent Population with no Leisure Time Physical Activity



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [National Center for Chronic Disease Prevention and Health Promotion](#), 2013. Source geography: County

Proper nutrition and physical activity are important to achieve and maintain a healthy weight for good overall health. Nearly 80% of Missourians lack a proper diet, and about one in four reports no physical activity. These rates are generally mirrored in the report area. In addition, high blood pressure and high cholesterol are two top risk factors for heart disease and are directly affected by both diet and activity.

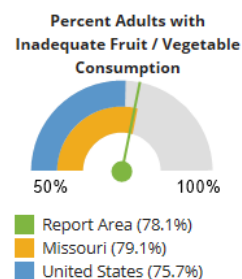
## Healthy Diet-Fruits & Vegetables

### Fruit/Vegetable Consumption

In the report area an estimated 69,893, or 78.1% of adults over the age of 18 are consuming less than 5 servings of fruits and vegetables each day. This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may cause of significant health issues, such as obesity and diabetes.

[Download Data](#)

Report Area	Total Population (Age 18+)	Total Adults with Inadequate Fruit / Vegetable Consumption	Percent Adults with Inadequate Fruit / Vegetable Consumption
Report Area	129,297	69,893	78.1%
Callaway County, MO	33,173	27,633	83.3%
Cole County, MO	56,272	42,260	75.1%
Miller County, MO	18,639	no data	suppressed
Moniteau County, MO	11,248	no data	suppressed
Osage County, MO	9,965	no data	suppressed
Missouri	4,473,226	3,538,322	79.1%
United States	227,279,010	171,972,118	75.7%



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#). 2005-09. Source geography: County

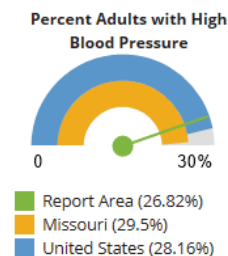
## High Blood Pressure

### High Blood Pressure (Adult)

29,555, or 26.82% of adults aged 18 and older have ever been told by a doctor that they have high blood pressure or hypertension.

[Download Data](#)

Report Area	Total Population (Age 18+)	Total Adults with High Blood Pressure	Percent Adults with High Blood Pressure
Report Area	132,166	29,555	26.82%
Callaway County, MO	33,974	9,343	27.5%
Cole County, MO	57,515	15,184	26.4%
Miller County, MO	18,691	5,028	26.9%
Moniteau County, MO	11,623	no data	suppressed
Osage County, MO	10,363	no data	suppressed
Missouri	4,532,155	1,336,986	29.5%
United States	232,556,016	65,476,522	28.16%



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#). 2006-12. Source geography: County

# High Cholesterol

## High Cholesterol (Medicare Population)

This indicator reports the percentage of the Medicare fee-for-service population with hyperlipidemia, which is typically associated with high cholesterol.

Report Area	Total Medicare Fee-for-Service Beneficiaries	Beneficiaries with High Cholesterol	Percent with High Cholesterol
Report Area	27,415	11,791	<b>43%</b>
Callaway County, MO	6,211	2,600	<b>41.86%</b>
Cole County, MO	12,255	5,706	<b>46.56%</b>
Miller County, MO	4,787	1,857	<b>38.79%</b>
Moniteau County, MO	2,187	759	<b>34.71%</b>
Osage County, MO	1,975	869	<b>44%</b>
Missouri	767,306	320,577	41.78%
United States	34,118,227	15,219,766	44.61%

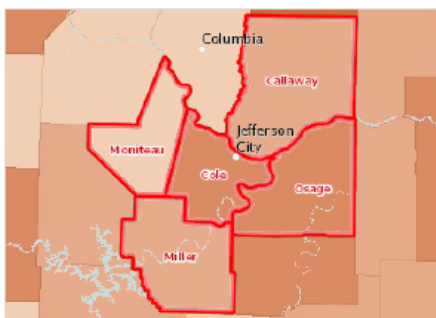
Percentage of Medicare Beneficiaries with High Cholesterol



- Report Area (43%)
- Missouri (41.78%)
- United States (44.61%)

Note: This indicator is compared with the state average.

Data Source: [Centers for Medicare and Medicaid Services](#), 2015. Source geography: County



Beneficiaries with High Cholesterol, Percent by County, CMS 2015

- Over 48.0%
- 42.1 - 48.0%
- 36.1 - 42.0%
- Under 36.1%
- No Data or Data Suppressed
- Report Area

## Tobacco Use

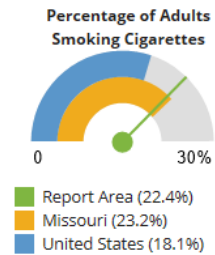
Tobacco use has been shown to contribute to many health problems, most notably heart disease and cancer. The chart below shows the percentage of adults 18 years and older currently smoking or using other forms of tobacco products in five Mid-Missouri counties studied. Callaway and Miller counties exceed both the State and US average.

### Tobacco Usage - Current Smokers

In the report area an estimated 26,890, or 22.3% of adults age 18 or older self-report currently smoking cigarettes some days or every day. This indicator is relevant because tobacco use is linked to leading causes of death such as cancer and cardiovascular disease.

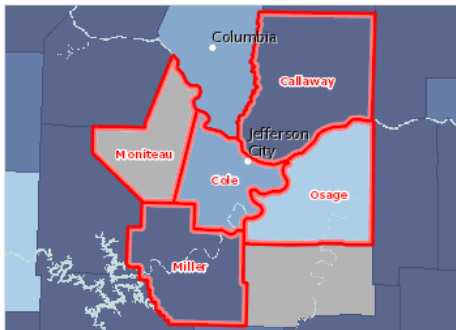
[Download Data](#)

Report Area	Total Population Age 18+	Total Adults Regularly Smoking Cigarettes	Percent Population Smoking Cigarettes (Crude)	Percent Population Smoking Cigarettes (Age-Adjusted)
Report Area	132,166	26,890	22.3%	22.4%
Callaway County, MO	33,974	10,124	29.8%	29.2%
Cole County, MO	57,515	10,353	18%	18.8%
Miller County, MO	18,691	5,159	27.6%	28%
Moniteau County, MO	11,623	no data	suppressed	suppressed
Osage County, MO	10,363	1,254	12.1%	10.2%
Missouri	4,532,155	1,024,267	22.6%	23.2%
United States	232,556,016	41,491,223	17.8%	18.1%



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#), 2006-12. Source geography: County



Current Smokers, Adult, Percent of Adults Age 18+ by County, BRFSS 2006-12

- Over 26.0%
- 22.1 - 26.0%
- 18.1 - 22.0%
- Under 18.1%
- No Data or Data Suppressed
- Report Area

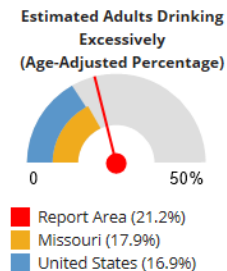
## Alcohol Consumption

### Alcohol Consumption

This indicator reports the percentage of adults aged 18 and older who self-report heavy alcohol consumption (defined as more than two drinks per day on average for men and one drink per day on average for women). This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs.

[Download Data](#)

Report Area	Total Population Age 18+	Estimated Adults Drinking Excessively	Estimated Adults Drinking Excessively (Crude Percentage)	Estimated Adults Drinking Excessively (Age-Adjusted Percentage)
Report Area	132,166	23,698	19.7%	<b>21.2%</b>
Callaway County, MO	33,974	6,047	17.8%	<b>17.7%</b>
Cole County, MO	57,515	11,791	20.5%	<b>23%</b>
Miller County, MO	18,691	2,523	13.5%	<b>14%</b>
Moniteau County, MO	11,623	no data	suppressed	suppressed
Osage County, MO	10,363	3,337	32.2%	<b>35.9%</b>
Missouri	4,532,155	770,466	17%	17.9%
United States	232,556,016	38,248,349	16.4%	16.9%



Note: This indicator is compared with the state average.

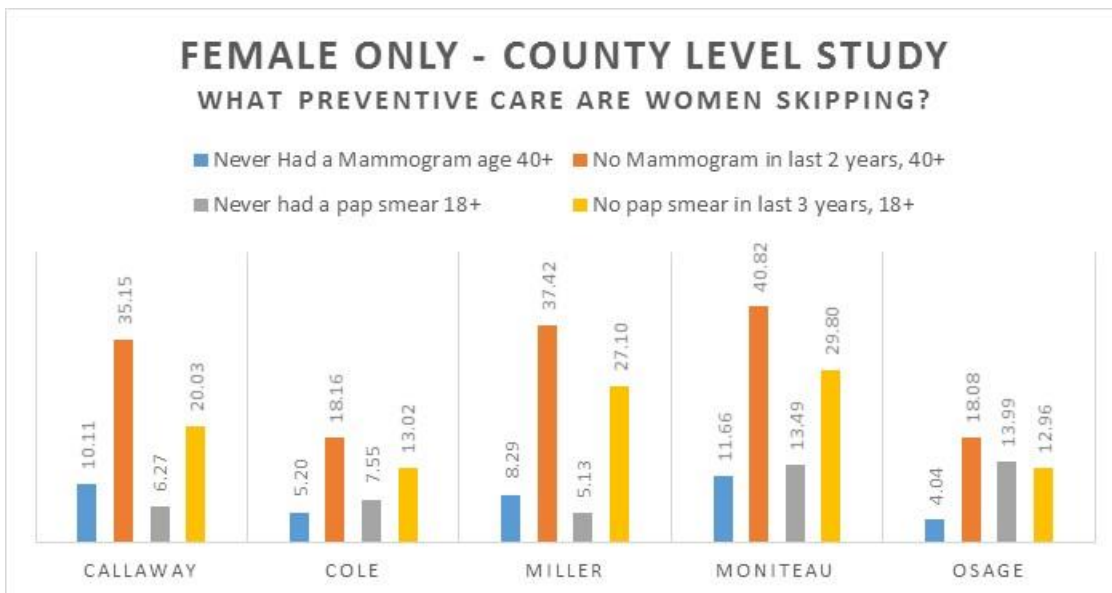
Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#), 2006-12. Source geography: County

## Preventive Care

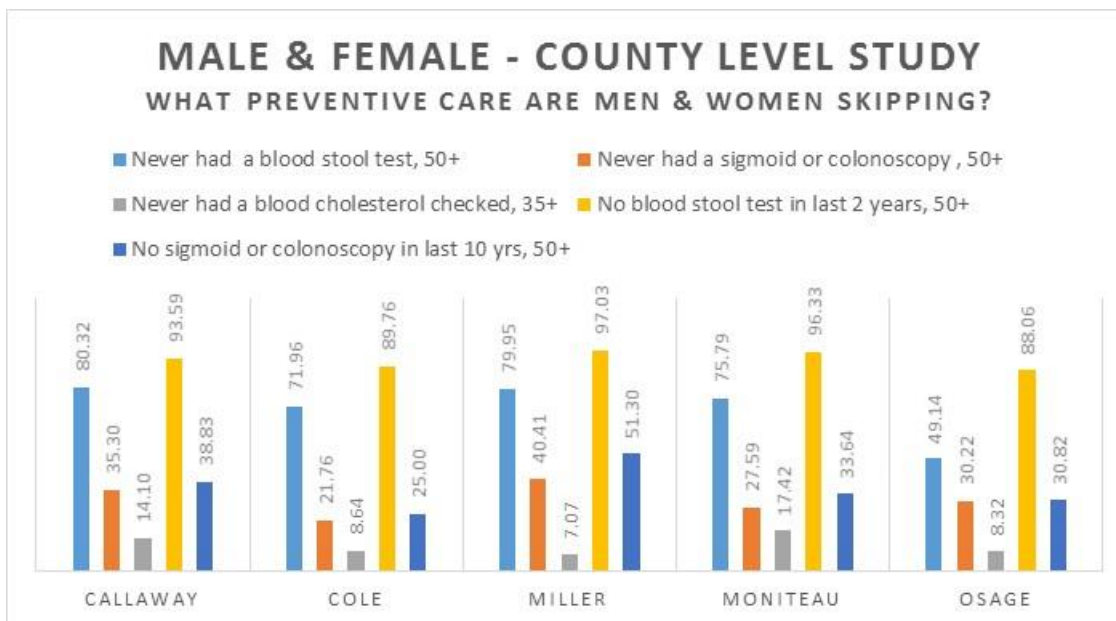
Preventive screenings for certain diseases or conditions, such as heart disease, cancer and diabetes can catch conditions early and limit long-term impact. The Missouri DHSS 2016 County Level Study polled residents on receiving age-appropriate preventive care, such as:

1. Mammograms (women age 40+)
2. Pap Smears (age 18+)
3. Blood Stool (age 50+)
4. Sigmoid/Colonoscopy (age 50+)
5. Cholesterol checks (age 35+)

The analysis shows what types of preventive care both men and women are skipping based on the same county level study conducted by the Department of Health and Senior Services in 2016. The study shows that a higher percentage of women age 40+ have had no mammogram in last 2 years in Moniteau (41%), Miller (37%) and Callaway (35%), compared to 18% in Cole and Osage counties. A high percentage of men and women age 50+ have never had a blood stool test. Preventative screenings for cancer among men and women is a significant variance from recommended guidelines and presents an opportunity to reduce morbidity and mortality.



Source: 2016 County-Level Study



Source: 2016 County-Level Study

## Mammogram -- Female Preventative Care (Medicare Enrollees Only)

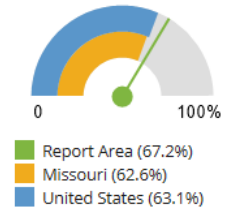
### Cancer Screening - Mammogram

This indicator reports the percentage of female Medicare enrollees, age 67-69, who have received one or more mammograms in the past two years. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

[Download Data](#)

Report Area	Total Medicare Enrollees	Female Medicare Enrollees Age 67-69	Female Medicare Enrollees with Mammogram in Past 2 Years	Percent Female Medicare Enrollees with Mammogram in Past 2 Year
Report Area	19,558	1,757	1,179	67.2%
Callaway County, MO	4,799	420	260	61.9%
Cole County, MO	8,792	841	609	72.5%
Miller County, MO	2,705	220	127	57.7%
Moniteau County, MO	1,744	159	90	57.2%
Osage County, MO	1,518	117	92	78.6%
Missouri	581,575	52,310	32,760	62.6%
United States	26,753,396	2,395,946	1,510,847	63.1%

Percent Female Medicare Enrollees with Mammogram in Past 2 Year



Note: This indicator is compared with the state average.

Data Source: Dartmouth College Institute for Health Policy & Clinical Practice, *Dartmouth Atlas of Health Care*, 2014. Source geography: County

## Colon Cancer – Male & Female Preventative Screening

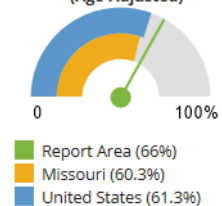
### Cancer Screening - Sigmoidoscopy or Colonoscopy

This indicator reports the percentage of adults 50 and older who self-report that they have ever had a sigmoidoscopy or colonoscopy. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

[Download Data](#)

Report Area	Total Population Age 50+	Estimated Population Ever Screened for Colon Cancer	Crude Percentage	Age-Adjusted Percentage
Report Area	43,472	24,535	68.2%	66%
Callaway County, MO	10,555	6,396	60.6%	57.7%
Cole County, MO	18,362	13,845	75.4%	73%
Miller County, MO	7,062	4,294	60.8%	60%
Moniteau County, MO	3,867	no data	suppressed	suppressed
Osage County, MO	3,626	no data	suppressed	suppressed
Missouri	1,532,083	972,873	63.5%	60.3%
United States	75,116,406	48,549,269	64.6%	61.3%

Percent Adults Screened for Colon Cancer (Age-Adjusted)



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, *Behavioral Risk Factor Surveillance System*. Accessed via the *Health Indicators Warehouse*. US Department of Health & Human Services, *Health Indicators Warehouse*, 2006-12. Source geography: County

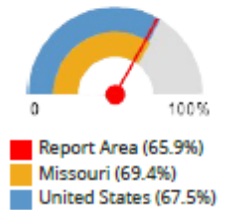
## Pneumonia Vaccination

### Pneumonia Vaccination

This indicator reports the percentage of adults aged 65 and older who self-report that they have ever received a pneumonia vaccine. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population Age 65	Estimated Population with Annual Pneumonia Vaccination	Crude Percentage	Age-Adjusted Percentage
Report Area	22,445	11,920	65.3%	65.9%
Callaway County, MO	5,224	3,474	66.5%	70.8%
Cole County, MO	9,107	6,065	66.6%	66.4%
Miller County, MO	3,916	2,381	60.8%	58%
Moniteau County, MO	2,132	no data	suppressed	suppressed
Osage County, MO	2,066	no data	suppressed	suppressed
Missouri	826,139	572,514	69.3%	69.4%
United States	39,608,820	26,680,462	67.4%	67.5%

Percent Population Age 65 with Pneumonia Vaccination (Age-Adjusted)



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#). 2006-12. Source geography: County



# ACCESS TO CARE

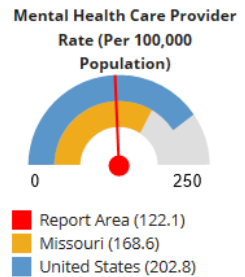
The availability of health care resources is a critical factor influencing health status. A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsurance, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access. All of the report area is designated as a Health Professional Shortage Area (HPSA).

## Access to Mental Health Providers

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.

[Download Data](#)

Report Area	Estimated Population	Number of Mental Health Providers	Ratio of Mental Health Providers to Population (1 Provider per x Persons)	Mental Health Care Provider Rate (Per 100,000 Population)
Report Area	175,999	215	818.6	<b>122.1</b>
Callaway County, MO	44,749	81	552.5	<b>181</b>
Cole County, MO	76,556	125	612.4	<b>163.2</b>
Miller County, MO	25,141	4	6,285.4	<b>15.9</b>
Moniteau County, MO	15,854	4	3,963.5	<b>25.2</b>
Osage County, MO	13,699	1	13,698.6	<b>7.3</b>
Missouri	6,017,783	10,147	593.1	168.6
United States	317,105,555	643,219	493	202.8



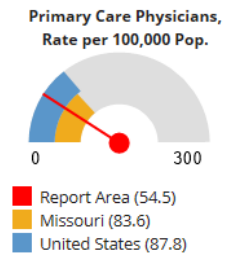
Note: This indicator is compared with the state average.  
 Data Source: University of Wisconsin Population Health Institute, [County Health Rankings](#), 2018. Source geography: County

## Access to Primary Care

This indicator reports the number of primary care physicians per 100,000 population. 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.

[Download Data](#)

Report Area	Total Population, 2014	Primary Care Physicians, 2014	Primary Care Physicians, Rate per 100,000 Pop.
Report Area	176,007	96	<b>54.5</b>
Callaway County, MO	44,750	17	<b>37.99</b>
Cole County, MO	76,557	66	<b>86.21</b>
Miller County, MO	25,141	9	<b>35.8</b>
Moniteau County, MO	15,856	3	<b>18.92</b>
Osage County, MO	13,703	1	<b>7.3</b>
Missouri	6,063,589	5,072	83.6
United States	318,857,056	279,871	87.8



Note: This indicator is compared with the state average.  
 Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [Area Health Resource File](#), 2014. Source geography: County

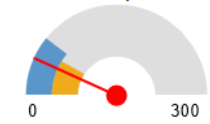
## Access to Dentists

This indicator reports the number of dentists per 100,000 population. This indicator includes all dentists - qualified as having a doctorate in dental surgery (D.D.S.) or dental medicine (D.M.D.), who are licensed by the state to practice dentistry and who are practicing within the scope of that license.

[Download Data](#)

Report Area	Total Population, 2015	Dentists, 2015	Dentists, Rate per 100,000 Pop.
Report Area	176,258	71	<b>40.3</b>
Callaway County, MO	44,834	10	<b>22.3</b>
Cole County, MO	76,720	47	<b>61.26</b>
Miller County, MO	25,113	6	<b>23.89</b>
Moniteau County, MO	15,963	4	<b>25.06</b>
Osage County, MO	13,628	4	<b>29.35</b>
Missouri	6,083,672	3,299	54.2
United States	321,418,820	210,832	65.6

Dentists, Rate per 100,000 Pop.



■ Report Area (40.3)  
■ Missouri (54.2)  
■ United States (65.6)

Note: This indicator is compared with the state average.

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [Area Health Resource File](#), 2015. Source geography: County

## Population Living in a Health Professional Shortage Area

This indicator reports the percentage of the population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA), defined as having a shortage of primary medical care, dental or mental health professionals. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

[Download Data](#)

Report Area	Total Area Population	Population Living in a HPSA	Percentage of Population Living in a HPSA
Report Area	174,555	174,555	<b>100%</b>
Callaway County, MO	44,332	44,332	<b>100%</b>
Cole County, MO	75,990	75,990	<b>100%</b>
Miller County, MO	24,748	24,748	<b>100%</b>
Moniteau County, MO	15,607	15,607	<b>100%</b>
Osage County, MO	13,878	13,878	<b>100%</b>
Missouri	5,988,927	3,266,848	54.55%
United States	308,745,538	102,289,607	33.13%

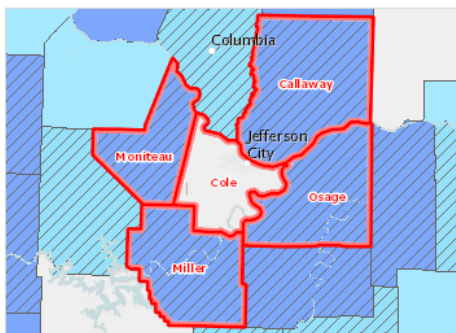
Percentage of Population Living in a HPSA



■ Report Area (100%)  
■ Missouri (54.55%)  
■ United States (33.13%)

Note: This indicator is compared with the state average.

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [Health Resources and Services Administration](#), April 2016. Source geography: HPSA



Primary Care HPSA Components, Type and Degree of Shortage by Tract / County, HRSA HPSA Database April 2016

- ▨ Population Group; Over 20.0 FTE Needed
- ▨ Population Group; 1.1 - 20.0 FTE Needed
- ▨ Population Group; Under 1.1 FTE Needed
- ▨ Geographic Area; Over 20.0 FTE Needed
- ▨ Geographic Area; 1.1 - 20.0 FTE Needed
- ▨ Geographic Area; Under 1.1 FTE Needed
- ▭ Report Area

# HEALTH OUTCOMES

Measuring morbidity and mortality rates allows assessing linkages between social determinants of health and outcomes. By comparing, for example, the prevalence of certain chronic diseases to indicators in other categories (e.g., poor diet and exercise) with outcomes (e.g., high rates of obesity and diabetes), various causal relationships may emerge, allowing a better understanding of how certain community health needs may be addressed.

## Diabetes

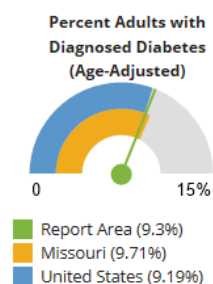
Diabetes is the second highest risk factor for developing heart disease and can lead to other serious health complications if not managed. While all counties in the region are reporting less incidence of diabetes than Missouri with the exception of Miller County, it remains a prevalent disease within the region.

### Diabetes (Adult)

This indicator reports the percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes. This indicator is relevant because diabetes is a prevalent problem in the U.S.; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

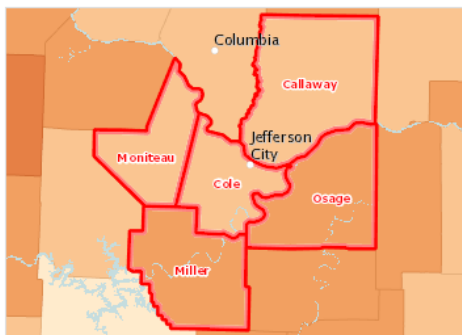
Report Area	Total Population Age 20+	Population with Diagnosed Diabetes	Population with Diagnosed Diabetes, Crude Rate	Population with Diagnosed Diabetes, Age-Adjusted Rate
Report Area	130,623	13,521	10.35	9.3%
Callaway County, MO	33,260	3,326	10	9.1%
Cole County, MO	57,129	5,770	10.1	9.3%
Miller County, MO	18,607	2,177	11.7	9.8%
Moniteau County, MO	11,521	1,106	9.6	8.7%
Osage County, MO	10,106	1,142	11.3	9.6%
Missouri	4,478,513	486,462	10.86	9.71%
United States	236,919,508	23,685,417	10	9.19%

[Download Data](#)



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [National Center for Chronic Disease Prevention and Health Promotion](#), 2013. Source geography: County



Diabetes Prevalence, Percent of Adults Age 20+ by County, CDC NCCDPHP 2013

- Over 11.0%
- 9.6 - 11.0%
- 8.1 - 9.5%
- Under 8.1%
- No Data or Data Suppressed
- Report Area

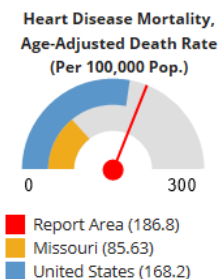
# Heart Disease

## Mortality - Heart Disease

Within the report area the rate of death due to heart disease (ICD10 Codes I00-I09, I11, I13, I20-I151) per 100,000 population is 186.8. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are resummairized for report areas from county level data, only where data is available. This indicator is relevant because heart disease is a leading cause of death in the United States.

[Download Data](#)

Report Area	Total Population	Average Annual Deaths, 2010-2014	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Report Area	175,883	390	221.6	<b>186.8</b>
Callaway County, MO	44,665	89	199.7	<b>183.3</b>
Cole County, MO	76,594	157	205.2	<b>178</b>
Miller County, MO	25,074	72	287.1	<b>212.9</b>
Moniteau County, MO	15,842	37	231	<b>195.2</b>
Osage County, MO	13,708	35	253.9	<b>189.4</b>
Missouri	239,305	94	39.11	85.63
United States	318,689,254	618,853	194.2	168.2



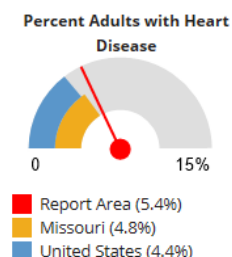
Note: This indicator is compared with the state average.  
 Data Source: Centers for Disease Control and Prevention, [National Vital Statistics System](#), Accessed via [CDC WONDER](#), 2012-16. Source geography: County

## Heart Disease (Adult)

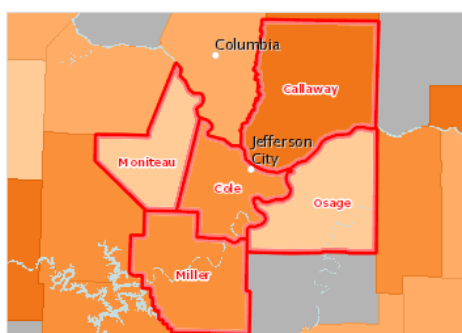
6,982, or 5.4% of adults aged 18 and older have ever been told by a doctor that they have coronary heart disease or angina. This indicator is relevant because coronary heart disease is a leading cause of death in the U.S. and is also related to high blood pressure, high cholesterol, and heart attacks.

[Download Data](#)

Report Area	Survey Population (Adults Age 18+)	Total Adults with Heart Disease	Percent Adults with Heart Disease
Report Area	130,438	6,982	<b>5.4%</b>
Callaway County, MO	34,170	2,773	<b>8.1%</b>
Cole County, MO	50,517	3,045	<b>6%</b>
Miller County, MO	16,160	823	<b>5.1%</b>
Moniteau County, MO	11,949	0	<b>0%</b>
Osage County, MO	17,642	341	<b>1.9%</b>
Missouri	4,527,296	218,318	4.8%
United States	236,406,904	10,407,185	4.4%



Note: This indicator is compared with the state average.  
 Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Additional data analysis by [CARES](#), 2011-12. Source geography: County



**Heart Disease (Diagnosed), Percentage of Adults Age 18+ by County, BRFSS 2011-12**

- Over 7.0%
- 5.1 - 7.0%
- 3.1 - 5.0%
- Under 3.1%
- No Data or Data Suppressed
- Report Area

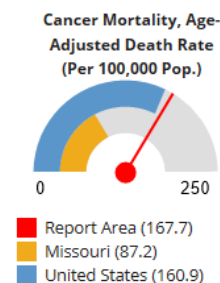
## Cancer

### Mortality - Cancer

This indicator reports the rate of death due to malignant neoplasm (cancer) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are resummarized for report areas from county level data, only where data is available. This indicator is relevant because cancer is a leading cause of death in the United States.

[Download Data](#)

Report Area	Total Population	Average Annual Deaths, 2010-2014	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Report Area	175,883	352	199.9	<b>167.7</b>
Callaway County, MO	44,665	84	188.5	<b>168.7</b>
Cole County, MO	76,594	143	186.7	<b>159.7</b>
Miller County, MO	25,074	64	256.8	<b>190.6</b>
Moniteau County, MO	15,842	30	190.6	<b>165.6</b>
Osage County, MO	13,708	30	217.4	<b>169.9</b>
Missouri	239,305	99	41.29	87.2
United States	318,689,254	590,634	185.3	160.9
<a href="#">HP 2020 Target</a>				<b>&lt;= 160.6</b>



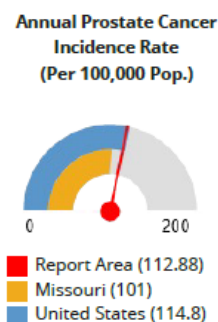
Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [National Vital Statistics System](#). Accessed via [CDC WONDER](#), 2012-16. Source geography: County

### Cancer Incidence - Prostate

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of males with prostate cancer adjusted to 2000 U.S. 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.

Report Area	Estimated Total Population (Male)	New Cases (Annual Average)	Cancer Incidence Rate (Per 100,000 Pop.)
Report Area	10,276	116	<b>112.88</b>
Callaway County, MO	2,592	30	<b>115.7</b>
Cole County, MO	4,549	46	<b>101.1</b>
Miller County, MO	1,656	11	<b>66.4</b>
Moniteau County, MO	899	8	<b>88.9</b>
Osage County, MO	927	9	<b>97</b>
Missouri	345,148	3,486	101
United States	16,980,487	194,936	114.8



Note: This indicator is compared with the state average.

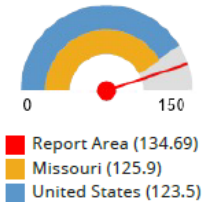
Data Source: [State Cancer Profiles](#), 2010-14. Source geography: County

### Cancer Incidence - Breast

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of females with breast cancer adjusted to 2000 U.S. 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.

Report Area	Estimated Total Population (Female)	New Cases (Annual Average)	Cancer Incidence Rate (Per 100,000 Pop.)
Report Area	10,246	138	<b>134.69</b>
Callaway County, MO	2,494	32	<b>128.3</b>
Cole County, MO	4,422	64	<b>144.7</b>
Miller County, MO	1,645	19	<b>115.5</b>
Moniteau County, MO	873	12	<b>137.4</b>
Osage County, MO	810	11	<b>135.7</b>
Missouri	368,864	4,644	125.9
United States	18,515,303	228,664	123.5

Annual Breast Cancer Incidence Rate (Per 100,000 Pop.)



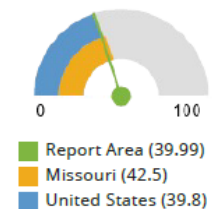
Note: This indicator is compared with the state average.  
Data Source: [State Cancer Profiles](#), 2010-14. Source geography: County

### Cancer Incidence - Colon and Rectum

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of colon and rectum cancer adjusted to 2000 U.S. 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.

Report Area	Estimated Total Population	New Cases (Annual Average)	Cancer Incidence Rate (Per 100,000 Pop.)
Report Area	19,503	78	<b>39.99</b>
Callaway County, MO	4,846	19	<b>39.2</b>
Cole County, MO	8,163	32	<b>39.2</b>
Miller County, MO	3,073	15	<b>48.8</b>
Moniteau County, MO	1,734	6	<b>34.6</b>
Osage County, MO	1,685	6	<b>35.6</b>
Missouri	700,941	2,979	42.5
United States	34,945,477	139,083	39.8
<a href="#">HP 2020 Target</a>			<b>&lt;= 38.7</b>

Annual Colon and Rectum Cancer Incidence Rate (Per 100,000 Pop.)



Note: This indicator is compared with the state average.  
Data Source: [State Cancer Profiles](#), 2010-14. Source geography: County

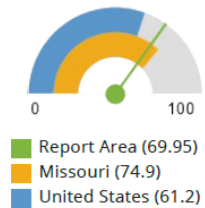
## Lung/COPD

### Cancer Incidence - Lung

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of colon and rectum cancer adjusted to 2000 U.S. 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.

Report Area	Estimated Total Population	New Cases (Annual Average)	Cancer Incidence Rate (Per 100,000 Pop.)
Report Area	20,299	142	69.95
Callaway County, MO	4,961	39	78.6
Cole County, MO	8,474	55	64.9
Miller County, MO	3,233	28	86.6
Moniteau County, MO	1,833	11	60
Osage County, MO	1,796	9	50.1
Missouri	714,419	5,351	74.9
United States	35,229,411	215,604	61.2

Annual Lung Cancer Incidence Rate (Per 100,000 Pop.)



Note: This indicator is compared with the state average.  
Data Source: [State Cancer Profiles](#), 2010-14. Source geography: County

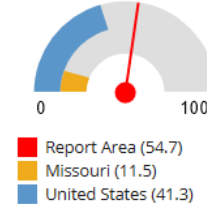
### Mortality - Lung Disease

This indicator reports the rate of death due to chronic lower respiratory disease per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are resummarized for report areas from county level data, only where data is available. This indicator is relevant because lung disease is a leading cause of death in the United States.

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Report Area	175,883	112	63.7	54.7
Callaway County, MO	44,665	27	60.9	56.9
Cole County, MO	76,594	45	59.3	53.8
Miller County, MO	25,074	23	90.9	65.6
Moniteau County, MO	15,842	9	56.8	47.9
Osage County, MO	13,708	8	55.4	40.8
Missouri	239,305	12	4.93	11.5
United States	318,689,254	149,886	47	41.3

[Download Data](#)

Lung Disease Mortality, Age-Adjusted Death Rate (Per 100,000 Pop.)

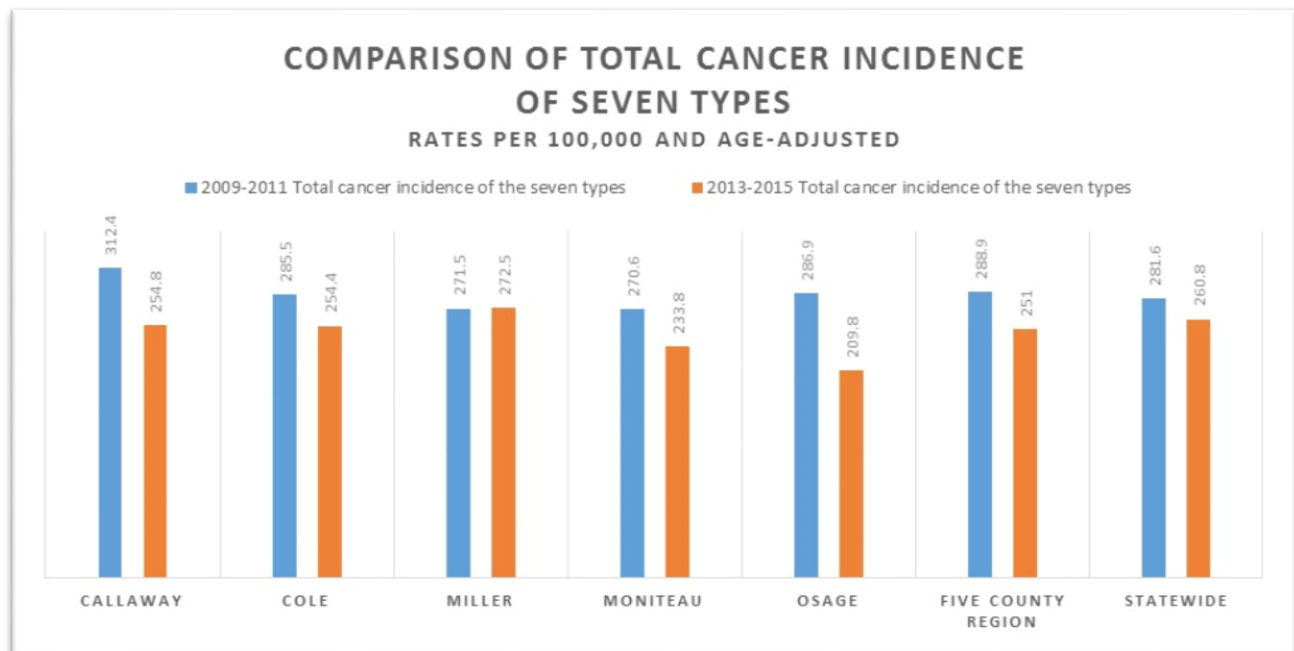


Note: This indicator is compared with the state average.  
Data Source: Centers for Disease Control and Prevention, [National Vital Statistics System](#). Accessed via [CDC WONDER](#), 2012-16. Source geography: County

## Cancer Incidence by Type & County - Missouri Cancer Registry (MCR)

The charts below compare data for the three-year reporting period of 2009-2011 to the three-year reporting period of 2013-2015 for seven types of cancers, according to the Missouri Cancer Registry. The most recent reporting period shows the incidence rate of seven types of cancer as 251 per 100,000, which is a decrease from the 2009-2011 incidence rate of 288.9 in the five-county region. While there were decreases in all seven types of cancers reported in four of the five counties, breast cancer has the highest incidence rate in all five counties and is significantly above the statewide rate. The seven types of cancers are as follows:

1. Female Breast
2. Cervix
3. Colon, Rectum, and Rectosigmoid
4. Lung and Bronchus
5. Prostate
6. Urinary Bladder
7. Corpus and Uterus, NOS





**2009 - 2011**  
**TOP 7 CANCER TYPES BY COUNTY**  
**RATES PER 100,000 AND AGE-ADJUSTED**



**2013 - 2015**  
**TOP 7 CANCER TYPES BY COUNTY**  
**RATES PER 100,000 AND AGE-ADJUSTED**



Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard; Confidence intervals (Tiware mod) are 95% for rates.

Malignant (in both ICD-O-2 & ICD-O-3) tumors diagnosed among Missouri residents, males and females only, known age.

^: primary suppression due to a case count less than 6.

#: secondary suppression to prevent the calculation of another cell.

The columns labelled "Lower CI" & "Upper CI" are the lower & upper bounds of the 95% confidence intervals of the rates (in the column "Rate") & the number of cases are in the column named "Count".

The rates for the sex-specific cancer types only include the population size of the applicable sex in the denominator.

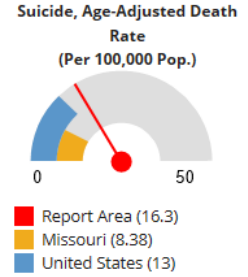
# Suicide

## Mortality - Suicide

This indicator reports the rate of death due to intentional self-harm (suicide) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are resummarized for report areas from county level data, only where data is available. This indicator is relevant because suicide is an indicator of poor mental health.

[Download Data](#)

Report Area	Total Population	Average Annual Deaths, 2010-2014	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Report Area	175,883	25	16.9	<b>16.3</b>
Callaway County, MO	44,665	8	17.5	<b>17.3</b>
Cole County, MO	76,594	12	16.2	<b>15.3</b>
Miller County, MO	25,074	5	18.4	<b>17.8</b>
Moniteau County, MO	15,842	no data	suppressed	suppressed
Osage County, MO	13,708	no data	suppressed	suppressed
Missouri	239,305	19	8.02	8.38
United States	318,689,254	42,747	13.4	13
<a href="#">HP 2020 Target</a>				<b>&lt;= 10.2</b>



Note: This indicator is compared with the state average.

Data Source: Centers for Disease Control and Prevention, [National Vital Statistics System](#). Accessed via [CDC WONDER](#), 2012-16. Source geography: County

# HEALTH RANKINGS



<https://exploremohealth.org/>

## **ZIP Code-level Data**

The Missouri ZIP Health Rankings Project is a collaboration between researchers at the Washington University School of Medicine and the Hospital Industry Data Institute, the data company of the Missouri Hospital Association. Funded by the Robert Wood Johnson Foundation, the project provides a unique approach to measuring community health at the ZIP code level, using hospital discharge and census-based data applied to the County Health Rankings model of population health. The data provided by the project are designed to inform community health needs assessments at a granular geographic level to inform targeted resource allocations for community health improvement initiatives.

## **County-Level Study**

In 2016, approximately 52,000 Missouri adults were randomly called to participate in the Missouri County-Level Study (CLS). The CLS collected data on the county-specific prevalence of various chronic disease risk factors (e.g., tobacco use, physical activity, nutrition), medical conditions, and preventive practices. This information can be used to help define county-level health priorities. The study spans all 114 Missouri counties and the City of St. Louis. The data presented on this site are ideally suited to assist local health departments, organizations, and coalitions to determine priority health needs and interventions.

More than 100 questions were asked on a variety of related health topics. Socio-demographic questions such as sex, age, race, and marital status also were included. Respondents were non-institutionalized adults, and individuals residing in nursing homes, mental institutions, and correctional facilities were not included in the study. Data are self-reported and thereby subject to recall bias. Additionally, adults living in residences without a landline telephone that do not use a cell phone or that do not speak English are not represented.

Below are the county-level ZIP Health highlights that show the top ranked issues for counties included in the CMCHAP report area.

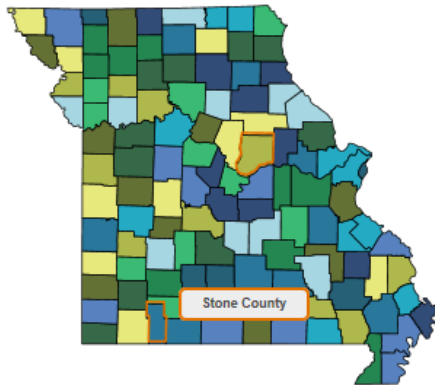
# Spotlight on ZIP Health

## About Spotlight on ZIP Health

Some experts suggest that a person's ZIP Code is more predictive of their health than their genetic code. Having detailed, local information on health factors and health outcomes in the places where Missourians live can help community health leaders take action to help create and sustain a healthy Missouri.

Spotlight on ZIP Health provides unique information on the top health factors facing counties in Missouri, and the healthiest and least-healthy ZIP Codes within each county. The data are arranged to include which health and social factors should be prioritized in each ZIP Code.

Callaway 



### Highlighted County-Level Issues for Callaway County

Health Factor	Prevalence (%)	State Prevalence (%)
Depressive Disorder	28.81	23.04
Asthma	14.69	9.69
COPD	10.2	8.5
Diabetes	9.73	11.33
Cancer	9.16	9.61
Angina or Coronary Heart Disease	3.96	4.65

### Top Ranked ZIP Codes in Callaway County

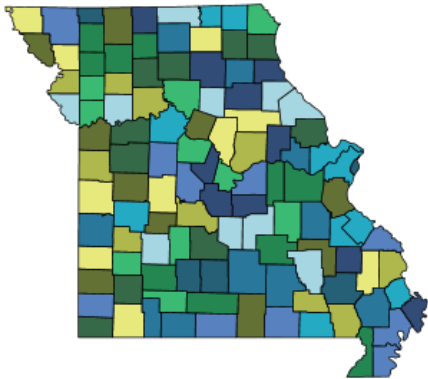
ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65264	Martinsburg	100	Substance Use Disorder	Income Inequality by Race
65080	Tebbetts	238	Obesity	Low Birthweight
65043	Holts Summit	323	Obesity	Preventable Emergency Visits
65063	New Bloomfield	334	Obesity	Income Inequality by Race
65231	Auxvasse	392	Substance Use Disorder	Assault diagnosis

### Bottom Ranked ZIP Codes in Callaway County

ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65067	Portland	902	COPD	Injury Deaths
65262	Kingdom City	772	Substance Use Disorder	Medicaid Hospital Visits
65077	Steedman	753	COPD	Vacant Housing
65251	Fulton	639	Substance Use Disorder	Assault diagnosis
63388	Williamsburg	573	Hospital Utilization	Low Birthweight

\* Statewide Rank of 958 (1=best)

Cole



### Highlighted County-Level Issues for Cole County

Health Factor	Prevalence (%)	State Prevalence (%)
Depressive Disorder	17.32	23.04
Cancer	8.92	9.61
Diabetes	7.39	11.33
Asthma	6.5	9.69
COPD	5.59	8.5
Angina or Coronary Heart Disease	3.33	4.65

### Top Ranked ZIP Codes in Cole County

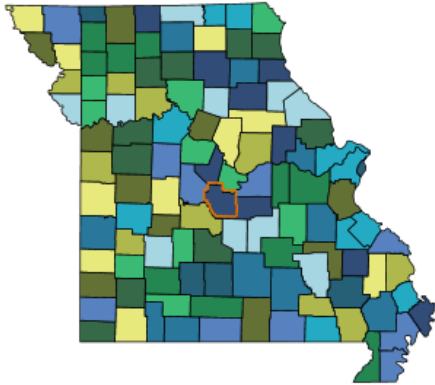
ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65053	Lohman	56	Cancer	Income Inequality by Race
65076	Saint Thomas	65	Teen Pregnancy	Household Size
65109	Jefferson City	139	Obesity	Renter Occupied Housing
65040	Henley	144	Cancer	Household Size

### Bottom Ranked ZIP Codes in Cole County

ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65032	Eugene	344	Obesity	Low Birthweight
65101	Jefferson City	329	Obesity	Assault diagnosis
65023	Centertown	265	Substance Use Disorder	Income Inequality by Race
65074	Russellville	200	Obesity	Income Inequality by Race

\* Statewide Rank of 958 (1=best)

Miller ▾



### Highlighted County-Level Issues for Miller County

Health Factor	Prevalence (%)	State Prevalence (%)
Depressive Disorder	20.36	23.04
Diabetes	12.99	11.33
COPD	10.75	8.5
Cancer	10.34	9.61
Asthma	8.78	9.69
Angina or Coronary Heart Disease	5.56	4.65

### Top Ranked ZIP Codes in Miller County

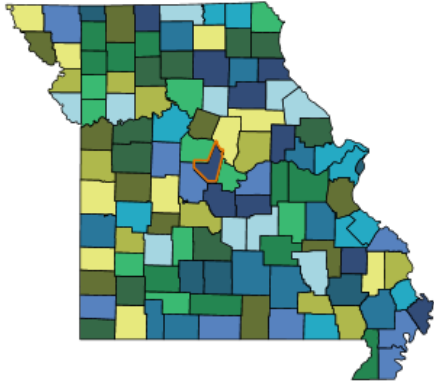
ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65040	Henley	144	Cancer	Household Size
65058	Meta	179	Liver Disease	Low Birthweight
65075	Saint Elizabeth	188	Obesity	Health Care Worker Availability
65049	Lake Ozark	241	Substance Use Disorder	Vacant Housing
65082	Tuscumbia	342	Substance Use Disorder	Multilingual Households

### Bottom Ranked ZIP Codes in Miller County

ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65026	Eldon	828	Teen Pregnancy	Childhood Poverty
65047	Kaiser	792	Smoking	Preventable Emergency Visits
65017	Brumley	755	Teen Pregnancy	Health Care Worker Availability
65072	Rocky Mount	562	Premature Deaths	Vacant Housing
65064	Olean	524	Cancer	Assault diagnosis

\* Statewide Rank of 958 (1=best)

Moniteau



### Highlighted County-Level Issues for Moniteau County

Health Factor	Prevalence (%)	State Prevalence (%)
Depressive Disorder	20.97	23.04
COPD	10.46	8.5
Asthma	10.32	9.69
Diabetes	9.13	11.33
Cancer	6.74	9.61
Angina or Coronary Heart Disease	5.74	4.65

### Top Ranked ZIP Codes in Moniteau County

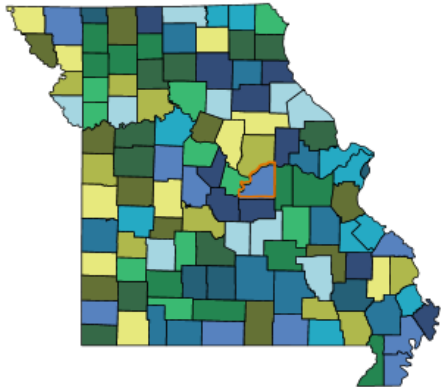
ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65287	Wooldridge	52	Mental Health	Multilingual Households
65046	Jamestown	195	Mental Health	Health Care Worker Availability
65074	Russellville	200	Obesity	Income Inequality by Race
65023	Centertown	265	Substance Use Disorder	Income Inequality by Race

### Bottom Ranked ZIP Codes in Moniteau County

ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65025	Clarksburg	715	Years of Potential Life Lost	Low Birthweight
65081	Tipton	597	Cancer	Less Than High School Education
65050	Latham	498	Years of Potential Life Lost	Household Size
65018	California	368	Cancer	Multilingual Households

\* Statewide Rank of 958 (1=best)

Osage ▾



### Highlighted County-Level Issues for Osage County

Health Factor	Prevalence (%)	State Prevalence (%)
Depressive Disorder	19.35	23.04
Cancer	13.16	9.61
Diabetes	9.25	11.33
Angina or Coronary Heart Disease	4.86	4.65

### Top Ranked ZIP Codes in Osage County

ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65076	Saint Thomas	65	Teen Pregnancy	Household Size
65054	Loose Creek	92	Sexually Transmitted Infections	Household Size
65085	Westphalia	159	Obesity	Injury Deaths
65058	Meta	179	Liver Disease	Low Birthweight
65016	Bonnots Mill	180	Cancer	Health Care Worker Availability

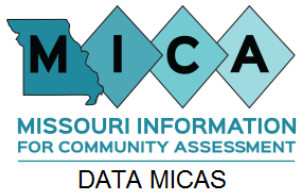
### Bottom Ranked ZIP Codes in Osage County

ZIP Code	Name	Rank*	Top Health Factor	Top Social Factor
65013	Belle	831	Cancer	Injury Deaths
65014	Bland	663	Liver Disease	Vacant Housing
65061	Morrison	556	Stroke	Vacant Housing
65048	Koeltztown	345	Cancer	Assault diagnosis
65024	Chamois	328	Cancer	Vacant Housing

\* Statewide Rank of 958 (1=best)



## PRIORITY MICA



The Missouri Information for Community Assessment (MICA) is an interactive system that was developed to make health data accessible at the local level through an easy-to-use format. It allows users to summarize data, calculate rates, and prepare information in a graphic format. Data MICA users can access statistics on various health conditions and associated topics. Users can choose from many conditions, generate data tables by year of occurrence, age, gender, race, county or zip code of residence, and obtain age-adjusted rates.

This tool provides another objective method to set priorities, guide decision-making and assist with collaborative intervention planning. One of the Community Health Improvement Resources (CHIR) tools is “Priority MICA,” a web-based tool of the Missouri Department Health & Senior Services (DHSS) that provides a structured process to help determine the priority health needs of a community in conjunction with other information available, including secondary data and community feedback sessions.

The process acknowledges that communities have different needs and may be in different places in addressing health issues. Some communities may need to start with creating or strengthening partnerships, while others may be ready to plan an intervention to address a priority health issue. Communities can use this tool to conduct a thorough needs assessment to identify priority health issues to address. The Priority MICA allows a user to prioritize from a list of diseases or risk factors available in the application. The diseases and risk factors were selected for inclusion in the assessment were based upon the DHSS strategic plan, Healthy People 2010 and available data.

Based on the use of this data-driven, evidenced-based tool, health issues were ranked by prevalence in each of the five counties and compared with the state of Missouri, then aggregated the five-county region and populated a top seven priorities.

While this objective methodology provides a rational basis for priority setting, one should not assume that a purely objective process is always the preferred approach. There can be situations in which other non-objective criteria are important to the priority setting process. A community should not ignore other criteria of community importance not included in the Priority MICA.

The Priority MICA is meant to be used only as a tool. It should be used along with other information that is available in a community. There may be other diseases/risk factors that are important to a community that are not part of the Priority MICA. The fact that a disease/risk factor is not in the Priority MICA does not mean a community should ignore the disease/factor.

Following is an aggregate of the Top Seven MICA Priorities within the five-county region.

## Top 7 Diseases or Conditions by Region and County

(based on MICA Priority Tool August 2018)

Prioritization of Top 7 Selected Diseases and Conditions in Five-County Region		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition (State Rank (#))</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease (1)	1	220
Chronic Obstructive Pulmonary Disease (COPD) (4)	2	206
Motor Vehicle Accidents (5)	3	174.5
Diabetes (2)	4	161
Alcohol- and Substance-Related (3)	5	159.5
Lung Cancer (7)	6	140.5
Assaults/Homicides (6)	7	114.5

Prioritization of Selected Diseases and Conditions in Missouri		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease	1	50.5
Diabetes	2	45.5
Alcohol- and Substance-Related	3	44.0
Chronic Obstructive Pulmonary Disease (COPD)	4	41.5
Motor Vehicle Accidents	5	34.5
Assaults/Homicides	6	32.5
Lung Cancer	7	31.5

Prioritization of Top 7 Diseases and Conditions in Callaway County		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease	1	41.5
Chronic Obstructive Pulmonary Disease (COPD)	2	40.5
Motor Vehicle Accidents	3	34.5
Alcohol- and Substance-Related	4	30.0
Lung Cancer	5	27.5
Diabetes	6	27.5
Assaults/Homicides	7	22.5

Prioritization of Top 7 Diseases and Conditions in Cole County		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease	1	51.5
Chronic Obstructive Pulmonary Disease (COPD)	2	50.5
Diabetes	3	42.0
Alcohol- and Substance-Related	4	41.0
Motor Vehicle Accidents	5	34.5
Assaults/Homicides	6	30.5
Lung Cancer	7	30.0

Prioritization of Top 7 Diseases and Conditions in Miller County		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease	1	41.5
Chronic Obstructive Pulmonary Disease (COPD)	2	37.5
Motor Vehicle Accidents	3	36.5
Lung Cancer	4	30.5
Diabetes	5	29.5
Alcohol- and Substance-Related	6	29.0
Assaults/Homicides	7	19.5

Prioritization of Top 7 Diseases and Conditions in Moniteau County		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease	1	41.5
Chronic Obstructive Pulmonary Disease (COPD)	2	41.0
Motor Vehicle Accidents	3	34.0
Diabetes	4	33.0
Alcohol- and Substance-Related	5	28.5
Lung Cancer	6	25.0
Assaults/Homicides	7	21.0

Prioritization of Selected Diseases and Conditions in Osage County		
Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018		
<u>Disease/Condition</u>	<u>Rank</u>	<u>Total Weight</u>
Heart Disease	1	44.0
Chronic Obstructive Pulmonary Disease (COPD)	2	36.5
Motor Vehicle Accidents	3	35.0
Alcohol- and Substance-Related	4	31.0
Diabetes	5	29.0
Lung Cancer	6	27.5
Assaults/Homicides	7	21.0

## Top 5 Risk Factors (based on MICA Priority Tool August 2018)

<b>Prioritization of Selected Risk Factors in MISSOURI</b> <b>Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018</b>		
Risk Factor	<a href="#">Rank</a>	Total Weight
Mother Overweight	1	58.5
Obese (>30 BMI)	2	56.0
No Exercise	3	55.0
Smoking	4	54.0
No Cervical Cancer Screening age 18 and older	5	52.0

<b>Prioritization of Selected Risk Factors in REGION</b> Rank remained consistent with State rank across region as a whole Cervical Cancer screening dropped to #6 in Miller and Moniteau Counties with #5 risk factor being “No Mammography age 40 and older” in those two counties. <b>Sex: Both Sexes, Race: All Races, Age Group: All Ages MICA August 2018</b>		
Risk Factor	<a href="#">Rank</a>	Total Weight
Mother Overweight	1	290.5
Obese (>30 BMI)	2	280.5
No Exercise	3	270
Smoking	4	267
No Cervical Cancer Screening age 18 and older	5	255

<b>Prioritization of Selected Risk Factors in CALLAWAY County</b> <b>Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018</b>		
Risk Factor	<a href="#">Rank</a>	Total Weight
Mother Overweight	1	57.5
Obese (>30 BMI)	2	57.0
Smoking	3	54.0
No Exercise	4	53.0
No Cervical Cancer Screening age 18 and older	5	51.0

<b>Prioritization of Selected Risk Factors in COLE County</b> <b>Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018</b>		
Risk Factor	<a href="#">Rank</a>	Total Weight
Mother Overweight	1	58.5
Obese (>30 BMI)	2	55.0
No Exercise	3	54.0
Smoking	4	53.0
No Cervical Cancer Screening age 18 and older	5	51.0

<b>Prioritization of Selected Risk Factors in MILLER County</b> <b>Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018</b>		
Risk Factor	<a href="#">Rank</a>	Total Weight
Mother Overweight	1	57.5
Obese (>30 BMI)	2	55.5
No Exercise	3	54.5
Smoking	4	53.5
No Mammography age 40 and older	5	51.5

<b>Prioritization of Selected Risk Factors in MONITEAU County</b> <b>Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018</b>		
Risk Factor	<a href="#">Rank</a>	Total Weight
Mother Overweight	1	58.5
Obese (>30 BMI)	2	57.0
No Exercise	3	54.0
Smoking	4	53.0
No Mammography age 40 and older	5	51.0

**Prioritization of Selected Risk Factors in OSAGE County**  
**Sex: Both Sexes, Race: All Races, Age Group: All Ages, August 2018**

Risk Factor	Rank	Total Weight
Mother Overweight	1	58.5
Obese (>30 BMI)	2	56.0
No Exercise	3	54.5
Smoking	4	53.5
No Cervical Cancer Screening age 18 and older	5	52.5

**Top 5 Causes of Death (based on MICA 2016)**

Title: Missouri Resident Deaths  
 Data selected in addition to rows and columns below: Single Year(s): 2016;  
 Ranked by Total Selection Count

	County:	Callaway	Cole	Miller	Moniteau	Osage	Total for selection	Missouri
RANK	Statistics:	Count	Count	Count	Count	Count	Count	Count
1	Heart disease#	89	157	56	29	30	361	14,569
2	Cancer#	97	141	57	32	22	349	12,691
3	Chronic lower respiratory diseases#	33	48	22	7	7	117	3,960
4	Accidents (unintentional injuries)#	21	39	9	5	6	80	3,610
5	Stroke (cerebrovascular diseases)#	x	x	x	x	x	71	3,063

Confidentiality: The "x" symbol indicates the confidentiality rule has been triggered.  
 Source: DHSS - MOPHIMS - Death MICA

## Top 5 Causes for IP Hospitalizations (based on MICA DX 2015)

**Title:** Missouri Resident Chronic Disease Inpatient Hospitalizations

**Data selected in addition to rows and columns below:** Single Year(s): 2015;

Chronic Diagnosis	County:											Sorted By		Missouri	
	Callaway	Callaway	Cole	Cole	Miller	Miller	Moniteau	Moniteau	Osage	Osage	Total for selection	Total for selection	Count	Percent of Column Total	
	Statistics:											Count	Percent of Column Total	Count	Percent of Column Total
Diseases of the heart	468	50.92	673	49.02	233	47.36	148	57.59	139	48.60	1,661	49.92	72,507	51.31	
Neoplasms - malignant (cancer)	123	13.38	220	16.02	69	14.02	34	13.23	49	17.13	495	14.88	19,660	13.91	
Chronic obstructive pulmonary disease and bronchiectasis	109	11.86	145	10.56	66	13.41	21	8.17	30	10.49	371	11.15	13,978	9.89	
Diabetes	100	10.88	110	8.01	42	8.54	21	8.17	41	14.34	314	9.44	12,449	8.81	
Alcohol and substance-related mental disorders	69	7.51	130	9.47	45	9.15	17	6.61	11	3.85	272	8.18	12,212	8.64	
Hypertension	25	2.72	59	4.30	25	5.08	10	3.89	9	3.15	128	3.85	6,700	4.74	
Liver disease	25	2.72	36	2.62	12	2.44	6	2.33	7	2.45	86	2.58	3,802	2.69	
Total for selection	919	100	1,373	100	492	100	257	100	286	100	3,327	100	141,308	100.00	

**Source:** DHSS - MOPHIMS - Chronic Disease Inpatient Hospitalization MICA

**Generated On:** 8/30/2018 11:05

**Chronic Disease:** The Chronic Disease categories shown here do not include all types of chronic disease.

## Top 5 Preventable Hospitalizations (based on MICA 2015)

Title: Missouri Resident Preventable Hospitalizations 5 County Region

Data selected in addition  
to rows and columns Single Year(s): 2015;  
below:

Ranked by Total for selection; Rate

	County:	Callaway	Callaway	Cole	Cole	Miller	Miller	Moniteau	Moniteau	Osage	Osage	Total for selection	Total for selection	Missouri	Missouri			
Rank	Statistics:	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate			
	Preventable Diagnosis																	
1	Dehydration - volumn depletion	112	27.41	157	22.39	56	24.12	27	18.49	20	15.13	372	22.91	16,564	29.62			
2	Diabetes	75	18.29	60	9.08	32	15.90	12	8.55	*	35	35.41	214	14.05	7,504	14.14		
3	Bacterial pnuemonia	64	14.25	84	11.92	29	12.08	14	8.43	*	11	8.81	202	11.96	7,568	13.28		
4	Cellulitis	45	11.30	51	7.80	15	6.72	*	10	6.66	*	18	16.22	*	139	9.01	6,380	11.96
5	Chronic obstructive pulmonary	43	8.47	43	4.82	18	6.23	*	7	4.59	*	15	9.15	*	126	6.27	6,296	9.78

Confidentiality: The "x" symbol indicates the confidentiality rule has been triggered.

Preventable hospitalization rates are annualized per 10,000 residents under the age of 65 and are age adjusted to the U.S. 2000 standard population.

Source: DHSS - MOPHIMS - Preventable Hospitalization MICA

Generated On: 3/21/2018 10:18

\* Rate is unreliable; numerator less than 20



## Top 5 Chronic Diseases – IP Hospitalization (based on MICA 2015)

Missouri Resident Chronic Disease Inpatient Hospitalizations															
Title:															
Data selected in addition to rows and columns below:															
Single Year(s): 2015;															
County:	Callaway	Callaway	Cole	Cole	Miller	Miller	Moniteau	Moniteau	Osage	Osage	Total for selection	Total for selection	Sorted By	Missouri	Missouri
Statistics:	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Percent of Column Total
Chronic Diagnosis Diseases of the heart	468	50.92	673	49.02	233	47.36	148	57.59	139	48.6	1,661	49.92		72,507	51.31
Neoplasms - malignant (cancer)	123	13.38	220	16.02	69	14.02	34	13.23	49	17.13	495	14.88		19,660	13.91
Chronic obstructive pulmonary disease and bronchiectasis	109	11.86	145	10.56	66	13.41	21	8.17	30	10.49	371	11.15		13,978	9.89
Diabetes	100	10.88	110	8.01	42	8.54	21	8.17	41	14.34	314	9.44		12,449	8.81
Alcohol and substance-related mental disorders	69	7.51	130	9.47	45	9.15	17	6.61	11	3.85	272	8.18		12,212	8.64
Hypertension	25	2.72	59	4.3	25	5.08	10	3.89	9	3.15	128	3.85		6,700	4.74
Liver disease	25	2.72	36	2.62	12	2.44	6	2.33	7	2.45	86	2.58		3,802	2.69
Total for selection	919	100	1,373	100	492	100	257	100	286	100	3,327	100		141,308	100
Source: DHSS - MOPHIMS - Chronic Disease Inpatient Hospitalization MICA															
Generated On: 8/30/2018 11:05															
Chronic Disease: The Chronic Disease categories shown here do not include all types of chronic disease.															

## Top 5 Chronic Diseases Utilizing ER (based on MICA 2015)

Title:		Missouri Resident Chronic Disease Emergency Room Visits													
Data selected in addition to rows and columns below:		Single Year(s): 2015;													
County:	Callaway	Callaway	Cole	Cole	Miller	Miller	Moniteau	Moniteau	Osage	Osage	Total for selection	Total for selection	Sorted By	Missouri	Missouri
Statistics:	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Percent of Column Total
Chronic Diseases of the heart	922	61.02	1,534	66.04	369	57.84	232	68.84	173	62.23	3,230	63.5		96,970	55.61
Alcohol and substance-related mental disorders	159	10.52	252	10.85	62	9.72	25	7.42	28	10.07	526	10.34		28,280	16.22
Hypertension	134	8.87	226	9.73	63	9.87	39	11.57	22	7.91	484	9.51		18,794	10.78
Other cardiovascular/circulatory conditions	130	8.6	170	7.32	82	12.85	21	6.23	29	10.43	432	8.49		13,754	7.89
Diabetes	x	x	x	x	x	x	x	x	x	x	329	6.47		13,031	7.47
Liver disease	x	x	x	x	x	x	x	x	x	x	44	0.86		1,878	1.08
Neoplasms - malignant (cancer)	x	x	x	x	x	x	x	x	x	x	42	0.83		1,666	0.96
Total for selection	1,511	100	2,323	100	638	100	337	100	278	100	5,087	100		174,373	100
Confidentiality:	The "x" symbol indicates the confidentiality rule has been triggered.														
Source:	DHSS - MOPHIMS - Chronic Disease Emergency Room MICA														
Generated On:	8/30/2018 13:04														
Chronic Disease:	The Chronic Disease categories shown here do not include all types of chronic disease.														

## Top 5 Chronic Disease-Deaths (based on MICA 2016)

Title:		Missouri Resident Chronic Disease Deaths													
Data selected in addition to rows and columns below:		Single Year(s): 2016;													
County:	Callaway	Callaway	Cole	Cole	Miller	Miller	Monitea u	Monitea u	Osage	Osage	Total for selection	Total for selection	Missouri	Missouri	
Statistics:	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	Count	Percent of Column Total	
Chronic Cause															
Heart disease	89	32.48	157	35.28	56	28.87	29	24.79	30	41.67	361	32.76	14,569	35.18	
Cancer	97	35.4	141	31.69	57	29.38	32	27.35	22	30.56	349	31.67	12,691	30.65	
Chronic Obstructive Pulmonary Disease (COPD) excluding Asthma	31	11.31	47	10.56	22	11.34	7	5.98	7	9.72	114	10.34	3,888	9.39	
Stroke (cerebrovascular diseases)	x	x	x	x	x	x	x	x	x	x	71	6.44	3,063	7.4	
Diabetes	x	x	x	x	x	x	x	x	x	x	63	5.72	1,508	3.64	
Essential hypertension	x	x	x	x	x	x	x	x	x	x	43	3.9	543	1.31	
Alzheimer's disease	x	x	x	x	x	x	x	x	x	x	37	3.36	2,302	5.56	
Kidney disease(nephritis, nephrotic syndrome and nephrosis)	x	x	x	x	x	x	x	x	x	x	32	2.9	1,481	3.58	
Chronic liver disease & cirrhosis	x	x	x	x	x	x	x	x	x	x	17	1.54	658	1.59	
Total for selection	274	100	445	100	194	100	117	100	72	100	1,102	100	41,407	100	
Asthma	x	x	x	x	x	x	x	x	x	x	x	x	72	0.17	
Atherosclerosis											x	x	x	x	
Other cardiovascular/circulatory conditions	x	x	x	x	x	x	x	x	x	x	x	x	521	1.26	
Source:	DHSS - MOPHIMS - Chronic Disease Deaths MICA														
Generated On:	8/30/2018 13:42														
Chronic Disease:	The Chronic Disease categories shown here do not include all types of chronic disease.														

## PUBLIC HEALTH DEPARTMENT DATA

The CMCHAP also considered indicators that relate to issues the Public Health departments had already identified through its own assessments, specifically deaths due to overdose of opioids, emergency room visits due to opioid abuse, and the increase of sexually transmitted diseases.

### Opioid Deaths / Abuse

Deaths due to Opioid Overdose by County of Residence, 2013-2017			
	Heroin	Non-Heroin	Total
Callaway	4	12	16
Cole	13	6	19
Miller	1	6	7
Moniteau	0	0	0
Osage	1	1	2

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

Emergency Room Visits Due to Opioid Abuse by County of Residence, 2012-2016			
	Heroin	Non-Heroin	Total
Callaway	17	197	214
Cole	33	336	369
Miller	5	93	98
Moniteau	1	30	31
Osage	4	36	40

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

## Sexually Transmitted Disease

Reportable Sexually Transmitted Diseases by County							
		2013	2014	2015	2016	2017	2018**
<b>Callaway</b>							
	Chlamydia	160	170	169	176	227	131
	Gonorrhea	16	38	48	34	54	61
	Syphilis	2	2	1	2	7	6
<b>Cole</b>							
	Chlamydia	424	465	427	547	515	255
	Gonorrhea	91	113	159	133	247	111
	Syphilis	4	2	5	9	18	39
<b>Miller</b>							
	Chlamydia	71	66	47	48	67	34
	Gonorrhea	5	8	2	13	13	7
	Syphilis	0	0	0	0	0	1
<b>Moniteau</b>							
	Chlamydia	37	36	24	38	34	29
	Gonorrhea	2	7	7	6	8	8
	Syphilis	0	0	1	2	1	4
<b>Osage</b>							
	Chlamydia	15	18	19	31	21	13
	Gonorrhea	2	1	3	3	8	2
	Syphilis	0	0	0	0	0	0

\*\* 2018 data is January- July

Source: Bureau of Reportable Disease Informatics, Missouri Department of Health and Senior Services

# COMMUNITY INPUT

## Discussion Groups & Surveys

## COMMUNITY DISCUSSION GROUPS

From the discussions held with community groups and interviews with providers and consumers, responses were aggregated and several common themes emerged. Following is a summary of community input. Responses with an asterisk (\*) or asterisks denote top issues or challenges which were the same or similar among multiple participant comments.

To initiate discussion, the community discussion group participants were asked to make general observations about their community and to provide a rating of their perceived overall well-being and health status of their community using a scale of 1 to 5 with 5 being best.

Input Session	County Represented	# Participants	Rating
#1	Cole	45	na
#2	Five Counties	38	na
#3	Cole	24	3.23
#4	Osage	23	2.5
#5	Cole	32	3.25
#6	Callaway	19	2.77
#7	Moniteau	21	2.14
#8	Miller	52	3
	<b>Report Area</b>	<b>254</b>	<b>2.82</b>

### #1 Cole County Communities Leaders Meeting; April 5, 2018; (45 attendees)

#### Impression of Community

- Tobacco 21 ordinance initiative was a success and an example of how a community can work together to improve the health of its community
- Employers are beginning to incentivize employees to make healthy choices

#### Top Challenges/Issues

- Behavioral Health and Substance Abuse is an ever-increasing health care concern
- Over use of medication and drug abuse is an issue\*\*\*\*\*
- Numbers of people not passing employment drug tests is escalating\*\*\*\*
- In 2016 over 100 people taken to treatment by law enforcement; over 200 people in 2017
- Opioid crisis needs to be addressed
- Colorado statistics showing increasing numbers of car accidents since legalizing marijuana is alarming
- Narcan/Naloxone (drug used for opioid overdoses) – use is escalating and is on pace to triple from 2016 to 2017
- Proposed bill to allow law enforcement to carry anti-opioid drug and drop-off locations for narcotics at the Sheriff's office is in the State legislature and Sheriff Wheeler is optimistic it will pass
- Local hospitals/doctors are changing how narcotics are prescribed and dispensed to reduce access and overuse
- Diabetes is a prevalent health concern\*\*\*
- Health literacy is important to improving health

#### Barriers

- Lack of transportation is a barrier to accessing health care and necessary resources
- Many smaller communities are not smoke-free and need to implement policy change
- More education in middle schools is needed to reduce risky behavior

## **#2 United Way Agencies and Unmet Needs Committee, April 10, 2018; (38 attendees)**

### **Impression of Community**

- Community health is progressing – the new Linc fitness facility in Jefferson City is an asset; bike lanes, bikes and racks have been added; school initiatives such as the “walking bus” are being implemented
- Tobacco 21 is an example of a successful collaborative community effort
- Large rural population commutes to Jefferson City
- Small town feel is positive
- Good collaboration among organizations and people work together \*\*
- Philanthropic and supportive community
- Growing poverty \*\*\*
- Lack of awareness of issues such as drugs and violence

### **Top Challenges/Issues**

- Mental Health \*\*\*\*\*
- Adverse childhood experience \*\*\*\*\*
- Generational poverty; need to break the cycle \*\*\*\*
- Excess tobacco use in community \*\*\*\*
- Sexual abuse and toxic trauma \*\*\*\*
- Substance abuse disorders \*\*\*
- Obesity of population
- Transportation barriers \*\*
- Dementia and Alzheimer's disease is increasing \*\*
- Getting people to come to class for education is a challenge \*\*
- Mental health has economic impact \*\*
- Lack of continuity of care \*\*
- Mental health stigma is great and people are hesitant to seek help \*
- Parents don't know where to go to get help for troubled kids \*\*
- Parents are parenting the negative way they were parented – multi-generational issues
- Autism
- Low income and financial instability in our community -- reactionary stress from poverty is increasing
- Prescribing opioids issue -- doctors and hospital are implementing new protocols and policies and must re-educate patients on pain management
- Patients need to engage and take responsibility for their health

### **Top Health Conditions**

- Mental Health \*\*\*\*\*
- Substance Abuse and Addiction \*\*\*
- Low self-esteem
- Heart Disease and Diabetes \*\*
- Cancer
- No physical activity \*\*\*
- High blood pressure
- Overweight and obese
- Heavy drinking
- Lung and COPD disease

### **Social and Economic Concerns**

- Poverty \*\*\*\*
- Sexual abuse \*\*\*
- Financial resources are limited \*\*\*\*
- Level of education \*\*\*



- Poverty \*\*\*
- Social and emotional support \*\*\*
- Uninsured and unemployment \*\*
- Food insecurity and poor diet \*\*
- Income level and education level \*
- Local ambulance service is becoming a mental health transfer unit; need to look at overall economic cost to the community

### **Barriers**

- Jobs that are available are professional and applicants are not qualified; need access to skills training to match jobs
- Job applicants who cannot pass a drug test are becoming more common
- Transportation -- no transportation and or limited public transportation
- Inability to share info between agencies due to regulations which hinders coordination of care and services
- Same people cycling through the United Way agencies; explore need for central intake or triage
- Wide disparities in different areas of
- Many people cannot take off work to go to health appointments
- Education for young mothers on parenting and healthy life style
- No access to dual diagnosis facilities; no insurance coverage for dual diagnosis

### **Advice**

- Improve health communication and education to address health literacy
- Need for healthy life style awareness and education
- Address smoking and second hand smoke – need smoke-free policies in all of our communities; implement tobacco tax; improve prevention
- Need to provide information kiosks and take education to where people are – laundry mats, etc. \*\*
- Improve access to Women’s health i.e. breast health for women; birth control
- Increase activities for young people to engage them in healthy behavior

## **#3 Cole County Community Stakeholders; April 11; (24 attendees)**

### **Rate Your Community: 3.23**

### **Impression of Community**

- Coordination of care and services can be improved
- Improving access to physical fitness and outdoor activities
- Duplication of some services exists
- Perception that Columbia has better health care and technology

### **Top Challenges/Issues**

- Mental and behavioral health disorders and limited availability of resources and access to specialists for mental health is of great concern \*\*\*\*\*
- There is an increasing number of deaths in the community due to mental health disorders i.e., drug use, depression; local mortuaries are seeing on average two deaths per month \*\*
- Need to improve risk assessments especially for children, to be able to address issues early
- Stigma around mental health exists and needs to change through education; need to change language around how we talk about mental health
- Medication management for behavioral/mental health patients
- Need health care education for low income families
- Obesity related diseases such as heart disease, diabetes, cancer are of a concern
- Elder care is of concern with an aging population and there is a need for basic senior support services \*\*\*
- Sexually transmitted diseases are on the rise: some were eradicated, but are coming back and it is not just affecting teens, but STDs are affecting all ages and income levels

## **Top Health Conditions**

- Mental Health \*\*\*\*\*
- Smoking / Tobacco Use \*\*\*
- Obesity \*\*\*
- Substance Abuse \*\*\*\*\*
- More specialists
- Exercise / Fitness \*\*\*\*
- Chronic diseases
- Heart Disease
- COPD
- Cancer
- Poor nutrition / healthy eating \*\*\*
- Health for homeless
- Home health
- Violence and crime
- Affordable healthcare for under privileged \*\*
- Prenatal care
- Suicide and depression

## **Barriers**

- Access to health care specialists \*\*
- to mental health services; need more specialists
- Lack of mental health resources for children
- There is no mandated reporting rule or central repository for mental health data which makes it hard to assess needs
- HIPPA and confidentiality guidelines make it difficult for health care providers and human service organizations to report and share information which creates barriers to coordinating and addressing the full needs of an individual
- Access to fresh food in poverty areas
- Coordination of services for mental health disorders
- Transportation and hours of operation of existing public transportation

## **Advice**

- Continue to develop behavioral health resource partnerships and efforts to coordinate services
- Explore use of community health workers
- Differentiate, diagnose and treat youth and adult mental health issues separately
- Overcome mental health stigma and provide individuals the tools and education to cope; teach and encourage children to talk to someone when they have difficulties – just like children were taught to wash their hands.
- Focus on prevention education and awareness – increase prevention initiatives for heart disease, diabetes, mental health, suicide, etc.
- Offer alternative medicine options

## **#4 Osage County Community, April 11, 2018; (23 attendees)**

### **Rate Your Community: 2.5**

#### **Impression of Community**

- Community works well together
- Population is aging
- Young people are moving away for careers
- City of Chamois is anxious to develop community health improvement plan but needs assistance

### **Top Challenges/Issues**

- Access to mental health services is limited: no services available for depression, family counseling and need grief support
- Substance abuse / addiction is affecting the community
- Poor adult dental / oral care
- Poverty and the working poor
- Young people are not motivated to get jobs, make social adjustment and feel entitled
- Family support for the aging/senior adults is lacking
- Stigma around mental health issues, drug abuse and addiction prevents people from seeking help
- Need to improve health literacy and patient engagement on medication use, diseases, newly diagnosed health conditions

### **Top Health Conditions**

- Diabetes; prevention, screening and services to manage disease is limited
- Cancer
- Heart Disease
- Smoking
- Nutrition and poor diets
- Obesity
- Mental health
- Heavy drinking

### **Barriers**

- Lack of transportation to get to appointments; no public transportation
- Access to urgent care or after-hours care to avoid the long drive to Jefferson City
- Access to medical care due to limited hours of operation of existing clinics
- Access to mental health services
- Access to dental services such as replacing teeth so they can get a job
- Access to preventative care and screenings
- Lack of Medicaid providers in the area
- No dental insurance

### **Advice**

- Pharmacists are playing a vital role in patient education; ask them to help educate and improve health literacy in the community
- Implement programs such as AARP's C.A.R.E program for older adults whose children are no longer around or in the community; elderly are in need basic support services
- Focus on patient engagement and health literacy strategies, including health care providers spending more time educating the patient about their disease
- Partner with other groups and support services in Osage County, such as: Parish Nurses, OC-ADCAT, the Celebrate Recovery group, AA and Drug Court, Systems of Care Committee; the suicide prevention group.
- Coordinate mental health services and help families find a roadmap to mental health care
- Provide more health education on chronic disease self-management
- Work with City of Chamois to develop a community health improvement plan

## #5 Cole County Community Stakeholders, April 12, 2018; (32 attendees)

### Rate Your Community: 3.25

#### Impression of Community

- Growing poverty in some areas of the community \*\*\*\*\*
- Increasing diversity
- Low unemployment
- Improved places to walk, exercise, and adding bike lanes

#### Top Challenges/Issues

- Mental Health – not enough inpatient beds; number of commitments/admissions has more than doubled; EMS and Sheriff transport is required and has significant economic impact on the community
- Homeless living in the parks, along creeks and river and mental health issues that contribute to homelessness
- Behavior issues in schools spills over from family/home life and social issues
- Economic impact of mental health issues affecting families and the community
- Substance abuse/drug addiction issues and mental health issues as well as stigmas around these issues
- Many people using emergency department as primary care; need to obtain primary care home -- need more education about using and accessing the health care services that are available in the community
- Social determinants of health – need to be addressed, especially for low income and impoverished families
- People not engaged in their own healthcare and education
- Lack of physical /fitness activity and not using the resources that are available
- Childhood obesity is still an issue and needs to be addressed

#### Top Health Conditions

- Overweight / Obesity\*\*
- Diabetes \*\*\*
- Mental health disorders \*\*\*\*\*
- Substance Abuse / Over Use \*\*\*\*\*
- Tobacco Use \*\*
- Heart Disease
- Cancer
- Heavy drinking

#### Barriers

- Access to health care / medical care \*\*\*\*\*
- Lack of access to addiction medicine
- Lack of access to healthcare for Medicaid patients
- No physical activity / exercise \*\*\*\*\*
- Access to healthy food \*\*\*\*\*
- Access to dental and eye care for uninsured or conditions related to diverse populations
- Access to public transportation \*\*\*\*\*
- Access to psychiatric services for adults and children – long wait times and or have to leave the community to access specialists
- Long lead time (even a few years) to recruit Psychiatrists; simply not enough out there

#### Advice

- Coordinate services that do existing, particularly mental health and counseling
- More school based programs for prevention education for students and parents
- Increase healthy lifestyle education
- Easier access to healthy food choices

## #6 Callaway County Community, April 12, 2018; (19 attendees)

**Rate Your Community: 2.77**

### **Impression of Community**

- Aging population
- Diversity of population is increasing
- Lack of youth recreation activities, i.e., sports
- Lack of physical activity
- Sanitation issues

### **Top Challenges/Issues**

- Smoking / tobacco use \*\*\*\*\*
- Poor hospital quality and access to health care \*\*\*\*\*
- Poverty \*\*\*\*\*
- Mental health issues
- Affordable housing
- Poor diet
- Food insecurity
- Timely enrollment in Medicaid
- Preterm deliveries
- Affordable prescription medicine

### **Top Health Conditions**

- Mental health disorders \*\*\*\*\*
- Substance abuse / over use \*\*
- Diabetes \*\*
- Obesity
- Poor dental care/hygiene

### **Barriers**

- Access to mental health services \*\*\*\*\*
- Lack of / access to public transportation \*\*\*\*\*
- Access to after hour care/convenient services
- Access to healthy / nutritional foods \*\*\*\*\*
- Access to preventative care and screenings \*\*

## #7 Moniteau County Community, April 12, 2018; (21 attendees)

**Rate Your Community: 2.14**

### **Top Challenges/Issues**

- Obesity \*\*\*
- Alcohol consumption
- Mental Health \*\*\*\*\*
- Depression / Anxiety
- Risk for suicide
- Childhood trauma
- Substance abuse / drug use \*\*\*\*\*
- Smoking / tobacco use \*\*\*\*\*
- Food insecurity
- Rural poverty and isolation
- Affordable housing

- Affordable child care
- Lack of family social support

**Top Health Conditions**

- Diabetes
- Heart disease
- Cancer
- Poor dental care
- Lung disease and COPD

**Barriers**

- Access to healthcare in the community \*\*\*
- Transportation \*\*\*\*\*
- Language barrier of health care professionals
- Lack of health care professionals
- Services for underinsured and uninsured population
- Unaware of resources and how to access health services

**Advice**

- Improve access to health care for uninsured and Medicaid population
- Provide education on injury prevention
- Focus on prevention education – chronic diseases, suicide, tobacco use
- Increase awareness of existing health and human services

**#8 Miller County Community, April 30, 2018; (52 attendees)**

**Rate Your Community: 3.0**

**Impression of Community**

- Aging population
- Overall well-being of the community is average but improving
- Family oriented and supportive
- Poverty and poor
- Uneducated
- Unhealthy

**Top Challenges/Issues**

- Accessibility of health care / medical care \*\*\*\*\*
- Tobacco use \*\*\*\*\*
- Heavy drinking \*\*\*
- Lack of physical activity / exercise \*\*\*
- Lack of places to walk, exercise, bike lanes \*\*\*\*\*
- Hygiene \*\*
- Stress management \*\*
- Exposure to secondhand smoke \*\*\*
- Affordable housing \*\*\*
- Safe / quiet neighborhoods \*\*
- Economic impact of mental health on the community \*\*
- Lack of programs for special needs
- Programs for elderly
- Homelessness increasing \*\*\*
- Poverty \*\*\*\*\*
- Income Level / Working Poor \*\*\*\*\*

- Lack of motivation \*\*\*\*\*
- Unemployment \*\*\*\*\*
- Level of education \*\*\*
- Social / emotional support lacking \*\*
- Uninsured
- Food Insecurity
- Teen births
- Lack of employment training and job placement
- Affordable health care

### **Top Health Conditions**

- Overweight / Obese \*\*\*\*\*
- Mental health disorders \*\*\*\*\*
- Cancer \*\*\*\*\*
- Substance abuse / over use \*\*\*\*\*
- Childhood obesity \*\*\*\*\*
- Diabetes \*\*\*\*\*
- Chronic disease \*\*\*\*\*
- Heart Disease \*\*\*
- Lung disease / COPD \*\*
- High blood pressure

### **Barriers**

- Access to health education (adults and children) \*\*\*\*
- Access to dental care\*\*\*
- Access to healthy foods \*\*\*\*\*
- Access to public transportation \*\*\*\*\*
- No access to 24 hour urgent care
- Access to preventative care / screenings
- Access to job skills training

### **Advice**

- Improve awareness and access to health resources and preventative care and screenings
- Develop the Rock Island Trail
- Community centers and YMCA should offer free activities and sports program for children and adults to encourage exercise and physical activity
- Address the drug meth problem; increase drug prevention education
- Provide free health clinics / affordable care options for people that do not have access to health care
- Increase mental health and substance abuse services
- Improve job growth in the county
- Increase access to healthy food sources, resources and education, including cooking classes, education on label reading, etc.
- Provide health/wellness coordinators in schools
- Improve sidewalks, establish bike lanes, walking trails, etc.
- Implement smoke-free policies
- Educate community on resources and services available
- Increase availability and access to transportation
- Provide place and programs for senior citizens to socialize, exercise, etc.

## COMMUNITY INPUT SUMMARY

Many participants noted that some health and human services are lacking in the rural communities and or lack capacity to meet demands. Most notably was the lack of mental/behavioral health disorders and substance abuse, detox and treatment services in the region. Concern for risk of suicide, heavy drinking and lack of social and emotional support for families in distress was a top concern. Other services, including primary care and dental care, have access issues that includes lack of capacity for uninsured and Medicaid patients. Many patients in four of the five counties are required to travel to other communities to access care for basic health care and or medical specialties. Lack of transportation to and from health and human services is a barrier, particularly for low-income and elderly residents. The need for transportation solutions was a key issue discussed. Increasing diversity and a growing population living in poverty was noted as a concern in all five counties. The lack of access to healthy food, physical activity/no exercise leading to obesity and related chronic diseases, such as diabetes, heart disease and cancer remains a top concern.

Additional recurring themes in all community input sessions included (1) the need for health literacy and education programs to address mental health stigmas, chronic disease self-management, engagement in preventive care and screenings, parenting and life skills, including nutrition, sleep and fitness, (2) the need for coordination of services and care management strategies to help navigate the health and support services that do exist, and (3) that support services for the aging population in the region are currently limited or do not exist but are much needed to help address rural isolation.

### Top 5 Community Concerns - Key Indicators/Determinants of Health Ranking

During the input sessions, participants were also asked to review and rank a listing of key indicators, factors and or determinants of health that had previously been identified to have some degree of variance in the region. The list was derived from a Community Commons variance report. Each participant was asked to mark their top five concerns. The top five concerns for each county are noted below.

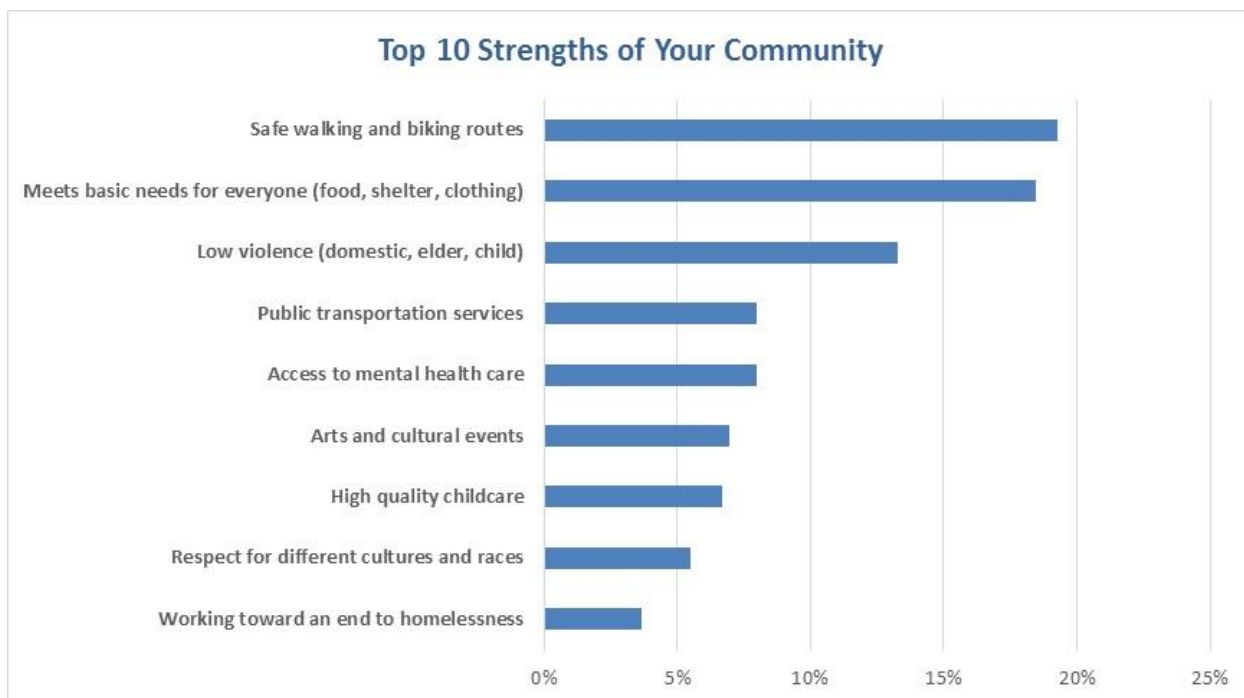
<u>County</u>	<u>Risk Factors</u>	<u>Health Conditions</u>	<u>Health Environment</u>	<u>Social and Economic Factors</u>	<u>Demographics</u>
<b>Callaway</b>	Access to Health Care / Medical Care	Mental Health Disorders	Access to Public Transportation	Poverty	Diversity of Population
<b>Cole</b>	Access to Health Care/Medical Care	Mental Health Disorders	Access to Public Transportation	Poverty	Diversity of Population
<b>Miller</b>	Overweight / Obese	Mental Health Disorders	Places to Walk, Exercise, Bike	Poverty	Age of Population
<b>Moniteau</b>	Access to Health Care/Medical Care	Mental Health Disorders	Access to Public Transportation	Poverty & Level of Education	Diversity of Population
<b>Osage</b>	Access to Health Care/Medical Care	Mental Health Disorders	Access to Public Transportation	Poverty	Age of Population



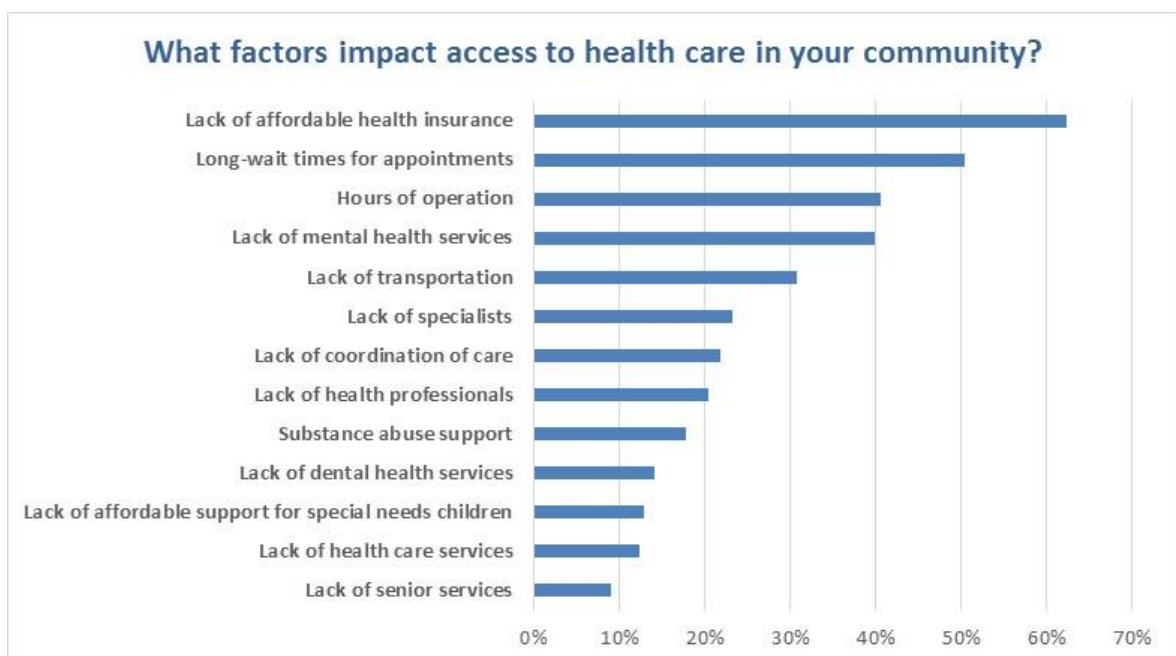
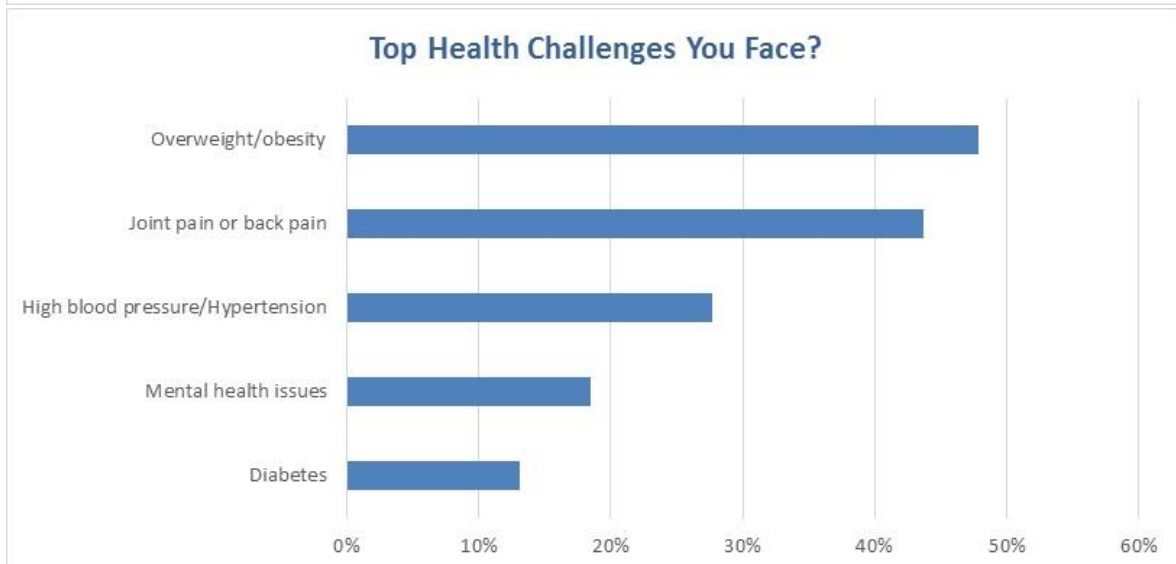
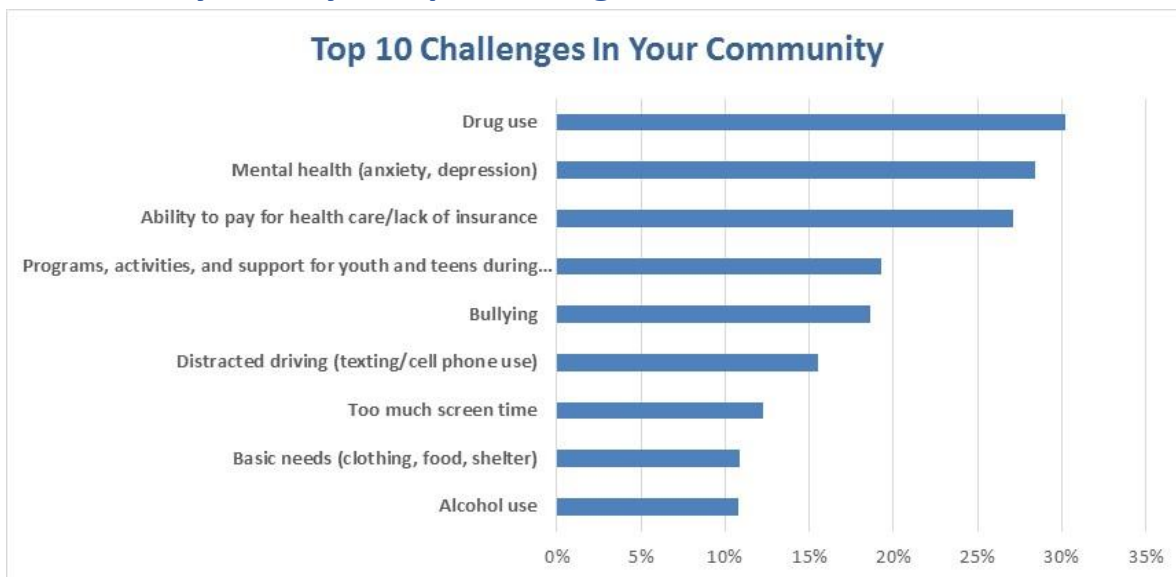
## COMMUNITY PERCEPTION SURVEY

A community perception survey was made available on-line and paper surveys with collection receptacles were placed in medical offices, community health departments clinics, and United Way agency offices. In addition, the electronic survey web-link was broadly distributed through social media, websites and email. A total of 855 surveys were completed. 53% of the respondents live in Cole County and the majority of respondents were female. 37.4% of the respondents answered that their yearly household income is less than \$50,000. The majority (86%) of those completing the survey reported they have visited a primary care physician in the last 12 months. 65% stated they go to a primary care physician most often when they are sick, although 35% of respondents stated they go to an urgent care center. Of the 234 respondents who reported they did not see a doctor in the past 12 months, 41% said they could not afford and 39.8% reported they were too busy to go see a doctor. Survey respondents noted lack of affordable health insurance, long-wait time for appointments and hours of operations were the top three things that impact access to health care in their community. It should be noted that 100% of respondents reported they have some type of health insurance.

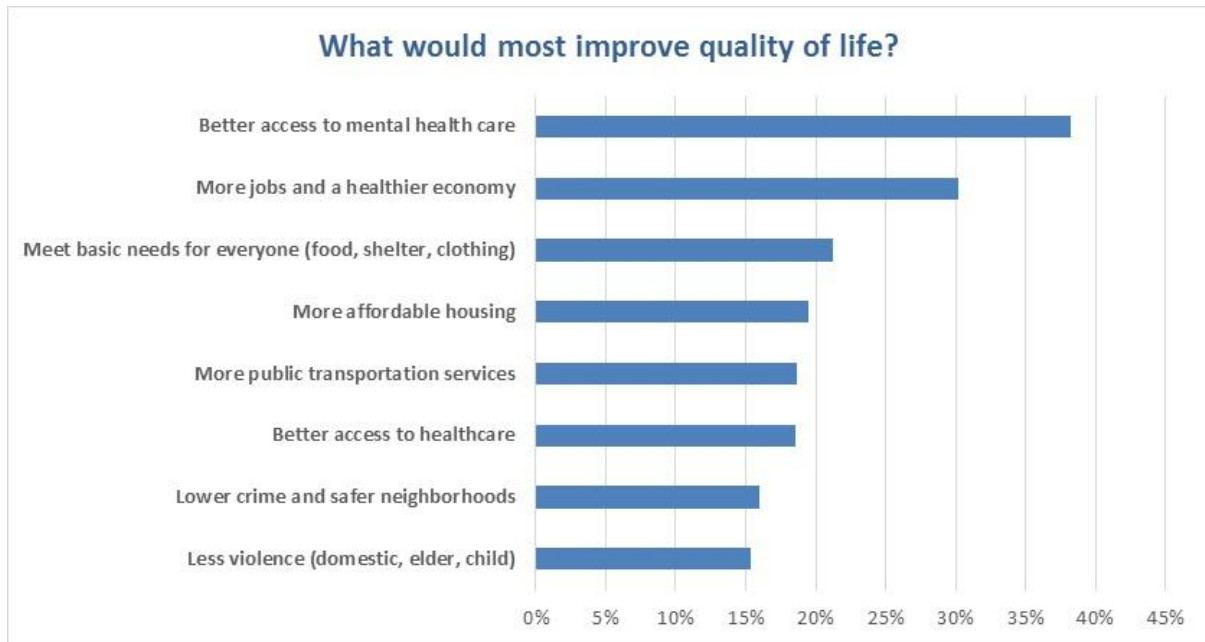
### Community Survey – Top Strengths



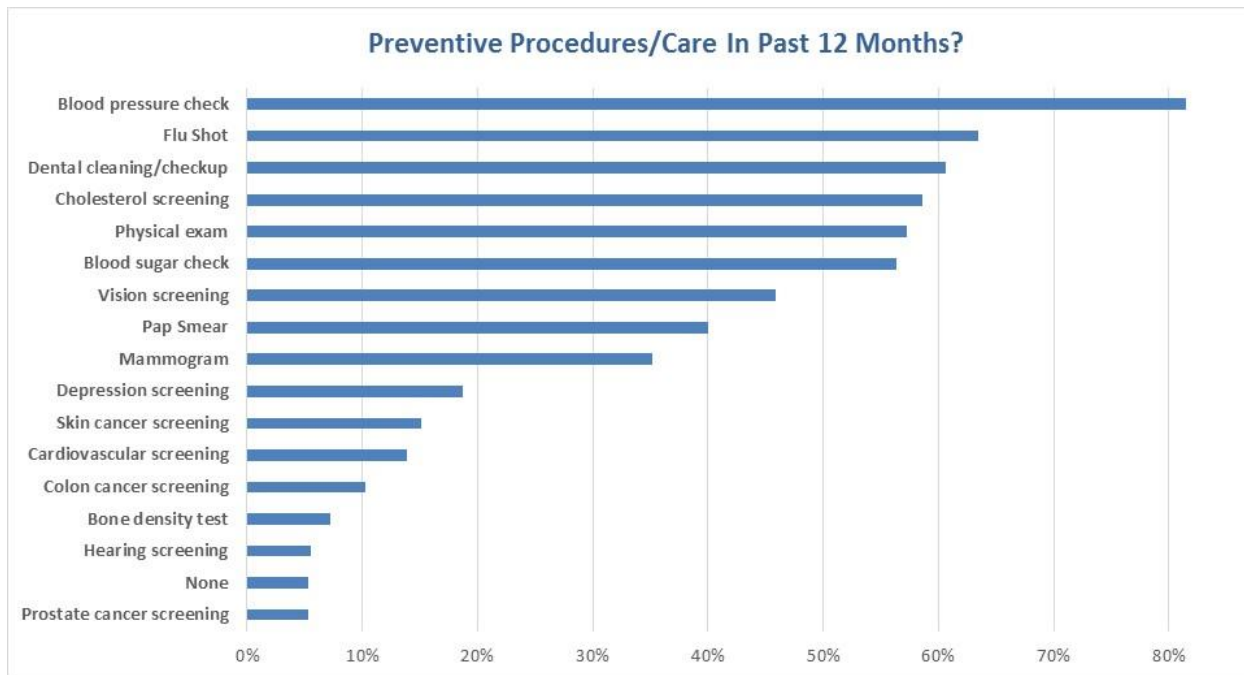
## Community Survey – Top Challenges



## Community Survey – Barriers / Aids



## Community Survey – Preventative Care



# CHNA FINDINGS

## Prioritized Issues/Needs

## Prioritization

Upon review of the findings from the secondary data analysis, community discussion groups and the perception survey, the CMCHAP Steering Team compiled a listing of the top 50 issues identified and completed a prioritization exercise. The listing includes both health issues and social determinants of health. As part of the CHNA requirements, we are required to elevate the needs that are identified and validated through the data analysis. In order to do so, specific criteria was used to assess each of the identified community needs. Below are examples of the external and internal prioritization process tools.

**External Prioritization:** Have your community partners or community members on your CHNA work team complete the ranking below. A high "total priority score" indicates the highest prioritized, most pressing need.

**Instructions:** For each of the identified community needs, please select the rating that best describes your agreement with the statements below and write it in the box below the question.

5: Strongly Agree      4: Agree      3: Neutral      2: Disagree      1: Strongly Disagree

	Severity	Importance to Community	Impact	Existing community resources	
<b>Identified Community Needs</b>	In my opinion, this is a serious health need within this community.	In my opinion, addressing this health need is very important to this community.	In my opinion, addressing this health need will improve the quality of life within this community.	In my opinion, there are no resources for addressing this health need within this community.	<b>Total Priority Score</b>
					0
					0
					0

**Internal Prioritization:** Once community members have created a list of priorities, using the newly prioritized list of needs, complete the ranking below. A high "total priority score" indicates the highest prioritized most pressing need.

**Instructions:** Please rank each of the identified needs using the following criteria and scale.

	Magnitude	Alignment with Mission, Key Strategies & Priorities	Resources Needed to Address the Issue	Hospital's ability to Impact	
<b>5</b>	Greater than 10% unfavorable as compared to benchmark	Consistent with 2 or more SFHRP strategies	No additional resources needed; service is currently in place	Can provide a service likely to measurably improve the community's health status	<b>Total Priority Score</b>
<b>3</b>	10% unfavorable as compared to benchmark	Consistent with one of the SFHRP strategies	Minimal resources needed to extend a current service	Can provide a service likely to measurably improve the community's health status with expertise from a community organization partner	
<b>1</b>	Equal to or more favorable as compared to benchmark	Inconsistent with the SFHRP strategies	Requires significant resources	Don't have the ability to measurably improve this need	
<b>Identified Community Needs</b>					<b>Total Priority Score</b>
					0
					0

## 2019-2021 IDENTIFIED PRIORITY NEEDS

The Community Health Needs Assessment is intended to be a tool in identifying and pursuing collaborative goals and actions to address the identified prioritized needs. Based on the CMCHAP prioritization exercise, these top five issues and determining factors were identified as priorities:

### Prioritized Health Issue #1: Improve Access to Health Care and Support Services

#### **Access to Mental/Behavioral Health Care, Substance Abuse/Addiction Treatment and Transportation/Public Transportation**

Access to specialty, primary and preventive health care services through a doctor's office, clinic or other appropriate provider is an important element of a community's health care system, and is vital for helping the community's residents to be healthy. The ability to access care is influenced by many factors, including insurance coverage and the ability to afford services, long waits for appointments or treatments, the availability and hours of operation of health care providers, an understanding of where to find services when needed, a lack of providers accepting new Medicaid patients and a lack of reliable personal or public transportation were frequently mentioned as concerns. For the purposes of this report, "access to care" is more than just access to health insurance. It also encompasses availability and continuity of primary and specialty care for physical and behavioral health, as well as accessibility of health and human services and providers.

Lack of mental health providers and substance abuse services was mentioned most among participants. Community input emphasized the impact of opioid abuse on the community, a lack of detox or substance abuse treatment options, as well as the economic burden it is placing on law enforcement, EMS, and hospital providers. Heroin and opioid use were mentioned more often, however, alcohol, marijuana, and methamphetamines were also mentioned as top concerns.

Language differences and cultural understanding of diseases on the part of providers of care or service organizations was also mentioned as effecting the quality and accessibility to care. Lack of accessible or reliable transportation to health care, especially for low-income individuals and senior citizens who rely on public transportation to get to appointments and elsewhere for care.

### Prioritized Health Issue #2: Mental Health Disorders and Substance Abuse

Many discussion group participants and steering team members expressed concern about mental health issues in the community. In particular, mental health issues, such as anxiety, depression and risk of suicide, are prevalent concerns. There are limited mental health providers in the area in general but especially noted was the gap in providers for youth and families in distress. Long wait lists for treatment or counseling were often noted. Additionally, many feel that mental health is intertwined with other key health issues such as substance abuse, addiction, and overall good physical health. In regard to substance abuse, it was noted that individuals may be using drugs/alcohol as a mechanism to cope with mental health issues stemming from toxic stress they have experienced. Local public health data shows deaths and ER visits due to opioid overdoses have increased in the community from 2012 to 2017. Poor mental or behavioral health frequently contributes to or exacerbates problems with physical health and illness. An additional concern reported in all discussion groups was related to connecting patients with services needed, especially coordination of care for patients with co-occurring or dual diagnosis conditions. A concern that social stigmas around mental health are widespread in our communities and may play a key role in whether someone chooses to seek care.

### **Prioritized Health Issue #3: Chronic Disease & Health Risks Prevention**

Chronic diseases, specifically Diabetes, Heart/Cardiovascular, Cancer and Lung/COPD are prevalent health issues. Diabetes and heart disease was the most frequently mentioned chronic disease, and was often linked with discussion about obesity and overweight. The Heart Disease mortality age-adjusted death rate per 100,000 population is 186.8 for the five-county report area, which is more than two times the Missouri rate of 85.63 per 100,000 population. (page 37) Preventing these health issues from occurring is of particular importance through education of children and youth on proper nutrition, fitness and other healthy living habits. Related contributing factors reported were nutrition and diet, low physical activity and exercise levels, and access to healthy food. Access to healthy foods was mentioned as a barrier, including that some cannot afford to purchase fresh produce or would have to travel some distance to access healthy food. There was wide recognition of the toll chronic illness has on health, its impact on the health care system, and the importance of not only treatment but also behavioral change necessary to address the chronic disease, specifically the patient's desire to change and engage in self-management of their chronic disease.

Cancer and Lung/Chronic Obstructive Pulmonary Disease were reported frequently among the top five diseases for hospitalizations, ER visits and chronic disease deaths in the secondary data and are listed as the number two and three top cause of death, respectively, just behind Heart Disease (MICA 2016). The Cancer mortality age-adjusted death rate per 100,000 population is 167.7 for the five-county report area, which significantly higher than the Missouri rate of 87.2 per 100,000 population. (page 38) The Lung disease mortality, age-adjusted death rate per 100,000 population for the five-county report area is 54.7 compared to the Missouri state rate of 11.5. (page 39) Increased awareness of risk factors, cancer services and treatment options, as well as preventative screenings through health promotion is needed in order to increase early detection, and decrease late diagnosis and treatment of cancer and lung diseases.

Alzheimer's disease and dementia were of primary concern for the elderly, including availability of in-home services, respite care, health literacy, and other social and emotional support services. Caring for and coordinating services for persons with Alzheimer's was mentioned as a key issue for family members and caregivers, particularly knowing how and where to obtain proper diagnosis and treatment. Increasing caregiver and provider knowledge of and connecting patients to available services was noted as an opportunity for improvement.

#### **Overweight/Obesity & Physical Inactivity, Smoking & Tobacco Use**

Obesity and physical inactivity are both often pre-cursors to other health issues. Obesity is often the driver of other chronic conditions, such as diabetes, heart disease and cancer. Therefore, many discussion group participants felt obesity prevention is at the core to addressing other health issues by improving community infrastructure for places to walk, exercise, and bike, as well as increasing access to fitness facilities and healthy food sources. Many noted that while improvements are being made in Jefferson City, other communities within the report area are making some, but not enough infrastructure improvements, primarily due to limited funding.

Like obesity, smoking and tobacco use is well-documented to be a risk factor for various forms of cancer, heart disease and other ailments, and pose serious health risks for those exposed to secondhand smoke. The increasing use of e-cigarettes and vapor products, particularly among young people, and the misinformation that they are a healthy alternative to regular cigarette smoking is of major concern. Passage of the Tobacco 21 ordinance in Jefferson City in 2017 was held out as an example of a collaborative community strategy to reduce smoking and tobacco use among young people. Community leaders and elected official who participated in the discussion groups indicated an interest to work with the medical community to develop a road map for potential future health policies.

#### **Prioritized Health Issue #4: Improve Health Literacy**

Health literacy, including chronic disease self-management, preventative care, and life skills education, stress management and coping are needed to improve health and wellness decisions. While 76% of the survey respondents indicated they receive most of their health information from their doctor or health provider, a lack of time spent educating patients in the doctor's office was mentioned by discussion group participants as one barrier to helping patients understand their health condition and how to treat it. It was suggested in the input sessions that health education, preventative screenings, and social and emotional support services be delivered differently throughout communities rather than in the traditional class offerings or group settings. Expanding the opportunities for education of consumers through digital media, health kiosks, providing more mobile health care options, and using community health workers and case managers in a variety of settings, including churches, schools and colleges, to encourage and link individuals to health care or support services. In addition, it was noted that health literacy is a concern that cuts across the other priority areas as well, income and educational disparities, language barriers, lack of insurance and/or understanding of how to use the health care system are some of the issues that undermine health and wellness.

#### **Prioritized Health Issue #5: Address Social Determinants of Health**

According to Healthy People 2020 the conditions in the social and physical environments in which people are born, live, work, and age can have a significant influence on health outcomes. Social determinants of health are impacting the health and wellbeing in our communities. Poverty/unemployment/working poor, affordable housing as well as inadequate social and emotional support systems for victims of abuse or neglect, individuals and families in distress affected by substance abuse or suicide, and those who experience rural isolation, such as the elderly and working poor in our communities, were mentioned as social issues that need to be addressed. Discussion group participants shared concern for increasing poverty in some areas and multigenerational effects of poverty on families in their communities. It was also noted that there are many jobs available in mid-Missouri, however, it is difficult to fill those jobs because applicants cannot pass drug tests, lack appropriate job skills or coping skills, or are affected by family distress or crisis.

The lack of social and emotional support services for victims of abuse or neglect, particularly children, as well as social and emotional support services for the aging population in the rural communities are more restricted due to diminished resources and previous grant funding that is no longer available.

Local public health agencies (LPHA) and medical clinic providers reported seeing an increase in sexually transmitted diseases (refer to LPH data on page 60). New cases of chlamydia, gonorrhea and syphilis are showing a five-year trend of rising sexually transmitted diseases in the five-county report area, according to the data provided by the LPHAs. It was reported that this increase may be due to a lack of awareness and changing sexual behavior. The local public health agencies discussed their fundamental activities in addressing communicable diseases, but noted they are challenged due to lack of funding and resources. A recent report published by the Missouri Association of Local Public Health Agencies, in a 2016 comparison of State general revenue spending on local public health showed that Missouri has the lowest general revenue per capita public health spending in the United States. The national average for per capita spending on public health is \$31.62, while Missouri is at \$5.88. Missouri is ranked 50<sup>th</sup> in state rankings for general revenue spending on public health. According to that report, Missouri has some of the highest rates of childhood obesity, heart disease, diabetes, high blood pressure, unintentional injuries, and sexually transmitted diseases in the nation.



# COMPARISON TO 2016-2018 IDENTIFIED PRIORITY NEEDS

## **# 1. Heart Disease/Obesity Prevention**

Heart Disease and obesity were the number one health priority in the 2015 CMCHAP report. The rate of obesity was attributed to many health problems, most notably heart disease, which is the most prevalent disease/condition and the leading cause of death in Missouri including three of the four counties in our region.

## **# 2. Mental Health**

Mental health disorders was rated as the second health priority in the 2015 CMCHAP report for reasons that include: it was prominent discussions as an emerging health issue in all county input sessions among social service providers, law enforcement, clergy and school systems who agreed that there was a need for additional treatment services including for children, community education on types of mental health disorders, evaluation, treatment and the impact of social stigma for those who need services. The data also reflected that mental disorders were #3 for inpatient hospitalizations for Cole and Miller counties and #5 for Osage and state of Missouri data, ranked mental disorders as #3 for inpatient hospitalizations according to 2012 MICA.

## **# 3. Health Literacy**

Health literacy was ranked as a number three priority in the 2015 CMCHAP report for reasons that included a significant need in helping people process and understand basic health information and services needed to make appropriate health and wellness decisions. Nearly nine out of 10 adults were shown to have difficulty using the everyday health information that is routinely available in health care facilities, retail outlets, media and community.

## **#4. Substance Abuse**

Substance abuse was ranked as a number four priority in the 2015 CMCHAP report as a result of frequent mentions as a serious issue by discussion group participants. The MICA data set ranked alcohol/substance abuse as the #2 disease or condition behind only diabetes. Overwhelmingly, the community leaders group had pointed to drug and alcohol use as a growing issue and expressed youth as a leading concern.

## **#5. Dental Care**

The need for dental care, particularly for adults, was ranked a fifth priority in the 2015 CMCHAP report for reasons that include: Missouri Medicaid coverage for dental treatment is restrictive; a shortage of dental providers who accept Medicaid existed, and that there is a strong connection to dental health and overall wellness and evidence linking dental health to poorly controlled diabetes and heart disease.

# APPENDICES

# APPENDIX A

## Secondary Data

- ❖ **Community Commons Health Indicator Report**  
**[2018 Central Missouri Community Assessment Partnership Health Indicators Report](#)**
  
- ❖ **exploreMOhealth.org**  
**[ZIP Health - Compare County and ZIP Code Data](#)**
  
- ❖ **Missouri Department of Mental Health**  
**2017 Status Report on Missouri's Substance use and Mental Health, Section E: Missouri Statewide, County, & Region Profiles**  
**<https://dmh.mo.gov/ada/rpts/2017statusreport.html>**

# APPENDIX B

## Health Indicator Listing



# Community Health Needs Assessment (CHNA)

## Indicator Data List

#	Category	Indicator	Data Source	Source Geography
1	Demographics	Total Population	US Census Bureau, American Community Survey. 2012-16.	Tract
2	Demographics	Change in Total Population	US Census Bureau, Decennial Census. 2000 - 2010.	Tract
3	Demographics	Families with Children	US Census Bureau, American Community Survey. 2012-16.	Tract
4	Demographics	Female Population	US Census Bureau, American Community Survey. 2012-16.	Tract
5	Demographics	Male Population	US Census Bureau, American Community Survey. 2012-16.	Tract
6	Demographics	Median Age	US Census Bureau, American Community Survey. 2012-16.	Tract
7	Demographics	Population Under Age 18	US Census Bureau, American Community Survey. 2012-16.	Tract
8	Demographics	Population Age 0-4	US Census Bureau, American Community Survey. 2012-16.	Tract
9	Demographics	Population Age 5-17	US Census Bureau, American Community Survey. 2012-16.	Tract
10	Demographics	Population Age 18-64	US Census Bureau, American Community Survey. 2012-16.	Tract
11	Demographics	Population Age 18-24	US Census Bureau, American Community Survey. 2012-16.	Tract
12	Demographics	Population Age 25-34	US Census Bureau, American Community Survey. 2012-16.	Tract
13	Demographics	Population Age 35-44	US Census Bureau, American Community Survey. 2012-16.	Tract
14	Demographics	Population Age 45-54	US Census Bureau, American Community Survey. 2012-16.	Tract
15	Demographics	Population Age 55-64	US Census Bureau, American Community Survey. 2012-16.	Tract
16	Demographics	Population Age 65+	US Census Bureau, American Community Survey. 2012-16.	Tract
17	Demographics	Population with Any Disability	US Census Bureau, American Community Survey. 2012-16.	Tract
18	Demographics	Population in Limited English Households	US Census Bureau, American Community Survey. 2012-16.	Tract
19	Demographics	Population with Limited English Proficiency	US Census Bureau, American Community Survey. 2012-16.	Tract
20	Demographics	Population Geographic Mobility	US Census Bureau, American Community Survey. 2012-16.	Tract
21	Demographics	Foreign-Born Population	US Census Bureau, American Community Survey. 2012-16.	Tract
22	Demographics	Hispanic Population	US Census Bureau, American Community Survey. 2012-16.	Tract
23	Demographics	Urban and Rural Population	US Census Bureau, Decennial Census. 2010.	Tract
24	Demographics	Veteran Population	US Census Bureau, American Community Survey. 2012-16.	Tract
25	Social & Economic Factors	Children Eligible for Free/Reduced Price Lunch	National Center for Education Statistics, NCES - Common Core of Data. 2015-16.	Address
26	Social & Economic Factors	Food Insecurity Rate	Feeding America. 2014.	County
27	Social & Economic Factors	Head Start	US Department of Health & Human Services, Administration for Children and Families. 2018.	Point
28	Social & Economic Factors	High School Graduation Rate (Ed&lt;i>&gt;Facts&lt;i>/i&gt;)	US Department of Education, ED&lt;i>&gt;Facts&lt;i>/i&gt;.	School District
29	Social & Economic Factors	High School Graduation Rate (NCES)	National Center for Education Statistics, NCES - Common Core of Data. 2008-09.	County
30	Social & Economic Factors	Households with No Motor Vehicle	US Census Bureau, American Community Survey. 2012-16.	Tract
31	Social & Economic Factors	Housing Cost Burden (30%)	US Census Bureau, American Community Survey. 2012-16.	Tract

32	Social & Economic Factors	Income - Families Earning Over \$75,000	US Census Bureau, American Community Survey. 2012-16.	Tract
33	Social & Economic Factors	Income - Inequality (GINI Index)	US Census Bureau, American Community Survey. 2012-16.	Tract
34	Social & Economic Factors	Income - Median Family Income	US Census Bureau, American Community Survey. 2012-16.	Tract
35	Social & Economic Factors	Income - Per Capita Income	US Census Bureau, American Community Survey. 2012-16.	Tract
36	Social & Economic Factors	Income - Public Assistance Income	US Census Bureau, American Community Survey. 2012-16.	Tract
37	Social & Economic Factors	Insurance - Population Receiving Medicaid	US Census Bureau, American Community Survey. 2012-16.	Tract
38	Social & Economic Factors	Insurance - Uninsured Adults	US Census Bureau, Small Area Health Insurance Estimates. 2016.	County
39	Social & Economic Factors	Insurance - Uninsured Children	US Census Bureau, Small Area Health Insurance Estimates. 2016.	County
40	Social & Economic Factors	Insurance - Uninsured Population	US Census Bureau, American Community Survey. 2012-16.	Tract
41	Social & Economic Factors	Lack of Social or Emotional Support	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
42	Social & Economic Factors	Population Receiving SNAP Benefits (ACS)	US Census Bureau, American Community Survey. 2012-16.	Tract
43	Social & Economic Factors	Population Receiving SNAP Benefits (SAIPE)	US Census Bureau, Small Area Income & Poverty Estimates. 2015.	County
44	Social & Economic Factors	Population with Associate's Level Degree or Higher	US Census Bureau, American Community Survey. 2012-16.	Tract
45	Social & Economic Factors	Population with Bachelor's Degree or Higher	US Census Bureau, American Community Survey. 2012-16.	Tract
46	Social & Economic Factors	Population with No High School Diploma	US Census Bureau, American Community Survey. 2012-16.	Tract
47	Social & Economic Factors	Poverty - Children Below 100% FPL	US Census Bureau, American Community Survey. 2012-16.	Tract
48	Social & Economic Factors	Poverty - Children Below 200% FPL	US Census Bureau, American Community Survey. 2012-16.	Tract
49	Social & Economic Factors	Poverty - Population Below 100% FPL	US Census Bureau, American Community Survey. 2012-16.	Tract
50	Social & Economic Factors	Poverty - Population Below 185% FPL	US Census Bureau, American Community Survey. 2012-16.	Tract
51	Social & Economic Factors	Poverty - Population Below 200% FPL	US Census Bureau, American Community Survey. 2012-16.	Tract
52	Social & Economic Factors	Poverty - Population Below 50% FPL	US Census Bureau, American Community Survey. 2012-16.	Tract
53	Social & Economic Factors	Student Reading Proficiency (4th Grade)	US Department of Education, EDData. 2014-15.	School District
54	Social & Economic Factors	Teen Births	Centers for Disease Control and Prevention, National Vital Statistics System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County

55	Social & Economic Factors	Unemployment Rate	US Department of Labor, Bureau of Labor Statistics. 2018 - June.	County
56	Social & Economic Factors	Violent Crime	Federal Bureau of Investigation, FBI Uniform Crime Reports. 2012-14.	County
57	Physical Environment	Air Quality - Ozone	Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network. 2012.	Tract
58	Physical Environment	Air Quality - Particulate Matter 2.5	Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network. 2012.	Tract
59	Physical Environment	Climate & Health - Drought Severity	US Drought Monitor. 2012-14.	County
60	Physical Environment	Climate & Health - High Heat Index Days	National Oceanic and Atmospheric Administration, North America Land Data Assimilation System (NLDAS) . 2014.	County
61	Physical Environment	Food Access - Fast Food Restaurants	US Census Bureau, County Business Patterns. 2016.	ZCTA
62	Physical Environment	Food Access - Food Desert Census Tracts	US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2015.	
63	Physical Environment	Food Access - Grocery Stores	US Census Bureau, County Business Patterns. 2016.	ZCTA
64	Physical Environment	Food Access - Low Food Access	US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2015.	Tract
65	Physical Environment	Food Access - Low Income & Low Food Access	US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2015.	Tract
66	Physical Environment	Food Access - Modified Retail Food Environment Index	Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity, and Obesity. 2011.	Tract
67	Physical Environment	Food Access - SNAP-Authorized Food Stores	US Department of Agriculture, Food and Nutrition Service, USDA - SNAP Retailer Locator. 2017.	Tract
68	Physical Environment	Food Access - WIC-Authorized Food Stores	US Department of Agriculture, Economic Research Service, USDA - Food Environment Atlas. 2011.	County
69	Physical Environment	Housing - Assisted Housing	US Department of Housing and Urban Development. 2016.	County
70	Physical Environment	Housing - Housing Unit Age	US Census Bureau, American Community Survey. 2012-16.	Tract
71	Physical Environment	Housing - LIHTC	US Department of Housing and Urban Development. 2014.	County
72	Physical Environment	Housing - Mortgage Lending	Federal Financial Institutions Examination Council, Home Mortgage Disclosure Act. 2014.	
73	Physical Environment	Housing - Overcrowded Housing	US Census Bureau, American Community Survey. 2012-16.	Tract
74	Physical Environment	Housing - Substandard Housing	US Census Bureau, American Community Survey. 2012-16.	Tract
75	Physical Environment	Housing - Vacancy Rate	US Census Bureau, American Community Survey. 2012-16.	Tract
76	Physical Environment	Liquor Store Access	US Census Bureau, County Business Patterns. 2016.	ZCTA
77	Physical Environment	Recreation and Fitness Facility Access	US Census Bureau, County Business Patterns. 2016.	ZCTA
78	Physical Environment	Use of Public Transportation	US Census Bureau, American Community Survey. 2012-16.	Tract
79	Clinical Care	Access to Dentists	US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2015.	County
80	Clinical Care	Access to Mental Health Providers	University of Wisconsin Population Health Institute, County Health Rankings. 2018.	County
81	Clinical Care	Access to Primary Care	US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource	County



			File. 2014.	
82	Clinical Care	Cancer Screening - Mammogram	Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2014.	County
83	Clinical Care	Cancer Screening - Pap Test	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
84	Clinical Care	Cancer Screening - Sigmoidoscopy or Colonoscopy	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
85	Clinical Care	Dental Care Utilization	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-10.	County
86	Clinical Care	Diabetes Management - Hemoglobin A1c Test	Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2014.	County
87	Clinical Care	Facilities Designated as Health Professional Shortage Areas	US Department of Health & Human Services, Health Resources and Services Administration, Health Resources and Services Administration. April 2016.	Address
88	Clinical Care	Federally Qualified Health Centers	US Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File. March 2018.	Address
89	Clinical Care	High Blood Pressure Management	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-10.	County
90	Clinical Care	HIV Screenings	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
91	Clinical Care	Lack of a Consistent Source of Primary Care	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
92	Clinical Care	Lack of Prenatal Care	Centers for Disease Control and Prevention, National Vital Statistics System. Centers for Disease Control and Prevention, Wide-Ranging Online Data for Epidemiologic Research. 2007-10.	County
93	Clinical Care	Pneumonia Vaccination	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
94	Clinical Care	Population Living in a Health Professional Shortage Area	US Department of Health & Human Services, Health Resources and Services Administration, Health Resources and Services Administration. April 2016.	HPSA
95	Clinical Care	Preventable Hospital Events	Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2014.	County
96	Clinical Care	Recent Primary Care Visit	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2015.	
97	Health Behaviors	Alcohol Consumption	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
98	Health Behaviors	Alcohol Expenditures	Nielsen, Nielsen SiteReports. 2014.	Tract
99	Health Behaviors	Fruit/Vegetable Consumption	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09.	County
100	Health Behaviors	Fruit/Vegetable Expenditures	Nielsen, Nielsen SiteReports. 2014.	Tract
101	Health Behaviors	Physical Inactivity	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013.	County

102	Health Behaviors	Soda Expenditures	Nielsen, Nielsen SiteReports. 2014.	Tract
103	Health Behaviors	Tobacco Expenditures	Nielsen, Nielsen SiteReports. 2014.	Tract
104	Health Behaviors	Tobacco Usage - Current Smokers	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
105	Health Behaviors	Tobacco Usage - Former or Current Smokers	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
106	Health Behaviors	Tobacco Usage - Quit Attempt	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
107	Health Behaviors	Walking or Biking to Work	US Census Bureau, American Community Survey. 2012-16.	Tract
108	Health Outcomes	Asthma Prevalence	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
109	Health Outcomes	Cancer Incidence - Breast	State Cancer Profiles. 2010-14.	County
110	Health Outcomes	Cancer Incidence - Cervical	State Cancer Profiles. 2009-13.	County
111	Health Outcomes	Cancer Incidence - Colon and Rectum	State Cancer Profiles. 2010-14.	County
112	Health Outcomes	Cancer Incidence - Lung	State Cancer Profiles. 2010-14.	County
113	Health Outcomes	Cancer Incidence - Prostate	State Cancer Profiles. 2010-14.	County
114	Health Outcomes	Depression (Medicare Population)	Centers for Medicare and Medicaid Services. 2015.	County
115	Health Outcomes	Diabetes (Adult)	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013.	County
116	Health Outcomes	Diabetes (Medicare Population)	Centers for Medicare and Medicaid Services. 2015.	County
117	Health Outcomes	Heart Disease (Adult)	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
118	Health Outcomes	Heart Disease (Medicare Population)	Centers for Medicare and Medicaid Services. 2015.	County
119	Health Outcomes	High Blood Pressure (Adult)	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
120	Health Outcomes	High Blood Pressure (Medicare Population)	Centers for Medicare and Medicaid Services. 2015.	County
121	Health Outcomes	High Cholesterol (Adult)	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
122	Health Outcomes	High Cholesterol (Medicare Population)	Centers for Medicare and Medicaid Services. 2015.	County
123	Health Outcomes	Infant Mortality	US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File. 2006-10.	County

124	Health Outcomes	Low Birth Weight	Centers for Disease Control and Prevention, National Vital Statistics System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
125	Health Outcomes	Mortality - Cancer	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
126	Health Outcomes	Mortality - Coronary Heart Disease	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
127	Health Outcomes	Mortality - Drug Poisoning	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
128	Health Outcomes	Mortality - Heart Disease	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
129	Health Outcomes	Mortality - Homicide	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
130	Health Outcomes	Mortality - Lung Disease	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
131	Health Outcomes	Mortality - Motor Vehicle Crash	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
132	Health Outcomes	Mortality - Pedestrian Motor Vehicle Crash	US Department of Transportation, National Highway Traffic Safety Administration, Fatality Analysis Reporting System. 2011-2015.	County
133	Health Outcomes	Mortality - Premature Death	University of Wisconsin Population Health Institute, County Health Rankings. 2014-16.	County
134	Health Outcomes	Mortality - Stroke	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
135	Health Outcomes	Mortality - Suicide	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
136	Health Outcomes	Mortality - Unintentional Injury	Centers for Disease Control and Prevention, National Vital Statistics System. 2012-16.	County
137	Health Outcomes	Obesity	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013.	County
138	Health Outcomes	Overweight	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2011-12.	County
139	Health Outcomes	Poor Dental Health	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-10.	County
140	Health Outcomes	Poor General Health	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. US Department of Health & Human Services, Health Indicators Warehouse. 2006-12.	County
141	Health Outcomes	STI - Chlamydia Incidence	Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. US Department of Health & Human Services, Health Indicators Warehouse. 2014.	County
142	Health Outcomes	STI - Gonorrhea Incidence	Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. US Department of Health & Human Services, Health Indicators Warehouse. 2014.	County
143	Health Outcomes	STI - HIV Prevalence	Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. US Department of Health & Human Services, Health Indicators Warehouse. 2013.	County

# APPENDIX C

## Community Perception Survey

# Central Missouri Community Health Assessment Partnership

## 2018 Community Health Needs Assessment Community Survey

The purpose of this assessment project is to better understand the community health environment in Central Missouri, including the counties of Callaway, Cole, Miller, Moniteau and Osage. You are invited to participate in this survey because you are a member of this community! Please note: Your participation in this project is voluntary. You may choose not to participate. By completing this survey, you are agreeing to participate. If you decide to participate in this project, you may withdraw at any time. If you decide not to participate in this project or if you withdraw from participating at any time, you will not be penalized. Your responses will be confidential. If you complete the survey we will ask for your email address only to provide information. You may choose not to provide your email address without being penalized.



### 1. What are the greatest strengths of your community? Please select three (3).

<input type="checkbox"/> Access to health care <input type="checkbox"/> Access to healthy food (fresh fruits, vegetables) <input type="checkbox"/> Access to mental health care <input type="checkbox"/> Arts and cultural events <input type="checkbox"/> Clean and healthy environment <input type="checkbox"/> Good schools <input type="checkbox"/> High quality childcare <input type="checkbox"/> Jobs and a good economy <input type="checkbox"/> Local 24-hour police, fire, and rescue services	<input type="checkbox"/> Low crime and safe neighborhoods <input type="checkbox"/> Low violence (domestic, elder, child) <input type="checkbox"/> Meets basic needs for everyone (food, shelter, clothing) <input type="checkbox"/> Parks and recreation <input type="checkbox"/> Public transportation services <input type="checkbox"/> Respect for different cultures and races <input type="checkbox"/> Safe walking and biking routes <input type="checkbox"/> Working toward an end to homelessness
Other (please specify)	

### 2. What are the most important issues in your community? Please select three (3) areas where your community should focus.

<input type="checkbox"/> Ability to pay for health care/lack of insurance <input type="checkbox"/> Accidental injuries (falls, breaks, sprains) <input type="checkbox"/> Accidental overdose <input type="checkbox"/> Adult care services <input type="checkbox"/> Affordable child care services <input type="checkbox"/> Alcohol use <input type="checkbox"/> Alzheimer's Disease <input type="checkbox"/> Asthma <input type="checkbox"/> Basic needs (clothing, food, shelter) <input type="checkbox"/> Bullying <input type="checkbox"/> Cancer <input type="checkbox"/> Child abuse/neglect <input type="checkbox"/> Childhood obesity <input type="checkbox"/> Dental health (healthy teeth) <input type="checkbox"/> Diabetes <input type="checkbox"/> Disabilities (physical, intellectual, sensory, developmental) <input type="checkbox"/> Disease that is chronic (doesn't go away, such as lung disease or arthritis)	<input type="checkbox"/> Heart Disease <input type="checkbox"/> Homelessness <input type="checkbox"/> Lack of physical activity <input type="checkbox"/> Lack of transportation <input type="checkbox"/> LGBT health services <input type="checkbox"/> Low birth weight babies <input type="checkbox"/> Mental health (anxiety, depression) <input type="checkbox"/> Not using a car seat / seat belt <input type="checkbox"/> Not using helmets <input type="checkbox"/> Not using seatbelts <input type="checkbox"/> Physical or sexual assault <input type="checkbox"/> Poor nutrition <input type="checkbox"/> Programs, activities, and support for youth and teens during non-school hours <input type="checkbox"/> Programs, activity and support for the senior community <input type="checkbox"/> Regular checkups <input type="checkbox"/> Secondhand smoke exposure <input type="checkbox"/> Sexually transmitted diseases
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<input type="checkbox"/> Distracted driving (texting/cell phone use) <input type="checkbox"/> Domestic abuse <input type="checkbox"/> Dropping out of school <input type="checkbox"/> Drug use <input type="checkbox"/> Elder abuse/neglect <input type="checkbox"/> Homicide <input type="checkbox"/> Impaired driving (drug/alcohol)	<input type="checkbox"/> Suicide <input type="checkbox"/> Tobacco use (cigarettes, snuff, chewing tobacco, e-cigarettes) <input type="checkbox"/> Too much screen time <input type="checkbox"/> Unintended pregnancy <input type="checkbox"/> Unsafe neighborhoods
Other (please specify)	

**3. What would most improve the quality of life in your community? Please select three (3) areas where your community should focus.**

<input type="checkbox"/> A cleaner and healthier environment <input type="checkbox"/> An end to homelessness <input type="checkbox"/> Better access to healthcare <input type="checkbox"/> Better access to healthy food (fresh fruits and vegetables) <input type="checkbox"/> Better access to mental health care <input type="checkbox"/> Better schools <input type="checkbox"/> Improved local 24-hr police, fire, and rescue services <input type="checkbox"/> Less violence (domestic, elder, child) <input type="checkbox"/> Lower crime and safer neighborhoods <input type="checkbox"/> Meet basic needs for everyone (food, shelter, clothing)	<input type="checkbox"/> More affordable housing <input type="checkbox"/> More arts and cultural events <input type="checkbox"/> More high-quality childcare <input type="checkbox"/> More jobs and a healthier economy <input type="checkbox"/> More parks and recreation <input type="checkbox"/> More public transportation services <input type="checkbox"/> More respect for different cultures and races <input type="checkbox"/> Reduction of Accidental injuries (falls, breaks, sprains) <input type="checkbox"/> Safer walking and biking routes <input type="checkbox"/> Smoke free environment
Other (please specify)	

**4. Where do you get most of your health information? (Check all that apply)**

<input type="checkbox"/> Church group <input type="checkbox"/> Doctor/health provider <input type="checkbox"/> Facebook or Twitter <input type="checkbox"/> Family or friends <input type="checkbox"/> Health Department <input type="checkbox"/> Hospital <input type="checkbox"/> Internet	<input type="checkbox"/> Library <input type="checkbox"/> Newspaper or magazines <input type="checkbox"/> Other social media <input type="checkbox"/> Radio <input type="checkbox"/> School or college <input type="checkbox"/> TV <input type="checkbox"/> Worksite
Other (please specify)	

**5. Do you use tobacco products?**

- Yes
- No

**6. Which tobacco products do you use?**

- Cigarettes/Cigars/Pipe
- E-cigarettes

- Smokeless tobacco/chewing tobacco
- Other (please specify) \_\_\_\_\_

**7. Do you want to quit using tobacco products?**

- Yes
- No

**8. What would motivate you to quit?**

**9. Please select the top three (3) health challenges you face.**

<input type="checkbox"/> Alcohol overuse <input type="checkbox"/> Cancer <input type="checkbox"/> Diabetes <input type="checkbox"/> Drug addiction <input type="checkbox"/> Heart Disease <input type="checkbox"/> High blood pressure/Hypertension <input type="checkbox"/> Joint pain or back pain	<input type="checkbox"/> Mental health issues <input type="checkbox"/> Overweight/obesity <input type="checkbox"/> Pneumonia <input type="checkbox"/> Respiratory Problems <input type="checkbox"/> Stroke <input type="checkbox"/> I do not have any health challenges
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**10. Have you visited a doctor (primary care) in the past 12 months?**

- Yes
- No
- Other (please specify) \_\_\_\_\_

**11. The recommendation for physical activity is 30 minutes a day 5 days a week (2.5 hours per week). Which, if any, prevent you from getting this much physical activity? (Select all that apply.)**

<input type="checkbox"/> Arthritis <input type="checkbox"/> Back or neck pain <input type="checkbox"/> Bone injury/fracture/joint injury <input type="checkbox"/> Hypertension/High Blood Pressure <input type="checkbox"/> I am physically disabled	<input type="checkbox"/> Lack of Childcare <input type="checkbox"/> Lung/breathing problems <input type="checkbox"/> Walking problems <input type="checkbox"/> Nothing, I get this much physical activity <input type="checkbox"/> I don't have time to exercise
--	--

**12. Where do you go most often when you are sick?**

<input type="checkbox"/> Free Clinic <input type="checkbox"/> Health Department <input type="checkbox"/> Hospital <input type="checkbox"/> OB/GYN <input type="checkbox"/> Pharmacy	<input type="checkbox"/> Primary Care Doctor <input type="checkbox"/> Urgent Care Center <input type="checkbox"/> Walk-in Clinic <input type="checkbox"/> I don't go anywhere
---	--

**13. Where do you go when you need your yearly check-up or physical? (check all that apply)**

<input type="checkbox"/> Free Clinic <input type="checkbox"/> Health Department <input type="checkbox"/> Hospital <input type="checkbox"/> OB/GYN <input type="checkbox"/> Pharmacy	<input type="checkbox"/> Primary Care Doctor <input type="checkbox"/> Urgent Care Center <input type="checkbox"/> Walk-in Clinic <input type="checkbox"/> I don't go anywhere
Other (please specify)	

**14. Which of the following preventive procedures/care have you had in the past 12 months?**

<input type="checkbox"/> Blood pressure check <input type="checkbox"/> Blood sugar check <input type="checkbox"/> Bone density test <input type="checkbox"/> Cardiovascular screening <input type="checkbox"/> Cholesterol screening <input type="checkbox"/> Colon cancer screening <input type="checkbox"/> Dental cleaning/checkup <input type="checkbox"/> Depression screening <input type="checkbox"/> Flu shot	<input type="checkbox"/> Hearing screening <input type="checkbox"/> Mammogram <input type="checkbox"/> Pap smear <input type="checkbox"/> Physical exam <input type="checkbox"/> Prostate cancer screening <input type="checkbox"/> Skin cancer screening <input type="checkbox"/> Vision screening <input type="checkbox"/> None of above
Other (please specify)	

**15. Was there a time, in the past 12 months, where you needed to see a doctor but didn't?**

- Yes  
 No

**16. If not, why didn't you see a doctor?**

<input type="checkbox"/> Could not get an appointment <input type="checkbox"/> Couldn't afford it <input type="checkbox"/> Lack of transportation <input type="checkbox"/> No insurance	<input type="checkbox"/> Not comfortable with doctors <input type="checkbox"/> Not sure how to find a doctor <input type="checkbox"/> Too busy to make appointment
Other (please specify)	

**17. Which of the following are the top 5 things that impact access to health care in our community?**

<input type="checkbox"/> Hours of operation <input type="checkbox"/> Lack of affordable health insurance <input type="checkbox"/> Lack of support for special needs children <input type="checkbox"/> Lack of coordination of care <input type="checkbox"/> Lack of dental health services <input type="checkbox"/> Lack of health care services <input type="checkbox"/> Lack of senior services	<input type="checkbox"/> Lack of mental health services <input type="checkbox"/> Lack of health professionals <input type="checkbox"/> Lack of specialists <input type="checkbox"/> Lack of substance abuse support <input type="checkbox"/> Lack of transportation <input type="checkbox"/> Long-wait times for appointments
Other (please specify)	

**18. Please select the option that best describes your health insurance provider.**

- Medicaid  
 Medicare  
 Private Insurance  
 Self-Pay / Uninsured

**19. How old are you?** \_\_\_\_\_

**20. What is your gender?**

- Male  
 Female  
 Other (please specify) \_\_\_\_\_



**21. With which race do you most identify? (mark all that apply)**

- African American/Black
- Asian
- American Indian
- White
- Native Hawaiian & Other Pacific Islander
- Alaskan Native

**22. Are you Hispanic or Latino?**

- Yes
- No

**23. What is the country of your birth?** \_\_\_\_\_

**24. What is your highest level of education?**

- Less than high school diploma
- High school diploma or GED
- Some college
- Associate's degree
- Bachelor's degree
- Graduate degree

**25. Household income (yearly)**

- <\$10,000
- \$10,000-14,999
- \$15,000-24,999
- \$25,000-34,999
- \$35,000-49,999
- \$50,000-74,999
- \$75,000-99,999
- \$100,000-149,999
- \$150,000+

**26. How many people in the following age groups are supported by the household income from the previous question?**

- \_\_\_\_\_ Children under 18
- \_\_\_\_\_ Adults age 18 to 64
- \_\_\_\_\_ Adults age 65 and older
- \_\_\_\_\_ Don't know or choose not to answer

**27. What is your zip code?** \_\_\_\_\_

**28. What is your county of residence?**

- Callaway
- Osage
- Cole
- Miller
- Moniteau
- Other (please specify) \_\_\_\_\_

**29. Would you like to be contacted with updates about events? If so, please include your email address:**

## APPENDIX D

# Top 50 Identified Health Issues & Social Determinants

# Top 50 Identified Health Issues & Social Determinants

*(Identified through survey collection, secondary data and community input sessions)*

## **Access**

- Access to Adult Dental Care
- Access to Health Care/Medical Care
- Access to Mental/Behavioral Health Services
- Access to Preventative Care / Screenings
- Access to Substance Abuse / Addiction Treatment
- Access to Transportation / Public Transportation

## **Health Diseases / Conditions**

- Arthritis/Lupus
- Cancer
- Dementia / Alzheimer's
- Diabetes
- Heart / Cardiovascular
- Infant Health Problems
- Lung / COPD
- Mental Health Disorders
- Motor Vehicle Accidents
- Risk for Suicide
- Sexually Transmitted Diseases
- Substance Abuse / Addiction

## **Risk Factors**

- Health Literacy
- Heavy Drinking
- High Blood Pressure
- High Cholesterol
- Hygiene
- No Exercise / Physical Inactivity
- Overweight / Obesity
- Poor Diet
- Smoking / Tobacco Use
- Stress Management / Ability to Cope

## **Environment Factors**

- Access to Healthy Food
- Affordable Housing
- Exposure to Secondhand Smoke
- Places to Walk, Exercise, Bike
- Safe / Quiet Neighborhoods
- Services / Support for Special Needs
- Smoke-Free Policies

## **Social Determinants & Economic Factors**

- Aging Population
- Food Insecurity
- Homelessness
- Income Level / Working Poor
- Language / Cultural Barriers
- Level of Education
- Poverty
- Rural Isolation
- Sexual Abuse
- Social / Emotional Support
- Teen Births
- Unemployment
- Uninsured / Underinsured
- Violence / Crime

# APPENDIX E

## Community Representation

## COMMUNITY REPRESENTATION

The CMCHAP would like to thank all of the agencies and individuals who participated in this process and represented their communities. We appreciate their knowledge, collaboration, commitment and input into making our communities a great place to live, work and visit.

Artwin Ehrhardt	Three Rivers Electric Cooperative
Byron Shaw	MECO Engineering
Carrie Tergin	City of Jefferson - Mayor
Chris Yarnell	Engineering Surveys & Services
Cyndy Schnieders	Central Bank
Dan Bernskoetter	Retires
David Bock	Mid Mo Planning Commission
Doug Reese	St. Martins
Gary Elliott	Lohman
Greg Gaffke	Retired
Harold McDowell	McDowell Realty
John Wheeler	Cole County Sheriff's Dept.
Karen Platter	Individual
Kristen Wright	Sen. Claire McCaskill's Office
Kristi Campbell	County of Cole
Larry J. Benz	County of Cole
Lori Hoelscher	Ameren Missouri
Mike (Pee Wee) Forck	Forck Farms & Services
Sam Bushman	Samuel's Tuxedos
Sharon Naught	Naught-Naught Insurance Agency
Bob Reed	MO-SBTDC
Tom Kirchner	Committee Only Individuals
Dave Griffith	Individual
Bob Reed	SBTDC - State of Missouri/University of Mo
Jan Wyatt	City of Russellville
Karen Platter	Individual
Kristi Campbell	Cole County Health Dept.
Doug Herigon	CenturyLink
Robert Schellman	City of St. Thomas
Joe Gamm	News Tribune
John Christman	Calvary Lutheran HS
Bob Gilbert	Bartlett & West
Donna Deetz	The Trolley Company
Kristen Berhorst	County of Cole
Greg Dorge	CMPS
Keith Brickey	CMPS
Bill Gratz	City of Wardsville
Bill Farr	County of Cole
Sam Hager	City of St. Martins
Lori Massman	Scholastics
Tom Shadow	Retired
Lynda Zimmerman	University of Missouri Extension
Janet Wear-Enloe	SSM Health
Kristy Schriefer	Winter-Dent
Steve Crowel	City of Jefferson
Linda McAnany	Retired
Doug Shoemaker	JCPD
Ryan Freeman	Freeman Mortuary
Keith Enloe	Missouri Farm Bureau

Ashley Varner	CRMC
Cynthia M. Schnieders	Central Bank
Justin Klocke	US Senator Claire McCaskill's office
Joseph Davies	US Bank
Melle Richardson	CDFY
Stephen Njenga	Missouri Hospital Association
Chuck Daugherty	ACT Missouri
Amy Freeman	Freeman Mortuary
Brian Vogeler	Salvation Army
Judy R.	Resident
Karen Cade	Pathways
Lauren	American Red Cross
Christell Huber	University of Missouri Extension
Donna Scheidt	Little Explorers
Kevin Wehner	Central Missouri Community Action
Lorna Cockrum	Community Health Center of Central Missouri
DeAnne Alonso	CMFCAA
Joy Sweeney	Council for Drug Free Youth
Debbie Hamler	Special Learning Center
Health Gieck	The Healing House of New Beginnings
Brian Vogeler	Salvation Army
Diane Haug	Salvation Army
Gina clement	Capital City CASA
Sarah Nussmaum	Mid-MO RPC
Kelly English	City of Jefferson
Joy Ledbetter	Boys and Girls Club
Alden Hendrickson	RACS
Stefani Thompson	CMCA
Jamie Cell	CMCA
Jess Weld	CMCA
Angie Sullivan	Girl Scouts
Robin Gerstner	United Health Care
Gwendolyn Jennings	RACS
Sue Engleage	CMFCAA
LT. Chris White	Salvation Army
Lorie Smith	Dreams to Reality
Melissa Schulte	The Food Bank
Andrea Kincaid	Moniteau County Health Dept
Maura Ramatoski	ABLE
Sarah Wood	Homemaker Health Care
Lee Knernschild	BBBs
Cristal Backer	The Food Bank
Lori Massman	United Way
Jessica Kever	YMCA
Emily Butler	JCHA
Tiffany Rutledge	CRMC
Beverly Stafford	SSM
Ann Bax	United Way
Martha Ray	CMCA
Susan Long	Osage County Health Department
Arlen Schroeder	Retired
Kay Schroeder Retired	Resident
MaKayla Wieber	State Tech Student
Rene Christensen	University Missouri Extension

Tanya Robinson	Resident
Dema Schnauss	MSHP
Elise Brochu	City of Chamois
Lucy Brenner	Parish Nurse
Sue Muenks	Lions Club – Chamois
Margie Luebbert	Parish Nurse
Justin Klocke	US Senator Claire McCaskill’s office
Dorcas Ruff	City Clerk Chamois
David Baac	Regel College NP Student
Fr. Dan Merz	Pastor
Lorna Cockrum	Community Health Center of Central Missouri
Lorie Winslow	Linn Elementary School
Joyce Everett	Linn Elementary School
Dawn Brune	Linn Elementary School
Chuck Drace	The Well Rural Resource
Derek Nelson	Ward III Eldon
Lyn Pendleton	Resident
Lori Ellis	Eldon Farmers Market
Christina Steuper	Miller County RIII
Jason Price	Miller County RIV
Dave Whittle	Whittles Pub & Grub
Tabby Whittle	Tabby & Paula’s Salon
Rebecca Hedrick	Gateway Inclusive
Doug Partridge	City of Eldon
Cera Lusher	MODHSS and resident
Nathaniel Billinger	Resident
Alex Lusher	Resident
Jennifer Bethurem	Lake Regional
Stephanie Dehner	Lake Regional
Monica McMillen	Resident
Aryn Kirkweg	Resident
Sheila Curtman	Resident
Bill Washburn	Resident
Schonie Briggs Taylor	Resident
Allen Fennewald	JC New Tribune
Debbie Feedback	Resident
Matt Davis	Eldon Schools
Larry Henderson	City of Eldon
Robb Young	Edward Jones
Bill Foglesong	FCC Eldon
Linn Foglesong	FCC Eldon
Winnie McKinley	Master Gardeners
Dolly Dinwiddie	Eldon
CL Vernor	Eldon
Trish Vernor	Eldon
Merrell Vernor	Eldon
Amy Young	Eldon
Tina Kasper	Eldon
Scott	Resident
Daphney Partridge	Eldon Chamber
Tim Flora	Resident
Polly Scott	Resident
Liz Valentine	Resident
Nate Valentine	Resident

Mike Herbert  
Kathy Snodgrass  
Angela Meaders  
Katie Imler

MCHC  
Resident  
Resident  
Resident



# APPENDIX F

## Health Resource Listing

# HEALTH RESOURCE LISTING

## **Behavioral Health**

Alcoholics Anonymous  
Burrell Health  
Capital Region Physicians - Mental Wellness  
Community Health Center of Central Missouri  
Family Counseling Center of Missouri  
Missouri Mental Health Foundation  
Missouri Recovery Network  
Pathways Community Behavioral Health Care  
SSM Health St. Mary's Hospital - Jefferson City  
SSM Health Outpatient Behavioral Health

## **County Health Departments**

Callaway County Health Department  
Cole County Health Department  
Miller County Health Center  
Moniteau County Health Department  
Osage County Health Department

## **Federally Qualified Health Center**

Community Health Center of Central Missouri  
Central Ozark Medical Center

## **Free/Sliding Scale Community Clinics & Health Services**

Capital Region Physicians Resident Clinic  
Community Health Center of Central Missouri  
County Public Health Centers in Callaway, Cole, Miller, Moniteau, Osage  
Samaritan Center  
Dental, Eye and Shoe Program

## **Hospitals**

Callaway Community Hospital – Fulton  
Capital Region Medical Center – Jefferson City  
SSM Health St. Mary's Hospital - Jefferson City

## **On-Line Resource Directories**

<http://www.211.org/>  
<https://www.alz.org/help-support/resources>  
<https://dmh.mo.gov/mentalillness/helpinfo/adminagents.html>  
<http://resource.showmeaction.org>

## **Primary Care/Urgent Care**

Capital Region Physicians  
Community Health Center of Central Missouri  
Jefferson City Medical Group (JCMG)  
SSM Health Medical Group

**Specialty Care**

Capital Region Physicians  
Community Health Center of Central Missouri  
Goldschmidt Cancer Center  
Jefferson City Medical Group (JCMG)  
MU Health Care  
SSM Health Medical Group  
SSM Health Cancer Center at JCMG

**Social Services Agencies**

American Red Cross, Heart of Missouri Chapter  
El Puente Hispanic Ministry of Mid Missouri  
Food Bank for Central Missouri  
Central Missouri Agency on Aging  
Homemaker Health Care  
RACS (Rape and Abuse Crisis Center)  
Salvation Army  
Senior Nutrition Center  
United Way of Central Missouri

**Transportation Assistance Services**

<https://health.mo.gov/atoz/pdf/transportationservices.pdf>

