

Cape Girardeau County Public Health Center



Prevent. Promote. Protect.

Community Health Assessment 2018

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INTRODUCTION

The Cape Girardeau County Public Health Center and its governing Board of Trustees have collaborated with community partners and residents to complete the 2018 Community Health Assessment of Cape Girardeau County.

The 2018 Community Health Assessment contains baseline and trended data from a variety of sources including the Missouri Department of Health and Senior Services, Missouri Department of Social Services, Missouri Department of Elementary and Secondary Education, Missouri Kids Count, Office of Social and Economic Data Analysis, Missouri Department of Mental Health, Missouri Department of Natural Resources, U.S. Census Bureau Data Center, County Health Rankings, and other state and local data reports.

This report examines rates and occurrences between Local, State, and National for key health status indicators as well as year to year comparisons for Cape Girardeau County. In instances where indicators reveal Cape Girardeau County is faring worse than the Region and the State, particular attention is paid to the importance of that health indicator being a public health priority issue. When indicators show that the rate for Cape Girardeau County is similar or slightly better than State rates, but when compared to the U.S. as a whole is still faring worse; it is also viewed as a public health priority.

The information contained in this Community Health Assessment will be utilized by the Cape Girardeau County Public Health Center as a resource for identifying and planning service delivery, program planning, and fiscal obligation.

MISSION– VISION – CORE VALUES

Mission: Cape Girardeau County Public Health Center promotes good health and protects the County's public health through:

- Assessment of health and environmental needs
- Policy Development
- Community Education
- Prevention
- Assurance
- Evaluation

Vision: Cape Girardeau County will be a community where the safety and health needs of all people are identified, addressed, and resolved.

Core Values: Cape Girardeau County Public Health Center's staff and Board of Trustees are a dedicated, professional, physical and environmental health care team committed to building and maintaining a relationship of trust and accountability to the community. We believe in promoting access to care, communicable disease prevention and control, disaster preparedness, and quality environmental health services for all residents of Cape Girardeau County. We believe community partnerships and collaborations are key factors in achieving our strategic goals.

Between October 2018 – February 2019, Community Stakeholders, Partner Agencies, and Board of Trustees members joined Cape Girardeau County Public Health Center staff to review the findings from the 2018 Community Health Assessment. This included a review of the compiled data for each identified indicator, a summary of the analysis of that data, and input from the attendees. For each Health Indicator, local data was reviewed as well as a comparison to state and national benchmarks. For some indicators the data was compared to adjacent and surrounding counties in Southeast Missouri. Following this review, attendees participated in the process of prioritizing these indicators for health improvement planning. Attendees were asked to complete the following task:

- Identify and list the ten leading priority issues that the Health Center, and the community as a whole, should focus on over the next 3-5 years, utilizing the following selection process:
- The impact of the problem
- The urgency of solving the problem
- The size of the problem

The Nominal Group method was utilized for this group prioritization. This method, in particular, allowed for group and individual input and information exchange. Through this process the group identified the following as Public Health Priority Issues (in rank order)

1. Mental Health
2. Substance Abuse
3. Access to Healthcare
4. Overweight Children
5. Wellness and Prevention
6. Transportation
7. Overweight Adults
8. Dental Health
9. Smoking / Smoking Cessation
10. Chronic Disease Care

This same selection method was utilized again by Community Partners, Health Center Staff, and Board of Trustees members at the conclusion of the Local Public Health System Assessment process. Mental Health Care, Dental Health Care, Smoking, Substance Abuse, Heart Disease, Obesity, Child Injury and Death, and Access to Care were all identified as priority areas. In an attempt to adequately acknowledge and address these concerns, the Priority Health Issues were further grouped into three main categories. Combining the ranking scores of both processes, the Public Health Priority Issues have been identified as follows:

1. **MENTAL HEALTH**
2. **WELLNESS & PREVENTION**
 - a. Substance Abuse
 - b. Obesity: Adult and Childhood
 - c. Smoking
 - d. Dental Health
 - e. Chronic Disease Care
3. **ACCESS TO CARE**
 - a. Transportation

SECTION I:
Demographics, Education, and
Socioeconomic Indicators

DEMOGRAPHICS

Cape Girardeau County, organized on October 1, 1812, is located in the southeastern part of Missouri with the Mississippi River forming the eastern border of the county. The geography of Cape Girardeau County varies greatly with the southern areas to be considered as flood plains while western and northern areas are hilly and forested.

Cape Girardeau County is considered a Metropolitan Statistical Area with the County Seat located in Jackson, Missouri. Cape Girardeau is the largest city in the county and is home to Southeast Missouri State University. There are 3 cities (Cape Girardeau, Delta, and Jackson), 6 villages (Allenville, Gordonville, Oak Ridge, Old Appleton, Pocahontas, and Whitewater) and 9 unincorporated communities (Burfordville, Daisy, Friedheim, Fruitland, Millersville, New Wells, Oriole, Egypt Mills, and Randles).

The 2017 U.S. Census Bureau estimates, Cape Girardeau County had a population of 78,161 residents and covered a geographical area of 578.54 square miles. The population per square mile averages 130.8. Table 1.1 compares the general demographics of the County and State for 2017.

Table 1.1: General Demographics of Cape Girardeau County Compared to Missouri, 2017

Missouri	
Population, 2017	6,113,532
Land Area (sq. miles), 2010	68,741.52
Median Household Income, 2016	49, 593
Persons below Poverty	14.0%
Cape Girardeau County	
Population, 2017	78,161
Land Area (sq. miles), 2010	578.54
Median Household Income, 2016	48, 458
Persons Below Poverty	15.2%

Source: U.S. Census Bureau, 2018

Population

U.S. Census Bureau estimates that the population of Cape Girardeau County increased by 1.1%, from 77,320 persons in 2013 to 78,161 persons in 2017; while the population for Missouri increased by 2.02% as shown in Table 1.2.

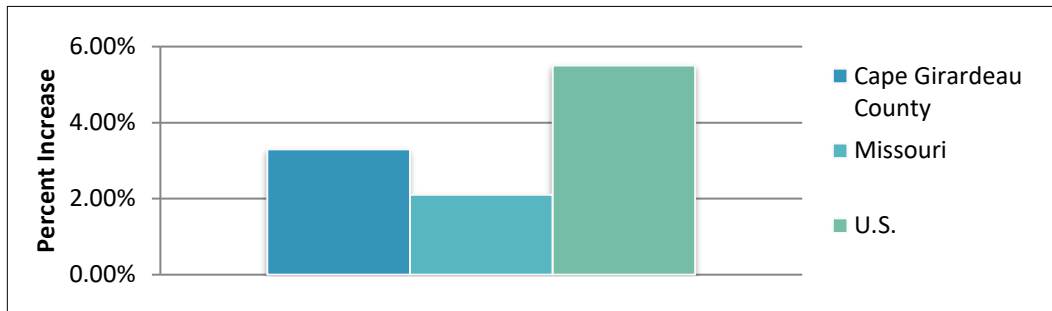
Table 1.2: Population Change for Cape Girardeau County and Missouri, 2017

	2013 Population	2017 Population	Population Change	% Change
Cape Girardeau County	77,320	78,161	841	1.10%
Missouri	6,044,171	6,113,532	69,361	2.02%

Source: U.S. Census Bureau, Population Division, Annual Population Estimates, Estimated Components of Population Change, and Rates of the Components of Population Change for Counties: April 1, 2013 to July 1, 2018

Figure 1.1 shows that over a seven-year period (2010 to 2017) Cape Girardeau County has experienced a population increase of 3.3% compared to Missouri's 2.1% and an increase of 5.5% in the U.S. This increasing trend in population is most likely to continue as the county is a central hub for health care, education, and retail resources for Southeast Missouri and extreme Southern Illinois.

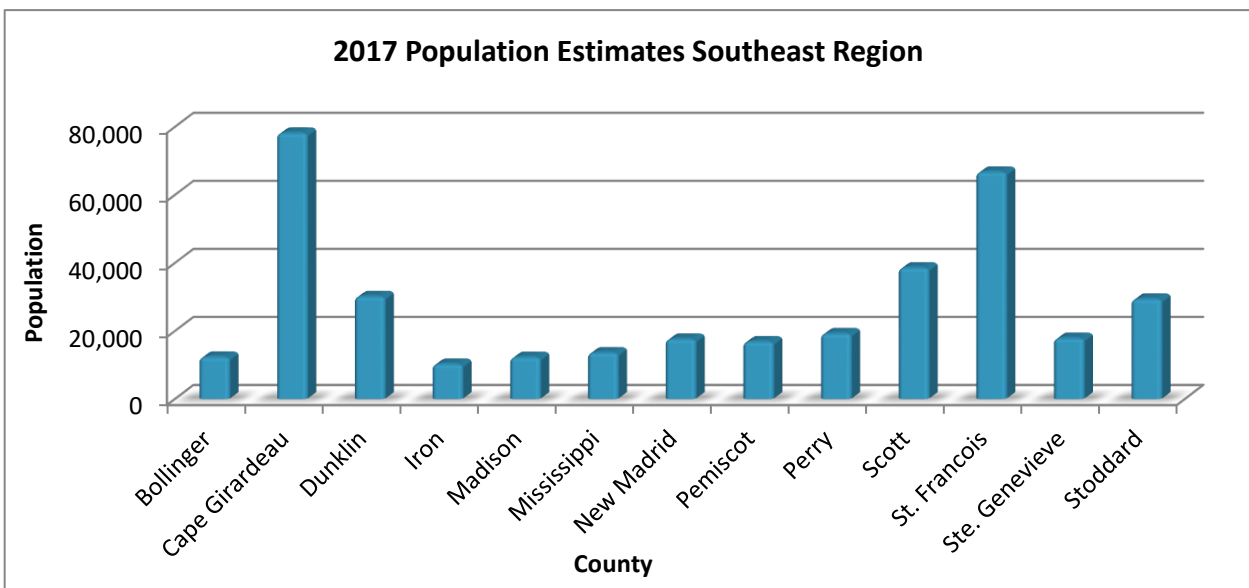
Figure 1.1: Comparing Percentage of Population Change for Cape Girardeau County and Missouri, 2010-2017



Source: U.S. Census Bureau, 2018

Within the thirteen county Southeast Region of Missouri, defined by the Missouri Economic Research and Information Center as “where the rugged St. Francois mountains slope to the mighty Mississippi River,” Cape Girardeau County has the largest population. Figure 1.2 demonstrates the population for the Southeast Missouri Region by County.

Figure 1.2: Population for Southeast Missouri Region by County, 2017



Source: US Census Bureau, 2018

The enrollment population of Southeast Missouri State University (SEMO) is of significant importance when reviewing population characteristics and related health and social needs of the County. The main campus of SEMO is located within the City of Cape Girardeau covering a 328-acre area. Southeast has five academic colleges, four schools and 21 residence halls. Table 1.3 compares total enrollment at SEMO for 2016-2018.

Table 1.3: Southeast Missouri State University Total Enrollment (FTE), 2016-2018, Graduate & Undergraduate

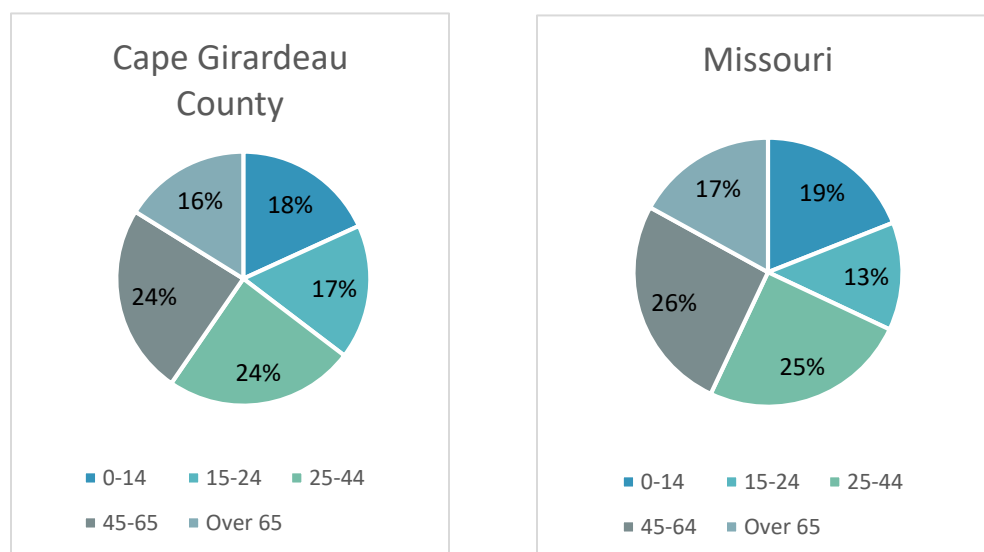
Year	Total Enrollment
2016	11,068
2017	10,901
2018	10,395

Source: Southeast Missouri State University, Office of Institutional Research, Census Report, 2/14/2018

For the 2018-2019 Enrollment period, 32% of students established residence within the City of Cape Girardeau. There were 742 International students from 52 different countries. Enrollment by gender reveals that 58% of students were female, 42% were male. Although the University provides Health Services through a Student Health Clinic, many of the health, social, economic, and behavioral services are obtained in the County and affect the County population as a whole. This student population, whether resident or commuter, could be impacted by chronic and communicable diseases and community health behaviors.

Age and Gender

U.S. Census Bureau estimates that in 2017, children under 15 years of age made up 18% of the population of Cape Girardeau County. Persons in the 15 to 24 age group constituted to be 17% of the population, while those in the 25 to 44 age group made up 24% of the Cape Girardeau County population. Individuals in the adult 45 to 64 age group represented 24% of the total population. Adults over 65 comprised 16% of the area population. These percentages were comparable to those for the state of Missouri as shown in Figure 1.3.

Figure 1.3: Comparing Population by Age Group for Cape Girardeau County and the State of Missouri, 2017

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates, 2018

The age of the population is a demographic characteristic that can affect the type and delivery method of health care services. A higher percentage of the population in Cape Girardeau County was under 15 years of age compared to the percentage of the population 65 and older. The

percentage of the Cape Girardeau County population under age 18 was 21.6%. In comparison, 22.6% of the population of Missouri and 22.6% of the population of the United States was under age 18. People age 64 and older accounted for 16.5% of the Cape Girardeau County population, 15.6% of the State population, and 15.6% of the U. S. population.

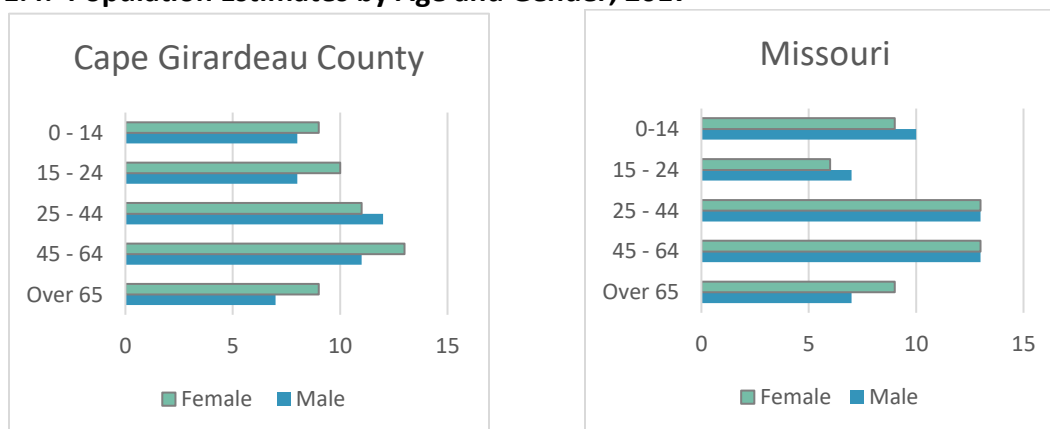
Table 1.4: Population Estimates by Age and Gender, 2017

County/ State	Age 0 - 14		15 – 24		25 – 44		45 – 64		65 and Older	
	M	F	M	F	M	F	M	F	M	F
Cape Girardeau County	6,574 (8%)	7,052 (9%)	6,960 (9%)	7,801 (10%)	9,182 (12%)	8,938 (11%)	8,903 (11%)	9,964 (13%)	5,440 (7%)	7,346 (9%)
Missouri	588,393 (10%)	561,555 (9%)	420,316 (7%)	362,993 (6%)	770,879 (13%)	772,747 (13%)	777,260 (13%)	819,120 (13%)	445,846 (7%)	564,423 (9%)

Source: U.S. Census Bureau, Population Division, American Community Survey 1-Year Estimates, 2018

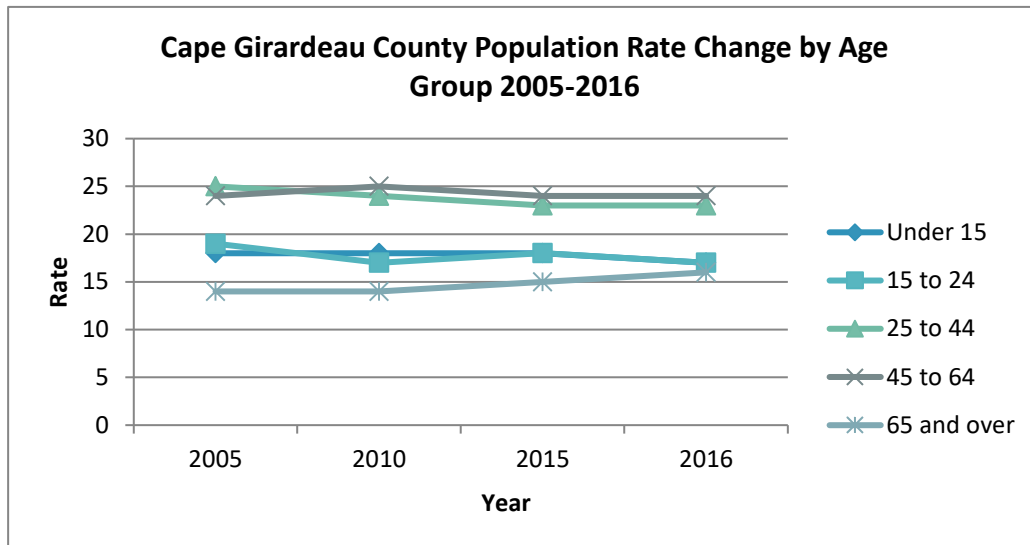
The highest percentage of the male population in Cape Girardeau County was in the 25-44-year age group (12%) and the lowest percentage of the male population was in the Over 64-year age group (7%). In comparison, in Missouri the largest percent of the male population was in the 25-44- and 45-64-year group (13% each) and the lowest percentage was in the 15-24-year group and 65 and older age group (7%). In Cape Girardeau County the female population with the highest percentage of females was in the 45-64-year group (13%) and the lowest population was the 0-14 and 65 and older groups (9%). Missouri's highest age group in female population was 25-44- and 45-64-year groups (13%); with 15-24-year group being the lowest (6%).

Figure 1.4: Population Estimates by Age and Gender, 2017



Source: Source: U.S. Census Bureau, Population Division, American Community Survey 1-Year Estimates, 2018

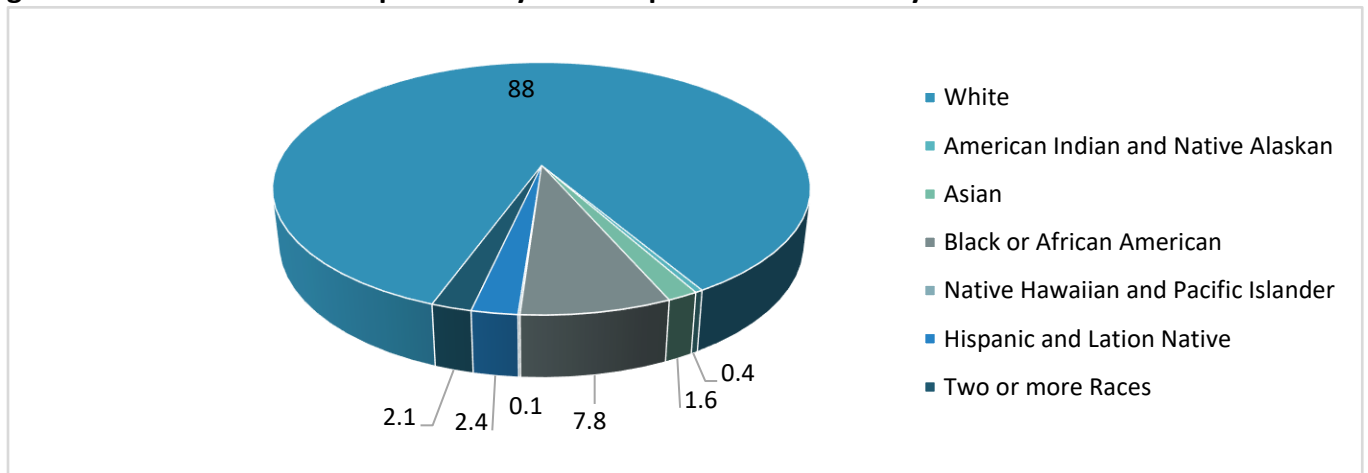
During a ten-year time, span (2005-2015) the percentages of the population by age distribution has not changed remarkably in Cape Girardeau County. As displayed in Figure 1.5 the percentage has decreased slightly in the 25 to 44 and 45 to 64-year-old age groups and increased slightly in the 65 and over age group.

Figure 1.5: Population Rate Change by Age Group in Cape Girardeau County, 2005-2016

Source: MODHSS Population MICA, 2018

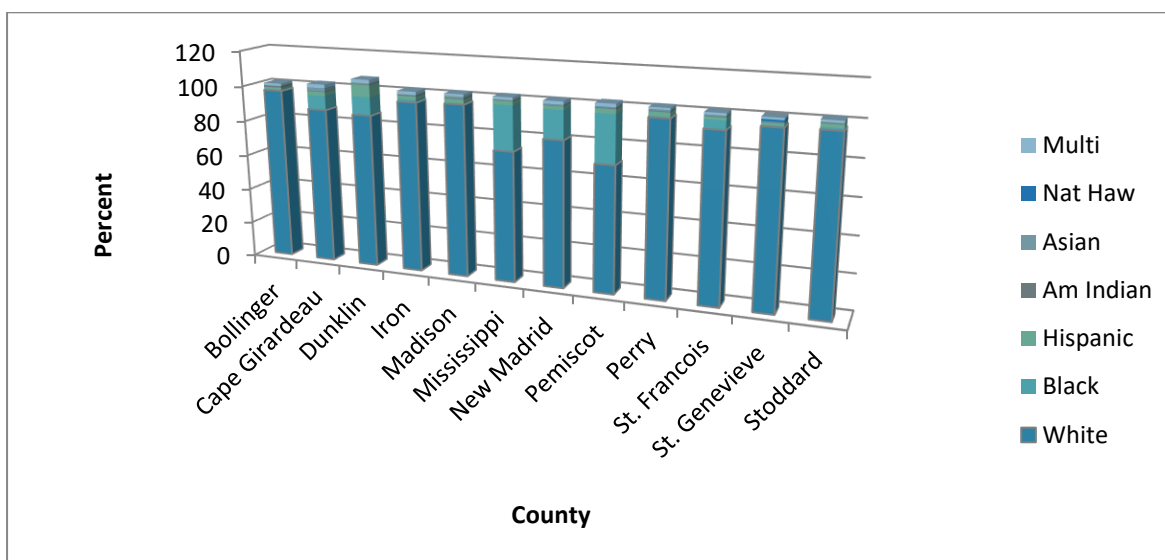
Racial Diversity

According to U.S. Census Bureau population estimates for population by race in Cape Girardeau County, 88% were white, 7% were African American, 0.4% were American Indian and Alaskan, 1.6% were Asian 0.1% were Hawaiian and Pacific natives, and 2.4% Hispanic and Latino natives. Persons identifying themselves as two or more mixed races made up 2.1% of the total Cape Girardeau County population. Figure 1.6 displays the 2017 Cape Girardeau County population by percent of Race.

Figure 1.6: Estimated 2017 Population by Race: Cape Girardeau County

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin, 2018

Figure 1.7 compares the population by race for the Southeast Missouri Region by County.

Figure 1.7: Percent of Population by Race Southeast Region, 2017

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, 2018

Population by Age and Race

Table 1.5: Percent in Age Group by Race: Cape Girardeau County, 2017

Age Group	White	Black/African American	Asian	Native American	Multiple Race
0-4	5.2%	10.3%	0%	8.8%	21.1%
5-9	5.9%	13.2%	7.2%	9.7%	5.6%
10-14	5.3%	8.1%	2.5%	1.6%	17%
15-19	7.1%	10.1%	5.6%	2.9%	16.1%
20-24	9.9%	11.3%	35.3%	9.9%	12.4%
25-34	12.3%	15.6%	13.6%	10.6%	5.7%
35-44	11.3%	10%	10.8%	10.5%	5.0%
45-54	13.3%	9.8%	12.2%	10.6%	5.3%
55-59	7%	4.4%	5.6%	7.9%	4.7%
60-64	6.2%	2.6%	2.8%	2.2%	.7%
65-74	8.6%	3.7%	2.6%	2.3%	2.2%
75-84	5.2%	.6%	1.8%	8.6%	3.2%
Over 85	2.7%	.4%	0%	0%	.9%

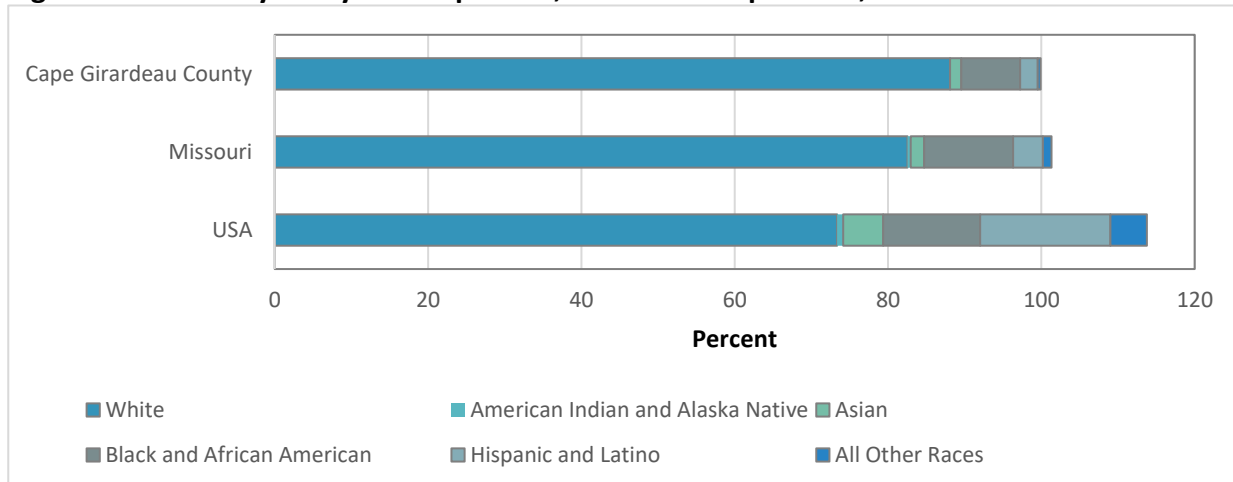
Source: U.S. Census Bureau, American Community Survey, Community Commons, 2018

A consideration when evaluating health risks, health disparities, and approaches to prevention / intervention strategies is the percent by age in a particular race. Table 1.5 provides the percentage, by age, for each race identified in Cape Girardeau County.

Ethnicity Analysis

The ethnicity percentages for Cape Girardeau County are consistent with Missouri and the U.S., as shown in Figure 1.8, and are predominantly reported as White and Black / African American.

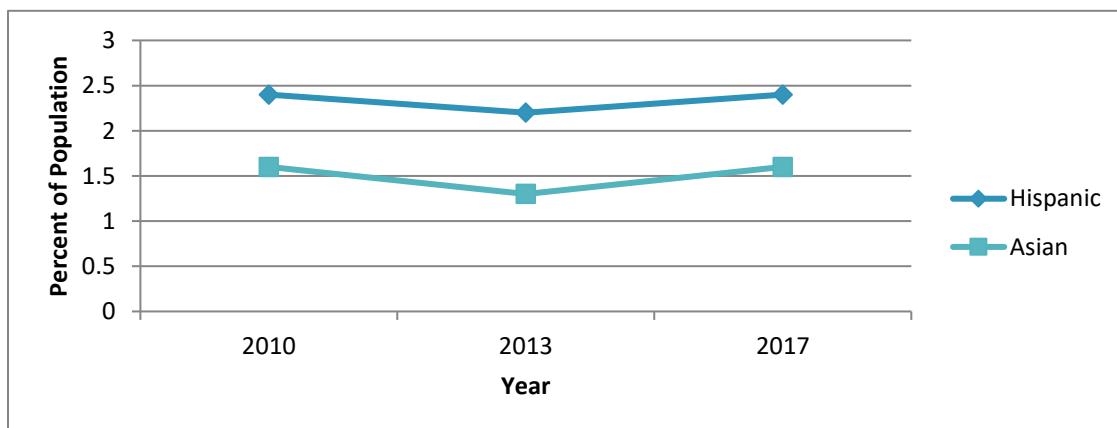
Figure 1.8: Ethnicity Analysis Comparison, Percent of Population, 2017



Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin, 2018

As displayed in Figure 1.9 according to the U.S. Bureau of the Census the two populations (by ethnicity) that have experienced the most significant growth in the County have been the Hispanic or Latino and Asian origins. The percentage of the Hispanic or Latino population increased from 2.2% in 2013 to 2.4% in 2017. The percentage of the Asian population increased from 1.3% in 2013 to 1.6% in 2017.

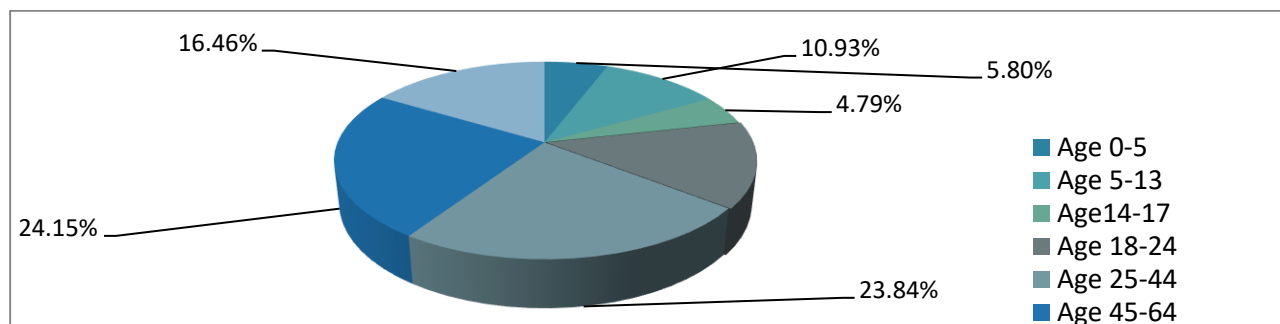
Figure 1.9: Percent of Hispanic and Asian Ethnicity Population, 2010-2017



Source: U.S. Bureau of the Census, County Population Estimates by Demographic Characteristics, 2018

Although the numbers of minority groups in Cape Girardeau County are smaller than State and National numbers, these groups are still of special interest to public health as they are vulnerable populations and have the potential to experience increased health disparities. Those disparities can include barriers in accessing care due to a number of environmental factors including language, socio-economic status, transportation, lack of adequate health insurance coverage, lack of appropriate documentation (of citizenship), and lower educational attainment. The Centers for Disease Control and Prevention has identified conditions or risk factors that may disproportionately affect these minority populations. Within the Hispanic population those conditions identified, at least on a national level, include asthma, obesity, HIV/AIDS, teen pregnancy, smoking and tobacco use, and infant mortality. Within the Asian population, on a national level, those conditions with increased incidence of occurrence include HIV/AIDS, Hepatitis B, smoking and tobacco use, and tuberculosis. Figure 1.10 indicates the percent of individuals, by age group, in the Hispanic population in Cape Girardeau County. The highest percent of the Hispanic population was in the 25-34-year-old age group (24.15%) followed by the 18-24-year-old age group (17.79%).

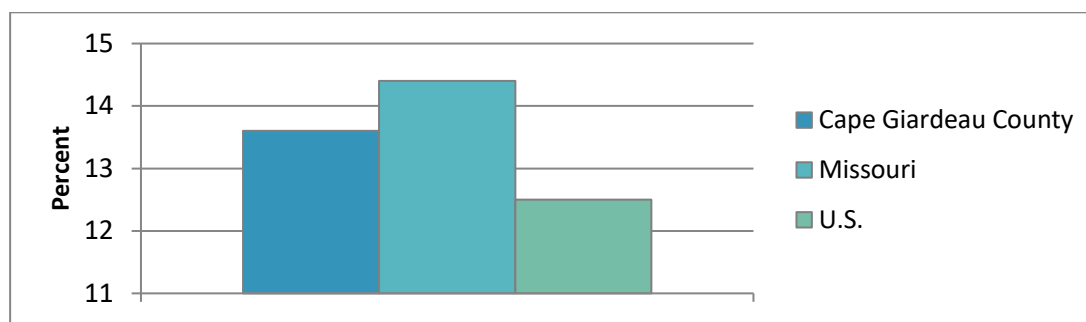
Figure 1.10: Hispanic Population by Age Group in Cape Girardeau County, MO, 2017



Source: U.S. Census Bureau, American Community Survey, Community Commons, 2018

Population with Disability

Individuals with a disability comprise a special portion of the population that may be more vulnerable and have more specialized needs and require targeted services. The total disabled population is derived from the percentage of non-institutionalized individuals in the County with a disability. According to the U.S. Census Bureau, American Community Survey, Cape Girardeau County had a 13.6% rate. The rate was 14.4% in Missouri and 12.5% in the U.S. Figure 1.11 shows the comparison of the percent of the population with a disability between the County, State, and U.S.

Figure 1.11: Percent Population with a Disability, 2017

Source: U.S. Census Bureau, American Community Survey, 2012-2016 Community Commons, 2018

The percent of individuals with a disability, by age, for the County, State, and Nation is shown in Table 1.6. Cape Girardeau County percentages are consistent with the State and Nation. The lowest incidence in all three report areas was 5.3% in the under 18 age group, 11.4% in the 18-64-year-old group, and the highest incidence (35.2%) in the 65+ age group.

Table 1.6: Population with any Disability by Age Group, Percent, 2017

Report Area	Under Age 18	Age 18 – 64	Age 65 +
Cape Girardeau County, MO	5.3%	11.4%	35.2%
Missouri	4.6%	12.7%	37.1%
United States	4.1%	10.3%	35.7%

Source: U.S. Census Bureau, American Community Survey, 2018

Household Characteristics

According to 2012-2016 U.S. Census Bureau population reports there were a total of 29,831 households in Cape Girardeau County with an average of 2.5 persons per household. Family households accounted for 63.2% of households in Cape Girardeau County; 64.5% of households across Missouri; and 65.9% of households in the United States.

Table 1.7: Household Characteristics Comparison by County, State, and Nation, 2017

	Cape Girardeau	Missouri	United States
Family Households	63.2%	64.5%	65.9%
Married with Children	36.0%	37.7%	39.9%
Married without Children	64.0%	62.3%	60.1%
Single Parents	7.3%	20.4%	9.3%
Non-Family Households	36.8%	35.5%	34.1%
Unmarried Partner Households	2.3 %	2.5%	6.1%
Same Sex Households	0.3%	0.4%	0.4%
Living Alone	27.7%	29.3%	28.2%

Source: U.S. Census Bureau, 2012-2016 Census, 2018

Table 1.7 demonstrates that Cape Girardeau County Household Characteristics did not vary significantly from State and National percentages except in the categories of Single Parents. Single Parents households were significantly lower than State. While the percentage of Non-Family Households (36.8%) was higher than the National percentages (34.1%), it was only slightly higher than the State percentage (35.5%).

Marital Status

According to the 2016 Census, the total population age 15 years and over in Cape Girardeau County was 64,073. Table 1.8 compares the Marital Status in Cape Girardeau County to Missouri as a whole. The rates for Cape Girardeau County are comparable to state rates. The largest percentage of the population in both the County (49%) and the state (49.2%) was reported in the Married status.

Table 1.8: Marital Status Comparison by County and State, 2016

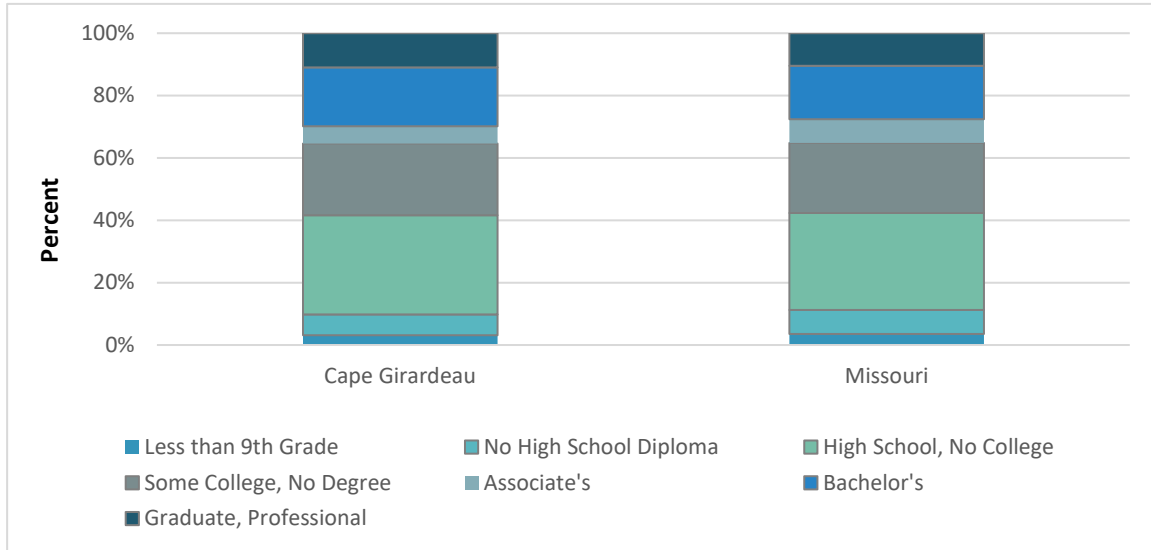
Marital Status	Cape Girardeau County		Missouri	
	Number	Percent	Number	Percent
Population 15 years and over	64,073	100.0	4,903,296	100.0
Never married	20,648	32.2	1,482,368	30.2
Married	31,398	49.0	2,418,417	49.2
Widowed	4,063	6.3	314,239	6.4
Female	3,194	5.0	245,351	5.0
Male	869	1.4	68,888	1.4
Divorced	7,064	11.0	596,820	12.2
Female	4,194	6.5	330,678	6.7
Male	2,870	4.5	266,142	5.4

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin, 2018

EDUCATION

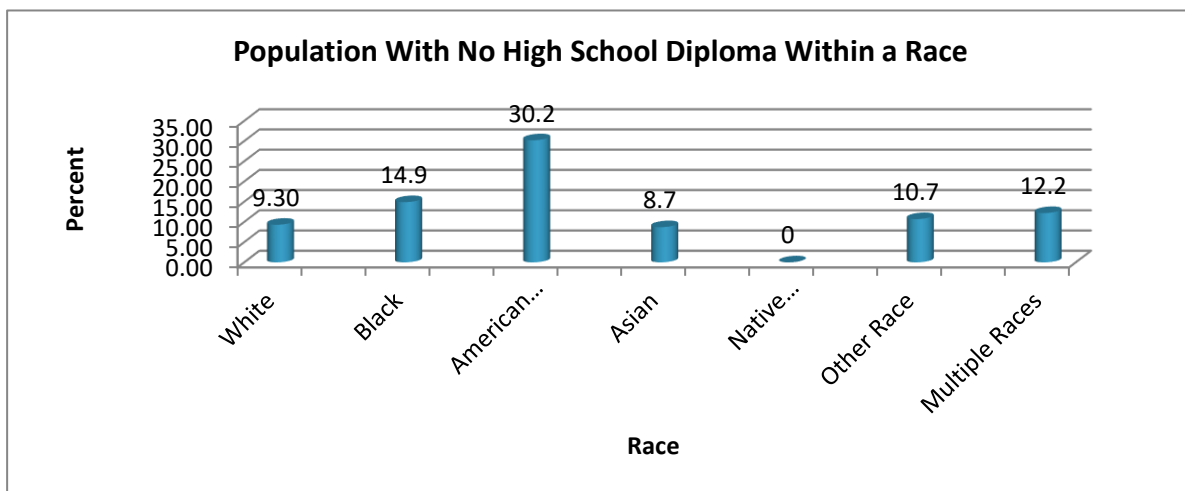
Educational Attainment

Educational Attainment is a relevant indicator as it has been linked to positive health outcomes and could affect multi-generational outcomes. Maternal educational levels, for instance, not only affect the mother's health but also that of her children. According to University of Missouri Extension, Office of Social and Economic Data Analysis, approximately 9.8% of Cape Girardeau County residents age 25 or older had less than a high school diploma compared to 11.2 % of Missourians in 2016. Figure 1.12 compares county and State Educational Attainment levels.

Figure 1.12: Percent Educational Attainment, Cape Girardeau County and Missouri, 2016

Source: U.S. Census Bureau, 2012-2016 American Community Survey, 2018

Data obtained from the American Community Survey (ACS), a nationwide continuous survey conducted through the U.S. Census Bureau, also indicated that in 2017, only 34.2% of the 25 and older age group obtained a high school diploma (or equivalent) in Cape Girardeau County which was higher than the 30.8 % for Missouri and the 27.1% for the U.S. The ACS also indicated that of those individuals without a high school diploma 7.9% were male and 8.0% were female. These percentages were comparable to Missouri (Male 11.0%, Female 9.7%) and the U.S. (Male 12.70%, Female 11.38%). Of the total population 25 years and older in the County without a high school diploma, 6.9% were white and 24.5 % were Black. Percentages were unavailable for the Native American / Alaska Native, Asian, and Other Races. Figure 1.13 provides the percentage out of each race in the County that had less than a high school diploma.

Figure 1.13: Cape Girardeau County Population with No High School Diploma by Race Alone, Percent of Race

Source: U.S. Census Bureau, American Community Survey, Population with No High School Diploma, 2018.

According to ACS estimates for 2017, the population classified as American Indian / Alaskan Native in Cape Girardeau County, the State, and Nation had the highest percentage of individuals who did not have a high school diploma. It was further reported by the ACS that, by ethnicity alone, the Hispanic / Latino population in Cape Girardeau County had 17.3% without a high school diploma.

Table 1.9 lists the percentages of all levels of Educational Attainment for the County and provides a comparison to the population for Missouri.

Table 1.9: Educational Attainment Levels, Percent, All Races, 2017 Estimates

	% Less than 9 th Grade	% No High School Diploma	% High School, No College	% Some College, No Degree	% Associate's	% Bachelor's	% Graduate, Professional
Cape Girardeau County	3.1	6.7	31.8	22.9	5.6	18.8	9.1
Missouri	3.6	7.6	31.1	22.5	7.6	17.2	10.4

Source: U.S. Census Bureau, Census of Population and Housing, 2017 Summary File 3, 2018

Public School Districts

Cape Girardeau County includes 5 public school districts. Enrollment figures for each district are shown, by school district, in Table 1.10 for the 2016-2017 enrollment period.

Table 1.10: Public School Districts Enrollment, Cape Girardeau County, 2016-2017

	School District	2016 Enrollment
	Delta R-V	256
	Cape Girardeau 63	4020
	Jackson R-II	4855
	Oak Ridge	342
	*Nell Holcomb	287
Cape Girardeau	All Districts	9760
Missouri	556	918,637

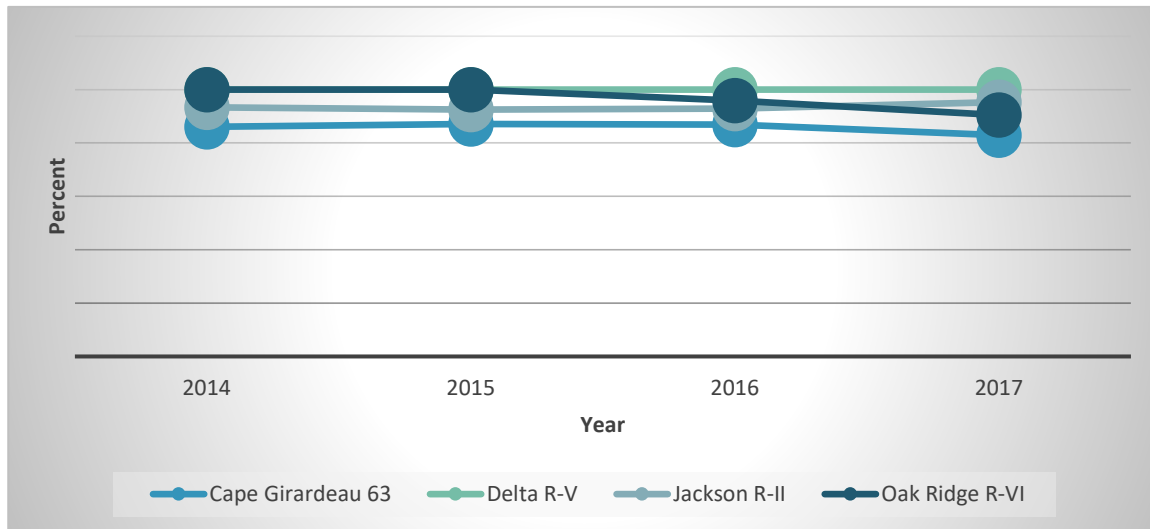
* School district offers K-8 only, dropout rate is not reported.

Source: Missouri Department of Elementary and Secondary Education, Enrollment, 2018

Graduation Rates

Figure 1.14 displays a trend line of the Graduation Rates for each district in the County.

Figure 1.14: 5 Graduation Rate by School District, Cape Girardeau County, 2014-2017



Source: Missouri Department of Elementary and Secondary Education, District Annual Graduation Rates, 2018

Delta R-V District has maintained the highest graduation rate of all the districts 100%. Jackson R-II has increased the graduation rate from 93.4% in 2014 to 95.3% in 2017. Cape Girardeau 63 has decreased only slightly from 86.06% in 2014 to 82.93% in 2017. Oak Ridge R-VI has also decreased in the graduation rate from 100% in 2014 to 90.45% in 2017.

The County, as a whole, has a slightly higher percentage of students graduating from high school than that of Missouri. Missouri Kids Count reports that the Cape Girardeau County graduation rate increased from 87.7 percent in 2012 to 91.2 percent in 2016 and the rate for Missouri increased from 86.5% to 91.5%.

Table 1.11: Percent Attaining Educational Levels

	2012	2016
Cape Girardeau County	87.7%	91.2%
Missouri	86.5%	91.5%

Source: Missouri Kids Count, 2016 Data Book, 2018

High School Dropout Rates

In addition to graduation rates, it is of equal importance to analyze the high school dropout rates in an effort to increase Educational Attainment levels. Table 1.12 shows a comparison of the dropout rates for all school districts in Cape Girardeau County to all districts in the State. According to Missouri Kids Count, the high school dropout rate decreased from 4.67% in Cape Girardeau County in 2015 to 4.2 % during 2017. In Missouri, the percentage dropped from 12.2% in 2015 to 11.7% in 2017.

Table 1.12: Comparison of Dropout Rates, Percent, Cape Girardeau County and Missouri, 2015 – 2017

	2015	2016	2017
Cape Girardeau County	4.67%	5.4%	4.2%
Missouri	12.2%	11.0%	11.7%

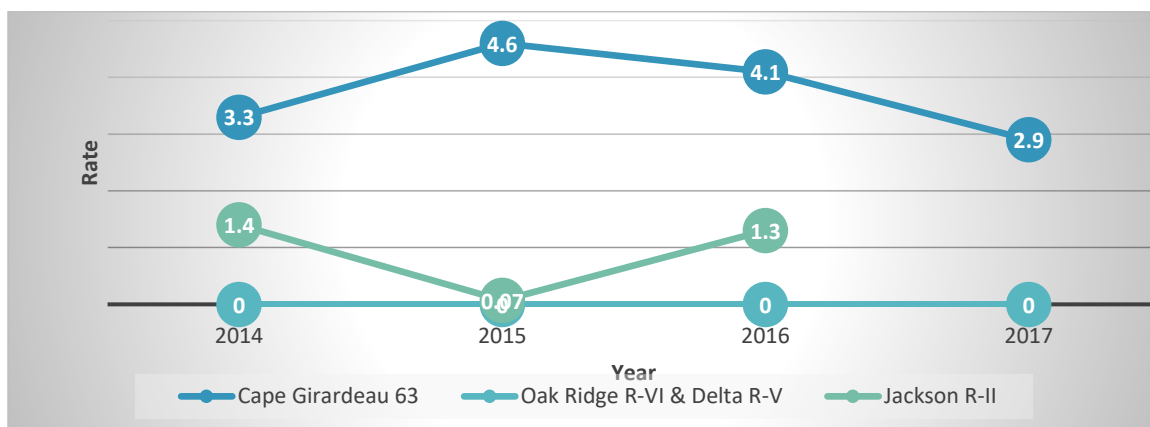
Source: Missouri Kids Count and Missouri Department of Elementary and Secondary Education, 2018

All of the school districts in Cape Girardeau County, as well as Missouri, have experienced a decreasing trend in the high school dropout rates. In 2017 Cape Girardeau District 63 had the highest dropout rate (2.9%), followed by Jackson R-II (1.3%), Oak Ridge (0%) and Delta (0%). Oak Ridge and Delta Districts have remained at 0% from 2014 to 2017. All of the districts were lower than the State rates.

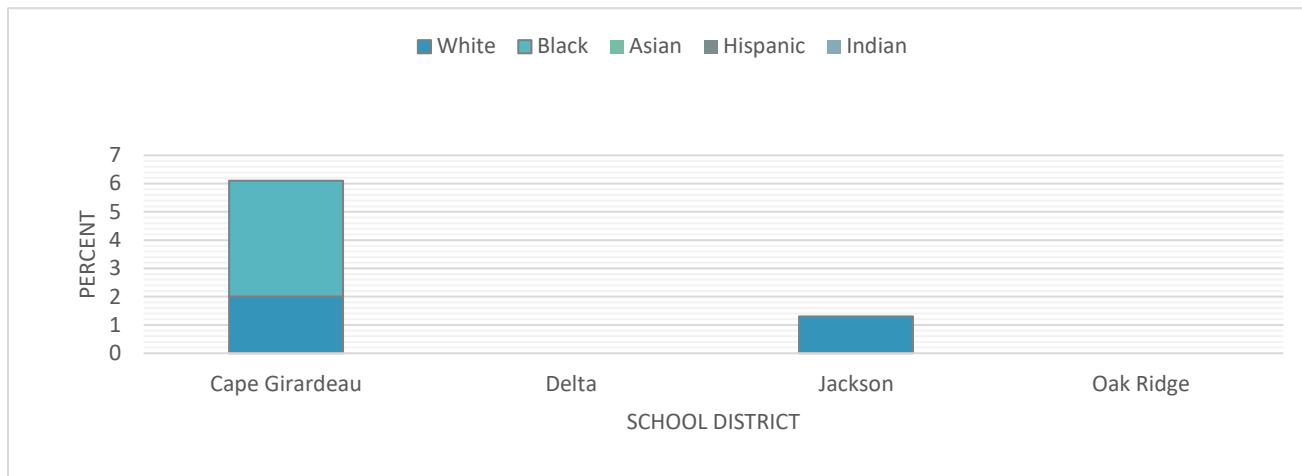
According to the American Public Health Association, Center for School Health and Education, education is perhaps the strongest predictor of long-term health and well-being. Low Educational Attainment levels when coupled with poverty / income status increase the likelihood for the development of cardiovascular disease, cancer, lung disease, and diabetes.

Figure 1.15 displays the trend in dropout rates for each of the five districts in Cape Girardeau County from 2014 to 2017. Figure 1.16 shows the percentage from 2014 to 2017 for each districts dropout rate by race.

Figure 1.15: Annual Dropout Rate by Public School District, Cape Girardeau County, 2014-2017



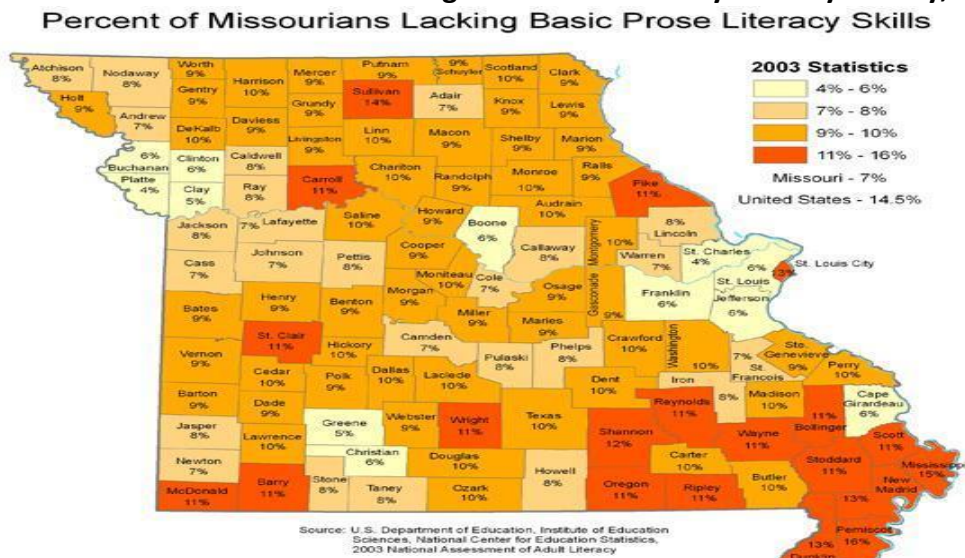
Source: Missouri Department of Elementary and Secondary Education, District Annual Dropout Rate 2018

Figure 1.16: Dropout Rate by Race

Source: Missouri Department of Elementary and Secondary Education, 2018

Basic Prose Literacy Skills

Cape Girardeau County has a lower percentage of residents lacking basic prose literacy skills than among other Missourians. Six percent of Cape Girardeau County residents were reported to lack basic prose literacy skills while 7% of Missourians lack this skill. The term, lacking basic prose literacy skills, is defined by the National Center for Education Statistics as “unable to do much more than sign a form or search a simple document to find out what they are allowed to drink before a medical test.” Figure 1.17 is a map of Missouri Counties and their respective percent of residents that lacked Basic Prose Literacy Skills in 2003. Cape Girardeau County was among the twelve counties with the lowest percentage range (4%-6%).

Figure 1.17: Percent of Missourians Lacking Basic Prose Literacy Skills by County, 2003

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, State and County Estimates of Low Literacy, 2003; Data checked, no updates, 2018.

Limited English Proficiency

The U.S. Census Bureau defines Limited English Proficiency as “the percentage of the population ages 5 and older who speak a language other than English at home and speak English less than very well.” This inability to speak English well could have an impact on the individual’s ability to access health care and to communicate with providers. It may also impact health literacy and the delivery of health education. Cape Girardeau County had a lower percent of individuals with limited English proficiency than the rest of Missouri and the U.S. Table 1.13 lists those respective percentages.

Table 1.13: Percent Population Age 5+ with Limited English Proficiency, 2017

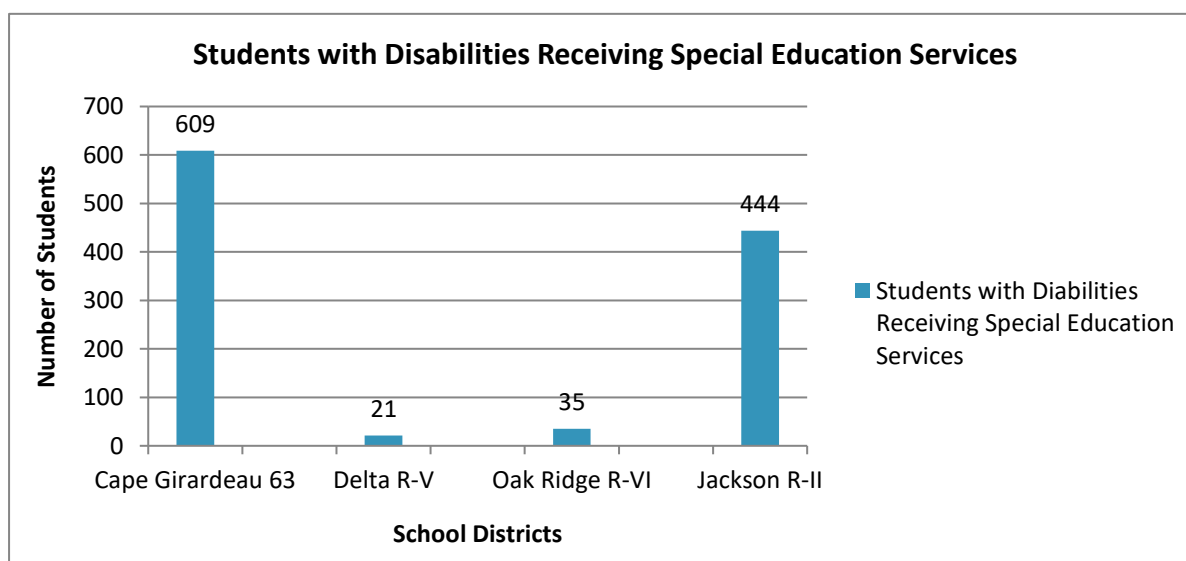
Report Area	Percent Population 5+ Limited English Proficiency
Cape Girardeau County	7.44%
Missouri	8.10%
United States	29.60%

Source: U.S. Census Bureau, American Community Survey, 2018

Children with Disabilities Receiving Special Education Services

According to the Missouri Department of Elementary and Secondary Education, 1,109 students with disabilities received special education services in Cape Girardeau County during 2016-2017 school year, with a range of 21 in the Delta R-V school district to 609 in Cape Girardeau 63, as displayed in Figure 1.18.

Figure 1.18: Number Students with Disabilities Receiving Special Education Services, Cape Girardeau County, 2016-2018



Source: Missouri Department of Elementary and Secondary Education, 2018

Table 1.14 identifies, by school district, the number and category of disabilities. The type of disability that had the highest number reported was “Specific Learning Disability.”

Table 1.14: Number of Students with Disabilities Receiving Special Education Services, by School District, 2016-2017

County/ School District/ State	Mental Retardation / Intellectual Disability	Emotion al Disturba nce	Languag e Impair ment	Speech Impairme nt	Visual Impairm ent	Hearing Impairm ent	Autism	Specific Learning Disability	Other Health Impairme nt/ Disability	Total
Cape Girardeau 63	77	19	43	69	X	X	53	232	88	609
Delta R-V	0	0	0	0	0	0	0	0	21	21
Jackson R- II	61	23	49	37	4	4	60	100	87	444
Oak Ridge	X	X	X	X	X	X	X	X	35	35
Cape Girardeau County	138	42	92	106	4	4	113	345	175	1109

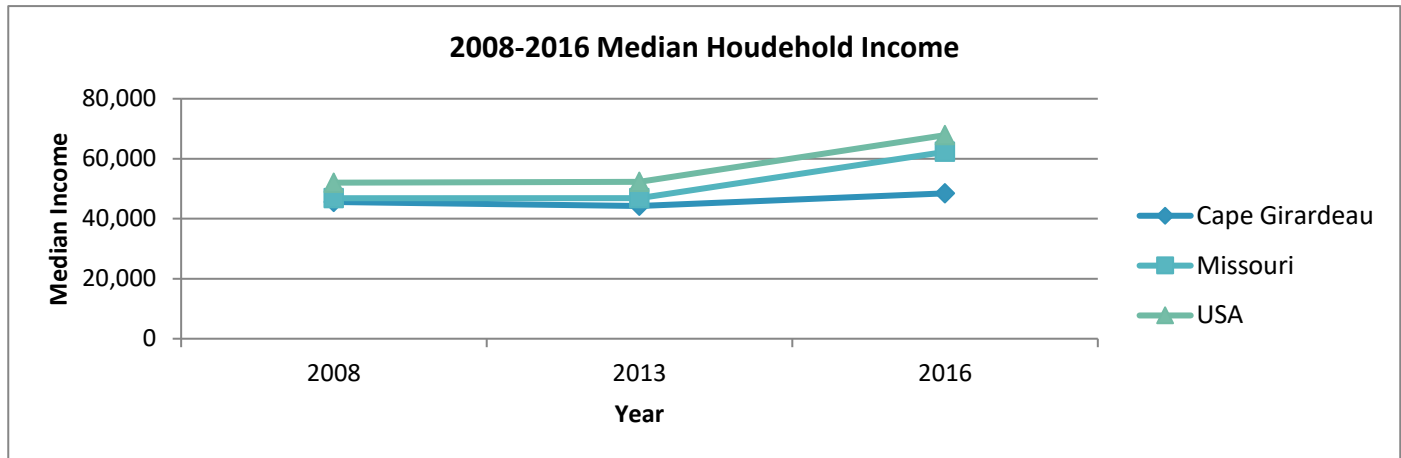
X= Confidentiality Rule Triggered

Source: Missouri Department of Elementary and Secondary Education Students with Disabilities, 2018

SOCIOECONOMIC INDICATORS

Median Income Levels

The Median Household Income and Per Capita Income are two common measures of income. Median Household Income is based on U.S. Census Bureau estimates and Per Capita Income is based on U.S. Department of Commerce estimates. The median household income for Cape Girardeau County was \$48,458 in 2016, about 22.19% below the state average. The average Cape Girardeau County median household income was 28.6% of the average median household income in the U. S. During that same time frame, the average Per Capita Income in Cape Girardeau County was \$25,348 as compared to a statewide average of \$27,044. Comparison of the Median Income Levels for 2008-2016 are shown in Figure 1.19 and Comparison of the Per Capita Income, 2012-2016 Levels are shown in Table 1.15.

Figure 1.19: Median Household Income Levels Comparison, 2008-2016

Source: U.S. Census Bureau, Small Area Income and Poverty Estimate (SAIPE), 2018, U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS), 2018

Table 1.15: Per Capita Income Comparison, 2012-2016

County/ State/ Nation	Per Capita Income, 2012-2016 (\$)
Cape Girardeau County	25,348
Missouri	27,004
USA	29,829

Source: U.S. Census Bureau, Small Area Income and Poverty Estimate (SAIPE), 2018, U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS), 2018

Wages

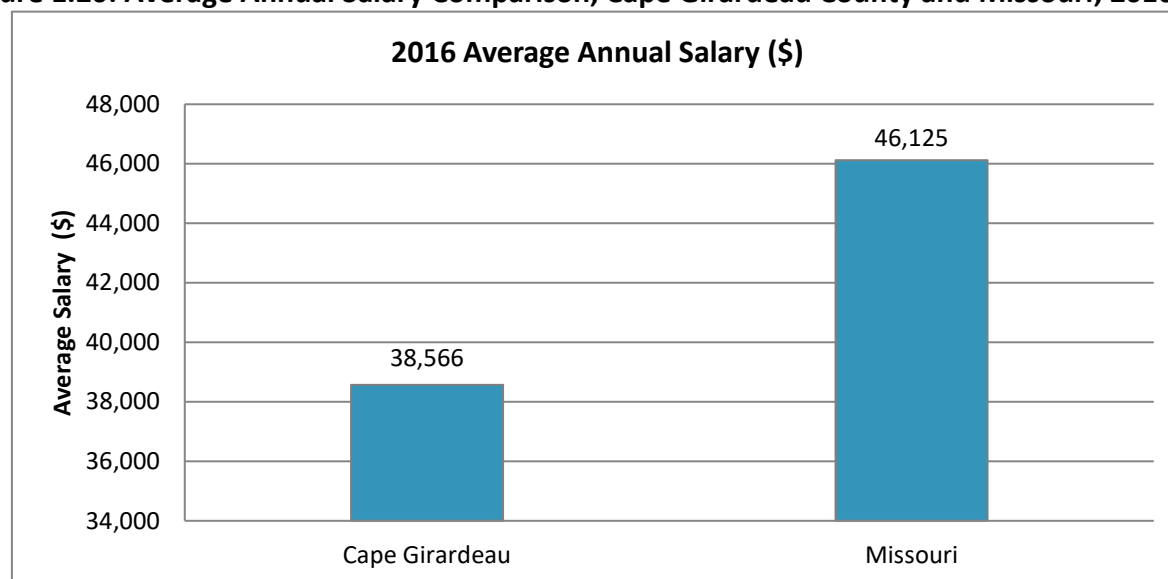
According to the Missouri Department of Economic Development, the Cape Girardeau County average annual wage was \$38,566 compared to a statewide average of \$46,125, in 2016. Cape Girardeau County has consistently experienced a lower annual average salary and lower average hourly wages than both the State and the Nation. Cape Girardeau County, however, did experience a 7.4% increase in the average hourly wage compared to Missouri at a 7.1% increase from and the U.S. at only a 3.54% increase from 2013 to 2016. Table 1.16 illustrates the comparison of Average Hourly Wages for 2013 and 2016.

Table 1.16: 2016 Average Hourly Wages Comparison, Cape Girardeau County and Missouri, 2013 and 2016

	Average Hourly Wage (\$), 2013	Average Hourly Wage (\$), 2016	% Change	Average Annual Wage (\$), 2016
Cape Girardeau	17.26	18.54	7.4%	38,566
Missouri	20.70	22.18	7.1%	46,125

Source: Missouri Department of Economic Development, Missouri Economic Research and Information Center (MERIC), Quarterly Census of Employment and Wages, All Industries, Public and Private, 2018

Figure 1.20 shows the comparison of Annual Salary for the County and the State for 2016.

Figure 1.20: Average Annual Salary Comparison, Cape Girardeau County and Missouri, 2016

Source: Missouri Department of Economic Development, Missouri Economic Research and Information Center (MERIC), Quarterly Census of Employment and Wages, All Industries, Public and Private, data for calendar year, 2018.

Living Wage

Living Wage is the hourly rate that an individual must earn to support their family if they are the sole provider and are working full-time (2,080 hours per year). The Living Wage in 2018 for a family of four (two adults, two children), in Cape Girardeau County, was \$14.67 per hour. The minimum hourly Living Wage was \$10.68 for one adult in Cape Girardeau county in 2018. Hourly Living Wage comparing Cape Girardeau County and the State is shown in Table 1.17.

Table 1.17: County and State Hourly Living Wage Comparison, 2018

	1 Adult	1 Adult, 1 Child	1 Adult, 2 Children	1 Adult, 3 Children	2 Adults	2 Adults, 1 Child	2 Adults, 2 Children	2 Adults, 3 Children
Cape Girardeau County	10.68	22.69	26.16	33.09	8.82	12.23	14.67	16.87
Missouri	10.76	23.45	26.69	33.97	9.18	12.62	15.09	17.30

Source: *Poverty in America, Living Wage Calculator, 2018*

Child Care Costs

The Department of Social Services Childcare Rate Information, for July 2016, reports the average daytime costs for full time child care based on responses from licensed registered care providers in each county. Cost of full time, daytime child care for each type of care and age group for the county is shown in Table 1.18.

Table 1.18: Average Child Care Costs by Type of Care, Cape Girardeau County, 2016

Type of Care	Infant, Daily Cost (\$)	Pre-School, Daily Cost (\$)	School Age, Daily Cost (\$)
Center	18.02	12.25	11.26
Group	14.71	10.73	10.73
Family Home	12.89	10.73	10.73

Source: *Missouri Department of Social Services. Child Care Rate Information by County effective 2018*

Child Care Facilities

According to the Missouri Department of Health and Senior Services, there were a total capacity of 1,749 children in licensed child care facilities in Cape Girardeau County during 2016. The total number of facilities has increased from 28 to 32 (14%) from 2013-2016. The total maximum capacity has increased by 9% from 2013 to 2016. The number of licensed child care facilities and total maximum capacity of children are shown in Table 1.19

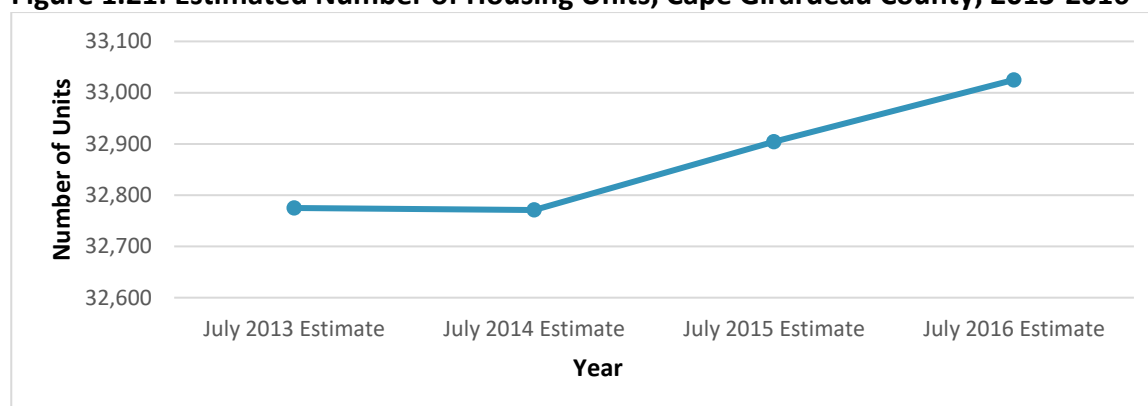
Table 1.19: Number of Licensed Child Care Facilities and Total Maximum Capacity. in Cape Girardeau County, 2013 and 2016

Number of Facilities 2013	Total Maximum Capacity 2013	Number of Facilities 2016	Total Maximum Capacity 2016
28	1,598	32	1,749

Source: *Missouri Department of Health and Senior Services, Section for Parent Information, 2018*

Housing

According to the U.S. Census Bureau, there were a total of 33,025 housing units in Cape Girardeau County during 2016. The number of housing units, in July of each year, is shown in Figure 1.21.

Figure 1.21: Estimated Number of Housing Units, Cape Girardeau County, 2013-2016

Source: U.S. Census Bureau, Population Division, Housing Unit Estimates for Counties: 2018

Homeowners

The U.S. Census Bureau reported the median housing value, was \$147,400 in Cape Girardeau County and \$184,700 in the United States, in 2016. Table 1.20 identifies the number of Housing Units, Occupied Housing Units, and Vacant Housing Units for the County, State, and U.S.

Table 1.20: Housing Units, Occupied and Vacant, 2017 (estimates)

Area	# of Housing Units 2017 Estimates	Occupied Housing Units, Estimate 2017	Vacant Housing Units, 2017 Estimates
Cape Girardeau	33,344	29,613	3,731
Missouri	2,763,250	2,386,203	377,047
USA	1,35,292,564	118,825,921	15,567,643

Source: U.S. Census Bureau, American Fact Finder. 2018.

Overcrowded Housing

According to the U.S. Census Bureau, the percent of overcrowded houses in Cape Girardeau County during 2017 was 1.4%. Table 1.21 compares the number of occupied housing units, number of overcrowded housing units and the percent overcrowded for the County, State, and Nation. Cape Girardeau County was estimated to have had a lower percent that the U.S. but higher than the State.

Table 1.21 Overcrowded Housing Units, 2017

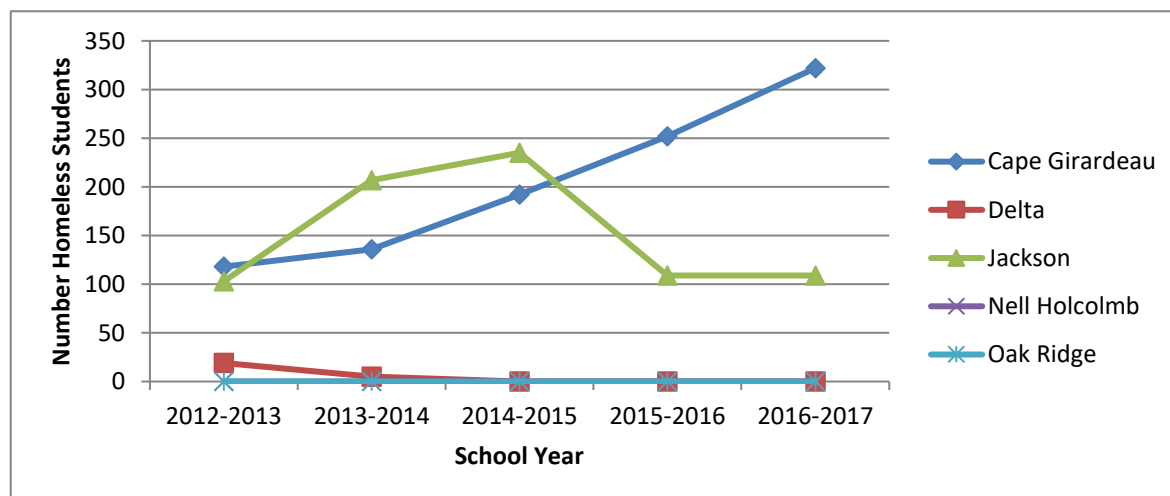
	Occupied Housing Units 2017 Estimates	Overcrowded Housing Units 2017 Estimates	Percent Overcrowded 2017 Estimates
Cape Girardeau	29,831	431	1.4
Missouri	2,372,362	28,667	1.2
USA	117,716,237	2,732,978	2.3

Source: U.S. Census Bureau, American Fact Finder, 2018.

Student Homeless Population

The McKinney-Vento Homeless Education Assistance Act (42 U.S.C. 11431 et seq.) defines homeless children or youth as, “Individuals who lack a fixed, regular, and adequate nighttime residence and children and youth who are sharing the housing of other persons due to loss of housing, economic hardship, or a similar reason; are living in motels, hotels, trailer parks, or camping grounds due to the lack of alternative adequate accommodations; are living in emergency or transitional shelters; are abandoned in hospitals; or are awaiting foster care placement; children and youth who have a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings; children and youth who are living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar settings; and migratory children (as such term is defined in section 6399 of title 20) who qualify as homeless for the purposes of this part because the children are living in circumstances described. Section 167.020.1, RSMo, the state statute defining Missouri’s public-school residency requirements, conforms to the federal definition.” Figure 1.22 compares, by school district, the number of children age 3 through 12th grade that are considered homeless.

Figure 1.22: Homeless Children by Public School District, Cape Girardeau County, 2013-2017



Source: Missouri Department of Elementary and Secondary Education, 2012-2017 School Years Homeless Census Data. Data provided by school district summarized by SESE school district-county association. 2018

Unsafe, Unsanitary Homes

The U.S. Census Bureau reports 72 housing units in Cape Girardeau County were without plumbing in 2017. The number and percentage of housing units without plumbing are shown in Table 1.22 comparing Cape Girardeau County to the State and Nation. Cape Girardeau County remained lower than the State and Nation for the years indicated.

Table 1.22: Housing Units without Plumbing, 2013 and 2017

	Housing Units without Plumbing 2013	Percent without Plumbing 2013	Housing Units without Plumbing, 2017	Percent without Plumbing, 2017
Cape Girardeau	53	0.2	72	0.2
Missouri	10,027	0.4	9,550	0.4
USA	471,155	0.4	463,649	0.4

Source: U.S. Census Bureau, American Community Survey, 2018

Fair Market Rent

According to the National Low-Income Housing Coalition, the average Fair Market Rent for one-bedroom units in Cape Girardeau County was \$527.00 in 2018, compared to a statewide average of \$547.00. Fair market monthly rent for 0-4 bedrooms in Cape Girardeau County and the State is shown in Table 1.23.

Table 1.23: Fair Market Rent, Dollars per Month, Cape Girardeau County and Missouri, 2018

Fair Market Rent (Monthly \$)					
	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Cape Girardeau	527	530	703	1,008	1,119
Missouri	547	632	804	1,087	1,246

Source: National Low-Income Housing Coalition, 2018 State Housing Profile

Foreclosures

The U.S. Department of Housing and Urban Development estimates a total of 121 houses were in Foreclosure in Cape Girardeau County. The estimated number of mortgages, foreclosures, and rates of Foreclosure for Cape Girardeau County and Missouri for 2017 are shown in Table 1.24. Cape Girardeau County had a slightly higher rate of foreclosures than the State.

Table 1.24: Foreclosures, Number and Percent, Cape Girardeau County and Missouri, January 2017-June 2018

	Estimated Number of Mortgages	Estimated Number of Foreclosures	Estimated Foreclosure Rate (%)
Cape Girardeau County	11,754	121	6.2
Missouri	1,297,598	52,258	4.0

Source: U.S. Department of Housing and Urban Development Neighborhood Stabilization Program, Foreclosure Starts over 18 months, 2018

Housing Affordability

The National Low-Income Housing Coalition reports each year on the amount of money a household must earn in order to afford a rental unit, based on Fair Market Rents in the area and an accepted limit of 30% of income for housing costs. For 2018, the hourly wage a worker must earn to afford a 1-bedroom rental was \$11.26 in the Cape Girardeau County area. Table 1.25 shows the Hourly Wage needed for a zero-bedroom to a four-bedroom rental comparing Cape Girardeau County and the State.

Table 1.25: Comparison of Hourly Wage Needed to Afford a Fair Market Rent, Cape Girardeau County, 2018

2018 Hourly Wage for:						
County/ State	Average Renter Hourly Wage (\$)	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Cape Girardeau	11.26	10.15	10.19	13.52	19.38	21.52
Missouri	14.14	10.53	12.15	15.46	20.91	23.97

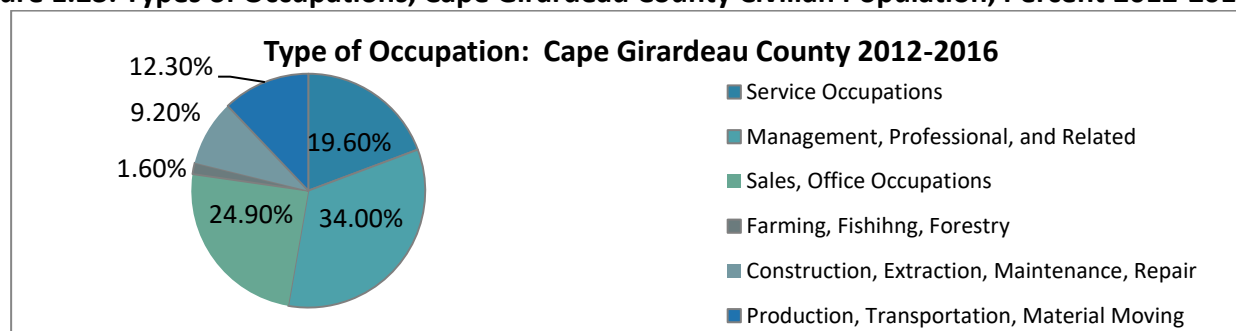
Source: National Low-Income Housing Coalition, 2018

Employment

When reporting Employment Status for a geographical profile, the U. S. Census Bureau identifies individuals in the 16 years of age and older age groups as the population that is employed. According to the 2016 U.S. Census Bureau estimates, there were 62,902 total individuals in Cape Girardeau County that were 16 years of age and older. Of those, 39,696 (63.1%) were considered to be in the Civilian Labor Force and 23,097 (36.7%) not in the Civilian Labor Force. Of the Civilian Labor Force, 37,365 (59.4 %) were employed and 2,331 (3.7%) were unemployed (the unemployment rate). The employment trend for Cape Girardeau County, at least from 1970-2017, shows a steady growth of both the population and employment. This is generally an indicator of a healthy, prosperous economy / community.

Figure 1.23 shows the percent of the Civilian Employed Population in Cape Girardeau County by type of occupation for the 2012-2016 report period.

Figure 1.23: Types of Occupations, Cape Girardeau County Civilian Population, Percent 2012-2016



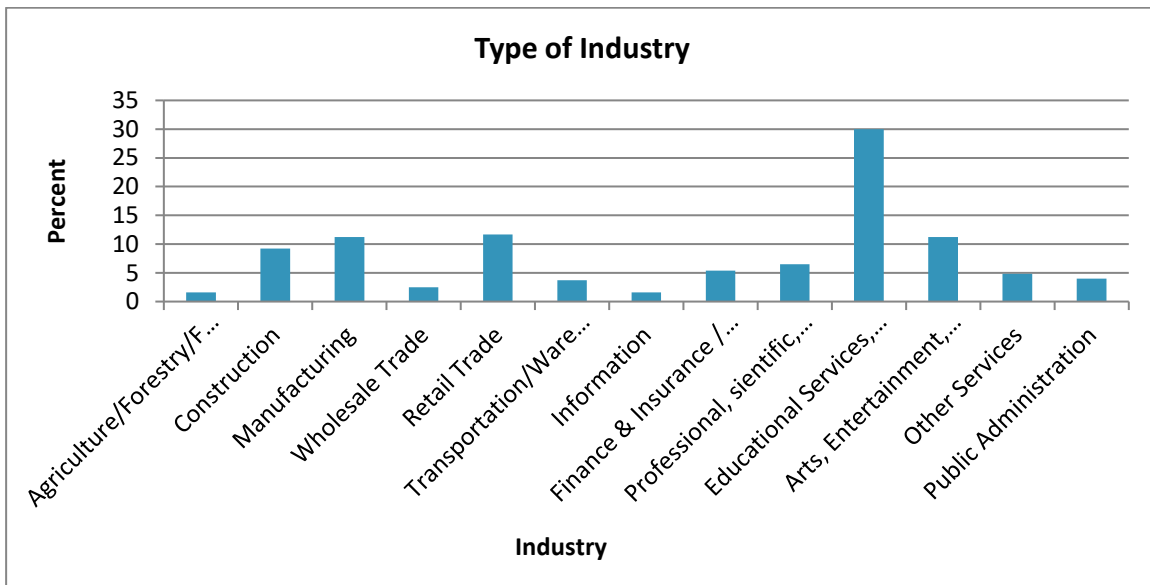
Source: U.S. Census Bureau, American Community Survey, and Population Profile Report, 2018

During the 2012-2016 report period the leading Type of Occupation was in the Management, Professional, and Related category with 34%, followed by Sales / Office Occupations at 24.9%, Service

Occupations at 19.6%, Production, Transportation, Material Moving at 12.3%, Construction, Extraction, Maintenance / Repair at 9.2%, and Farming, Fishing, Forestry at 1.6%.

Figure 1.24 displays the percent of the Civilian Employed population by type of industry. The industry in Cape Girardeau County that employed the largest percentage of workers is classified as Educational Services.

Figure 1.24: Workers by Industry, Cape Girardeau County, Percent 2012-2016



Source: U.S. Census Bureau, American Community Survey, and Population Profile Report, 2018

Table 1.26 lists the major manufacturing companies located in Cape Girardeau County, their product, and the number of employees as identified by the U.S. Census Bureau for 2018.

Table 1.26: Major Manufacturing Companies, Cape Girardeau County, 2018

Company	Product or Service Provided	# Employees
American Railcar	Parts for Railroad Cars	175
BioKyowa	Feed Supplement: L-Lysine	178
Blair Packaging	Specialty Die Cutting	100
Buzzi Unecerm	Portland Cement & Masonry	180
Havco Wood Products	Laminated Oak Flooring	315
Newell Rubbermaid	Closet Organizer Accessories	150
Mondi Jackson, Inc	Flexible Film Packaging	428
Delta Companies	Manufacture Stones & Rocks	425
Procter & Gamble Paper Products	Disposable Diapers, Paper Towels	1,200
RAPCO	Audio Cable & Harnesses	137
Schaefer's	Electrical Enclosures	165
VIP/Sheltered Workshop	Custom packaging & plastic hangers	360
Poly One	Plastic Rollstock Sheet	150
Wahlco D.W. Tool	Precision parts and vacuum molds	175
RM CoCo	Custom Fabric Products	100

Source: Cape Girardeau Area Magnet, Labor Force Facts, U.S. Census Bureau, ACS, 2018

The Cape Girardeau Area Magnet identifies the Top 5 Employers in Cape Girardeau County as:

1. Saint Francis Medical Center
2. Southeast HEALTH
3. Procter & Gamble Paper Products
4. Southeast Missouri State University
5. Cape Girardeau Public School District

Temporary Assistance for Needy Families (TANF)

Table 1.27, as reported by the Missouri Department of Health and Senior Services, compares children/cases on TANF from January 2011 to January 2015 in Cape Girardeau County. The total number of persons receiving TANF benefits decreased in both Cape Girardeau County and Missouri during this five-year time frame.

Table 1.27: Children Receiving TANF, 2011-2015

Year	Cape Girardeau County		Missouri	
	Number	Percent of Total Population	Number	Percent of Total Population
2011	165	15.19	11,881	10.95
2012	188	18.06	13,365	12.54
2013	182	17.69	12,326	12.14
2014	129	13.68	10,176	10.73
2015	89	12.04	7,354	9.75

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Temporary Assistance for Needy Families, Persons, 2018.

Students Enrolled in Free/Reduced Price Lunch (Percent of Enrollment)

The Missouri Department of Elementary and Secondary Education (DESE) defines this indicator as, “the percentages of students who are enrolled in the free or reduced-price National School Lunch Program.” Children from households with incomes less than 130 percent of poverty are eligible for free lunches; those from households below 185 percent of poverty are eligible for reduced price lunches. The rate for this indicator is expressed as percent of total school enrollment. This indicator is also another measure of the effect of poverty / low income in a population. Table 1.28 displays the percentage for Cape Girardeau County and Missouri. Figure 1.25 shows a comparison between the five public school districts in Cape Girardeau County.

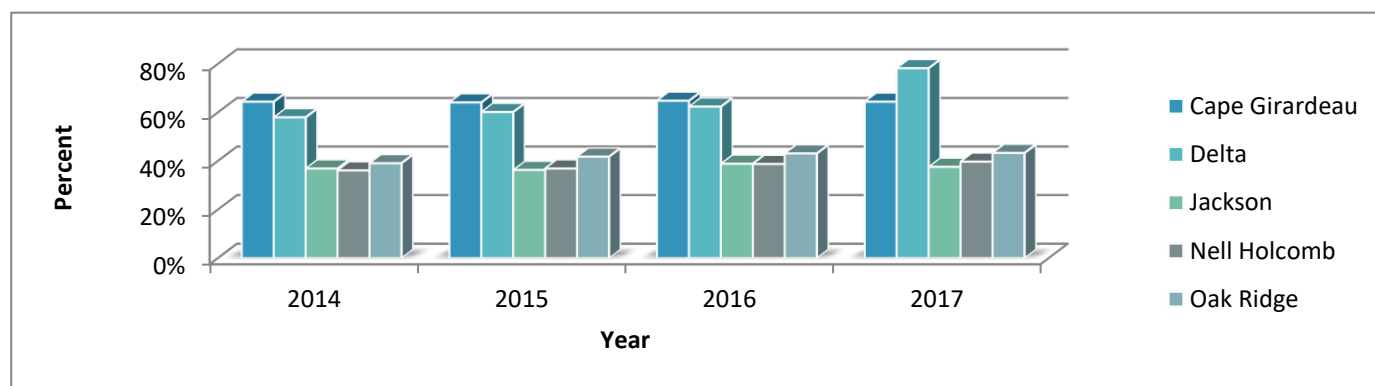
Table 1.28: Percent of Students Enrolled in Free/Reduced Price Lunch, Percent of Enrollment, 2012-2016

	2012	2013	2014	2015	2016
Cape Girardeau County	47.9%	48.2%	49.4%	49.8%	50.6%
Missouri	49.4%	49.8%	50.0%	51.5%	51.5%

Source: *Missouri Kids County, Students Enrolled in Free/Reduced Price Lunch (Percent), 2018*

The percent of students participating in the Free/Reduced Lunch Program in Cape Girardeau County and Missouri has increased from 2012 to 2016. Although the exact reason for the increase (increased number of students eligible versus increased number of eligible students choosing to participate) is not documented it is evident from the data that both the county and the state experienced an increased percentage of utilization, even with the limitation. At the end of 2017, Delta School District (78.2%) had the highest percentage of enrolled students that were eligible for free/reduced lunches followed by Cape Girardeau Public School District (64.4%), Oak Ridge (43.3%), Nell Holcomb (39.7%) and Jackson (37.6%).

Figure 1.25: Students Enrolled in Free/Reduced Lunch by Cape Girardeau County Public School Districts, 2014-2017



Source: *Missouri Department of Elementary and Secondary Education, School Finance, Free and Reduced Lunch Percentage, 2018*

Supplemental Nutrition Assistance Program (SNAP)

The Supplemental Nutrition Assistance Program (SNAP) indicator identifies the estimated percentage of households that are receiving SNAP benefits. The relevance of this indicator lies in the fact that it provides another assessment of populations more vulnerable to health disparities such as health care access, health status, and social support status. This indicator, combined with poverty data, can be beneficial in identifying gaps in eligibility and enrollment in the program. Table 1.29 reflects the number and percentage of households receiving SNAP benefits in 2016 comparing Cape Girardeau County, the State and Nation. The county has a lower percentage than the State and Nation.

Table 1.29: Comparison of Number and Percent of Households Receiving SNAP Benefits, 2016

	# of SNAP Households, 2016	% of Population on SNAP, 2016
Cape Girardeau	29,831	11.23%
Missouri	2,372,362	13%
U.S.	117,716,237	13.05%

Source: US Census Bureau, Community Commons, 2018

Table 1.30 shows by race / ethnicity, the percentages of households in Cape Girardeau County, the State, and the Nation that were receiving SNAP benefits in 2016

Table 1.30: Households Receiving SNAP Benefits by Race/Ethnicity, Percent, 2016

	Total Population	Non-Hispanic White	Black	Asian	American Indian / Alaska Native	Other Race	Multiple Race	Hispanic / Latino
Cape Girardeau County, MO	11.23%	9.13%	36.25%	3.93%	13.7%	24.32%	14.45%	13.45%
Missouri	13%	10.13%	30.5%	6.4%	27.66%	20.59%	23.39%	17.98%
United States	13.05%	7.93%	27.93%	7.6%	26.26%	24.03%	19.81%	22.32%

Source: U.S. Census Bureau, American Community Survey, Households Receiving SNAP Benefits by Race / Ethnicity, 2018

According to the United States Department of Agriculture (USDA) receipt of SNAP benefits has been associated with having a positive effect on children's health. Women, who have access to SNAP (particularly in their last trimester of pregnancy) have experienced improved birth outcomes, as measured by birthweight.

Social Security Administration Benefits

The Social Security Administration (SSA) reported a total of 883 persons in Cape Girardeau County were receiving SSI benefits, a decrease of 1% from 2013 to 2017. The total number of persons receiving SSI benefits, and the total dollar amount of SSI payments in 2013 and 2017 for Cape Girardeau County and the State is shown in Table 1.31.

Table 1.31: SSI Recipients and Payments, 2013 and 2017

	Total Persons Receiving SSI Benefits, 2013	Total SSI Payments, 2013 (\$1000's)	Total Persons Receiving SSI Benefits, 2017	Total SSI Payments, 2017 (\$1000's)
Cape Girardeau	1,604	17,640	1,594	883
Missouri	142,219	1,432,365	137,796	76,899

Source: Social Security Administration, Master Beneficiary Record; Social Security Administration, Supplemental Security Record, 2013 and 2018.

Unemployment

In July 2018 Cape Girardeau County had an unemployment rate of 3.7% which was slightly higher than the 3.4% in Missouri. The July 2018 Labor force, employment, and unemployment data for Cape Girardeau County and Missouri is provided in Table 1.32.

Table 1.32: Employment/Unemployment Information, July 2018

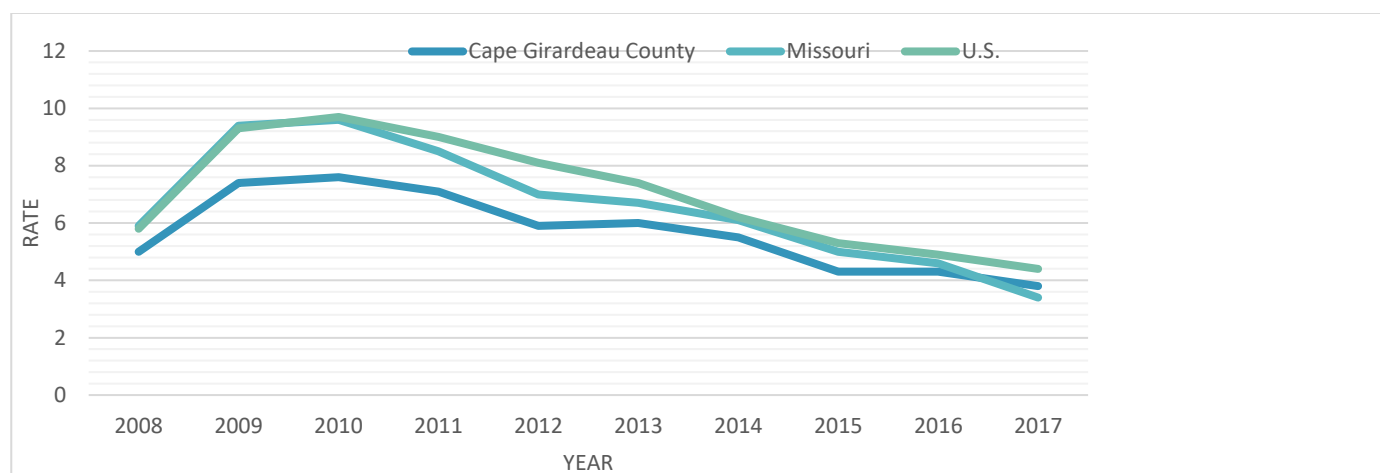
	Labor Force	Employment	Unemployment	Unemployment Rate
Cape Girardeau	48,100	46,300	1,800	3.7
Missouri	3,060,800	2,956,600	104,100	3.4

Source: U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics, July 2018

Average Annual Unemployment

Overall, Cape Girardeau County experienced an average 3.8% unemployment rate in 2017 compared to a statewide rate of 3.4%. Labor force, employment, and unemployment rate data for 2008-2017 is provided for Cape Girardeau County and Missouri in Figure 1.26. There is no significant difference in the unemployment rate between the County, State, and Nation.

Figure 1.26: Average Unemployment Rate, 2008-2017



Source: Missouri Economic Research and Information Center, 2018

The Missouri Economic Research and Information Center provides Local Area Unemployment Statistics for July 2018 for the thirteen counties in the Southeast Region of Missouri. Table 1.33 indicates the total number in the Civilian Labor Force, total number Employed, total number Unemployed, and the Unemployment Rate for each of these counties. Perry County had the lowest unemployment rate (2.2%) while Dunklin and Pemiscot had the highest rate (7.3%). Cape Girardeau County had the second lowest rate of the thirteen counties at 3.4% but had the largest number of people in the Civilian Labor Force.

Table 1.33: Missouri Southeast Region Unemployment Statistics, July 2018

Local Area Unemployment Statistics July 2018				
Area	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
Bollinger County	5,389	5,160	229	4.2%
Cape Girardeau County	40,522	39,162	1,360	3.4%
Dunklin County	11,677	10,828	849	7.3%
Iron County	3,451	3,219	232	6.7%
Madison County	5,376	5,147	229	4.3%
Mississippi County	5,706	5,388	318	5.6%
New Madrid County	7,558	7,053	505	6.7%
Pemiscot County	5,988	5,552	436	7.3%
Perry County	9,972	9,709	263	2.6%
Ste. Genevieve County	9,017	8,696	321	3.6%
St. Francois County	26,139	25,039	1,100	4.2%
Scott County	19,857	18,931	926	4.7%
Stoddard County	12,766	12,089	677	5.3%

Source: Missouri Economic Research and Information Center, Southeast Region Data, Unemployment Statistics, July 2018

Poverty

100% FPL

The Poverty indicator reviews the number, percentages, and trends of individuals living in households with income levels below the Federal Poverty Level (FPL). The relevance of Poverty as an indicator is that Poverty can be considered to create a barrier to accessing health care, healthy food, and other commodities that contribute to poor health status.

The U. S. Census Bureau estimates indicate that a total of 11,371 residents lived below the poverty level during 2016 in Cape Girardeau County. The Poverty Rate (100% of Poverty Level) for 2016 in Cape Girardeau County, Missouri, and the U.S. are shown in Table 1.34. As these figures indicate, Cape Girardeau County had a slightly higher percentage of individuals than did Missouri and the U.S.

Table 1.34: 2016 Poverty Information, 100% FPL for All Ages by Location

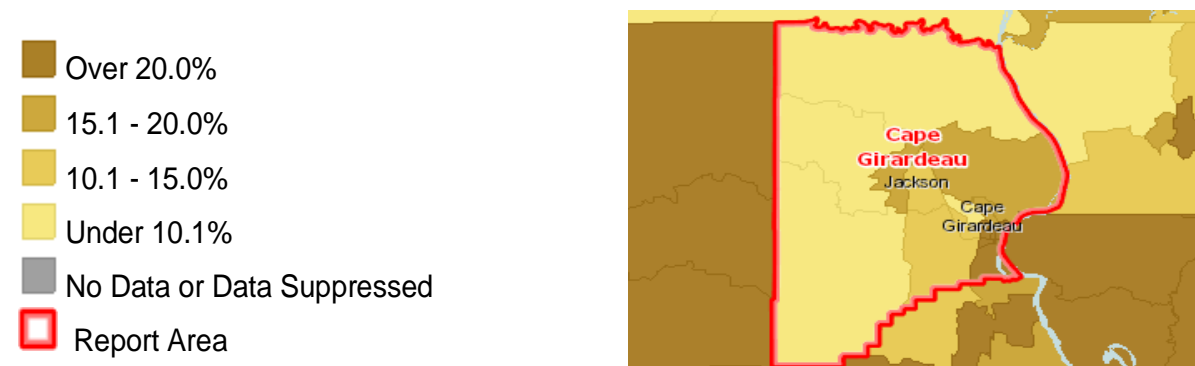
	Number of Persons (2016)	Poverty Rate - % (2016)
Cape Girardeau	11,371	15.2
Missouri	826,358	14.0
USA	44,268,996	14.0

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2018

Figure 1.27 is a map outline of Cape Girardeau County that specifies the percentage of the population below the poverty level living within each Census Tract.

Figure 1.27: Population Below Poverty by Census Tract, Cape Girardeau County, 2012-2016

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

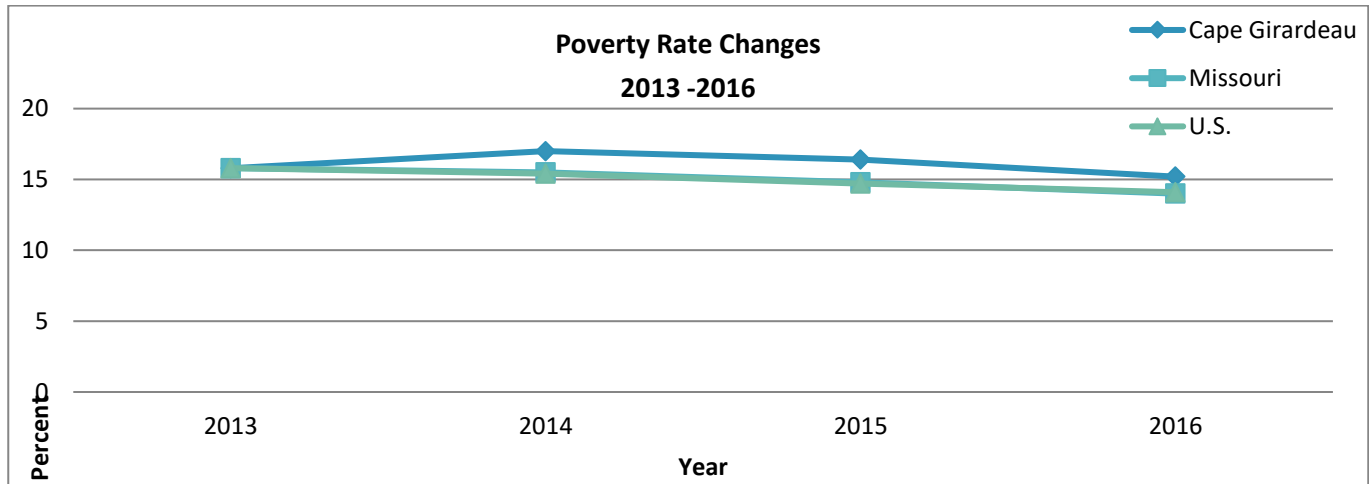


Source: U.S. Census Bureau, American Community Survey, 2018

Poverty Rate Change

To determine any trending within the Poverty Indicator, Figure 1.28 and Table 1.35 provide a review of poverty levels for Cape Girardeau County, Missouri, and the U.S. from the years of 2013 - 2016. According to the U.S. Census Bureau, the Poverty Rate in Cape Girardeau County decreased by 0.4%, compared to a statewide decrease of 1.3%, from 2013 to 2016. This is consistent with both Missouri and the U.S. Projections are that the Poverty Level in Cape Girardeau County will continue with this decreasing trend in close comparison to Missouri and the U.S.

Figure 1.28: Overall Poverty Rate Change, 2013-2016



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2018

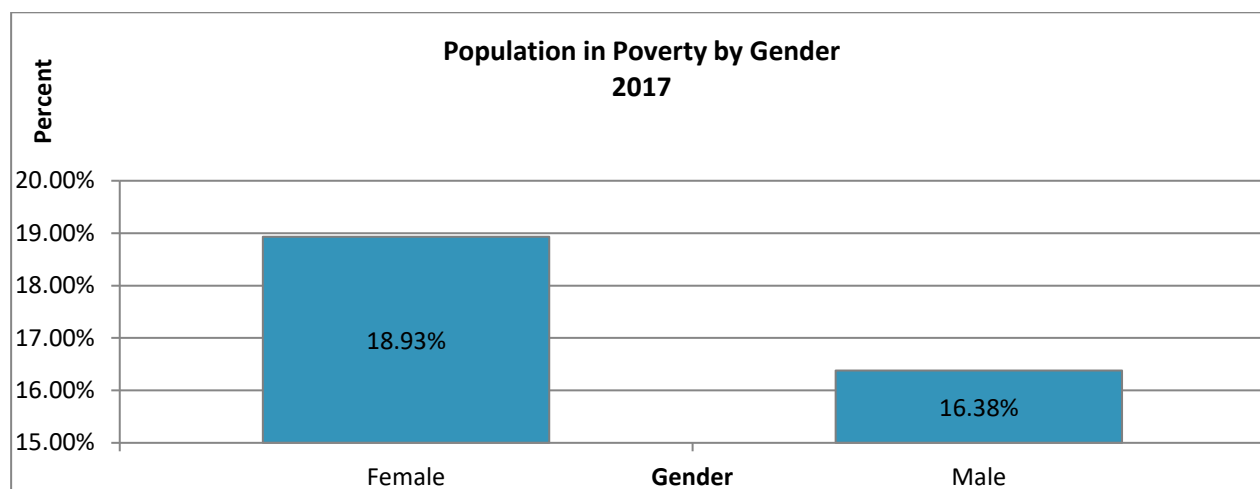
Table 1.35: Poverty Rate Percent, by Location, 2013-2016

	Poverty Rate, 2013	Poverty Rate, 2016	Change in Poverty Rate, 2013-2016
Cape Girardeau	15.8	15.2	.6
Missouri	15.8	14	1.8
USA	15.8	14.1	1.7

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2018

Poverty by Gender

Figure 1.29 compares the percent of the female and male population for Cape Girardeau County that was identified at the poverty level. A slightly larger percentage of the female population was at or below the poverty level.

Figure 1.29: Percent of Female and Male Population in Poverty, Cape Girardeau County, 2017

Source: U.S. Census Bureau, American Community Survey, 2018

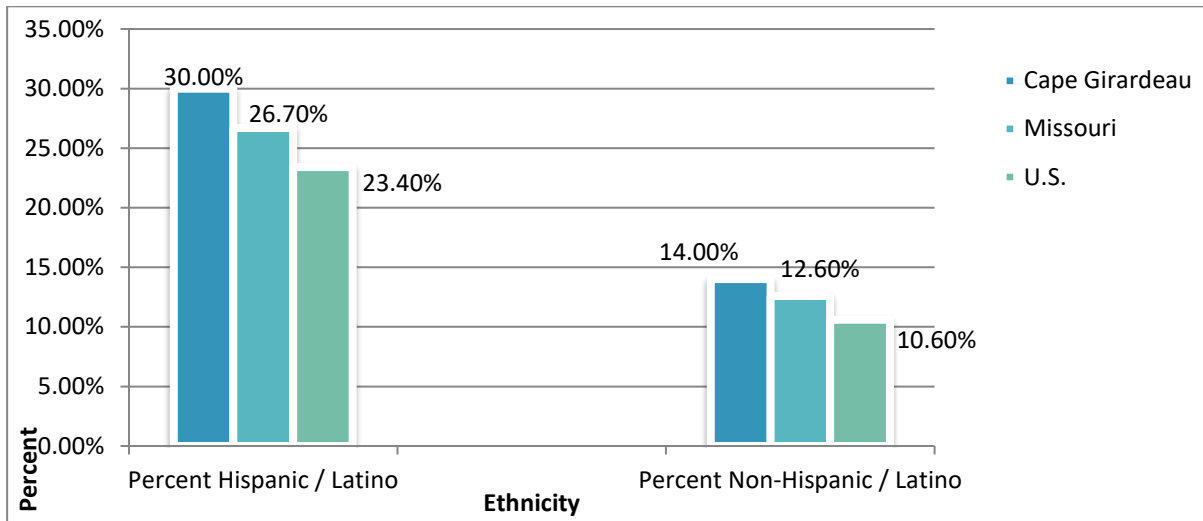
Poverty by Race and Ethnicity

Table 1.36 compares the incidence of Poverty by Race for Cape Girardeau County, Missouri, and the U.S. Figure 1.30 compares poverty by Ethnicity alone for Cape Girardeau County. Cape Girardeau County had higher poverty in all races except Native American / Alaska Native than the State and U.S. The County also had higher rates for Hispanic / Latino and Non-Hispanic / Latino than the State and U.S.

Table 1.36: Population in Poverty by Location, by Race Alone, Percent, 2017

	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Cape Girardeau County, MO	14.4%	44.4%	19.7%	54.4%	41.2%	38.3%	34.7%
Missouri	12.9%	28.3%	23.6%	16.7%	22.8%	32.1%	23.8%
United States	12.4%	26.2%	27.6%	12.3%	20.1%	25.4%	17.3%

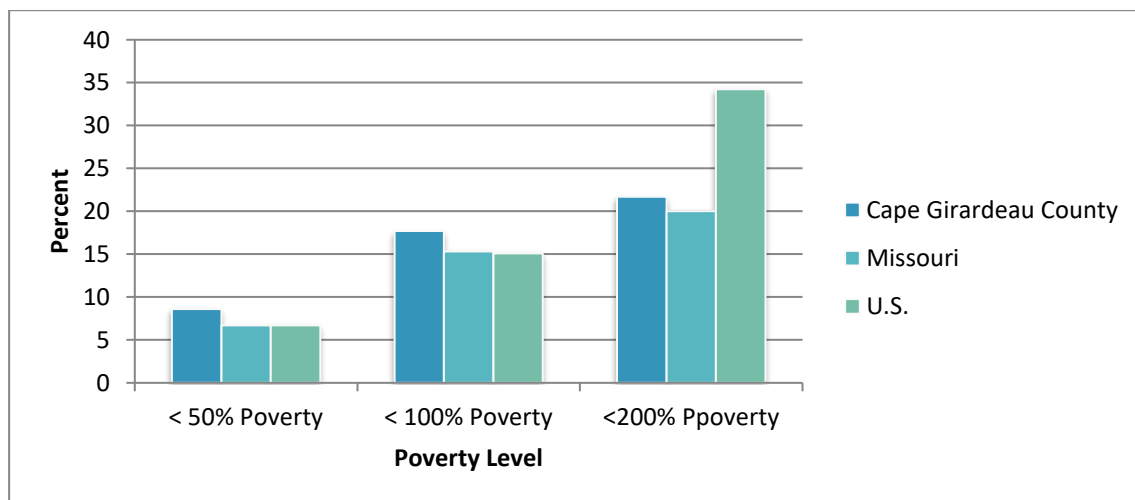
Source: U.S. Census Bureau, American Community Survey, Population in Poverty by Race Alone, Percent, Community Commons, Community Health Needs Assessment, 2018.

Figure 1.30: Percent of Population in Poverty by Ethnicity Alone, Cape Girardeau County, 2017

Source: U.S. Census Bureau, American Community Survey, Population in Poverty in Ethnicity and Race, Community Commons, Community Health Needs Assessment 2018

0% and 200% FPL

In addition to the population that is at or below the standard 100% of poverty level, the U.S. Census Bureau also tracks individuals in a population that are at 50% and 200% below poverty. Figure 1.31 compares the County, State, and National percentages of the population at the 50%, 100%, and 200% FPL for 2016.

Figure 1.31: Percent Population by Location at 50%, 100%, 200% Federal Poverty Level (FPL), 2016

Source: U.S. Census Bureau, American Community Survey, Federal Poverty Levels, 2018

Cape Girardeau County has 8.6% of the total population at or below the 50% FPL (Missouri was 6.7%, U.S. was 6.7%), 17.7% of the population at or below 100% FPL (Missouri was 15.3%, U.S. was 15.1%), and 21.7% at 200% or below FPL (Missouri was 20%, U.S. was 19.8%).

Children in Poverty

Children living in Poverty represent a particular segment of the population that is more vulnerable to experience health and wellbeing disparities. Table 1.37 shows the Poverty Rates for children in the 0-17 age group for Cape Girardeau County, Missouri and the U.S. according to the U.S. Census Bureau, American Community Survey 2016 estimates. Cape Girardeau County had a slightly lower percentage of children ages 0-17 years that are living in Poverty.

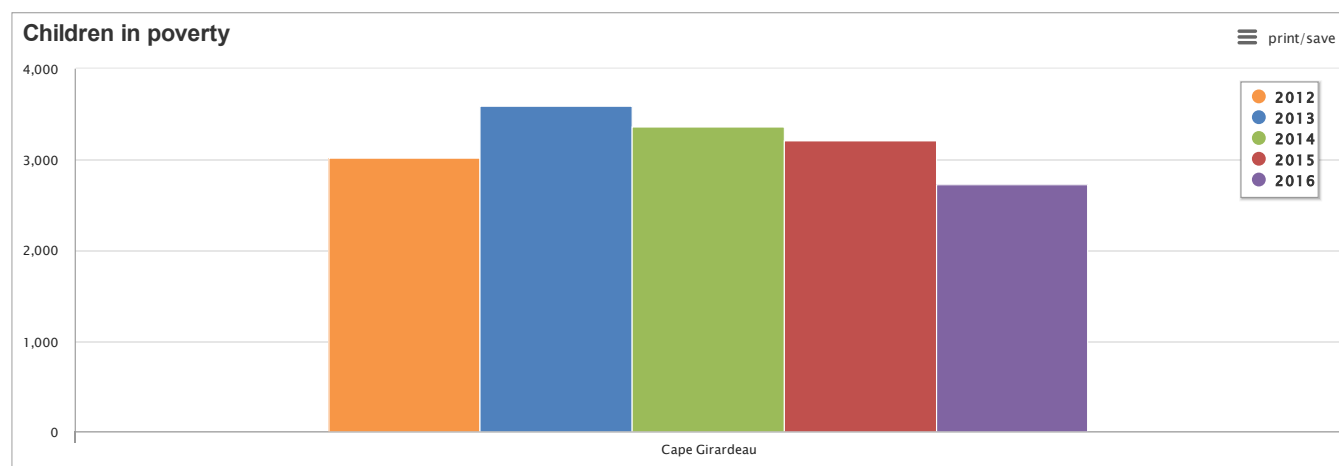
Table 1.37: Population below the Poverty Level, by Location, Children (Age 0-17), 2016

	Total Population	Total Population 0-17 Years of age	Percent Population 0-17 years of age in Poverty
Cape Girardeau County	74,813	16,507	20.5%
Missouri	5,876,366	1,364,095	21.1%
U.S.	301,629,645	72,456,096	21.2%

Source: U.S. Census Bureau, American Community Survey, Missouri Census Data Center, 2018

Figure 1.32 displays the percent of children ages 0-17 in Poverty in Cape Girardeau County from 2012-2016. From 2012-2016, Cape Girardeau County percentages had experienced a slight decrease in percentage since 2013.

Figure 1.32: Children in Poverty, Number of 0-17 years of Age, Cape Girardeau County, 2012-2016

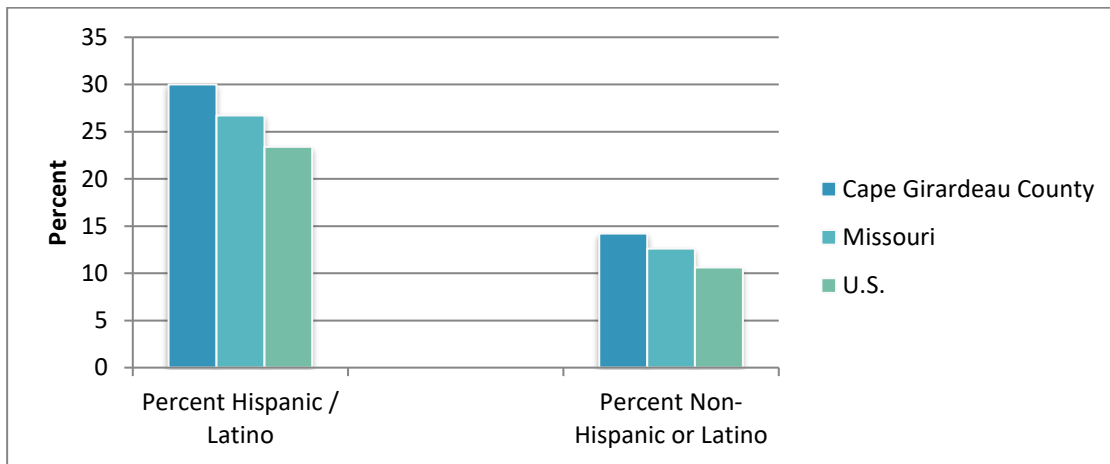


Source: Missouri KIDS COUNT, 2018

Children in Poverty by Gender, Ethnicity, and Race

The percent of male (16.4%) and female (18.9%) children 0-17 years of age at or below 100% of poverty in Cape Girardeau varies by only 2.5%. There is, however, a noticeable difference between the percentage levels when analyzed by Ethnicity alone and Race alone. Figure 1.33 compares the percent of this age group by Ethnicity in Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County (30%) had a higher percentage of Hispanic / Latino children living in poverty than Missouri (26.7%) and was slightly above the U.S.

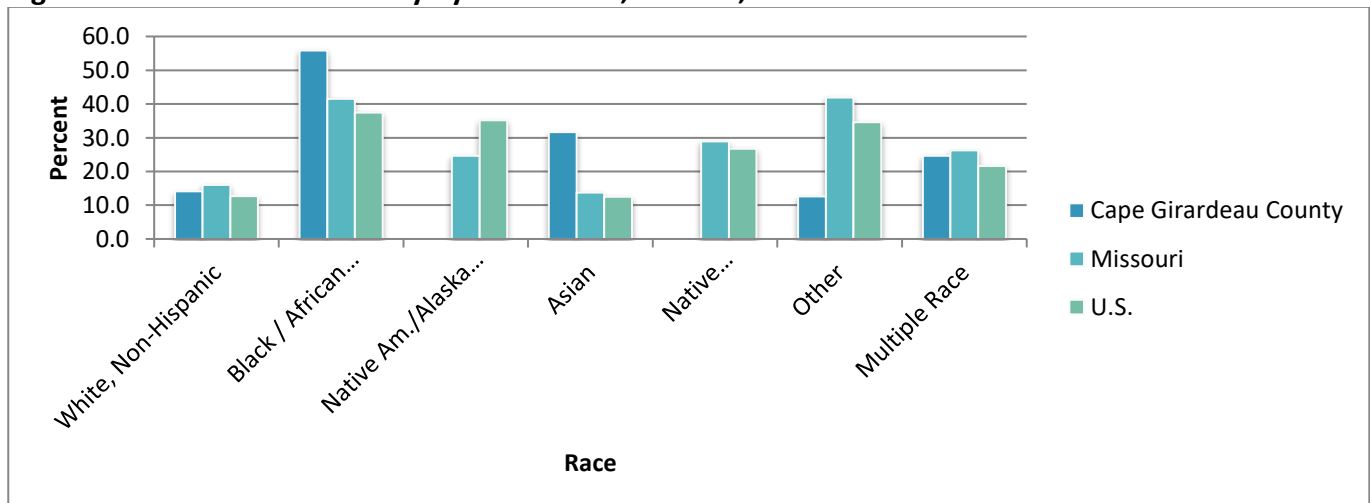
Figure 1.33: Children in Poverty by Ethnicity Alone, 2016



Source: U.S. Census Bureau, American Community Assessment, Community Commons, Community Health Needs Assessment, 2018

Figure 1.34 compares the percent of this age group in Poverty, by Race alone, in Cape Girardeau County to Missouri and the U.S. The highest percentage, by Race alone, in Cape Girardeau County was in the Black / African American population (55.8%) for 2016.

Figure 1.34: Children in Poverty by Race Alone, Percent, 2016

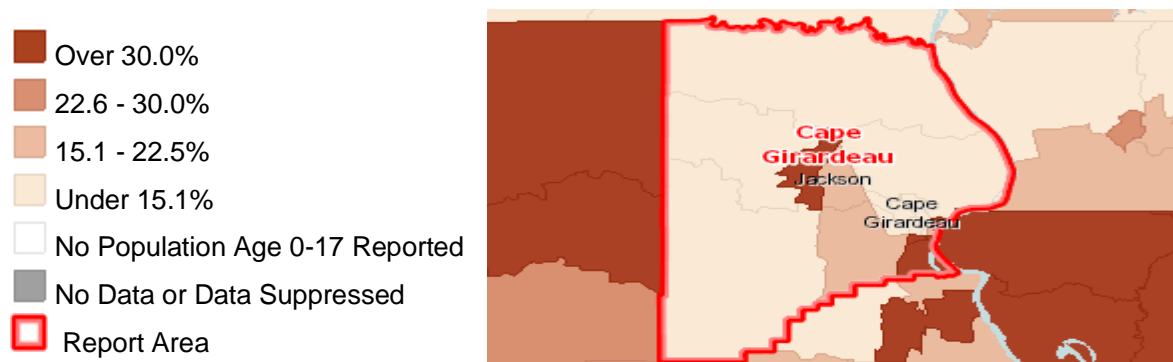


Source: U.S. Census Bureau, American Community Survey, Community Commons, Community Health Needs Assessment, 2018

Figure 1.35 is a map outline of Cape Girardeau County and specifies the percentage of children 0-17 years living within each Census Tract. Knowing the percentage can serve as a guide to targeting area with the highest need.

Figure 1.35: Population below the Poverty Level, Children 0-17, Percent by Tract

Population Below the Poverty Level, Children (Age 0-17), Percent by Tract, ACS 2012-16



Source: U.S. Census Bureau, American community Survey, Community Commons, community Health Needs Assessment, 2018

A study reported in the American Journal of Epidemiology, conducted in 2007, indicates that children raised in Poverty are at higher risk of experiencing health, educational, and social disparities. Risk factors identified include inadequate nutrition, maternal depression, parental substance abuse, divorce, violent crime, lower educational attainment / early high school dropout. In addition, children living in Poverty have a greater risk for lower occupational status, lower wages, and poorer health as an adult. (Melchior, M., Moffatt, E., Milne, B. J., Poulton, R., & Caspi, A. (2007). Why do children from socioeconomically disadvantaged families suffer from poor health when they reach adulthood? A life-course study. American Journal of Epidemiology, 166(8), 966-974).

Seniors in Poverty

In 2012-2016, the senior poverty rate was 8.1% in Cape Girardeau County. This was an increase of nearly 1 % compared to the rate reported for the 2007-2011-time frame.

Table 1.38: Number and Rate Seniors in Poverty, By Location 2007-2011 / 2012-2016

	Seniors in Poverty, 2007-2011	Senior Poverty Rate (%)	Seniors in Poverty, 2012-2016	Senior Poverty Rate (%), 2012-2016
Cape Girardeau	814	7.2	11,368	8.1
Missouri	75,589	9.0	892,038	8.9
USA	4,145,717	9.6	44,874,586	9.3

Source: United States Census, Community Fact Finder, 2018

When compared to the State and Nation, Cape Girardeau County had a lower rate than both for the 2007-2011 and 2012-2016 periods.

SECTION II: Environmental Health Risk Factors

Climate

The climate of an area can be an influencing factor on the health and well-being of those living within the jurisdiction. Individuals within the population that are more vulnerable to effects of the climate include the elderly, very young, disabled, those living in poverty, those with certain medical conditions like asthma and heart disease, and those in areas with high air pollution or particulate matter. The vulnerabilities and health impacts precipitated by the climate include heat-related illness and death, aggravated lung disease related to air quality, and exacerbation of allergies, asthma and other respiratory diseases.

The climate in Cape Girardeau County has been described as warm, humid, and temperate with hot, hazy summers. Cape Girardeau County receives an average of 46 inches of rain per year compared to a U.S. average of 37 inches and has an average temperature in July of 78.6 degrees F. The County has an average of 54 days a year with high temperatures at or above 90 degrees F. The Comfort Index, a score based on the relative humidity, for Cape Girardeau County is a 33 compared to a score of 44 for the U.S. A higher score is considered to be more comfortable. This suggests that Cape Girardeau County has a higher incidence, than the U.S., of flooding and higher humidity which in turn increases the likelihood of mold development. Both high humidity and mold development are environmental triggers for individuals with asthma.

In the Southeastern Missouri area, Cape Girardeau County has the highest percentage of heat related deaths, as reported by the Missouri Department of Health and Senior Services, Bureau of Environmental Epidemiology. The Environmental Public Health Tracking Network does not provide County level detail on the sex, race, or gender for these deaths, however the information provided for the State of Missouri indicates that white males and the less than 5 and over-64-year age group experienced the greatest percentages of deaths. Four percent of all heat related deaths in Missouri were in the less than five years of age group.

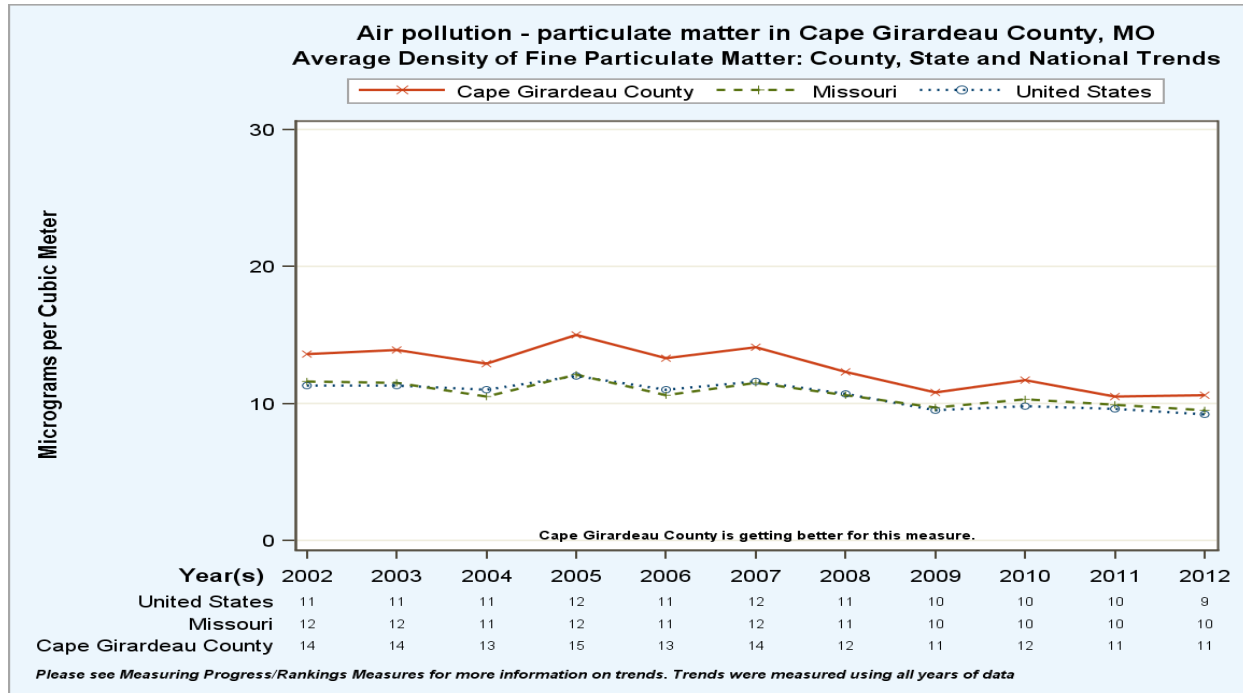
Outdoor Air Quality

Air Quality, in terms of both Ozone Levels and Particulate Matter, are relevant indicators for health as poor air quality is a contributing factor to respiratory issues and overall health. Ozone Levels are reported by the percentage of days per year in which the levels are above the National Ambient Air Quality Standard of 75 parts per billion (ppb). According to data from the Centers for Disease Control and Prevention and the National Environmental Public Health Tracking Network, the percentage of days per year that exceeded the Emissions Standards in Cape Girardeau County was 0%. Missouri had 0.06% and the U.S. had 0.44% days.

Particulate Matter, also referred to as PM, is defined by the Environmental Protection Agency (EPA) as “a complex mixture of extremely small particles and liquid droplets.” The particles in this form of pollution are usually grouped according to size and that size is directly linked to causing health problems. PM that is 10 micrometers or smaller can pass through the nose and throat and reach the lungs. Components that contribute to particle pollution include acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles.” Particles in the range of 2.5 – 10 micrometers in diameter are considered as “inhalable coarse particles: and are usually found near roadways and industrial operations. “Fine particles”, measuring 2.5 micrometer in diameter and smaller, are of even more concern and can be found in smoke, haze, gases, and automobile exhausts. As shown in

Figure 2.1, the average density of Particulate Matter 2.5 micrometer and smaller for Cape Girardeau County in 2012 was 11.3 micrograms per cubic meter compared to 10.2 for Missouri and 9.5 for the U.S. Cape Girardeau County had experienced a decreasing trend during this time frame which is an improvement.

Figure 2.1: Air Pollution Density Comparison – Particulate Matter 2.5 micrometers or less, 2002-2012



Source: *County Health Rankings & Roadmaps, 2018*

The American Community Survey further reports the Percentage of Days of Exceeding Standards, Crude Average, is 1.30 for Cape Girardeau County, 0.25 for Missouri, and only 1.14 for the U.S. By either measurement, Cape Girardeau County exceeds both the State and the Nation. Table 2.1 provides data on agriculture indicators that could contribute to the Particulate Matter. The data has not been updated since 2012.

Table 2.1: Percent of Land Area Treated with Fertilizer, Lime, and Chemicals, Cape Girardeau County and Missouri, 2012

Indicator	Cape Girardeau County	Missouri
% Land area treated to control insects	9.57%	7.82%
% Land area treated to control weeds, grass, or brush	27.64%	22.54%
% Land area treated to control disease in crops and orchards	2.28%	1.57%
% Land area treated with commercial fertilizer, lime, and soil conditioners	31.71%	22.21%
% Land area treated with manure	1.60%	1.46%
% Land area treated with chemicals used to control growth, thin fruit, ripen or defoliate	0.10%	0.84%
% Land area with control nematodes	.34%	1.16%
% Land area with fertilized cropland (except cropland pasture)	26.35%	16.79%
% Land area with fertilized pasture and rangeland	5.36%	4.84%

Source: MO DHSS, *Environmental Public Health Tracking Program, 2018*

Primary sources of particulate matter found in Cape Girardeau County include road dust and industrial processes. Secondary sources include exhaust from cars and trucks. Individuals exposed to fine particles over a period of time are more prone to heart and lung problems. Coronary artery disease, for example, is the most common heart problem resulting from long term exposure to fine particulate matter. The Centers for Disease Control and Prevention consider communities to be at greater risk for heart and lung problems due to these poor air quality risks if they also have higher rates of poverty, higher percentages of the population without health insurance, higher obesity and diabetes prevalence, higher rates of smoking, higher amounts of car and truck exhaust due to greater population density, and higher percentages of young children and adults over the age of 65.

Indoor Air Quality

The Environmental Protection Agency (EPA) defines Indoor Air Quality as, “the air quality within and around buildings, and structures; especially as it relates to the health and comfort of building occupants. Poor Indoor Air Quality can cause or contribute to the development of infections, lung cancer, and chronic lung diseases such as asthma and pose a greater risk for those that already have

a lung disease.” The American Lung Association has identified at least six common air pollutants. Two of these pollutants, Biological Pollutants and Secondhand Tobacco Smoke, are reviewed further.

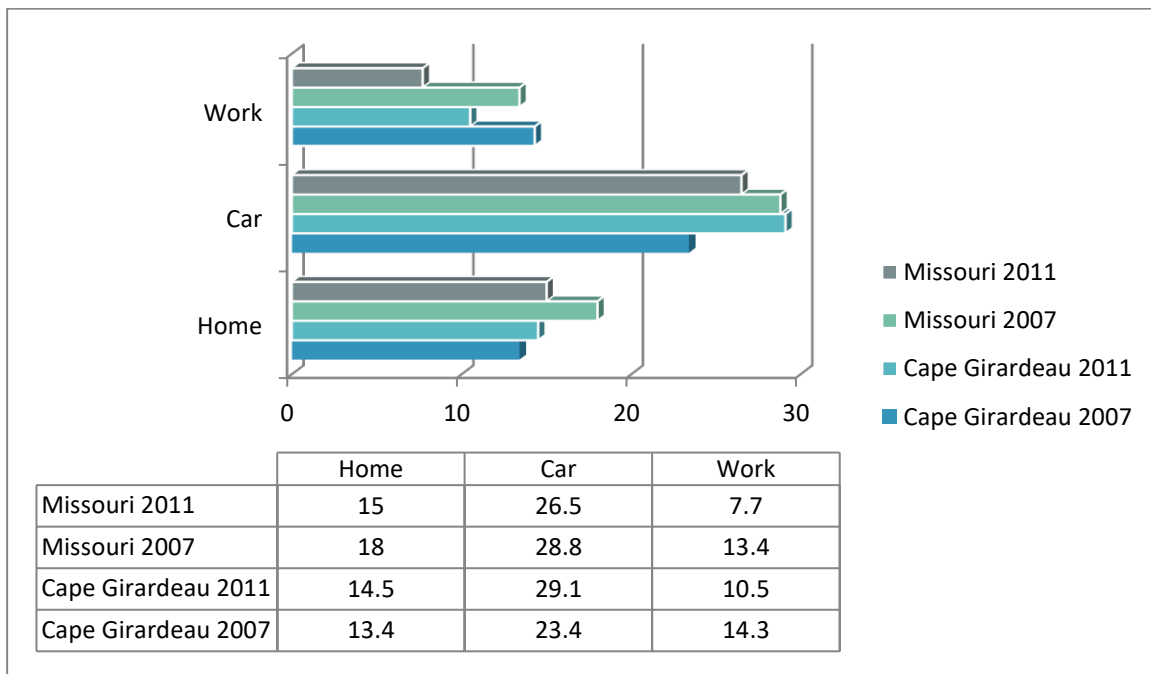
Biological Pollutants

Biological pollutants include mold, bacteria, viruses, pollen, animal dander, and particles from dust mites and cockroaches. These may cause infections, provoke allergic symptoms or trigger asthma attacks and may be a major cause of days lost from work and school.

Secondhand Tobacco Smoke

Secondhand smoke contains at least 200 known poisons and at least 60 chemicals that are known to cause cancer. Of critical concern are the after effects on health, including deaths due to lung cancer, heart disease, respiratory and ear infections in children, and as an asthma trigger. Figure 2.2 provides a comparison between Cape Girardeau County residents to those of Missouri for types of exposure to secondhand smoke. The data presented was collected by the Missouri Department of Health and Senior Services through the County Level Study conducted in 2007 and again in 2011 and coincides with the areas identified by the American Lung Association as primary sites for exposure to secondhand smoke.

Figure 2.2: Percentages of Adults Exposed to Secondhand Smoke in the Past Week, 2007, 2011



Source: MODHSS County Level Study, Secondhand Smoke, 2007 and 2011 Profile, 2018

Exposure to second hand smoke in homes, cars, and work areas was analyzed. In 2007, Cape Girardeau County percentages were below the State percentages for individuals who reported smoking at home and in their cars. A slightly higher percentage of residents reported smoking at work in Cape Girardeau County than in the rest of the State. By 2011, Missouri saw a decreasing percent in all three areas; Cape Girardeau County saw an increasing percentage of individuals who reported smoking at

home and in their car. The percent that reported smoking at work did decrease but exceeded the State percentage. All of these locations provide the opportunity for exposure to second hand smoke.

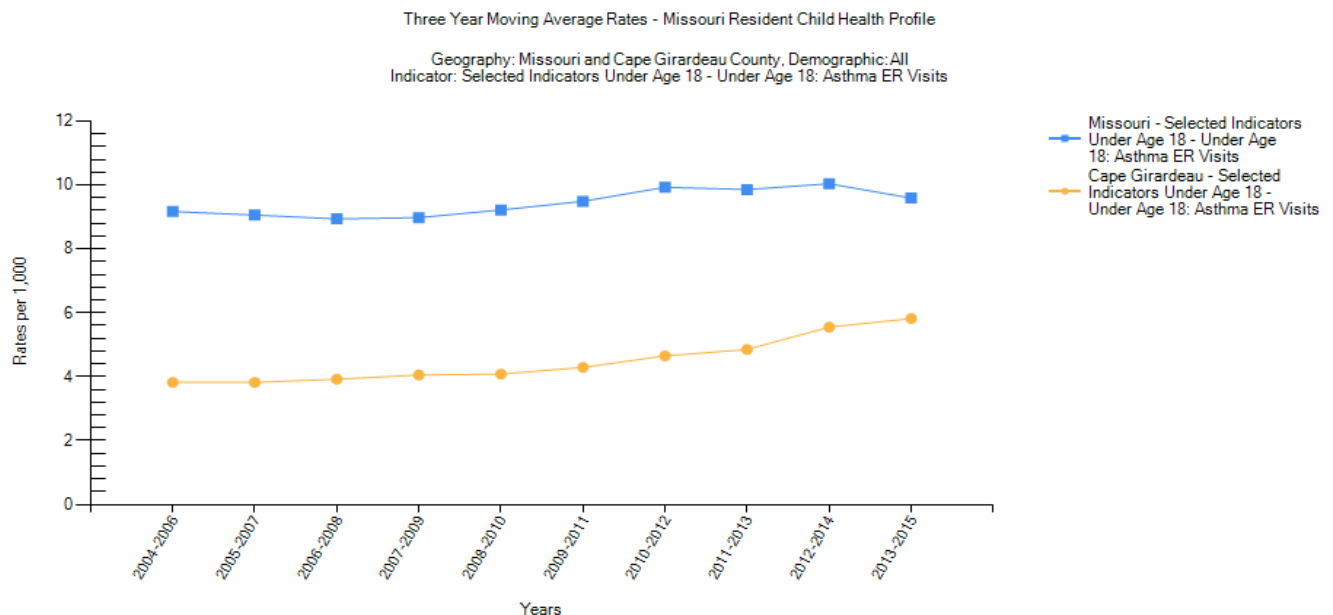
Occupational Health Risks

In terms of occupational health risks, the American Lung Association has identified that Casino workers are at higher risk for secondhand-smoke related illness than other workers. Smoking in bars, bowling allies, and bingo parlors have also been found to be 1.5 to 11.7 times higher than in restaurants. A segment of the population in Cape Girardeau County that has one of the greatest risks of occupational exposure to second hand smoke are those employed at facilities that allow individuals to smoke indoors.

One notable industry where employees would experience disparate exposure to secondhand smoke is the casino gaming facilities. There is one of these facilities in Cape Girardeau County with an average annual employment figure of 590 individuals.

Another indicator that could be related to poor indoor air quality, i.e., exposure to pollutants such as second-hand smoke, is the rate of Childhood Asthma Related ER Visits. Figure 2.3 provides the rate per 1,000 childhood asthma ER visits for Cape Girardeau County and Missouri for 2004-2015. Cape Girardeau County has experienced a slightly increasing trend as compared to a slightly decreasing trend for Missouri.

Figure 2.3: Childhood Asthma Related ER Visits, 2010-2015

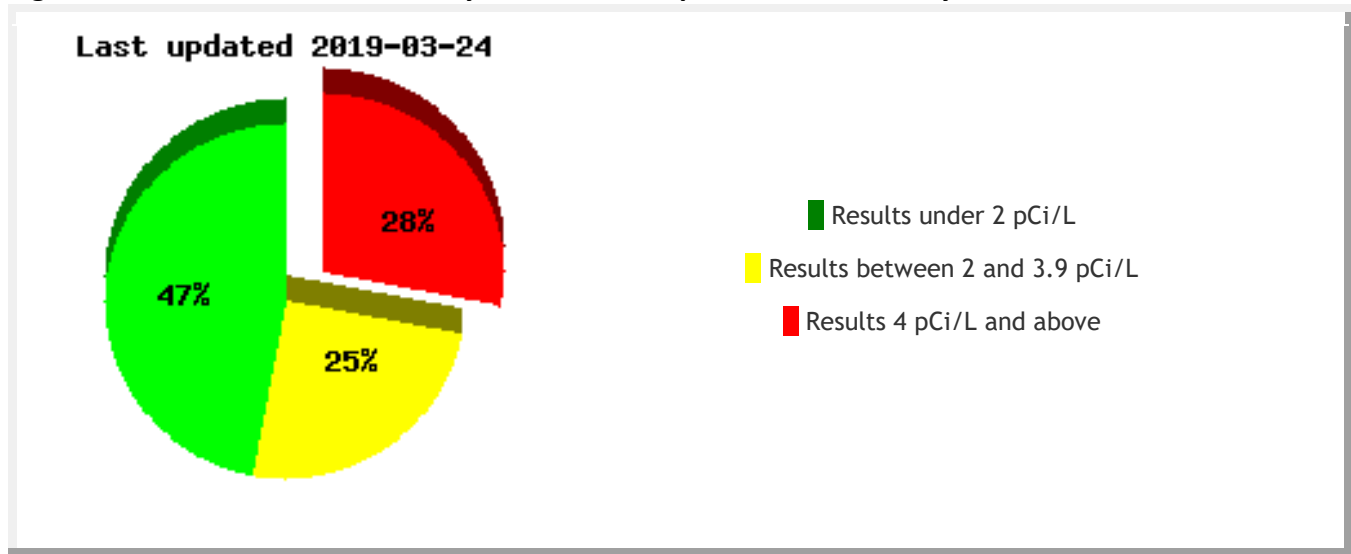


Source: DHSS-MOPHIMS Community Data Profiles - Child Health
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Radon

According to the Missouri Department of Health and Senior Services, “Radon (Rn) is a gaseous radioactive element that occurs from the natural breakdown of uranium in the soil and rocks. It is colorless, odorless, and tasteless. Radon becomes a risk indoors because as it continues to break down, it emits atomic particles that can alter the DNA and increase lung cancer risk once inhaled. In fact, radon is the second leading cause of lung cancer in the Nation and is classified as a “Class A” carcinogen, according to EPA. Radon is not known to cause asthma or any other type of respiratory distress. Radon can be tested and measured (in picocuries per liter (pCi/L) of air) and there are estimated risks to health from the exposure depending on the concentration.” Information provided by the Missouri Department of Health and Senior Services, Bureau of Environmental Health, indicated that the average national indoor radon level is 1.3 pCi/L and the average indoor radon levels for Cape Girardeau County is 3.5 pCi/L. Figure 2.4 displays, by percentages, the levels of radon detected through testing conducted by Air Chek, Inc.

Figure 2.4: Percent Radon Levels by Picocurie in Cape Girardeau County, 2019



Source: Air Chek, Inc, 2019

The Environmental Protection Agency (EPA) reports that the Radon Act 51 passed by the U.S. Congress established the target natural outdoor level of radon gas of 4 pCi/L as the target radon level for indoor radon levels. The EPA has further identified and set action levels – at or above which corrective measures are recommended. That action level is 4 pCi/L. The Missouri Department of Health and Senior Services, in conjunction with EPA, estimates that the average individual receives a higher dose of radiation from the levels in their homes than from exposure to other radiation sources. The outdoor level of radon is dependent in part on geographic location – Cape Girardeau County is considered a Zone 2 or Moderate Potential Risk.

Zone 2 counties have predicted average indoor radon screening levels between 2 and 4 pCi/L (picocuries per liter). Radon could be a contributor to the incidence of lung cancer in Cape Girardeau County, however, there are no identifiable statistics related to this.

Asbestos

Another indoor pollutant that may cause health problems is the non-flammable mineral asbestos. If inhaled into the lungs, asbestos can cause scarring, lung cancer, and mesothelioma. A search with the Missouri Department of Health and Senior Services did not reveal any active asbestos abatement projects in Cape Girardeau County.

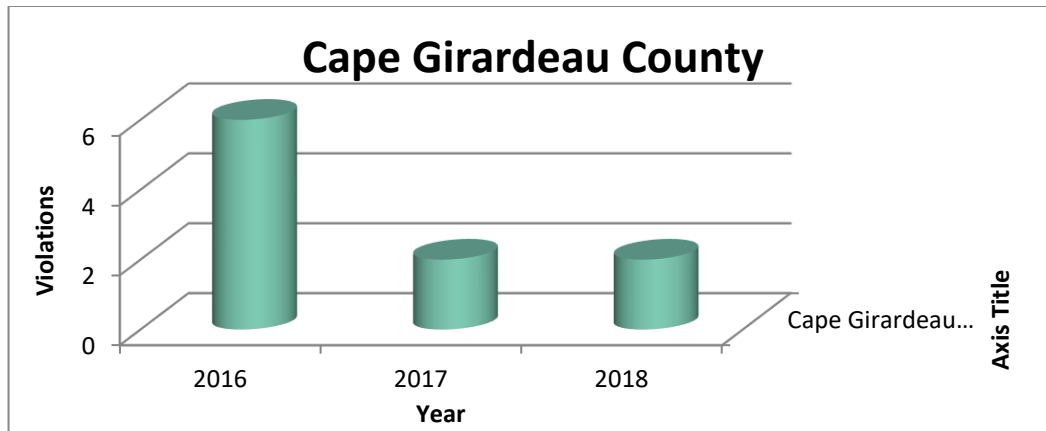
Formaldehyde

Formaldehyde can be found in carpets, upholstery, and paneling and may cause health problems in the form of coughing and eye, nose, throat irritations. A search with the Missouri Department of Natural Resources revealed a total of four (4) businesses located in Cape Girardeau County that have permits for formaldehyde emissions. These include Spartech Polycom, Biokyowa, Renewable Power, and Ethanex at SEMO.

Water

According to the United States Environmental Protection Agency (EPA), a public water system is a system that serves at least 25 people or services 15 or more connections at least 60 days per year. There are three types of public water systems: a community water system is one that serves the same people year--round, such as homes and businesses; a non--transient, non--community system serves the same people, but not year--round, such as schools and a transient, a non--community system does not consistently serve the same people, such as a campground or rest stop. According to the EPA's Safe Drinking Water Information System (SDWIS), Cape Girardeau County has 20 water systems, three non--transient, non--community water systems, and four transient, non-community water systems, with about 27,400 connections for all active systems. The SDWIS contains information about public water systems and their violations of the EPA's drinking water regulations. These statutes and accompanying regulations establish maximum contaminant levels (MCL), treatment techniques, and monitoring and reporting requirements to ensure that water provided to customers is safe for human consumption. In 2017, Cape Girardeau County had 2 health-based violations, where the amount of contaminant exceeded safety standard (MCL) or the water was not treated properly.

Health risks associated with contaminated water supplies include nausea, lung and skin irritations, cancer, kidney, liver, and nervous system damage. Populations that are at increased risk of complications from contaminated water include those with compromised immune systems, the elderly, and infants including the unborn. County Health Rankings & Roadmaps provides data related to drinking water violations, defined as "the percentage of the population potentially exposed to water exceeding a violation limit during the past year." Those violations can range from maximum residual disinfectant level and treatment techniques to maximum contaminant level. There are some limitations to the data that is reported here. It does not take into account the number of violations within each system, the number of people who might have consumed or become ill from contaminated water and does not include private wells. Figure 2.5 compares the percent of the population getting water from a public water system with at least one health-related violation during 2016-2018 for Cape Girardeau County.

Figure 2.5: Drinking Water Violations 2016, 2017, 2018 for Cape Girardeau County

Source: MO Department of Natural Resources, 2018

Waste Water

In Cape Girardeau County, there have been a total of 1,941 private septic systems permitted by Cape Girardeau County Public Health Center, 32 lagoons permitted by the Missouri Department of Natural Resources, and 43 wastewater treatment facilities permitted by the Missouri Department of Natural Resources from 2004-2018.

Childhood Lead Poisoning

Missouri collects and analyzes data about environmental hazards, exposure to environmental hazards, and health effects potentially related to exposure to those hazards through the Environmental Public Health Tracking (EPHT) program. The Childhood Lead Poisoning Prevention Program (CLPPP) is one component of the program. Table 2.2 shows the rate of childhood blood lead testing during 2017.

Table 2.2: Rates of Childhood (0-72 Months) Blood Lead Testing, Cape Girardeau County and Missouri, 2017

	Total Tested, 2017	Percent of Population Tested	Blood Lead Levels 0-9	Blood Lead Level 25-44
Cape Girardeau	543	9.63%	10.56%	<0.01%
Missouri	89,614	19.14%	19%	<0.01%

Source: Missouri EPHT Program, 2018

Cape Girardeau County Public Health Center reviews data on the number of children 0-5 years of age tested for blood lead. That data reveals that in 2017, a total of 84,834 children in Missouri were tested, of which 813 (.01%) were tested in Cape Girardeau County. Throughout 2017, of those tested in Cape Girardeau County, a total of 28 (.03%) children had a blood lead level of 5 or greater and 5 (.01%) showed a blood level of 10 or greater. Missouri rates were 2,749 (.03%) children had a level of 5 or more and 543 (.01%) had a level of 10 or more.

Housing Related to Elevated Blood Lead

Studies indicate that childhood lead poisoning can be directly related to availability of safe, affordable housing. The lack of affordable housing can result in families living in older dwellings with deteriorating lead paint, placing children at increased risk for lead poisoning. Most homes built before 1960 contain heavily leaded paint. In 1978 the Federal Government banned lead paint in residential structures and began requiring that home sellers provide lead disclosure to home buyers who are purchasing a home built before that year. Table 2.3 compares the total number of housing units for the County and the State, the time period in which they were constructed and the percentage built during that time.

Table 2.3: Median Housing Unit Age, Cape Girardeau County, 2017

	Total Housing Units	Built 1939 or Earlier (%)	Built Between 1940 – 1999 (%)	Built Between 2000 – 2013 (%)	Built 2014 or later (%)
Cape Girardeau County	33,344	2,991 (9%)	24,521 (74%)	5,374 (16%)	7458 (1%)
Missouri	2,386,203	386,302 (16%)	1,937,151 (70%)	445,519 (16%)	18,799 (1%)

Source: U.S. Census Bureau, 2018

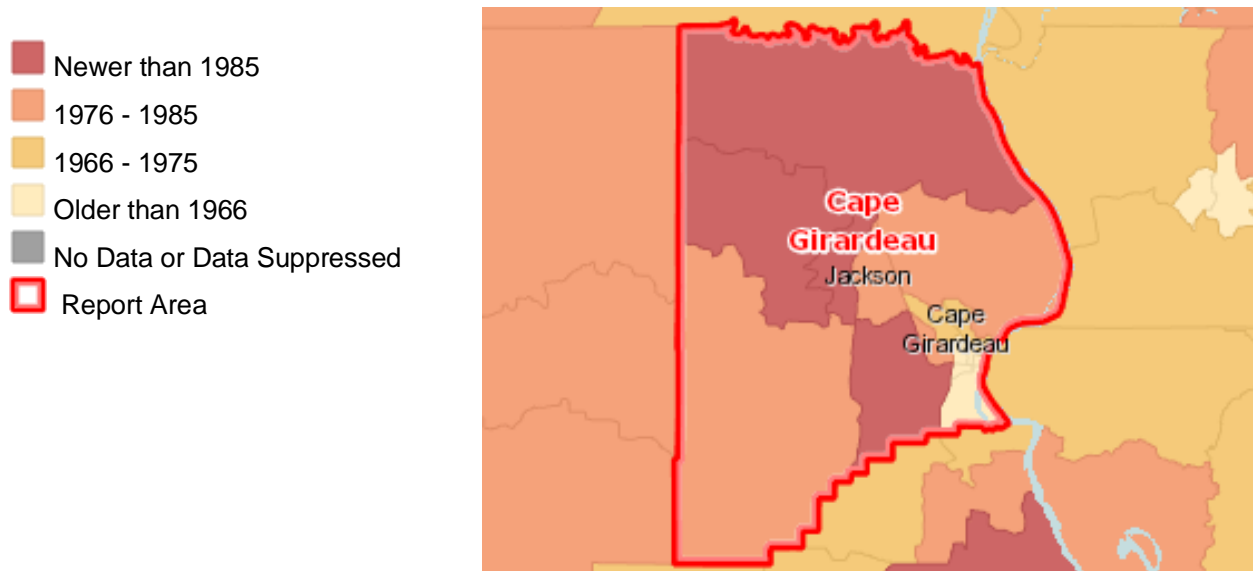
Table 2.4 compares the percentage of all renter-occupied housing units by age (time period of construction) for Cape Girardeau County, Missouri, and the United States. Cape Girardeau County has a slightly higher percentage (32.4%) of housing units built between 1980-1999 than does Missouri (25%) and the U.S. (26.9%). A limitation to this data is that census data does not account for the number of older houses that have been renovated or have had lead removed; and this indicator does not consider other sources of lead in the community.

Table 2.4: Percent Renter-Occupied Housing Units by Age, Cape Girardeau County and Missouri, Pre 1950-2014 and later

	Before 1950	1940-1959	1960-1979	1980-1999	2000-2009	2010-2013	2014 & after
Cape Girardeau County	16.9%	13.6%	21.1%	32.4%	8.8%	4.4%	2.7%
Missouri	15.6%	15.2%	29.4%	25%	10.5%	3.2%	1.1%
U.S.	14%	15.1%	28.2%	26.9%	11.3%	3.1%	1.4%

Source: U.S. Census Bureau, American Community Survey, 2018

Figure 2.6 shows the Median Year a housing structure was built by Census Tract for Cape Girardeau county. The majority of dwellings built in 1966 or before in Cape Girardeau County are located within the 63703-zip code area.

Figure 2.6: Median Year Structure Built by Tract, Cape Girardeau County ACS 2009-2013**Median Year Structure Built by Tract, ACS 2012-16**

Source: U.S. Census Bureau, American Community Survey, Geography Tract 2019

There is no knowledge of any lead abatement projects underway in the County.

Substandard Housing

Table 2.5 identifies the percent of housing units that lack complete plumbing facilities and complete kitchen facilities. These indicators can be used to identify housing units that are considered substandard and affect the quality of living for the occupants. A housing unit is considered to be substandard in regard to plumbing if any one of three facilities is not present. Those facilities include hot and cold running water, a flush toilet, and a bathtub or shower. A housing unit is considered to be substandard in regard to kitchen facilities if it is missing any one of three facilities; a sink with a faucet, a stove or range, and a refrigerator.

Table 2.5: Percent Substandard Housing: Households by Location Lacking Plumbing or Kitchen Facilities, 2017

	Units Lacking Complete Plumbing Facilities	Units Lacking Complete Kitchen Facilities
Cape Girardeau Co.	0.10%	0.40%
Missouri	0.40%	0.80%
U.S.	0.40%	0.80%

Source: U.S. Census Bureau, American Community Survey, 2018

Cape Girardeau County fairs better than the State and the Nation in the percent of substandard housing.

Solid Waste Management

Landfills

There are no active landfills operating in Cape Girardeau County. There are, however, two in-active landfills in the County, one on the edge of the Cape Girardeau City limits and one in the Jackson City limits. Although closed to solid waste disposal, these sites continue to be monitored by the Missouri Department of Natural Resources (DNR). Typically, landfills are lined to prevent waste from contaminating groundwater and waste deposited is covered with a thin layer of soil to avoid air contamination. There have not been any ground contamination reports issued by DNR. There is one transfer station located in Cape Girardeau (South Sprigg) and one in the City of Jackson (Lee Avenue) where solid waste collected within the City of Cape Girardeau and the City of Jackson is then transferred to the landfill located in Dexter, MO (Stoddard County).

Recycling

Both the City of Cape Girardeau and the City of Jackson have Recycling Centers. In addition, the City of Cape Girardeau has separate glass recycling collection points at all City Fire Departments, the Public Works Drop off Center, the Osage Community Center, and the A. C. Brase Arena Building. The City of Cape Girardeau has partnered with Midwest Recycling Center to offer electronics recycling. Both electronics and used motor oil disposal are accepted at the Cape Girardeau Public Works Department.

Hazardous Waste

The Environmental Protection Agency (EPA) regulates and monitors Superfund Sites and classifies those sites in regard to human exposure and / or contamination. There was one Superfund Site listed for Cape Girardeau County in 2007 – Missouri Electric Works – that EPA has classified as not having human exposure and not having contaminated groundwater migration.

The Cape Girardeau County Public Health Center collaborates closely with the Cape Girardeau County Emergency Management Office to annually review the Emergency and Hazardous Chemical Inventory Forms (Tier II Reports). Tier II Reports, completed annually and submitted to local Fire Departments, identify hazardous chemicals above certain quantities that are housed at a location or facility. In 2018, there were a total of 76 locations listed on the Tier II Report for Cape Girardeau County.

Built Environment

The Centers for Disease Control and Prevention defines built environment as, “all of the physical parts of where we live and work.” Built environment refers to those human-made surroundings and infrastructure that provide and support activity, ranging from buildings, green spaces, roads, parks, sidewalks, to transportation systems. In recent years, public health research has expanded that definition to include healthy food access and physical activity opportunities. The availability of healthy foods and recreational facilities within the built environment will enable communities to take action to reduce the adverse health outcomes associated with poor diet and lack of physical activity.

Healthy Food Availability

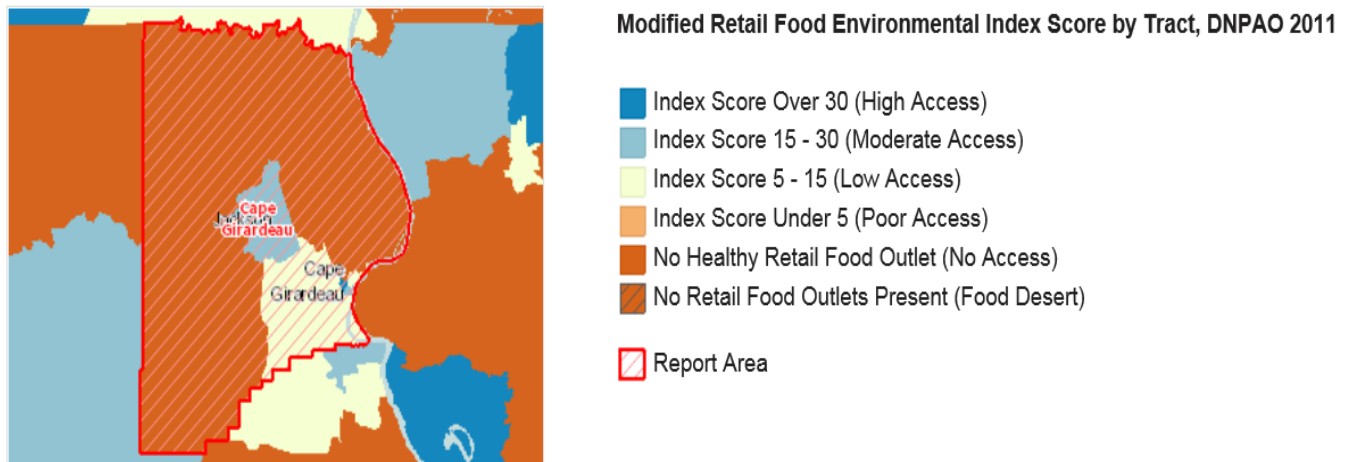
The County Health Rankings and Roadmaps, created by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, provide a ranking, by county, of the Food Environment Index. The Food Environment Index ranges from 0 (worst) to 10 (best) and equally weights two indicators of the food environment. Those two indicators are: 1) limited access to healthy foods that estimates the percentage of the population who are low income and do not live close to a grocery store (Living close to a grocery store is defined differently in rural and non-rural areas; in rural areas, it means living less than 10 miles from a grocery store whereas in non-rural areas, it means less than 1 mile) and 2) Food insecurity that estimates the percentage of the population who did not have access to a reliable source of food during the past year. For the data year 2012 Cape Girardeau County had a Food Index Environment score of 7.2, Missouri had a score of 6.7, and the U.S. had a score of 8.6. In 2011, the Centers for Disease Control, Division of Nutrition, Physical Activity, and Obesity, published a Modified Retail Food Environment Index which measures the proportion of food retailers that sell healthy foods compared to retailers that sell unhealthy foods by census tracts. Scores can range from 0 (no food retailers that sell healthy foods) to 100 (only food retailers that sell healthy foods). Table 2.6 compares the percent of the population in each healthy food access category for the County, State, and Nation.

Table 2.6: Comparison by Location: Modified Retail Food Environment Index, 2011

	% No Food Outlet	% No Healthy Food Outlet	% Low Healthy Food Access	% Moderate Healthy Food Access	% High Healthy Food Access
Cape Girardeau County	0%	32.6%	12.91%	48.39%	6.11%
Missouri	0.64%	21.82%	27.45%	45.26%	4.83%
U.S.	0.99%	18.63%	30.89%	43.28%	5.02%

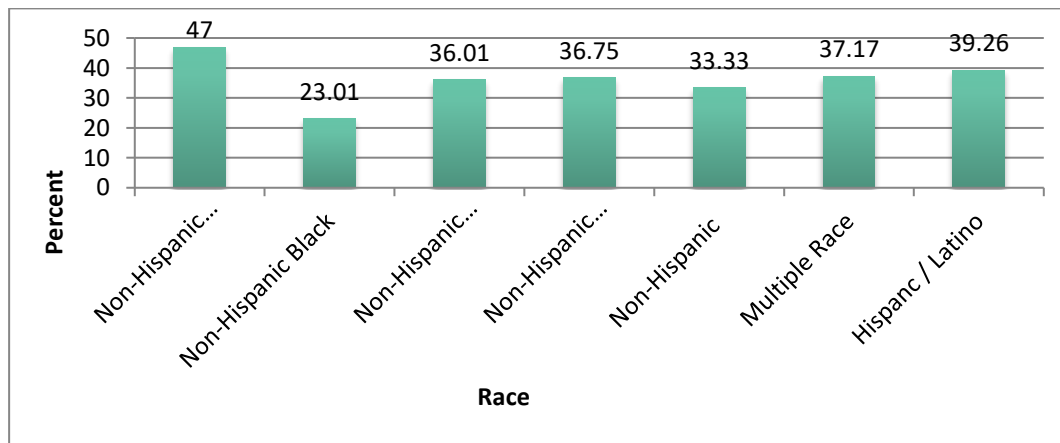
Source: *Community Health Needs Assessment, Community Commons, 2011 Physical Environment, 2018*

In Cape Girardeau County, the highest percentage of food retailers was in the Moderate Healthy Food Access category followed by the No Healthy Food Outlet. The lowest percentage for the County was in the High Healthy Food Access category. The distribution of percentages was comparable between the County, State, and nation. Overall, Cape Girardeau County scored better than the State and the Nation. Figure 2.7 is a map of Cape Girardeau County that shows the Modified Retail Food Environment index score by census tract.

Figure 2.7: Modified Retail Food Environment Index Score by Tract, Cape Girardeau County, 2011

Source: Community Health Needs Assessment, Community Commons, 2018

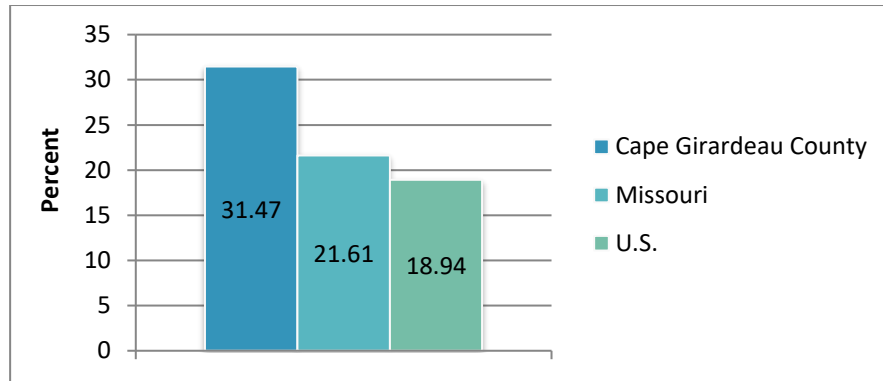
Figure 2.8 further identifies the Racial Disparity Index among the population with Low or No Healthy Food access for Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County had a higher Racial Disparity Index (21.14) than Missouri (16.56) and the U. S. (16.59). In Cape Girardeau County, the population with the highest disparity was the Non-Hispanic White population, and as identified in the Census Tract map, the majority were residing in the more rural portions of the County, outside of the City of Cape Girardeau and the City of Jackson.

Figure 2.8: Percent of Population with Low or No Health Food Access by Race/Ethnicity, Cape Girardeau County, 2014

Source: Community Health Needs Assessment, Community Commons, Physical Environment, 2018

Low Income Population with Low Food Access

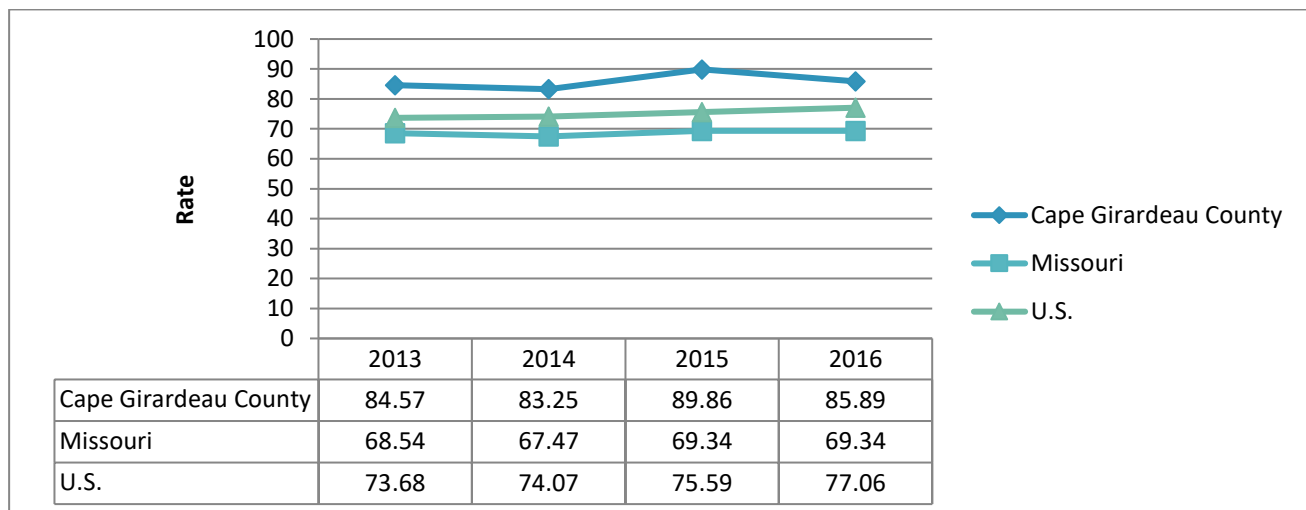
Figure 2.9 displays the percent of the low-income population with Low Food Access for Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County had a higher percentage of the low-income population that experience low food access.

Figure 2.9: Percent Low Income Population with Low Food Access, Cape Girardeau County, 2014

Source: Community Health Needs Assessment, Community Commons, Physical Environment 2018

Fast Food Restaurant Access

This indicator reports the number of fast food restaurants per 100,000 population. Fast Food Restaurants have been defined in the Community Commons Community Health Needs Assessment as an “establishment primarily engaged in providing food services where patrons generally order or select items and pay before eating.” The relevance of this indicator is that it provides a measure of healthy food access and environmental influences on dietary behaviors.

Figure 2.10: Comparison Fast Food Restaurants by Location, Rate per 100,000 Population, 2013-2016

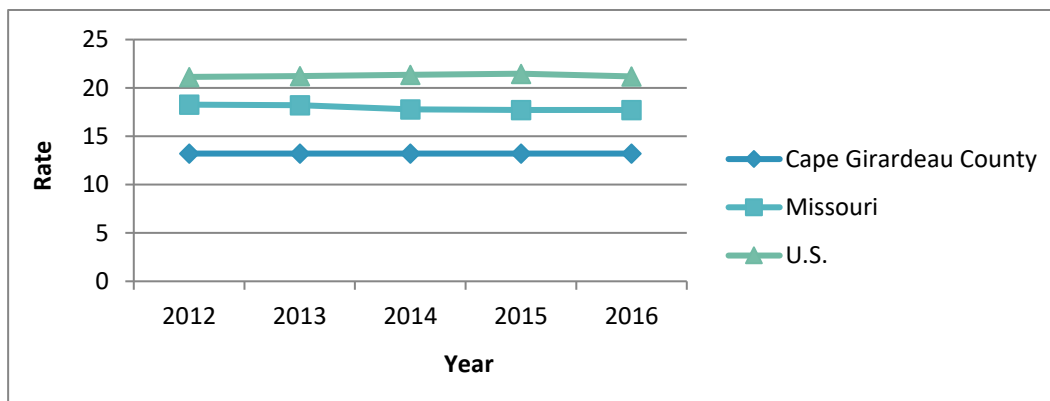
Source: Community Health Needs Assessment, Community Commons, Physical Environment 2018

Cape Girardeau County has exceeded both the State and Nation in the rate of fast food restaurants, per 100,000 population that are available for food purchases and the County has had a steady trend in the availability of Fast Food Restaurants since 2013. Figure 2.10 provides the rate per 100,000 population of Fast Food Restaurants in Cape Girardeau County, Missouri, and the U.S. over the time period of 2013-2016.

Grocery Store Access

Grocery stores as defined by Community Commons, are “supermarkets and smaller grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry.” This indicator also provides a measure of healthy food access and environmental influences on dietary behaviors. The Grocery Store rate, per 100,000 population, in 2016, for Cape Girardeau County was 13.21, for Missouri 17.72, and for the U.S. the rate was 21.18. Cape Girardeau County had a lower rate of Grocery Store accessibility than the rest of the State or Nation. Figure 2.11 provides the trend for this rate from 2012-2016. The trending indicates that although Cape Girardeau County had experienced a steady trend in the rate of these establishments that rate continues to fall below the State and National rates. Additionally, the rate for Cape Girardeau County, Missouri and the United States has remained constant from 2013-2016.

Figure 2.11: Grocery Stores and Supermarkets, Rate per 100,000 Population, 2012-2016



Source: Community Health Needs Assessment, Community Commons, Physical Environment, 2018

Recreational and Fitness Access

According to the County Health Rankings developed by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, access to exercise opportunities measures the percentage of individuals in a county who live reasonably close to a location for physical activity. Physical activity opportunities can be parks, recreational facilities, gyms, community center, YMCA and dance centers. Increased physical activity has been associated with lower risks of chronic diseases such as diabetes, cancer, hypertension, heart disease, premature mortality, and obesity. It is estimated by the County Health Rankings and Roadmaps that, in Cape Girardeau County, in 2018, 76% of the population have adequate access to locations for physical activity compared to 77% for Missouri and 91% for the U.S. The limitations of this data are that no datasets accurately capture all the possible locations for physical activity within a county, for instance sidewalks are not included in this data. Table 2.7 provides a listing of assets by location.

Table 2.7: Cape Girardeau County Inventory of Physical Environment Assets, 2018

Provider	Asset
City of Cape Girardeau, Parks & Rec. Department	23 Municipal Parks, 4.42 walking / biking trail, Cape Splash Water Park, 2 Sports / Fitness Complexes, Adult & Youth Sports Leaguers, Corporate games
City of Jackson, Parks & Rec. Department	4 Municipal Parks, Adults & Youth sports leagues, 1 Municipal pool, Summer Youth programs
Southeast HEALTH, Cape Girardeau & Jackson	Health Point Fitness Facility
Saint Francis Medical Center, Cape Girardeau	Fitness Plus Facility
Individual / Private Fitness Facility	Any Time Fitness, SNAP, Curves, Training Edge Fitness, Future Fitness, Class Act Fitness, Simply Fitness, Planet Fitness, The Edge – Fitness Advantage, TNT Health and Fitness, Nearly Perfect CrossFit, Muddy Water CrossFit; Yoga East Studio
Southeast Missouri State University	2 – Recreational Centers, Track
Cape Girardeau County	Two County Parks

Source: *Cape Girardeau County Public Health Center, Physical Environment Assessment, 2018*

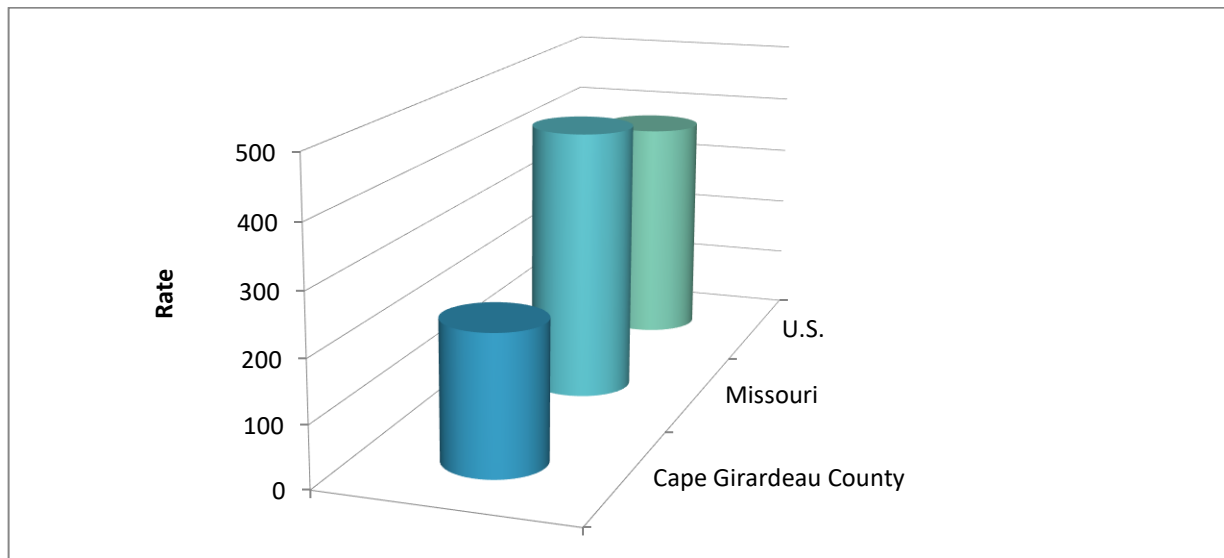
Section III:
Public Safety and Domestic Violence

PUBLIC SAFETY

Crime Index

The Crime Index is the sum of eight major offenses and is used to measure the magnitude of crime in the United States. Only eight major offenses are included in the Index because of their frequency of occurrence and the fact they are most likely to be reported to law enforcement agencies. These Index offenses include: murder, forcible rape, robbery, aggravated assault, burglary, theft, motor vehicle theft, and arson. The first four of these make up the Violent Crime Index and the last four make up the Property Crime Index. The Federal Bureau of Investigation (FBI) Uniform Crime Reports, for 2014, compile a tabulation of all Violent Crime (homicide, rape, robbery, aggravated assault) offenses reported per 100,000 residents to obtain a Violent Crime Rate. Figure 3.1 shows that compilation and violent Crime Rate for Cape Girardeau county and Missouri.

Figure 3.1: Violent Crime Rate (Per 100,000), FBI UCR, 2017



Source: Federal Bureau of Investigation, FBI Uniform Crime Reports, Accessed via the American Community Survey, 2018

Cape Girardeau County had a rate below that of Missouri as well as that of the U.S. A limitation of the data is that it is not broken down into demographics or age groups.

The Missouri State Highway Patrol's Uniform Crime Reporting Program identifies the total number of offenses for each of the eight crimes in 2017, as well as the number of arrests for those offenses, and the rate of offenses.

From 2015 to 2017, Crime Offenses in Cape Girardeau County in general decreased in number, with the exception of Murder (increased by a total number of 2 or 67%) and Aggravated Assault (increased by 12.8%). The highest number of Offenses as well as Arrests were in the Theft category. Table 3.1 lists the number of Offenses and Arrests by crime type, in Cape Girardeau County from 2015-2017.

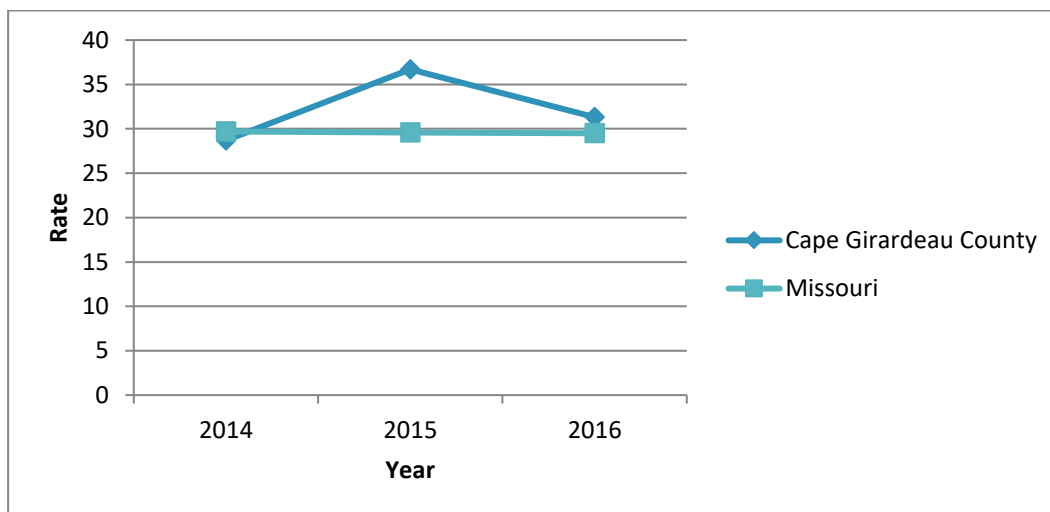
Table 3.1: Offenses and Arrests by Crime Type, Cape Girardeau County, 2015-2017

	Cape Girardeau County					
	# Offenses			# Arrests		
	2015	2016	2017	2015	2016	2017
Murder	3	5	5	1	8	3
Forcible Rape	30	17	29	4	2	1
Robbery	65	61	54	27	23	0
Aggravated Assault	187	219	211	169	190	50
Burglary	484	326	377	52	42	12
Theft	1938	1690	1519	657	608	223
Motor Vehicle Theft	146	94	106	9	10	2
Arson	13	10	16	2	1	1

Source: Missouri State Highway Patrol, Uniform Crime Reporting (UCR) Program, 2018

Juvenile Crime and Court Referrals

Juvenile Crime includes the number of referrals to juvenile courts in Missouri for acts that would be violations of the Missouri Criminal Code if committed by an adult. The count represents separately disposed court referrals, not individual youth and the rates are expressed per 1,000 youth ages 10-17. The State remained steady from 2014 – 2016. Cape Girardeau County continued to exceed the state rate, increasing in 2015 and lowering to just above the State average in 2016 as displayed in Figure 3.2

Figure 3.2: Juvenile Law Violation Referrals, Ages 10-17, per 1,000: 2014-2016

Source: Missouri Kids Count, University of Missouri Office of Social and Economic Data Analysis (OSED) and University of Missouri Extension, 2018

DOMESTIC VIOLENCE

Domestic Violence incidents include any dispute arising between spouses, persons with children in common regardless of whether they reside together, persons related by blood, persons related by marriage, non-married persons currently residing together, and non-married persons who have resided together in the past. Domestic Violence Incidents are reported whether or not an arrest is made and include any dispute arising. Domestic Violence Incidents for the County and State are shown in Table 3.2.

Table 3.2: Domestic Violence Incidents, Cape Girardeau County, 2017

	Total Reported Incidents, 2017
Cape Girardeau	553
Missouri	37,308

Source: Missouri State Highway Patrol, Uniform Crime Reporting (UCR) Program, 2018

The relationship category, in 2017, that consistently had the highest number of incidents is “People Who Live Together.” Cape Girardeau County has remained slightly lower than the State in the rate for Domestic Violence Incidents according to the Missouri State Highway Patrol, Uniform Crime Reporting Program.

Child Abuse and Neglect

There was a total of 47 substantiated incidents of Child Abuse and /or Neglect in Cape Girardeau County area in 2017. This number is a 47% increase from incidents in 2013. The term “substantiated incident” has been defined as the number of child abuse victims from reports classified as “probable cause,” indicating that child abuse or neglect has occurred. Substantiated child abuse / neglect incidents and number of children are shown in Table 3.3.

Table 3.3 Substantiated Child Abuse or Neglect, Cape Girardeau county and Missouri, 2017

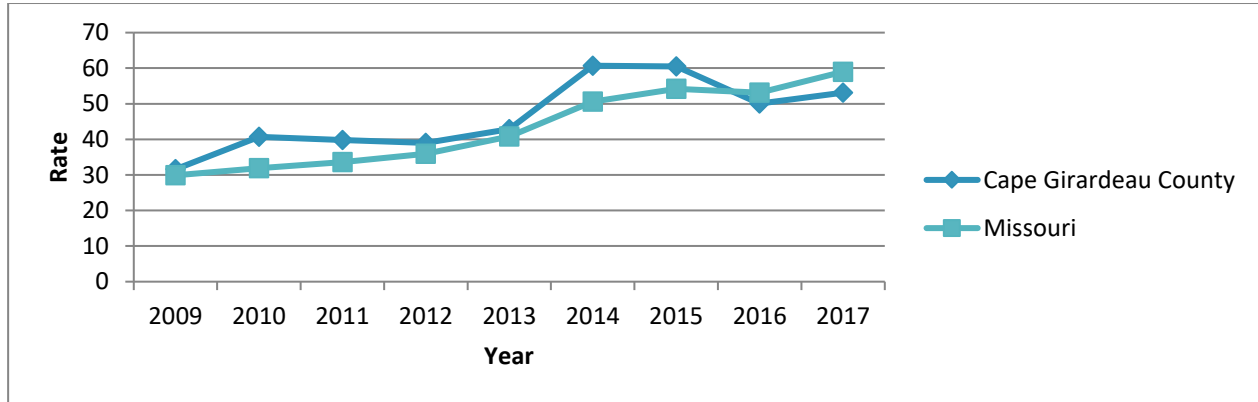
County/ State	Substantiated Child Abuse/Neglect Incidents, 2013	Substantiated Child Abuse / Neglect Incidents, 2017
Cape Girardeau	32	47
Missouri	6,322	3,621

Source: Missouri Department of Social Services, Children's Division, Calendar Year 2017 Annual Report, 2018

Child Abuse/Neglect Family Assessments and Out-of-Home Placements

Data from Missouri Kids Count, which reviews the trend for Child Abuse / neglect and family assessments, indicates a trend of increasing assessments for Cape Girardeau County and Missouri from 2009-2017. Figure 3. 3 shows the trend for Cape Girardeau County and Missouri.

Figure 3.3: Child Abuse / Neglect and Family Assessment (Per 1,000), Cape Girardeau County and Missouri, 2009-2017



Definitions: Duplicated number of child abuse victims from reports classified as "preponderance of evidence" indicating that child abuse or neglect has occurred. In addition, this outcome includes the number of family assessments that have occurred base on potential for abuse/neglect. Rate is expressed per 1,000 children under 18.

Source: Missouri Department of Social Services, Family and Community Trust, 2018

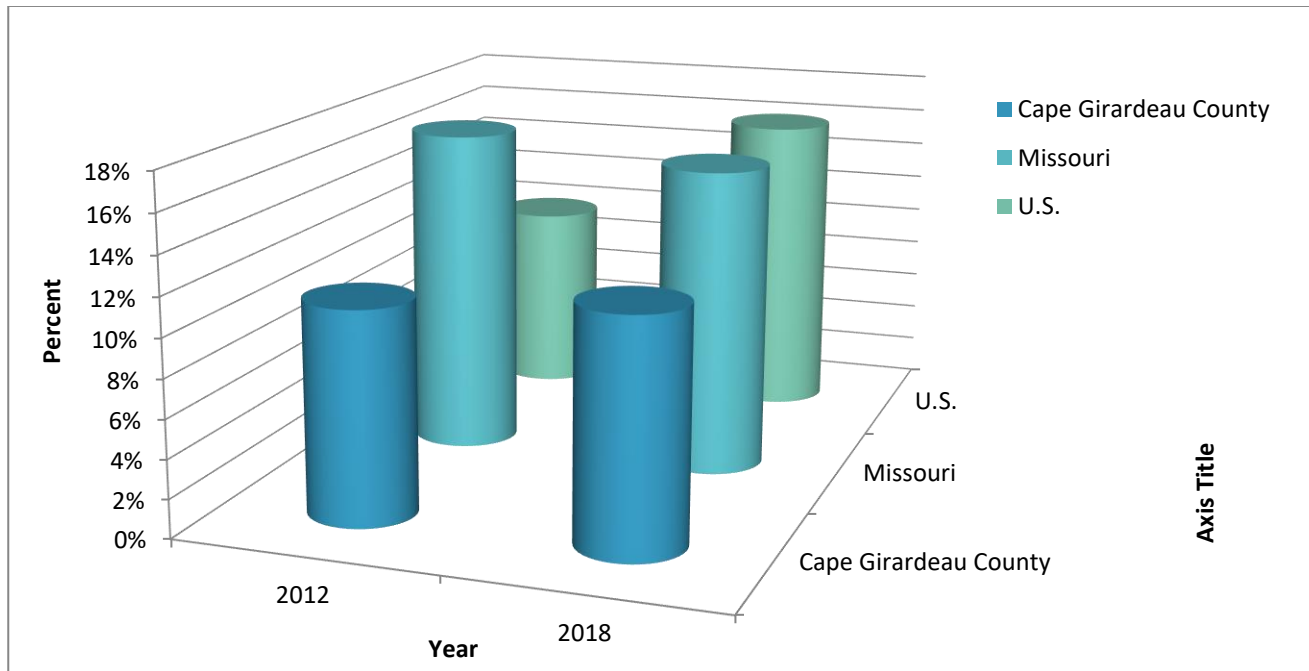
SECTION IV:
Alcohol, Tobacco, and Substance Abuse

Alcohol and substance abuse can have an impact on public safety, health care, crime, and public assistance.

ALCOHOL USE AND ABUSE

Some adverse effects that excessive drinking can have on health and health outcomes include: alcohol poisoning, hypertension, acute myocardial infarctions, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, as well as motor vehicle crashes. According to the County Health Rankings and Roadmaps developed by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, in 2012, 11% of Cape Girardeau County residents reported either binge drinking (consuming 4 drinks for women or 5 drinks for men on a single occasion) or heavy drinking (consuming 1 drink for women or 2 drinks for men per day on average) in the past 30 days, compared to 17% for Missouri. One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. As of the end of 2016, the County Health Rankings reported that the percent for Cape Girardeau County had increased to 12%, decreased to 16% for Missouri, and increased to 16% for the U.S., based on data acquired from the Behavioral Risk Factor Surveillance System. Figure 4.1 compares the Excessive Drinking Percentages.

Figure 4.1 Percent Adults with Excessive Drinking, Cape Girardeau County, Missouri, and U.S., 2012 and 2016



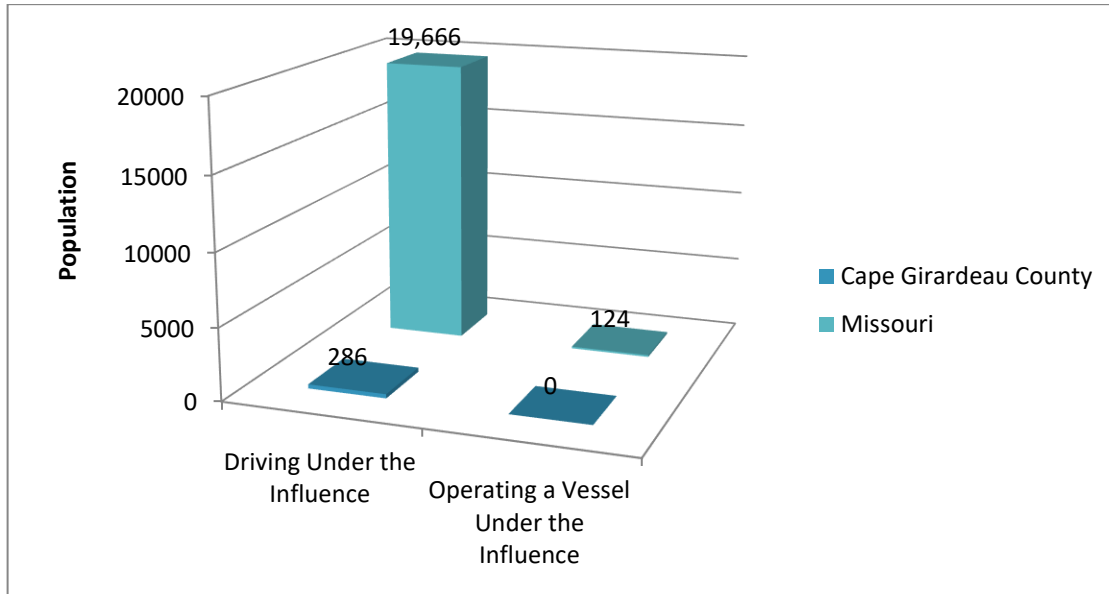
Source: County Health Rankings & Roadmaps, Cape Girardeau County 2018

According to the Behavioral Health Profile developed by the Missouri Division of Behavioral Health, “alcohol is one of the most common substances used by Missouri youth.” In 2017, 17.3% youth self-reported that they had used alcohol in the past 30 days.

Alcohol Related Arrests

The Missouri Highway Patrol, Missouri Uniform Crime Reporting Program provides information on the number of Alcohol Related Arrests. Figure 4.2 shows a comparison between Cape Girardeau County and Missouri, 2017, for arrests made for Driving Under the Influence and Operating a Vessel under the Influence. Cape Girardeau County arrests for Driving Under the Influence was lower than the State and there were no arrests for Operating a Vessel under the influence.

Figure 4.2: Number of Alcohol Related Arrests, per 100,000 population, Cape Girardeau County and Missouri, 2017



Source: Missouri Highway Patrol, Missouri Uniform Crime Reporting Program, 2018
Rates per 100,000 population

Alcohol and Substance Abuse Related Emergency Room Visits

According to Missouri Department of Health and Senior Services, outpatient Emergency Room Visits for alcohol-related mental disorders occurred at a rate of 3.95 per 1,000 population in Cape Girardeau County (2015), and Outpatient Emergency Room Visits for substance-related mental disorders occur at a rate of 4.81 per 1,000 population across the State. Outpatient Emergency Room Visits for alcohol-related and substance related incidents are shown in Table 4.1

Table 4.1: Outpatient Emergency Room Visits, Rate per 1,000, Cape Girardeau County and MO, 2015

	Number of total events for Alcohol and Substance Abuse	Rate per 1,000
Cape Girardeau County	286	3.95
Missouri	28,280	4.81

Source: Missouri Department of Health and Senior Services, Community Data Profiles, 2018

Alcohol and Substance Abuse Related Hospitalizations

The Missouri Department of Health and Senior Services reported 59 hospitalizations related to alcohol and substance abuse in Cape Girardeau County for 2015. Hospitalizations in 2015 for the County and the State are listed in Table 4.2. Cape Girardeau County had a slightly lower rate of hospitalizations due to Alcohol and Substance Abuse than the State.

Table 4.2: Hospitalizations, Rate per 1,000, By Location, 2015

	Number of total hospitalizations for Alcohol and Substance Abuse, 2015	Rate per 1,000
Cape Girardeau County	59	7.91
Missouri	6,812	11.37

Source: Missouri Department of Health and Senior Services, 2018

Alcohol and Substance Abuse Related Deaths

In 2015 Cape Girardeau County had an age-adjusted death rate per 1,000 in population of 18.17, lower than the age adjusted rate of 23.3 across Missouri. Table 4.3 compares the County and State rates.

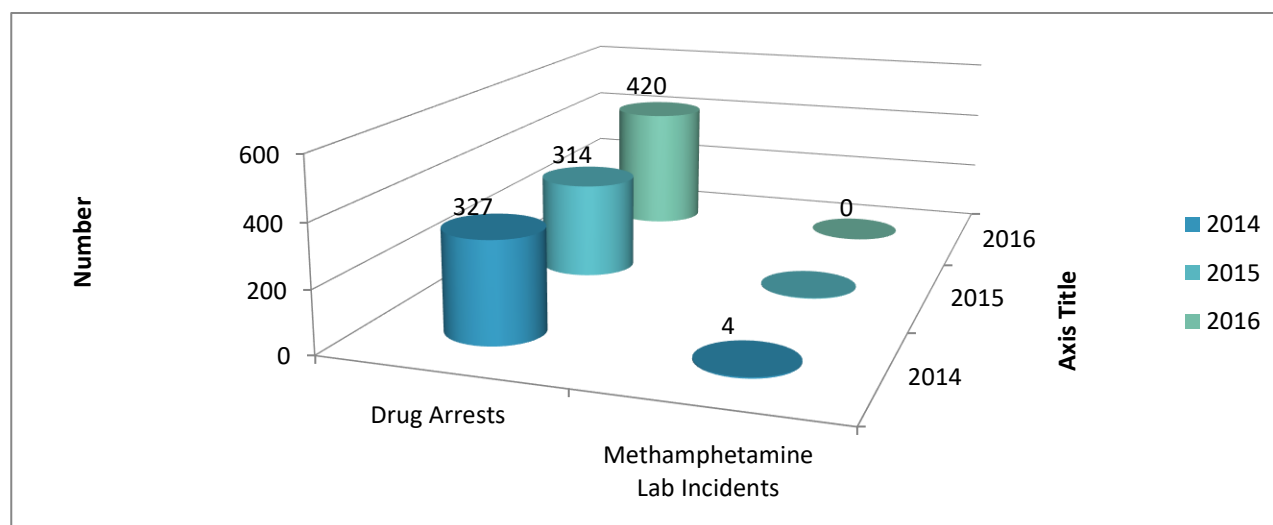
Table 4.3: Death Rates: Alcohol/Drug-Induced, Rate per 1,000, By Location, 2006-2016

	Number of total deaths for Alcohol and Substance Abuse, 2006-2016	Rate per 1,000
Cape Girardeau County	144	18.17
Missouri	15,547	23.3

Source: Missouri Department of Health and Senior Services, 2018

Substance Abuse

Figure 4.3: Illegal Drug Use, Arrests / Incidents, Cape Girardeau County, 2014-2016



Source: Missouri Department of Mental Health, 2014 Status Report on Missouri's Substance Abuse and Mental Health Problems 2018

Combating the opioids crisis is a top priority for the Missouri Department of Health and Senior Services (DHSS) as well as for Cape Girardeau County Public Health Center. The availability of County-Level data on substance use is limited. The Department is working with sister state agencies, local health departments, hospitals, law enforcement and other partners to fight this modern plague. In 2016, there were 908 opioid- or heroin-related deaths in the State, a 35 percent increase over 2015's number of 672. During 2017, the opioid- related deaths increased only 4.7 percent for the State. From 2012-2016, there were 278 (rate of .71 per 1,000) emergency room visits due to opioid abuse.

Table 4.4 lists the number of deaths and rate due to Opioid Overdoses for the time period of 2013-2017 for the County and the State.

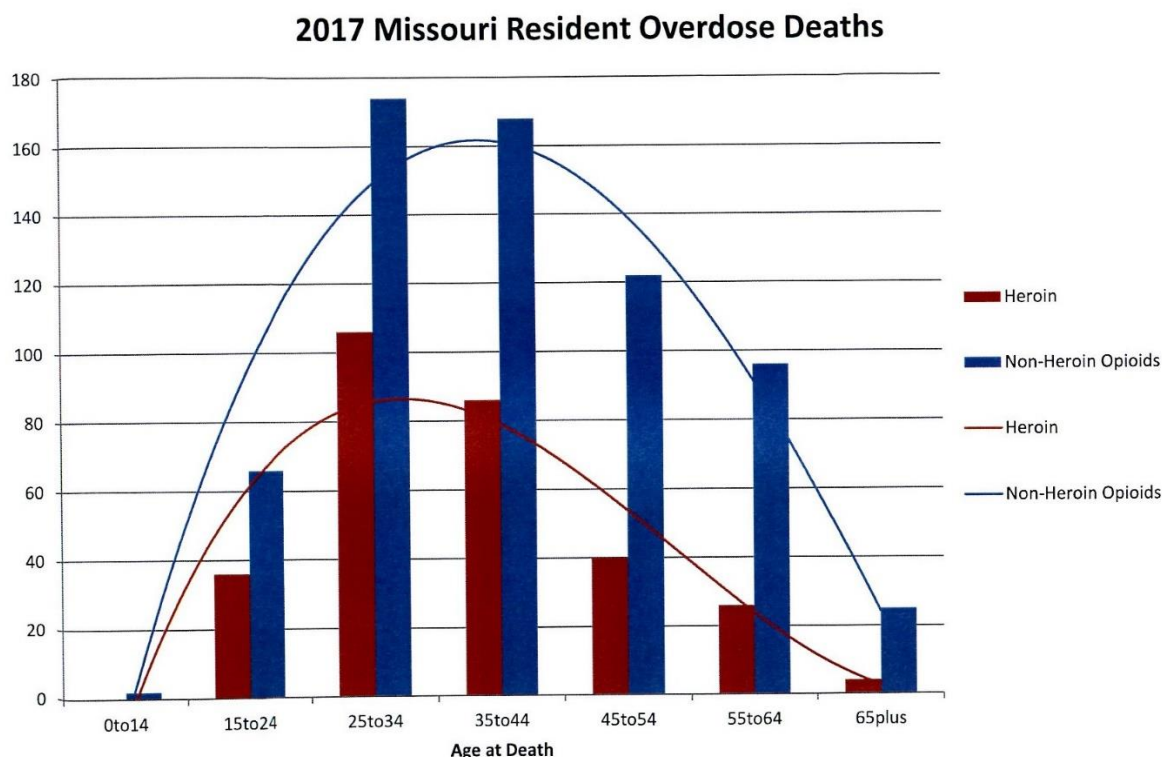
Table 4.4.: Deaths Due to Opioid Overdoses (Rate per 100,000), Cape Girardeau County and Missouri, 2013 – 2017

	Cape Girardeau County	Missouri
Opioid Overdose Related	6 (1.54) *	653 (8.3)
Heroin Overdose Related	2 (0.51) *	298 (9.3)

Source: Missouri Department of Health and Senior Services, *Opioid Death Toll, 2018*

X: Rate unreliable, numerator is less than 20

Figure 4.4 displays the Missouri resident Overdose Deaths by age groups for 2017. County- specific data was not available.

Figure 4.4: Missouri Resident Overdose Deaths, Age at Death, 2017

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

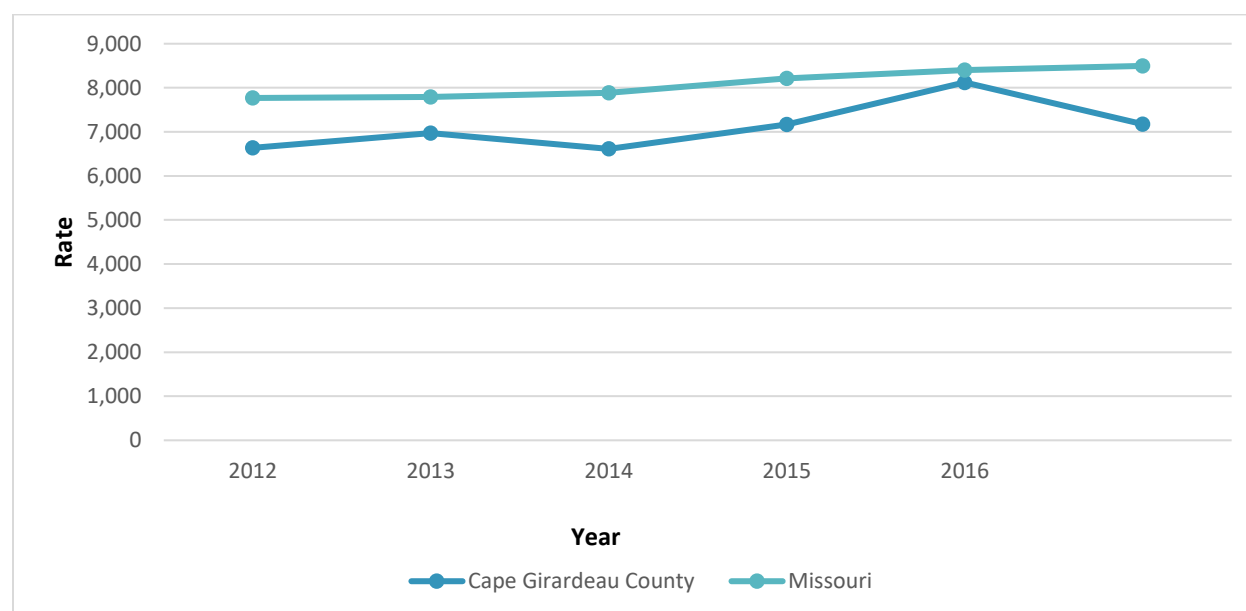
In contrast to previous years, Missouri opioid-involved deaths show similar patterns for heroin and non-heroin opioids when comparing age groups. In 2017, the peak for both heroin-and non-heroin opioid-involved Overdose Deaths was in the 25 to 34 age group. From 2011-2015, the peak age group for non-heroin opioid-involved Overdose Deaths was 45 to 54. This drastic change indicates an increased popularity in taking strong prescription opioids (as well as illicitly manufactured fentanyl) among adults.

According to the Behavioral Health Profile compiled by the Missouri Division of Behavioral Health from the Missouri Student Survey, in 2018 in Cape Girardeau County, 23.8% of youth believed that it would be easy to get prescription drugs that were not prescribed to them.

Years of Potential Life Lost (YPLL)

Years of potential life lost (YPLL) is an estimate of the average years a person would have lived if he or she had not died prematurely. Similar to life expectancy, YPLL is a good measure of the overall health of an area. Figure 4.5 compares the Years of Potential Life Lost for Cape Girardeau County and Missouri from 2011-2016. The rate for Cape Girardeau County was lower than the State.

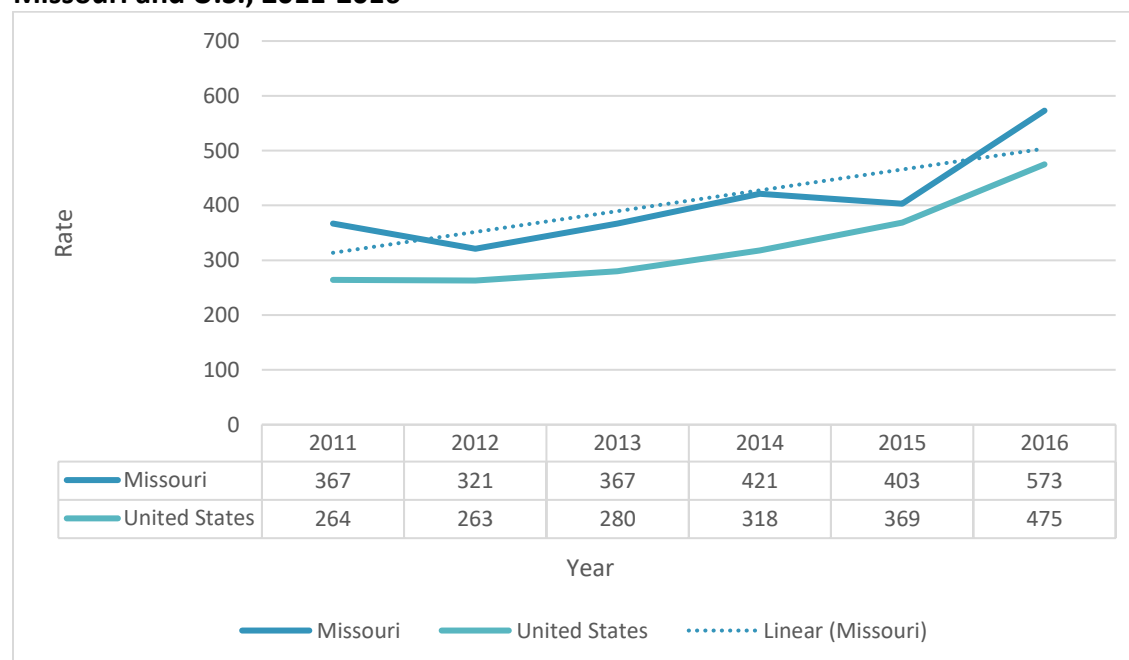
Figure 4.5: Years of Potential Life Lost (YPLL) per 100,000 population, Cape Girardeau County and Missouri, 2011-2016



Source: Missouri Department of Health and Senior Services, Bureau of Vital Statistics, 2018

Figure 4.6 depicts how Missouri's YPLL rate has consistently been higher than the U.S. average over the past five years. Alternatively, in 2015, the average age of death due to opioid-involved overdose in Missouri was 41 years old, compared to 42 years at the National level.

Figure 4.6: Years of Potential Life Lost (YPLL) Due to Opioid Overdose, per 100,000 population, Missouri and U.S., 2011-2016



Source: Missouri Department of Health and Senior Services, Bureau of Vital Statistics, 2018

Tobacco Use

Through the County Level Study, conducted by the Missouri Department of Health and Senior Services, in both 2007 and 2011, adults residing in Cape Girardeau County, randomly selected by landline and cell phone numbers, were asked to respond to several questions regarding personal health behavior risks. One of the areas surveyed was tobacco usage practices with collected data ranging from current use, knowledge of health effects, second hand smoke, and smokeless tobacco. Table 4.5 shows the prevalence percentage for Cape Girardeau County and Missouri for 2007 and 2011 for Tobacco related indicators.

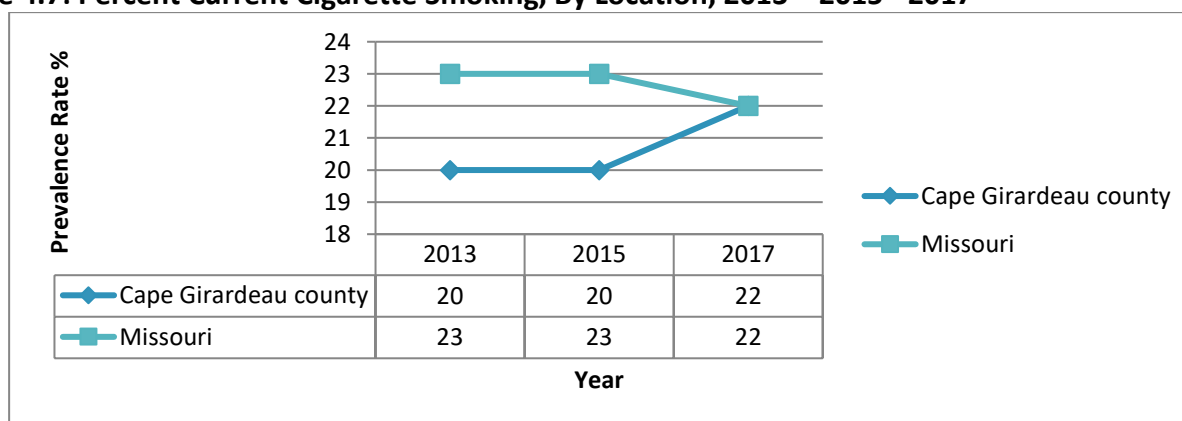
Table 4.5: Tobacco Use Prevalence Percent / Significant Change, Cape Girardeau County and Missouri, 2007 and 2011

	Cape Girardeau County			Missouri		
	2003	2007	2011	2003	2007	2011
Current Cigarette Smoking	19.9	22.9	21.1	23.3	25.4	23.1
Former Cigarette Smoking		26.2	22.8		25.3	24.2
Current Smokeless Tobacco Use		5.5	4.9		4.1	4.4
Current Use of other Tobacco		5	2.5		6	5

Source: Missouri Department of Health and Senior Services, County Level Study, 2018

The County Health Rankings and Roadmaps developed by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, define current cigarette smoking as “smoking every day or most days and smoking at least 100 cigarettes in a lifetime,” and identified that by 2017 the prevalence rate for Cape Girardeau County was 22%, Missouri was 22%, and the U.S. was 14%. Figure 4.7 depicts the trend of current smokers from 2013 to 2017 for both Cape Girardeau County and the state of Missouri.

Figure 4.7: Percent Current Cigarette Smoking, By Location, 2013 – 2015 - 2017

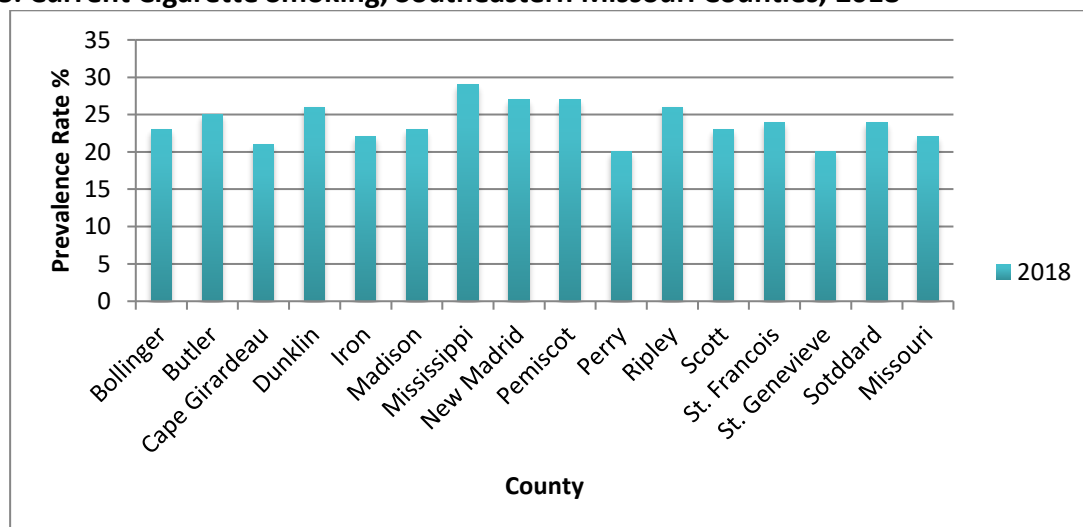


Source: Missouri Department of Health and Senior Services, County Level Study 2003, 2007, 2011, and County Health Rankings and Roadmaps, 2018

The State experienced a decreasing trend while Cape Girardeau County saw an increasing trend in the prevalence percent of individuals that self-reported that they were current cigarette smokers and Cape

Girardeau County remained at a lower percent than the State. However, Cape Girardeau County experienced a higher percentage than the State of individuals reporting that they were currently using smokeless tobacco. Figure 4.8 compares this same smoking prevalence percentage for those counties located in the Southeastern District of Missouri.

Figure 4.8: Current Cigarette Smoking, Southeastern Missouri Counties, 2018



Source: Robert Wood Johnson Foundation, County Health Rankings, 2018

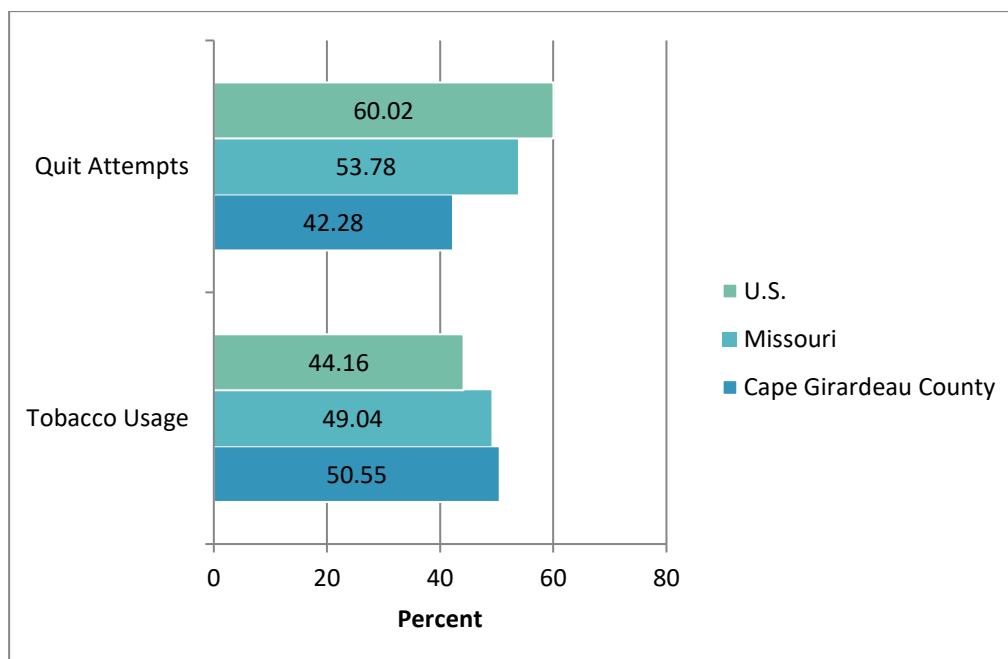
Eleven of the fifteen counties identified in the Southeastern part of the state exceed the state rate indicating that adult smoking is extremely prevalent and perhaps should be addressed through a regional approach.

Tobacco Usage – Former Smokers

Another indicator related to tobacco usage is the percent of the population that identify as former smokers or who responded “yes” to the survey question, “Have you smoked at least 100 cigarettes in your entire life?” This population is considered to be at risk of developing health related conditions that could be linked to leading causes of death such as cancer and cardiovascular disease. Data from the Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System was reviewed by the Community Health Needs Assessment-Community Commons to obtain the percent of adults (by county) that ever smoked 100 or more cigarettes. This data combines current and former smoker into one rate. Annual survey data from 2011-2012 (as of 2018 the Assessment data has not been updated) revealed that Cape Girardeau County had a higher percentage of current/ former smokers than both Missouri and the U.S. Cape Girardeau County was at 50.55%, Missouri at 49.04%, and the U.S. was at 44.16%. This same report also indicates that Cape Girardeau County (42.28%) had a lower percentage of smokers with “Quit Attempt” in the past 12 months than Missouri (53.78%) or the U.S. (60.02%). Figure 4.9 shows this data. Although this source data does not identify Cape Girardeau population by race or ethnicity, it does provide those two identifiers for Missouri and the U.S. The greatest percentage of current / former smokers in Missouri and the U.S. were White (50.82% and 48.52% respectively).

Figure 4.9: Percent Adults Ever Smoking 100 or More Cigarettes (Current and Former Smokers), By

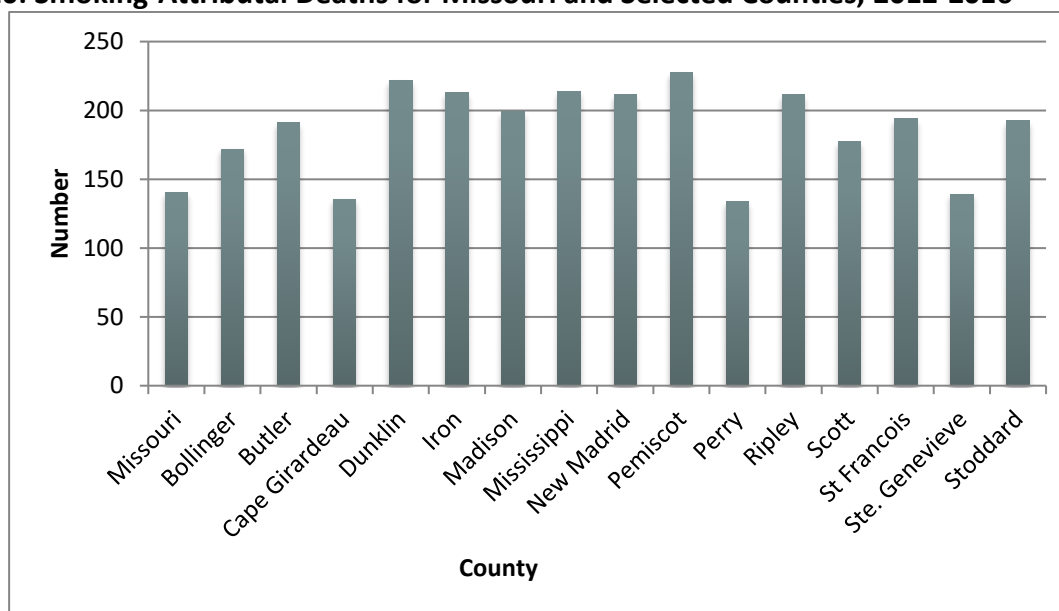
Location, 2012



Source: Centers for Disease Control and Prevention, Community Commons CHNA, 2018

Figure 4.10 reflects Smoking-Attributable Deaths for selected counties in Southeast Missouri and the State from 2012-2106.

Figure 4.10: Smoking-Attributal Deaths for Missouri and Selected Counties, 2012-2016



Source: Missouri Department of Health and Senior Services, Community Health Profiles, 2018

Cape Girardeau County was just about even with the State for total number of possible tobacco - related hospitalizations and falls slightly below the State rate for smoking- attributable deaths. Data for the counties located in the Southeast Missouri District reveal that 80% (12 out of 15) had smoking-attributable death rates higher than the State.

Smoking- Attributable Hospitalizations and Leading Cause of Death

Smoking attributable hospitalizations and Leading Causes of Death are based on a smokers' increased likelihood of experiencing a condition or dying from a specific disease. The Missouri Department of Health and Senior Services identifies specific diagnoses and Causes of Death as smoking-related. Table 4.6 lists the actual number and rate of these conditions and Causes of Death for the State of Missouri. The most recent Adult Tobacco Prevalence Rate is from the 2011 Health Behavior Survey, while the Hospitalizations are from 2015 and Cause of Death represents 2007-2017.

Table 4.6: Missouri Tobacco Related Deaths and Hospitalizations

Missouri Tobacco Attributable Hospitalizations and Leading Causes of Death			
Adult Tobacco Prevalence Rate (%), 2011	23.07	Number	Rate
Hospitalizations, 2015	Heart Disease	72,507	100.18
	Stroke	19,999	27.30
	Pneumonia & Influenza	24,325	34.60
	COPD	13,978	18.80
	Asthma	5,855	9.63
	Cancer	19,660	26.94
Leading Cause of Death, 2007-2017	Heart Disease	156,140	199.32
	Lung Cancer	42,526	54.06
	Breast Cancer	9,681	12.54
	Stroke	33,596	43.02
	Chronic Lower Respiratory Disease	40,284	51.81
	Pneumonia and Influenza	14,111	18.03
	Smoking-Attributable Deaths	108,109	138.93

Source: Missouri Department of Health and Senior Services, Community Health Profiles, 2018

Table 4.7 shows the actual number and rate of these conditions and Causes of Death for Cape Girardeau County. The most recent Adult Tobacco Prevalence Rate is from the 2011 Health Behavior Survey, while the Hospitalizations are from 2015 and Cause of Death represents 2007-2017.

Table 4.7: Cape Girardeau County Tobacco Related Deaths and Hospitalizations

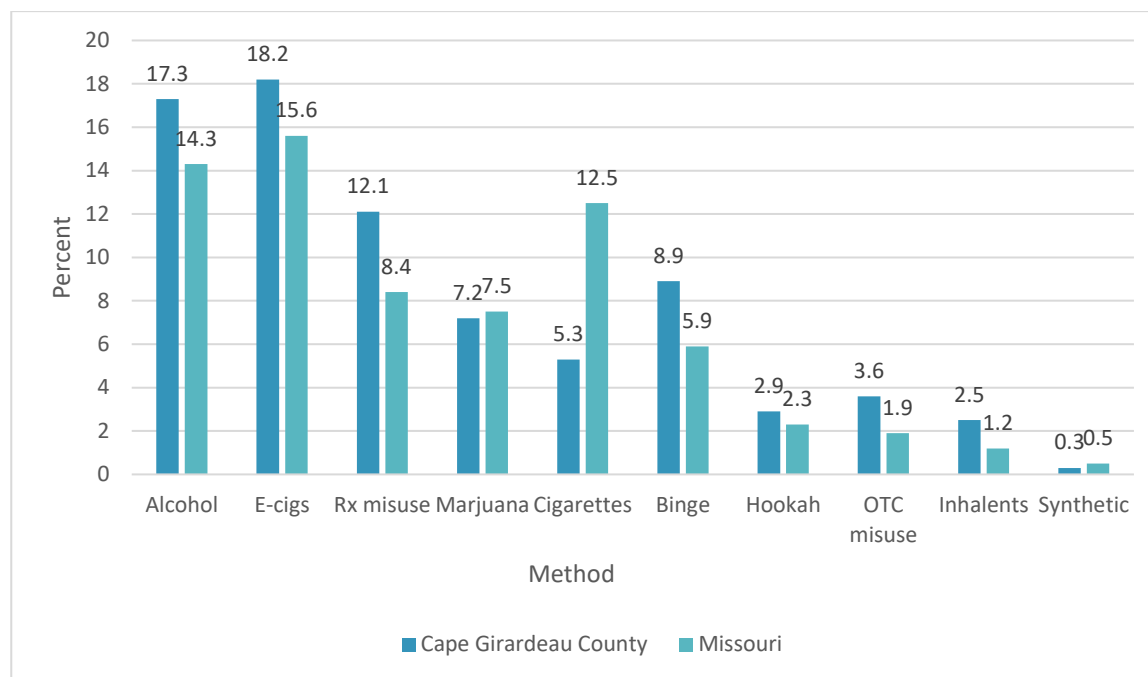
Cape Girardeau County Tobacco Attributable Hospitalizations and Leading Causes of Death			
Adult Tobacco Prevalence Rate, 2011 (%)	21.1	Number	Rate
Hospitalizations, 2015	Heart Disease	725	77.46
	Stroke	268	28.17
	Pneumonia & Influenza	315	33.90
	COPD	138	14.46
	Asthma	32	4.32
	Cancer	254	27.47
Leading Cause of Death, 2007-2017	Heart Disease	2,048	193.85
	Lung Cancer	413	38.54
	Breast Cancer	141	13.97
	Stroke	413	38.54
	Chronic Lower Respiratory Disease	502	48.56
	Pneumonia and Influenza	176	16.21
	Smoking-Attributable Deaths (estimated)	1388	134.31

Source: Missouri Department of Health and Senior Services, Community Health Profiles, 2018

Cigarette use in electronic form is of growing concern in Cape Girardeau County as well as across the State. In 2018, determined from the Missouri Student Survey conducted by the Missouri Department of Mental Health, in Cape Girardeau County youth, the rate of e-cigarette use were higher than the rate of standard cigarette use. An estimated 16.2% of youth believed there was “slight” or “no risk” to smoking standard cigarettes, while 44.0% believed there was “slight” or “no risk” to smoking e-cigarettes. Marijuana use in youth is also of interest, particularly with recent shifts in legality of adult use across the nation. Around 7.5% of youth and 7.3% of adults reported current marijuana use.

Figure 4.11 compares the results of the Student Survey conducted by the Missouri Department of Mental Health for the method of Current Substance Use for students in Grades 6-12 in Cape Girardeau County and Missouri. The method with the highest percent in both the County and the State was E-cigarettes, with the County (18.2%) having a higher percentage than the State (15.6%).

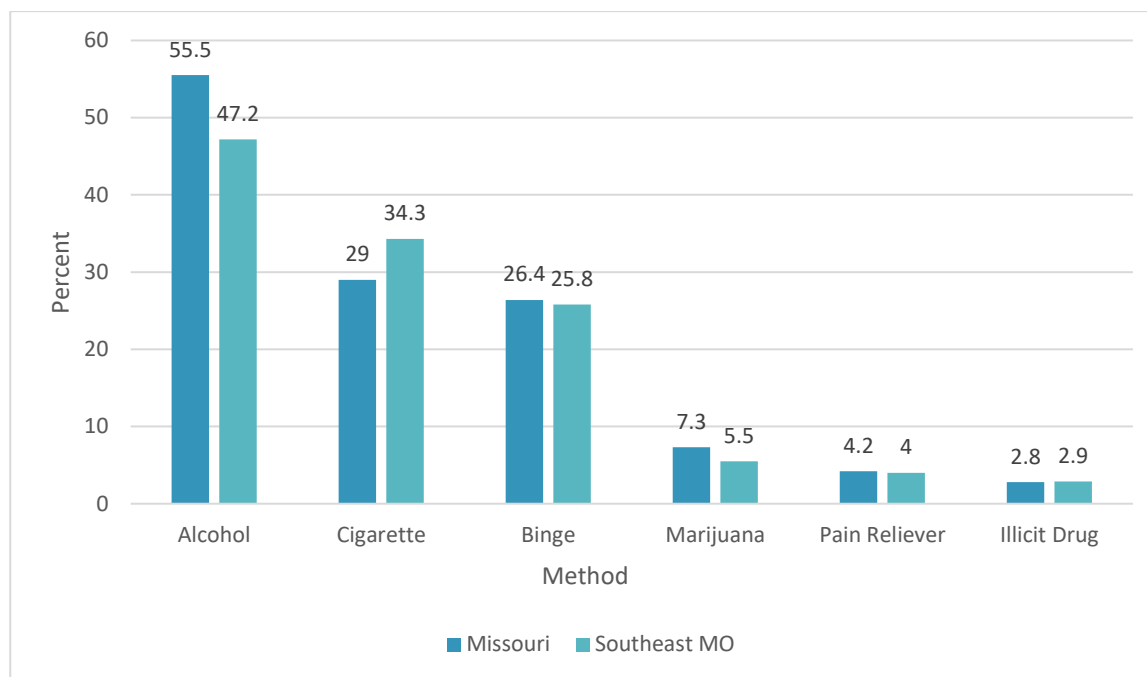
Figure 4.11: Percent Current Substance Use for Grades 6-12, Cape Girardeau County and Missouri,

2018

Source: Behavioral Health Profile, Student Survey, Missouri Department of Mental Health, 2018

The same survey also identified the method of Current Substance Use for those students 18 years of age and older. Figure 4.12 displays those results. For both the County and the State, the method with the highest percentage was alcohol with the County (55.5%) exceeding the State (47.2%)

Figure 4.12: Percent Current Substance Use for Ages 18+, State of Missouri and Southeast Missouri,

2012-2014

Source: Behavioral Health Profile, Student Survey, Missouri Department of Mental Health, 2018

SECTION V: Injury

The overall injury rate for Cape Girardeau County was slightly lower (7,768.31 per 100,000) in 2015, than the State of Missouri's rate (8,854.40 per 100,000). Table 5.1 shows various injuries by rate for the county and the state for 2015.

Table 5.1: Various Injury Rates, per 100,000, Cape Girardeau County and Missouri, 2015

	Deaths – all Injuries	Deaths- Unintentional	Hospitalizations	Emergency Room Visits	Incidence Rate of all Injuries
Cape Girardeau County	57.63	28.18	64.63	77.50	7,768.31
Missouri	74.29	49.14	91.86	87.25	8,854.40

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA) 2018

For all of the above measures, Cape Girardeau County was lower than the State. All rates shown are per 100,000 population.

Below, deaths from Unintentional Injuries are drilled down further to see if a particular age or race has a disparity that is higher than the States. Also discussed in this section are overall Injury Rates, Injury Rates by cause and age, and Injuries resulting from motor vehicle accidents.

Injury Rates, by Age Group

Missouri Department of Health and Senior Services reports Injuries occurred at a rate of 7,768.31 per 100,000, in Cape Girardeau County during 2015. Table 5.2 below discusses the burden of Injuries by age group comparing Cape Girardeau County to the State of Missouri.

Table 5.2: Injuries Rates per 100,000, by Age Group and Location, 2015

	Under 15	15 - 24	25 - 44	45 - 64	64 and Over	All Ages
Cape Girardeau County	8,622.76	7,159.45	9,290.27	5,854.87	7,044.18	7,768.31
Missouri	9,666.88	10,844.45	9,424.45	6,402.44	8,195.84	8,854.40

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

When Injury Rates are broken down by age group and compared to the State, individual age groups' rates were still lower than the State's and similar to the overall Injury Rate, except for the 15-24-year-old age group. The age group in Cape Girardeau County with the highest rate was the 25-22-year age group and the 15-24-year age group for the State.

Since the under 15 age categories had the highest rates of Injury and those under the age of 15 can have very different injury risks, this category was broken down further. Table 5.3 reviews the Injuries Rates for the less than 15-year old age group for the County and the State.

Table 5.3: Injuries Rates per 100,000, by Age Group for those <15 years and by Location, 2015

	Under 1	1-4	5-9	10-14	All Ages Under 15
Cape Girardeau County	5,506.61	10,153.26	7,478.19	9,199.75	8,622.76
Missouri	5,898.03	11,696.59	8,592.76	9,903.25	9,666.88

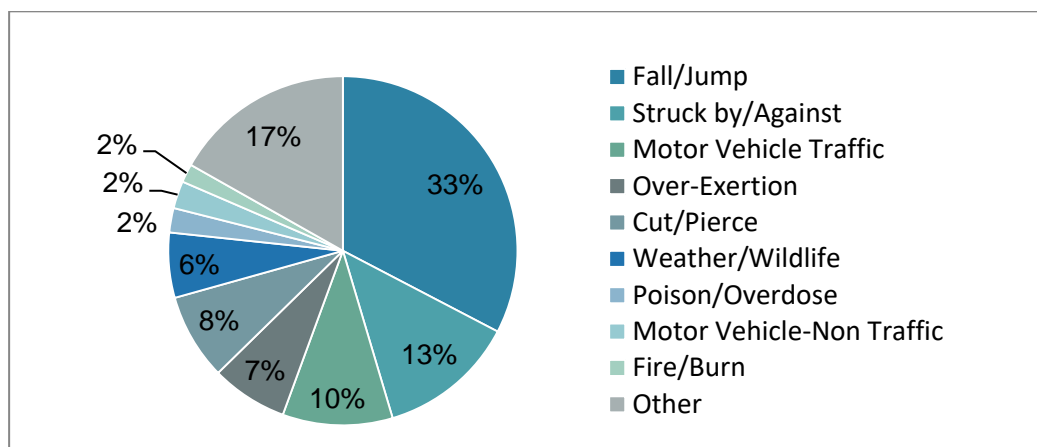
Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

The category of 1-4 years old had the highest rate of injury followed by the 10-14 age category. The rate of injury in the county, compared to the State, was slightly lower for children in all age categories. Causes of injury with high rates of occurrence are explored next.

Injury Rates, by Cause

After comparing Injury Rates to the State and by age group, it is important to look at what mechanisms are the leading causes of these Injuries for the County as a whole, as well as by the two age groups identified above as having the highest incidence. Figure 5.1 provides the percentage by mechanism (type of Injury) for all ages.

Figure 5.1: Percent of Injury Mechanism Burden, Based on Rates per 100,000, Cape Girardeau County, for all Ages, 2015



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

The 'other' category included, in order of most prevalent, Injuries by Machinery, Abuse/Neglect, Firearm, Other Transportation, and Suffocation/Hanging, all of which made up 16% or less of all of the rates of Injuries for Cape Girardeau County in 2015.

In comparison to the State, the rate in Cape Girardeau County was higher for the category of Over-Exertion. Leading causes of injury for all ages for the county and State are listed below in Table 5. 4.

Table 5.4: Leading Causes of Injury, Rate per 100,000, By Location, 2015

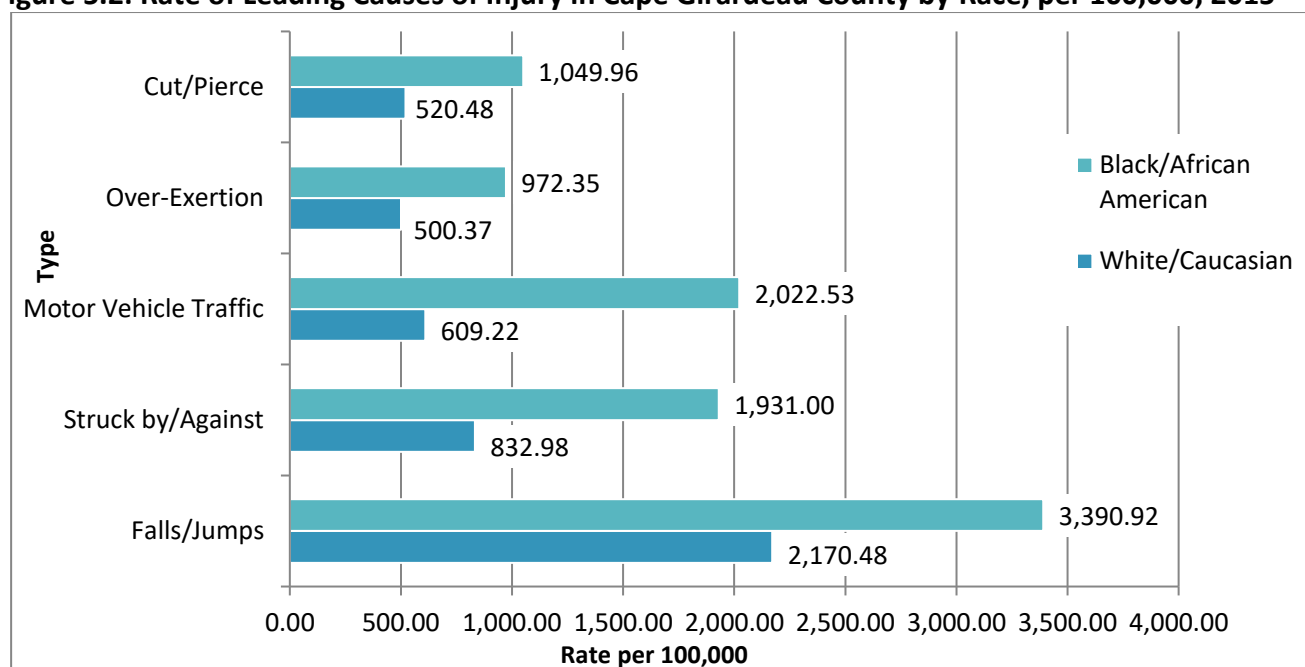
	Cape Girardeau County	Missouri
Fall / Jump	2311.54	2589.86
Struck By / Against	965.82	1235.68
Motor Vehicle Traffic	747.54	949.64
Over-Exertion	551.04	515.13
Cut / Pierce	599.69	644.94

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

Leading Causes of Injury by Race

Figure 5.2 breaks down the identified leading causes of Injury in the County by race. There is a clear racial disparity when it comes to Injury in Cape Girardeau County. For all of the five leading causes of Injury, the order of mechanism of Injury by severity was the same for both races. Overall, blacks have a much higher rate of Injury.

Figure 5.2: Rate of Leading Causes of Injury in Cape Girardeau County by Race, per 100,000, 2015



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

Age Groups Primarily Affected by the Leading Causes of Injury

Table 5.5: Rate of Leading Causes of Injury by Age Group, per 100,000, Cape Girardeau County, 2015

Cause of Injury	Under 15	15 - 24	25 – 44	45 - 64	64 and Over	All Ages
Fall/Jump	2,893.12	1,094.13	1,814.84	1,936.05	4,706.83	2,311.54
Stuck by/Against	1,499.61	1,412.26	1,096.47	550.19	396.48	965.82
Motor Vehicle Traffic	275.87	1182.68	1,145.08	602.10	361.45	747.54
Over-Exertion	445.64	520.94	869.61	425.62	184.74	551.04
Cut/Pierce	481.01	668.78	934.43	425.62	289.16	599.69
Wildfire/Weather	615.41	373.11	588.74	352.95	208.84	463.57
All Injuries	8,622.76	7,159.45	9,290.27	5,854.87	7,044.18	7,768.31

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

Table 5.5 breaks down the five leading causes of Injury, by age group, to determine what groups are burdened most. Age groups of under 15 years and between 25-44 are bolded, as they were identified as an area to focus on earlier in this section.

Individuals in the under 15 and 25-44 age group were discovered before to have the highest rates of Injury. When looking at the top five causes of Injury in the County, this still holds true.

Individuals under 15 years of age were primarily injured by Falls/Jumps followed by Over-Exertion. When the 15 and under age group is broken down further, as before, we see that areas of focus for this age group may be prevention of:

- Falls/Jumps Injuries for all ages
- Over-Exertion (1-14 years of age)
 - 10-14-year-old (rate of 1,096.7 compared to rates in the 600s for other ages)
- Cut/Pierce Injuries (1-14 years of age)
 - 1-4 years old (547.35); 5-9 years old (477.77); 10-14-year-old (525.10)

Unintentional Injuries

Cape Girardeau County experienced 133 deaths from unintentional injury during the period 2012 to 2016. The rate per 100,000 of deaths from unintentional injury in Cape Girardeau County was 12.5 which is very similar to the State's at 12.3.

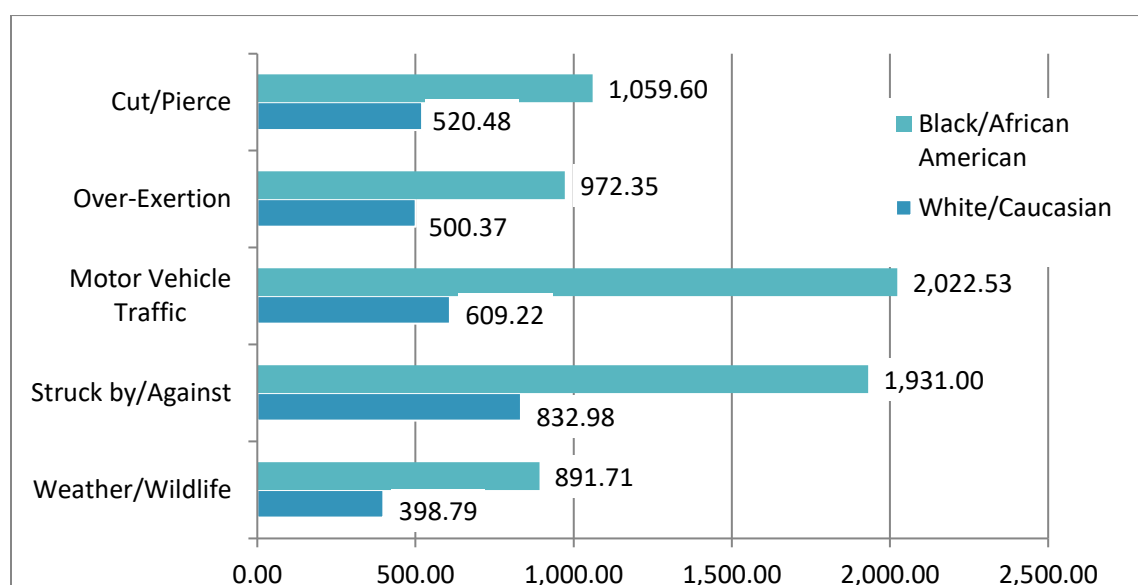
Table 5.6: Rate of Unintentional Injuries by Age Group and Location, per 100,000, 2015

	Under 15	15 - 24	25 – 44	45 - 64	64 and Over	All Ages
Cape Girardeau County	8,622.76	7,159.45	9,290.27	5,854.87	7,044.18	7,768.31
Missouri	9,666.88	10,844.55	9,424.45	6,402.44	8,195.64	8,854.40

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

Table 5.6 shows the rate of Unintentional Injuries by age group in Cape Girardeau County compared to the State of Missouri. The rate of Unintentional Injury was higher in the State than the County for all age groups. The 25-44 age group, in Cape Girardeau County, had some of the higher overall Injury rates as well, shown above. Some of the Unintentional Injuries burdening the 25-44-year-old group the most are Falls/Jumps, Over-Exertion, Motor Vehicle Traffic, and Struck by/Against. The Unintentional Injury most burdensome to individuals 64 and over was falls/jumps with a rate of 4,706.83 per 100,000 with the next most common Unintentional Injury in this age group being Struck by / Against with a rate of 369.48 per 100,000.

Figure 5.3: Rate of Unintentional Injury in Cape Girardeau County by Race and Type, per 100,000 2015

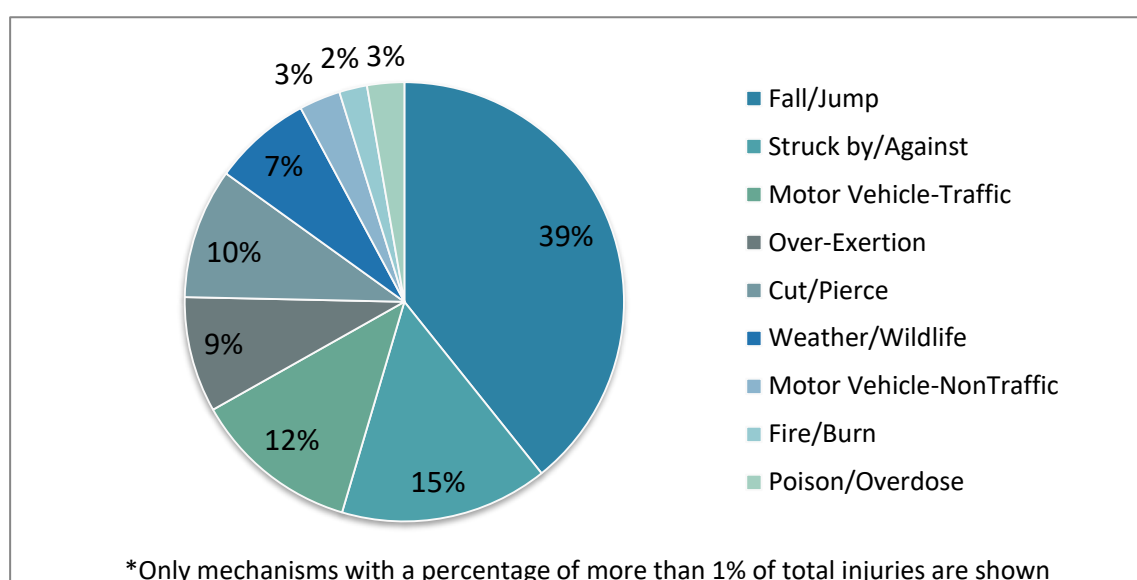


Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018

Figure 5.3 compares the rates of Unintentional Injuries by race for all mechanisms. Only significant rates are shown. Similar to all Injuries, blacks had a higher burden of unintentional injuries.

The highest rate of Unintentional Injuries, for both races, occurred with Injuries where an individual was struck by or against something. The biggest disparity between blacks and whites was Unintentional Injuries from where an individual is struck by or against something with the rate of Injury being 832.98 per 100,000 for whites and 1,931.00 per 100,000 for blacks. The count of Unintentional Injury for whites for all mechanisms was 4,704 compared to blacks, which was 972.

Figure 5.4: Percent of Unintentional Injuries by Mechanism* in Cape Girardeau County, for all Ages, 2015



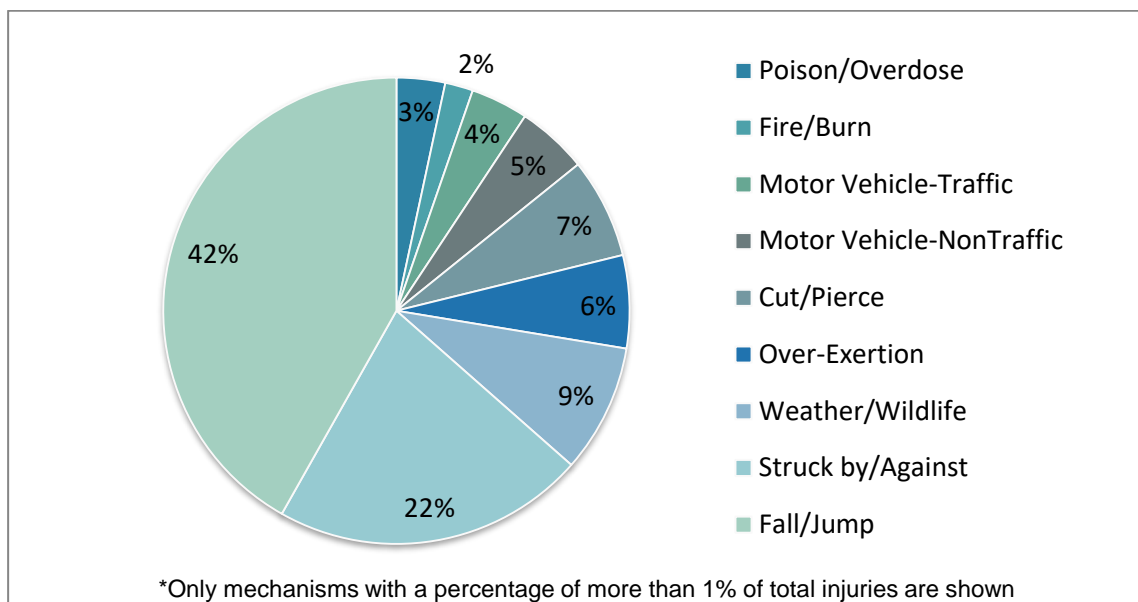
Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

Figure 5.4 above shows the percentage of burden of Unintentional Injuries by mechanism for Cape Girardeau County. Rates for firearms and suffocation/hangings were unstable and, therefore, not included. In addition, rates of Unintentional Injury for the mechanisms of machinery and transportation were not included since these rates made up less than 2% of all Unintentional Injuries.

The leading cause of Unintentional Injury were Injuries from falls/jumps, being struck by/against something, motor vehicles in traffic, and cut / pierce. These four categories are in the same order as the leading causes of Injury overall.

Unintentional Injuries in Children

Figure 5.5: Percent of Unintentional Injuries by Mechanism* in Cape Girardeau County, 2015, Children ≤ 15



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2018.

Figure 5.5 above shows the percentage of burden of Unintentional Injuries by mechanism for children less than 15 years of age in the County. Compared to the State, the County had higher rates of unintentional injuries by over-exertion (rate of 551.04 (per 100,000) compared to 515.13) and abuse / neglect / rape (40.82 (per 100,000) compared to 39.44).

SECTION VI:
Maternal and Child Health Indicators

Prenatal Care

The National Institutes for Health indicate that “Having a healthy pregnancy is one of the best ways to promote a healthy birth. Getting early and regular prenatal care improves the chances of a healthy pregnancy and birth outcomes.” In Missouri, information is obtained from birth certificate records that indicate the date of initiation of prenatal care. For the year 2016, in Cape Girardeau County, 75.32% of births had prenatal care initiated during the First Trimester, 15% during the Second or Third Trimester (considered Late Prenatal Care), and 0.89% of births had No Prenatal Care.

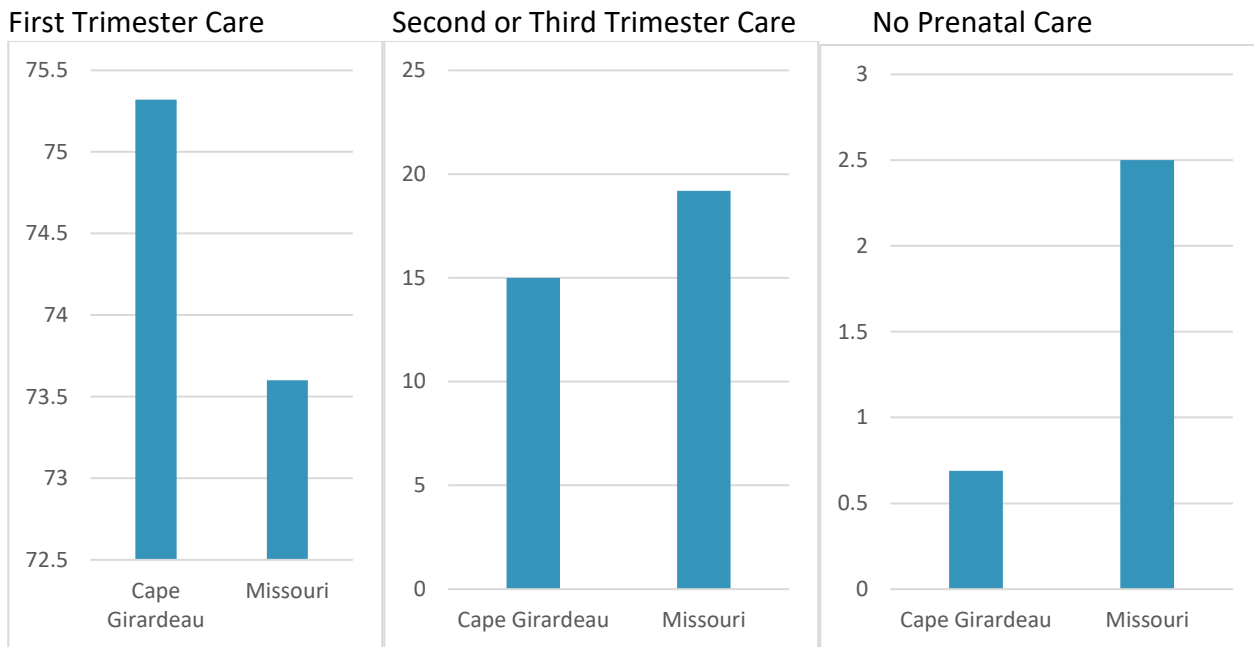
Inadequate Prenatal Care, defined by the Missouri Department of Health and Senior Services, is “fewer than five prenatal visits for pregnancies less than 37 weeks, fewer than eight visits for pregnancies 37 weeks or longer or care beginning after the first four months of pregnancy.” Rates of prenatal care are compared between Cape Girardeau County and Missouri as shown in Table 6.1.

Table 6.1: Prenatal Care: Inadequate, Rate per 100, Cape Girardeau County and Missouri, 2016

	Number, 2016	Rate per 100, 2016
Cape Girardeau	129	15.00
Missouri	13,213	19.19

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2018.

Although the rate of Inadequate Prenatal Care was lower for the County than for the State, Cape Girardeau County had a lower rate of women beginning Prenatal Care early in the pregnancy during the First Trimester, a higher rate than the State for care beginning in the Second or Third Trimester, and a lower rate than the State for No Prenatal Care at any time during the pregnancy. Figure 6.1 compares the rates between Cape Girardeau County and Missouri for First Trimester, Second and Third Trimester, and No Prenatal Care.

Figure 6.1: Initiation of Prenatal Care, By Location, Rate per 100 Live Births, 2016

Source: Missouri Department of Health and Senior Services, MICA Births, 2018

Table 6.2 compares the initiation of prenatal care rate by race for Cape Girardeau County.

Table 6.2: Initiation of Prenatal Care by Race, Rate per 100 Live Births, 2016

	White		African-American		White	African-American
	Number of Events	County Rate	Number of Events	County Rate	State Rate	State Rate
Care Began First Trimester	555	78.28	79	68.83	76.31	62.73
Late Care (2nd/3rd Trimester)	81	11.59	32	26.45	16.12	32.43
No Prenatal Care	X	X	X	X	1.02	2.63
Inadequate Prenatal Care	65	9.37	129	15.00	13.51	26.59

X = Confidentiality Rule Triggered

Source: Missouri Department of Health and Senior Services, MICA, Births, 2018

Care initiated in the First Trimester was highest among the White race, Second or Third Trimester care was highest among the African -American Race, and Inadequate Prenatal Care was highest among the African- American race.

According to Missouri Department of Health and Senior Services, 15.01% of mothers in Cape Girardeau County smoked during pregnancy compared to 15.25% of mothers in Missouri in 2016. The

rate of mothers who smoked during pregnancy is shown in Table 6.3 for both the County and the State in 2013 and 2016.

Table 6.3: Rate (per 100,000) of Women who Smoked During Pregnancy, By Location, 2013 and 2016

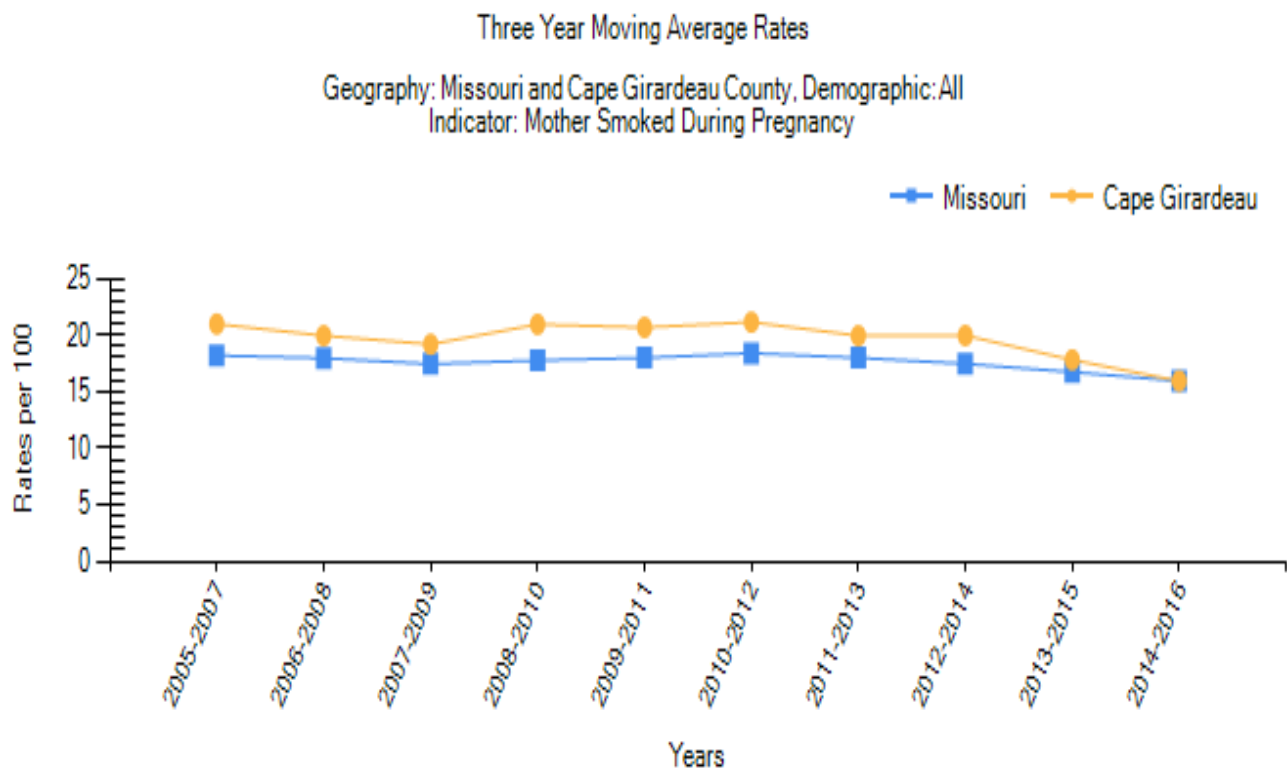
	Rate, 2013	Rate, 2016
Cape Girardeau	20.4	15.01
Missouri	17.5	15.25

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2018.

Both the County and the State experienced a decrease in the rate of women who smoked during pregnancy.

Smoking During Pregnancy

Figure 6.2: Time Trend of Mother Smoked During Pregnancy, Rate per 100, 2005-2016



Source: Missouri Department of Health and Senior Services, Community Profiles, Prenatal, 2018

Although the County has experienced a decrease in the rate from 2013 to 2016 the trend over the past 14 years has not decreased significantly as shown in Figure 6.2.

Table 6.4: Smoking During Pregnancy, Percentage by County, 2016

County	Rate
Bollinger	30.09
Butler	25.44
Cape Girardeau	15.01
Dunklin	30.86
Iron	24.75
Madison	32.43
Mississippi	20.83
New Madrid	25.54
Pemiscot	24.41
Perry	23.85
Ripley	26.44
Scott	19.71
St. Francois	27.06
Ste. Genevieve	22.11
Stoddard	22.04

Source: Missouri Department of Health and Senior Services, Community Profiles, Smoking During Pregnancy, 2018

As Smoking Rates in general are higher in the Southeastern District counties, so are the Smoking Rates during pregnancy. Table 6.4 provides a percentage breakdown by County of Smoking Rates in the Southeast District for 2016. All Southeastern District counties have a higher rate than the State and suggest consideration of a regional approach to addressing Smoking During Pregnancy.

Smoking During Pregnancy rates in Cape Girardeau County were higher among the African American race (20.16) as compared to the white race (14.76). Table 6.5 compares the rates by age and race for 2016.

Table 6.5: Smoking Rate (per 100,000) during Pregnancy by Race and Age, Cape Girardeau County, 2016

	Race					
	White		Black/African-American		All Races	
Mother's Age	Number	Rate	Number	Rate	Number	Rate
10-14	X	X	X	X	X	X
15-17	X	X	X	X	X	X
18-19	5	17.24	0	0	5	13.89
20-24	34	20.12	11	23.40	46	21.00
25-29	32	13.28	5	16.67	37	12.89
30-34	21	11.54	8	29.63	30	13.27
35-39	8	10.53	0	0	8	8.89
40 plus	X	X	X	X	X	X
Unknown	X	X	X	X	X	X
All Ages	107	14.76	25	20.16	134	15.01

X = Confidence rule triggered

Source: Missouri Department of Health and Senior Services, MICA, Smoking During Pregnancy, 2018

Births

According to the Missouri Department of Health and Senior Services, there were 942 Live Births in Cape Girardeau County during 2013, and 896 during 2016. Table 6.6 shows the number of Live Births by County and State.

Table 6.6: Number of Live Births, Cape Girardeau County and Missouri, 2016

	Births, 2013	Births, 2016	Percent Change (%)
Cape Girardeau	942	896	-5.2
Missouri	75,244	74,664	-0.77

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2018

Table 6.7 provides the number and percent of Live Births by race and ethnicity for the years 2010, 2013, and 2016. The number shown for Ethnicity is not included in the total number of Live Births as those numbers are included in the race categories.

Table 6.7: Live Births by Race / Ethnicity, Cape Girardeau County, 2010, 2013, 2016

Race	2010	2013	2016
White	769 (83.4%)	783 (83.1%)	729 (81.03%)
African American	116 (12.6%)	111 (11.8%)	126 (14.06%)
American Indian/Alaskan Native	X	X	X
Asian/Native Hawaiian/Pacific Islander	X	X	X
Other Race	22 (2.4%)	26 (2.8%)	19 (2.4%)
Unknown Race	X	X	X
Ethnicity: Hispanic	32 (3.5%)	37 (3.9%)	28 (3.12%)
Ethnicity: Non-Hispanic	890 (96.5%)	905 (96.1%)	867 (96.76%)
Total Live Births	922	942	896

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2018
 X – Confidentiality Rule Triggered

The largest percentage of Live Births occurred in the White race followed by the African American race.

Gestation

According to Missouri Department of Health and Senior Services, 11.9 percent of births in Cape Girardeau County had a Gestation period of less than 37 weeks, in 2013. This compares to 8.71 percent in 2016. Preterm Gestations, defined as less than 37 completed weeks of pregnancy, are shown by number and rate in Table 6.8.

Table 6.8: Preterm Gestation (less than 37 completed weeks), Rate per 100 Live Births, 2013 and 2016

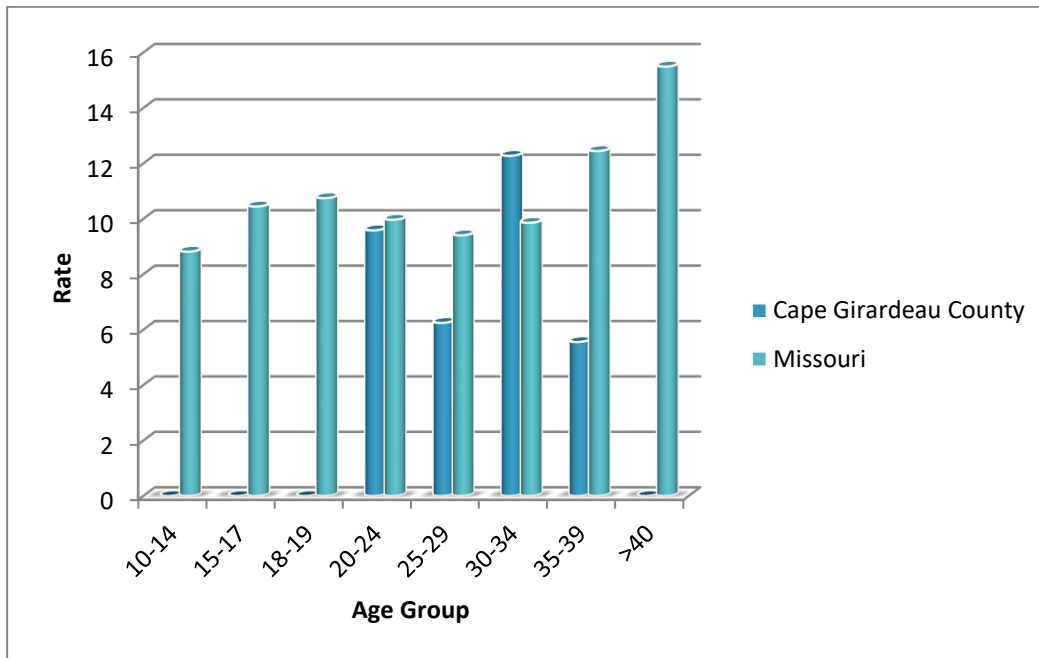
	Rate per 100, 2013	Rate per 100, 2016
Cape Girardeau County	11.9	8.71
Missouri	11.5	10.19

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2018

Rates for Preterm Birth were not available for age, by race, as the Confidentiality Rule was applied. This occurs when the difference between any particular cell and the total number of events for all conditions is less than 10.

Figure 6.3 shows the Rate for Preterm Births for the year 2016 by age groups of the mother.

Figure 6.3: Preterm Gestation (less than 37 completed weeks) by Age Group and Location of the Mother, Rate per 100 Live Births, 2016

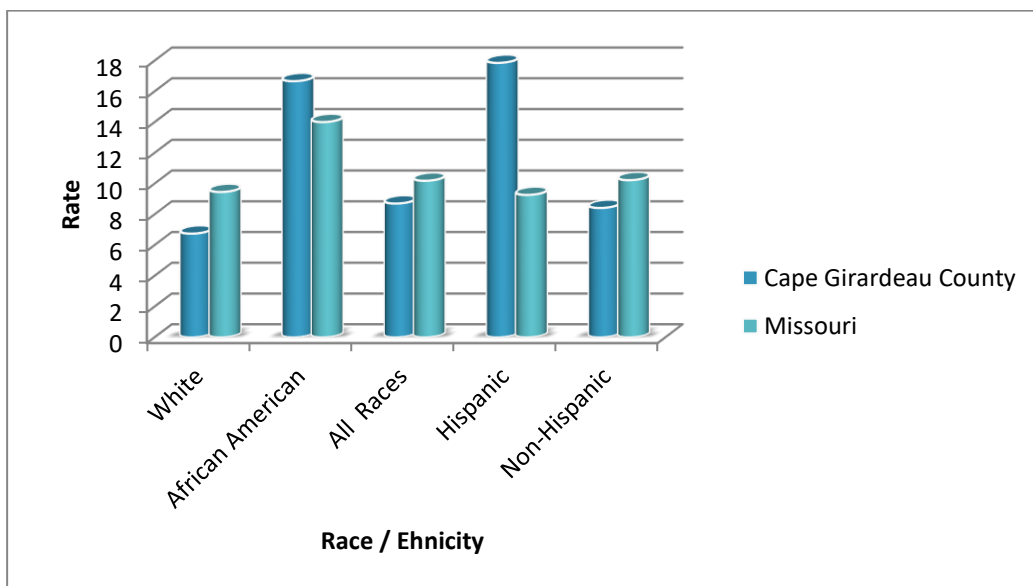


Source: Missouri Department of Health and Senior Services, MICA, 2018

X – Confidentiality Rule Triggered

Figure 6.4 shows the Rate for Preterm Births for the year 2016 by race alone. In Cape Girardeau County, the age group with the highest preterm birth rate was the 30-34-year-olds and in Missouri it was the 40 years and older. However, for the age groups 10-14, 15-17 and 18-19; there was no information due to the Confidentiality Rule being triggered.

Figure 6.4: Preterm Gestation (less than 37 completed weeks) by Race and Location, 2016



Source: Missouri Department of Health and Senior Services, MICA, 2018

Preterm Birth Rates for 2016 were highest among the African- American race in the County and State. The County rate was lower than the State rate for all races. Women of Hispanic ethnicity experienced a higher rate of premature births than the non-Hispanic ethnic group in Cape Girardeau County.

Education Status of Mothers

Comparison between 2013 and 2016 of mothers with fewer than 12 years of education are shown for the County and Missouri in Table 6.9.

Table 6.9: Education Status: Mother's Years of Education at Time of Child's Birth, Rate per 100 Live Births, 2013 and 2016

	Fewer than 12 years, 2013	Rate per 100	Fewer than 12 years, 2016	Rate per 100	% Change
Cape Girardeau County	122	12.98	75	8.38	4.6
Missouri	10,800	14.39	9,364	12.58	1.81

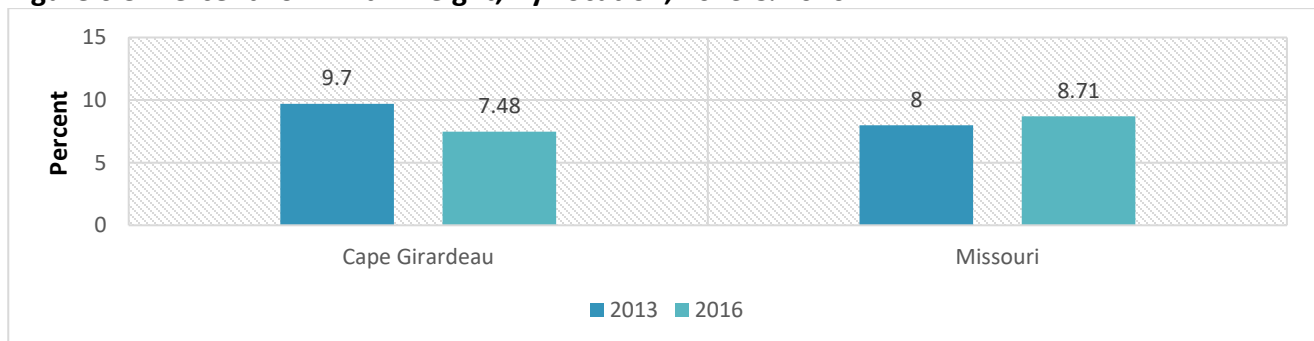
Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2018

The rate of births for mothers with less than a high school education (12 Years) decreased in the County from 2013 to 2016, as did the rate for the State. Cape Girardeau County experienced a greater improvement in this rate than did the State. As identified in Section 1 (Demographics), the high school graduation rate for the County increased during this same time frame.

Birth Weight

According to Missouri Department of Health and Senior Services, low birth weights (less than 2500 grams) in Cape Girardeau County occurred at a rate of 9.7 percent in 2013 and decreased to 7.48 in 2016, while the State had an increase in the percent of Low Birth Weight rates from 8% to 8.71% respectively. Figure 6.5 compares the percent of Low Birth Weight rates for Cape Girardeau County and Missouri for 2013 and 2016.

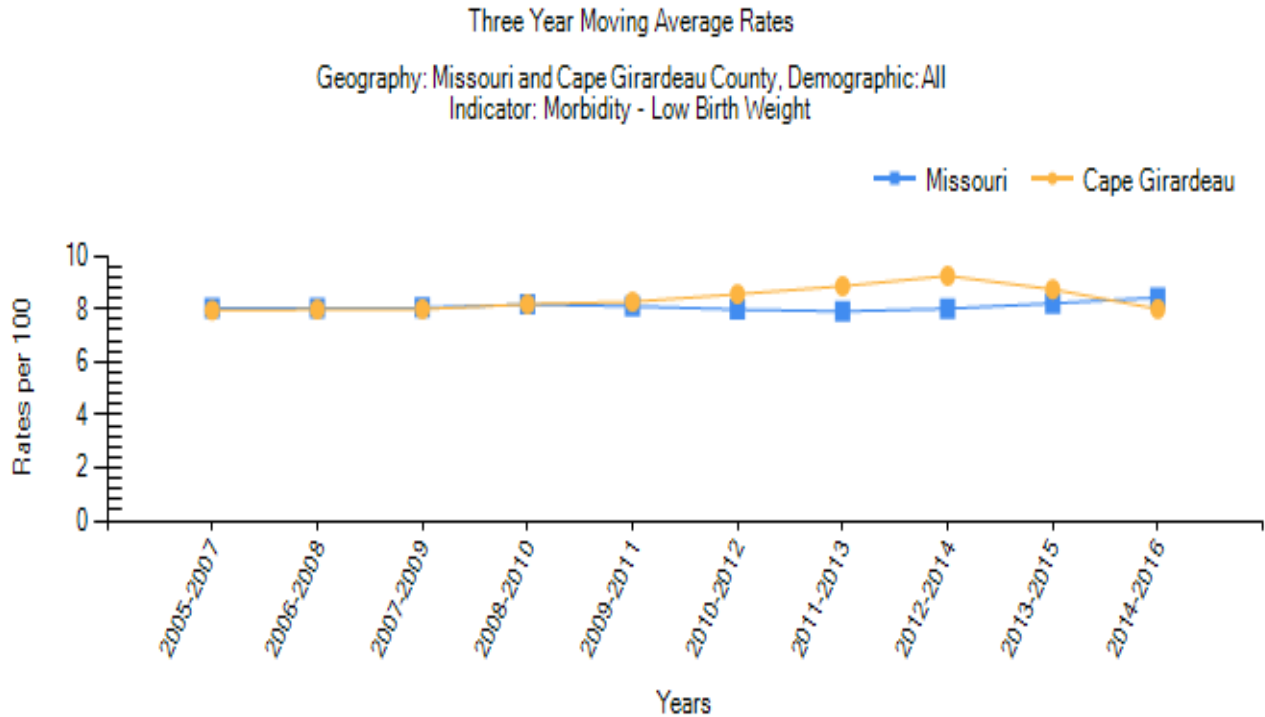
Figure 6.5: Percent Low Birth Weight, By Location, 2013 & 2016



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2018.

Figure 6.6 displays the Low Birth Weight trend for Cape Girardeau County and Missouri. The State has seen an increase of .71% from 2012 to 2015, while Cape Girardeau County has seen a decrease of 2.2%.

Figure 6.6: Time Trend of Low Birth Rate



Source: Missouri Department of Health and Senior Services, Community Data Profile 2018

Further review of this indicator, as shown in Table 6.10, provides the rates per 100,000 for Low Birth Weight by race and age groups for Cape Girardeau County for 2016. Low Birth Weight rates were higher in the African American race in Cape Girardeau County (17.46) in comparison to the White (5.51) race. The 20-24-year-old age group had the highest rate (14.89) within the African- American race. The rate for the Hispanic ethnicity was 17.86 in Cape Girardeau County. Among all races, the highest rates were seen in the 20-24-year age group.

Table 6.10: Low Birth Weight Rate per 100,000 (Less than 2500 g) by Age, Race, and Ethnicity, Cape Girardeau County 2016

	Race						Ethnicity	
	White		Black/African-American		All Races		Hispanic	Non-Hispanic
Mother's Age	Number	Rate	Number	Rate	Number	Rate	Rate	Rate
10-14	0	0	0	0	0	0	0	0
15-17	X	X	X	X	X	X	X	X
18-19	X	X	X	X	X	X	X	X
20-24	14	8.28	7	14.89	21	9.59	X	X
25-29	11	4.56	5	16.13	18	6.25	X	X
30-34	10	5.46	9	32.14	21	9.21	X	X
35-39	0	0	0	0	0	0	0	0
40 plus	X	X	X	X	X	X	X	X
Unknown	0	0	0	0	0	0	0	0
All Ages	40	5.51	22	17.46	67	7.48	17.86	7.15

Source: Missouri Department of Health and Senior Services, MICA, 2018

X = Confidentiality Rule Triggered

Teen Births

According to the Missouri Department of Health and Senior Services, Teen Births is defined as, “The rate of total births to women ages 15-19 per 1,000 female population age 15-19 and is a relevant indicator as Teen pregnancies and births to Teen parents have unique social, economic, and health support services implications.” Births rates to Teens was 17.3 per 1,000 Teens in Cape Girardeau County in 2016, as compared with the State rate of 23.3. The rate of births per 1,000 females age 15 to 19 is shown in Table 6.11.

Table 6.11: Births to Females Age 15 to 19, 2013-2016, By Location, per 1,000 Females

	Number of Births to Teens (15 to 19) 2013	Number of Birth to Teens (15 to 19) 2016	Birth Rate per 1,000 Teens 2016
Cape Girardeau County	80	52	17.3
Missouri	6,314	4,501	23.3

Source: Kids Count Data Book, 2018

Table 6.12: Number of Births to Teens by Age, Race, and Ethnicity, Cape Girardeau County, 2016

	Race			Ethnicity	
	White	Black/African-American	<u>All Races</u>	Hispanic	Non- Hispanic
Mother's Age	Number	Number	Number	Number	Number
10-14	0	0	0	X	X
15-17	10	6	16	X	X
18-19	29	5	36	X	X

Source: Missouri Department of Health and Senior Services, Community Data Profiles 2018

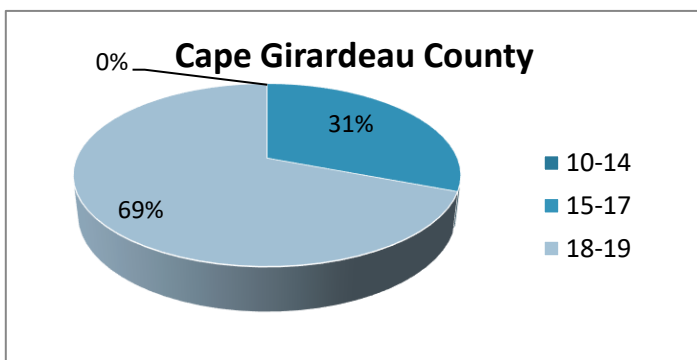
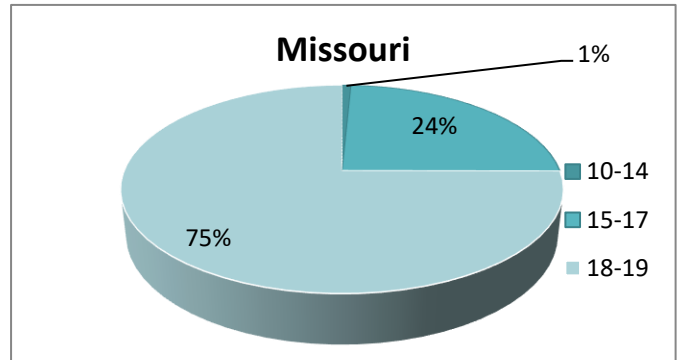
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The highest number of Teen Births, in Cape Girardeau County, for the White race was in the 18-19-year age group and in the 15-17-year age group for African- American and is displayed in Table 6.12. Table 6.13 examines Teen Births by Age, Race, and Ethnicity in the State for 2016. The 18-19-year-old group had the most for the White and Black / African American and Hispanic Ethnicity.

Table 6.13: Births to Teens by Age, Race, and Ethnicity, Missouri, 2016

Mother's Age	Race			Ethnicity	
	White	Black/African-American	<u>All Races</u>	Hispanic	Non- Hispanic
	Number	Number	Number	Number	Number
10-14	22	12	35	6	29
15-17	763	275	1,101	111	984
18-19	2,461	759	3,400	278	3,100

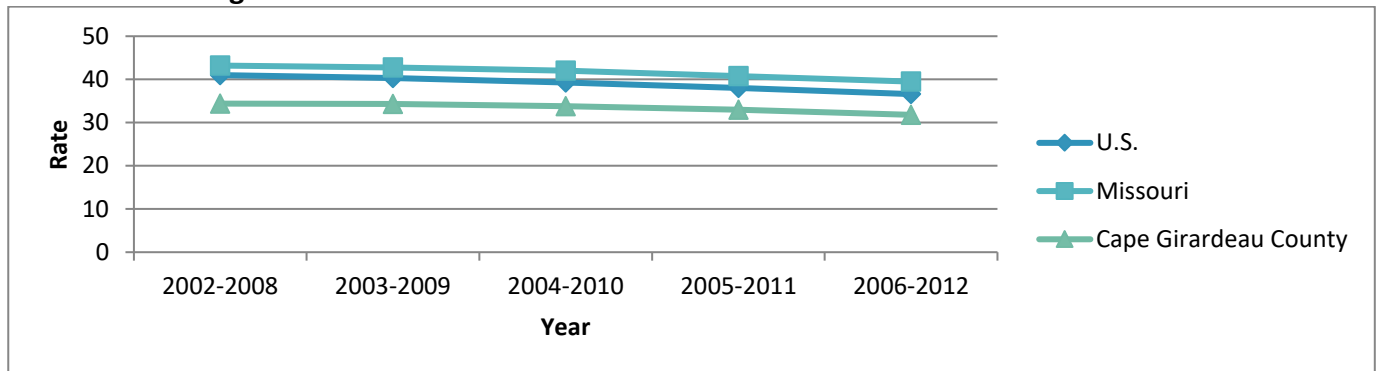
Source: Missouri Department of Health and Senior Services, Community Data Profiles 2018

Figure 6.7: Percent of Teen Births, by Age Group, 2016**Figure 6.7: Percent of Teen Births by Age Group, 2016**

Source: Missouri Department of Health and Senior Services, Community Data Profiles, 2018

Further examination of this indicator reveals that the trend for Births to Teens in Cape Girardeau County, the State of Missouri, and the U.S. has been decreasing. Figure 6.8 shows that trend from 2002-2012 on rolling 5-year data.

Figure 6.8: Births to Teens Age 15-19, Rate (per 1,000) by Rolling 5-Year time period and Location, 2002-2008 through 2006-2012

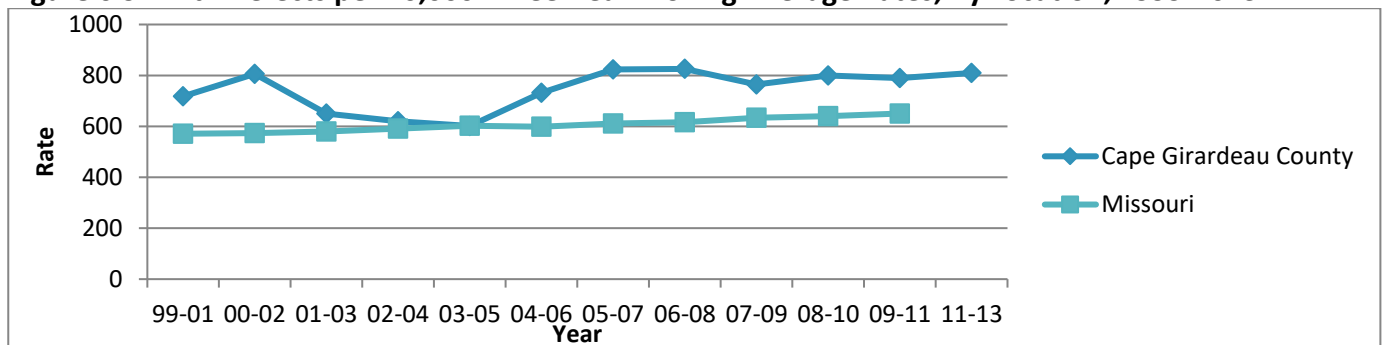


Source: American Community Survey, Community Commons Community Health Needs Assessment, 2018

Birth Defects

The Missouri Department of Health and Senior Services defines Birth Defects as the “Number of resident infants born with Birth Defects diagnosed in the first year of life. Rate is per 10,000 live births for the noted time period. Birth Defects are congenital defects of body structure or function, likely to result in mental or physical handicap or death.” Figure 6.9 shows a three-year moving average rate for birth defects for both Cape Girardeau County and Missouri, as well as an accompanying table of actual rates (Table 6.4). Although the Cape Girardeau County rates do not show a statistically significant trend from 1999-2013, the rates for the County have exceeded the State rates for the entire time period.

Figure 6.9: Birth Defects per 10,000 Three-Year Moving Average Rates, By Location, 1999-2013



Source: Missouri Department of Health and Senior Services, Community Health Profiles, Birth Defects per 10,000 2018

Table 6.14: Rate of Birth Defects (per 10,000), Three- Year Moving Average, By Location, 1999-2013

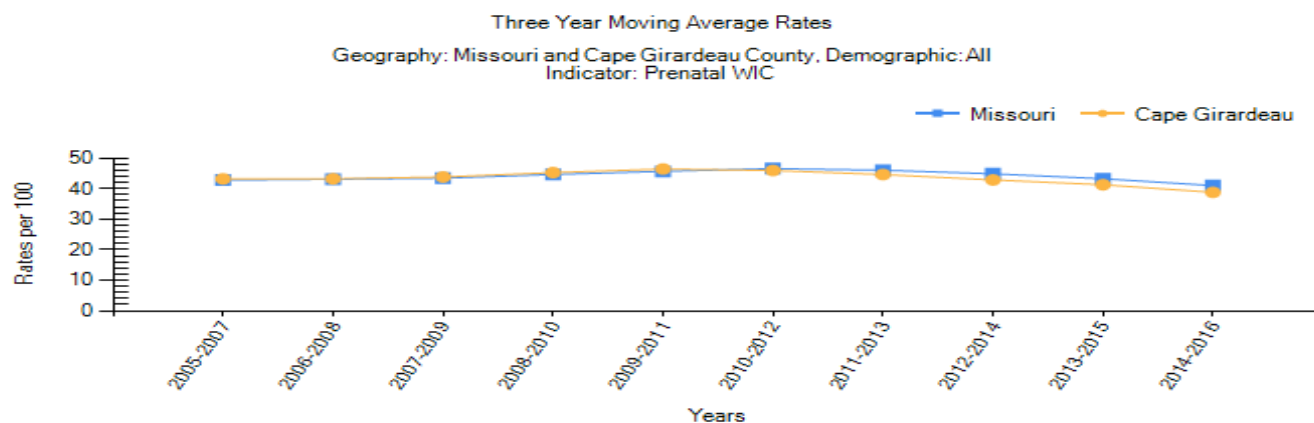
	Years											
	1999-2001	00-02	01-03	02-04	03-05	04-06	05-07	06-08	07-09	08-10	09-11	11-13
Cape Girardeau County	717.5	806.3	649.6	619.7	601.4	732.0	823.6	825.5	764.2	800.0	789.6	809.17
Missouri	571.0	573.7	579.3	591.6	601.9	599.0	611.0	616.4	634.4	640.4	650.3	726.98

Source: Missouri Department of Health and Senior Services, Community Health Profiles, Birth Defects per 10,000, 2018

According to the Centers for Disease Control and Prevention, “Birth defects can occur during any stage of pregnancy. Most birth defects occur in the first 3 months of pregnancy, when the organs of the baby are forming. However, some birth defects occur later in pregnancy. Most birth defects are thought to be caused by a complex mix of factors. These factors include our genes (information inherited from our parents), our behaviors, and things in the environment. For some birth defects, we know the cause. But for most, we don’t.” Risk Factors that can increase the chance that a pregnancy could be affected by a Birth Defect include smoking and alcohol consumption during pregnancy, certain pre-existing medical conditions such as being obese or uncontrolled diabetes before and during pregnancy, and certain medications taken during pregnancy.

Women, Infants, and Children (WIC) Participation

The Missouri Department of Health and Senior Services, Community Data Profiles, provides the participation trends in the WIC program from 2005-2016 for Prenatal, Infants, and Children. Figure 6.10 shows a statistically significant increasing trend of participation by Prenatal through 2012 for Cape Girardeau County and the State. Beginning in 2013, the trend began decreasing for both the County and the State. The 2016 rate for Cape Girardeau County was slightly below that for Missouri.

Figure 6.10: Time Trend of Prenatal WIC Three-Year Moving Average Rates, 2015-2016

Source: Missouri Department of Health and Senior Services, Community Data Profiles, WIC Prenatal, 2018

The Time Trend of Infants Participating in WIC is not displayed as at least one of the 3-year periods of the moving average has fewer than 20 events. The 2015 rate for Cape Girardeau County (30.77) was slightly below that for Missouri (31.60).

The Time Trend of Children (12-59 months) is not displayed as at least one of the 3-year period of the moving average has fewer than 20 events. The 2015 rate for Cape Girardeau County (285.8) was slightly higher than that for Missouri (285.5).

Overall, WIC participation in Cape Girardeau County, has been increasing for prenatal, infants, and children.

SECTION VII:
Infectious, Communicable, and
Vaccine Preventable Diseases

Infectious Disease

The Missouri Department of Health and Senior Services defines emergency room visit, hospitalizations, and deaths due to “infection” as “a primary diagnosis of an infectious disease, where the body is invaded by a pathogenic agent (virus or microorganism) that under favorable conditions multiplies and produces injurious effects. These include diseases generally recognized as communicable or transmissible, as well as a few diseases of unknown but possibly infectious origin. Excluded are acute respiratory infections, carrier or suspected carrier of an infectious organism, certain localized infections, and influenza.”

Emergency Room Visits Related to Infections

According to the Missouri Department of Health and Senior Services, Emergency Room Visits related to infections occurred at a rate of 8.0 per 1,000 in Cape Girardeau County compared to a rate of 8.82 per 1,000 in Missouri, during 2015. Table 7.1 compares Emergency Room Visits related to infections by County and State. Cape Girardeau County has a lower rate than the State.

Table 7.1: Number of Emergency Room Visits Related to Infection, By Location, 2015

	Number	Rate per 100,000
Cape Girardeau	598	8.00
Missouri	50,288	8.82

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Diagnosis, Infection, 2018

Hospitalizations Related to Infections

According to Missouri Department of Health and Senior Services, hospitalizations related to Infections occurred at a rate of 47.58 per 10,000 in Cape Girardeau County compared to a rate of 58.19 per 10,000 in Missouri, during 2015. Table 7.2 compares hospitalizations related to Infections by County, and state. Cape Girardeau County had a lower rate than the State, however, the County’s rate did increase from 2012 to 2015, as did the State rate.

Table 7.2: Inpatient Hospitalizations Related to Infection, Cape Girardeau County and Missouri, 2015, Rate per 10,000

	Number, 2012	Rate per 10,000, 2012	Number, 2015	Rate per 10,000, 2015
Cape Girardeau	317	36.1	431	47.58
Missouri	28,457	42.2	40,765	58.19

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Diagnosis, Infection, 2018.

Section VII: Infectious, Communicable, and Vaccine Preventable Diseases

Diagnoses classified as “Infection” are further divided into Bacterial Infections and Viral Infections. Table 7.3 identifies the type of Infection for both Emergency Room Visits and Hospitalizations in the County and State for 2015.

Table 7.3: Infection Diagnosis by Type, By Location, 2015, Rate per 100,000

Diagnosis	Emergency Room Visits				Hospitalizations			
	Cape Girardeau		Missouri		Cape Girardeau		Missouri	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Tuberculosis	X	X	23	X	X	X	46	.07
Septicemia	10	.12	1,203	.18	383	41.71	36,878	52.12
STD	33	.42	1,229	.21	X	X	90	.15
Other Bacterial	8	.11	736	.13	X	X	225	.4
HIV	X	X	153	.03	X	X	373	.64
Hepatitis	X	X	335	.06	17	1.71	817	1.19
Other Viral	231	3.09	28,110	4.96	13	1.88	1,439	2.32

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Diagnosis, Infection 2018.

X – Confidentiality Rule Triggered

Cape Girardeau County had a slightly higher rate than the State for ER visits with STD and slightly lower for other viral diagnoses. This may suggest that individuals are utilizing the ER venue as a source for treatment of a medical condition.

Deaths Related to Infections

The Missouri Department of Health and Senior Services reports deaths related to infections as “the underlying cause of death given on the death certificate.” Table 7.4 illustrates the rates of death related to the underlying cause of death related to a specific infection for the County and State during 2016.

Table 7.4: Deaths Related to Infection, By Type and Location, Rates per 100,000, 2016

	Cape Girardeau		Missouri			Cape Girardeau		Missouri	
	Number	Rate	Number	Rate		Number	Rate	Number	Rate
Tuberculosis	X	X	4	.4	Pertussis	X	X	0	0
Septicemia	9	10.31	821	10.94	Scarlet Fever	X	X	0	0
Syphilis	X	X	0	0	Meningococcal	X	X	0	0
AIDS / HIV	X	X	66	.95	Acute Poliomyelitis	X	X	0	0
Other	X	X	157	2.09	Viral Encephalitis	X	X	0	0
Salmonella	X	X	0	0	Measles	X	X	0	0
Shigellosis	X	X	0	0	Viral Hepatitis	X	X	83	1.04
Other Intestinal	X	X	50	.67	Malaria	X	X	0	0

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2018.

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Sexually Transmitted Diseases

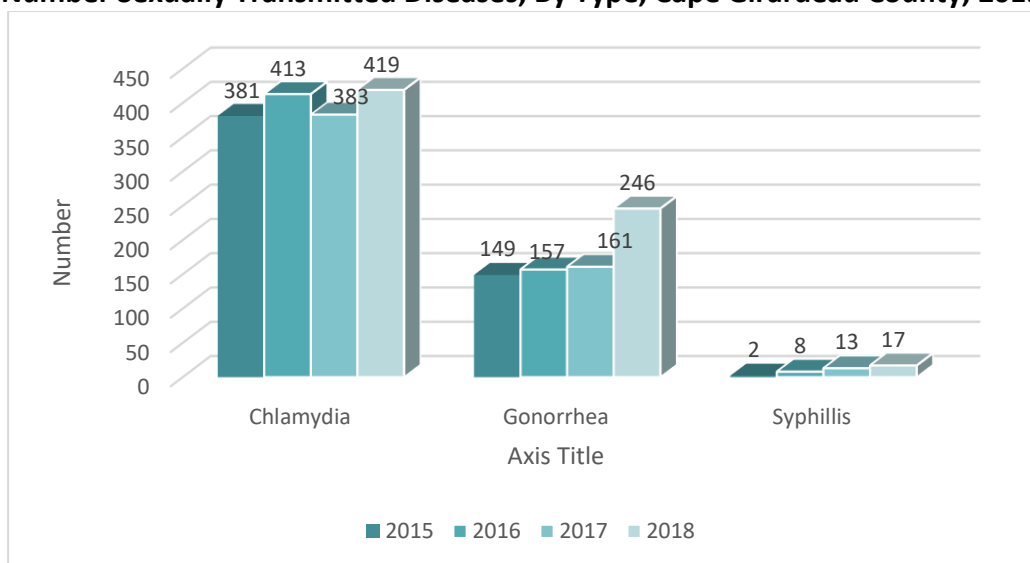
According to the Missouri Department of Health and Senior Service's Reportable Sexually Transmitted Diseases Report, there were 419 cases of Chlamydia in Cape Girardeau County during 2018. Table 7.5 describes the number of cases of Chlamydia, Gonorrhea, and Syphilis in Cape Girardeau County during 2015 - 2018.

Table 7.5: Number Sexually Transmitted Disease, Cape Girardeau County, 2015-2017

	2015	2016	2017	2018
Chlamydia	381	413	383	419
Gonorrhea	149	157	161	246
Syphilis	2	8	13	17

Source: Missouri Department of Health and Senior Services, Bureau of Reportable Disease Informatics, STD. by County, 2018.

In both Cape Girardeau County and the State, the highest rates of a STD were for Chlamydia in 2015-2018. In all four years, Cape Girardeau County rates exceeded the State rates. Figure 7.1 shows the actual number of cases of chlamydia, gonorrhea, and syphilis reported for Cape Girardeau County for 2015-2018.

Figure 7.1: Number Sexually Transmitted Diseases, By Type, Cape Girardeau County, 2015-2018

Source: Missouri Department of Health and Senior Services, Bureau of Reportable Disease Informatics, Reportable Sexually Transmitted Diseases, 2015-2017 Reportable Sexually Transmitted Disease, 2018

Table 7.6 provides primary data collected through the STD Clinic, held at the Cape Girardeau County Public Health Center, for screening and treatment of Sexually Transmitted Diseases for 2016, 2017, and 2018.

Table 7.6: Cape Girardeau County Public Health Center STD Screening and Treatment, Number and Type, 2016-2018

	2016	2017	2018
Chlamydia	40 positives	49 positives	34
Gonorrhea	9 positives	9 positives	11 positives
Syphilis	4 positives	16 positives	18 positives
Hepatitis C	17 positives (108 screened)	4 positives (100 screened)	2 positives (33 screened)
EPI Treatment	30 individuals	25 individuals	22 individuals
Totals	208 screened	199 screened	277 screened

Source: Cape Girardeau County Public Health Center, STD Clinic Data, 2016-2018

HIV / AIDS

According to the Missouri Department of Health and Senior Service's Epidemiologic Profiles of HIV, STD, and Hepatitis C in Missouri, there have been a total of 661 HIV disease cases diagnosed in the Southeast HIV Region from 1982 to 2016. Of those cumulative cases, 58% were still presumed to be living with HIV disease at the end of 2016. By the end of 2016, there were 382 persons living with HIV disease whose most recent diagnosis occurred in the Southeast HIV Region with 16 new HIV disease diagnoses in 2016. As shown in Table 7.7, the number of living HIV cases was greatest in Cape Girardeau County, however, the *rate* of individuals living with HIV was greatest in Pemiscot County. Among living AIDS cases, the largest numbers were residents of Cape Girardeau and St. Francois

Counties at the time of their AIDS diagnosis. The *rate* of individuals living with AIDS was highest in St. Francois County.

Table 7.7: New and living HIV and AIDS cases and rates, by geographic area, Southeast HIV Region, 2016, Rate per 100,000

	HIV Cases				AIDS Cases			
	Diagnosed 2016*		Living		Diagnosed 2016*		Living	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Cape Girardeau Co	3	3.8	29	36.9	1	1.3	30	38.2
Scott Co	2	5.1	19	48.7	0	0	10	25.6
St. Francois Co	0	0	19	28.6	1	1.5	54	81.2
Pemiscot Co	0	0	12	68.6	0	0	10	57.2
Dunklin Co	1	3.2	7	22.7	3	9.7	19	61.5
Butler Co.	1	2.3	17	39.6	2	4.7	21	48.9
Remainder of Region	2	.9	49	22	0	0	86	38.5
SE HIV Regions Total	9	1.8	152	30.5	7	1.4	230	46.1

Source: Missouri Department of Health and Senior Services, 2016 Epidemiologic Profiles of HIV, STD, and Hepatitis in Missouri, 2018

Table 7.8 provides primary data collected through the STD Clinic, held at the Cape Girardeau County Public Health Center, for screening and post counseling services for HIV for 2016, 2017, and 2018.

Table 7.8: Number HIV Screening Tests, Percent Post-Counseled, Cape Girardeau County, 2016-2017

	Number of HIV Tests Performed	Number and (%) Post Counsel Services
2016	189	86 (43%)
2017	197	97 (49%)
2018	239	92 (38%)

Source: Cape Girardeau County Public Health Center, STD Clinic data, 2018

In addition to providing testing services for HIV infection, Cape Girardeau County Public Health Center also provides a Primary Health Care Clinic for individuals who test positive for HIV and for those diagnosed with AIDS.

Communicable Disease

The World Health Organization defines Communicable Diseases as, “Infectious diseases caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another or by direct contact with an affected individual or the individual's discharges or by indirect means (as by a vector).” In the State of Missouri there are 92 reportable communicable diseases. Complete listing of these reportable conditions can be found at <http://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/pdf/reportablediseaseslist2.pdf>. According to the Missouri Department of Health and Senior Services, “Potential

Section VII: Infectious, Communicable, and Vaccine Preventable Diseases

(suspect) cases of disease are reported from hospitals, laboratories, and healthcare providers to local, regional, or State public health agencies in a process known as “reporting”. Reporting can be based on a positive laboratory test, clinical symptoms, or epidemiologic criteria (called Reporting Criteria). A public health investigation is sometimes conducted to determine and implement appropriate public health interventions. The Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE) designate certain diseases/conditions as nationally notifiable and CDC requests that states notify them when an instance of a disease or condition occurs that meets notification criteria.” Table 7.9 shows the number and type of reported Communicable Diseases for Cape Girardeau County for 2018.

Table 7.9: Reportable Disease Case Counts, Cape Girardeau County, 2018

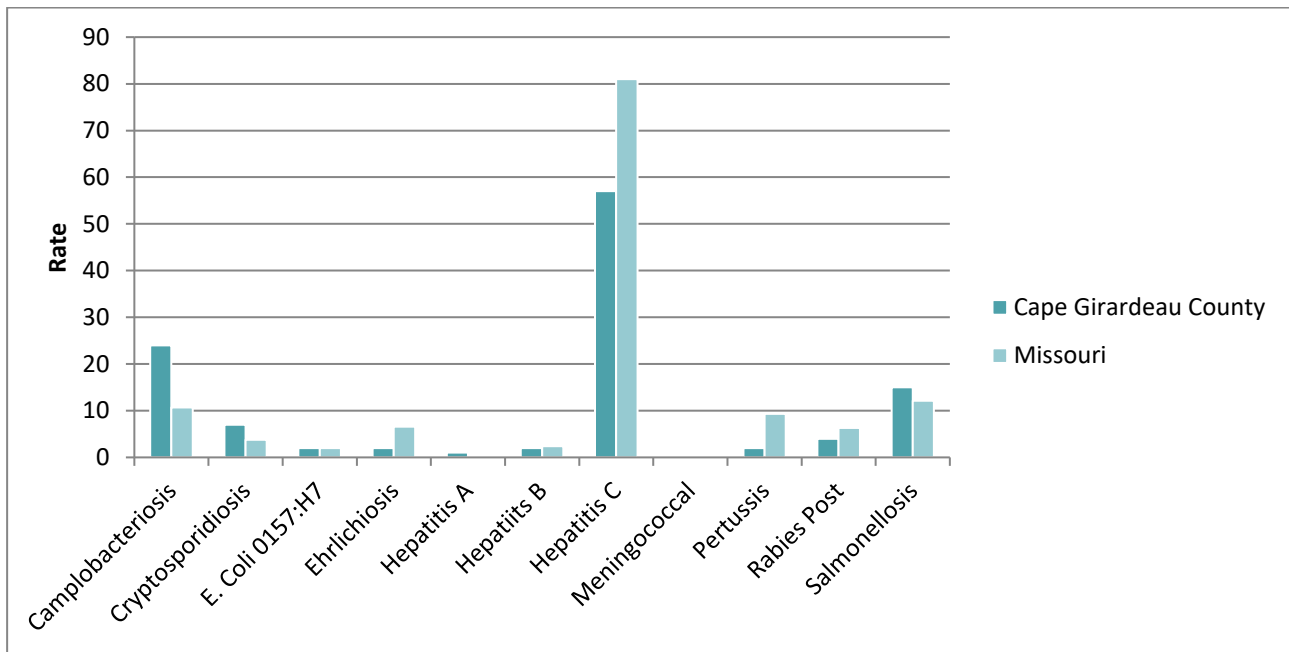
	2018
Adult Respiratory Syndrome	1
Anaplasmosis	1
Animal Bites	10
Campylobacteriosis	27
Cryptosporidiosis	7
E.Coli Shiga Toxin Positive	6
E.Coli 0157 H7	5
Ehrlichiosis	6
Giardiasis	2
Haemophilus Influenzae	2
Hepatitis A, Acute	6
Hepatitis B, Acute	50
Hepatitis C, Chronic	189
MOTT	11
Rabies Post Exposure Prophylaxis	10
Rocky Mountain Spotted Fever	6
Salmonellosis	28
Shigellosis	1
Strep-Pneumonia Drug Resistant	17
TB Infection	18
Vibriosis	1
Yersinosis	1

Source: Missouri Department of Health and Senior Services, Bureau of Communicable Disease Control and Prevention
Communicable Disease Report, 2018

Figure 7.2 compares the Disease Rates of occurrence (per 100,000 population) for 2013 between Cape

Girardeau County and Missouri. The latest annual report from the Missouri Department of Health and Senior Services was completed in 2013.

Figure 7.2: Comparison of Disease Rates for Cape Girardeau County and Missouri, 2013



Source: Missouri Department of Health and Senior Services, Bureau of Communicable Disease Control and Prevention, Communicable Disease Surveillance 2013 Annual Report

Tuberculosis

Tuberculosis Infection (Latent Tuberculosis): Latent tuberculosis infection (LTBI) indicates the person has the TB germ in their body, but has yet to develop symptoms and the TB organism has not been identified in sputum cultures. The presence of LTBI is often identified through a Tuberculin Skin Test (Mantoux) or a QuantiFERON Gold blood test.

Tuberculosis Disease: In comparison, Tuberculosis disease indicates the person has symptoms, a significant reaction to Mantoux skin test, and TB organisms have been found in the sputum. In order to spread the TB germs, a person must have TB Disease. Cape Girardeau County Public Health Center provides screening for Tuberculosis with the Mantoux skin test. Tests performed in 2016, 2017, and 2018 along with the results are shown in Table 7.10.

Table 7.10: Number Tuberculosis Skin Testing and Percent Reactive, Cape Girardeau County, 2016-2018

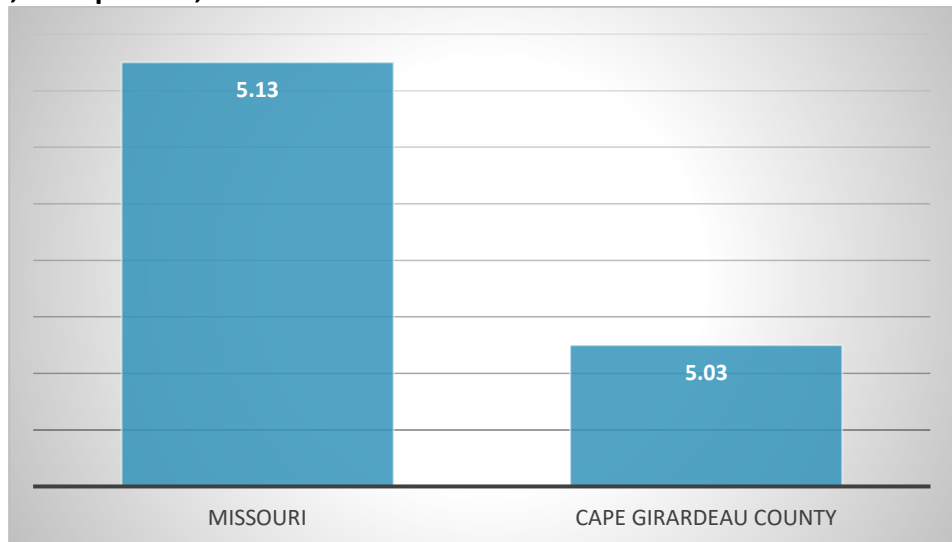
Year of Test	Number Administered	% Reactive (Positive)
2016	727	.009%
2017	418	.014%
2018	597	.007%

Source: Cape Girardeau County Public Health Center, TB Skin Testing data, 2018

Influenza

Influenza can cause mild to severe illness, and at times can lead to death. Populations that are disproportionately adversely affected are those 65 years of age and older, children under the age of two, and persons of any age with chronic medical conditions or compromised immune systems. The Influenza season is defined as the period between week 40 (first week of October) of one year and week 20 (middle of May) of the next year. Cape Girardeau County serves as an Influenza Surveillance site as well as collecting weekly surveillance reports from two hospitals, five public school districts, and primary care clinics. Figure 7.3 compares the rate for Emergency Room visits with a primary diagnosis of Pneumonia or Influenza between Cape Girardeau County and Missouri for 2015. Cape Girardeau County had a rate of 5.03, per 100,00 compared to the States 5.13.

Figure 7.3 Emergency Room Visit Rates: Pneumonia and Influenza, Cape Girardeau County and Missouri, 2015, Rate per 100,000

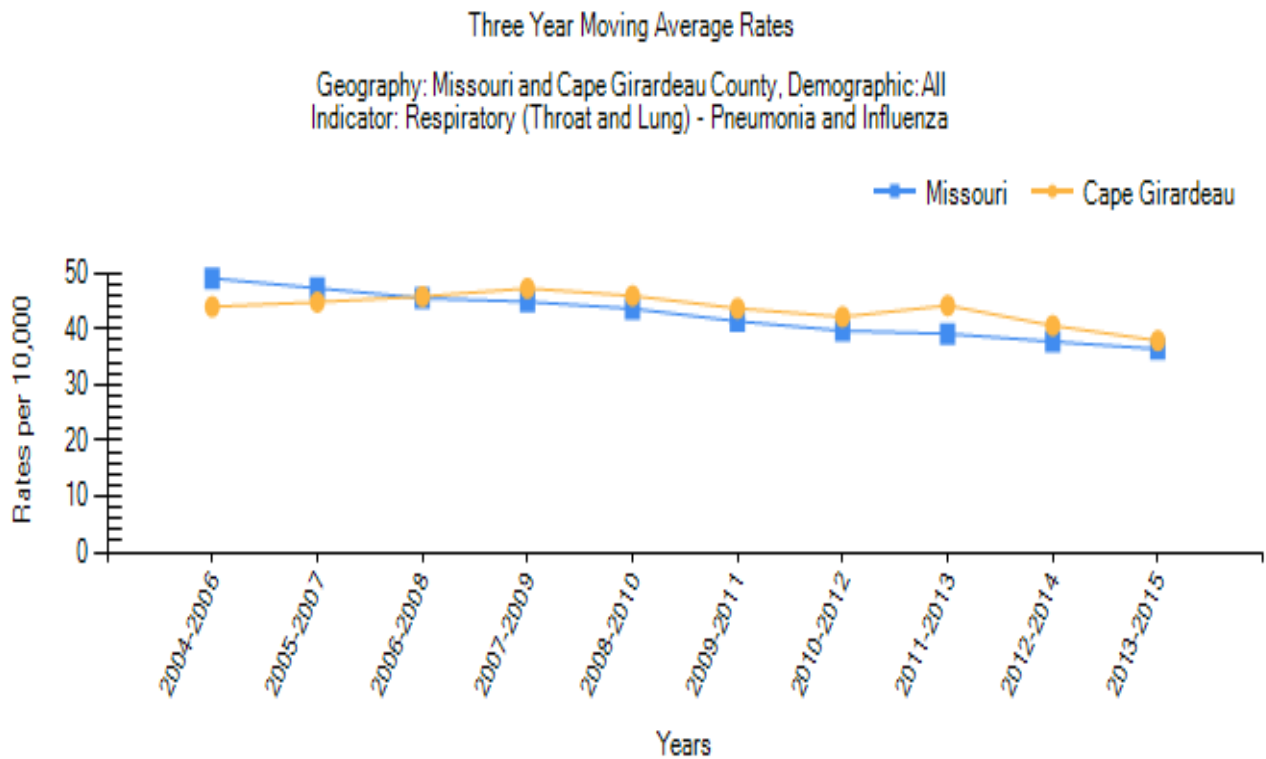


Source: Missouri Department of Health and Senior Services, Community Data Profiles, Emergency Room Visits, Pneumonia and Influenza, 2018

Figure 7.4 compares Inpatient Hospitalizations with a primary diagnosis of Pneumonia and Influenza for Cape Girardeau County and Missouri in 2015. Cape Girardeau County had a slightly lower rate (33.90) of hospitalizations than Missouri (34.60) in 2015 but the trend has not been statistically significant. Rate is reported as per 100,00 population.

Figure 7.4: Time Trend of Three-Year Moving Average Rates Hospitalization Rates: Pneumonia and

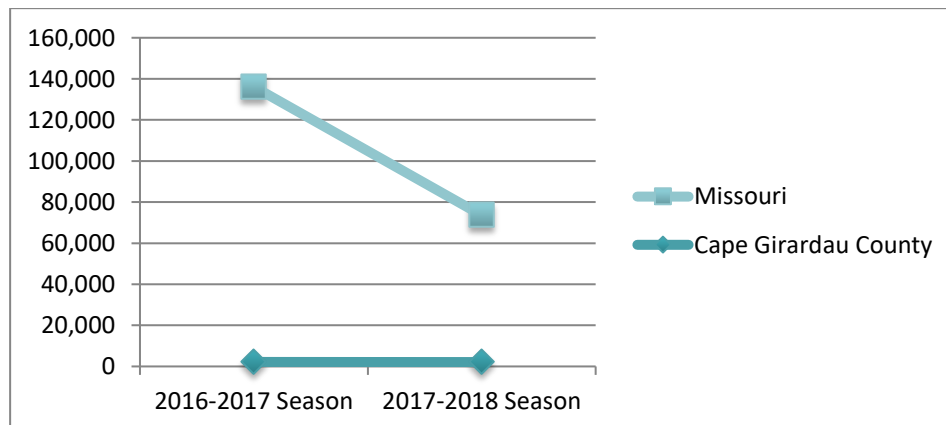
Influenza, Rate per 10,000, 2004-2006 through 2013-2015



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Hospitalizations, 2018

In 2016-2017 there were 2,190 cases of Influenza reported for Cape Girardeau County and 71,469 for Missouri. During the 2017-2018 season, there were 2,130 cases of Influenza reported for Cape Girardeau County and 133,957 for Missouri. Figure 7.5 compares the number of Influenza cases between Cape Girardeau County and Missouri.

Figure 7.5: Influenza Cases 2016-2018, Cape Girardeau County and Missouri

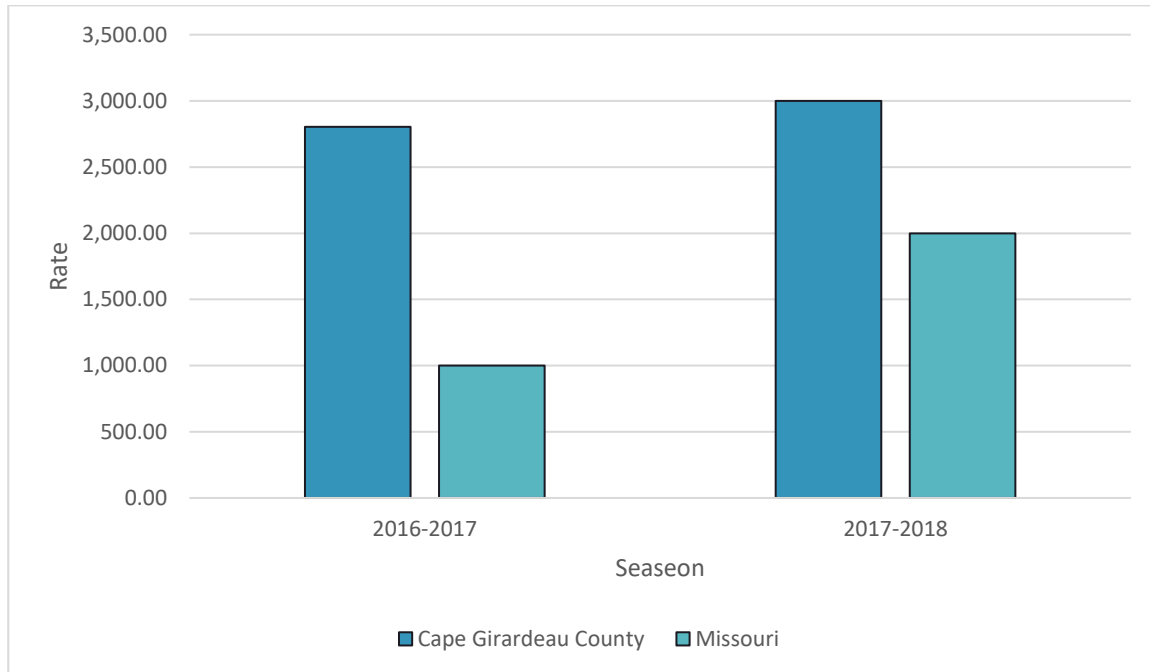


Source: Missouri Department of Health and Senior Services, Communicable Disease Surveillance, Influenza Data and Statistical Reports, 2018

Figure 7.6 compares the rate of Influenza Cases (per 100,000) between Cape Girardeau County and Missouri for the 2016-2017 and 2017-2018 flu seasons. Although the actual number of cases in the

County is far less than the State, the rate of the population affected is larger for Cape Girardeau County than for Missouri.

Figure 7.6: Influenza Rates, per 100,000, Cape Girardeau County and Missouri, 2016-2017 and 2017-2018 Influenza Seasons



Source: Missouri Department of Health and Senior Services, Communicable disease Surveillance, Influenza Data and Statistical Reports, 2016-2017 and 2017-2018

Influenza Vaccination

Table 7.11 provides the prevalence percent of adults, in Missouri, who reported on the Missouri 2016 Behavioral Risk Factor Surveillance Survey (BRFSS) that they had received a vaccination for Influenza and pneumonia. Of the population 18 years of age and older, 42.5% reported that they had received an Influenza immunization. In the 65 year and older age group that percentage increased to 64.9% and was 75.4% for preventive pneumonia vaccination.

Table 7.11: Influenza and Pneumonia Preventive Vaccinations, Missouri 2016

	Prevalence
Influenza - Ages 18 and older	42.5
Influenza - Age 65 and older	64.9
Pneumococcal - Age 65 and older	75.4

Source: Missouri Department of Health and Senior Services, 2016 Behavioral Risk Factor Surveillance System, 2018
The Behavioral Risk Factor Surveillance System does not record this data by individual counties in a

Section VII: Infectious, Communicable, and Vaccine Preventable Diseases

state. Primary data maintained by Cape Girardeau County Public Health Center provides the best comparison for Influenza and Pneumonia vaccination levels for the County. Cape Girardeau County Public Health Center provides both Influenza and Pneumonia vaccinations through a variety of opportunities including community clinics, office visits, home visits, and school-based clinics. Primary data from the School- Based Clinics is shown in Table 7.12, sorting the number of students immunized. In 2016, 13% of Cape Girardeau County school- age children received an Influenza vaccination through School Based Clinics and 10% in 2017. In 2018 that percentage was 8% for the public-school districts. The numbers Table 7.12 do not include students who may have been vaccinated outside of the School Based Clinics.

Table 7.12: Number of School Based Influenza Immunizations, Cape Girardeau County, 2016-2018 School Years

School	2016	2017	2018
District	Number	Number	Number
Cape Girardeau	592	448	258
Delta	78	38	35
Jackson	490	348	350
Nell Holcomb	59	53	38
Oak Ridge	58	37	41
Public School District Total	1,277	924	722
Parochial Schools	283	270	173
TOTAL ALL SCHOOLS	1,560	1,194	895

Source: Cape Girardeau County Public Health Center, School Influenza Clinic, 2018

Primary data from community-based clinics offered by the Health Center and pharmacies located in the County are shown in Table 7.13.

Table 7.13: Number Vaccinated at Community Based Influenza Clinics, Cape Girardeau County 2016-2017

Provider	2016	2017	2018
	Number	Number	Number
Health Center	2,344	2,252	2,100*
Pharmacies	Data Unavailable	Data Unavailable	25,222

*Data available through November 2018

Source: Cape Girardeau County Public Health Center, School Influenza Clinic, 2018

Surveillance Activities

Cape Girardeau County Public Health Center maintains an active Communicable Disease Surveillance/ Reporting system for Cape Girardeau County. Communicable disease surveillance is a multi-component system that monitors and analyzes data that includes – but is not limited to – demographic,

geographic, and disease/condition-specific information. Accurate identification and timely reporting are integral parts of successful disease control, enabling public health agencies to: identify contacts who may be infected or other individuals at risk for infection, determine the incidence and prevalence of disease in a specific area of the County, assist physicians and hospitals in evaluating illnesses in their patients and communities, and assist the public in making better decisions regarding their health and lifestyle. Surveillance and reporting activities serve to enhance control efforts such as developing prevention/intervention strategies and policies, and responding to events involving potential exposure to communicable disease.

Immunization for Vaccine Preventable Diseases

Childhood Immunizations

In an attempt to identify current immunization rates for children, of any age group, in Cape Girardeau County, the Cape Girardeau County Public Health Center partnered with Saint Louis University School of Public Health, Master of Public Health Epidemiology students to retrieve, analyze, and report immunization data. The discoveries through this endeavor included the following:

- The Missouri Department of Health and Senior Services maintains an immunization data reporting system, Show Me Vax, it is primarily utilized by Vaccine for Children (VFC) immunization providers. One limitation to the data is that although an agency or private provider receiving and administering VFC vaccine is “required” to record all those immunizations given into the system, not all providers do. Therefore, immunization data for any age group may not be a true reflection of all VFC vaccine administered.
- Health Care providers who do not receive and administer VFC vaccine do not report to any statewide immunization data collection system
- The advent of pharmacies entering the immunization administration service has opened up another immunization opportunity, however, as non-VFC providers, they do not report to any statewide immunization data collection system.

With those factors in mind, data on childhood immunizations was obtained from a limited and fragmented number of available sources.

Vaccines for Children (VFC)

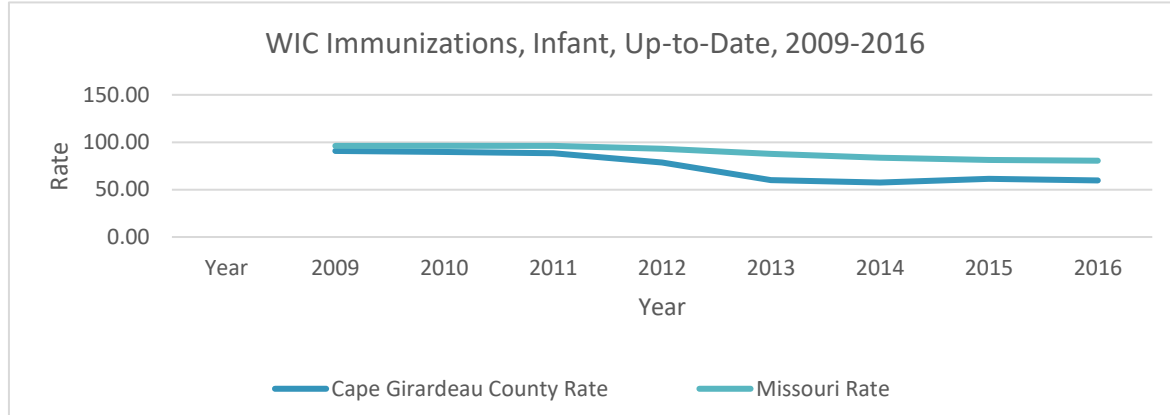
There are currently 11 VFC providers listed with the Missouri Department of Health and Senior Services. Cape Girardeau County Public Health Center is a VFC provider. The Annual VFC Audit Reports indicated that in 2016 children up-to-date with a complete series by the time they reached 24 months of age was at 93%. An increase from 78% from 2015. Through an internal program evaluation process, the Health Center identified that there is a concerning percentage of children who do not return to the clinic for their 12 month or 15-month visit. A concentrated effort has been made to reach out to these clients to assure adequate immunization levels.

WIC Infants and Children

Section VII: Infectious, Communicable, and Vaccine Preventable Diseases

Figure 7.7 shows the Up-to-Date Immunization Rates (per 100 Infants) participating in the WIC program for Cape Girardeau County and Missouri. This data, from 2009-2016, is the most recent data available from the Missouri Department of Health and Senior Services and according to the MICA Website the last update was in 2010.

Figure 7.7: Up-to-Date Immunizations, WIC Infant participants, By Location, per 100 Infants

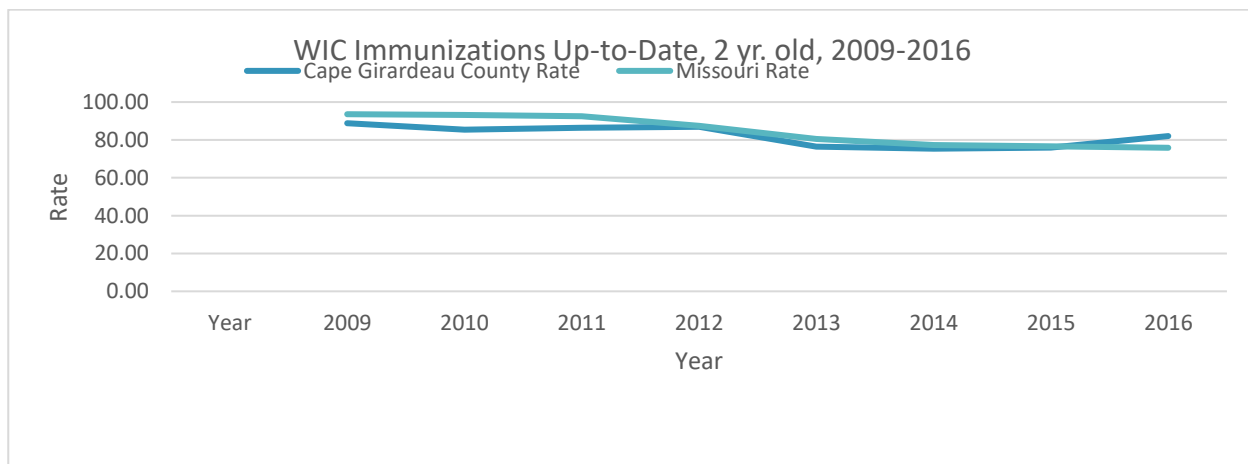


Source: Missouri Department of Health and Senior Services, MICA, WIC Infant, 2018

Cape Girardeau County has had a decreasing Up-To-Date immunization rate, compared to the State, for infants participating in the WIC program from 2004-2008.

Figure 7.8 compares the Up-to-Date Immunization Rate for Children (12-60 months) participating in the WIC program in both Cape Girardeau County and Missouri. This data, from 2009-2016 is the most recent data available from the Missouri Department of Health and Senior Services and according to the MICA Website the last update was in 2010.

Figure 7.8: Up-to-Date Immunizations, WIC Child Participants, By Location, per 100, 2009-2016



Source: Missouri Department of Health and Senior Services, MICA, WIC Child, 2018

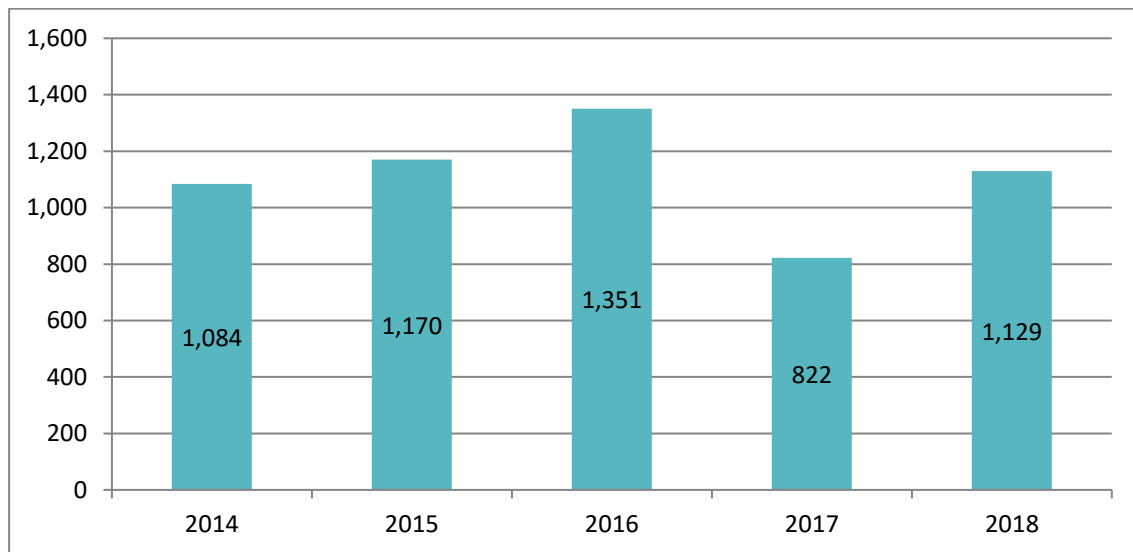
Cape Girardeau County had a similar rate of Up-to-Date Immunizations for children, age 12-60 months,

as the State. In 2013 that rate decreased slightly and began to increase in 2016 (by 3%) while the State of Missouri has had steady decrease in the rate during the same time period.

Adult Immunizations

Cape Girardeau County Public Health Center provides immunization opportunities for the adult population through community clinics and walk-in visits. Figure 7.9 shows the number of adults receiving immunizations, on a walk-in basis, at the Health Center. These figures do not include adult immunizations provided through community clinics or pharmacies located within the county.

Figure 7.9: Number of Adult Immunizations Provided at Cape Girardeau County Public Health Center, 2014-2015



Source: Cape Girardeau County Public Health Center, Immunization Program Evaluation, 2018

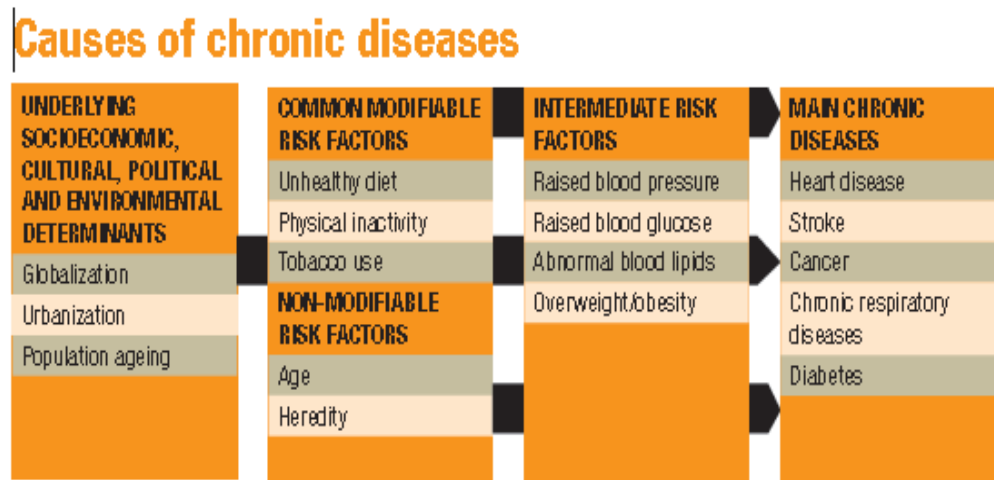
There are additional opportunities in Cape Girardeau County for adults to receive immunizations. The most recent Immunization Provider Survey conducted by Cape Girardeau County Public Health Center was in April 2017. A total of 18 primary care providers and 14 pharmacies, located in Cape Girardeau County were surveyed. Fifty percent of health care providers and 57% of pharmacies completed the survey process. One hundred percent of providers and pharmacies accept private health insurance for immunizations, 57% of private providers and 100% of pharmacies require co-pay at the time of service. Twenty-nine percent of health care providers provide immunizations to adults only and 50% of pharmacies limit immunization administration to adults.

SECTION VIII:
Chronic Disease

Chronic Disease

According to the World Health Organization and the Centers for Disease Control and Prevention, Chronic Diseases are the leading cause of death and disability in the United States. At the same time, they are among the most common, costly, and preventable of all health problems. Chronic Diseases are long-lasting in their effects. They are diseases that usually last for more than three months. The conditions or diseases listed as Chronic Diseases can be categorized into four main types – (1.) cardiovascular, (2.) chronic kidney disease, (3.) chronic obstructive pulmonary disease, respiratory, and (4.) metabolic (Diabetes) - but that list can include arthritis, asthma, cancer(s), high cholesterol, diabetes, heart disease, hypertension, lupus, osteoporosis, schizophrenia, sickle cell, and stroke. Many of the chronic diseases are linked to lifestyle choices and behaviors or what have been identified as “Chronic Disease Risk Factors.” Table 8.1, from the World Health Organization, identifies causes or risks associated with Chronic Diseases. Following Table 8.1 each of the Modifiable and Intermediate Risk Factors are reviewed for the prevalence in Cape Girardeau County residents. The main chronic diseases of heart disease, stroke, cancer, chronic respiratory disease, and diabetes have also been assessed.

Table 8.1: Causes of Chronic Diseases



Source: World Health Organization, *Chronic Diseases and Their Common Risk Factors*, www.who.int/chp, 2018

Prevalence of Chronic Disease Risk Factors

In 2007 and 2011, Missouri Department of Health and Senior Services (DHSS) conducted the Missouri County-Level Studies. The studies are designed to produce county-level prevalence of behavioral risk factors, chronic diseases and conditions, and preventive practices among adults age 18 and older. The 2011 study replicated a 2007 study.

Fair or Poor General Health Status

Table 8.2 compares the survey respondents that reported fair or poor general health status.

Table 8.2: Percent Recent Adult Health Status, Fair or Poor, Cape Girardeau County and Missouri, (2007, 2011)

	# of Respondents, 2007	2007 - %		# of Respondents, 2011	2011 - %	% Change
Cape Girardeau	394	18.7		460	17.4	-0.9
Missouri	49,368	19.0		50,529	20.1	1.1

Source: Missouri Department of Health and Senior Services, County Level Study, 2018

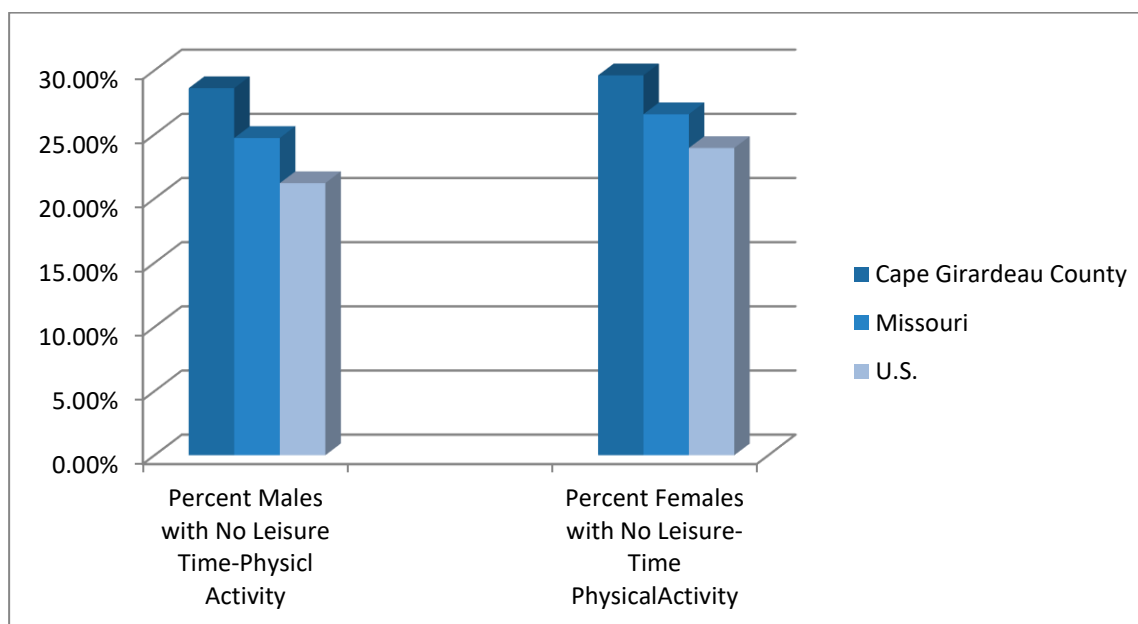
Physical Inactivity

Table 8.3 compares the percent of survey respondents that reported an activity limitation, based on a "no" response to the following question: "During the past 30 days, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise? "

Table 8.3: Percent Adults with Activity Limitation, By Location, (2007, 2011)

	# of Respondents, 2007	2007 - %	# of Respondents, 2011	2011 - %	% Change
Cape Girardeau	393	21.2	458	19.3	-1.9
Missouri	49,376	23.3	50,491	24.1	0.8

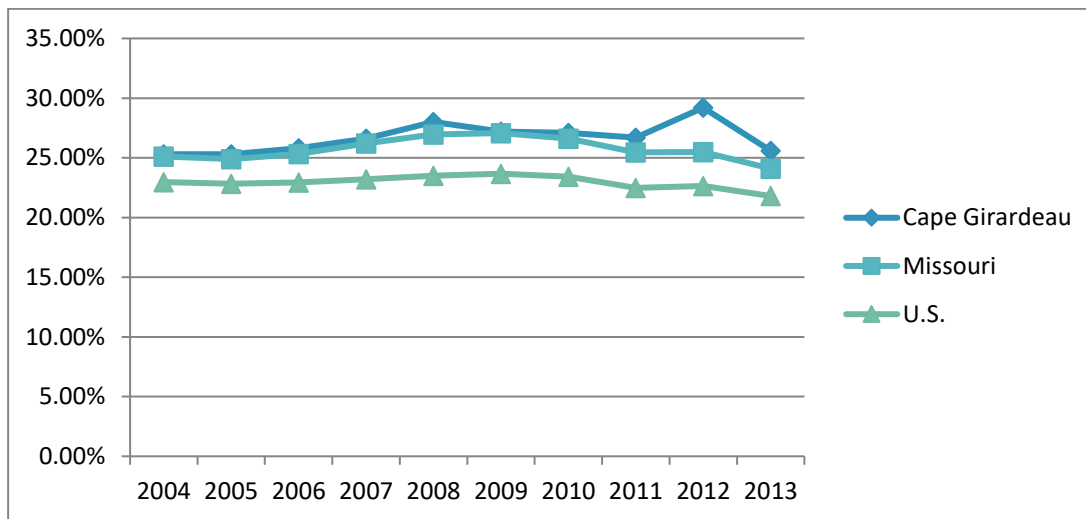
Source: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County Level Study, 2018

Figure 8.1 Percent Adults with No Leisure-Time Physical Activity by Gender and Location, 2007-2011

Source: Community Health Needs Assessment, Community Commons, Physical Inactivity, 2018

Data collected by or reported to the Centers for Disease Control and Prevention for the County Level Studies has further been presented in the data report Community Health Needs Assessment from the Community Commons. According to that report Cape Girardeau County has experienced an increasing trend in the percent of adults, 20 years of age and older, who report that they are physically inactive. Figure 8.2 compares that trend for Cape Girardeau County, Missouri and the U.S. Cape Girardeau County had a higher percentage of adults that were physically inactive than the State or the Nation.

Figure 8.2: Time Trend of Percent of Adults Physically Inactive by Year and Location, 2004 through 2013



Source: Community Health Needs Assessment, Community Commons, Physical Inactivity, 2018

Unhealthy Diet

Fruit and Vegetable Consumption

From the 2013 Missouri Department of Health and Senior Service' County Level Study the questions asked about diet included, "During the past 30 days, how often did you drink fruit juices such as orange, grapefruit or tomato?" and "Not counting juice, how often do you eat fruit? How often do you eat green salad? How often do you eat potatoes not including French fries, fried potatoes or potato chips? How often do you eat carrots? Not counting carrots, potatoes or salad, how many servings of vegetables do you usually eat?" All of these questions are combined into the general category of "Ate Fruits and vegetables less than 5 times per day," which is considered to be inadequate fruit/vegetable consumption. Through this study, 82.4% of adults over the age of 18 in Cape Girardeau County were consuming less than 5 servings of fruits and vegetables each day. In Missouri that percent was 79.1%. A lower percentage of the population 18 and older in Cape Girardeau County had an adequate daily consumption of fruits and vegetables than in Missouri.

Adult Tobacco Use

Through the County Level Study conducted by the Missouri Department of Health and Senior Services in both 2007 and 2011, adults residing in Cape Girardeau County, who were randomly selected by landline and cell phone numbers were asked to respond to several questions regarding personal health behavior risks. One of the areas surveyed was tobacco usage practices with collected data ranging from current use to knowledge of health effects, second hand smoke, and smokeless tobacco. Table 8.4 shows the prevalence percentage for Cape Girardeau County and Missouri for 2007, and 2011 for Tobacco -related indicators. To date, no updated information is available.

Table 8.4: Adult Tobacco Use Prevalence Percent / Change 2007 and 2011, Cape Girardeau County and Missouri

Behavior Risk	Cape Girardeau County		Missouri	
	2007	2011	2007	2011
Current Cigarette Smoking	22.9	21.1	25.4	23.1
Former Cigarette Smoking	26.2	22.8	25.3	24.2
Current Smokeless Tobacco Use	5.5	4.9	4.1	4.4
Current Use of other Tobacco	5	2.5	6	5

Source: Missouri Department of Health and Senior Services, County Level Study, 2018

The County Health Rankings and Roadmaps, developed by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, defined current cigarette smoking as “smoking every day or most days and smoking at least 100 cigarettes in a lifetime,” and identified that, by 2018, the prevalence rate for Cape Girardeau County was 21%, Missouri was 22%, and the U.S. was 14%.

High Blood Pressure

The percent of survey respondents determined to have high blood pressure was derived from a response of “any length of time “to the question, “About how long has it been since you last had your blood pressure checked? AND “yes” responses to the following questions: (1.) Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure? (2.) Do you still have high blood pressure? Table 8.5 compares the percentage determined to have high blood pressure in 2007 and 2012. Cape Girardeau County had a higher percentage than the State and experienced a 13.1 percent increase from 2007 to 2012.

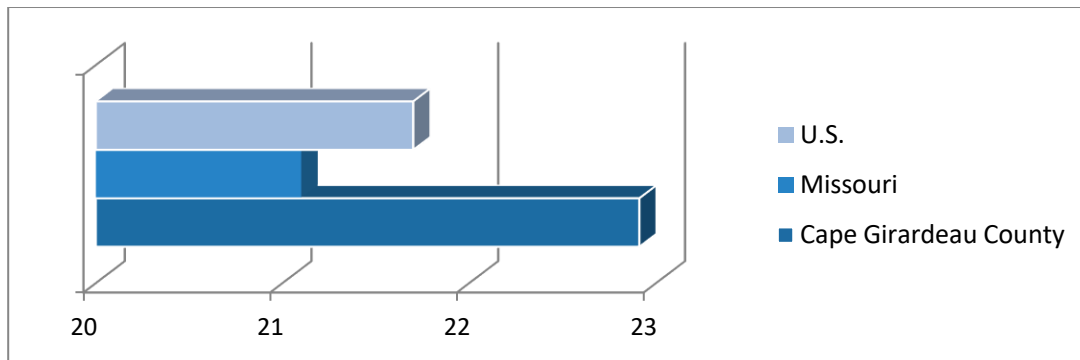
Table 8.5: Percent Adults with High Blood Pressure, Cape Girardeau County and Missouri, (2007, 2012)

	2007 Percent	2012 Percent	% Change
Cape Girardeau	19.7	32.8	13.1
Missouri	20.4	29.5	9.1

Source: Missouri Department of Health & Senior Services Office of Epidemiology 2006-2012 County Level Study, 2018

Additionally, data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012, was analyzed for responses to the questions, "Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure?" and "Are you currently taking medicine for your high blood pressure?" The percentages shown in Figure 8.3 presents the percentage of those persons who answered that "yes" they have high blood pressure and who also answered "no" that they are not currently taking medication to control it. As indicated here, 22.9% of adults in Cape Girardeau County self-reported that they were not taking medication for their high blood pressure, which was a higher percentage than for Missouri and the U.S.

Figure 8.3: Percent Adults with High Blood Pressure Not Taking Medication, Cape Girardeau County, Missouri, and U.S., 2006-2012



Source: Community Commons Community Health Needs Assessment, BRFSS, 2018

The relevance of this data regarding high blood pressure is that engaging in preventive behaviors decreases the likelihood of developing future health problems. Although the survey did not ask respondents to indicate why they were not taking their prescribed medication, their responses could indicate a lack of access to preventive care, a lack of health knowledge, insufficient number of providers, and/or social barriers preventing utilization of services.

High Cholesterol

The percent of survey respondents determined to have high cholesterol was derived from "yes" responses from respondents age 35 and older to the following questions: "Blood cholesterol is a fatty substance found in the blood. (1.) Have you ever had your blood cholesterol checked? (2.) Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high? (3.) Do you still have high blood cholesterol?" Table 8.6 compares the percentage determined to have high cholesterol in 2007 and 2011. Cape Girardeau County had a higher percentage of the respondents that indicated they had been told they had high cholesterol, than did the State.

Table 8.6: Percent High Cholesterol, 35 and Older, Who Have Had Cholesterol Checked, 2007, 2011

	2007 Percent	2011 Percent	% Change
Cape Girardeau	19.3	47.0	27.7
Missouri	21.5	44.8	23.3

Source: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County level Study, 2018

Overweight or Obese

The percent of survey respondents identified as overweight or obese was determined from the survey by calculating BMI using responses to the following questions: “About how much do you weigh without shoes?” and “About how tall are you without shoes?” Table 8.7 compares the percentage determined to be overweight or obese in 2007 and 2011. As indicated through this data, Cape Girardeau County had an increase in the percent of respondents that were considered “Overweight” as well as an increase in the percent of respondents considered “Obese” from 2007 to 2011. In both categories and in both years, the County percent was higher than the State percent.

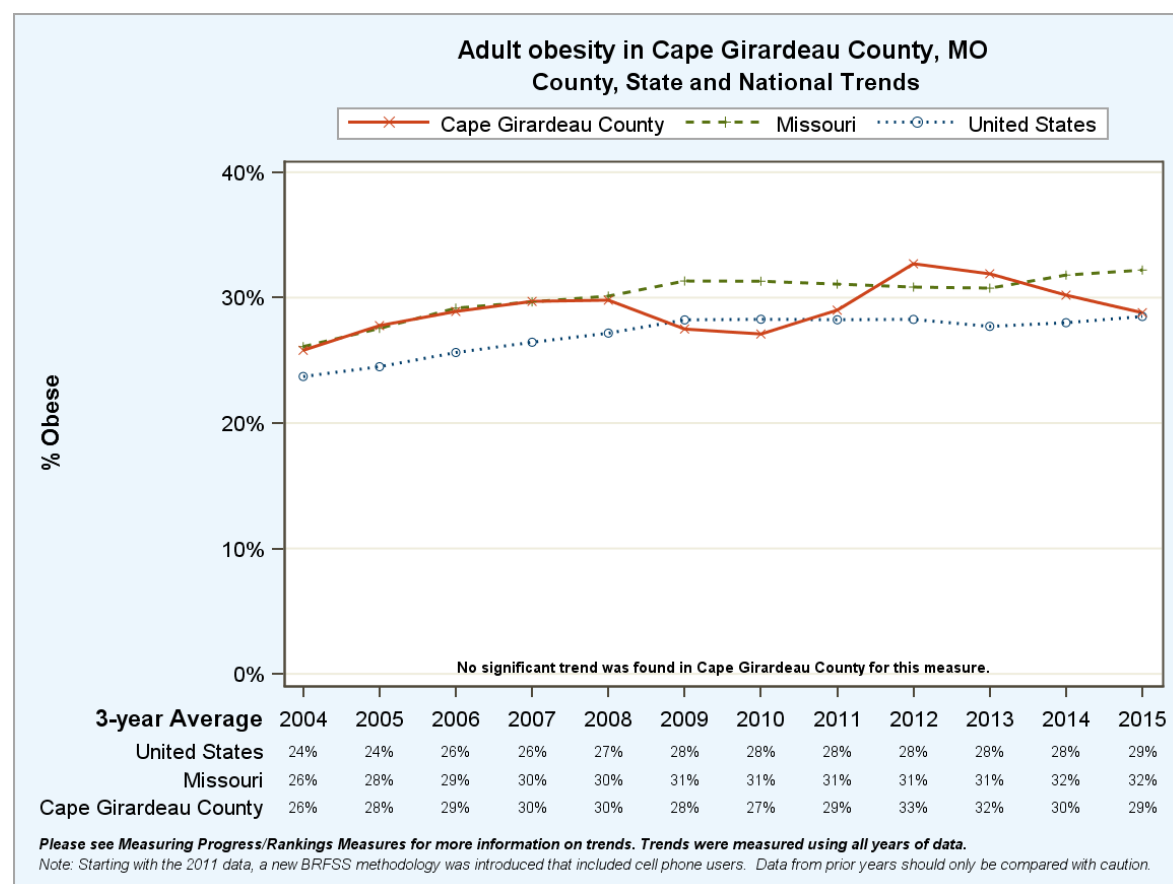
Table 8.7: Percent of Individuals Overweight (25.0-29.9 BMI) or Obese (≥ 30 BMI), 2007, 2011

	Overweight		Obese	
	2007	2011	2007	2011
Cape Girardeau	35.2%	39.0%	24.3%	25.9%
Missouri	35.4%	34.5%	29.1%	30.1%

Source: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County level study Comparison 2018

Additionally, the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m² was obtained from the County Health Rankings and Roadmaps. Those percentages are shown in Figure 8.4.

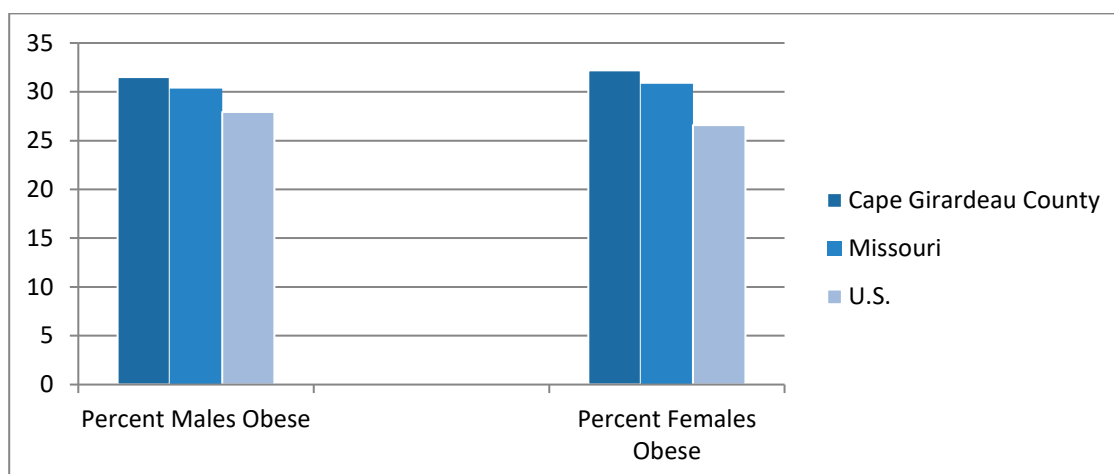
Figure 8.4: Percent of Adults with BMI > 30.0 (Obese), Cape Girardeau, Missouri, and U.S., 2004-2015



Source: Community Commons Community Health Needs Assessment, BRFSS (2006-2010), 2018

The Community Commons Community Health Needs Assessment further provides the percent of adults in Cape Girardeau County, Missouri, and the U.S. that are obese (BMI >30) by gender. Figure 8.5 shows that breakdown by gender. Cape Girardeau County had a higher percent than both the State and the U.S. for both males and females. A slightly higher percent of the respondents were female.

Figure 8.5: Percent Adults Obese (BMI >30) by Gender, Cape Girardeau County, Missouri and U.S., 2002-2018



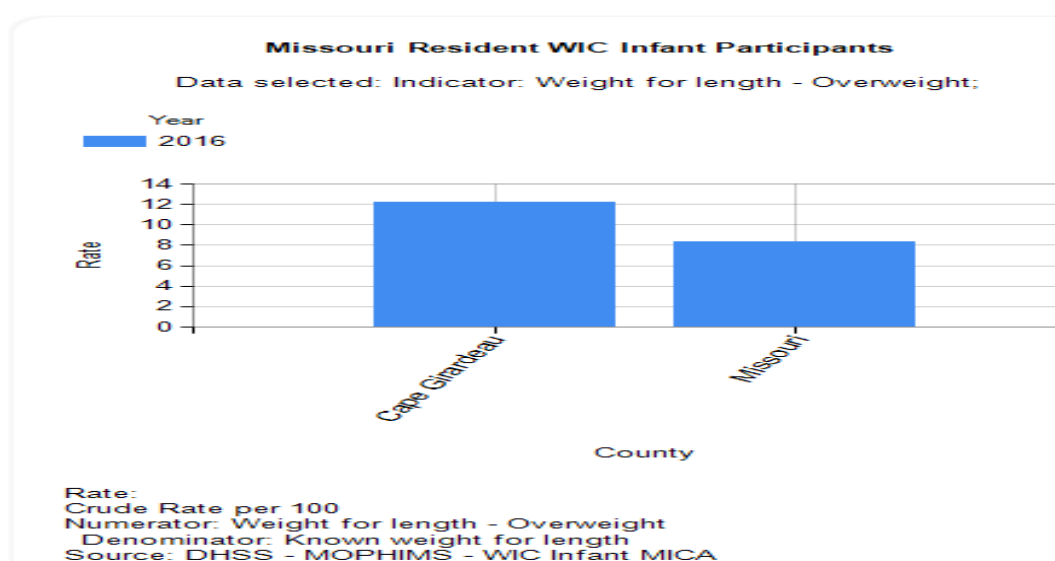
Source: Community Commons Community Health Needs Assessment, BRFSS (2006-2010), 2018

WIC Participants

Data from the Missouri Department of Health and Senior Services WIC program, for the year 2015, indicates that Cape Girardeau County participating prenatal women had a Pre-pregnancy weight for height (BMI greater than 29.0) rate of 34.20 compared to a Missouri rate of 35.12. The rates were highest among the 35-39-year age group for all races. Overall County rates were highest among the African American population.

Figure 8.6 shows the comparison between Cape Girardeau County and Missouri infants participating in the WIC program that were “Overweight by Weight for Length” in 2016. Cape Girardeau County had a higher rate than the State.

Figure 8.6: WIC Infants Overweight – Weight for Length, Rate per 100, Cape Girardeau County and Missouri, 2016



Source: Missouri Department of Health and Senior Services, MICA, WIC Infant, 2018

Table 8.9 compares the rates of “Weight for Height (BMI) – overweight” for children participating in WIC in Cape Girardeau County and Missouri.

Table 8.9: WIC Children Weight for Height (BMI) – Overweight, Cape Girardeau County and Missouri, 2016, Rate per 100

Age Group	Cape Girardeau County	Missouri
12-23 months	19.86	18.97
24-35 months	24.07	16.79
36-47 months	16.33	16.61
48-59 months	20.54	16.99

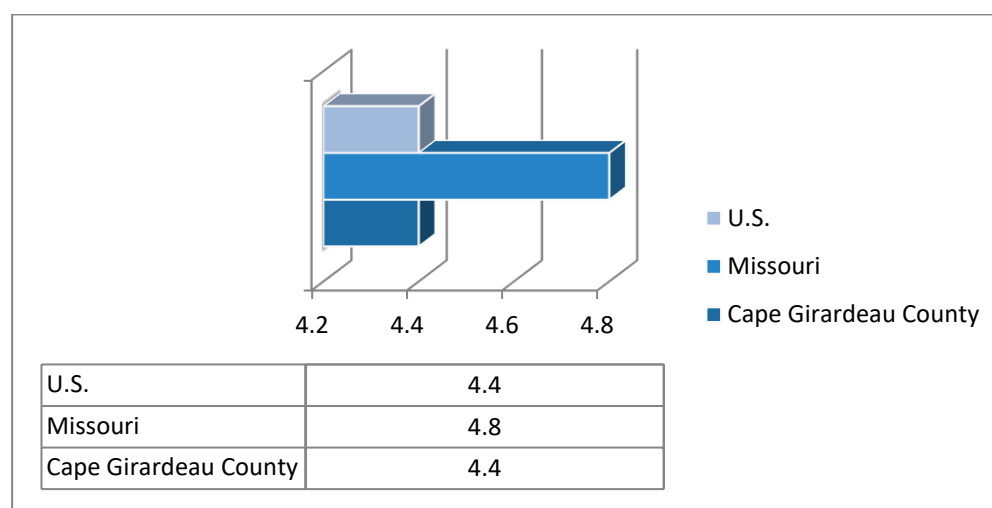
Source: Missouri Department of Health and Senior Services, MICA, WIC Child, 2018

Chronic Disease Risk Factors Summary

Heart Disease

The 2011-2012 Behavioral Risk Factor Surveillance System (BRFSS) conducted by the Centers for Disease Control and Prevention included the question, “Has a doctor, nurse, or other health professional ever told you that you had any of the following: heart attack, angina or coronary heart disease, stroke?” to determine the percentage of those persons who answered “yes” they had been diagnosed with angina or coronary heart disease. Figure 8.7 compares the percent of adults with Heart Disease in Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County had a lower percentage than the State.

Figure 8.7: Percent Adults with Heart Disease, Cape Girardeau County and Missouri, 2016

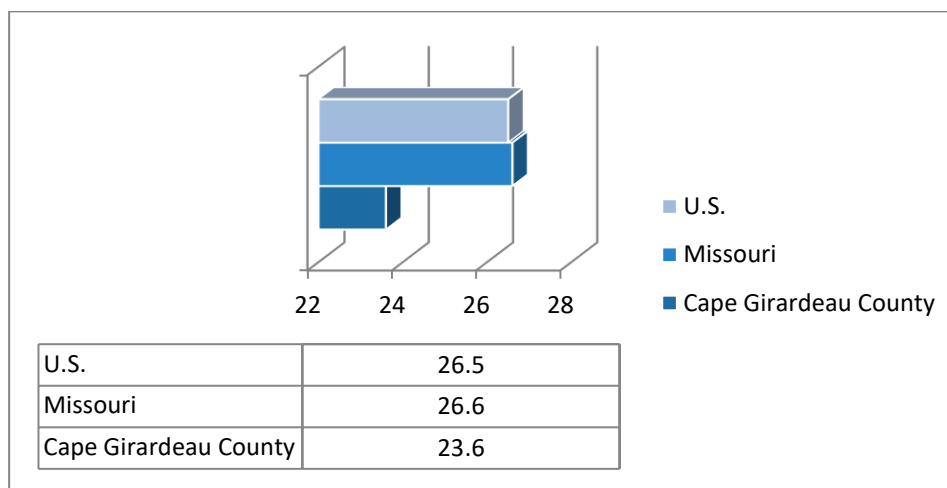


Source: Community Commons, Community Health Needs Assessment, Heart Disease 2018

In Figure 8.8 the percentage of Medicare fee-for-service population with ischemic heart disease is compared between Cape Girardeau County, Missouri, and the U.S. This data, compiled by the Community Commons Community Health Needs Assessment Report, originates from the Centers for

Medicare and Medicaid Services (CMS), Chronic Disease Conditions. Cape Girardeau County had a higher percentage of the Medicare population with Ischemic Heart disease than the State or the U.S.

Figure 8.8: Percentage of Medicare Fee-For-Service Population with Ischemic Heart Disease, Cape Girardeau County and Missouri, 2016

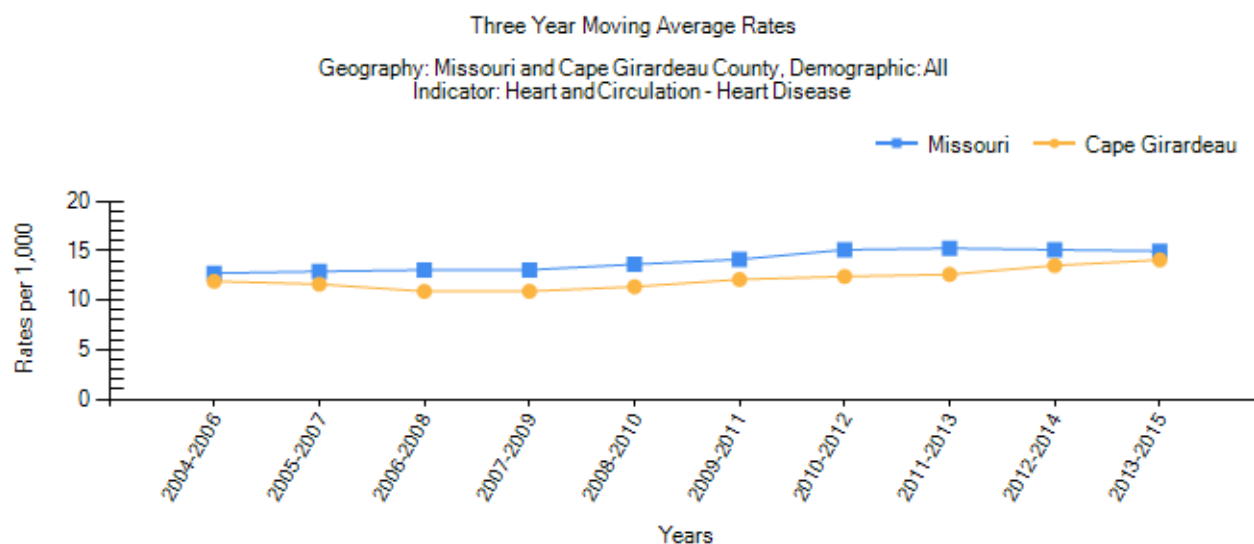


Source: Community Commons Community Health Needs Assessment, Heart Disease Medicare Population, 2018

Heart Disease, Ischemic Heart Disease, Stroke Hospitalizations and ER Visits

Figure 8.9 shows the three-year moving average rates for ER Visits related to Heart Disease for Cape Girardeau County and Missouri. Both the County and the State have seen an increasing trend for the rate of Emergency Room visits with a diagnosis of Heart Disease.

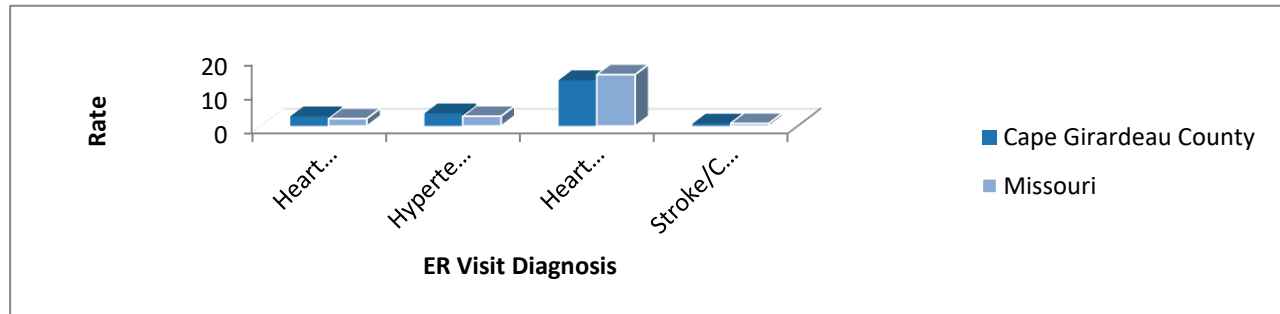
Figure 8.9: Time Trend of Emergency Room Visits Profile, Heart Disease, Cape Girardeau County and Missouri, 2004-2015



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Emergency Room Visits, 2018

Figure 8.10 compares the rates of all ER Visits that had a primary diagnosis of a disease of the circulatory system which includes hypertension, stroke, and any disease of the heart, veins or arteries. Heart and Circulation, and Heart Disease was the highest reasons for ER Visits in Cape Girardeau County as well as in Missouri. The second leading reason for ER visits was for Hypertension.

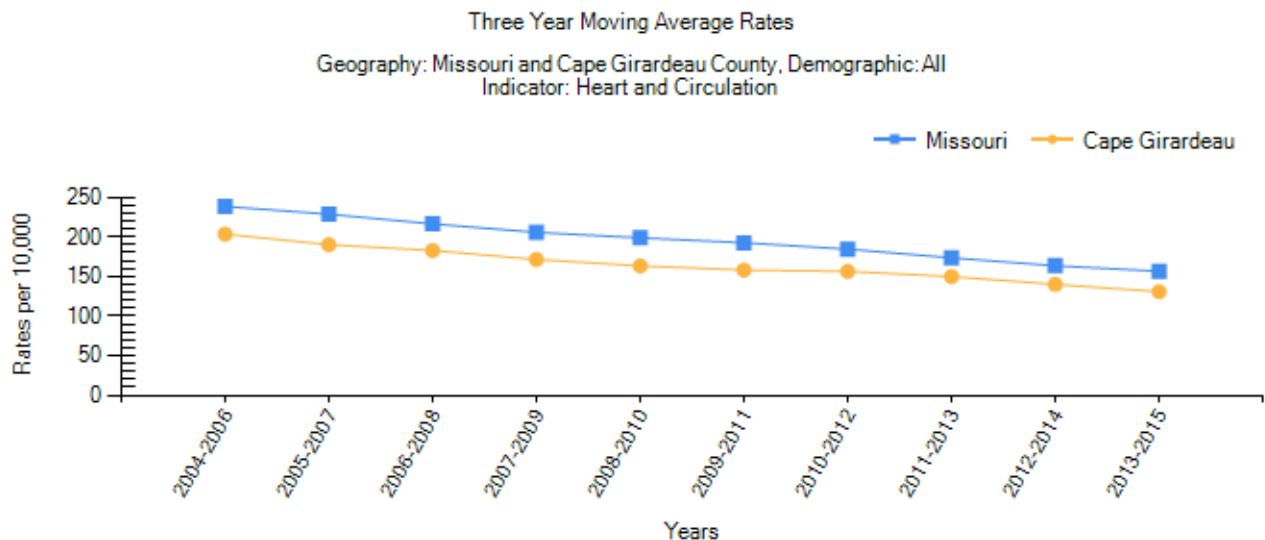
Figure 8.10: Emergency Room Visits for Heart Disease and Circulation, Cape Girardeau county and Missouri, Rate per 1,000, 2017,



Source: Missouri Department of Health and Senior Services, MICA, Emergency Room Visits, 2018

Figure 8.11 compares three-year moving average rates from 2004-2015 for inpatient hospitalization for the indicator “Heart and Circulation,” between Cape Girardeau County and the State. Both the County and the State are experiencing a declining trend.

Figure 8.11: Time Trend of Inpatient Hospitalization, Rates: Heart and Circulation, Rate per 10,000, Cape Girardeau County and Missouri, 2004-2015



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Hospitalizations, Heart Disease, 2018

Chronic Respiratory Diseases

Asthma

The percent of survey respondents for the County Level Study, 2007 and 2011, determined to have asthma was derived from “yes” responses to the following questions: “Have you ever been told by a doctor, nurse, or other health professional that you had asthma? Do you still have asthma?” Table 8.10 compares the percentage determined to have asthma in 2007 and 2011. The rate for Cape Girardeau County decreased from 2007 to 2011 while the rate for Missouri increased.

Table 8.10: Percent Adults with Asthma, By Location, 2007 and 2011

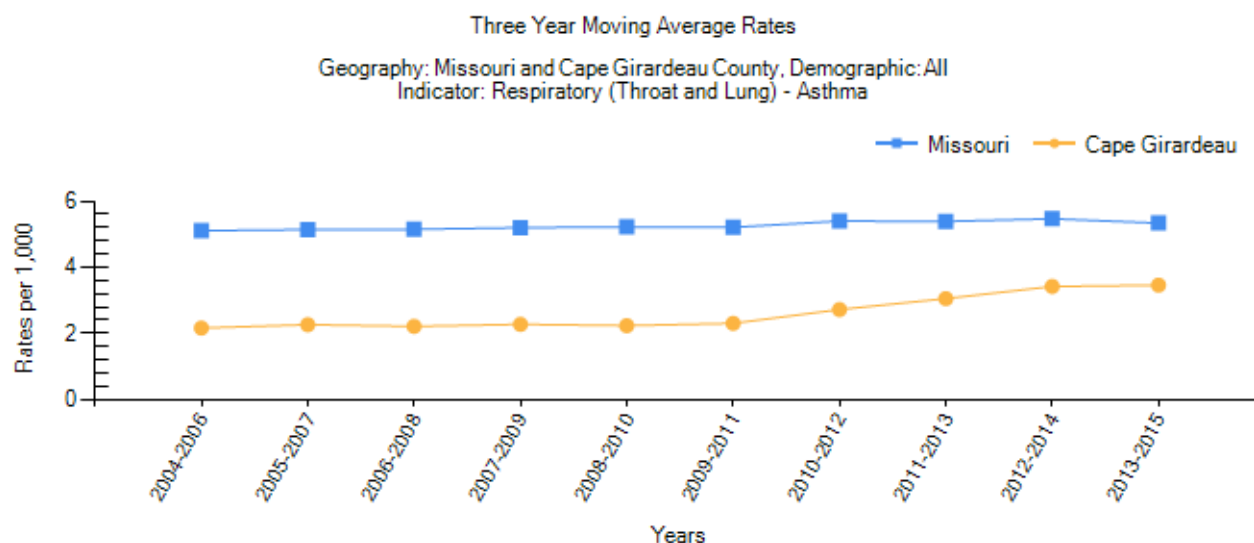
	2007 Percent	2011 Percent	% Change
Cape Girardeau	9.9	8.7	-1.2
Missouri	9.5	10.2	0.7

Source: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County level Study, 2018

Additional Asthma prevalence data obtained through the 2011-2012 Behavioral Risk Factor Surveillance System (BRFSS) and provided by the Community Commons Community Health Needs Assessment indicated that the percentage of adults, aged 18 and older that self-reported that they have ever been told by a health professional that they had asthma was 10.4% - a slight increase from the 2011 County Level Study. During this same time frame Missouri had 14.2% and the U.S. had 13.4% of Adults reporting that they had asthma.

Figure 8.12 shows the three-year moving average rates for ER Visits related to Asthma for Cape Girardeau County and Missouri. Cape Girardeau County rates (3.62 per 1,000) have shown a statistically significant decrease and were lower than the State (5.34) rates for ER Visits.

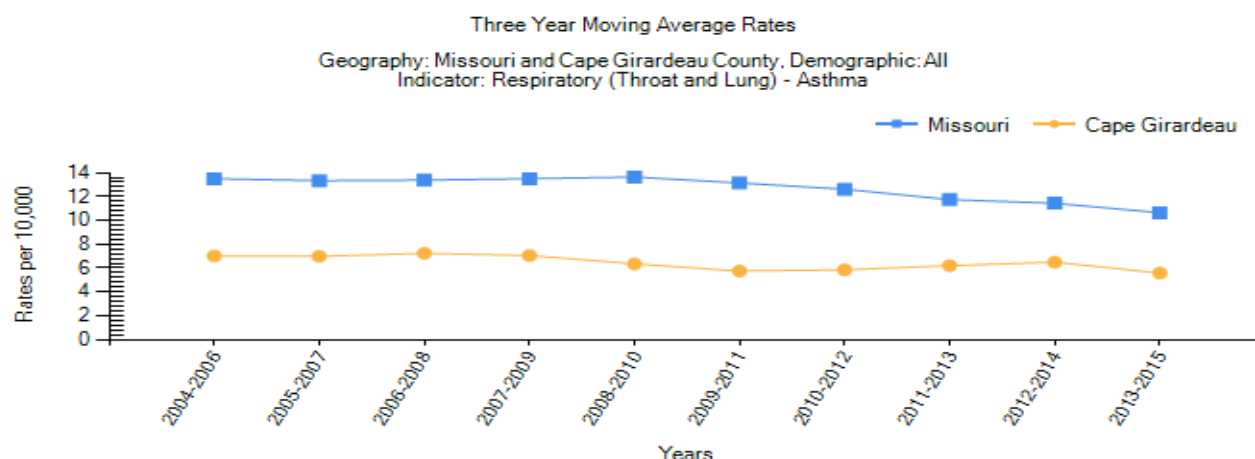
Figure 8.12: Time Trend of Emergency Room Visit Rates, per 1,000, Asthma, By Location, 2004-2015



Source: Missouri Department of Health and Senior Services, Community Data Profiles, ER Visits, Asthma, 2018

From 2004-2015, Cape Girardeau County rate trend showed a statistically significant decrease while the State had an even trend. Cape Girardeau County rates were lower than Missouri rates. Figure 8.13 compares hospitalization rates for Asthma between Cape Girardeau County and Missouri. From 2004-2015, Cape Girardeau County rate has been lower than the State.

Figure 8.13 Time Trend of Inpatient Hospitalization Rates, per 10,000: Asthma, By Location, 2004-2015

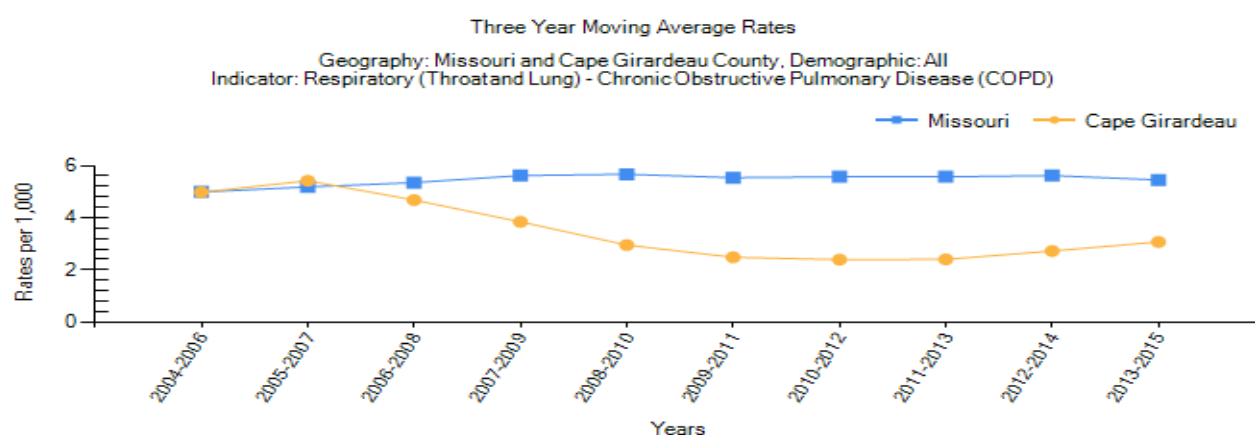


Source: Missouri Department of Health and Senior Services, Community Data Profiles, Hospitalizations, Asthma 2018

Chronic Obstructive Pulmonary Disease (COPD)

The percent of survey respondents for the County Level Study, 2011, determined to have COPD was derived from “yes” responses to the following questions: “Have you ever been told by a doctor, nurse, or other health professional that you had COPD, emphysema or chronic bronchitis?” Do you still have these conditions?” The percentage determined to have a Chronic Respiratory Disease in 2011 in Cape Girardeau County was 7.2 compared to 8.0 for Missouri.

Figure 8.14: Time Trend of Emergency Room Visits Rates per 1,000: Chronic Obstructive Pulmonary Disease (COPD), Cape Girardeau County and Missouri, 2004-2015

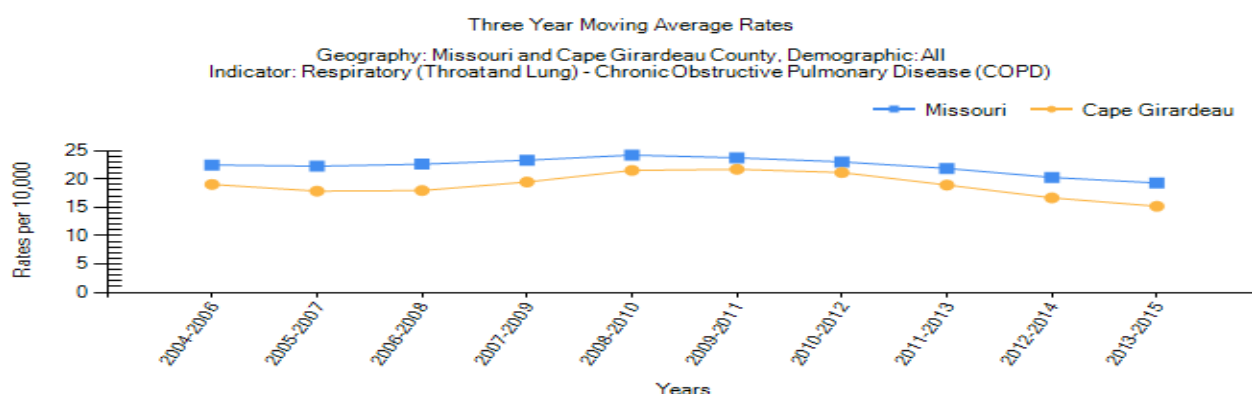


Source: Missouri Department of Health and Senior Services, MICA, Chronic Disease 2018

Figure 8.14 compares Emergency Room Visits for COPD between Cape Girardeau County and Missouri over the past eighteen years. Cape Girardeau County has experienced a decreasing trend while Missouri has had an unchanging trend.

Figure 8.15 compares the trend lines for Hospitalizations related to COPD from 2004-2015 for Cape Girardeau County and Missouri. Neither Cape Girardeau County nor the State showed a statistically significant trend and the County rates are below the State rates.

Figure 8.15: Time Trend of Hospitalization: Chronic Disease Rates, per 10,000 for Chronic Obstructive Pulmonary Disease, Cape Girardeau County and Missouri, 2005-2015



Source: Missouri Department of Health and Senior Services, MICA, Chronic Disease, COPD, 2018

Diabetes

According to the Centers for Disease Control and Prevention, Diabetes affects an estimated 30.3 million people in the United States and is the 7th leading cause of death. Diabetes lowers life expectancy by up to 15 years and increases the risk of heart disease by 2 to 4 times. Diabetes is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness. In addition to these human costs, the estimated total financial cost of Diabetes in the United States in 2007 was \$174 billion, which includes the costs of medical care, disability, and premature death. In 2012, \$3.24 billion was toward direct cost with \$1.24 billion toward indirect cost.

The percent of County Level Study survey respondents determined to have Diabetes was derived from “yes” responses to the following question: “Have you ever been told by a doctor that you have diabetes?” Table 8.11 compares the percentage determined to have diabetes in 2011, 2012, and 2015. Cape Girardeau County experienced an increase in the percent of individuals that answered “yes.”

Table 8.11: Percent of Adult Diabetes Prevalence, 2011, 2012, and 2015

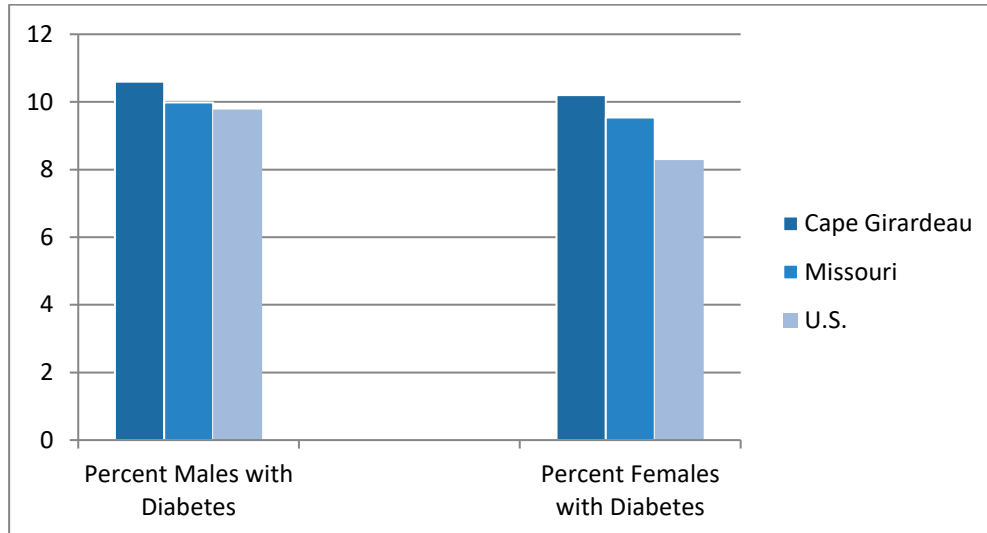
	2011	2012	2015
Cape Girardeau	9.9%	10.5%	11.8%
Missouri	10.7%	9.26%	10.2%

Source: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County level Study, 2018

Figure 8.16 shows the percent of adults diagnosed with Diabetes, by gender, for Cape Girardeau

County, Missouri, and the U.S. This data as well as the data in Figure 8.17, percent of adults with diagnosed diabetes by year, were compiled by the Centers for Disease Control in the Community Commons Community Health Needs Assessment. By gender the County, the State, and the nation had a larger percentage of males in the “Diagnosed with Diabetes,” group.

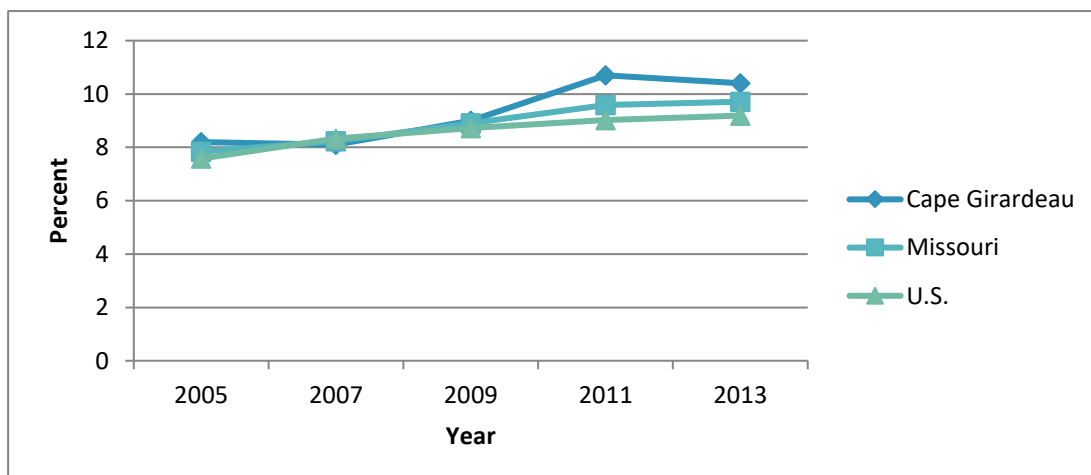
Figure 8.17: Percent Adults with Diagnosed Diabetes, by Gender, 2013



Source: Community Commons, Community Health Needs Assessment, Health Outcome, Diabetes 2018

The data in Figure 8.17, percent of adults with Diagnosed Diabetes by year and location, was compiled by the Centers for Disease Control and Prevention in the Community Commons Community Health Needs Assessment. The County, State, and Nation have experienced an increasing trend line since 2007 in the percent of adults that have been diagnosed with Diabetes.

Figure 8.17: Percent Adults with Diagnosed Diabetes by Year and Location, 2005-2013

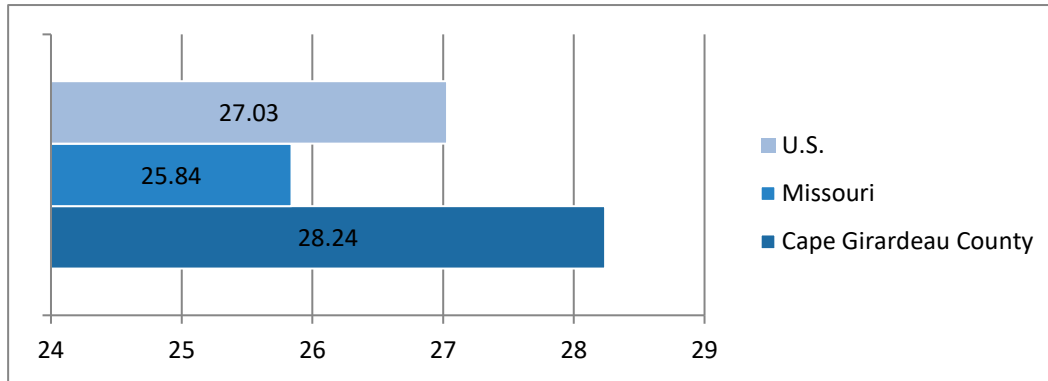


Source: Community Commons, Community Health Needs Assessment, Health Outcomes, Diabetes, 2018

Figure 8.18 provides the percentages acquired for 2013 from Centers for Medicare and Medicaid

Services (CMS) Chronic Conditions Warehouse of the beneficiaries with a particular condition divided by the total number of beneficiaries in the fee-for-service population. Cape Girardeau County exceeds the State and National percentages in this population as well as for individuals diagnosed with Diabetes.

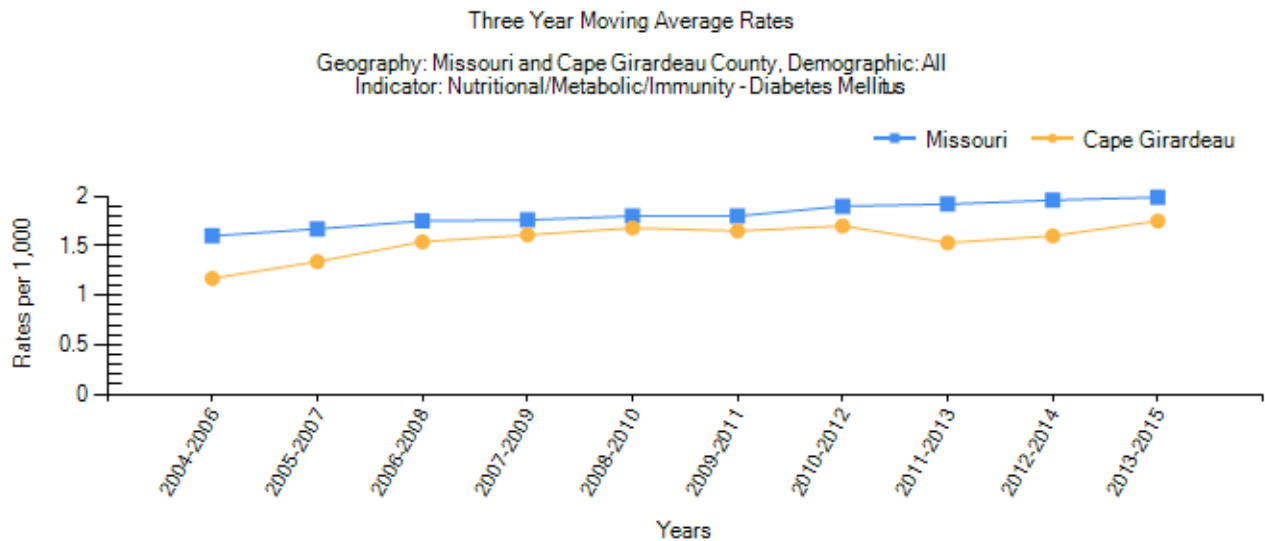
Figure 8.18: Percentage of the Medicare fee-for-service Population with Diabetes, By Location, 2013



Source: Community Commons, Community Health Needs Assessment, Health Outcomes Diabetes, 2018

Figure 8.19 shows a statistically significant increase in the trend of ER Visits for Diabetes in both Cape Girardeau County and Missouri from 1994-2015 with the State rates slightly exceeding the County.

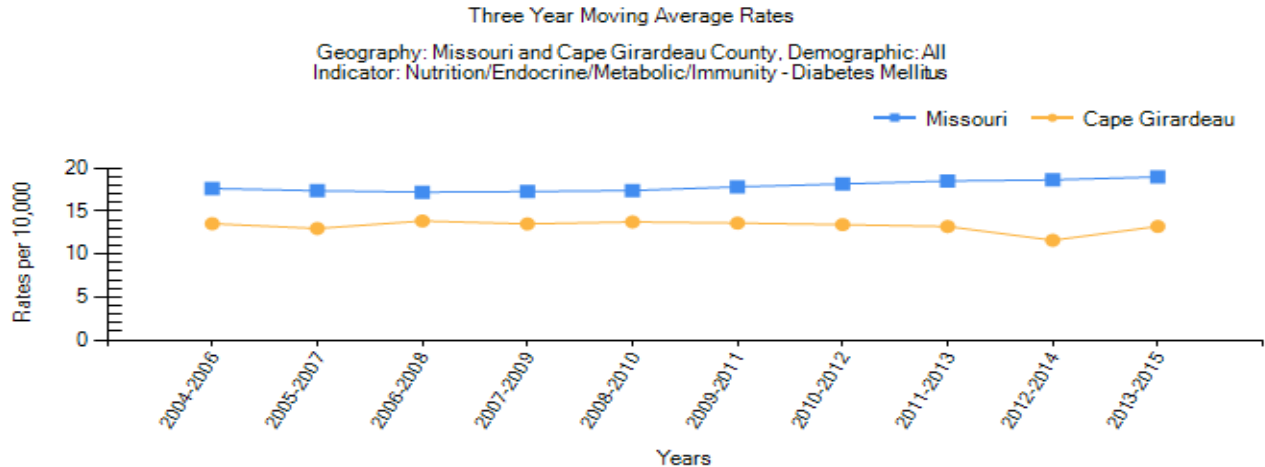
Figure 8.19: Time Trend of Chronic Disease ER Visits Rate Comparison for Diabetes, Cape Girardeau County and Missouri, 2004-2015



Source: Missouri Department of Health and Senior Services, MICA, Chronic Disease, 2018

Figure 8.20 shows a statistically significant increase in the trend of Hospitalizations for Diabetes in both Cape Girardeau County and Missouri from 2004-2015 with the State rates slightly exceeding the County.

Figure 8.20: Time Trend of Chronic Disease Comparisons of Hospitalization Rates for Diabetes, Cape

Girardeau County and Missouri, 2004-2015

Source: Missouri Department of Health and Senior Services, MICA, Chronic Disease, Diabetes 2018

Cancer Incidence

Cancer Incidence is defined by the Missouri Department of Health and Senior Services as the number of new cases of cancer reported in a specified period of time (e.g., year) divided by the number of persons in the population (e.g., county, region, state, etc.) during this period. For the time period 2010-2012 the Cancer Incidence rate (all sites) for Cape Girardeau County was 418.29 (Males 442.51, Females 405.71) and for Missouri the rate was 469.13 (Males 493.93, Females 456.42). The County had an overall lower Cancer Incidence than the State. As shown in Table 8.12, a higher percentage of respondents (residents) did not obtain recommended or routine cancer related screenings.

Table 8.12: Cancer Preventive Practices / Health Screenings, Cape Girardeau County and Missouri, 2007 to 2011, Percent

Practice or Screening	Cape Girardeau County	Missouri
Never had a mammogram – among women age 40 and older	12.2	9.9
No Mammogram or clinical breast exam in last year among women 40 and older	34.7	30.5
Never had a pap test-among women 18 and older	7.3	7.5
No pap test in last 3 years-among women age 18 and older	29.7	26.4
Never had a blood test-among men and women age 50 and older	65.0	66.1
No blood stool test in last year-among men and women age 50 and older	91.7	90.4
Never had a sigmoidoscopy or colonoscopy-among men and women age 50 and older	35.7	33.8
No had a sigmoidoscopy or colonoscopy in last 10 years-among men and women age 50 and older	39.2	38.0

Source: Missouri Department of Health and Senior Service, Community Data Profiles, County Level Study, 2018

The Missouri Cancer Registry and Research Center compiles the Missouri County-Level data from the Missouri Department of Health and Senior Services for the top ten cancer incidence sites for all counties in Missouri. Table 8.13 shows the top ten cancer incidence sites in Cape Girardeau County by all sexes and then by females and males for 2011-2015. While lung and bronchus cancer make up the greatest percentage among all sexes, when looking at females and males separately, breast cancer was the most prevalent for females and prostate cancer was the most prevalent for males.

Table 8.13: Top Ten Cancer Incidence Sites, Percent, Cape Girardeau County (2011-2015)

	Cancer Site	Percent
All Sexes	Female Breast	16.04
	Lung and Bronchus	15.32
	Prostate	12.10
	Colon and Rectum	8.89
	Kidney and Renal Pelvis	5.01
	Non-Hodgkin Lymphoma	4.03
	Urinary Bladder	3.58
	Corpus and Uterus, NOS	3.52
	Leukemia	3.22
	Thyroid	3.01
Females	Female Breast	31.37
	Lung and Bronchus	13.09
	Colon and Rectum	7.89
	Corpus and Uterus, NOS	6.89
	Thyroid	4.90
	Non-Hodgkin Lymphoma	4.00
	Kidney and Renal Pelvis	3.50
	Leukemia	3.10
	Ovary	2.90
	Pancreas	2.70
Males	Prostate	24.76
	Lung and Bronchus	17.66
	Colon and Rectum	9.93
	Kidney and Renal Pelvis	6.58
	Urinary Bladder	5.22
	Oral Cavity and Pharynx	4.28
	Non-Hodgkin Lymphoma	4.08
	Melanoma of the Skin	3.66
	Leukemia	3.34
	Pancreas	2.30

Source: Missouri Cancer Registry, Top Ten Cancer Incidence Sites, 2018

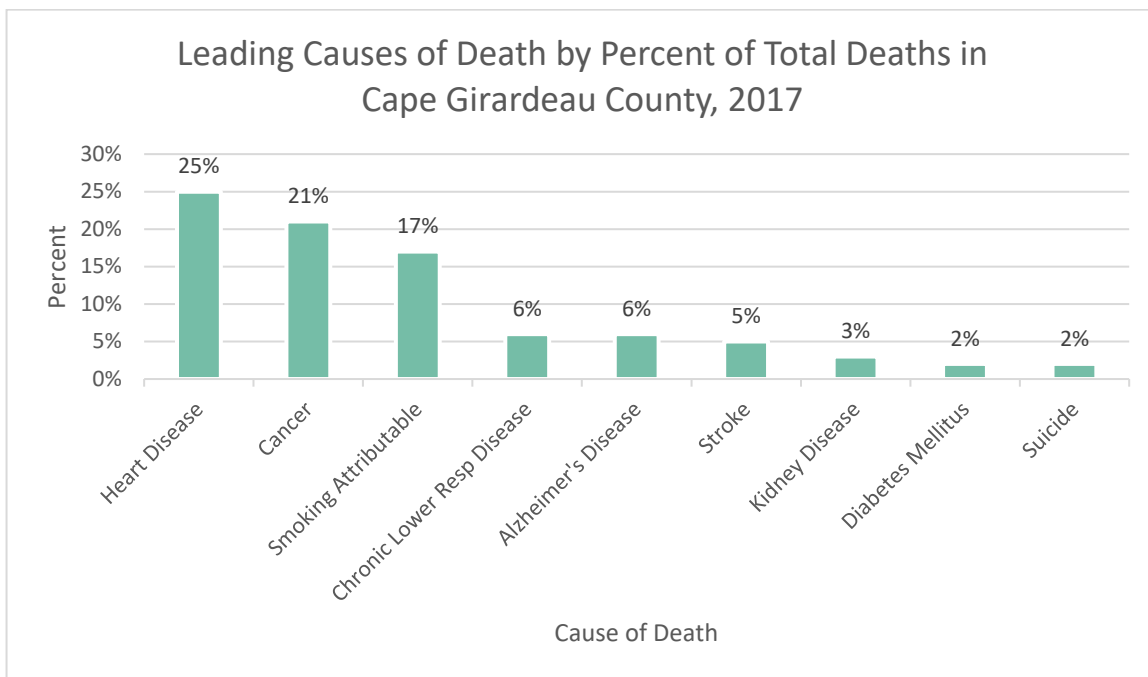
SECTION IX:

Leading Causes of Mortality

Causes of Death in Cape Girardeau County and Missouri

According to the Missouri Department of Health and Senior Services, there were 767 (Rate of 780.94 per 100,000) deaths in Cape Girardeau County and 61,866 (Rate of 819 per 100,000) in Missouri in 2017. Overall life expectancy at birth for a person in Cape Girardeau County was 78.1 years. For a male, life expectancy was 75.9 years and for a female 80.2 years. There is a disparity noted for African-Americans as life expectancy drops to 71.9 years. Life expectancy data was based on birth and death certificate data from 2004-2012 and 2008 final population estimate for Missouri. Figure 9.1 shows the leading causes of death in Cape Girardeau County by percentage for 2017. A comparison of the leading causes of death between Cape Girardeau County and Missouri is shown in Table 9.1 and Table 9.2

Figure 9.1: Leading Cause of Deaths in Cape Girardeau County, by Percentages, 2017



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018

Table 9.1: Leading Causes of Death in Cape Girardeau County by Number, Rate 100,000, 2016

	Number	Rate
Heart disease	14,569	191.11
Cancer	12,691	166.90
Chronic lower respiratory diseases	3,960	52.05
Stroke	3,063	40.34
Alzheimer's disease	2,302	29.96
Diabetes	1,508	20.08
Kidney disease	1,481	19.55
Pneumonia and influenza	1,149	15.14
Suicide	1,132	18.33

Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.*

Table 9.2: Leading Causes of Death in Missouri by Number, Rate per 100,000, 2016

Missouri	Number	Rate
Heart disease	203	197.74
Cancer	186	185.89
Chronic lower respiratory	56	54.05
Alzheimer's disease	58	52.09
Stroke	38	36.25
Kidney disease	23	21.85
Pneumonia and influenza	23	21.67
Suicide	17	20.89
Diabetes	14	14.81

Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018*

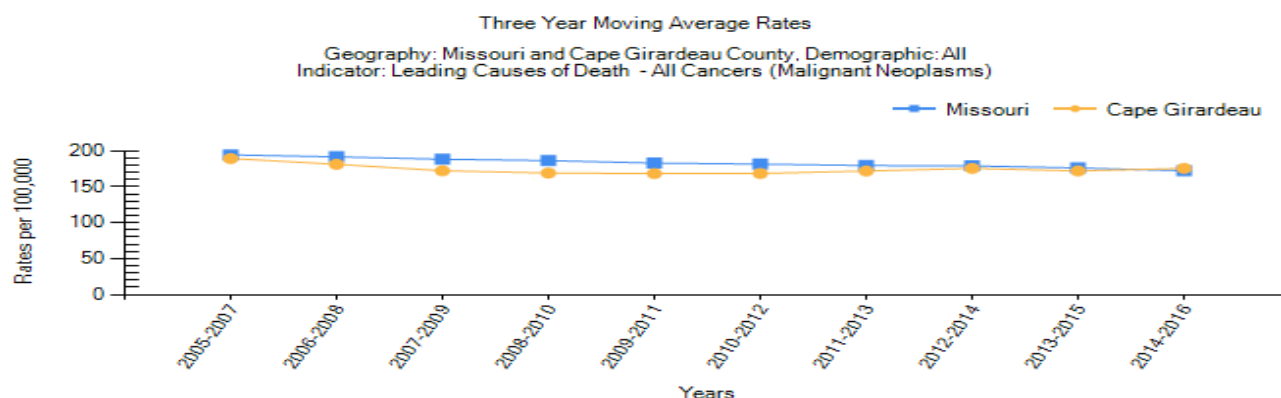
Years of Potential Life Lost

According to the Missouri Department of Health and Senior Services, the years of potential life lost (YPLL) calculation estimates the number of life years lost to premature deaths. Similar to life expectancy, YPLL is a good measure of the overall health of an area. For 2017, the rate of YPLL per 100,000 population calculated for Cape Girardeau County was 8,399 years and for Missouri it was 8,145 years.

Deaths Related to Cancer

Cape Girardeau County experienced a slightly lower rate of death from cancer than the State. For the period of 2015-2016, deaths from cancer occurred at a rate of 185.89 per 100,000 in Cape Girardeau County compared to a State rate of 166.909 per 100,000. In 2017, Cape Girardeau County Rate decreased to 155.53 and Missouri increased to 167.23. Figure 9.2 shows the rate of incidence comparing the County to the State.

Figure 9.2: Cancer Deaths for Cape Girardeau and Missouri, 2004-2015, Rate per 100,000



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2018

Cancer Deaths by Type

Although Cape Girardeau County had a slightly lower rate than the State for incidence of cancer deaths, Cape Girardeau County had a much higher rate than the State of breast cancer and colon cancer. The County had a slightly lower rate than the State for lung cancer. Table 9.3 demonstrates the comparison.

Table 9.3: Top 3 Cancers, Rate per 100,000 and Number by State and County, 2015-2016

	Cape Girardeau County		Missouri	
	Number	Rate	Number	Rate
Lung Cancer	42	41.21	3,706	47.95
Colon Cancer	25	22.33	1,114	14.64
Breast Cancer	12	12.54	879	11.71

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Cancer Deaths by Race

The African-American population in Cape Girardeau County was disproportionately affected by cancer deaths at a rate of 182.81 per 100,000 while whites were affected at a rate of 184.87 for 2015-2016. However, the data available for specific cancers for the African American race do not provide a stable incidence rate and therefore are not reported here. Table 9.4 illustrates the rates by race.

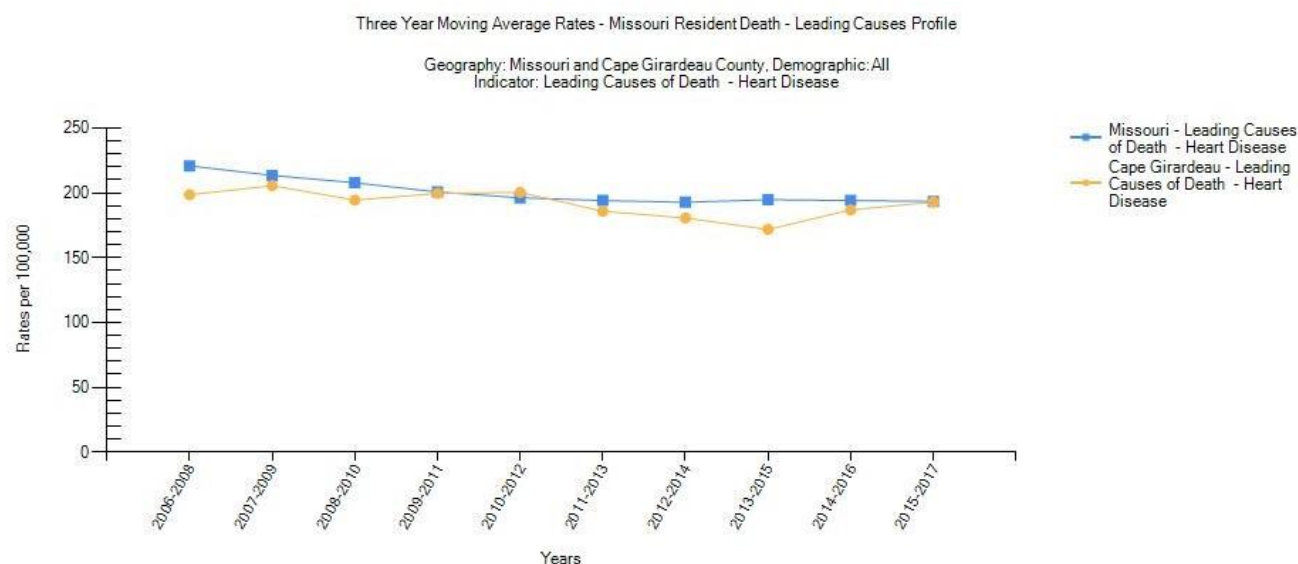
Table 9.4: Cancer Deaths by Number and Rate per 100,000 by Race, Cape Girardeau County, 2015-2016

Cancer Deaths by Race for Cape Girardeau County 2015-2016			
White		Black/African--American	
Number	Rate	Number	Rate
178	184.87	8	182.81

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Deaths Related to Heart Disease

In 2017, Cape Girardeau County experienced a similar rate of deaths due to Heart Disease, at 193.85 per 100,000, as the State at 199.32. The rates per 100,000 deaths from Heart Disease for the County and the State from 2004-2016 are shown in Figure 9.3.

Figure 9.3: Rates per 100,000 of Heart Disease Deaths for Cape Girardeau and Missouri, 2004-2016

Rates are considered unreliable when based on less than 20 events. Please check corresponding event counts before interpreting the rates shown here.

* Fewer than 20 events in numerator; rate is unreliable.

Trends are available only if each 3-year period of the moving average has an average of 20 or more events.

Causes of death at the left margin are listed in order from most to least prevalent statewide, except the seven grouped at the bottom. They are of lower rank or are non-rankable groups which include other causes, but are included due to special interest.

Source: DHSS-MOPHIMS Community Data Profiles - Death - Leading Causes
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Source: Missouri Department of Health and Senior Services (MICA), Deaths, 2018

Heart Disease Deaths by Race

The African-American race suffered a disproportionately higher death rate from heart disease when compared to the rate for whites in Missouri. There were not enough data to establish a stable rate for Cape Girardeau County. The comparison between Cape Girardeau County and is shown in Table 9.5.

Table 9.5: Heart Disease Deaths by Race for Cape Girardeau County and Missouri, 2016, Rate per 100,000

	Cape Girardeau County	Missouri
Whites	195.11	189.34
African-Americans	too few for reliable rate	223.6

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Cape Girardeau County had a lower rate of heart disease, at 646.28, per 100,000 than the State for the 45-64-year-old age group. Table 9.6 illustrates the comparison.

Table 9.6: Heart Disease Deaths by Age for Cape Girardeau and Missouri, 2016, Rate per 100,000

	Cape Girardeau County	Missouri
Less than 15	too few for reliable rate	1.2
Age 15-24	too few for reliable rate	6.32
Age 25-44	too few for reliable rate	95.68
Age 45-64	646.28	670.68
Age 65 +	2,411.22	3,466.66

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018

Chronic Lower Respiratory Disease Deaths

As the 3rd leading cause of deaths for the County and the State in 2016, Chronic Lower Respiratory disease caused 55 deaths in the County and 3,676 in the State. When considering the rate of incidence, the County had a lower rate, 52.59 deaths per 100,000, than the State, 48.15 per 100,000. Table 9.7 shows the County to State comparison.

Table 9.7: Chronic Lower Respiratory Deaths, Cape Girardeau and Missouri, 2016, Rate per 100,000

	Chronic Lower Respiratory Disease	
	Number	Rate
Cape Girardeau County	55	52.59
Missouri	3,676	48.15

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Chronic Lower Respiratory Disease Deaths by Age

For the review years of 2015-2016, “other chronic lower respiratory disease” was listed as the cause of death for 48 people aged 65 years and older and also for 9 of the 10 persons aged 45-64 years.

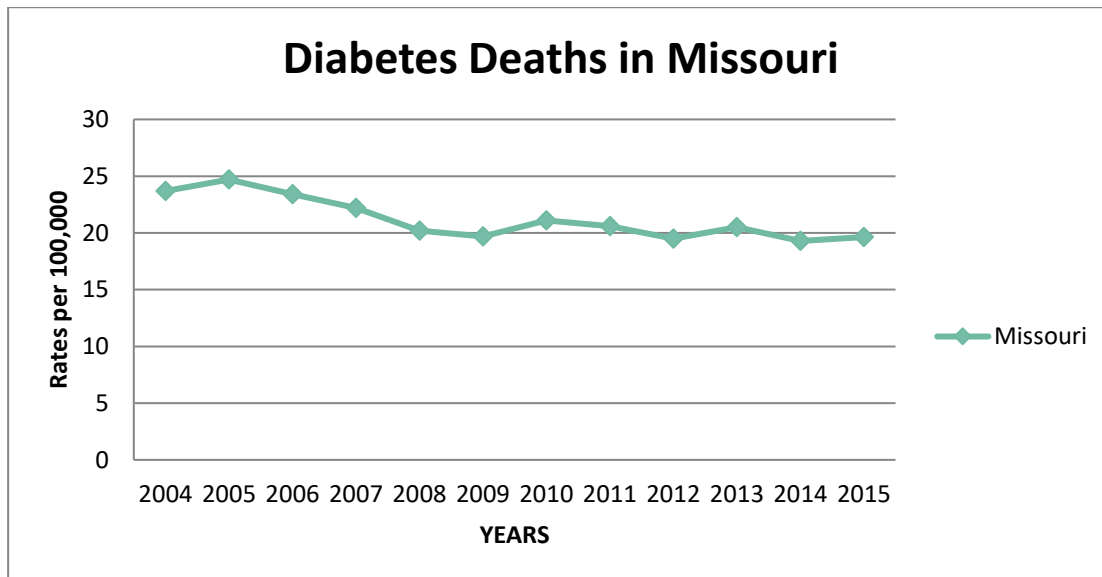
Chronic Lower Respiratory Disease Deaths by Race

For the review years of 2015-2016, 54 deaths occurred in whites and 1 occurred in African-Americans. "Other lower respiratory disease" was listed as the cause of death for 54 whites and 1 African-American.

Diabetes Deaths

The death rates for diabetes ranked 7th in Missouri and 6th in Cape Girardeau County for 2006-2016. The 10-year data for Missouri is expressed in Figure 9.4. There were too few diabetes deaths in the County to provide a stable rate for comparison.

Figure 9.4: Diabetes Deaths in Missouri, 2004-2015, Rate per 100,000



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Diabetes Deaths by Age

Diabetes was listed as the death diagnosis for a total of 140 persons in Cape Girardeau County during the period of 2007-2015. Of the 140 deaths, 7 were younger than 44, 46 were aged 45-64, and 87 were aged 65 and older.

Diabetes Deaths by Race

At 12.8 per 100,000, the rate of Diabetes Deaths for the white race in Cape Girardeau County was lower than the rate for Missouri (18.71). According to the death data reported for Diabetes Deaths in African-Americans living in Missouri, the rate was considerably higher (34.33) than that of whites. The number of African-American deaths was too small to give a stable rate for Cape Girardeau County. Table 9.8 illustrates the comparison.

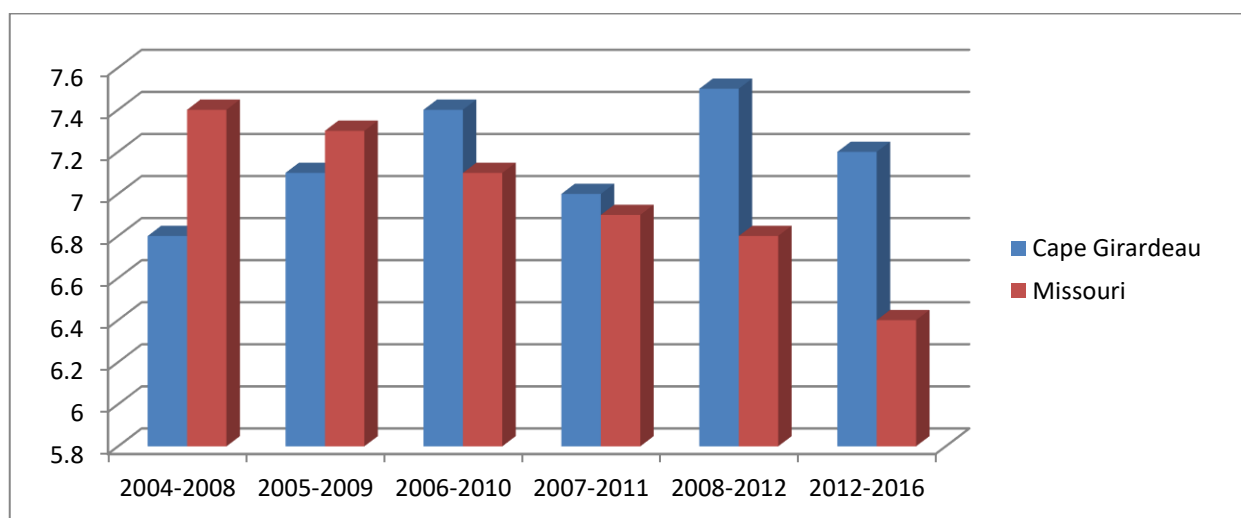
Table 9.8: Diabetes Deaths by Race for Cape Girardeau County and Missouri, 2015, Rate per 100,000

	Cape Girardeau County	Missouri
White	12.8	18.71
African-American	too few for stable rate	34.33

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2018

Infant Mortality-Children less than 1 year of age

Figure 9.5 illustrates the infant deaths per 1,000 live births in Cape Girardeau and Missouri over reporting periods from 2004-2016. The County had a higher Infant Mortality rate than the State during the latest data period of 2012-2016 at 7.2 deaths per 1000 live births. Infant deaths in Missouri had a rate of 6.4 per 1,000 live births per the Missouri Department of Health and Senior Services.

Figure 9.5: Infant Mortality Rate Cape Girardeau County and Missouri, 2004-2016, Rate per 1,000 Live Births

Source: KIDS COUNT Data Books, kidscount.org The Anne E. Casey Foundation, 2018

In the 2016 Missouri Child Fatality Review Program's annual report, it was noted that of the 71 babies less than one year of age who died of unintentional suffocation in the state of Missouri, 43 of the infants were sharing a sleep surface with one or more individuals. Table 9.9 compares infant mortality and SIDS by number of events as well as by race during the period 2012-2016 for Cape Girardeau County and Missouri. "Consistent application of clear guidelines for distinguishing between SIDS and deaths due to accidental threats to breathing is needed in order to adequately assess the risks and causes of post-neonatal deaths, and determine the public health response" and "improving the safety of the infant sleep environment is critical to reducing post-neonatal death, in Missouri."

Table 9.9: Infant Mortality (less than 1 year of age), SIDS-related vs. Total and by Race, in Cape Girardeau County and Missouri by Number, 2012-2016

	Cape Girardeau County			Missouri		
	White	African American	Total	White	African American	Total
SIDS Related Events*	8	3	11	221	49	270
Total Number of Deaths	51	18	69	3,836	1,732	5,568

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Figure 9.6 compares overall Infant Mortality Rates in Southeast Missouri to the State of Missouri. Cape Girardeau County experienced a higher Infant Mortality rate overall (7.05 per 1000) than did the State (6.77) for the data collection period 2006- 2016.

Infant Mortality by Race, 2006-2016

The number of African-American infant deaths reported from 2006-2016 was 18 (13.98 per 1,000 live births). The rate for whites during this time period was 5.84 (51) per 1,000 live births and higher than the State (5.54). The State rate reported for African-Americans from 2006-2016 was significantly higher than whites at 13.16 per 1,000. Live Births

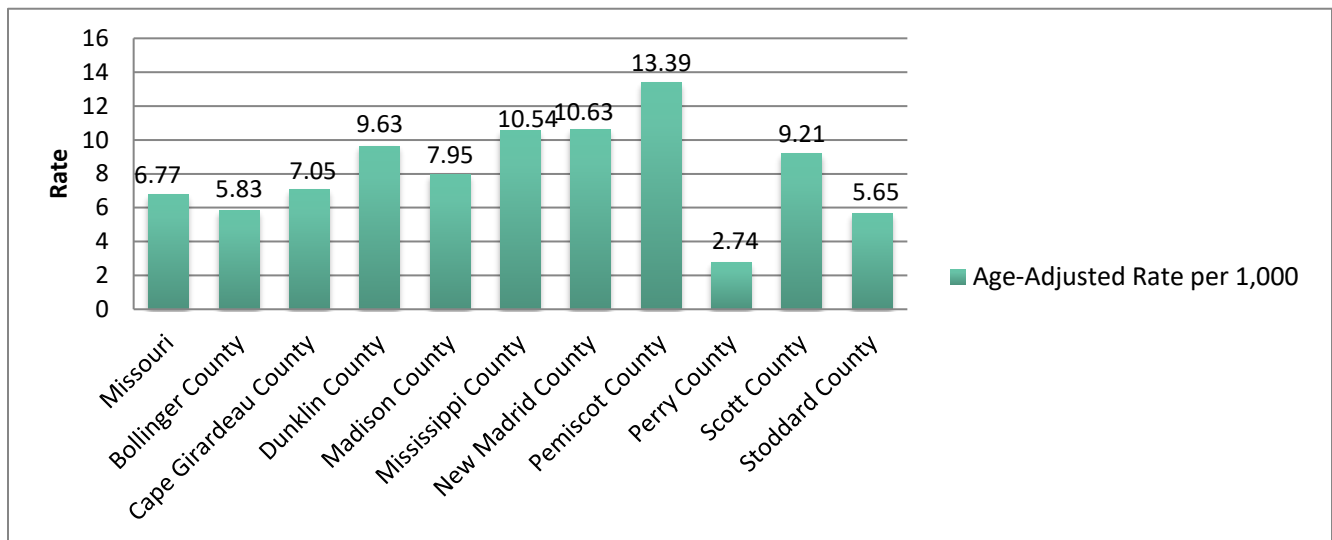
Infant Mortality Rates in Southeast Missouri

In comparing the data for Infant Mortality rates in 10 Southeast Missouri counties, 4 counties (Bollinger, Madison, Mississippi, and Perry) experienced an unstable rate with fewer than 20 deaths reported during the data collection period of 2002-2012. Cape Girardeau County experienced the lowest stable infant mortality rate throughout 2002-2012 at 7.12 deaths per 1000 live births, while Pemiscot County experienced the highest stable rate at 11.57. Table 9.10 demonstrates the comparison between the selected counties while Figure 9.6 exhibits how the selected counties' rates compare to the State.

Table 9.10: Infant Mortality Number and Rates per 1000 Live Births in Southeast Missouri 2006-2016

	Number	Rate
Bollinger County	9	5.83
Cape Girardeau County	72	7.05
Dunklin County	49	9.63
Madison County	13	7.95
Mississippi County	20	10.54
New Madrid County	28	10.63
Pemiscot County	44	13.79
Perry County	7	2.74
Scott County	55	9.21
Stoddard County	22	5.65

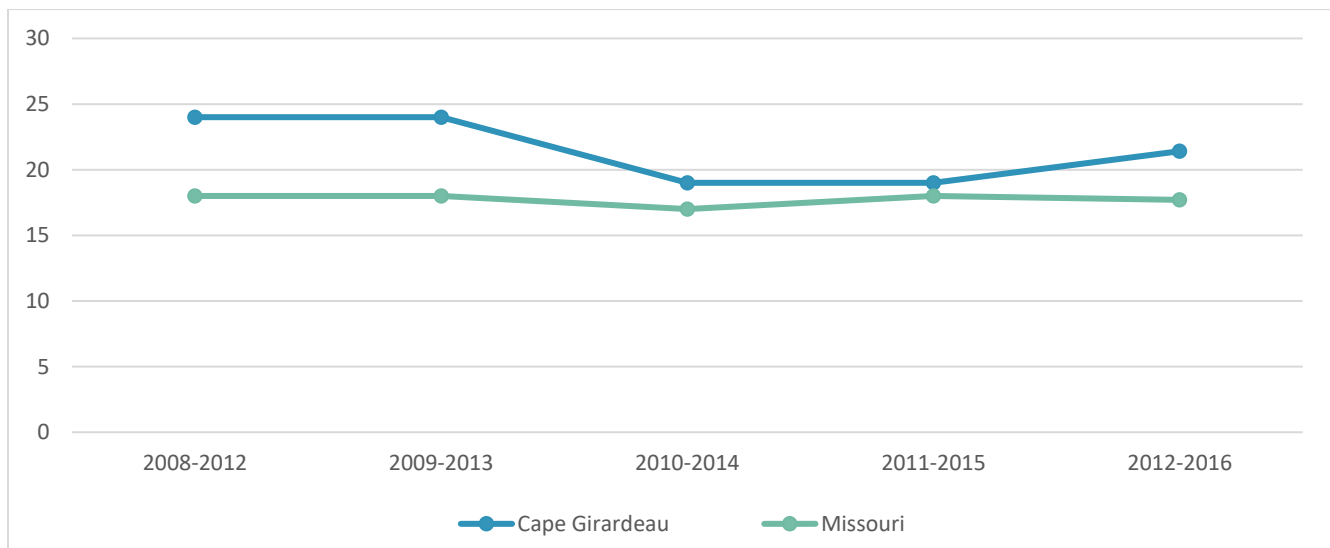
Source: Missouri Department of Health and Senior Services, Community Data Profiles, Infant Health Profile 2018

Figure 9.6 Southeast Missouri Counties and State Comparison, Rate per 1,000 births, 2006=2016

Source: Missouri Department of Health and Senior Services, Community Data Profiles, Infant Health Profile, 2018

Child Deaths for Children Age 1-14

Cape Girardeau County showed a higher rate of child deaths over time than Missouri. Child death rates were however, trending lower for both the State and the County during the data collection period 2008-2016 as shown in Figure 9.7. For children ages 1-14, Unintentional injury and motor vehicle accidents were the number one and two leading causes of death in general for County and the State.

Figure 9.7: Child Deaths, Age 1-14 (per 100,000), Cape Girardeau County and Missouri, 2008-2016

Source: kidscount.org/datacenter, 2018

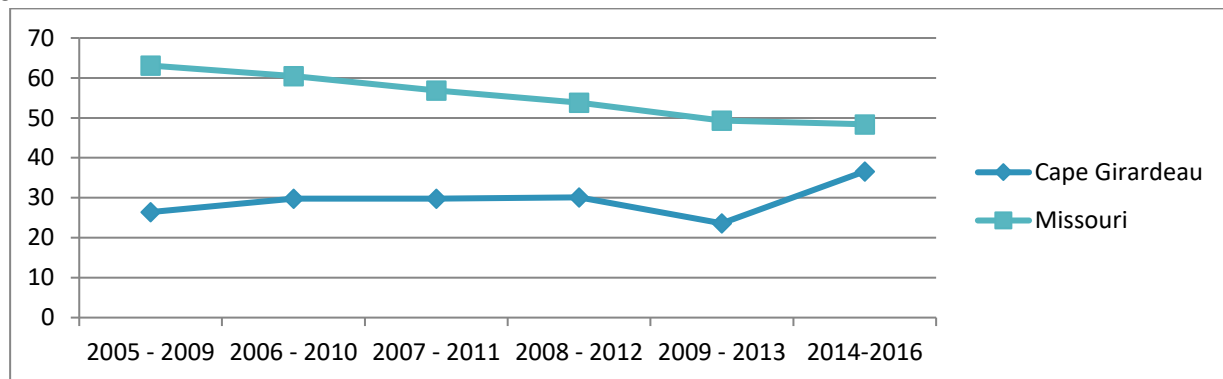
Child Deaths by Race Age 1-14

There were only 7 African-American deaths during the data review period for Cape Girardeau County which does not allow for a stable rate. The rate of death for Africa-American children in this age group was 35.34. There were 27 White deaths in Cape Girardeau County with an associated rate per 100,000 of 22.57. Missouri had a rate of 17.43 per 100,000.

Violent Deaths, Ages 15-19

By definition, violent deaths are the number of deaths from homicides, suicides, motor vehicle crashes, and other accidents to teens ages 15 to 19. Data were aggregated over five-year periods using data collected by the Missouri Department of Health and Senior Services in order to provide more stable rates. Rate is expressed per 100,000 teens of that age group. The rate of violent deaths among Cape Girardeau County youth, ages 15-19, was 26.4 per 100,000 compared to a State rate of 63.1 per 100,000 during the period 2005-2009 and 36.6 and 48.4 respectively for 2014-2017. Figure 9.8 compares the rate of violent deaths, ages 15-19, for the County and the State during the data collection periods 2005-2016. Cape Girardeau County was experiencing an increasing trend.

Figure 9.8: Violent Deaths, Ages 15-19, Rate per 100,000, Cape Girardeau County and Missouri, 2005-2016



Source: Kids Count in Missouri 2018 Data Book.

Deaths by Specific Cause, Ages 15-19

During the review period of 2009-2013, the number of teen violent deaths in Cape Girardeau was less than 20 which results in an unstable rate. Table 9.11 shows the number and rate for each individual cause of violent death in the County and the State as well as the total for all specified causes.

Table 9.11: Violent Deaths, Ages 15-19, Rate per 100,000, Cape Girardeau County and Missouri, 2009-2013

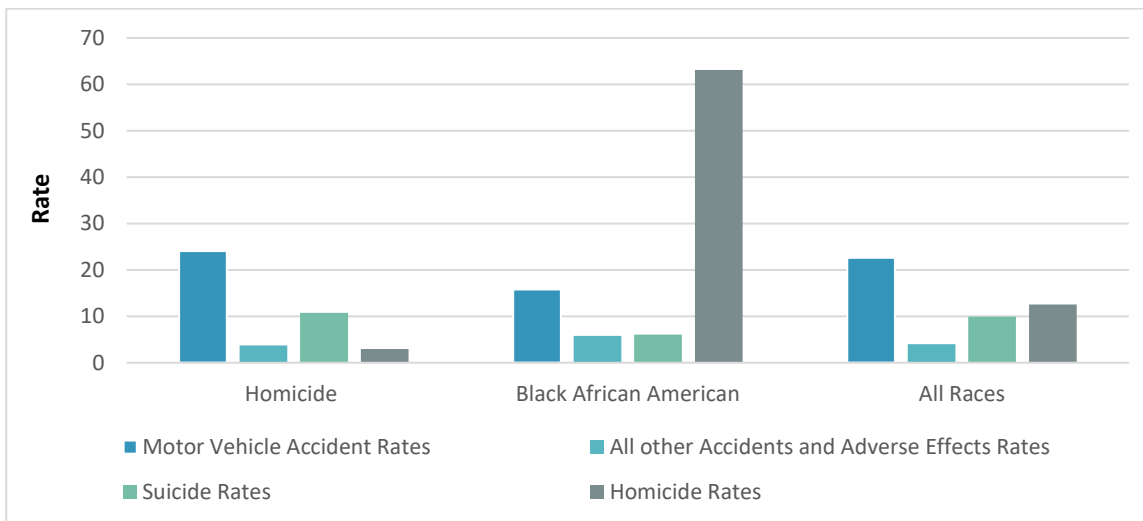
	Cape Girardeau County		Missouri	
	Number	Rate	Number	Rate
Motor Vehicle Accidents	7*	10.71	1,437	31.61
All Other Accidents	2*	3.06	183	4.02
Homicide	4*	6.12	511	12.56
Suicide	6*	9.18	452	9.96
Total for Selected Causes	24	36.73	3,076	6.67

(*) Number of deaths less than 20 –rate unstable

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2018.

Deaths by Race and Cause

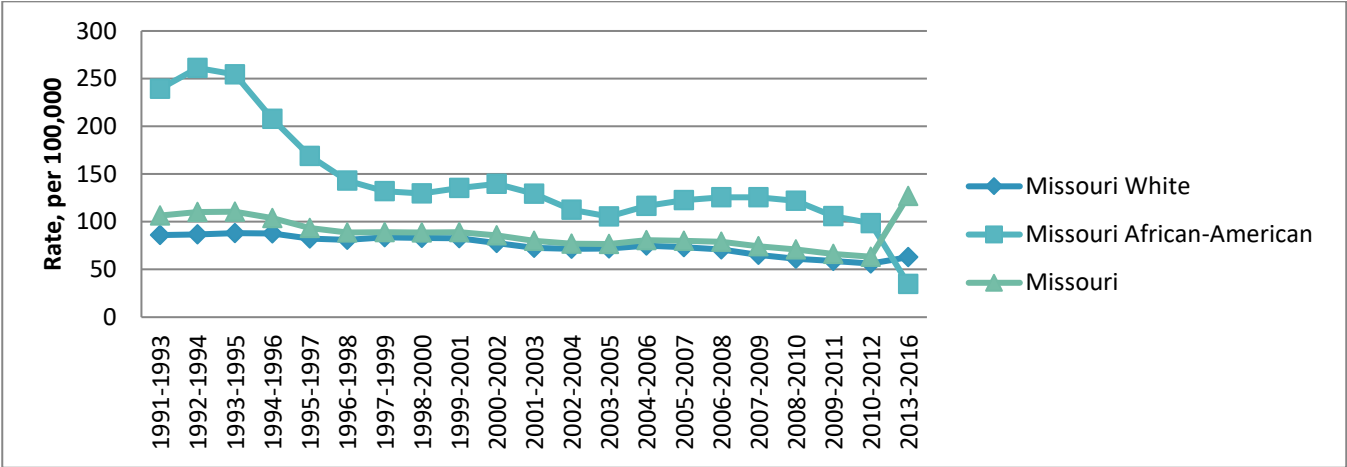
Figure 9.9 demonstrates the comparison of violent deaths by race and by cause in Missouri, 2006-2016. The African-American population of teens ages 15-19 was disproportionately affected in the category of homicide deaths compared to homicide deaths in the white population.

Figure 9.9 Violent Deaths Ages 15-19 by Race and Cause in Missouri, 2006-2016, Rate per 100,000

Source: Missouri Department of Health and Senior Services, Community Data Profiles, Child Health Profile 2018

The White, African/American, and overall State rate trend shows a statistically significant increase over the 1991-2016 entire reporting period. This trend is shown in Figure 9.10.

Figure 9.10 Violent Deaths Ages 15-19 by Race for Missouri, 3-year Moving Averages, 1991-2016



Source: Missouri Department of Health and Senior Services, MICA, Deaths, 2018

SECTION X:
Health Care System Indicators

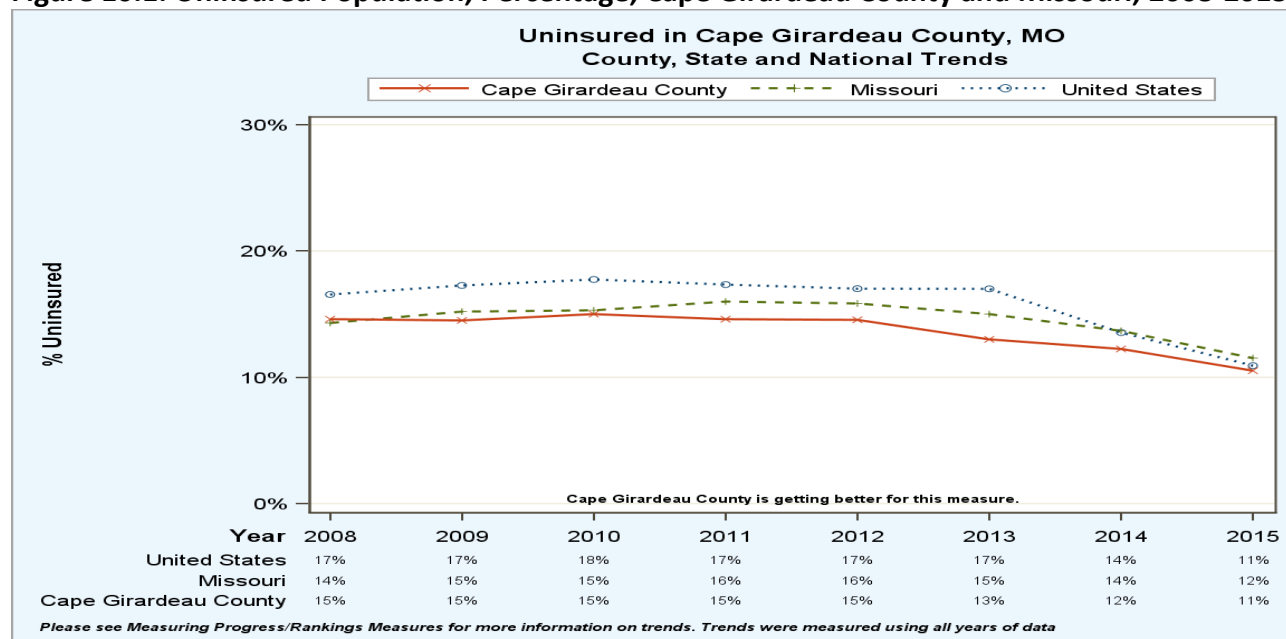
Access to Health Care

Access to health care is a broad concept that tries to capture accessibility to needed primary care, health care specialists, and emergency treatment. The significance of access to care as a health indicator is that a lack of access to care presents barriers to good health. As with many other assessment indicators, access to care considers several factors that contribute to that access such as the supply and accessibility of facilities and physicians, the rate of un-insurance / insurance of residents, financial hardships, transportation barriers, cultural competency, and insurance coverage limitations. It is also necessary to have comprehensive medical insurance coverage and healthcare providers that accept the individual's health insurance.

Insured and Uninsured Population

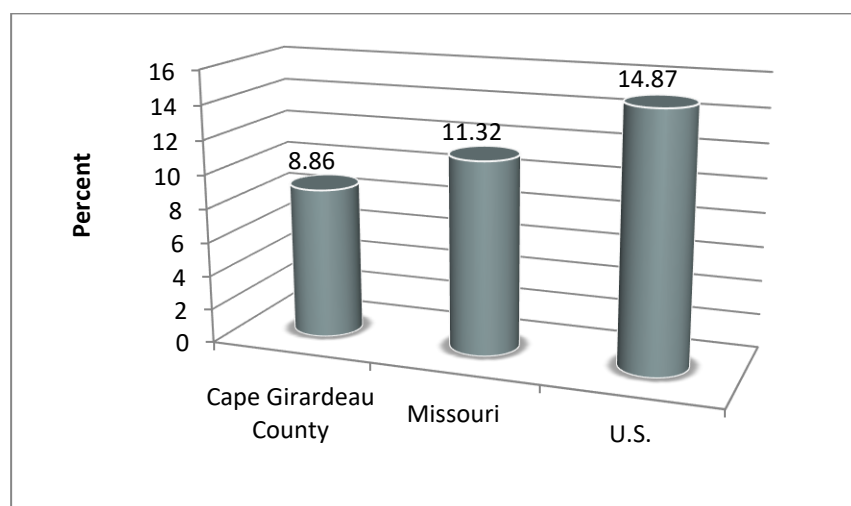
The County Health Rankings and Roadmaps, created by the Robert Wood Johnson Foundation and the University of Wisconsin's Population Health Institute, measure the uninsured population as the estimated percent of the population under age 65 that has no health insurance coverage. Using 2017 data from the U.S. Census Bureau, they determined that Cape Girardeau County had 11% of its population under age 65 who were uninsured, while Missouri had 12% and the U.S. had 6%. Figure 10.1 shows the trend, from 2008-2015, of the percent of the population in the County, State, and Nation that have been uninsured. Cape Girardeau County falls between the State and the U.S. average on the percent of the adult population that did not have health insurance.

Figure 10.1: Uninsured Population, Percentage, Cape Girardeau County and Missouri, 2008-2015



Source: Robert Woods Johnsons Foundation and University of Wisconsin Population Health Institute, County Health Rankings and Roadmaps 2018

According to data estimates from the U.S. Census Bureau's American Community Survey at the end of the five-year period or 2012-2016, the percentage of the population that was uninsured had decreased to 8.86% in Cape Girardeau County. Figure 10.2 compares the percentage of the uninsured population at the end of 2016, for the County, State, and Nation.

Figure 10.2: Percent Uninsured Population, by Geographic Location, 2012-2016

Source: American Community Survey, Community Commons, Community Health Needs Assessment, 2018

Uninsured Adults

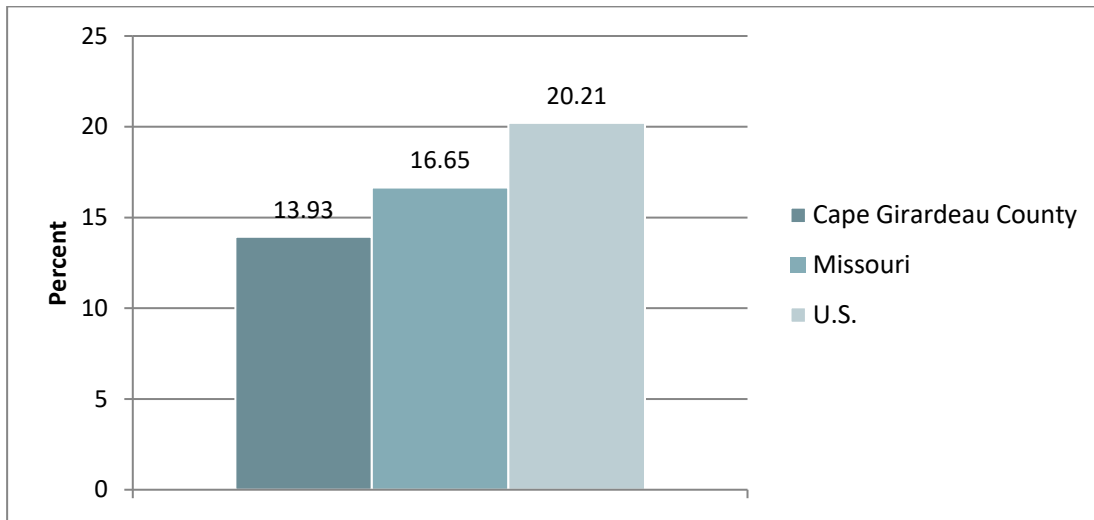
The Small Area Health Insurance Estimates (SAHIE) program utilizes datasets from the U.S. Census Bureau and the American Community Survey, for the years 2012-2016, to model health insurance coverage for State and County level insurance estimates. The percent of the 18-64-year-old population in Cape Girardeau County that was without Medical Insurance was reported as 13.74%. During these same time frames, Missouri had a 12.84% and the U.S. had 12.08%. Cape Girardeau County had a larger percentage of individuals 18-64 years of age that did not have Medical Insurance than the State and Nation.

Uninsured Children

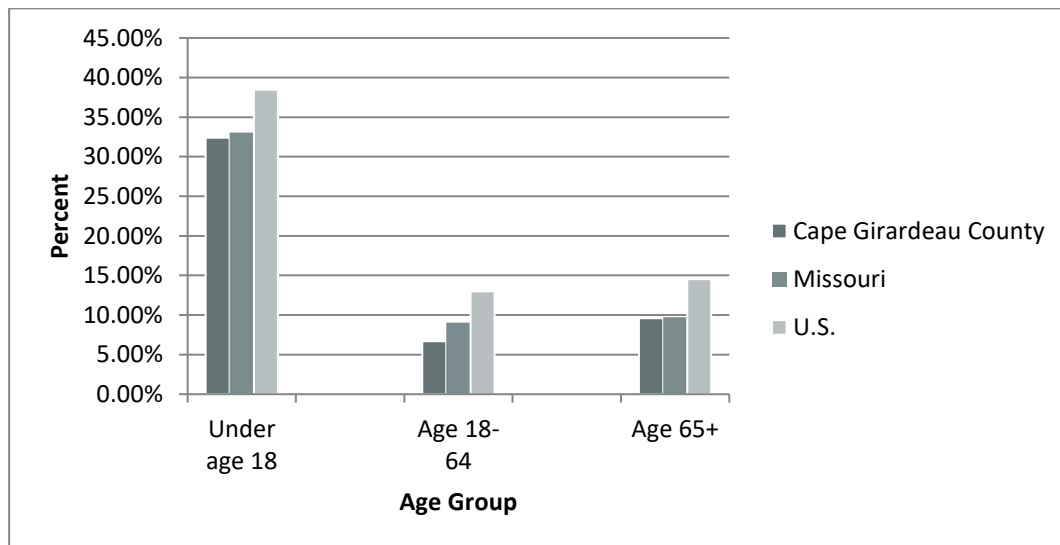
The Small Area Health Insurance Estimates (SAHIE) program utilizes datasets from the U.S. Census Bureau and the American Community Survey, for the years 2012-2016, to model health insurance coverage for State and County level insurance estimates. The percent of children under age 19 years in Cape Girardeau County that did not have Medical Insurance was reported as 4.98%. During these same time frames Missouri had a 4.84% and the U.S. had 4.67%. Cape Girardeau County had a larger percentage of individuals under the age of 19 that did not have Medical Insurance than the State and Nation.

Medicaid

The American Community Survey further identifies those individuals, through the U.S. Census Bureau, who report that they are receiving Medicaid as their form of Medical Insurance. Figure 10.3 displays the percent of the insured population that are receiving Medicaid (2012-2016) for the County, State and Nation. Cape Girardeau County had a slightly lower percentage of the population receiving Medicaid than the State and the Nation.

Figure 10.3: Percent of Insured Population Receiving Medicaid, By Location, 2012-2016

Source: American community Survey, Community Health Needs Assessment, Community Commons 2018

Figure 10.4: Population Receiving Medicaid by Age Group, Percent, By Location, 2012-2016

Source: American community Survey, Community Health Needs Assessment, Community Commons, 2018

In all three locations, the less than 18-year age group had the highest percent of that population receiving Medicaid. Cape Girardeau County falls below the U.S. in all age groups and exceeds the State in all but the 18-64-year age group.

Medicare

The U.S. Department of Health and Human Services reported that a total of 9,770 persons in Cape Girardeau County were receiving Medicare benefits during 2017. The total number of persons receiving Medicare in Cape Girardeau County is shown in Table 10.1.

Table 10.1: Medicare Enrollments, By Location, 2017

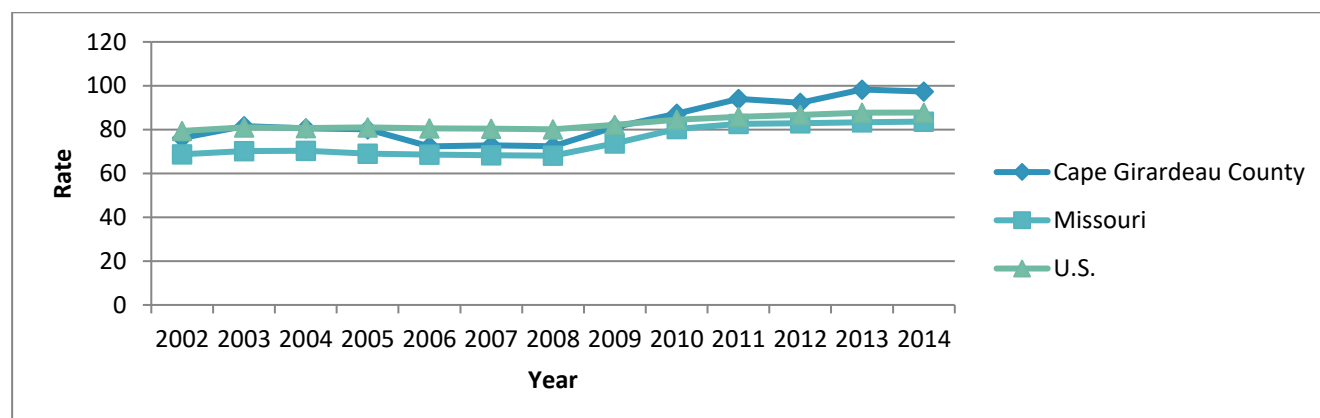
	Persons Over 65 Receiving Medicare	Total Persons Receiving Medicare
Cape Girardeau	1,091	9,770
Missouri	86,858	877,803

Source: U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, Medicare County Enrollment Report 2018

Health Care Providers

Physicians

Physician data acquired from the Health Resources and Services Administration (HRSA) Area Health Resource File (AHRF), as reported in the Community Health Needs Assessment through the Community Commons program, indicates that Cape Girardeau County had a 97.38 Primary Care Physicians Rate per 100,000 population. This reports the number of primary care physicians, per 100,000 population, that are classified as “primary care physicians,” by the American Medical Association and include General Family Medicine MD’s and DO’s, General Practice JD’s and DO’s, General Internal Medicine MD’s and General Pediatrics MD’s. During that same time frame, the Rate for Missouri was 83.65 and for the U. S. the rate was 87.77. According to these data sets, Cape Girardeau County had a more favorable Primary Care Physician Rate than the state and the U.S. Figure 10.5 shows the rate of primary care physicians per 100,000 populations over the time period of 2002-2014.

Figure 10.5: Rate of Primary Care Physicians per 100,000 population, By Location, 2002-2014

Source: Community Health Needs Assessment, Community Commons, HRSA Area Health Resource File 2018

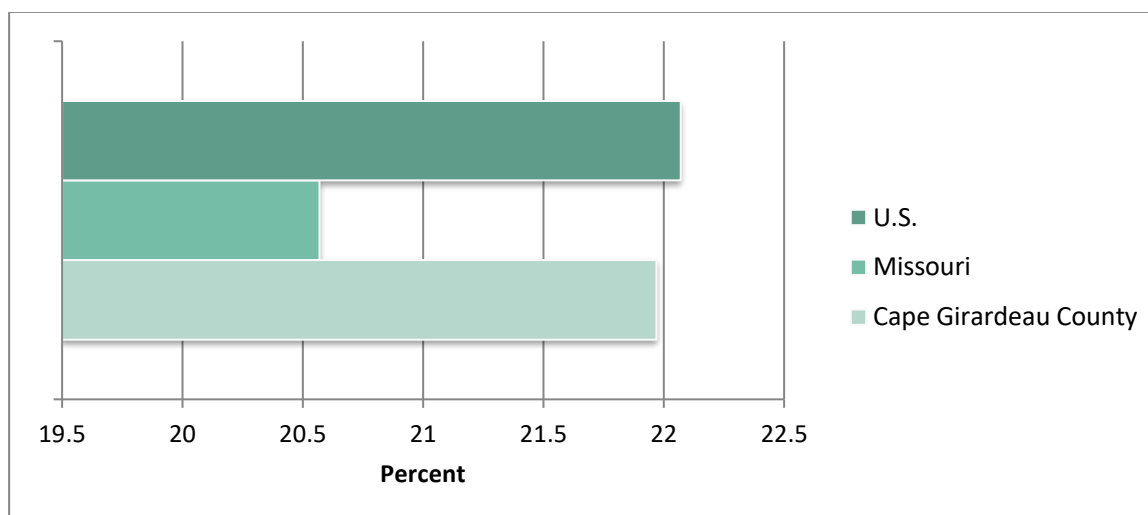
In 2017, the County Health Rankings and Roadmaps, created by the Robert Wood Johnson Foundation and the University of Wisconsin’s Population Health Institute, modified the definition for “primary care physicians,” to include the ratio of the population to total primary care physicians, including non-federal, practicing physicians. The ratio that they reported for 2016 was 97.38 per 100,000 for Cape Girardeau County, 83.6 for Missouri, and 87.8 for the U.S. Cape Girardeau County continues to experience a better ratio.

Table 10.2: Population to Primary Care Physician Ratios, Rate per 100,000 Population, By Location, 2017

	Physician Rate
Cape Girardeau	97.38
Missouri	83.6
U.S.	87.8

Source: County Health Rankings, Robert Wood Johnson Foundation 2018

Despite the ratio and/or percentage of primary care physicians to population status for the County, data acquired from analysis of the annual survey data from the Behavioral Risk Factor Surveillance System (BRFSS) for 2011-2012 indicate that a higher percentage of the County population reported that they do not have a consistent source of primary care. This indicator specifically reviewed the percentage of adults aged 18 and older that self-reported on the BRFSS that “they do not have at least one person who they think of as their personal doctor or health care provider.” The percentage for Cape Girardeau County, as shown in Figure 10.6, was higher than Missouri and slightly lower than the U.S.

Figure 10.6: Percent Adults without Any Regular Doctor, 2016

Source: Community Health Needs Assessment, Community Commons.org, 2018

Hospitals

Information regarding hospitals and medical providers was obtained from the 2016 Community Health Needs Assessment completed by Southeast HEALTH and Saint Francis Medical Center.

Southeast HEALTH is located in the City of Cape Girardeau, Missouri, and is recognized as one of Missouri’s leaders in the provision of health care services; it is a 266-bed medical center that serves more than 640,000 people in 25 counties in Southeast Missouri and Southern Illinois. The 266 beds are divided among 158 Med/Surg beds, 10 Pediatric beds, 13 Rehabilitation beds, 15 Neonatal Intensive Care Unit beds, 26 Intensive Care Unit beds, 29 Obstetrics beds, and 15 Psychiatric Unit beds. The hospital has more than 200 physicians and has over 2,200 employees and offers a full continuum of health care and wellness services designed to meet the needs of individuals, families, and businesses.

Saint Francis Medical Center is also located in the City of Cape Girardeau, Missouri, and has become a progressive, innovative regional tertiary care referral center. It is a 306-bed facility serving more than 713,000 people throughout Missouri, Illinois, Kentucky, Tennessee, and Arkansas. The 306 beds are divided among 176 Med/Surg beds, 8 Pediatric beds, 23 Rehabilitation beds, 25 Neonatal Intensive Care Unit beds, 32 Intensive Care Unit beds, and 16 Obstetrics beds. Some of Saint Francis's major services include Neurosciences, Orthopedics, Family Birthplace, Cardiovascular, Oncology, Rehabilitation, and Trauma. The hospital also offers urgent care centers and a fitness facility.

Landmark Hospital of Cape Girardeau: Saint Francis Healthcare System has entered into a joint venture with Landmark Holdings of Missouri, LLC to bring long-term acute care to the region's residents. Accredited by The Joint Commission, Landmark Hospital is a 30-bed, fully licensed critical care hospital caring for patients with catastrophic and/or chronic medically complex conditions requiring a hospital stay of 25 days or longer. Landmark Hospital is the only facility of its kind between Memphis and St. Louis.

Family Practice is offered by many primary care practices located in Cape Girardeau and Jackson, Missouri. Some of the practices located in Cape Girardeau and Jackson are listed below.

Cape Girardeau

- Southeast Primary Care
- Jackson Primary Care
- Regional Primary Care
- Riverside Family Practice
- Cape Physician Associates
- Cape Medical Group
- Premier Family Physicians
- Urgent Care:
 - Doctors Express
 - Immediate Convenient Care
 - Cape Urgent Care

Jackson

- Heartland Family Physicians
- Jackson Medical Center
- Urgent Care:
 - Prompt Care

Federally Qualified Health Center (FQHC)

Cross Trails Medical Center is the only FQHC located in Cape Girardeau County and is located in the City of Cape Girardeau. Services offered by Cross Trails Medical Center include:

- Primary medical care – dental care – preventive health screenings and child and adult immunizations
- Acute care for minor illness or injury and well-child checks
- Adolescent health – pediatrics-geriatrics- women's health, including family planning and gynecology exams
- Show Me Healthy Women program
- Diabetes program including education with a certified diabetes educator, laboratory and x-ray on-site
- Mental health counseling referrals – patient medication assistance program – telehealth (dermatology)

Rural Health Clinics

There are 11 designated Rural Health Clinics in Cape Girardeau County that provide varying degrees of primary health care including well and sick care, immunizations, health screenings, and management of health conditions. Rural Health Clinics include the following:

- Cape Family Medical Clinic, LLC
- Cape Girardeau County Public Health Center Rural Health Clinic
- Immediate Convenient Care
- Jackson Family Care
- Jackson Physicians Associates
- Jackson Primary Care, LLC
- Med stop One
- Midwest Family Care (Jackson)
- Midwest Family Care, LLC (Cape Girardeau)
- Plaza Primary Care West
- River City Health Clinic

Mental Health

According to the University of Wisconsin Population Health Institute and Robert Wood Johnson Foundations County Health Rankings, Cape Girardeau County has a Mental Health Provider Ratio of 400:1; whereas, the State of Missouri has a ratio of 590:1. Mental Health Providers are defined by this source as “The ratio of the county population to the number of mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists and advance practice nurses specializing in mental health care.” This is an improvement for both the County and the State since the 2012 Community Health Assessment. Table 10.3 compares the Mental Health Provider Ratios for the County and State from 2017 and 2018. Limitations of this data include the fact that providers who transmit electronic health records are required to obtain an identification number, but very small service providers may not obtain a number. While providers have the option of deactivating their identification number, some mental health professionals included in this data may no longer be practicing or accepting new patients. This may result in an overestimate of active mental health professionals.

Table 10.3: Mental Health Provider Ratio, Cape Girardeau County and Missouri, 2017, 2018

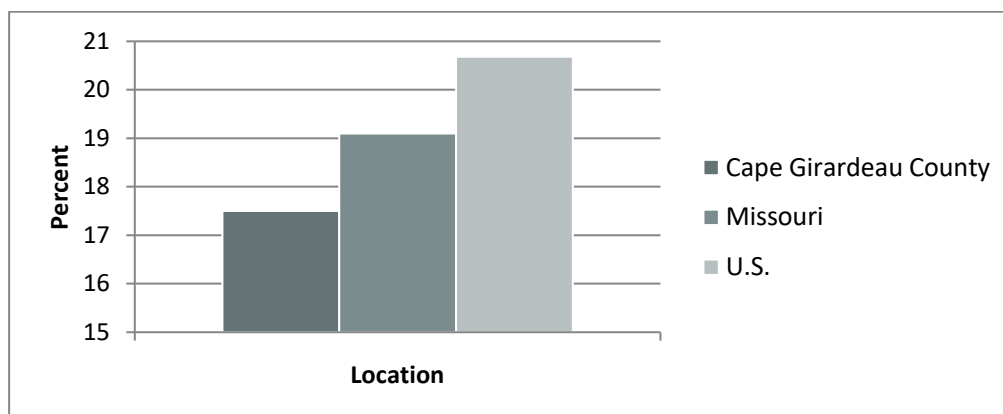
	2017	2018
Cape Girardeau County	410:1	400:1
Missouri	630:1	590:1

Source: County Health Rankings, Robert Wood Johnson Foundation and University of Wisconsin, Population Health Institute 2018

The 2006-2012 Behavioral Risk Factor Surveillance System (BRFSS) prevalence data reveals that when asked the question, “How often do you get the social and emotional support you need?” 17.5% of adults 18 years and older indicated that they had inadequate social/emotional support. As an indicator, this has relevance as social and emotional support can be critical to meeting the challenges of daily life as well as for good mental health. Good Mental Health and the social / emotional support can also be linked to educational achievement levels. Figure 10.7 compares the age-adjusted percentage of the 18

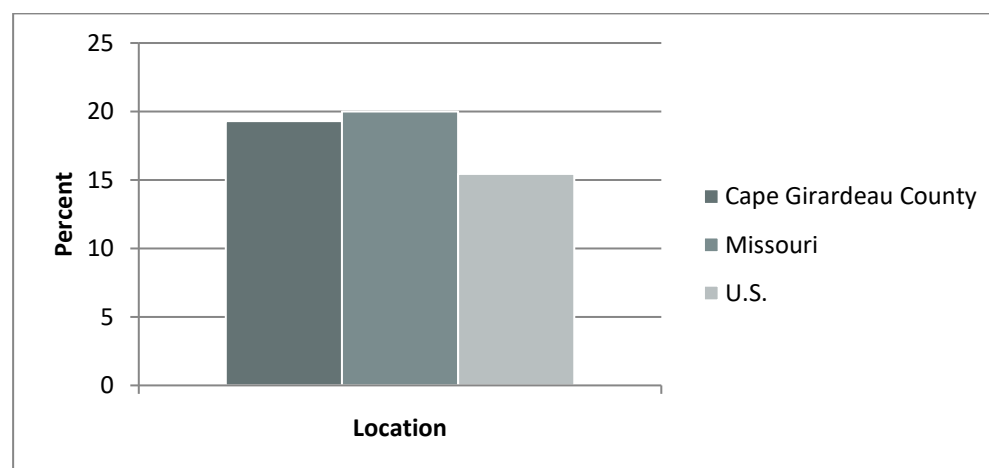
year and older populations that consider themselves to be without adequate social/emotional support between Cape Girardeau County, Missouri, and the U.S. Additionally, the Centers for Medicare and Medicaid Services (CMS) provides percentages on Medicare beneficiaries, by County, with a diagnosis of depression. Figure 10.8 displays those percentages for 2015 for Cape Girardeau County, Missouri, and the U.S.

Figure 10.7: Percent Adults without Adequate Social / Emotional Support, By Location, 2015



Source: Community Health Needs Assessment, Community Commons.org, 2018

Figure 10.8: Percentages of Medicare Beneficiaries with Depression, By Location, 2015



Source: Community Health Needs Assessment, Community Commons.org 2018

Likewise, the BRFSS survey question of “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” that was self-reported by adults 18 years and older, indicated that on the average, adults experience 4.6 mentally unhealthy days per month. The U.S. median for this indicator was 3.5 mentally unhealthy days per month.

As reported in the Behavioral Health Profile, from the Missouri Division of Behavioral Health, 1,868 Cape Girardeau County residents received treatment for serious mental illness at publicly funded facilities. A limitation, and concern expressed in the report, is that this data is for those who receive treatment and data on mental health in the general population is very limited. Table 10.4 shows the number of individuals by the type of psychiatric services received by residents in Cape Girardeau

Section X: Health Care System Indicators

County in 2016 and 2017. Counts indicate the number of clients seen with each diagnosis per year. An individual client may have more than one admission within a year.

Table 10.4: Number Comprehensive Psychiatric Services by Psychiatric Diagnosis, Cape Girardeau County, 2016-2017

	2016	2017
Adjustment Disorder	126	98
Anxiety Disorder	368	455
Developmental Disorder	6	0
Mood Disorder	1,099	1,059
Psychotic Disorder	226	240
Personality	40	40
Impulse	281	241
Disorder – Unknown	262	127
Disorder Not Elsewhere Categorized	107	114
Totals	2,014	1,868

*Counts fewer than 5 suppressed to protect identities

Source: *Behavioral Health Profile, Cape Girardeau County, Missouri Division of Behavioral Health, 2018*

This same profile reported that students, grades 6-12, in the County were asked about their mental health. The amount that had considered suicide in the last year was 21.7%, while 17.4% made a plan, and 2.9% actually attempted, resulting in an injury.

Community Counseling Center, located in Cape Girardeau, is a not-for-profit behavioral health organization that offers a full array of comprehensive mental health services for several counties in Southeast Missouri. Community Counseling Center (CCC) has 387 professionals and staff working together. CCC has 18 separate locations with a service region of Bollinger, Cape Girardeau, Madison, Perry and Ste. Genevieve Counties receive the treatment they need.

According to the Missouri Department of Health and Senior Services, MICA, in 2015 Cape Girardeau County experienced a rate of 17.51 per 1,000 for Emergency Room visits with a Mental Disorder diagnosis. During the same report time, Missouri had a rate of 15.60 per 1,000. Table 10.5 identifies Emergency Room visits for mental disorders by age and gender for both Cape Girardeau County and Missouri.

Table 10.5: Emergency Room Visits for Mental Disorders, by Age and Sex, Cape Girardeau County and Missouri, Rate per 1,000, 2015

	Cape Girardeau County			Missouri		
	Male	Female	All	Male	Female	All
Under 15	55.16	62.44	58.71	4.96	5.15	5.05
15-24	48.37	83.43	66.60	21.77	23.21	22.48
25-44	78.14	118.40	98.25	25.97	22	23.98
45-64	46.97	55.38	51.28	17.05	12.05	14.49
65 and over	40.10	38.79	39.36	6.85	7.52	7.23

*Rate considered unreliable, numerator less than 20

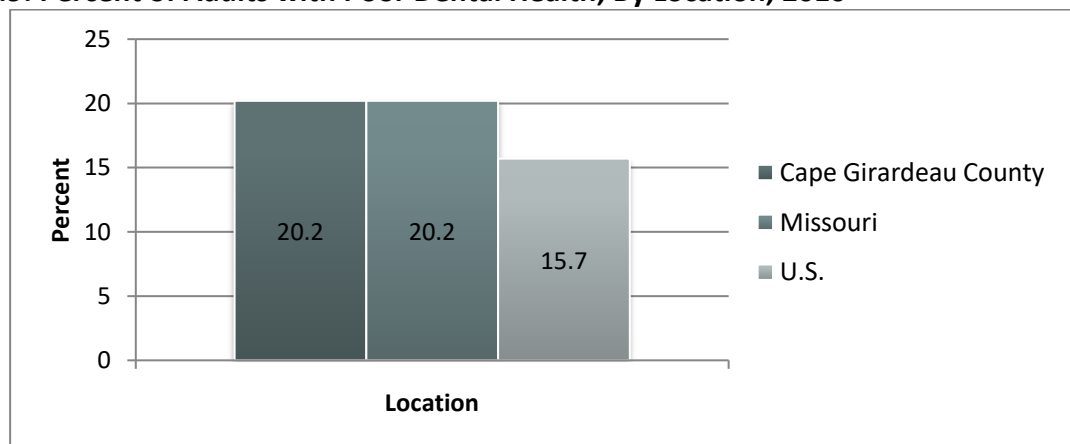
Source: Missouri Department of Health and Senior Services, MICA, Emergency Room Visits, Mental Disorders, 2018

Considering only the reliable rates, the highest percentage of Emergency Room visits for mental disorders were in the 25-44-year age male group in Cape Girardeau County and Missouri.

Dental Health

According to the University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation's County Health Rankings, in 2016 Cape Girardeau County had a population to dentist ratio of 1,460:1, while the ratio for Missouri is 1,810:1 and for the U.S. it was 1,280:1. This same report identifies 54 dentists for the county

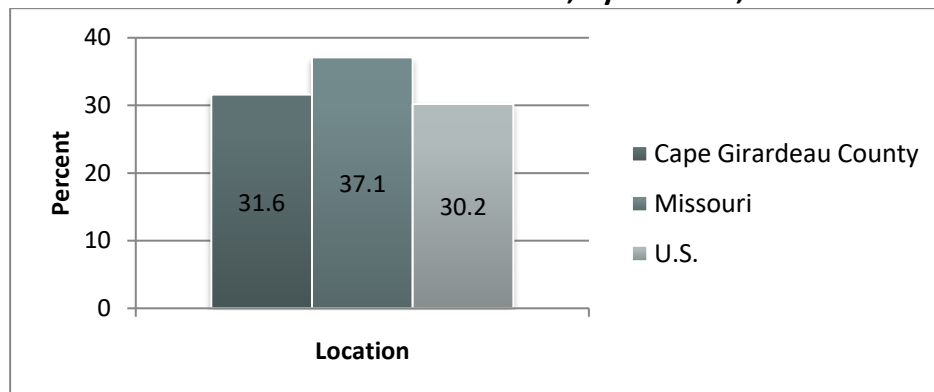
The 2006-2010 BRFSS considered the percent of adults with poor dental health to be those respondents 18 years of age and older who indicated that they had 6 or more, including all of their permanent teeth, extracted (teeth lost for reasons such as injury or orthodontics were not included). Figure 10.9 compares the percentages determined for Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County had a slightly higher percentage of the adult population considered to have poor dental health.

Figure 10.9: Percent of Adults with Poor Dental Health, By Location, 2010

Source: Community Health Needs Assessment, Community Commons, BRFSS, 2018

In addition, the BRFSS also asked participants the questions, “How long has it been since you last visited a dentist or a dental clinic for any reason? Includes visits to dental specialists, such as orthodontists,” and “How long has it been since you had your teeth cleaned by a dentists or dental hygienist?” Figure 10.10 compares the percentage of respondents who indicated that they had *not* seen any dentist or dental hygienist within the past year for Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County falls in-between the State and national percentages for individuals without a recent dental exam. This data could indicate that residents may lack the health knowledge related to the need for dental care; experienced lack of access to preventive care or there are an insufficient number of providers; and/or social barriers preventing utilization of services.

Figure 10.10: Percent Adults without Recent Dental Exam, By Location, 2010



Source: Community Health Needs Assessment, Community Commons, BRFSS, 2018

Emergency Services

Ambulance Services

Cape County Private Ambulance Service, Inc. (CCPA) has been providing Emergency Ambulance Services to Cape Girardeau County, Missouri since 1968. As a leader in the field of Emergency Medical Services, emergency calls are handled by full time certified Emergency Medical Dispatchers (EMD) using Medical Priority’s EMD protocol. This provides the caller with life-saving maneuvers such as CPR, Heimlich, how to stop serious bleeding and others. Each emergency ambulance is equipped with cutting edge technology including 12 lead EKG and telemetry capability, leading emergency drugs, and is staffed with Missouri Licensed and National Registry Certified Paramedics and Emergency Medical Technicians. CCPA also provides Non-Emergency Medical transportation within the Midwest region. Non-emergency transportation may be provided using Advanced Life Support vehicles and crews if special or advanced services are required or may be provided by Basic Life Support crews as appropriate.

Fire and Air Evacuation Services

There are 9 *Fire Departments* located in Cape Girardeau County. Table 10.7 provides a listing of all fire departments, their locations and capabilities. Services, in addition to fire suppression, include emergency care for individuals involved in accidents and community education programs.

Table 10.7: Fire Departments in Cape Girardeau County, Emergency & Response Capabilities, 2018

Fire Department	Type of Department	# of Stations	# of Career Firefighters	# of Volunteer Firefighters	# Paid per Call Firefighters	Non-Firefighting Employees	Non-Firefighting Volunteers
City of Cape Girardeau Fire Dept.	Career	4	57	0	0	3	0
Fruitland Area Fire Department	Volunteer	2	0	27	0	0	3
Millersville Fire Rescue Dept.	Volunteer	3	0	20	0	0	0
Whitewater Fire protection District	Volunteer	2	0	16	0	0	2
East County Fire Protection District	Volunteer	3	0	42	0	0	42
Jackson Fire & Rescue	Mostly Volunteer	2	20	0	7	1	1
North Cape County Fire District	Volunteer	1	19	19	0	0	0
Gordonville Fire Protection District	Volunteer	1	0	0	0	0	0
Delta Fire Protection District	Volunteer	1	0	0	0	0	0

*Licensed as an Emergency Medical Response Agency

Source: Source: Missouri Department of Public Safety, Registered Fire Departments, 2018

ARCH Air Medical Service is a critical care air ambulance service that provides coverage for Cape Girardeau County. ARCH has eight base locations in Missouri and three base locations in Illinois. The service operates several rotary wing aircrafts and one fixed wing aircraft. The on-board flight team includes a highly trained EMS Pilot, Critical Care Flight Nurse, and a Critical Care Flight Paramedic.

Emergency Rooms

Southeast HEALTH offers Emergency Services in its 17,800 square foot Emergency Department and has been rated among the regions finest in terms of experience, expertise, equipment, and facilities. The Emergency Department includes and Acute Care Facility that is open and staffed 24/7, a chest Pain Center, Heart Center, and ER Express. There are 22 treatment rooms and one major treatment room

equipped with complete x-ray capabilities. The ER Express is a separate designated area specifically for the diagnosis and treatment of minor illnesses and injuries, minor lacerations, and splinting which may not require the full resources of the acute emergency room.

Saint Francis Medical Center offers Emergency Services and is the region's only state-designated Level III Trauma Center. There are 26 private treatment room, three trauma rooms, two triage rooms, and a special procedures room for a total of 32 patient rooms. The Emergency and Trauma Center features hospital-based, board certified emergency medicine physicians and trauma surgeons who provide critical care 24 hours a day, seven days a week. The facility also has a Convenient Care Facility located within the Emergency and Trauma Center, which is a walk-in facility for treating minor illnesses and injuries.

Long-Term Care Facilities

Long-term care facilities can be categorized by the following definitions:

- Residential Care Facilities: provide long-term care to adults or children in a residential setting rather than the patient's home.
- Assisted Living Residences or Assisted Living Facilities: provide supervision or assistance with activities of daily living; coordination of services by outside health care providers; and monitoring of resident activities.
- Skilled Nursing Facilities / Nursing Homes / Convalescent Homes: provide a place of residence for individuals who require constant nursing care and have significant deficiencies with activities of daily living.

Table 10.6 provides a listing of the number, by category and location, of Long-Term Care Facilities in Cape Girardeau County.

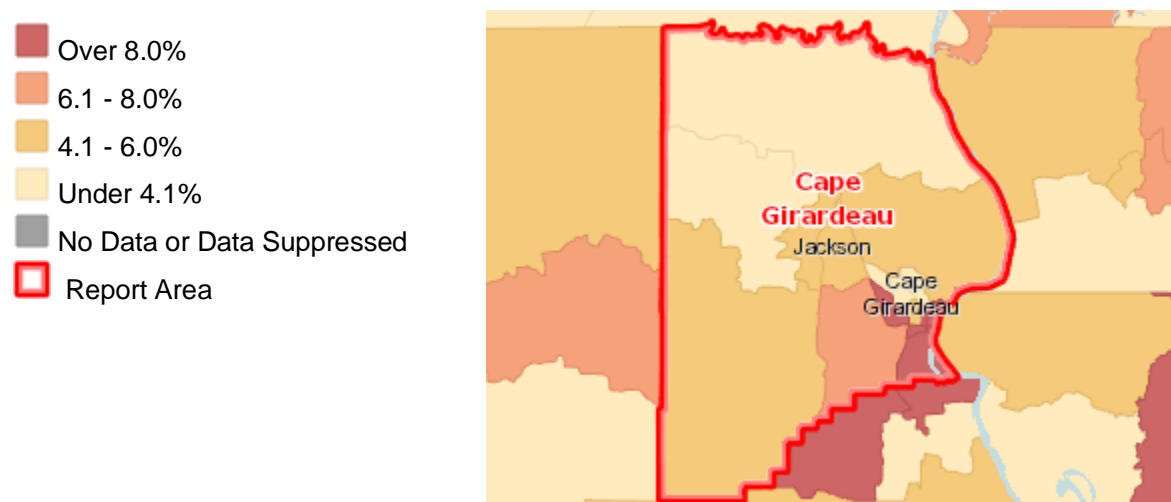
Table 10.6: Long-Term Care Facilities in Cape Girardeau County 2017

Category of Facility	City of Cape Girardeau	City of Jackson	Oak Ridge
Residential Care Facilities (RCF)	6	1	--
Assisted Living Facilities (ALF)	6	1	--
Skilled Nursing Facilities (SNF)	5	2	--

Source: Missouri Department of Health and Senior Services, *Show Me long Term Care in Missouri*, 2018

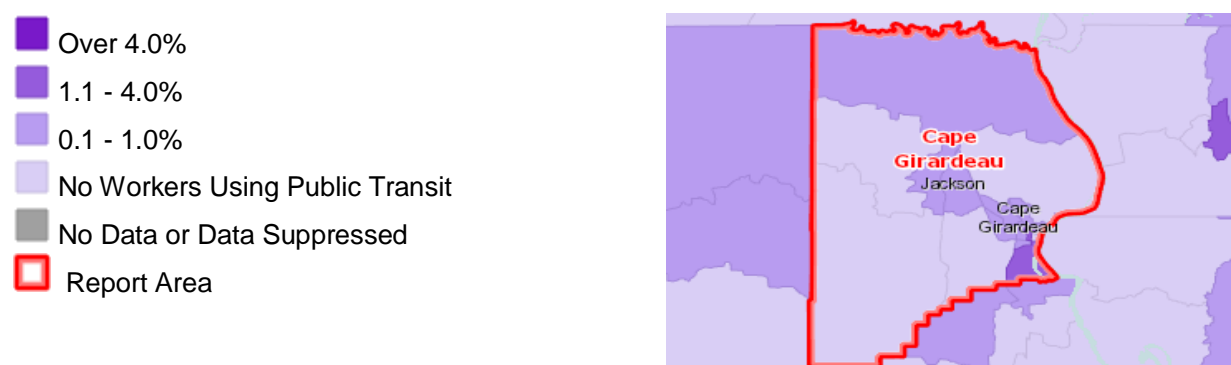
Transportation

According to the American Community Survey, data estimates for the five-year period of 2012-2016, indicate that in Cape Girardeau County 6.24% of households did not have a motor vehicle, which was better than the 7.33% in Missouri and 9.07% in the U.S. Figure 10.11 shows, by census tract, the percentage of households without a motor vehicle. The highest percentage within the county (Over 8%) occurs in the Southeastern portion of the City of Cape Girardeau. Households without a motor vehicle may be less likely or able to access health care, healthy food options, and physical activity opportunities.

Figure 10.11: Households with No Vehicle, Percent by Tract**Households with No Vehicle, Percent by Tract, ACS 2012-16**

Source: Community Commons, Community Health Needs Assessment Report, American Community Survey, 2018

One further indicator that the American Community Survey reported on was the Use of Public Transportation. During the same time frame, 2012-2016, data was tabulated for workers 16 years of age and older who were asked to identify their principal mode of travel used to get from home to work. Of those surveyed, 0.44% indicated that they used Public Transit for their commute to work. This percentage was lower than Missouri at 1.49% and the U.S. at 5.13% and considered to be a negative indicator by the Community Commons Community Health Needs Assessment Report. However, this report did not indicate if that was because of underutilization of public transportation or the lack of public transportation modes. Figure 10.12 displays, by census tract, the percentages of workers within the county who use Public Transit to travel to work.

Figure 10.14 Workers Traveling to Work Using Public Transit, Percent by Tract, Cape Girardeau County**Workers Traveling to Work Using Public Transit, Percent by Tract, ACS 2012-16**

Source: Community Commons, Community Health Needs Assessment Report, American Community Survey, 2018

MO HealthNet Transportation

Non-emergency medical transportation (primarily for MC+) is available on a scheduled basis. Non-Emergency Medical Transportation (NEMT) is available for individuals who have MO HealthNet or MO HealthNet managed care. This service provides transportation for health care appointments at no charge to the client. The NEMET program may use public transportation or bus tokens, vans, taxi, or even airplane if necessary. Individuals may also be able to get help with gas costs if they have a car or have a relative, friend, or neighbor who can take them. This transportation must be approved in advance and specifically for appointments with a health care provider who accepts MO HealthNet or MO Healthnet managed care and the health care service being provided must be a covered service. Individuals must call the 1-866-269-5927 number at least 5 calendar days before the day of the appointment. The phone number is accessible 24 hours, 7 days a week.

Public Transportation

Cape Girardeau Transit Authority

The Cape Girardeau County Transit Authority (CGCTA), based in the City of Cape Girardeau, offers a variety of services including Demand Response Vehicles or Taxis, and Deviated Fixed Route services, which are a type of hybrid transportation that combines Demand Response and Fixed Route principles. The overall mission of the CGTA is to provide safe, reliable, efficient and cost-effective transit services to all residents and visitors of Cape Girardeau County, Missouri. The services are designed to assist the general public in meeting their physical, social and psychological needs, and to promote their health, security, happiness and usefulness in longer living.

Demand Response Vehicles

Part of the CGCTA fleet is comprised of Demand Response Vehicles, often referred to as a Taxi service. This is a transit service whereby the individual passengers can request transportation from one specific location to another specific location at a certain time. Vehicles providing Taxi service do not follow a fixed route, but rather travel throughout the community transporting passengers according to their specific requests. Taxi services are offered for a fare. Taxi Services are available 24 hours a day, 6 1/2 days a week, including holidays.

Fixed Route

CGCTA has implemented two bus routes within the City of Cape Girardeau that are designed to coordinate transportation to specific locations within the city throughout the day, such as hospitals/doctors' offices, grocery stores, shopping area, some residential areas, and many of the popular shopping areas within the city. The buses are in operation Monday through Friday from 6am to 6pm and Saturday from 9am to 6pm. As of this assessment, each ride is only \$2, with a discount rate of \$1 being offered to seniors and the disabled, and children 6 and under ride free. CGTA offers 2-week bus passes for \$20 or a month pass for \$35. This allows the holder of the pass unlimited use of the bus service during the dates on the pass.

Courier Services

The CGCTA provides a courier service to local businesses. Proceeds from this service go directly to raising local match for government grants.

Service Contracts

The CGCTA is a subcontractor for other State and local programs.

SECTION XI:
Community Health Assessment
Summary of Findings

Section XI: Community Health Assessment Summary of Findings

In determining the Public Health Priorities, Cape Girardeau County Public Health Center provided participating Community Partners and Stakeholders, The Board of Trustees, and Health Center staff with a review of significant findings from four major resources – the Community Health Assessment, the Population Survey, the Missouri Information for Community Assessment, and the County Health Rankings. A brief summary from each of these resources is provided along with the determined Public Health Priorities.

Community Health Assessment

The Cape Girardeau County area is comparable to other parts of the Southeastern Region of Missouri in terms of health status, behavioral risk factors, and health care utilization. The leading causes of death are Heart Disease, Cancer, and Chronic Lower Respiratory Disease. Chronic Lower Respiratory Disease includes underlying conditions such as Chronic Obstructive Pulmonary Disease (COPD), asthma, emphysema, bronchitis, and chronic airway obstruction. The Infant Mortality Rate for the County has increased since the 2012 Community Health Assessment and is higher than the State rate; however, the rate is the lowest among the Southeastern Missouri Counties. Leading Behavioral Risk Factors include smoking, smoking during pregnancy, and obesity. Health Care Access and utilization of dental and mental health services continue to be an area of concern.

Missouri Information for Community Assessment

The Missouri Information for Community Assessment (MICA) is an interactive system, available on the Missouri Department of Health and Senior Service's website, that allows the user to create and download health data based on selected variables. The website's Priority MICA offers a Prioritization of Selected Diseases and Conditions option that is a structured process to determine the priority health needs by each county or state. The Priority MICA was used as part of this County assessment process. The Prioritization Analysis identifies heart disease as the highest priority disease in Cape Girardeau County. Diabetes, stroke, lung cancer, alcohol and substance-related conditions, and pneumonia and influenza were other priorities identified through MICA.

County Health Rankings: Health Outcomes and Health Factors

The County Health Rankings and Roadmaps program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The *Rankings* are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. The annual County Health Rankings measure vital health factors, including high school graduation rates, obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income, and teen births in nearly every county in America. The annual *Rankings* provide a revealing snapshot of how health is influenced by where we live, learn, work and play. They provide a starting point for change in communities. Health outcomes in the *County Health Rankings* represent how healthy a county is and measure two types of health outcomes: how long people live (length of life) and how healthy people feel while alive. Health factors represent what influences the health of a county and measure four types of health factors: health behaviors, clinical care, social and economic, and physical environment factors. In turn, each of these factors is based on several measures. According to the 2018 County Health Rankings, Cape Girardeau County ranked 38th out of the 115 counties in Missouri. The overall ranking combines rank of Health Outcomes and Health Factors with 1 being fairing the best. The County ranked 13th out of the 115 for

Section XI: Community Health Assessment Summary of Findings

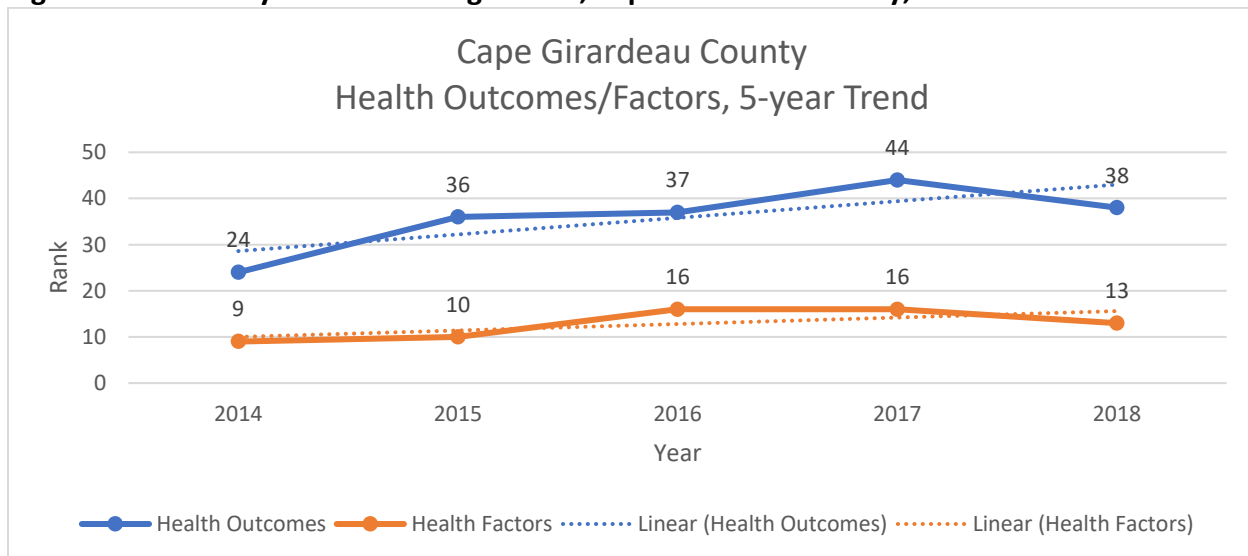
overall Health Factors. In 2015 those rankings were 36th for overall Health Outcomes and 10th on overall Health Factors. Table 11.1 compares the 2014 through the 2018 Rankings. Figure 11.1 displays the trend from 2014-2018 the County has experienced for both Health Outcomes and Health Factors.

Table 11.1 Comparison of County Health Rankings for Cape Girardeau County, 2014- 2018

Year	Health Outcomes	Health Factors
2014	24	9
2015	36	10
2016	37	16
2017	44	16
2018	38	13

Source: County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, 2018

Figure 11.1: County Health Rankings Trend, Cape Girardeau County, 2014-2018



Source: County Health Rankings and Roadmaps, Robert Woods Johnson Foundation 2019

Cape Girardeau County Community Health Assessment Population Survey

Respondents to the Population Survey identified personal views on what health related issues they felt were important to them as individuals. The overall ranking for each category with the highest number of votes was ranked first, and the next highest number was ranked second and so on. The five most important health issues, by indicator, for Cape Girardeau County residents are shown in Table 11.2.

Table 11.2: Population Survey, Rank Order, of Individual Priority Issues, Cape Girardeau County, 2018

Rank Order	Priority Health Issue
1	Substance Abuse
2	Access to Health Care
2	Overweight Adults
3	Smoking
4	Transportation
4	Wellness & Prevention
5	Dental

Source: Cape Girardeau county Public Health Center Community Health Assessment Population Survey, 2018

Cape Girardeau County Public Health Priorities

A nominal group process was selected as the means of identifying the perceived and data driven needs of the County. The public health issues identified by statistical measures were then integrated with the perceived needs and prioritized county health problems identified through the Population Survey. Through this process, the Public Health Priority Issues were identified. They are as follows:

1. Mental Health Care
2. Wellness and Prevention
 - Substance Abuse
 - Obesity: Adult and Childhood
 - Smoking
 - Dental Health
 - Chronic Disease Care
3. Access to Care