

Cape Girardeau County Public Health Center



Prevent. Promote. Protect.

Community Health Assessment 2015

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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 2015 Community Health Assessment of Cape Girardeau County.

The 2015 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. In addition, a Community Health Assessment Survey was distributed to Cape Girardeau County residents to provide them the opportunity to voice their opinions regarding the major risk factors and health issues facing them and the county.

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.

VISION – MISSION – CORE VALUES

Vision: Cape Girardeau County Public Health Center promotes good health and ensures the county's public health through:

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

Vision: Cape Girardeau County will become a healthy community of healthy people where all needs are identified, addressed and resolved with partnership of the community.

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 demonstrate the highest moral and ethical standards in all aspects of our work and provide all services in a non-discriminatory manner.

In March, 2015, Community Stakeholders, Partner Agencies, and Board of Trustees members joined Cape Girardeau County Public Health Center staff to review the findings for the 2015 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 three 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)

- Obesity
- Smoking
- Mental Health Care
- Dental Health Care
- Heart Disease
- Child Injury and Child Death
- Infant Mortality

This same selection method was utilized again in late March, 2015, 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. Combining the ranking scores of both processes, the Public Health Priority Issues were identified as:

- Obesity
- Smoking
- Heart Disease
- Child Injury and Infant Mortality (tie)
- Dental and Mental Health (tie)

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 around the towns of Delta and Dutchtown 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), 7 villages (Allenville, Dutchtown, Gordonville, Oak Ridge, Old Appleton, Pocahtontas, and Whitewater) and 9 unincorporated communities (Burffordville, Daisy, Friedheim, Fruitland, Millersville, New Wells, Oriole, Egypt Mills, and Randles).

The 2013 U.S. Census Bureau estimates Cape Girardeau County has a population of 77,320 residents and covers a geographical area of 578.54 square miles. The population per square mile averages 130.8. Table 1.1 compares state and county by population, land area, median household income, and percentage of persons below poverty.

Table 1.1: General Demographic of Cape Girardeau County Compared to Missouri, 2014

Missouri	
Population, 2014	6,063,589
Land Area (sq. miles)	68,741.52
Median Household Income, 2013	47,333
Persons below Poverty, 2013	15.0%
Cape Girardeau County	
Population, 2014	78,043
Land Area (sq. miles)	578.54
Median Household Income, 2013	46,154
Persons Below Poverty, 2013	15.9%

Source: U.S. Census Bureau

Population

Table 1.2: Population Change for Cape Girardeau County and Missouri

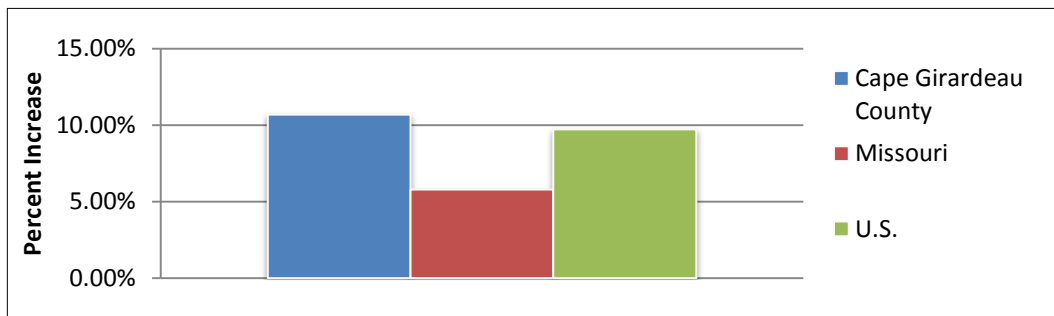
	Census 2010 Population	Estimated 2014 Population	Population Change	% Change
Cape Girardeau	75,674	78,043	2,369	3.1%
Missouri	5,988,923	6,063,589	74,666	1.2%

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, 2010 to July 1, 2013

U.S. Census estimates that the population of Cape Girardeau County increased by 3.1%, from 75,674 persons in 2010 to 78,043 persons; in 2014 while the population for Missouri increased by only 1.2%. Population Change for this three year time period is shown in Table 1.2.

Over a ten year period (2003 to 2013) Cape Girardeau County has experienced a population increase of 10% compared to Missouri’s 6% and the U.S. 9.74% increase as shown in Figure 1.1. 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

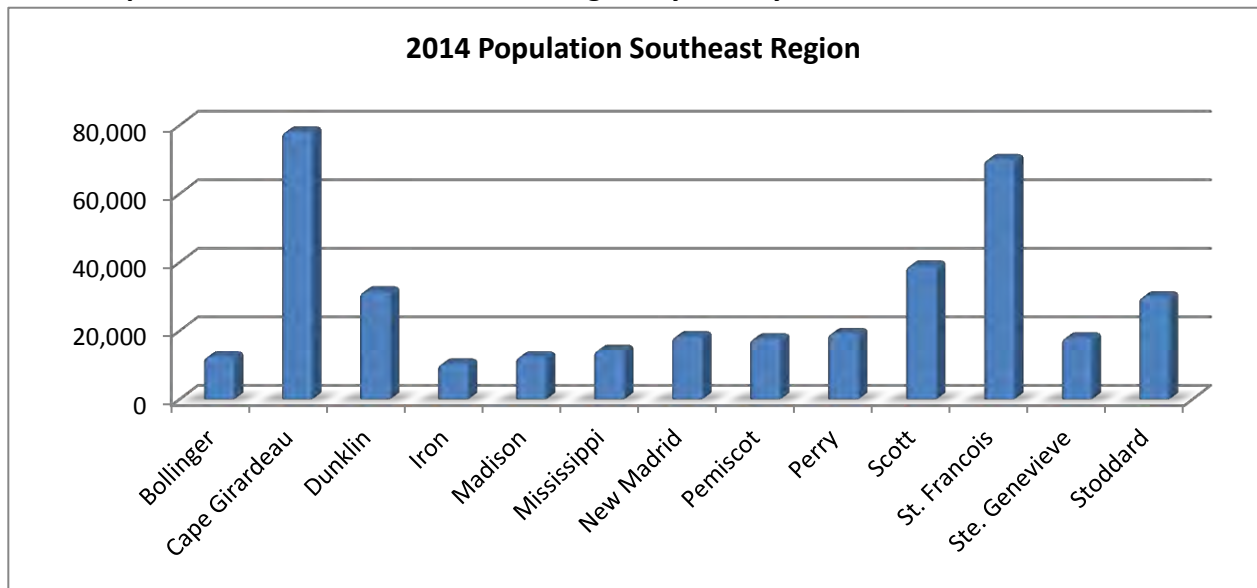
Figure 1.1: Comparing Percentage of Population Change for Cape Girardeau County and Missouri, 2003-2013



Source: MODHSS Population MICA, U.S. Census Bureau

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 might Mississippi River,” Cape Girardeau County has the largest population. Figure 1.2 compares the 2014 estimated population for these counties.

Figure 1.2: Population for Southeast Missouri Region by County, 2014



Source: Missouri Economic Research and Information Center, Missouri Department of Economic Development, Regional Profile, WIA Demographics Population, 2014 Date: 2014

Of significant importance, when reviewing population characteristics and related health and social needs, is the enrollment population of Southeast Missouri State University (SEMO). The main campus of SEMO is located within the City of Cape Girardeau covering a 328 acre area and is the only higher four year educational institution physically located between St. Louis and Memphis. Table 1.3 provides the enrollment figures for 2012-2014.

Table 1.3: Southeast Missouri State University Total Enrollment (FTE), 2013-2014, Graduate & Undergraduate

Year	Total Enrollment
2012	9,319
2013	9,334
2014	9,477

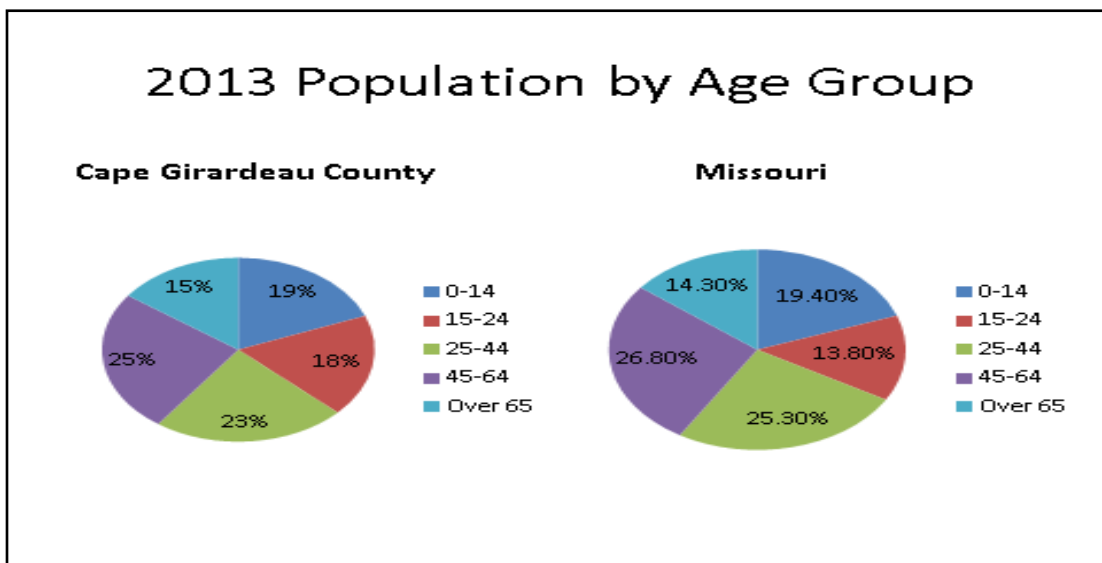
Source: Southeast Missouri State University, Office of Institutional Research, Census Report, 9/23/2014

57% of students are Female, 43% are Male, and 32% (3,000) are Residential Students living within the City of Cape Girardeau with an International Student count of 1,061 from 56 different countries. Although the University provides Health Services through a Student Health Clinic, many of the health, social, economic, and behavioral needs and risks 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 estimates children under 15 years of age make up 19% of the population of Cape Girardeau County. Persons in the 15 to 24 age group constitute 18% of the population, while those in the 25 to 44 age group make up 25% of the Cape Girardeau County population. Individuals in the adult 45 to 64 age group represent 25% of the total population. Adults over 65 comprise 15% of the area population. These percentages are comparable to those for the state of Missouri. Figure 1.3 displays the percent of these populations by age group for both Cape Girardeau County and Missouri.

Figure 1.3: Comparing Population by Age Group for Cape Girardeau County and the State of Missouri, 2013



Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin, April 1, 2011 to July 1, 2013

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 is under 18 years of age compared to the percentage of the population over age 65. The percentage of the Cape Girardeau County population under age 18 is 21.7%. In comparison, 23.1% of the population of Missouri and 23.3% of the population of the United States is under age 18. People age 65 and older account for 15.1% of the Cape Girardeau County population, 15.0% of the state population, and 14.1% of the U. S. population. Table 1.4 provides a comparison of the population estimates for 2013 by both age and gender for both Cape Girardeau County and the state of Missouri.

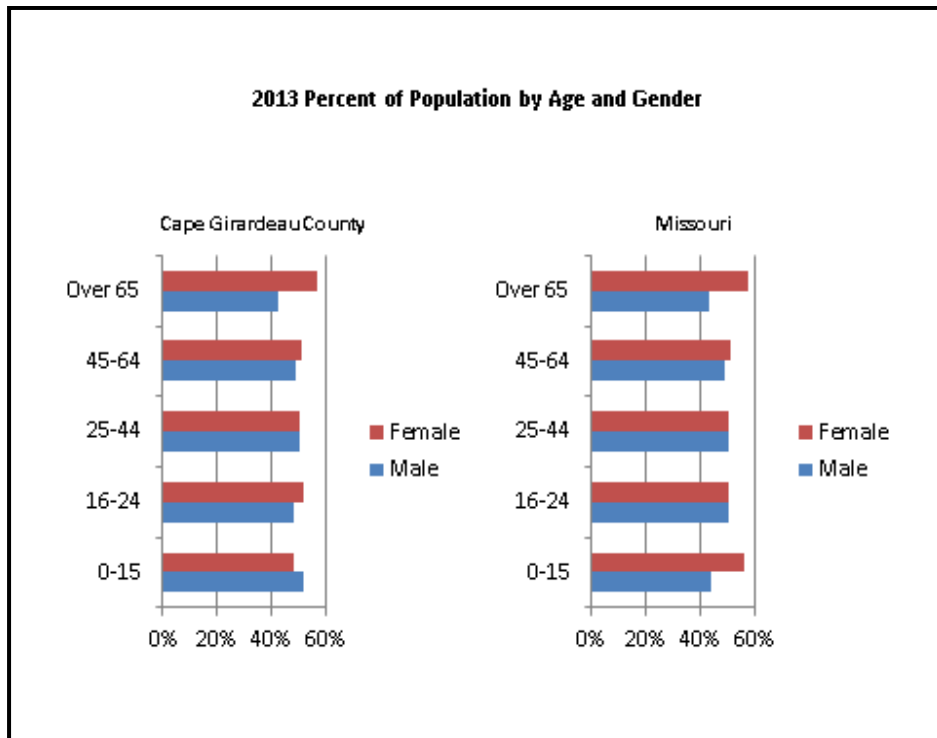
Table 1.4: Population Estimates by Age and Gender, 2013

County/ State	Age 0 - 15		15 - 24		25 - 44		45 - 64		Over 64	
	M	F	M	F	M	F	M	F	M	F
Cape Girardeau	7,598 (52%)	6,915 (48%)	6,653 (48%)	7,153 (52%)	8,884 (50%)	8,970 (50%)	9,564 (49%)	9,879 (51%)	5,103 (43%)	6,639 (57%)
Missouri	592,080 (44%)	749,356 (56%)	420,377 (50%)	413,225 (50%)	760,823 (50%)	761,691 (50%)	790,691 (49%)	829,534 (51%)	396,694 (43%)	516,906 (57%)

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2011 to July 1, 2013

Cape Girardeau County was slightly below the state percentages in the 0-15 year age group, the 25 to 44 year age group, and the 45 to 64 year age group. Cape Girardeau County has a slightly higher percentage of individuals in the 15 to 24 year and 65 and over age groups. Figure 1.4 compares those age and gender groups in their respective percentages of the total population for both Cape Girardeau County and the state of Missouri. The highest percentage of the male population in Cape Girardeau County is greatest in the 0-15 year age group (52%) and the lowest percentage of the male population is in the Over 64 year age group (43%). In comparison, in Missouri the largest percent of the male population is in the 15-24 and 25-44 year group (50% each) and the lowest percentage is in the Over 64 age group. In both the county and the state the female population is comparable percentage wise in all age groups with the highest percentage of females in the Over 65 age group. It can be concluded from this indicator that as the population ages, a higher percentage of the 65 and older population is female and suggests that morbidity and mortality indicators be compared as well for this age group.

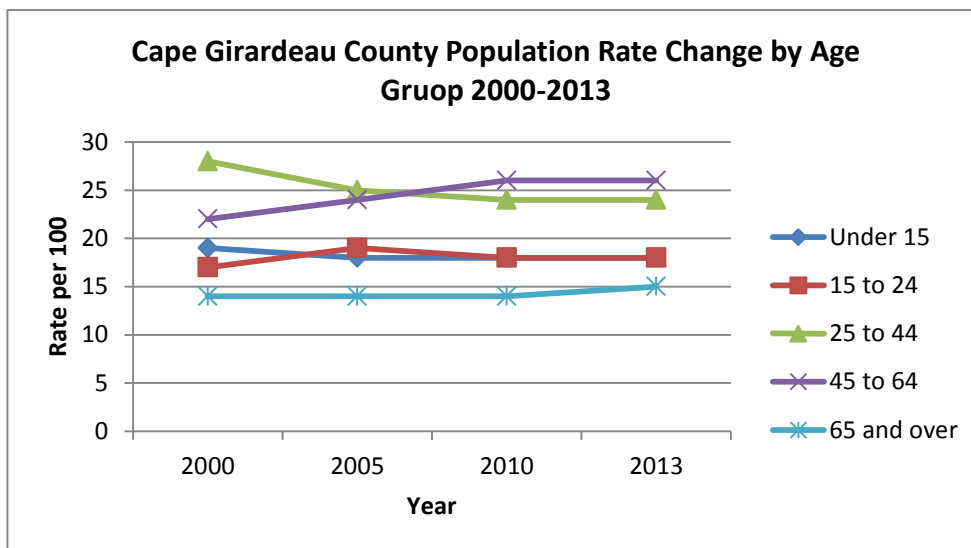
Figure 1.4: Population Estimates by Age and Gender, 2013



Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2001 to July 1, 2013

During a ten year time span (2000-2010) 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, 2000-2013

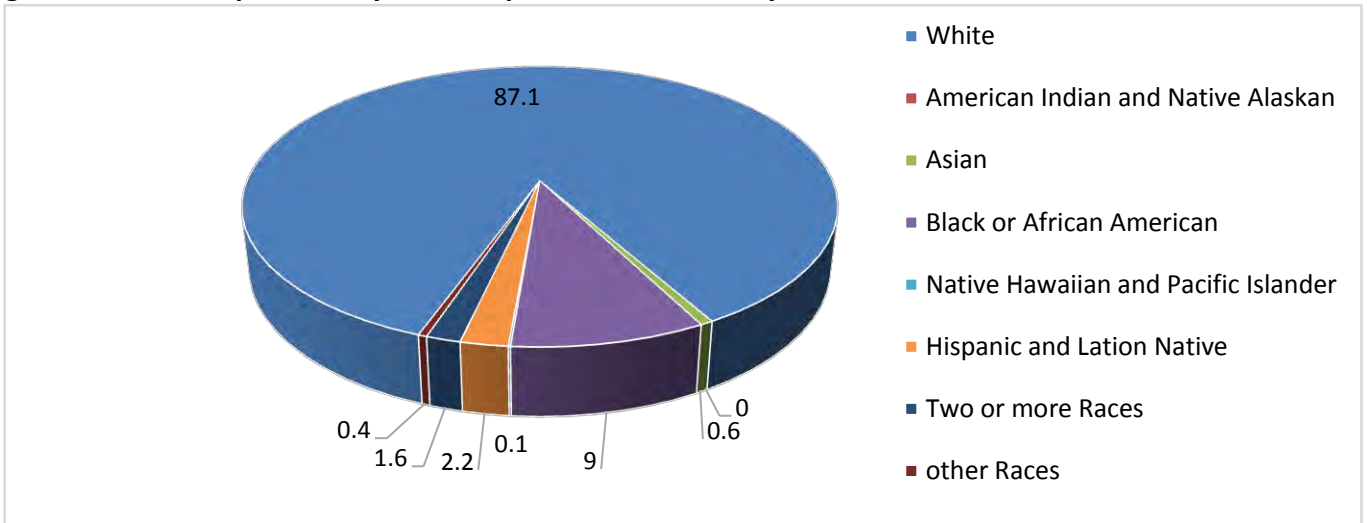


Source: MODHSS Population MICA

Racial Diversity

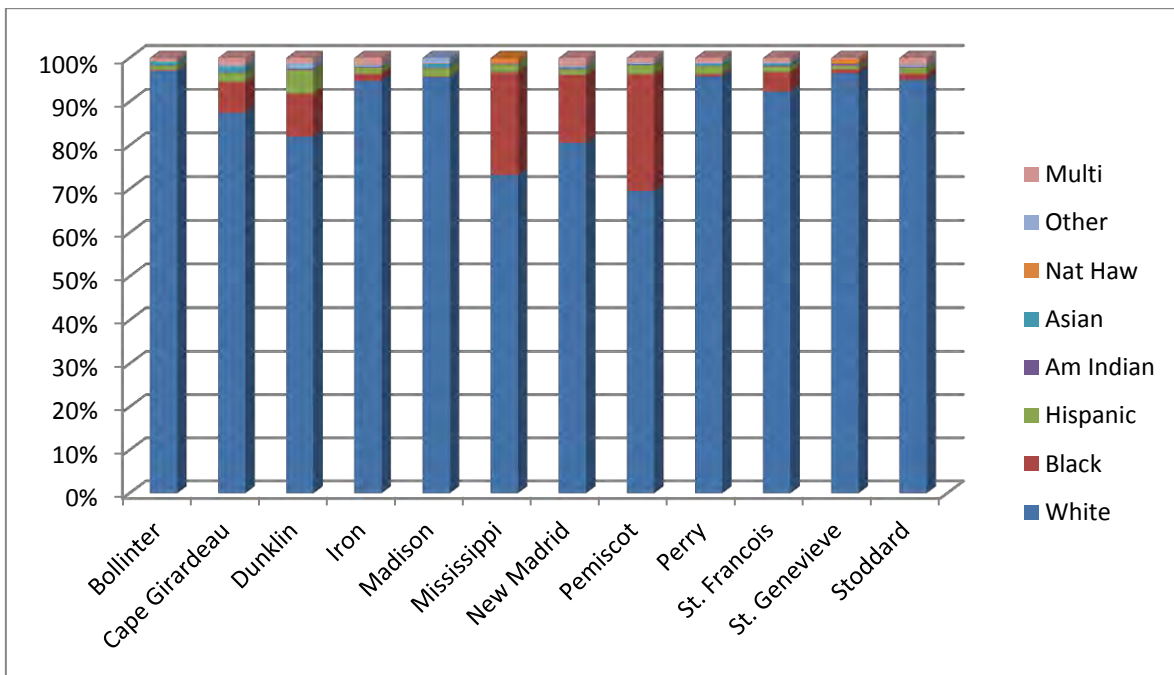
According to U.S. Census population estimates for population by race in Cape Girardeau County, 89.3% are white, 7.2% are African American, 0.2% are American Indian and Alaskan, 1.2% are Asian 0.1% are Hawaiian and Pacific natives, and 2.1% Hispanic and Latino natives. Persons identifying themselves as two or more mixed races made up 1.6% of the total Cape Girardeau County population and those identified as other races combined as 0.4%. Figure 1.6 displays the 2013 Cape Girardeau County population by percent of Race.

Figure 1.6: 2013 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: April 1, 2010 to July 1, 2012, Release Date May 14, 2013.

Figure 1.7: Percent of Population by Race Southeast Region



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Socioeconomic indicators, Missouri Census Data Center (2015), ACS Profiles 2009-2013 (5yr. estimates)

Figure 1.7 compares the percent of the population, by race, for each of the counties in the Southeast Region. The highest percentage of the population is within the White race followed by the Black / African American race in all of the thirteen counties. Of significance to Cape Girardeau County is a higher percentage of Asian population than the other counties.

Population by Age and Race

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

Age Group	White	Black/African American	Asian	Native American	Native Hawaiian	Other	Multiple Race
0-4	5.5%	11%	0	2%	28.6%	0%	14%
5-14	15%	32%	13%	25%	35%	28%	29%
18-24	13%	17%	38%	7%	0%	34%	25%
25-34	12%	16%	9%	33%	23%	10%	14%
35-44	12%	9%	5%	9%	14%	17%	5%
45-54	14%	10%	15%	16%	0%	7%	6%
55-64	13%	7%	13%	0%	0%	5%	3%
65+	16%	5%	2%	4%	0%	0%	4%

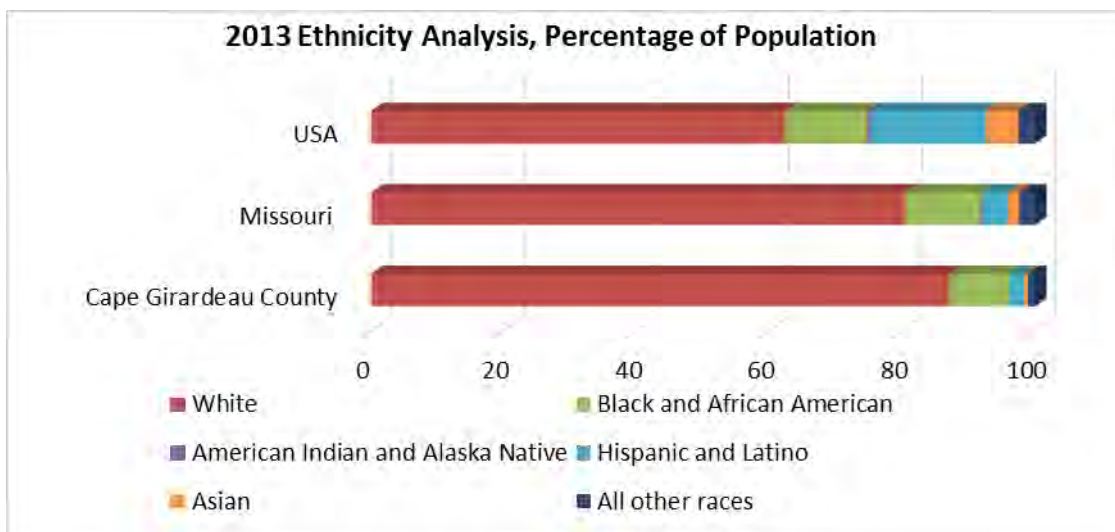
Source: U.S. Census Bureau, American Community Survey, Community Commons, 2009-2013

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

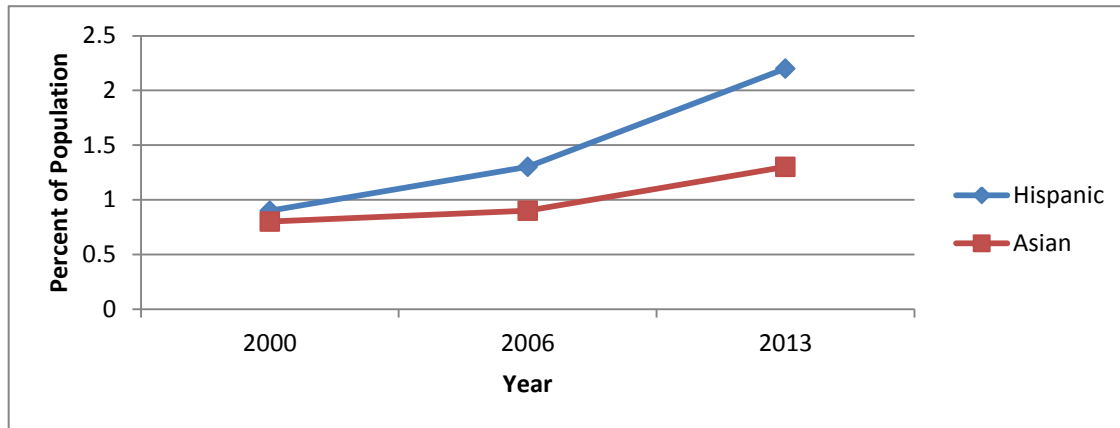
Figure 1.8: Ethnicity Analysis Comparison, Percent of Population, 2013



Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2010 to July 1, 2013, Release Date May 07, 2013.

As displayed in Figure 1.9 according to the U.S. Bureau of 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 0.9% in 2000 to 2.2% in 2013. The percentage of the Asian population increased from 0.8% in 2000 to 1.3% in 2013.

Figure 1.9: Percent of Hispanic and Asian Ethnicity Population, 2000-2013

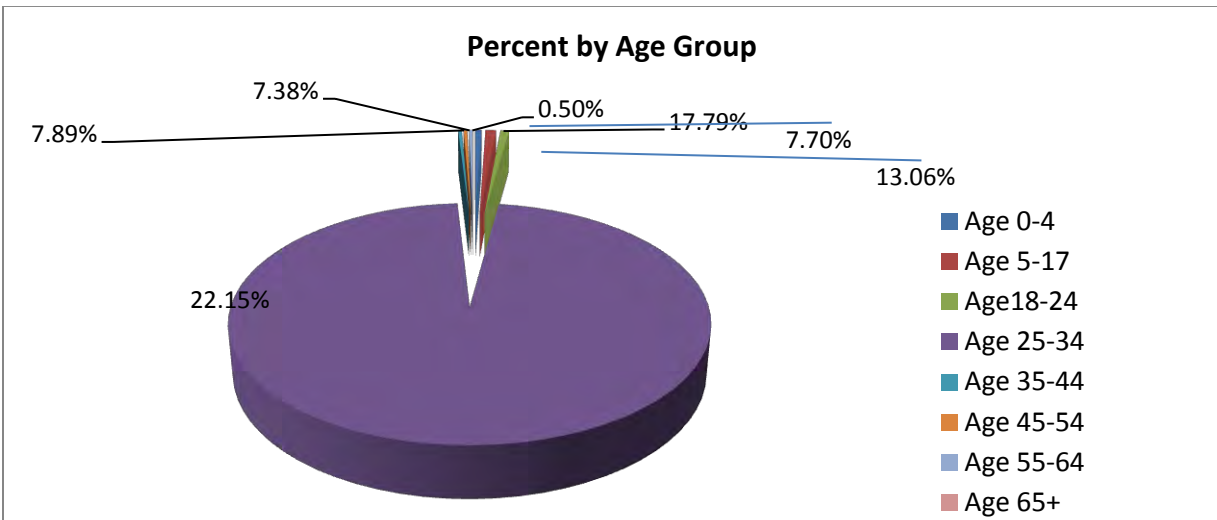


Source:

U.S. Bureau of the Census, County Population Estimates by Demographic Characteristics, 2000-2013

Although the sheer 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, and lower educational attainment. The Centers for Disease Control 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. The highest percent of the Hispanic population is in the 25-34 year old age group (22.15%) followed by the 18-24 year old age group (17.79%).

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

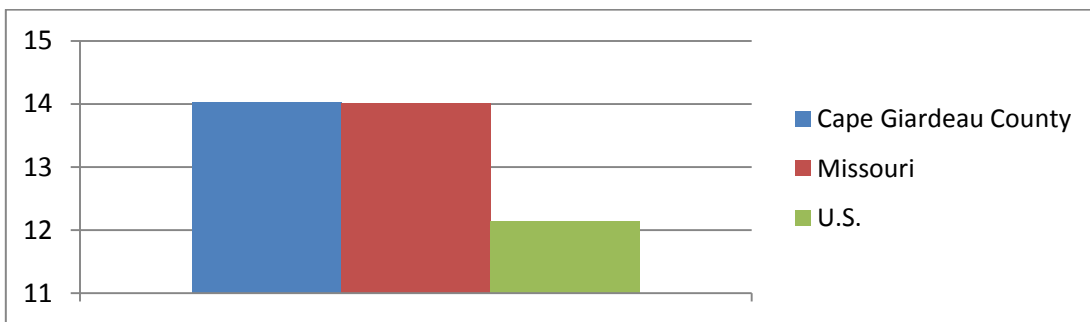


Source: U.S. Census Bureau, American Community Survey, Community Commons, 2009-2013

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. Figure 1.11 shows the percent of the non-institutionalized population with a disability. According to the U.S. Census Bureau, American Community Survey, Cape Girardeau County has a 14.02% rate and exceeds both the 14.01% in Missouri and the 12.13% in the U.S.

Figure 1.11: Percent Population with a Disability



Source: U.S. Census Bureau, American Community Survey, Community Commons, 2009-2013

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 with 5.53% in the under 18 age group, 12.9% in the 18-64 year old group, and the highest incidence (36.67%) in the 65+ age group.

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

Report Area	Under Age 18	Age 18 - 64	Age 65 +
Cape Girardeau County, MO	5.53%	12.19%	36.67%
Missouri	4.56%	12.23%	38.06%
United States	4.03%	10.1%	36.48%

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

Household Characteristics

According to 2013 U.S. Census population reports there are a total of 29,411 households in Cape Girardeau County with an average of 2.0 persons per household. Family households account for 64.9% of households in Cape Girardeau County; 64.5% of households across Missouri; and 65.9% of households in the United States. Cape Girardeau County household characteristics are compared to Missouri and the United States in Table 1.7.

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

	Cape Girardeau	Missouri	United States
Family Households	64.9%	64.5%	65.9%
Married with Children	19.0%	18.0%	19.1%
Married without Children	31.3%	29.9%	28.9%
Single Parents	13.7%	16.5%	17.9%
Non-Family Households	36.0%	35.5%	4.1%
Unmarried Partner Households	6.8%	6.2%	6.1%
Same Sex Households	0.8%	0.4%	0.4%
Living Alone	29.6%	29.3%	27.7%

Source: U.S. Census Bureau, 2013 Census

Cape Girardeau County Household Characteristics do not vary significantly from state and national percentages except in the categories of Single Parents and Non-Family Households. Single Parents households are slightly lower than state and national. While the percentage of Non-Family Households (36.0%) is higher than the national percentages (4.1%), it is only slightly higher than the state percentage (35.5%).

Marital Status

According to the 2013 Census, the total population age 15 years and over in Cape Girardeau County was 62,314. 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 with the exception of the Divorced percentages (9.9%) which are slightly lower than the state percentages (12.0%). The largest percentage of the population in both the County (52.6%) and the state (52.3%) is reported in the Married status.

Table 1.8: Marital Statuses, 2013

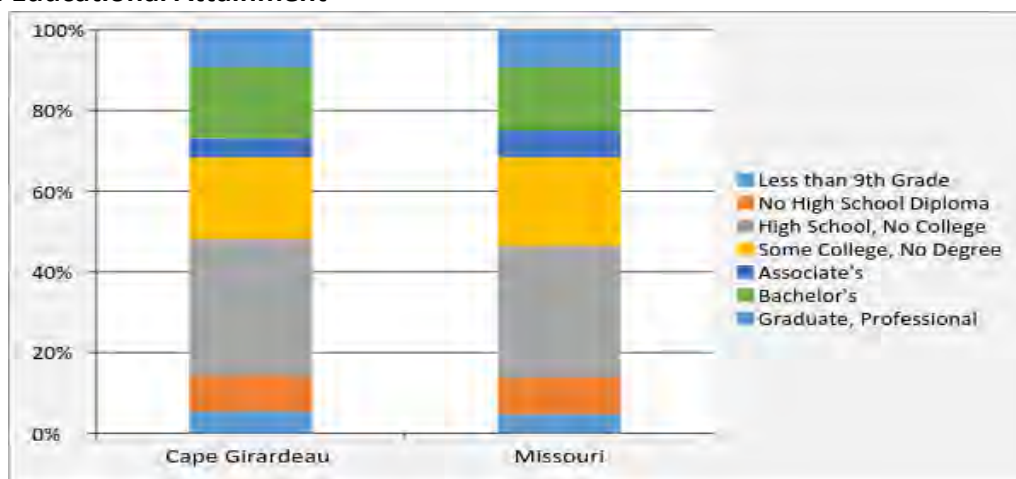
Marital Status	Cape Girardeau County		Missouri	
	Number	Percent	Number	Percent
Population 15 years and over	62,314	100.0	4,836,868	100.0
Never married	19,411	31.2	1,419,448	29.3
Married	32,776	52.6	2,528,149	52.3
Widowed	3,945	6.3	310,204	6.4
Female	3,282	5.3	246,353	5.1
Male	663	1.1	63,851	1.3
Divorced	6,182	9.9	579,067	12.0
Female	3,568	5.7	320,693	6.6
Male	2,614	4.2	258,374	5.3

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2010 to July 1, 2013, Release Date May 07, 2013.

EDUCATION

Educational Attainment

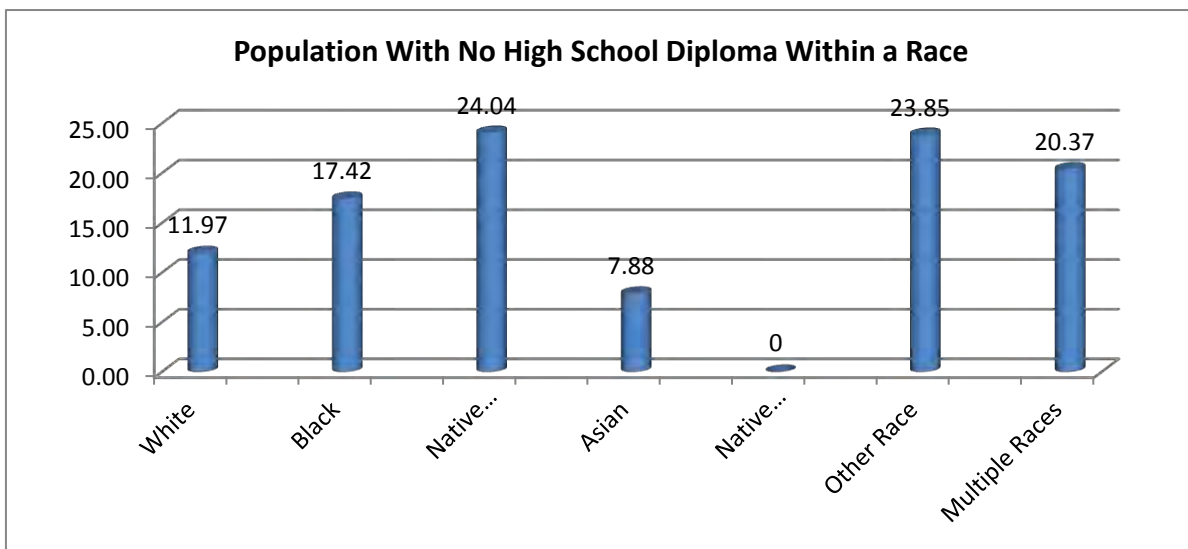
Educational Attainment is a relevant indicator as it has been linked to positive health outcomes and could affect multi-generational outcomes. Maternal educational levels, for instance, not only affects the mother's health but also that of her children. According to University of Missouri Extension, Office of Social and Economic Data Analysis, approximately 14.2% of Cape Girardeau County residents age 25 or older had less than a high school diploma compared to 13.9 % of Missourians in 2010. Figure 1.12 compares county and state educational attainment levels.

Figure 1.12: Educational Attainment

Source: U.S. Census Bureau, 2000 Census of Population and Housing, Summary File 3, 2010.

Data obtained through the American Community Survey (ACS), a nationwide continuous survey conducted through the U.S. Census Bureau, indicates that by the end of the five year period of 2009-2013, Cape Girardeau County experienced a decrease in the 25 and older age group that had less than a high school diploma. By 2013 that percent had decreased to 12.33% for the county which was lower than the 12.4% for Missouri and the 13.9% for the U.S. The ACS also indicates that of those individuals without a high school diploma 11.76% are male and 12.85% are female. These percentages are comparable to Missouri (Male 12.78%, Female 12.04%) and the U.S. (Male 14.68%, Female 13.3%). Of the total population 25 years and older in the county without a high school diploma, 89.87% are white, 7.41% are Black, 0.44% are Native American / Alaska Native, 0.588% are Asian, 0.43% are Other Races, and 1.3% are of Multiple 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: 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, 2009-2013.

The population classified as Other Race has the highest percentage of individuals 25 years of age and older who do not have a high school diploma. It is further reported by the ACS that by ethnicity alone, the Hispanic / Latino population in Cape Girardeau County have 36.6% 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: Percent Attaining Educational Levels

	% 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	5.5	8.7	33.9	20.3	4.6	17.7	9.2
Missouri	4.7	9.2	32.6	22.0	6.6	15.8	9.2

Source: U.S. Census Bureau, 2000 Census of Population and Housing, Summary File 3, 2010

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.

Table 1.10: 2012/2013 School Districts

	School District	2013 Enrollment	2014 Enrollment
	Delta R-V	307	276
	Cape Girardeau 63	4,031	4,072
	Jackson R-II	4,637	4,758
	Oak Ridge	325	350
	*Nell Holcomb	293	277
Cape Girardeau	All Districts	9,593	9,733
Missouri	523	889,181	

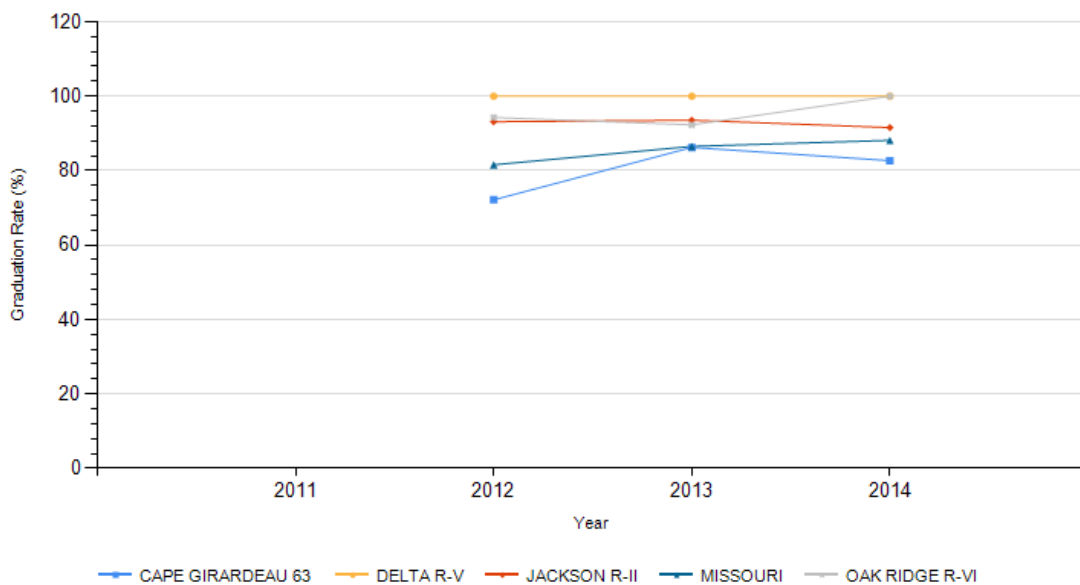
* School district offers K-8 only, dropout rate is not reported.

Source: Missouri Department of Elementary and Secondary Education, Enrollment

Graduation Rates

Figure 1.14 displays a trend line of the Graduation Rates for each district in the county in comparison to the trend for Missouri.

Figure 1.14: 5 Year Graduation Rate by District, Cape Girardeau County, 2011-2014



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

Delta R-V district has maintained the highest graduation rate of all the districts at 100%. Oak Ridge R-VI has increased the graduation rate from 94.3% in 2012 to 100% in 2014. Jackson R-II has decreased only slightly from 93.1% in 2012 to 91.6% in 2014. Cape Girardeau 63 has increased the graduation rate from 72.2% in 2012 to 82.7% in 2014. Missouri graduation rates increased from 81.6% in 2012 to 88.2% in 2014. Only the Cape Girardeau 63 District is below the state graduation rate. Table 1.11 displays the Cohort Graduation Rate for all districts combined compared to Missouri Cohort Graduation Rate. The county, as a whole, has a slightly higher percentage of students graduating from high school than that for Missouri. Missouri Kids Count reports the Cape Girardeau County graduation rates increased from 86.0 percent in 2008 to 87.4 percent in 2012.

Table 1.11: Percent Attaining Educational Levels

	2008	2012
Cape Girardeau	86.0%	87.4%
Missouri	85.1%	86.5%

Source: *Missouri Kids Count, 2012 Data Book.*

High School Dropout Rates

In addition to graduation rates it is of equal importance to analyze the high school dropout rates in the 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 that for the entire state. According to Missouri Kids Count, the high school dropout rate ranged from 5.0% in Cape Girardeau County in 2008 to 3.2% during 2012. The Missouri Department of Elementary and Secondary Education report that by 2014 that rate had decreased to 2.5% for the county. In Missouri the percentage went from 3.5% in 2008 to 2.3% in 2014. The rate for Cape Girardeau County remains higher than the state.

Table 1.12: Comparisons of Dropout Rates, 2008 – 2012 - 2014

	2008	2012	2014	Rank in Missouri
Cape Girardeau	5.0%	3.2%	2.5	102
Missouri	3.5%	2.9%	2.3%	N/A

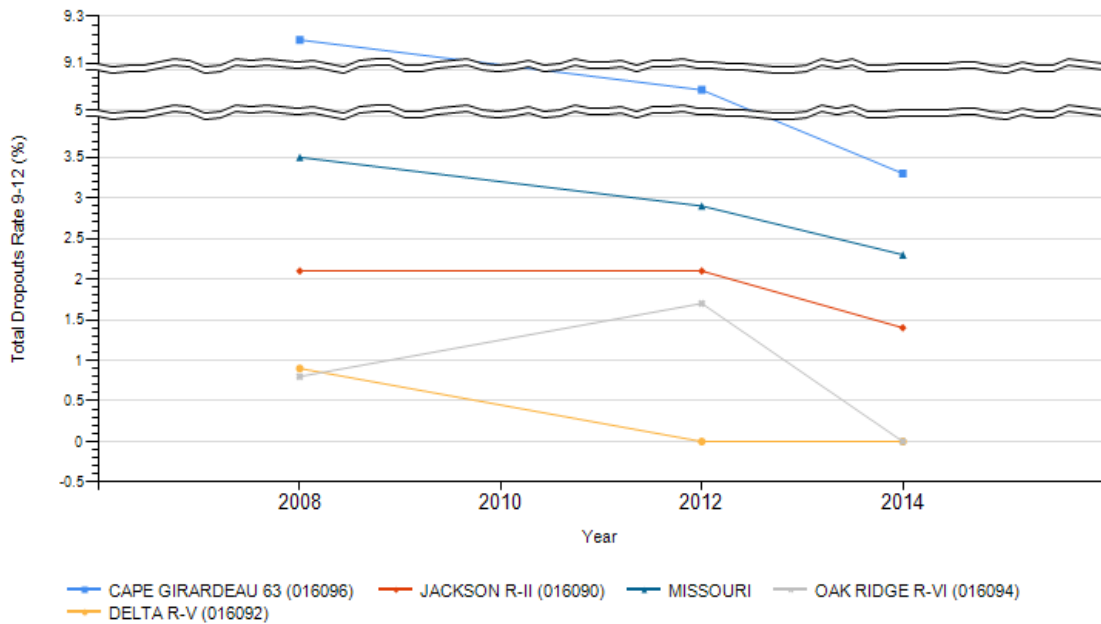
Source: *Missouri Kids Count and Missouri Department of Elementary and Secondary Education*

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 2014 Cape Girardeau District 63 had the highest dropout rate (4.0%), followed by Jackson R-II (1.4%), Oak Ridge (2.3%) and Delta (0%). Oak Ridge District had a significant increase in 2012 but decreased significantly by 2014. Delta District has remained at 0% from 2013 to 2014. All of the districts except Cape Girardeau are 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 levels when coupled with poverty / income status increase the likelihood for the development of cardiovascular disease, cancer,

lung disease, and diabetes. The Cape Girardeau School District has a higher dropout rate, higher rate for students enrolled in free/reduced lunch, and the greatest percentage of the county's 0-17 year old population group living below the poverty level. These combined disparities suggest that Public Health, Education, and Community Resources interventions may be appropriate. Figure 1.16 shows the percentage from 2008 to 2014 for each districts dropout rate by race.

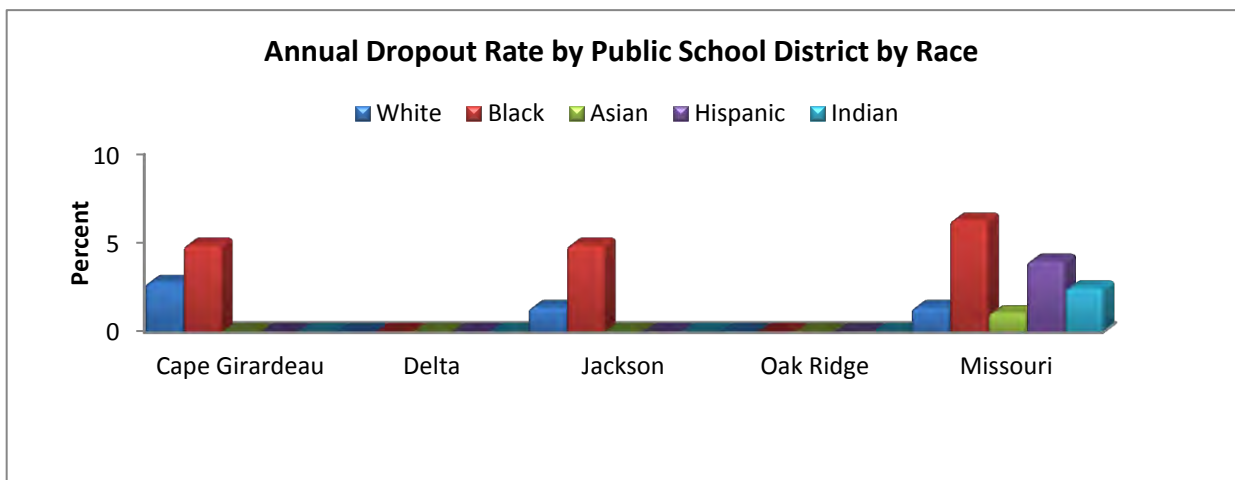
Figure 1.15 displays the trend in dropout rates for each of the five districts in Cape Girardeau County and for Missouri from 2008 to 2014.

Figure 1.15: Annual Dropout Rate by Public School District



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

Figure 1.16: Dropout Rate by Race

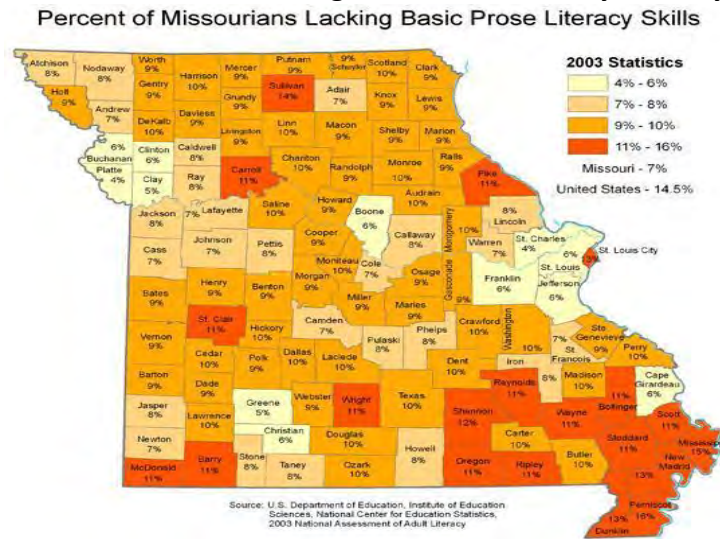


Source: Missouri Department of Elementary and Secondary Education

Basic Prose Literacy Skills

Cape Girardeau County has a lower percentage of residents lacking basic prose literacy skills than the percentage among other Missourians. 6% of residents of Cape Girardeau County residents are 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 identifies by county, the percent of Missourians lacking Basic Prose Literacy Skills.

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 January 2015.

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, and also impact health literacy and the delivery of health education. Cape Girardeau County has 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

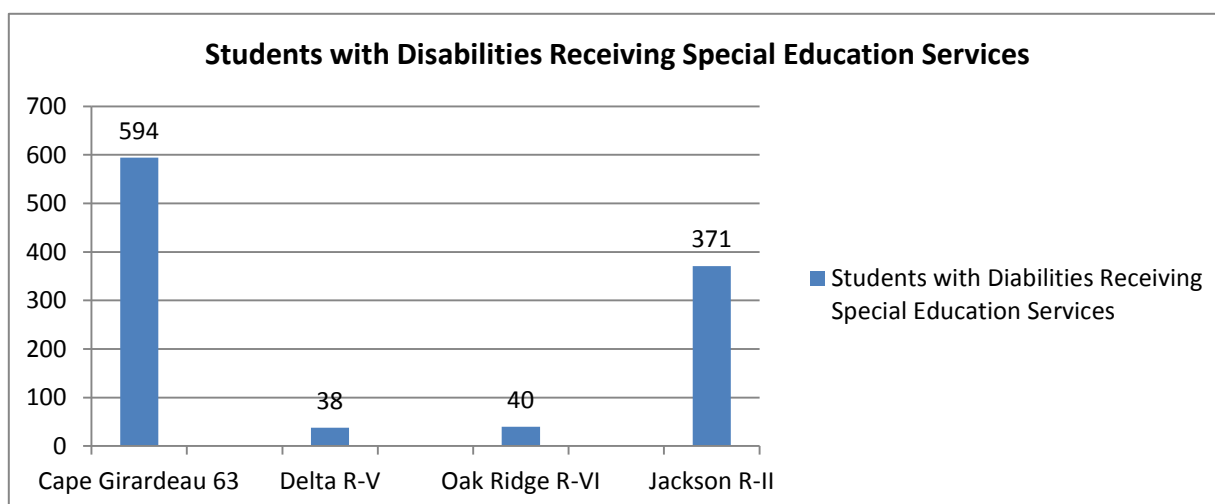
Report Area	Percent Population 5+ Limited English Proficiency
Cape Girardeau County	1.33%
Missouri	2.28%
United States	8.63%

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

Children with Disabilities Receiving Special Education Services

According to the Missouri Department of Elementary and Secondary Education, 1,003 students with disabilities received special education services in Cape Girardeau County in December 2014, with a range of 38 in Delta R-V school district to 594 in Cape Girardeau 63 as displayed in Figure 1.18.

Figure 1.18: Children with Disabilities Receiving Special Education Services



Source: Missouri Department of Elementary and Secondary Education

Table 1.14: Students with Disabilities Receiving Special Education Services, Dec. 2014

County/ School District/ State	Mental Retardat ion/ Intellect ual Disabilit y	Emotiona l Disturba nce	Languag e Impairm ent	Speech Impairm ent	Visual Impairm ent	Hearing Impairm ent	Autism	Specifi c Learni ng Disabil ity	Other Health Impairm ent/ Disability	Total
Cape Girardea u 63	73	19	49	104	5	4	42	186	116	594
Delta R-V	6	0	7	13	0	1	0	8	3	38
Jackson R-II	50	27	45	57	3	6	40	57	86	371
Oak Ridge	3		3	5			4	23	2	40
Cape Girardea u County	132	46	104	179	8	11	86	254	207	1,043
Missouri										111,972

Source: Missouri Department of Elementary and Secondary Education Students with Disabilities, Dec.1, 2014.

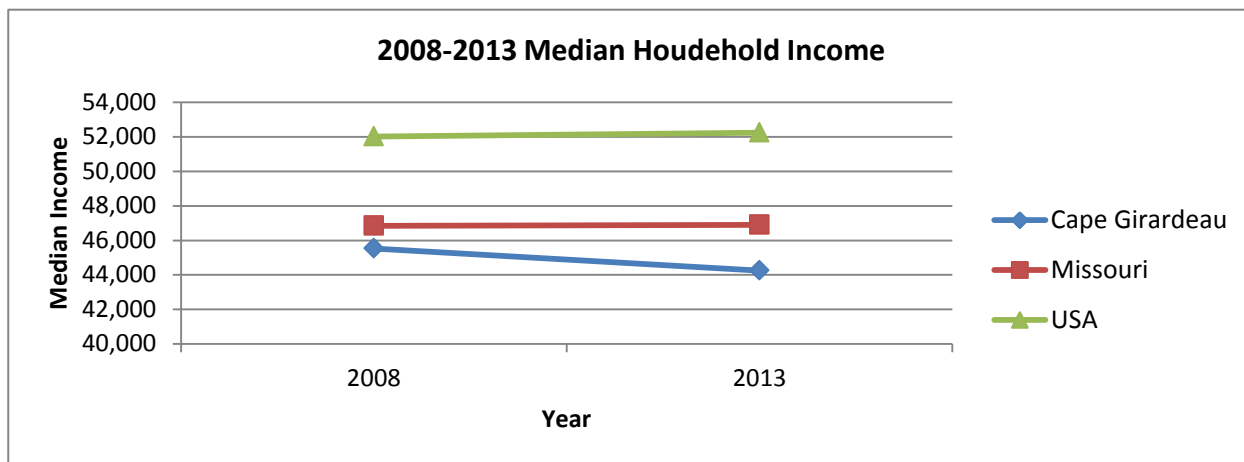
Table 1.14 identifies, by school district, the number and category of disabilities. The type of disability that has the highest number reported is “Specific Learning Disability.

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 \$44,248 in 2013, about 5.7% below the state average. The average Cape Girardeau County median household income was 15.3% 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 \$39,560 as compared to a statewide average of \$40,663. Comparison of the Median Income Levels are shown in Figure 1.19 and Comparison of the Per Capita Income, 2013 Levels are shown in Table 1.15

Figure 1.19: Median Household Income Levels, 2008-2013



Source: U.S. Census Bureau, Small Area Income and Poverty Estimate (SAIPE), 2013, U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS), 2013.

Table 1.15: Per Capita Income, 2013

County/ State/ Nation	Per Capita Income, 2013 (\$)
Cape Girardeau	39,560
Missouri	40,663
USA	44,765

Source: U.S. Census Bureau, Small Area Income and Poverty Estimate (SAIPE), 2013, U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS), 2013.

Wages

According to the Missouri Department of Economic Development Cape Girardeau County average annual wage was \$35,901 compared to a statewide average of \$43,061 in 2013. Average Annual Salary for Cape Girardeau County is compared to that for Missouri in Figure 1.20. Both hourly and

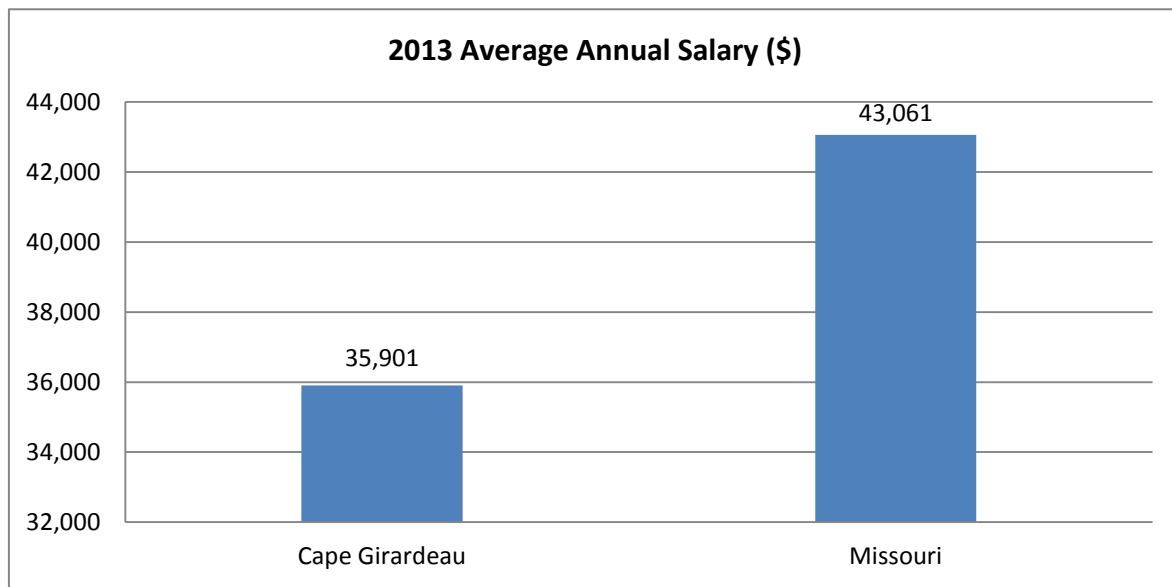
annual wages are shown in Table 1.16. Cape Girardeau County has consistently experienced a lower annual average salary and lower average hourly wages than both the state and the nation. Cape Girardeau County, however, did experience a 76% increase in the average hourly wage compared to Missouri at a 59% increase, and the U.S. at only a 4.4% increase.

Table 1.16: 2013 Average Wages

	Average Hourly Wage (\$), 2007	Average Hourly Wage (\$), 2013	Average Annual Wage (\$), 2013
Cape Girardeau	9.79	17.26	35,901
Missouri	13.01	20.70	43,061

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 2013.

Figure 1.20: Wages



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 2013.

Living Wage

The living wage shown 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 for a family of four (two adults, two children) in Cape Girardeau County is \$16.24 per hour. The minimum hourly wage is \$7.35. Hourly living wage, by county, is shown in Table 1.17.

Table 1.17: County Hourly Living Wage, 2012

	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	7.35	16.04	20.46	25.79	12.25	15.26	16.24	19.32
Missouri	8.17	16.84	21.25	26.95	13.11	16.05	17.42	20.46

Source: *Poverty in America, Living Wage Calculator, 2012. (© 2013 Dr. Amy K. Glasmeier and The Pennsylvania State University)*

Child Care Costs

The Department of Social Services Childcare Rate Information, for July 2013, 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 is shown in Table 1.18.

Table 1.18: Average Child Care Costs by Type of Care, Cape Girardeau County 2013

B

Type of Care	Infant, Daily Cost (\$)	Pre-School, Daily Cost (\$)	School Age, Daily Cost (\$)
Center	15.90	10.82	9.94
Group	11.05	9.47	9.47
Family Home	11.38	9.47	9.47

Source: *Missouri Department of Social Services. Child Care Rate Information by County effective July 1, 2013.,*

Child Care Facilities

According to the Missouri Department of Health and Senior Services there were a total of 1,598 licensed child care facilities in Cape Girardeau County during 2013. The number of licensed child care facilities and total maximum capacity of slots, compared to 2008, are shown in Table 1.19. Although the total number of facilities has remained unchanged, there has been a reduction in the Maximum Capacity.

Table 1.19: Licensed Child Care Facilities in Cape Girardeau County

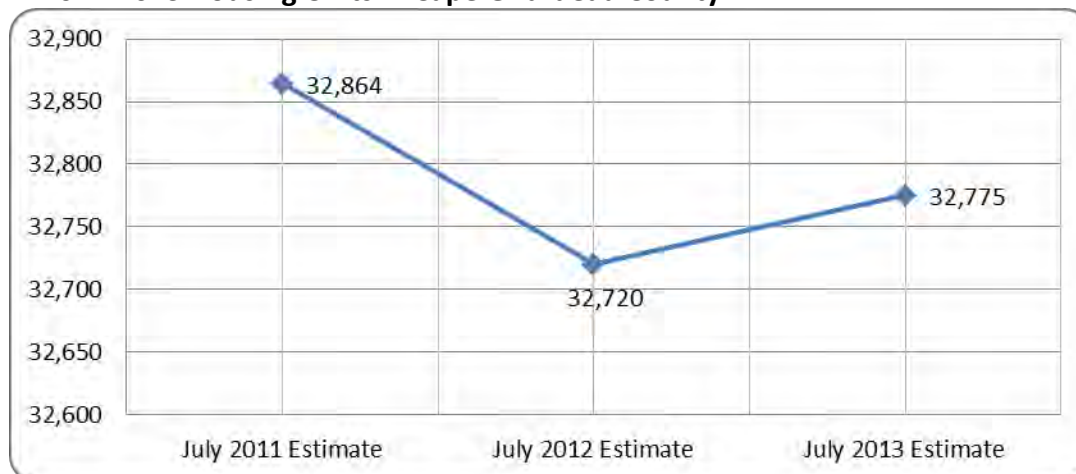
Number of Facilities, 2008	Total Maximum Capacity, 2008	Number of Facilities, 2013	Total Maximum Capacity, 2013
28	1,608	28	1,598

Source: *Missouri Department of Health and Senior Services, Section for Parent Information, 2013.,*

Housing

According to the U.S. Census there were a total of 32,775 housing units in Cape Girardeau County during 2013. The number of housing units, in July of each year, is shown in Figure 1.21.

Figure 1.21: 2011-2013 Housing Units in Cape Girardeau County



Source: U.S. Census Bureau, Population Division, Housing Unit Estimates for Counties: July 1, 2011 to July 1, 2013

Homeowners

The U.S. Census Bureau reports median housing values ranged from \$135,600 in Cape Girardeau County to \$173,200 in the United States in 2013. A total of 29,725 housing units were reported in Cape Girardeau County during 2013 as shown in Table 1.20.

Table 1.20: Homeowners

Area	# of Housing Units, July 2013	Homeowner Rate - %	Median House Value (\$)
Cape Girardeau	29,725	64.2	135,600
Missouri	2,353,778	67.6	135,700
USA	132,393,354	64.0	173,200

Source: U.S. Census Bureau, American Fact Finder, 2013.

Overcrowded Housing

Table 1.21 Overcrowded Housing Units

	Occupied Housing Units, 2013	Overcrowded Housing Units, 2013	Percent Overcrowded, 2013
Cape Girardeau	29,411	432	1.5
Missouri	2,360,131	39,126	1.7
USA	115,610,216	377,345	3.3

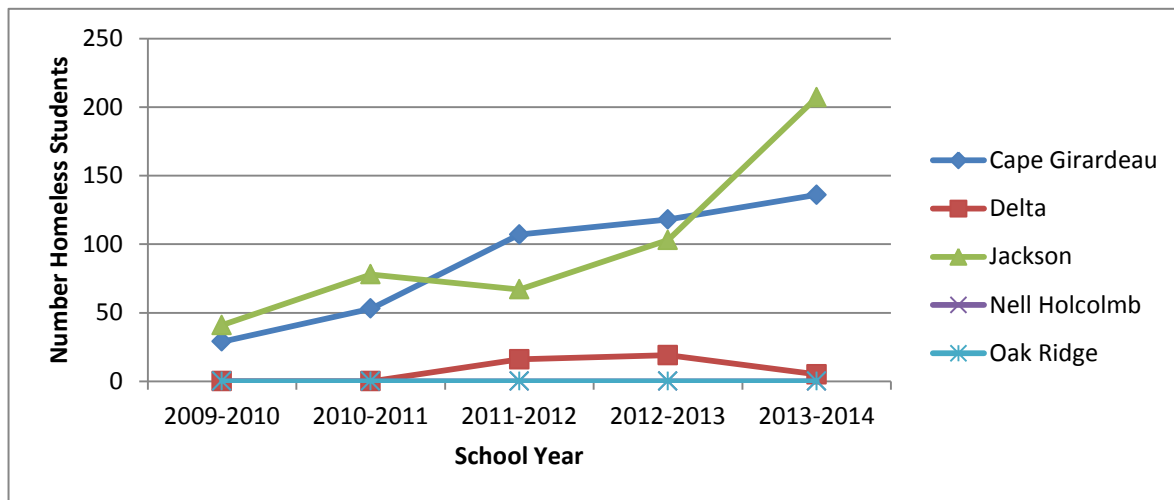
Source: U.S. Census Bureau, American Fact Finder, 2013.

According to the U.S. Census Bureau, the percent of overcrowded houses in Cape Girardeau County during 2013 was 1.5%. Occupied housing units, overcrowded housing units, and percent overcrowded, for 2013, are provided in Table 1.21.

Student Homeless Population

The Missouri Department of Elementary and Secondary Education data, from 2009-2014, identifies the number of homeless children in all of the Public School Districts within Cape Girardeau County. Homeless children ages 3 through 12th grades are shown in Figure 1.22. The McKinney-Vento Homeless Education Assistance Act (42 U.S.C. 11431 et seq.) defines homeless children or youths as, “individuals who lack a fixed, regular, and adequate nighttime residence and children and youths 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 youths 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 youths 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: Homeless Children by Public School District, 2009-2014



Source: Missouri Department of Elementary and Secondary Education, 2009-2014 School Years Homeless Census Data. Data provided by school district summarized by SESE school district-county association.

Number of Unsafe, Unsanitary Homes

The U.S. Census Bureau reports 53 housing units in Cape Girardeau County were without plumbing in 2013. The number and percentage of housing units without plumbing are shown in Table 1.22.

Table 1.22: Housing Units without Plumbing

	Percent without Plumbing, 2000	Total Housing Units, 2013	Housing Units without Plumbing, 2013	Percent without Plumbing, 2013
Cape Girardeau	0.4	32,775	53	0.2
Missouri	0.6	2,719,109	10,027	0.4
USA	0.6	132,808,137	471,155	0.4

Source: U.S. Census Bureau, American Community Survey, 2013

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 \$404.00 in 2013, compared to a statewide average of \$489.00. Fair market monthly rent for 0-4 bedrooms is shown in Table 1.23.

Table 1.23: Fair Market Rents, 2013

Fair Market Rent (Monthly \$)					
	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Cape Girardeau	404	502	679	881	1,074
Missouri	489	578	744	1,003	1,126

Source: National Low Income Housing Coalition, 2013 State Housing Profile

Foreclosures

The U.S. Department of Housing and Urban Development estimates a total of 321 houses were in foreclosures, in Cape Girardeau County. The estimated number of mortgages, foreclosures, and rate of foreclosure for Cape Girardeau County and Missouri is shown in Table 1.24.

Table 1.24: Foreclosures, January 2007- June 2008

	Estimated Number of Mortgages	Estimated Number of Foreclosures	Estimated Foreclosure Rate (%)
Cape Girardeau	12,205	321	2.6
Missouri	1,297,577	52,185	4.0

Source: U.S. Department of Housing and Urban Development Neighborhood Stabilization Program, Foreclosure Starts over 18 months, 2008

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 2013, the hourly wage a worker must earn to afford a 1 bedroom rental was \$9.09 in the Cape Girardeau County area

Table 1.25: Hourly Wage Needed to Afford a Fair Market Rent, 2013

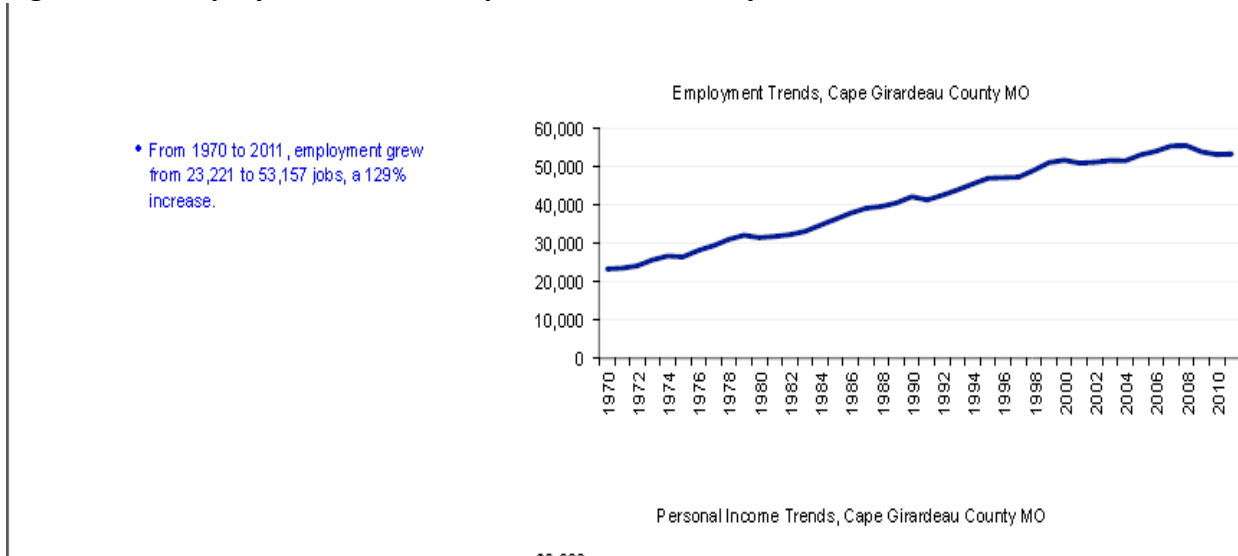
2013 Hourly Wage (Monthly \$s) for:						
County/ State	Average Renter Hourly Wage (\$)	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Cape Girardeau	10.47	7.77	9.65	13.06	16.94	20.65
Missouri	12.15	9.41	11.12	14.31	19.30	21.65

Source: *National Low Income Housing Coalition, 2012-2013 Out of Reach Report, 2013.*

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 2013 U.S. Census estimates, there were 61,146 total individuals in Cape Girardeau County that were 16 years of age and older. Of those, 39,948 (65.3%) are considered to be in the Civilian Labor Force and 21,198 (35%) not in the Civilian Labor Force. Of the Civilian Labor Force, 36,929 (92.6%) are employed and 2,931 (7.4%) are unemployed (the unemployment rate). The Employment Trend for Cape Girardeau County, at least from 1970-2010, is shown in Figure 1.23. Long-term, steady growth of both the population and employment generally is an indicator of a healthy, prosperous economy / community.

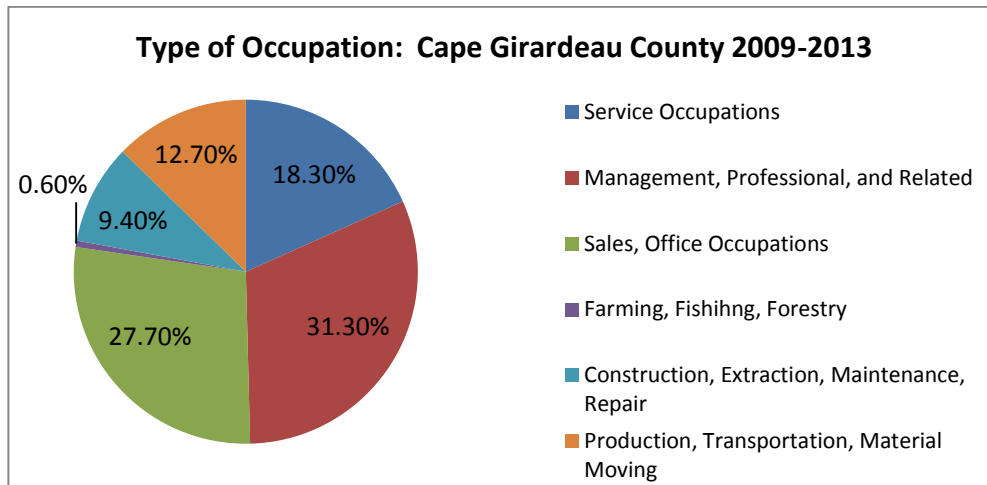
Figure 1.23: Employment Trends, Cape Girardeau County



Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, Washington, D.C.

Figure 1.24 shows the percent of the Civilian Employed Population in Cape Girardeau County by type of occupation for the 2009-2013 report periods

Figure 1.24: Type of Occupation of Cape Girardeau County Civilian Population, Percent 2009-2013

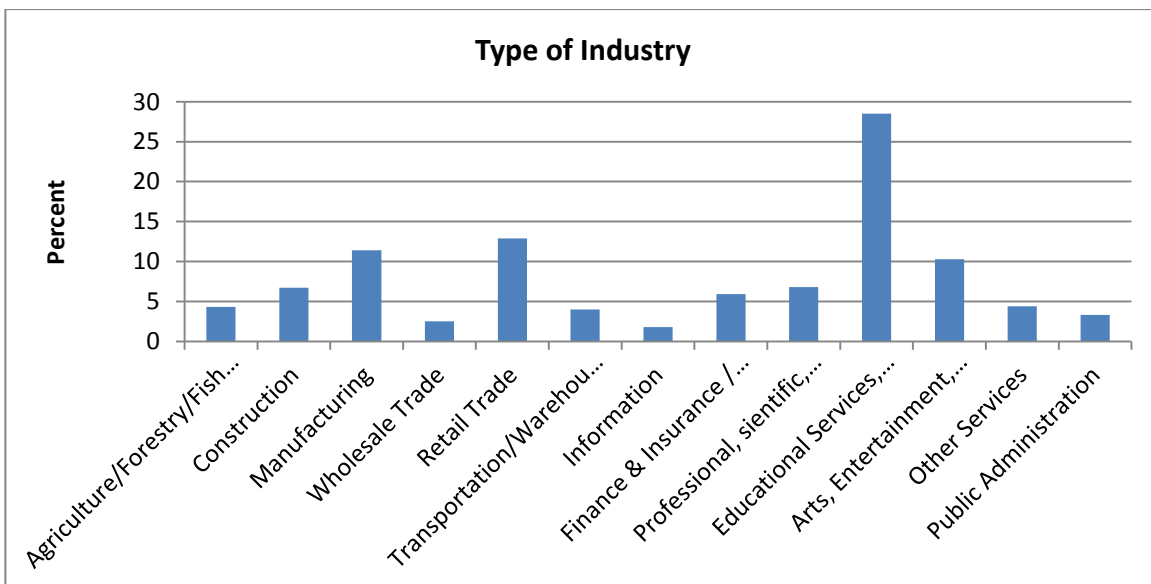


Source: U.S. Census Bureau, American Community Survey, and Population Profile Report: 2009-2013

The leading Type of Occupation has been in the Management, Professional, and Related category with 31.3%, followed by Sales / Office Occupations at 27.7%, Service Occupations at 18.3%, Production, Transportation, material Moving at 12.7%, Construction, Extraction, Maintenance / Repair at 9.49%, and Farming, Fishing, Forestry at 0.6%.

Figure 1.25 displays the percent of the Civilian Employed population by type of Industry.

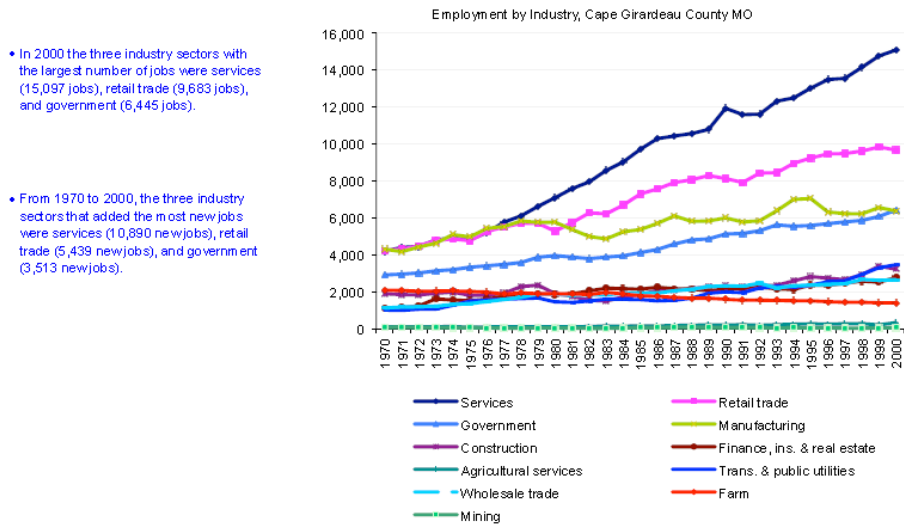
Figure 1.25: Workers by Industry for Cape Girardeau County, Percent 2009-2013



Source: U.S. Census Bureau, American Community Survey, and Population Profile Report: 2009-2013

Figures 1.26 provides a historical snapshot of how employment has changed within given types of industry in Cape Girardeau County.

Figure 1.26: Employment by Industry, Cape Girardeau County 1970-2000



Data Sources: U.S. Department of Commerce, Multiple Years (See Data Sources & Methods page). Bureau of Economic Analysis, Regional Economic Information System, Washington, D.C. Table CA25.

Table 1.26 lists the major manufacturing companies located in Cape Girardeau County, their product, and the number of employees.

Table 1.26: Major Manufacturing Companies

Company	Product or Service Provided	# Employees
American Railcar	Parts for Railroad Cars	175
BioKyowa	Feed Supplement: L-Lysine	150
Blair Packaging	Specialty Die Cutting	100
Buzzi Unecerm	Portland Cement & Masonry	194
Havco Wood Products	Laminated Oak Flooring	280
Newell Rubbermaid	Closet Organizer Accessories	305
Mondi Jackson, Inc	Flexible Film Packaging	375
Pavestone	Landscaping Products & Paving	70
Procter & Gamble Paper Products	Disposable Diapers, Paper Towels	1,300
RAPCO	Audio Cable & Harnesses	137
Spartech Plastics	Extruded Plastic Sheet	150
VIP/Sheltered Workshop	Custom packaging & plastic hangers	360
VTG Holdings	Computer Cables, Audio Cables	285
Wahlco D.W. Tool	Precision parts and vacuum molds	175

Source: Cape Girardeau Area Magnet, Labor Force Facts, U.S. Census Bureau, ACS, 2013

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 Families/cases on TANF in January 2010 to January 2014. 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: Persons Receiving TANF each Year

Year	Cape Girardeau County		Missouri	
	Number	Percent of Total Column	Number	Percent of Total Column
2010	471	22.8	41,581	22.8
2011	462	22.4	40,536	22.2
2012	432	20.9	38,454	21.1
2013	363	17.6	32,568	17.9
2014	339	16.4	29,287	16.1

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Temporary Assistance for Needy Families, Persons, November 2014.

Students Enrolled In Free/Reduced Price Lunch (Percent)

The Missouri Department of Elementary and Secondary Education (DESE) define 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. Table 1.28 displays the percentage for Cape Girardeau County as a whole and Figure 1.27 shows a comparison between all five school districts in Cape Girardeau County. This indicator is another measure of the effect of poverty / low income in a population.

Table 1.28: Students Enrolled In Free/Reduced Price Lunch, Percent of Enrollment

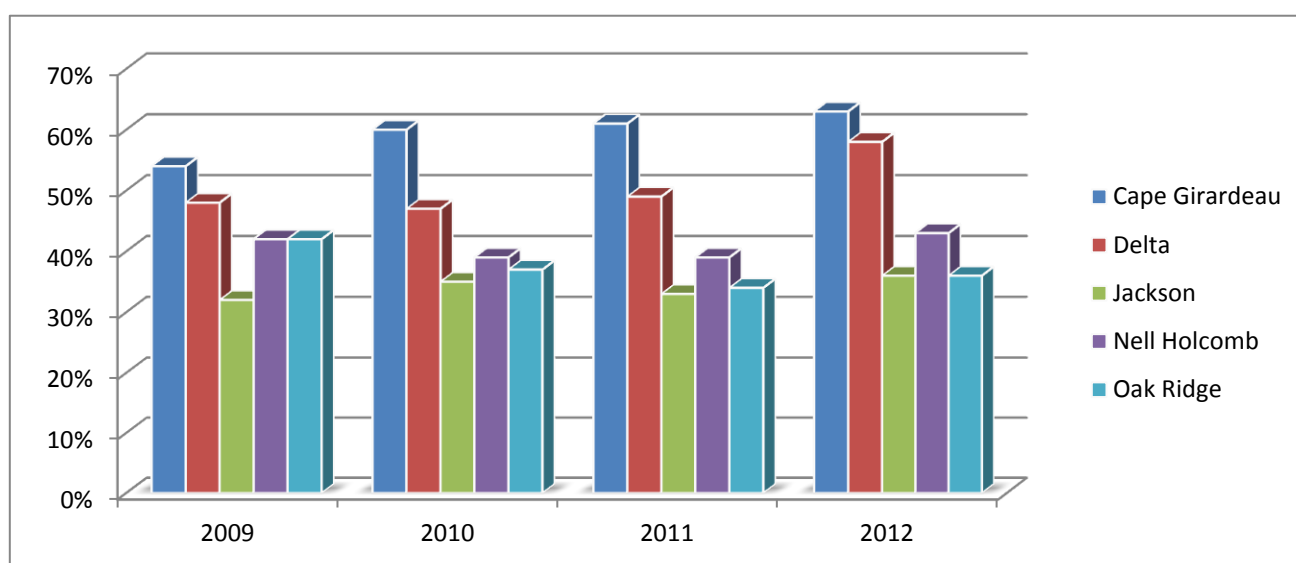
	2009	2010	2011	2012	2013
Cape Girardeau County	42.1%	45.4%	45.9%	47.9%	48.2%
Missouri	43.6%	46.8%	47.7%	49.4%	49.8%

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

The percent of students participating in the Free/Reduced Lunch Program in Cape Girardeau County and Missouri has increased over the time period of 2009-2012. School enrollment data is available for 2013 and 2014 however data for each school building / district on free/reduced lunches is not available for 2013 and 2014. 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 2012, Cape Girardeau Public School District continued to have the highest percentage (63%) of enrolled students that are eligible for free/reduced lunches. This trend has remained consistent. Delta School District had the next highest (58%), followed by Nell Holcomb (43%) and Jackson and Oak Ridge (36% each).

Figure 1.27: Students Enrolled in Free/Reduced Lunch by Cape Girardeau County Public School Districts, 2009-2013



Source: Missouri Department of Elementary and Secondary Education, School Finance, Free and Reduced Lunch Percentage 2009-2012

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 enrolment.

Table 1.29: Households Receiving SNAP Benefits, 2013

	# of SNAP Participants, 2013	% of Population on SNAP, 2013	Total Monthly Benefits Issued (\$), 2013
Cape Girardeau	10,717	14.0%	1,354,966
Missouri	950,345	15.8%	121,727,822
U.S.	14,339,330	12.4%	

Source: [University of Missouri Extension. Interdisciplinary Center for Food Service. Missouri Hunger Atlas, 2013.](#)

According to the Interdisciplinary Center for Food Security, the average monthly SNAP benefits in Cape Girardeau County was \$1,354,966 during 2013. The 2013 total SNAP dollars issued for the county, state, and U.S. are shown in Table 1.29. Cape Girardeau County has had a slightly lower percentage. Table 1.30 shows, by race /ethnicity, percentages of households receiving SNAP benefits.

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

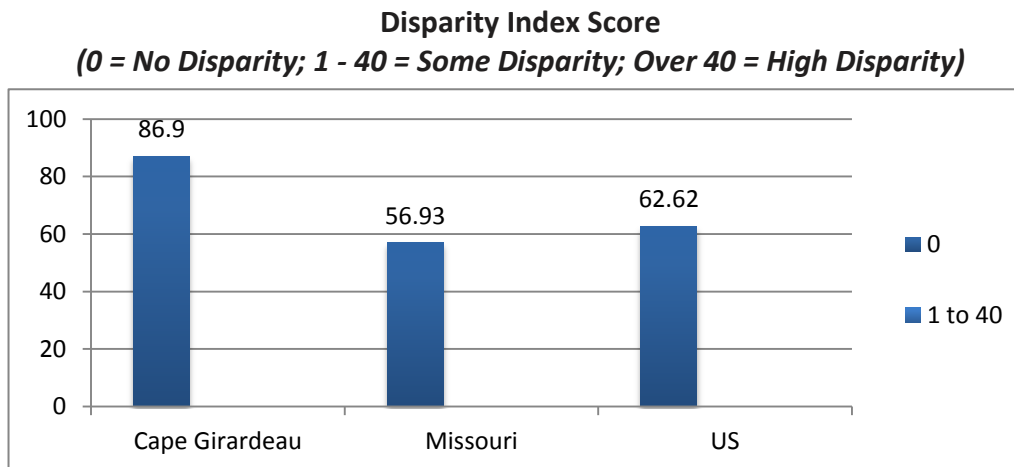
	Total Population	Non-Hispanic White	Black	Asian	American Indian / Alaska Native	Other Race	Multiple Race	Hispanic / Latino
Cape Girardeau County, MO	12.12%	9.82%	40.4%	6.27%	0%	0%	38.35%	6.6%
Missouri	13.61%	10.68%	31.99%	6.79%	25.72%	20.14%	26.49%	18.83%
United States	12.4%	7.65%	27.14%	7%	25.52%	22.8%	19.72%	21.31%

Source: U.S. Census Bureau, American Community Survey, Households Receiving SNAP Benefits by Race / Ethnicity, 2009-2013

Households Receiving SNAP Benefits, Disparity Index

This indicator measures the difference in the percentage of households of different racial and ethnic groups receiving SNAP benefits using the Index of Disparity (ID). The ID assesses the magnitude of variation in indicator percentages across demographic groups relative to the indicator percentage for the total population. Figure 1.28 reveals the Index of Disparity (ID) rating for Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County has a significantly higher ID than both Missouri and the U.S., identifying that a significant disparity does exist in the County across the Race/Ethnicity of SNAP participants. Specifically, the percent of individuals by race that experience this disparity are in the Black and Multiple Race groups. In the Black race, for instance, the County has an 8% higher incidence than the state and 13.6% higher than the U.S. Within the Multiple Race category the county score is 11.86% higher than the state and almost double that of the U.S. at 18.63%.

Figure 1.28: Disparity Index



Source: U.S. Census Bureau, American Community Survey , Households Receiving SNAP Benefits, Disparity Index, 2009-2013.

The 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. Access to SNAP during childhood has been associated with improved health when they reach adulthood, especially with obesity and diabetes.

Social Security Administration Benefits

The Social Security Administration (SSA) reported a total of 17,640 persons in Cape Girardeau County received SSA benefits in 2013. Total persons receiving SSA benefits in 2008 and 2013, total SSA payments, and average SSA payments are shown in Table 1.31.

Table 1.31: SSA Recipients and Payments, 2013

	Total Persons Receiving SSA Benefits, 2008	Total SSA Payments, 2008 (\$1000's)	Total Persons Receiving SSA Benefits, 2013	Total SSA Payments, 2013 (\$1000's)	Average SSA Payment, 2013
Cape Girardeau	17,640	13,765	15,510	17,640	1,137.33
Missouri	1,106,923	1,150,109	1,232,526	1,432,365	1,162.14

Source: [Social Security Administration, Master Beneficiary Record, 2012](#); [Social Security Administration, Supplemental Security Record, 2013](#).

Unemployment

In November 2014 Cape Girardeau County had an unemployment rate of 4.5% compared to 5.6% in Missouri. Table 1.32 provides this comparison.

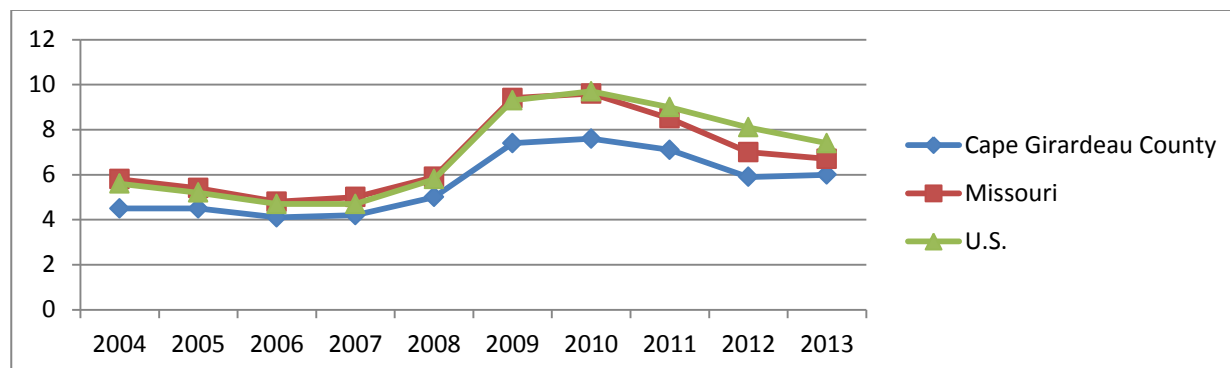
Table 1.32: November 2014 Employment/Unemployment Information, 2014

	Labor Force	Employment	Unemployment	Unemployment Rate
Cape Girardeau	39,245	37,487	1,758	4.5
Missouri	3,062,763	2,892,319	170,155	5.6

Source: [U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics, December 1, 2014](#)

Average Annual Unemployment

Overall, Cape Girardeau County experienced an average 5.9% unemployment rate in 2013 compared to a statewide rate of 6.5%. Labor force, employment, and unemployment rate data is provided for Cape Girardeau County and Missouri Figure 1.29.

Figure 1.29: Average Employment/Unemployment Rate, 2004-2013

Source: U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics, December 1, 2014

The Missouri Economic Research and Information Center provides Local Area Unemployment Statistics for March 2015 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.

Cape Girardeau County has the lowest unemployment rate (5.2%) while Dunklin and Pemiscot have the highest rate (9.7%). Cape Girardeau County also has the largest number in the Civilian Labor Force.

Table 1.33: Missouri Southeast Region Unemployment Statistics, March 2015

Local Area Unemployment Statistics March 2015				
Area	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
Bollinger County	5,801	5,365	436	7.5%
Cape Girardeau County	40,941	38,793	2,148	5.2%
Dunklin County	13,466	12,161	1,305	9.7%
Iron County	4,014	3,629	385	9.6%
Madison County	5,608	5,220	388	6.9%
Mississippi County	6,304	5,856	448	7.1%
New Madrid County	8,625	7,996	629	7.3%
Pemiscot County	7,320	6,607	713	9.7%
Perry County	10,414	9,859	555	5.3%
Ste. Genevieve County	9,048	8,432	616	6.8%
St. Francois County	26,666	24,620	2,046	7.7%
Scott County	20,006	18,764	1,242	6.2%
Stoddard County	13,200	12,113	1,087	8.2%

Source: Missouri Economic Research and Information Center, Southeast Region Data, Unemployment Statistics, March 2015

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 estimates indicate that a total of 11,573 residents lived below the poverty level, during 2013 in Cape Girardeau County. The Poverty Rate (100% of Poverty Level) for 2013 in Cape Girardeau County, Missouri, and the U.S. are shown in Table 1.34. As these figures indicate, Cape Girardeau was at the same percentage of individuals as was Missouri and the U.S.

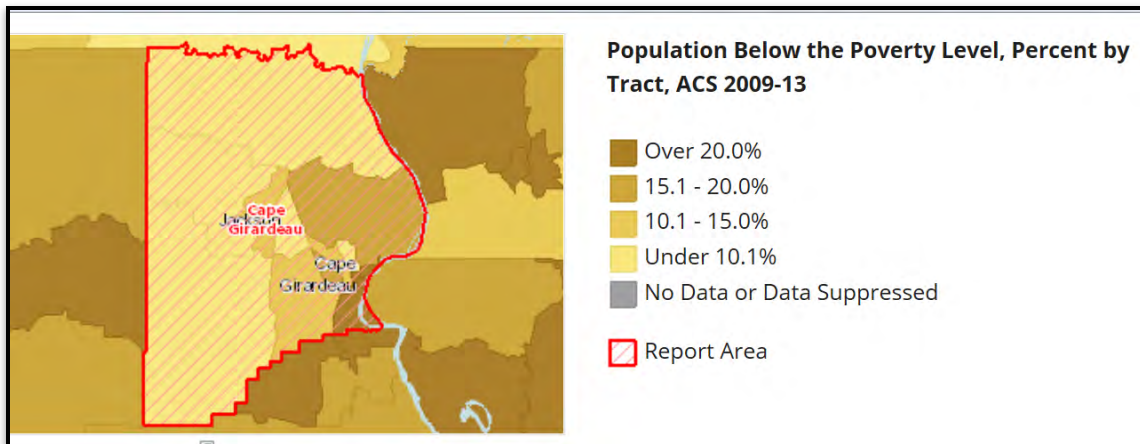
Table 1.34: 2013 Poverty Information, 100% FPL for All Ages by Location

	Number of Persons (2013)	Poverty Rate - % (2013)
Cape Girardeau	11,573	15.8
Missouri	928,778	15.8
USA	48,810,868	15.8

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2013

Figure 1.30 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 1.30: Population Below Poverty by Census Tract, Cape Girardeau County



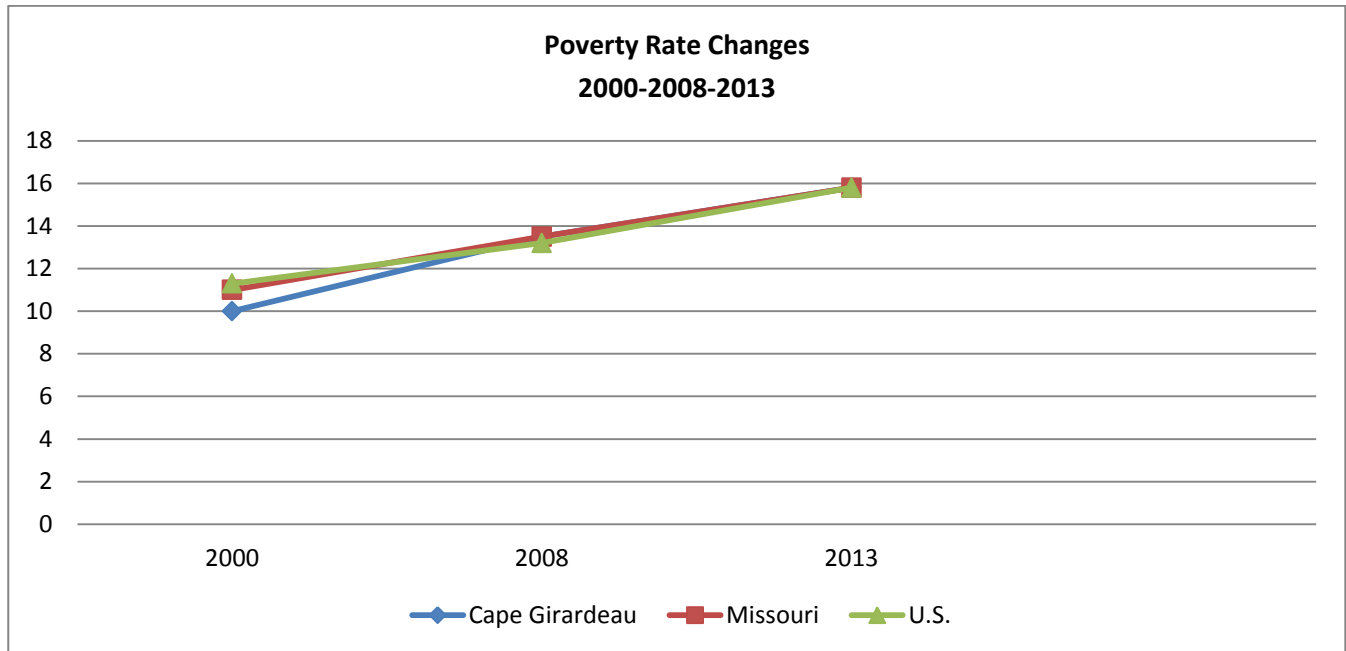
Source: U.S. Census Bureau, American Community Survey, 2009-2013

Poverty Rate Change

To determine any trending within the Poverty Indicator, Figure 1.31 and Table 1.24 provides a review

of poverty levels for Cape Girardeau County, Missouri, and the U.S. from the years of 2000, 2003, 2009, and 2013. According to the U.S. Census, the poverty rate in Cape Girardeau County increased by 2.3%, compared to a statewide increase of 2.3%, from 2008 to 2013. This is consistent with both Missouri and *the* U.S. Projections are that it will continue with this increasing trend in close comparison to Missouri and the U.S.

Figure 1.31: Overall Poverty Rate Change, 2000-2008-2013

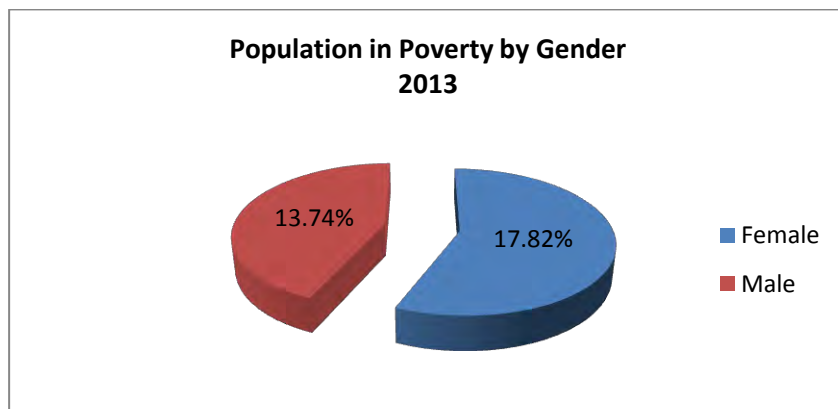


Source: *U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2013.*

Poverty by Gender

Figure 1.32 displays the percent of the population, by gender that is identified at the poverty level.

Figure 1.32: Population in Poverty by Gender, Cape Girardeau County



Source: *U.S. Census Bureau, American Community Survey, 2013.*

Poverty by Race and Ethnicity

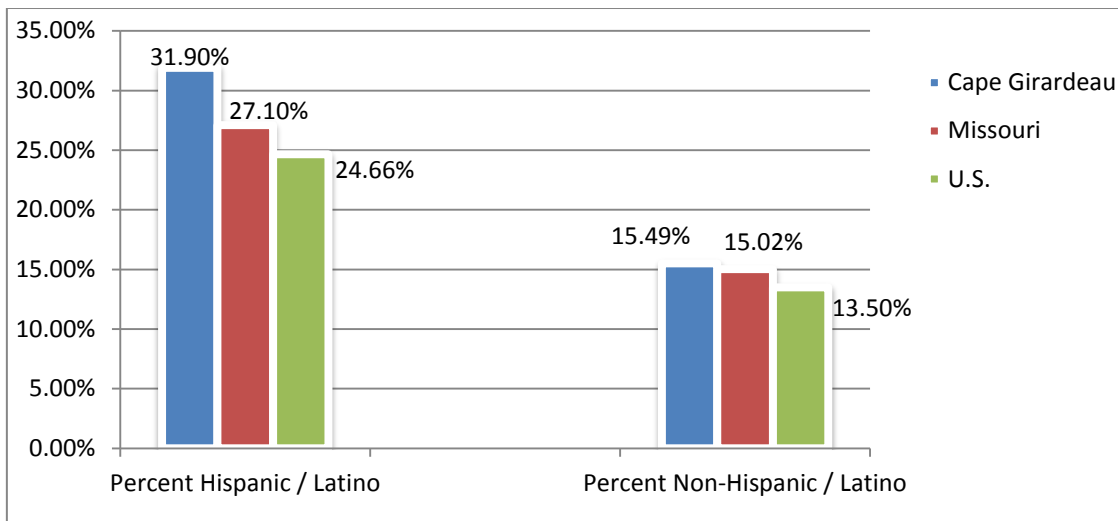
Table 1.35 compares the incidence of Poverty by Race and Figure 1.33 compares poverty by Ethnicity alone for Cape Girardeau County, Missouri, and the U.S.

Table 1.35: Population in Poverty by Race Alone, Percent

	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Cape Girardeau County, MO	12.24%	53.72%	0%	25.44%	85.71%	31.75%	41.66%
Missouri	13.09%	29.17%	23.94%	15.94%	24.02%	30.25%	25.14%
United States	12.53%	27.13%	28.56%	12.53%	19.58%	26.82%	20.06%

Source: U.S. Census Bureau, American Community Survey, Population in Poverty By Race Alone, Percent, Community Commons, Community Health Needs Assessment, 2009-2013.

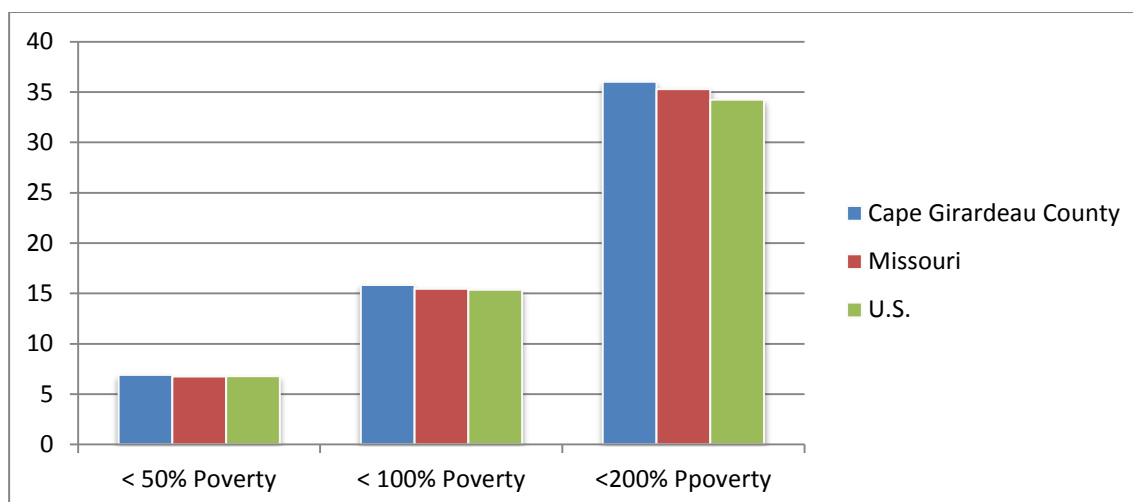
Figure 1.33: Population in Poverty by Ethnicity Alone



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

0% and 200% FPL

In addition to the population that is at or below the standard 100% of poverty level, the U.S. Census also tracks individuals in a population that are at 50% and 200% below poverty. Figure 1.34 compares the county, state, and national percentages of the population at the 50%, 100%, and 200% FPL.

Figure 1.34: Percent Population at 50%, 100%, 200% Federal Poverty Level (FPL)

Source: U.S. Census Bureau, American Community Survey, Federal Poverty Levels, 2009-2013

Cape Girardeau County has 6.91% of the total population at or below the 50% FPL (Missouri is 6.76%, U.S. is 6.79 %), 15.84% of the population at or below 100% FPL (Missouri is 15.46%, U.S. is 15.3%), and 36% at 200% or below FPL (Missouri is 35.29%, U.S. is 34.23%).

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 1.36 shows the poverty rates for children in the 0-17 and 5-17 age groups for Cape Girardeau County, Missouri, and the U.S. according to the U.S. Census Bureau, American Community Survey 2013 estimates. Cape Girardeau County has a higher percentage of children ages 0-17 years that are living in poverty.

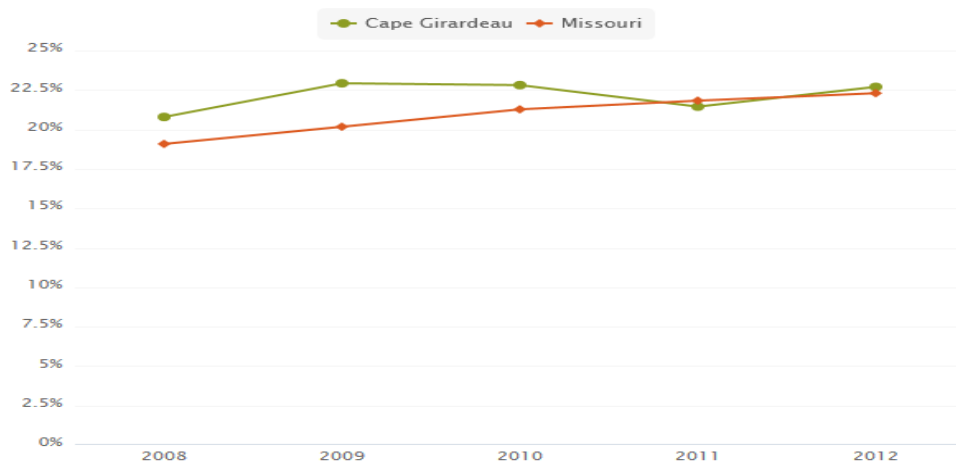
Table 1.36: Population below the Poverty Level, Children (Age 0-17), 2013

	Total Population	Population 0-17 Years	Percent Population 0-17 in Poverty
Cape Girardeau County	77,320	16,778	22.1%
Missouri	5,826,484	1,383,754	21.63%
U.S.	303,692,064	72,748,616	21.58%

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

Figure 1.35 displays the trend line for the percent of children ages 0-17 in poverty in Cape Girardeau County to that of Missouri from 2008-2012. From 2008-2010, Cape Girardeau County percentages exceeded those of the state, fell slightly below the state in 2011, and has experienced an increased percentage in 2012. This suggests that Cape Girardeau County will continue to exceed Missouri in the percent of children 0-17 years that are living in poverty.

Figure 1.35: Children in Poverty, Percent



CHILDREN IN POVERTY (PERCENT) (PERCENT)

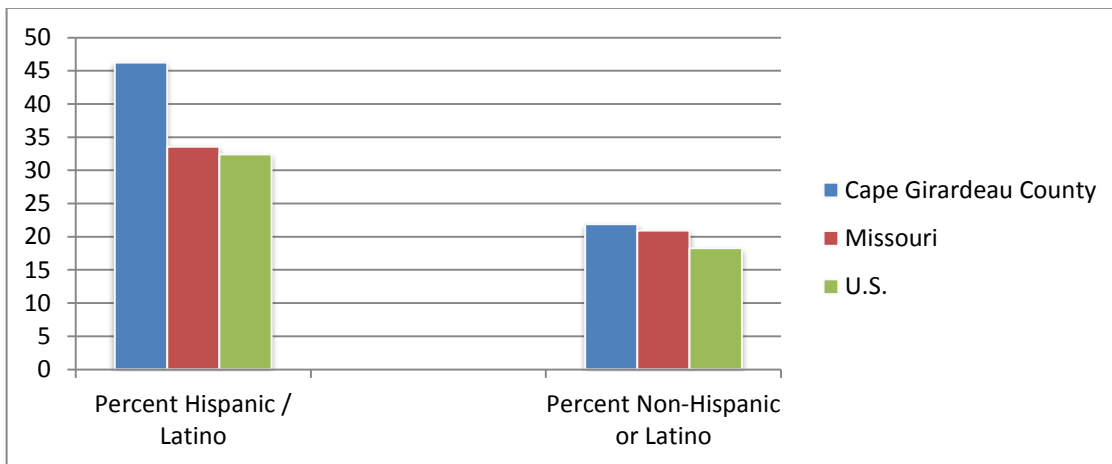
Family and Community Trust
 KIDS COUNT Data Center, datacenter.kidscount.org
 A project of the Annie E. Casey Foundation

Source: Missouri KIDS COUNT, 2014

Children in Poverty by Gender, Ethnicity, and Race

The percent of male (22.1%) and female (23.28%) children 0-17 years of age at or below 100% of poverty in Cape Girardeau varies by only 1.16%. There is, however, a noticeable difference between the percentage levels when analyzed by Ethnicity alone and Race alone. Figure 1.36 compares the percent of this age group by Ethnicity in Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County (46.24%) has a higher percentage of Hispanic / Latino children living in poverty than Missouri (33.55%) and the U.S. (32.39%).

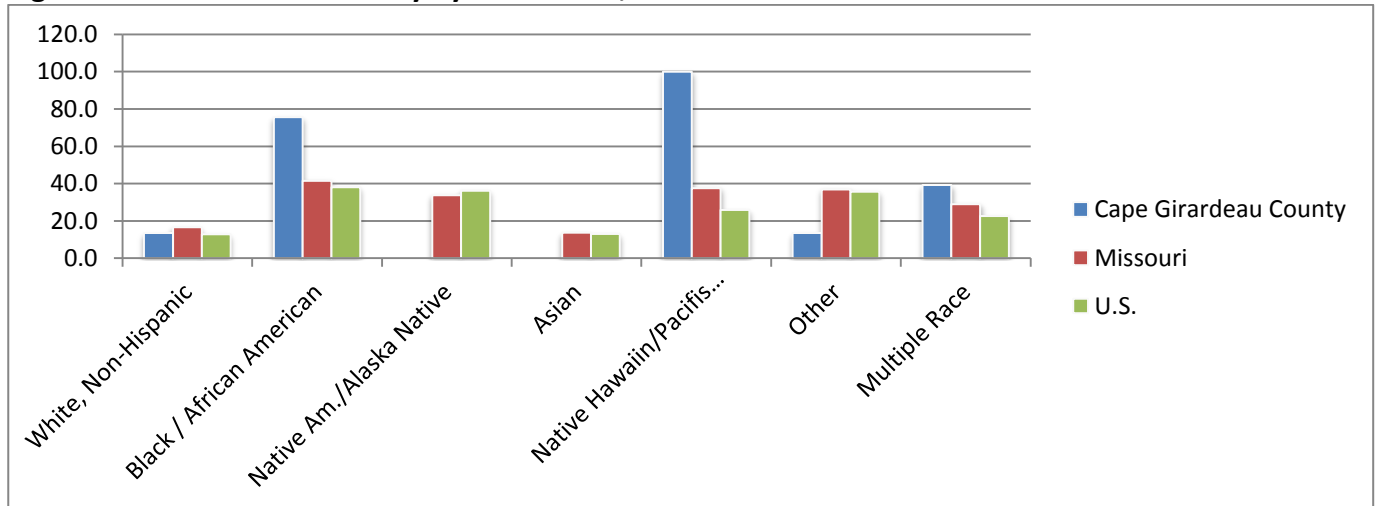
Figure 1.36: Children in Poverty by Ethnicity Alone



Source: U.S. Census Bureau, American Community Assessment, Community Commons, Community Health Needs Assessment, 2009-2013

Figure 1.37 compares the percent of this age group by Race alone in Cape Girardeau County to Missouri and the U.S. The highest percentage, by Race alone, in Cape Girardeau County is in the Native Hawaiian / Pacific Islander population (100%). Although this age group of the Native Hawaiian / Pacific Islander race is small in actual numbers, of those numbers 100% are living in poverty

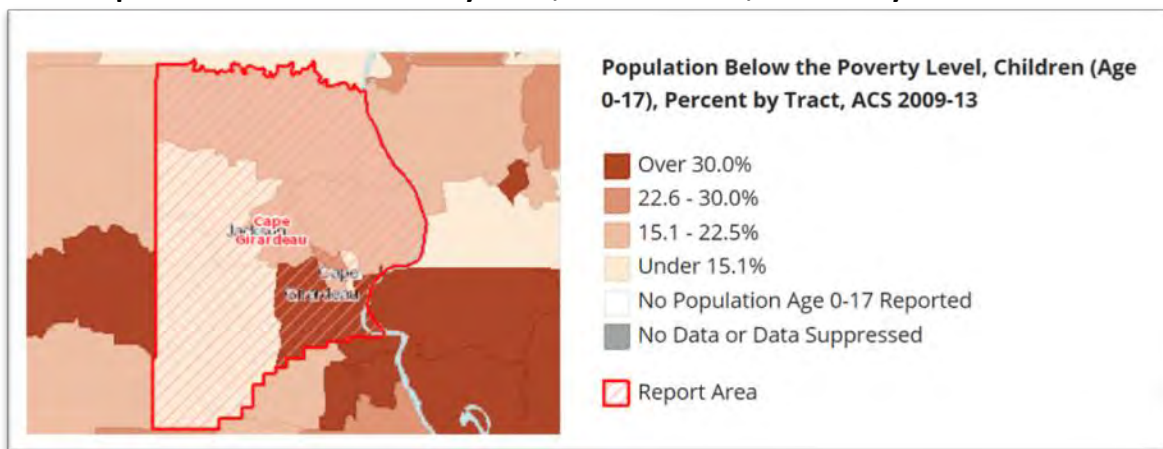
Figure 1.37: Children in Poverty by Race Alone, Percent



Source: U.S. Census Bureau, American Community Survey, Community Commons, Community Health Needs Assessment, 2009-2013

Figure 1.38 is a map outline of Cape Girardeau County and specifies the percentage of children 0-17 years living within each Census Tract and can serve as a guide to targeting those in need.

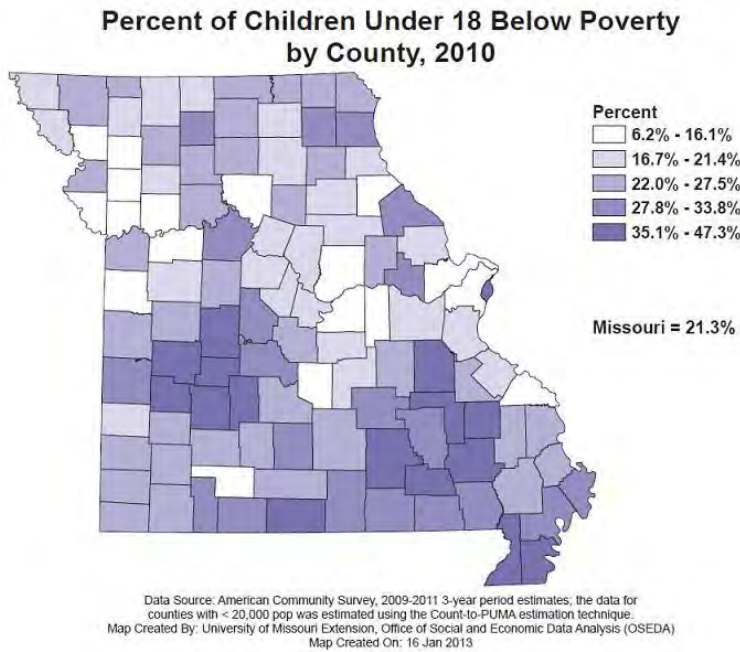
Figure 1.38: Population below the Poverty Level, Children 0-17, Percent by Tract



Source: U.S. Census Bureau, American community Survey, Community Commons, community Health Needs Assessment, 2009-2013

The percent of children below poverty and the percent ranges of children below poverty per Missouri County are shown in the following map in Figure 1.39.. Cape Girardeau County actually has one of the lower rates of the counties that constitute Southeast Region counties.

Figure 1.39:



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., Moffitt, T. 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 2007 - 2011, the senior poverty rate was 7.2% in Cape Girardeau County. Poverty rates for seniors are shown in Table 1.37.

Table 1.37: Seniors in Poverty, 2000 - 2007/2011

	Seniors in Poverty, 2000	Senior Poverty Rate	Seniors in Poverty, 2007 - 2011	Senior Poverty Rate, 2007 - 2011
Cape Girardeau	862	10.1	814	7.2
Missouri	70,476	9.9	75,589	9.0
USA	3,287,774	9.9	4,145,717	9.6

Source: United States Census, Community Fact Finder

**Section II:
Environmental Health Risk Factors**

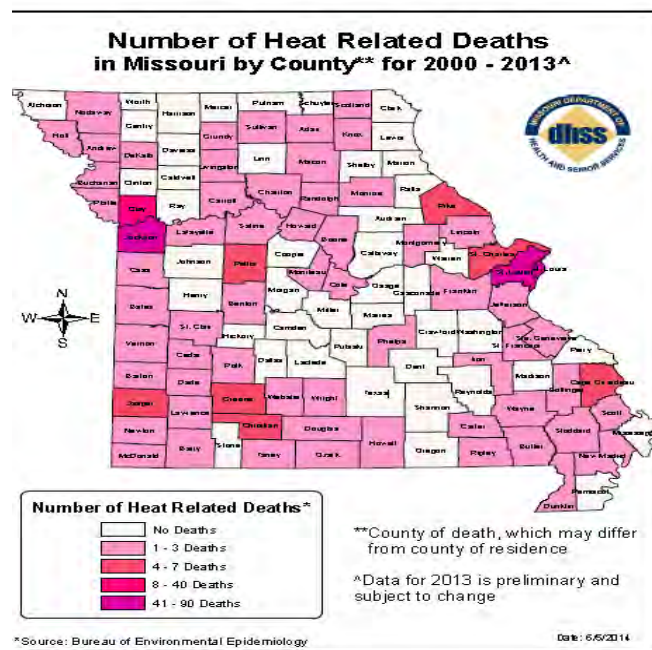
Climate

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 from 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 F. The County has an average of 48 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 of flooding and higher humidity which in turn increases the likelihood of mold development. Both 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. Figure 2.1 shows by county the percent of heat related deaths. 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 5-64 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.

Figure 2.1: Heat Related Deaths in Missouri, by County, 2000-2013



Source: Missouri Department of Health and Senior Services, Bureau of Environmental Epidemiology

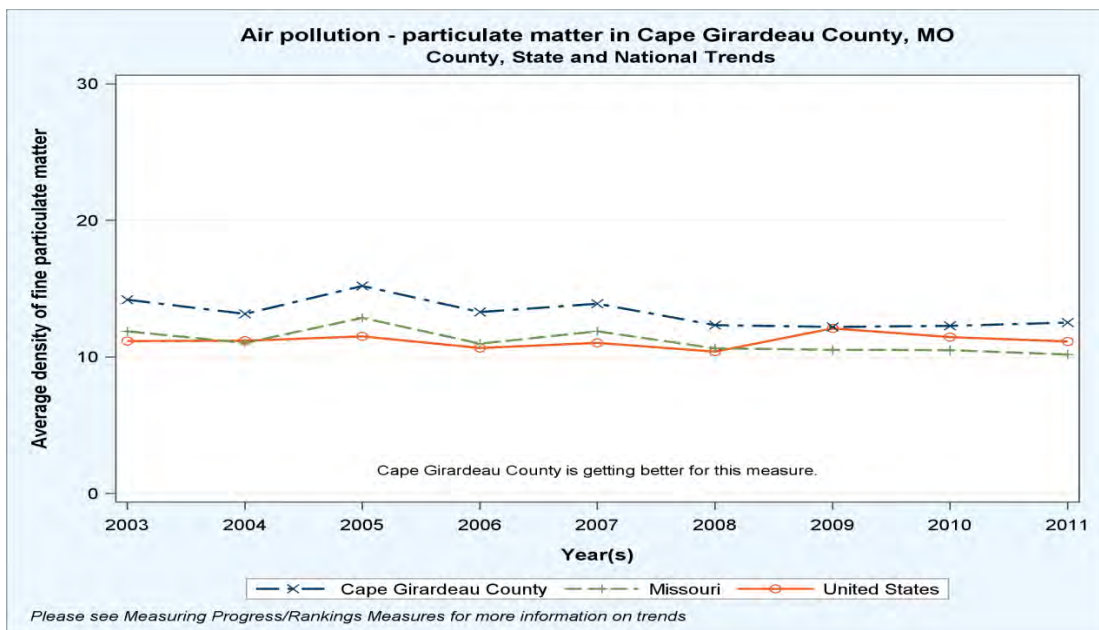
Both the cities of Cape Girardeau and Jackson have mosquito abatement programs and the Health Center routinely provides Public Health education for the entire county on how to prevent mosquito breeding areas.

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 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 attribute 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 2.2 the average density of Particulate Matter 2.5 for Cape Girardeau County in 2011 was 12.5 compared to 10.2 for Missouri and 9.5 for the U.S. Cape Girardeau County has experienced a decreasing trend during this time frame which is an improvement.

Figure 2.2: Air Pollution – Particulate Matter 2.5



Source: [County Health Rankings & Roadmaps](#)

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.

Table 2.1: Percent of Land Area Treated with Fertilizer, Lime, and Chemicals, 2007

Indicator	Cape Girardeau County	Missouri
% Land area treated to control insects	6.55%	5.4%
% Land area treated to control weeds, grass, or brush	2.71%	17.56%
% Land area treated to control disease in crops and orchards	2.71%	1.05%
% Land area treated with commercial fertilizer, lime, and soil conditioners	43.29%	26.04%
% Land area treated with manure	1.92%	1.60%
% Land area treated with chemicals used to control growth, thin fruit, ripen or defoliate	0.15%	0.92%

Source: MO DHSS, Environmental Public Health Tracking Program

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 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 and they include the following:

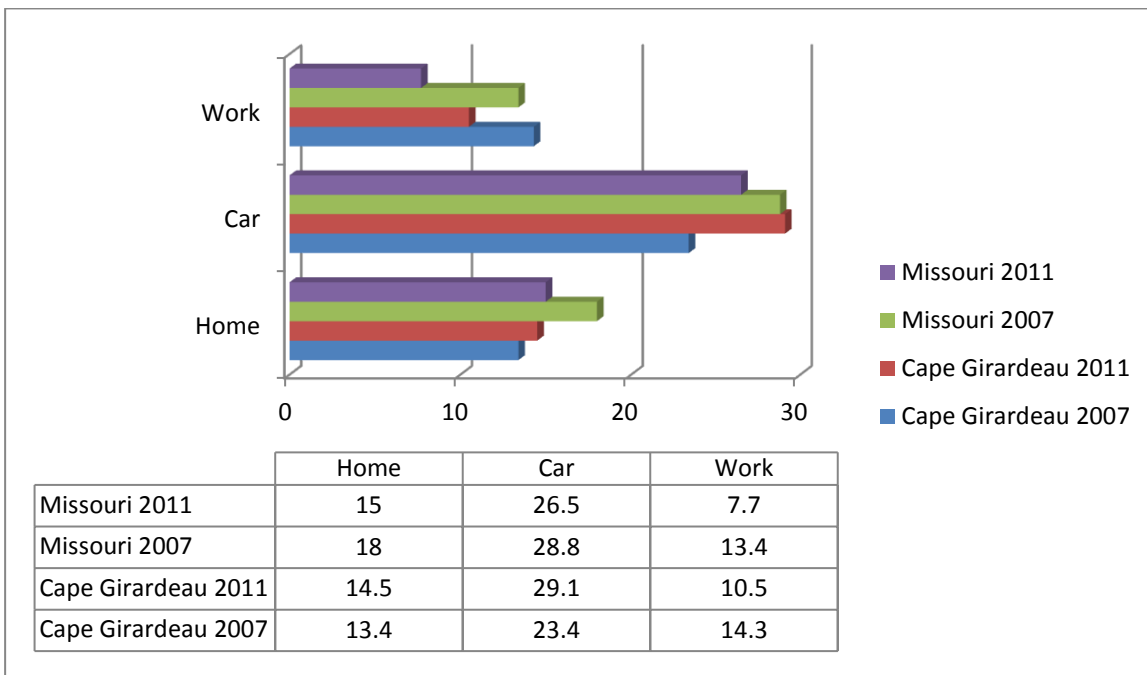
Biological Pollutants

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 2.3 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 2.3: Percentages of Adults Exposed to Secondhand Smoke in the Past Week, 2007, 2011



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

Exposure to second hand smoke in homes, cars, and work areas were 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

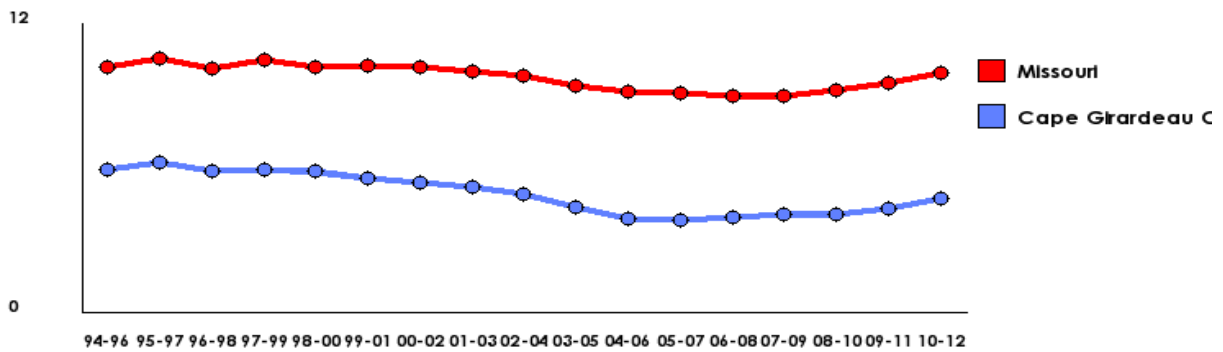
In terms of occupational health risks, the American Lung Association has identified that Casino workers are at higher risk for secondhand-smoke related illness than other workers. Smoking in bars, bowling allies, and bingo parlors have also been found to be 1.5 to 11.7 times higher than in restaurants. 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. In early 2015, a series of surveys were conducted by the Cape Girardeau County Public Health Center to determine numerous aspects of smoking prevalence in the county. One aspect of the survey was to assess the number and type of employment facilities that allow indoor smoking.

From November 2014 through March 2015, Cape Girardeau County Public Health Center conducted a series of surveys to complete a Comprehensive Tobacco Assessment. Surveys were completed by the general public, local restaurants, local daycares, and local business and also included a review of local school systems policies. Potential survey participants were identified through a random selection process of businesses located within Cape Girardeau County that are members of the Cape Girardeau Area Chamber of Commerce. Although a total of 60 surveys were distributed, only five employers responded to the survey – three healthcare facilities, one retirement home and one public safety employer. All of the responding organizations reported that they have a formal written tobacco use policy that is actively enforced. Four out of the five have a process in place to inform people, both employees and visitors, of their policy. In terms of the policies, 2% prohibit smoking while in vehicles used to conduct job-related functions, 4% prohibit smoking anywhere on the facilities grounds outside of buildings, 2% prohibit smoking inside facilities and within 25 feet of entrances and exit ways, air intakes, and open windows, 4% prohibit smoking anywhere inside facilities, 4% include all tobacco products, and 3% include e-cigarettes. Although there were not many respondents, the important takeaway from this survey is that businesses are interested in cessation services that would be offered by the Health Center. In addition, it seems that businesses have proper ways of informing employees and visitors of their policies and enforcing these policies.

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 2.4 provides the rate per 1,000 for childhood asthma related ER visits for Cape Girardeau County and Missouri for 2010-2014.

Figure 2.4: Childhood Asthma Related ER Visits, 2010-2014

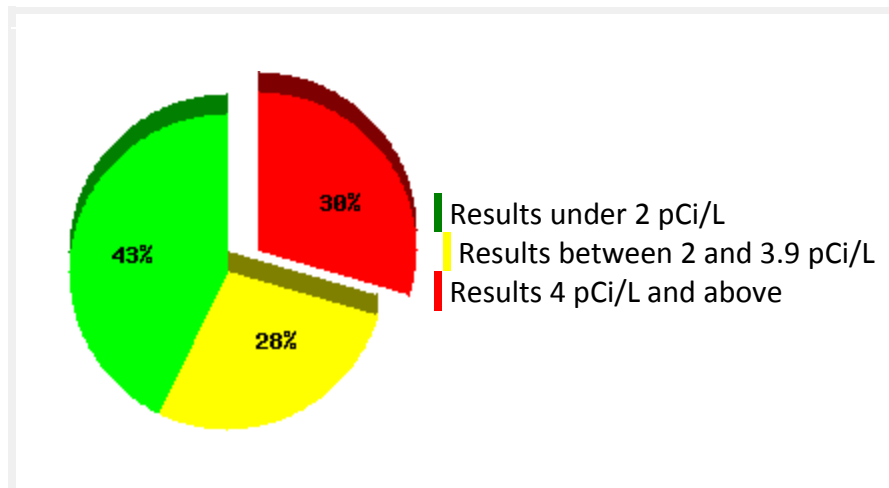


Source: Missouri Department of Health and Senior Services, MICA, Child Health/Main

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 breaks 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 3.8 pCi/L. Figure 2.5 displays, by percentages, the levels of radon detected through testing conducted by Air Chek, Inc.

Figure 2.5: Percent Radon Levels by Picocurie in Cape Girardeau County



Source: Air Chek, Inc

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 not 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, 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 SEMOS.

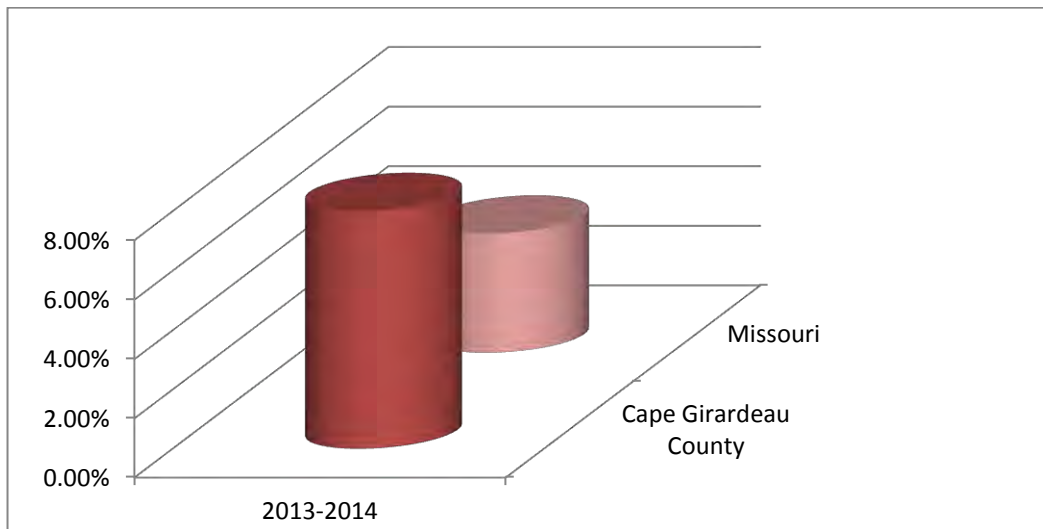
Water

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 community water systems, three non--transient, non--community water systems, and five transient, non-community water systems, with a total of 27,459 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 are safe for human consumption. During the years 2006 – 2011 five community systems and two transient, non-community water systems in Cape Girardeau County had 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. There are 23 Community Water Systems, 5 Transient Non-

Community water systems in Cape Girardeau County (See Appendix , List of Water Systems) 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 2.6 compares the percent of the population getting water from a public water system with at least one health-related violation during FY 2013-2014 for both Cape Girardeau County and Missouri. Cape Girardeau County had a higher percentage.

Figure 2.6: Drinking Water Violations FY 2013- FY 2014



Source: County Health Rankings & Roadmaps

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 2004-2014.

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 2012.

Table 2.2: Rates of Childhood (0-72 Months) Blood Lead Testing for 2012

	Total Tested, 2012	Percent of Population Tested	Blood Lead Levels 0-9	Blood Lead Level 25-44
Cape Girardeau	626	11.16%	11.1%	0.02%
Missouri	90,682	21.42%	21.22%	0.01%

Source: Missouri EPHT Program

The EPHT further reports the number and crude rate of those children by zip code. Table 2.3 shows the crude rate for those children by their residence zip code.

Table 2.3: Rates of Childhood Blood Lead Testing by Cape Girardeau County Zip Code, 2012

Zip Code	Total Tested	Crude Rate per 1,000
63701	292	7.93
63703	189	23.1

Source: Missouri EPHT Program

On a monthly basis, Cape Girardeau County Public Health Center reviews data on the number of children 0-6 years of age tested for blood lead levels through its services and through private providers in the county. That data reveals that in 2014, a total of 584 children were tested, of which 396 (67.8%) were tested through the Health Center alone. Throughout 2014, of those tested, a total of 254.2% children had a blood lead level of 6 or greater and were followed through the Lead Case Management services provided by the Health Center

Housing Related to Blood Lead

Studies indicate 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. Total housing units and median age in 2013 are shown in Table 2.4.

Table 2.4: Median Housing Unit Age, 2013

	Total Housing Units	Built Before 1950	% Built Before 1950	Built Between 1950 - 1980	% Built Between 1950 - 1980	Median Age of Total Housing Units (in 2012)	Median Year Structure was Built
Cape Girardeau	32,775	4,424	13.5	13,860	42.2	37	1977
Missouri	2,719,109	524,861	19.3	1,057,232	38.9	40	1975

Source: U.S. Census Bureau, 2000 Census of Population and Housing, Summary File 3, 2013.

Table 2.5 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 (32.92%) of housing units built between 1960-1979 than does Missouri (30.54%) and the U.S. (29.38%). 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.

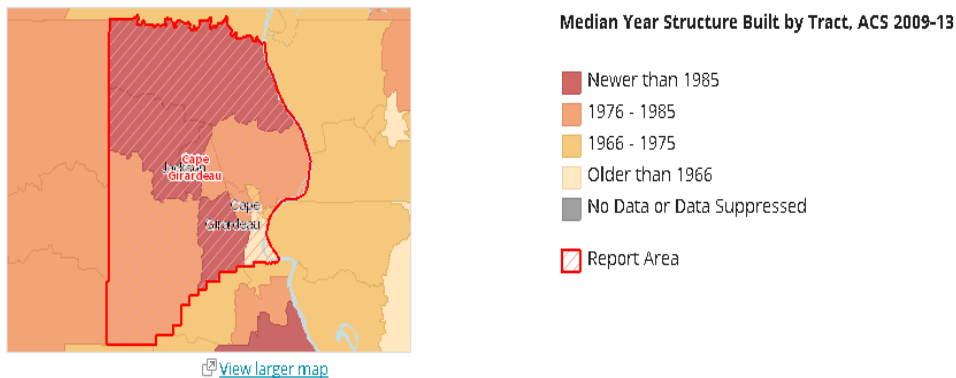
Table 2.5: Renter-Occupied Housing Units by Age, Percentage

	Before 1960	1960-1979	1980-1999	2000-2010	After 2010
Cape Girardeau County	23.46%	32.92%	31.99%	10.89%	0.74%
Missouri	31.59%	30.54%	25.14%	12.08%	0.65%
U.S.	31.21%	29.38%	26.2%	12.54%	0.67%

Source: U.S. Census Bureau, American Community Survey, 2009-2013

Figure 2.7 shows the Median Year a housing structure was built by Census Tract. The majority of dwellings built in 1966 or before are located within the 63703 zip code area which is the zip code area where 23.1% of children tested in 2012 resided.

Figure 2.7: Median Year Structure Built by Tract, ACS 2009-2013



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

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

Substandard Housing

Table 2.6 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 regards 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 regards 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 2.6: Substandard Housing: Households Lacking Plumbing or Kitchen Facilities

	Units Lacking Complete Plumbing Facilities	Units Lacking Complete Kitchen Facilities
Cape Girardeau Co.	0.39%	2.54%
Missouri	0.46%	3.74%
U.S.	0.49%	3.0%

Source: U.S. Census Bureau, American Community Survey, 2009-2013

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 inactive 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 deposited waste 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 the city of Cape Girardeau (South Sprigg), one in Cape Girardeau County (State Highway 177), and one in the City of Jackson (Lee Avenue) where solid waste that has been collected within the cities of Cape Girardeau and 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 a Recycling Center. 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 is 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 regards 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 are completed annually and submitted to local Fire Departments and identify hazardous chemicals above certain quantities that are housed at a location or facility. In

2014, there were a total of 76 locations listed on the Tier II Report for Cape Girardeau County.

Built Environment

The Centers for Disease Control defines built environment as, “all of the physical parts of where we live and work.” Built environment refers to those human-made surroundings and infrastructures 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 Index Environment. 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 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 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 7.0, Missouri had a score of 7.0, and the U.S. had a score of 8.4 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 2.7 compares the percent of the population in each healthy food access category for the county, state, and nation.

Table 2.7: Modified Retail Food Environment Index

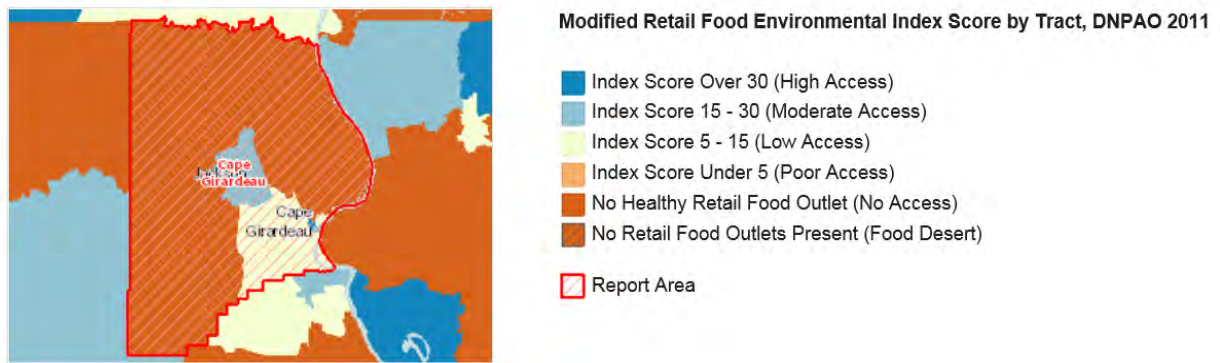
	% No Food Outlet	% No Healthy Food Outlet	% Low Healthy Food Access	% Moderate Healthy Food Access	% High Healthy Food Access
Cape Girardeau County	0%	32.6%	12.91%	48.39%	6.11%
Missouri	0.64%	21.82%	27.45%	45.26%	4.83%
U.S.	0.99%	18.63%	30.89%	43.28%	5.02%

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

In Cape Girardeau County the highest percentage 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 2.8 is a map

of Cape Girardeau County that shows the Modified Retail Food Environment index score by census tract.

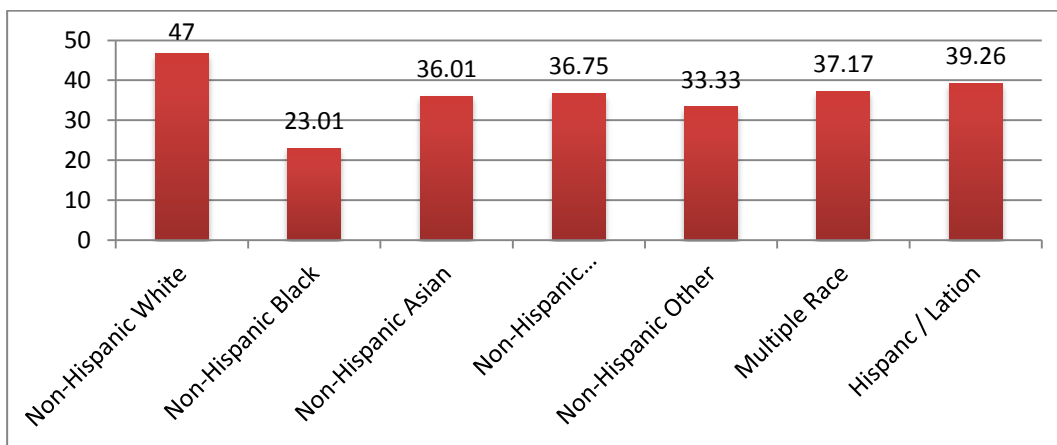
Figure 2.8: Modified Retail Food Environment Index Score by Tract, Cape Girardeau County, 2011



Source: Community Health Needs Assessment, Community Commons

Figure 2.9 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 has a higher Racial Disparity Index (21.14) than Missouri (16.56) or the U. S. (16.59). Figure 2.10 identifies the Race/Ethnicity, by percentage of persons experiencing the disparity. In Cape Girardeau County, that group is the Non-Hispanic White population. As identified in the Census Tract map, the majority is residing in the more rural portions of the county, outside of the City of Cape Girardeau and the City of Jackson.

Figure 2.9: Percent of Population with Low or No Health Food Access by Race/Ethnicity

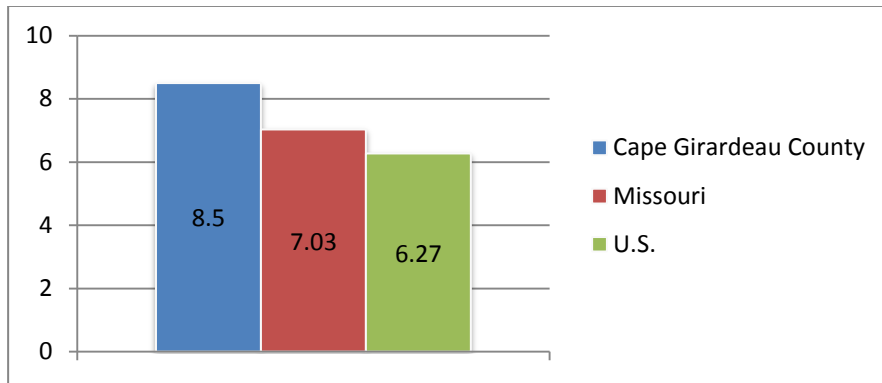


Source: Community Health Needs Assessment, Community Commons, Physical Environment

Low Income Population with Low Food Access

Figure 2.10 displays the percent of the Low income population with low food access for Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County has a higher percentage of the low income population that experience low food access.

Figure 2.10: Percent Low Income Population with Low Food Access

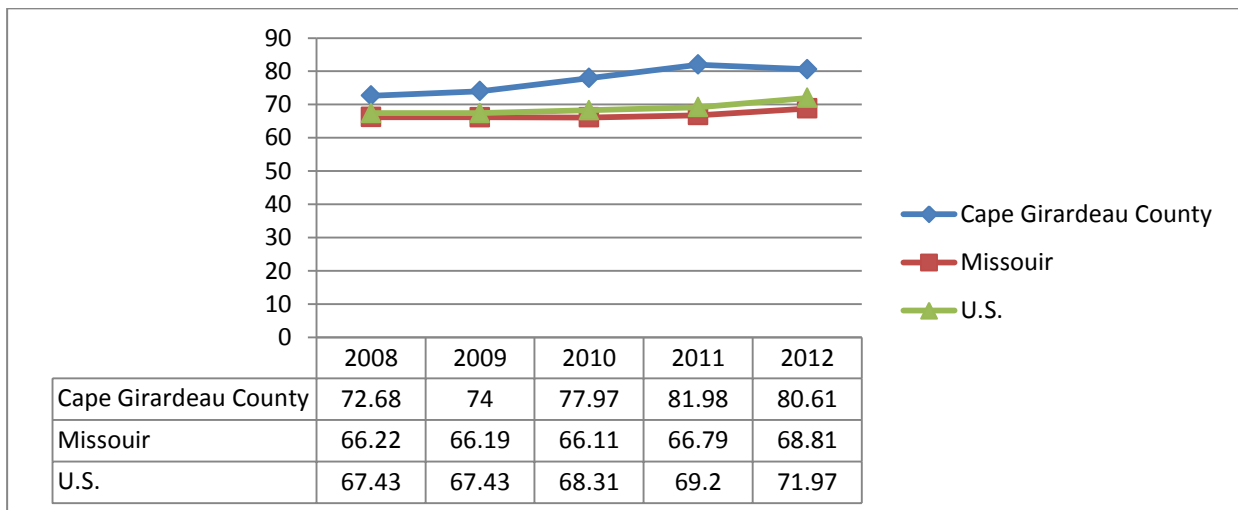


Source: Community Health Needs Assessment, Community Commons, Physical Environment

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 2.11 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 2008-2012.

Figure 2.11: Fast Food Restaurants, Rate per 100,000 Population, 2008-2012



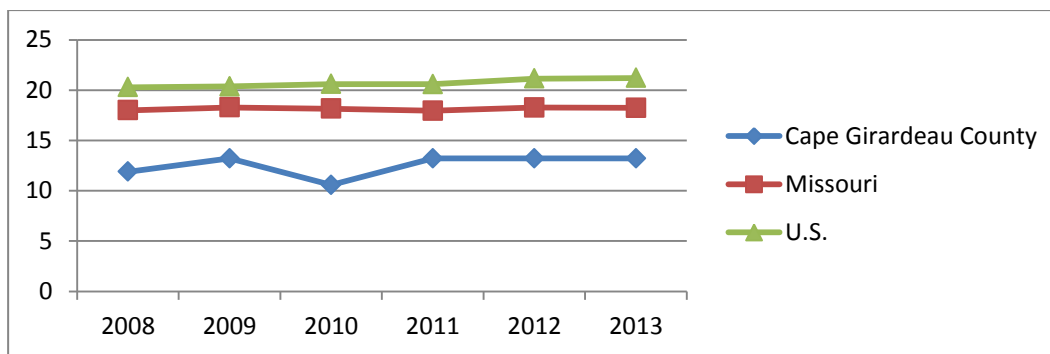
Source: Community Health Needs Assessment, Community Commons, Physical Environment

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. The county has had an increasing trend in the availability of fast food restaurants since 2008.

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 provides a measure of healthy food access and environmental influences on dietary behaviors. In 2013, the grocery store rates were as follows: 13.21 for Cape Girardeau, 18.23 for Missouri and 21.2 for the U.S. Cape Girardeau County has a lower rate of grocery store accessibility than the rest of the state or nation. Figure 2.12 provides the trend for this rate from 2008-2013. The trending indicates that although Cape Girardeau County has experienced an increase in the percent of these establishments per 100,000 population, that rate continues to fall below the state and national rates. Additionally, the rate for Cape Girardeau County has remained constant from 2011-2013 while both the state and the nation have had an increase in the rate of available grocery stores and supermarkets.

Figure 2.12: Grocery Stores and Supermarkets, Rate per 100,000 Population, 2008-2012



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

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 that provides physical activity opportunities. Physical activity opportunities can be parks, recreational facilities, gyms, community center, YMCA’s, 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, 71% of the population have adequate access to locations for physical activity compared to 77% for Missouri and 92% 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.

In 2014, Cape Girardeau County Public Health Center conducted an abbreviated inventory of Physical Environment Assets. Table 2.7 provides a listing of those assets by location.

Table 2.7: Cape Girardeau County Inventory of Physical Environment Assets, 2014

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
Cape Girardeau County	Two County Parks

Source: Cape Girardeau County Public Health Center, Physical Environment Assessment, 2014

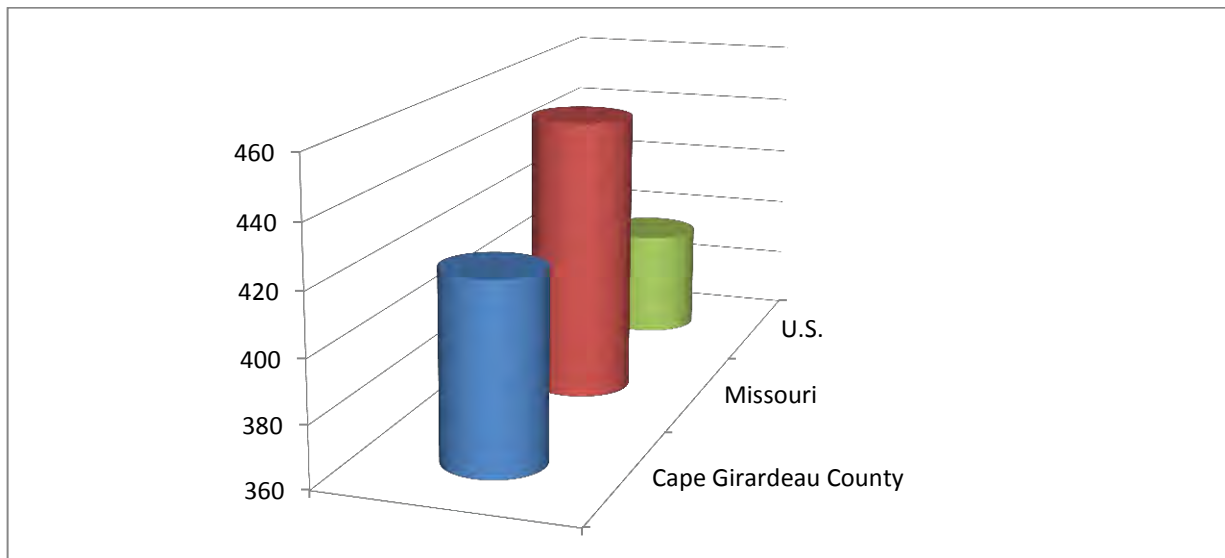
Section III:
Public Safety and Domestic Violence

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 that 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 2010-2012 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.

Figure 3.1: Violent Crime Rate (Per 100,000), FBI UCR, 2010-2012



Source: Federal Bureau of Investigation, FBI Uniform Crime Reports, Accessed via the American Community Survey, 2010-2012.

While Cape Girardeau County has a rate below that of Missouri, it does exceed the U.S. Violent Crime Rate. A limitation of the data is that it is not broken down into demographic or age groups.

The Missouri State Highway Patrol's Uniform Crime Reporting Program identifies the total number of offenses for each of those crimes in 2013, as well as the number of arrests for those offenses, and the rate of offenses. Also shown, in Table 3.1, is the offense rate for Missouri compared to the county.

Table 3.1: Offenses and Arrests by Crime Type

	Cape Girardeau County									Missouri		
	# Offenses			# Arrests			Offense Rate*			Offense Rate*		
	2009	2012	2014	2009	2012	2014	2009	2012	2014	2009	2012	2014
Violent Offenses Total:	340	280	268	185	148	143	473.8	361.2	343	521	449	432.9
Murder	2	3	4	2	2	0	2.8	3.9	5.1	7.1	6.5	6.8
Forcible Rape	24	15	13	2	2	3	33.4	19.3	16.7	28.6	25	2.3
Robbery	54	68	72	13	23	17	75.2	87.7	92.3	131.3	95.6	95.3
Aggravated Assault	260	194	178	168	121	123	362.3	250	228.1	354	322	321
Property Offenses Total:	2832	3351	2367	570	673	540	3946.4	4322	3032	3605.6	3323.2	3244.1
Burglary	534	692	504	42	67	50	744.1	892.6	645.8	770.4	700.9	700.2
Theft	2221	2525	1741	522	591	481	3095	3256.8	2230	2485	2327.4	2323.3
Motor Vehicle Theft	61	106	107	3	9	8	85	136.7	137	307.5	269.4	268.8
Arson	16	28	15	3	6	1	22.3	36.1	19	42.7	25.5	25.6
Total Offenses	3172	3631	2635	755	821	683	4420.2	4683	3376	4126.6	3772.1	4000

Source: Missouri State Highway Patrol, Uniform Crime Reporting (UCR) Program, 2013

*Offense Rate is per 100,000 population

From 2009 to 2014, Violent Offenses in Cape Girardeau County decreased in number with the exception of Robbery Offenses, which increased. During this same time frame, Property Offenses decreased in all reportable categories. Cape Girardeau County had a higher offense rate than Missouri in the categories of forcible rape, aggravated assault, and theft in 2009 but by 2014 Cape Girardeau County rates in those categories had dropped below the state rates culminating in lower Violent Offenses and Property Offenses Rates than the state.

Juvenile Crime and Court Referrals

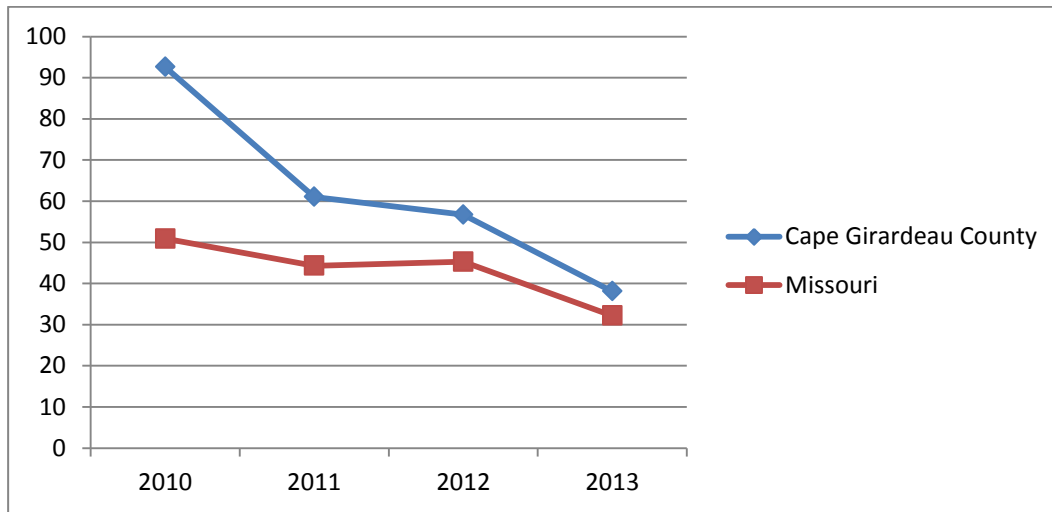
Juvenile Crime includes the number of referrals to juvenile courts in Missouri for acts that would be violations of the Missouri Criminal Code if committed by an adult. The count represents separately disposed court referrals, not individual youth. The rates are expressed per 1,000 youth ages 10-17. Table 3.2 shows the number of juvenile court referrals for Cape Girardeau County and Missouri for 2009 and 2012. Cape Girardeau County exceeded the state rates for both Law Violation Offense and Status Offense Totals in both years.

Table 3.2: Juvenile Court Referrals for Law Violations and Status Offenses, 2009 & 2013

	Cape Girardeau County				Missouri	
	# Offenses		Rate*		Rate*	
	2009	2012	2009	2012	2009	2012
Law Violation Offenses Total	849	424	11.2	5.4	5.4	5.0
Violent Offenses	114	101	1.5	1.3	1.6	
Alcohol Offenses	23	13	0.3	0.2	0.2	
Drug Offenses	24	41	0.3	0.5	0.4	
Status Offenses Total	217	306	2.9	3.9	2.4	2.3
Truancy	108	107	1.4	1.4	0.6	
Beyond Parental Control	27	29	0.4	0.4	0.5	
Habitually Absent from Home	66	64	0.9	0.8	0.5	
Injurious Behavior	16	100	0.2	1.3	0.7	

*Source: Missouri Department of Social Services. Beginning in 2013, some juvenile law violations were reclassified as status offenses. * Offense Rate is per 1,000 populations.*

Figure 3.2: Juvenile Law Violation Referrals, Ages 10-17, per 1,000: 2009-2013



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

While both the County and the State saw a decreasing trend of Juvenile Law Violation Referrals from 2010 through 2013, Cape Girardeau County continued to exceed the state.

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 are shown in Table 3.3.

Table 3.3: Domestic Violence Incidents, 2013

	Total Reported Incidents, 2013	Incidence per 1,000 Persons
Cape Girardeau	482	6.22
Missouri	40,013	6.98

Source: Missouri State Highway Patrol, Uniform Crime Reporting (UCR) Program, 2013

Table 3.4 shows the domestic violence incidents in Cape Girardeau County by the victim / offender relationship for the selected years of 2009-2012-2014. The relationship category that has consistently had the highest number of incidents is the “People Who Live Together.” Cape Girardeau County has remained slightly lower than the state in the total and rate for domestic violence incidents.

Table 3.4: Domestic Violence Incidents in Cape Girardeau County, 2009-2012-2014

Victim/Offender Relationship	2009	2012	2014
Spouses	93	114	104
Former Spouses	28	6	9
Couples w/Child(ren) in Common	49	71	61
Blood Relatives	57	63	110
People Related through Marriage	7	8	9
People Who Live Together	153	145	111
People Who Lived Together in the Past	36	13	3
Total Domestic Violence Incidents	423	505	501

Source: Missouri State Highway Patrol, Uniform Crime Reporting (UCR) Program, 2014

Child Abuse and Neglect

There were a total of 32 substantiated incidents in Cape Girardeau County area in 2013. This 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 3.5.

Table 3.5 Substantiated Child Abuse or Neglect, 2013

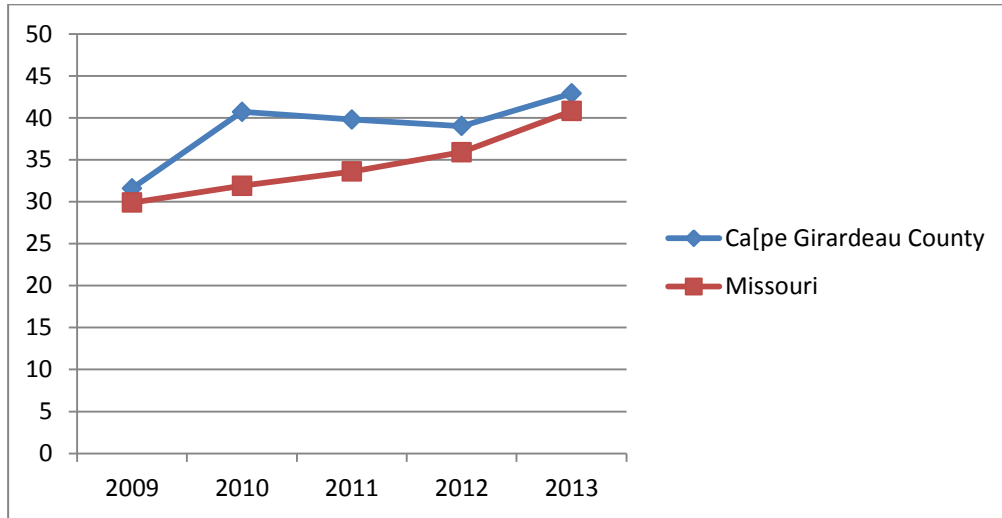
County/ State	Substantiated Child Abuse/Neglect Incidents, 2013
Cape Girardeau	32
Missouri	6,322

Source: Missouri Department of Social Services, Children's Division, Calendar Year 2013 Annual Report, October 2013.

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 from 2009-2013. Figure 3.3 shows the trend for Cape Girardeau County and Missouri. Cape Girardeau County has a higher rate of assessments than the state and is ranked 37th out of 115 counties in this measure with “1” being the county with the most assessments.

Figure 3.3: Child Abuse / Neglect and Family Assessment (Per 1,000), 2009-2013



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 based on potential for abuse/neglect. Rate is expressed per 1,000 children under 18.

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

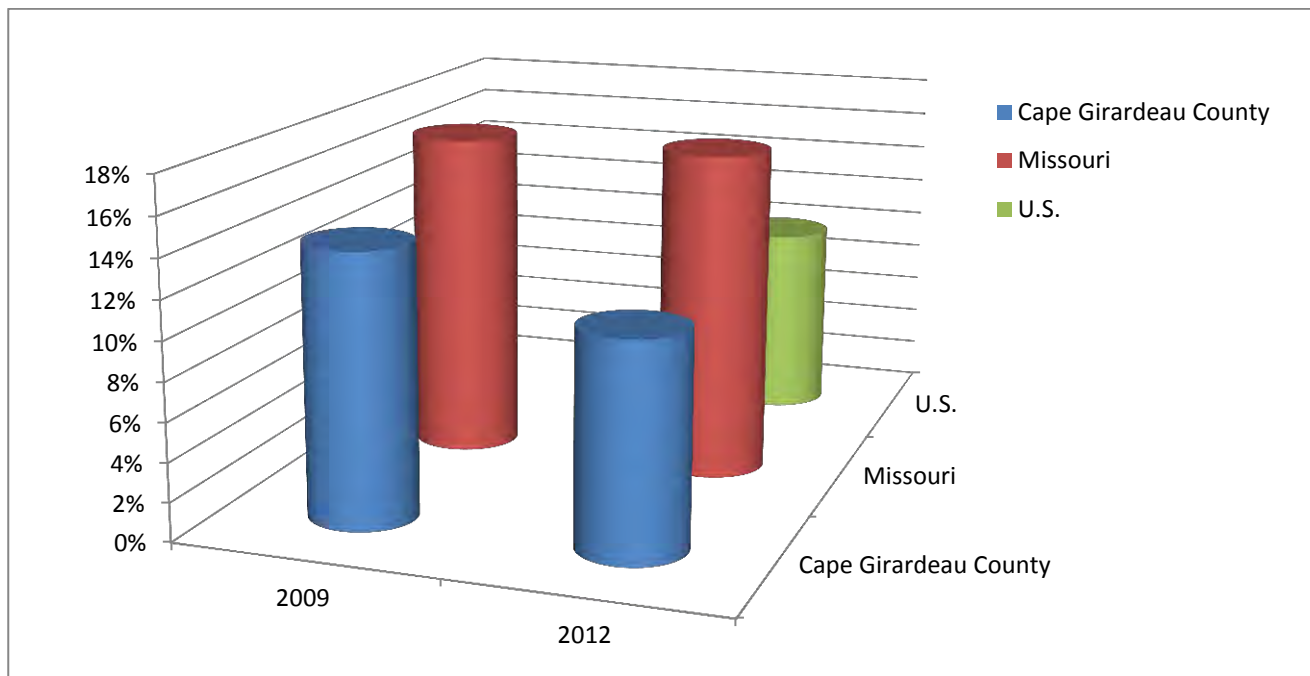
Section IV:
Alcohol, Tobacco, and Substance Abuse

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

ALCOHOL USE AND ABUSE

Some adverse effects 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 developed by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, in 2009, 14% 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. By the end of 2012, the County Health Rankings reported that the percent for Cape Girardeau County had decreased to 11%, remained at 17% for Missouri, and 10% for the U.S., based on data acquired from the Behavioral Risk Factor Surveillance System. Figure 4.1 compares the Excessive Drinking Rates.

Figure 4.1 Excessive Drinking, 2009 and 2012



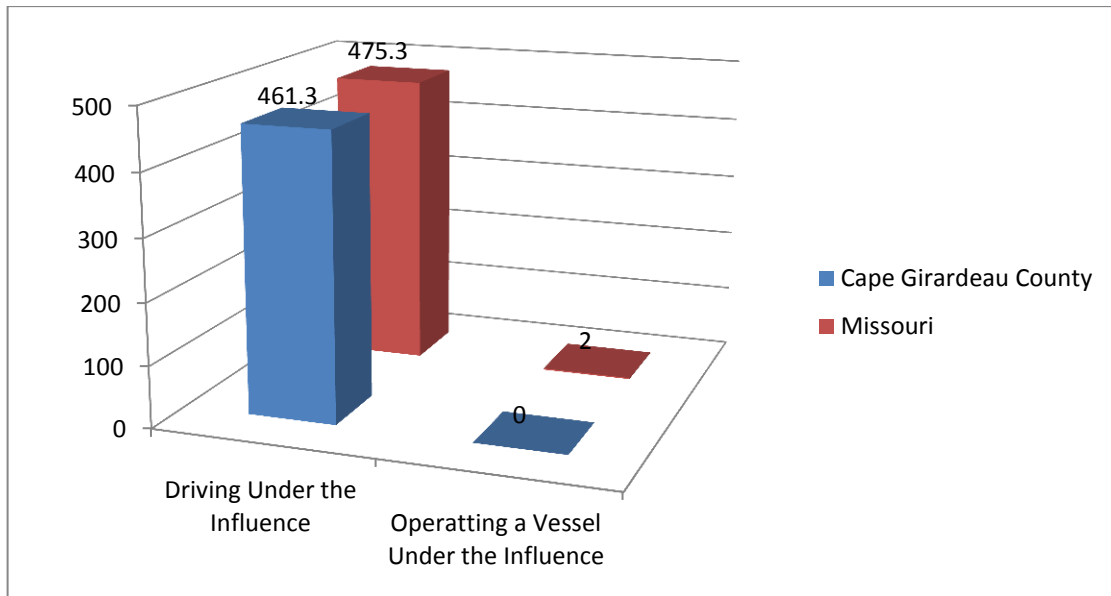
Source: County Health Rankings & Roadmaps, Cape Girardeau County 2006-2012

Alcohol Related Arrests

The Missouri Department of Mental Health Division of Behavioral Health provides information on the number of alcohol related arrests. Figure 4.2 shows a comparison between Cape Girardeau County and Missouri for the 2013 arrests made for Driving under the Influence and Operating a Vessel under

the Influence. Cape Girardeau County rate (per 100,000 population) for driving under the influence was slightly lower than the state and there were no arrests for operating a vessel under the influence.

Figure 4.2: Alcohol Related Arrests, 2013



Source: Missouri Highway Patrol, Missouri Uniform Crime Reporting Program, 2014
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 occur at a rate of 2.9 per 1,000 in Cape Girardeau County, and outpatient emergency room visits for substance-related mental disorders occur at a rate of 4.2 per 1,000 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, 2013

	Number of total events for Alcohol and Substance Abuse	Rate per 1,000
Cape Girardeau	214	2.9
Missouri	24,726	4.0

Source: Missouri Department of Health and Senior Services, Community Data Profiles, updated 10/27/2014

Alcohol and Substance Abuse Related Hospitalizations

The Missouri Department of Health and Senior Services reports 85 hospitalizations related to alcohol and substance abuse in Cape Girardeau County. Hospitalizations in 2012 for county and state are listed in Table 4.2. Cape Girardeau County has a slightly higher rate of hospitalizations due to Alcohol and Substance Abuse than the state.

Table 4.2: Hospitalizations, 2012

	Number of total events for Alcohol and Substance Abuse, 2012	Rate per 1,000
Cape Girardeau	85	12.0
Missouri	7,059	11.9

Source: Missouri Department of Health and Senior Services, updated 2/10/14

Alcohol and Substance Abuse Related Deaths

Cape Girardeau County had an age-adjusted rate per 1,000 in population of 13.3, lower than the age adjusted rate of 19.3 across Missouri. Table 4.3 compares the county and state rates.

Table 4.3: Death Rates: Alcohol/Drug-Induced, 2002-2012

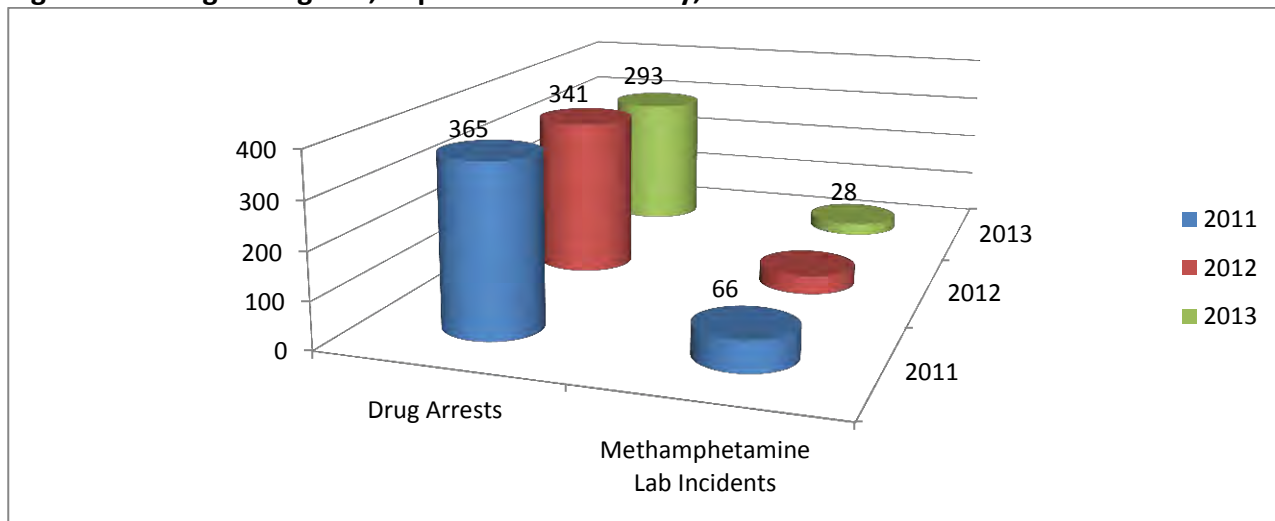
	Number of total events for Alcohol and Substance Abuse, 2002-2012	Rate per 1,000
Cape Girardeau	101	13.3
Missouri	12,560	19.3

Source: Missouri Department of Health and Senior Services, updated 2/10/14

Illegal Drug Use

In 2011, there were 66 Methamphetamine Laboratory incidents reported for Cape Girardeau County and by 2012 the number of incidents decreased to 40 and by 2013 there were only 28 incidents. Figure 4.3 shows drug arrests and methamphetamine lab incidents.

Figure 4.3: Illegal Drug Use, Cape Girardeau County, 2011-2013



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

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 4.4 shows the prevalence percentage for Cape Girardeau County and Missouri for 2003, 2007, and 2011 for Tobacco related indicators.

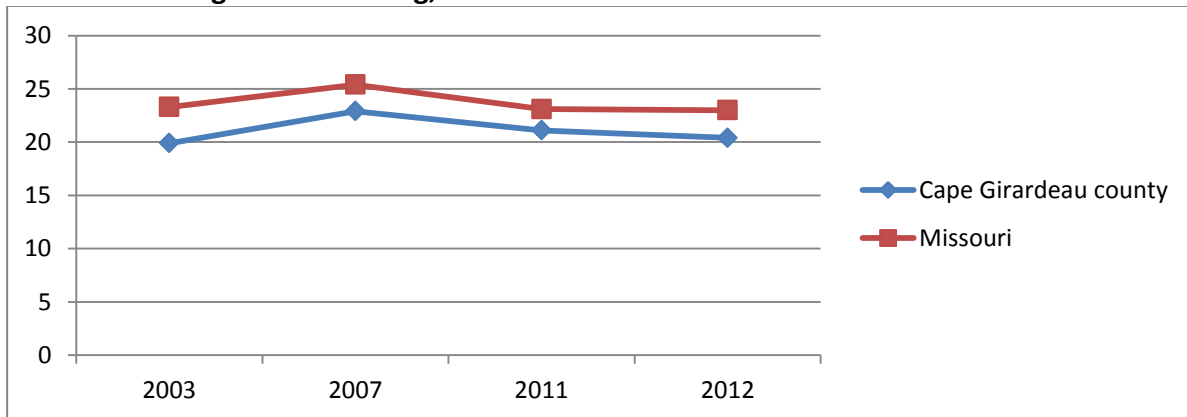
Table 4.4: Tobacco Use Prevalence Percent / Significant Change, 2007 and 2011

	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, 2003, 2007, 2011

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 2012 the prevalence rate for Cape Girardeau County was 20%, Missouri was 23%, and the U.S. was 14%. Figure 4.4 depicts the trend of current smokers from 2003 to 2011 for both Cape Girardeau County and the state of Missouri.

Figure 4.4: Current Cigarette Smoking, 2003-2007-2011-2012

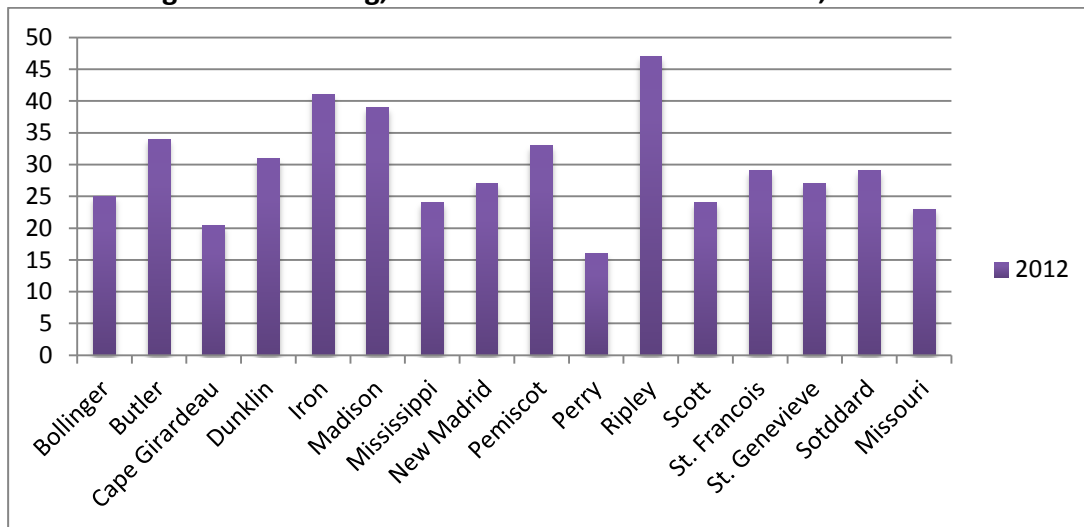


Source: Missouri Department of Health and Senior Services, County Level Study 2003, 2007, 2011, and County Health Rankings and Roadmaps, 2012

Both the state and the county have seen a decreasing trend in the prevalence percent of individuals that self-report that they are current cigarette smokers and Cape Girardeau County remains at a lower percent than the state. However, Cape Girardeau County has experienced a higher percentage than the state of individuals reporting that they are currently using smokeless tobacco. Figure 4.5 compares

this same smoking prevalence percentage for those counties located in the Southeastern District of Missouri.

Figure 4.5: Current Cigarette Smoking, Southeastern Missouri Counties, 2012



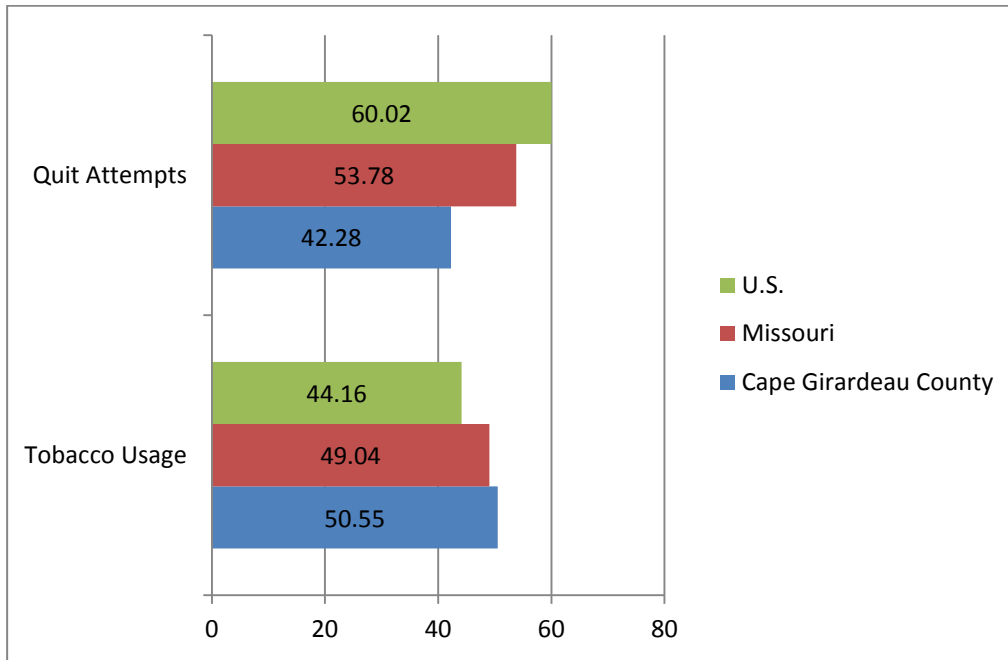
Source: Robert Wood Johnson Foundation, County Health Rankings, 2015

Thirteen 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

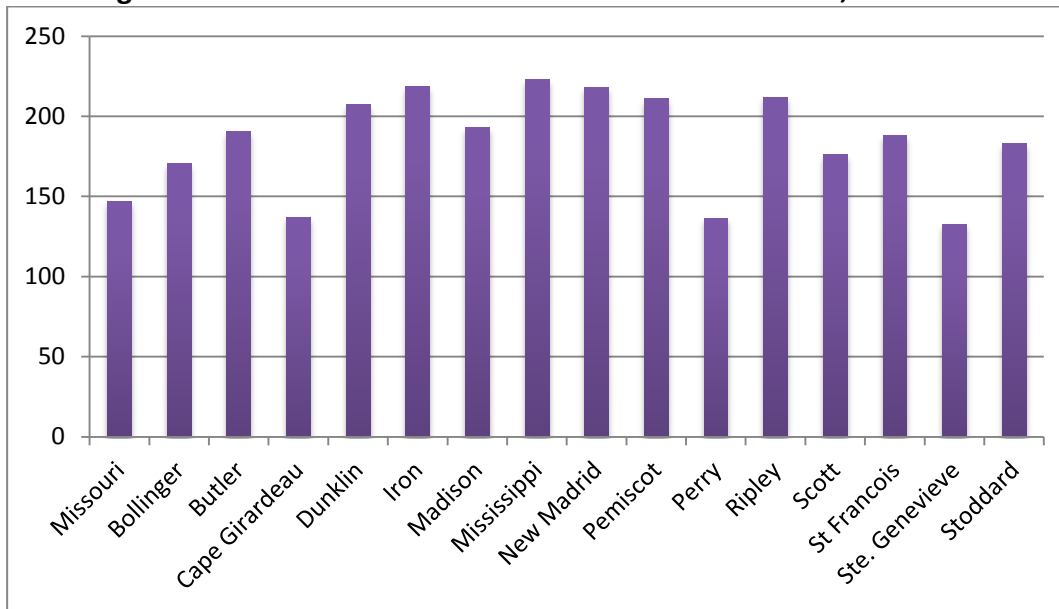
Another indicator related to tobacco usage is the percent of the population that identify as former smokers or who responded “yes” to the survey question, “Have you smoked at least 100 cigarettes in your entire life?” This population is considered to be at risk of developing health related conditions that could be linked to leading causes of death such as cancer and cardiovascular disease. Data from the Centers for Disease Control, 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 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%) has a lower percentage of smokers with “Quit Attempt” in the past 12 months than Missouri (53.78%) or the U.S. (60.02%). Figure 4.6 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. are White (50.82% and 48.52% respectively).

Figure 4.6: Percent Adults Ever Smoking 100 or More Cigarettes (Current and Former Smokers), 2011-2012



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System 2011-2012, Community Commons CHNA

Figure 4.7: Smoking-Attributable Deaths for Missouri and Selected Counties, 2002-2012



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

Cape Girardeau County is 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) have smoking attributable death rates higher than the state. Figure 4.7 shows the rate of Smoking-Attributable Deaths for Missouri and the selected counties.

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 diagnosis's and causes of death as smoking-related. Table 4.5 lists the actual number and rate of these conditions and causes of death for the state of Missouri. Table 4.6 shows the actual number and rate of these conditions and causes of death for Cape Girardeau County.

Table 4.5: Missouri Tobacco Related Deaths and Hospitalizations

Missouri Tobacco Attributable Hospitalizations and Leading Causes of Death			
Population 2013	6,044,171		
Adult Tobacco Prevalence Rate (%)	32.5	Number	Rate
Hospitalizations, 2012	Heart Disease	80,610	116.6
	Stroke	19,760	28.3
	Pneumonia	25,815	38.7
	COPD	15,321	21.7
	Asthma	7,228	12
	Cancer	22,042	31.6
	Others Not Related to Tobacco	561,296	76.7
	Total Number of Possible Tobacco Related Hospitalizations	170,776	23.33
Leading Cause of Death, 2002-2012	Heart Disease	604,132	223.6
	Lung Cancer	42,693	59.4
	Breast Cancer	9,909	13.9
	Stroke	35,908	49.8
	Chronic Lower Respiratory Disease	35,524	49.7
	Pneumonia and Influenza	15,203	21
	Smoking-Attributable Deaths	105,913	146.9

Source: Missouri Department of Health and Senior Services, Community Health Profiles, 2002-2012

Table 4.6: Cape Girardeau County Tobacco Related Deaths and Hospitalizations

Cape Girardeau County Tobacco Attributable Hospitalizations and Leading Causes of Death			
Population 2013	77,320		
Adult Tobacco Prevalence Rate (%)	28.5	Number	Rate
Hospitalizations, 2012	Heart Disease	886	97.1
	Stroke	266	29.1
	Pneumonia	362	41.9
	COPD	173	18.8
	Asthma	51	7.1
	Cancer	257	29.3
	Others Not Related to Tobacco	6,501	76.7
	Total Number of Possible Tobacco Related Hospitalizations	1,975	23
Leading Cause of Death, 2002-2012	Heart Disease	7,737	221
	Lung Cancer	485	53.4
	Breast Cancer	127	13.7
	Stroke	495	50.2
	Chronic Lower Respiratory Disease	412	43.7
	Pneumonia and Influenza	186	16.8
	Smoking-Attributable Deaths	1,283	136.9

Source: Missouri Department of Health and Senior Services, Community Health Profiles, 2002-2012

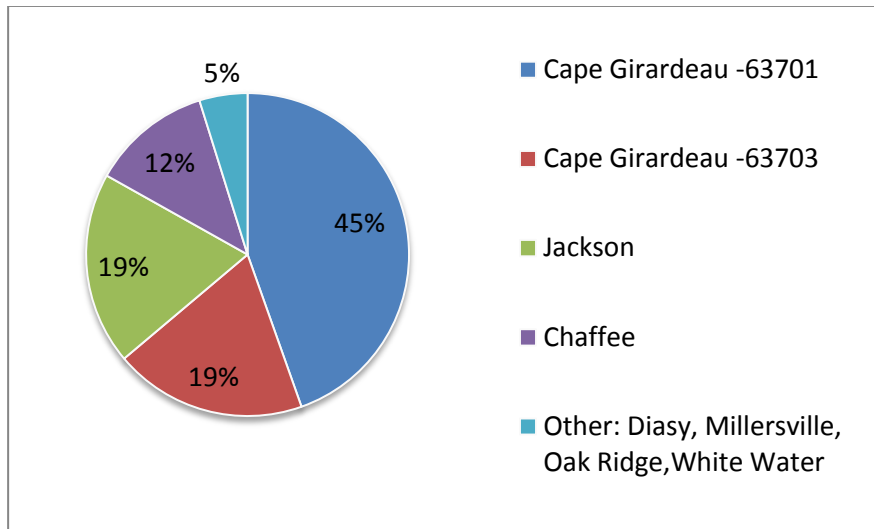
Comprehensive Tobacco Assessment Surveys

From November 2014 through March 2015, Cape Girardeau County Public Health Center conducted a series of surveys in an attempt to assess beliefs and knowledge of second-hand smoke among county residents along with assessing multiple local policies in relation to tobacco use. Information reported here has been captured from the Comprehensive Tobacco Assessment Report that was compiled at the conclusion of the survey process.

General Tobacco Population Survey

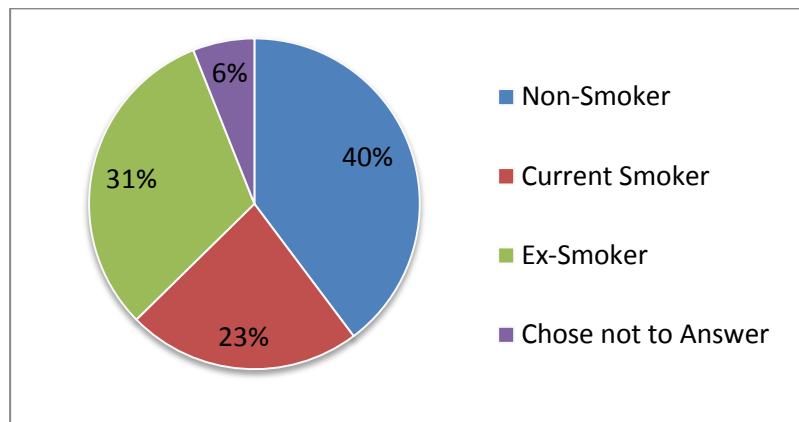
A survey was developed by the Health Center to identify county resident's opinions, knowledge, and behaviors related to tobacco use and second-hand smoke exposure. The survey was distributed to clients participating in Health Center programs including WIC, Rural Health Clinic, Immunizations, Communicable Disease Clinic, Office Visits, and Vital Records. In addition the survey was distributed to community residents participating in the Healthy Communities Coalition (HCC), the Emergency Management Action Committee / Coad, the Aging Committee Task Force, and the Chronic Disease Self-Management (CDSM) class. A total of 100 surveys were completed. As illustrated in Figure 4.8 the majority of respondents were from Cape Girardeau and Jackson which matches the distribution of the Cape Girardeau County population.

Figure 4.8: Percent of Comprehensive Tobacco Survey Respondents by Zip Code



The survey was distributed to adults in every age range with the majority in the 30-49 year age group and the majority of respondents were female. Demographic information was also obtained on the smoking status of respondents. There was a large distribution of current and ex-smokers, making up nearly 55% of respondents. Figure 4.9 shows the percentage of respondents by their smoking status.

Figure 4.9: Percent Respondents by Smoking Status



This survey looked at the knowledge of respondents on the health risks of second-hand smoke, their preferences on smoking in different areas, and their opinions on smoking around children and their knowledge on the specific health risks of second-hand smoke for children. When it comes to the health risks of second-hand smoke, the majority of those surveyed generally know some of the risks of second-hand smoke. There seems to be a substantial number of survey participants who seem to either be on the fence or unaware of the link between second-hand smoke and some survey items, such as if there is a risk free level, if it has an immediate effect on your blood vessels, if second-hand smoke can lead to cancer, and can affect individuals who have never smoked. Figure 4.10 shows the distribution of responses to the statement, “There is no risk-free level of secondhand smoke exposure, even brief exposure can be harmful to health.

Figure 4.10 Risk Free Level of Secondhand Smoke Exposure

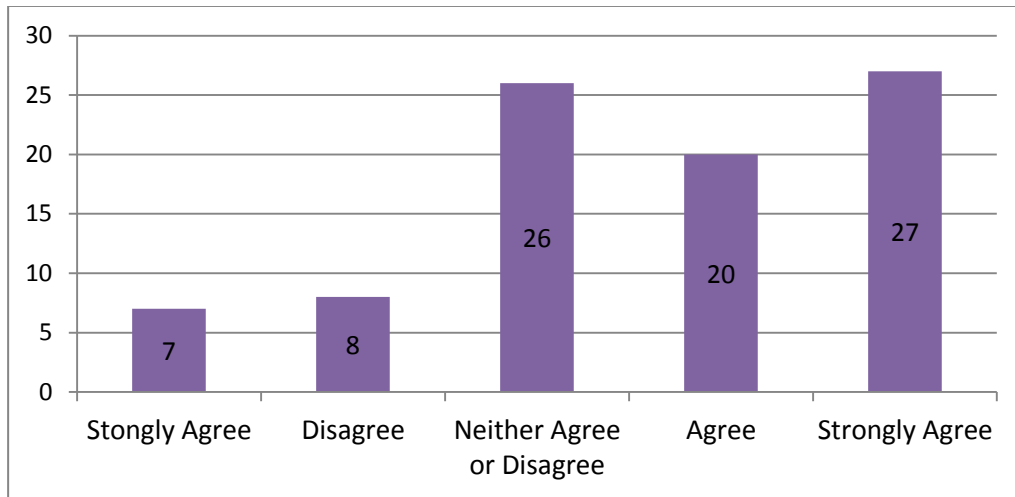
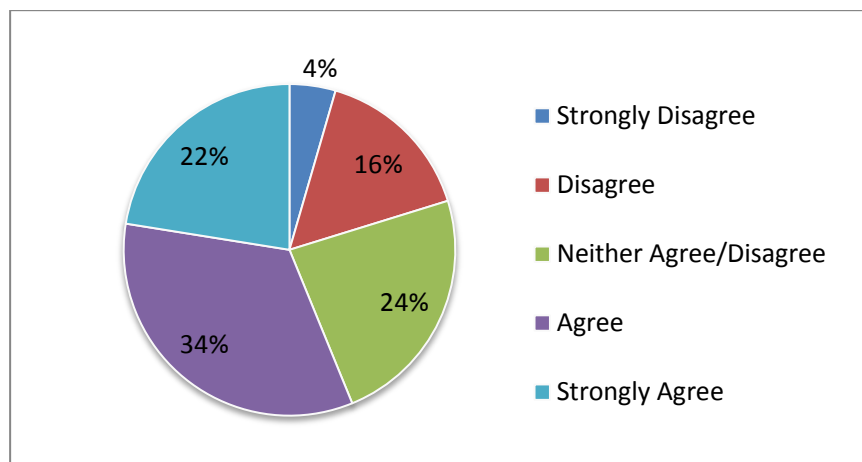


Figure 4.11: Separating smokers from nonsmokers within the same air space, cleaning the air, opening windows, and ventilating buildings does not eliminate secondhand smoke exposure



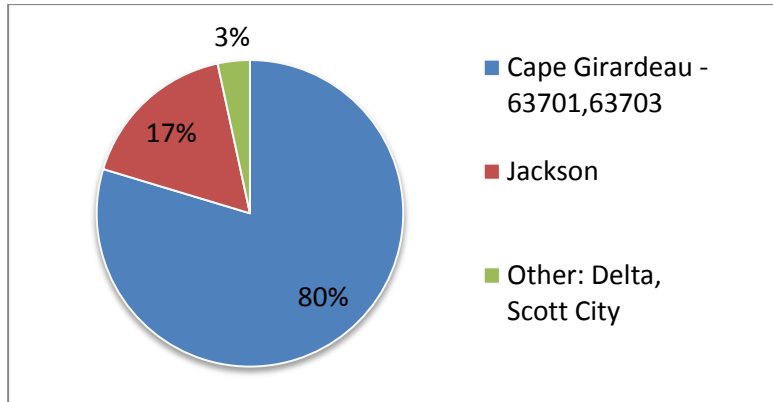
As demonstrated in Figure 4.11, there seems to be some level of knowledge around the idea of separating smokers from non-smokers and that having some form of ventilation does not eliminate all second hand smoke.

58% of the respondents believe smoking is ok to allow in restaurants as long as it is secluded in a separate section while 37% feel it should not be allowed at all. The majority of individuals (60%) prefer non-smoking, but only 54% always request it. Approximately 60% of ex-smokers and never smokers are bothered a little or a lot by second-hand smoke in restaurants. Slightly less than 50% of smokers are not bothered at all by smoking in restaurants. Implications, from the survey as a whole, include areas of concern for the knowledge of the risks of second-hand smoke. Education would be beneficial in improving Cape Girardeau County’s knowledge around second-hand smoke. Overall education on the health risks to children from second-hand smoke would be beneficial too, and increase the knowledge of the county.

Food Establishments

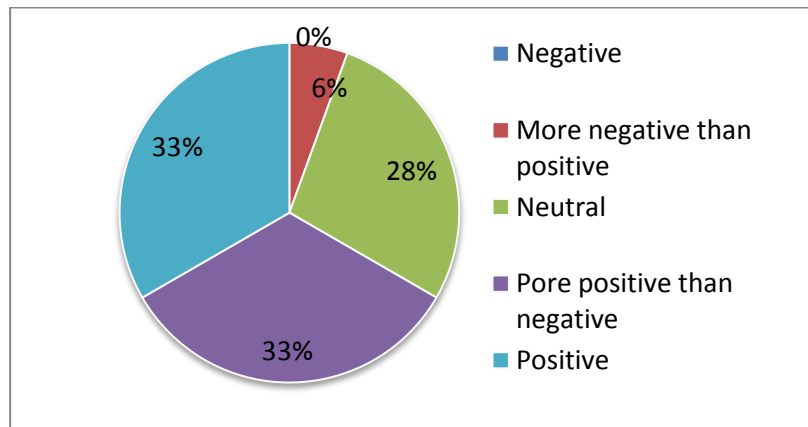
The purpose of this survey was to gather an idea of what local restaurants' current policies are around tobacco. Environmental Public Health Specialists, working for the Cape Girardeau county Public Health Center, recorded the responses of participants during routine inspection visits. Figure 4.12 shows the distribution by zip code of the food establishments surveyed.

Figure 4.12: Percent Food Establishment Respondents by Zip Code



Out of 60 establishments surveyed, only one did not have a policy of any kind and 80% have already gone 100% smoke-free. For those with a separate smoking section, 64% have policies that include all tobacco products. 76% of restaurants with a separate smoking section do not have a separate air filtration system for this section and of those who are 100% smoke-free, 93.6% have their policies applying to their employees as well. 68% have been smoke free since they opened and 0% have received negative feedback from this. Most respondents reported no obvious change in revenue and two restaurants reported an increase. Among restaurants who have not been smoke-free since opening, most reported customers were neutral on their reaction to going smoke-free and 35% reported very positive responses from customers. Figure 4.13 shows the responses to the question, "What reactions have been received from customers after the restaurant has gone 100% smoke-free?"

Figure 4.13: Reaction received from customers up on going 100% smoke-free



Employer Survey

Only five employers (3 healthcare facilities, 1 retirement home, 1 public safety employer) responded to the survey out of the 60 distributed. Even though this was not a good representative sample of employers in Cape Girardeau County, the results are presented for the information gathered and takeaway implications. 100% of the respondents have a formal written tobacco use policy that is actively enforced. None of the organizations offer smoking cessation services to their employees and only one of the employer paid insurance benefit covered cessation services. The important messages are that businesses are interested in cessation services if offered by the Health Center or community project. In addition, it seems that the businesses that participated have a proper way of informing employees and visitors of their policies and enforcing their policies.

Day Care Establishments

A total of 8 day care establishments in Cape Girardeau County responded to the survey, 100% of which are 100% smoke-free indoors, as required by law, and 100% are smoke-free even when children are not present. Only 50% of the day care's policies include e-cigarettes and 25% were unsure if they were included. One of the most significant findings was that 63% had a formal written policy that is not only distributed to staff, but parents as well.

Educational Institutions Policies Review

An evidence-based assessment tool, developed by Washington University and the Center for Tobacco Policy Research in St. Louis was used to evaluate the tobacco policies in local primary educational institutions. This assessment tool allowed for the review of environment, enforcement, prevention, and organization of policies. A review of the policies for each of the five public school districts in Cape Girardeau County was completed by obtaining their written policies from their respective district websites. Table 4.7 shows, by school district, the score assigned to each of the factors based on the review of the online policies.

School District	Environment %	Enforcement %	Prevention %	Organization%	Total Score %
Cape Public	100%	17%	50%	75%	62.5%
Jackson R-II	100%	17%	17%	75%	55%
Nell Holcomb R-IV	100%	17%	17%	75%	55%
Oak Ridge R-VI	100%	17%	17%	75%	55%
Delta RV	13%	17%	0%	50%	25%

Table 4.7: Policy Assessment Scores by Evaluated Factors, Primary Education

The County's Primary Public Education facilities were strongest on the environmental aspects of the assessment and weakest on enforcement and prevention efforts. Like the Primary Education policies, Secondary Education Tobacco Policies were also assessed utilizing the same evidence-based assessment tool. Table 4.8 shows, by institution, the score assigned to each of the factors based on the review of the online policies.

Table 4.8 Policy Assessment Scores by Evaluated Factors, Secondary Education

A limitation of this portion of the review is that it was almost impossible to find formal written policies that are readily available to the public. Interesting notes from what was reviewed include the fact that Southeast Missouri State University is not 100% smoke-free, as there are still designated smoking areas on the campus and policies allow e-cigarettes.

School District	Environment %	Enforcement %	Prevention %	Organization%	Total Score %
Southeast Missouri State University	88%	64%	0%	86%	70%
Cape Career & Technical College	50%	0%	0%	29%	24%
Southeast College of Nursing	50%	0%	40%	57%	35%
Metro Business College					

Section V: Injury

Injury was not a priority focus area in the 2012 Community Needs Assessment for Cape Girardeau County. The overall injury rate for Cape Girardeau County was 7,887.1 per 100,000 for the years of 2009-2011, while the State of Missouri's was 9,539.6 per 100,000. Therefore, at the time of the last assessment, the rate of injury was lower in the county than the state. This is still true for the years of 2012-2013 for this assessment, seen below. The rate of injury for the state has decreased to 9,238.7 per 100,000 while the rate of injury for Cape Girardeau County has increased by almost 1,000, since the last assessment, to 8,859.7.

Table 5.1: Various Injury Rates, 2012-2013

	Deaths – all Injuries	Deaths- Unintentional	Hospitalizations	Emergency Room Visits	Incidence Rate of all Injuries
Cape Girardeau	13.9	12.5	94.2	86.3	8,859.7
Missouri	16.4	12.3	99.8	90.4	9,238.7

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

For all of the above measures, except deaths due to unintentional injury, Cape Girardeau County is lower than the state. All rates shown are per 100,000. For Hospitalizations, only 2012 data was available. Hospitalizations included discharges for both injury and poisonings

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 is 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 8,859.7 per 100,000, in Cape Girardeau between 2012 and 2013. 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, 2012-2013

	Under 15	15 - 24	25 - 44	45 - 64	64 and Over	All Ages
Cape Girardeau	10,199.4	9,185.6	10,074.6	6,206.3	8,476.0	8,859.7
Missouri	10,517.4	11,763.7	9,725.4	6,348.7	8,320.6	9,238.7

Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.*

When injury rates are broken down by age group and compared to the state, individual age groups' rates are still lower than the states, similar to the overall injury rate, except for 25-44 year olds. When you break down the 25-44 age category, in [Injury MICA](#), the age group of 25-34 is the category that is

higher than the state with a rate of 11,403.2 per 100,000 for the county compared to the state rate of 10,754.4 per 100,000. The rate of injuries for those 35-44 years of age is lower for the county than the state. Causes of injury that are prevalent for 25-34 year olds are explored further in the next portion of the injury section. Those in the age category of 15 or younger have the highest injury rates in Cape Girardeau County, followed by 25-44 year olds.

Since the under 15 age category has the highest rates of injury and those under the age of 15 can have very different injury risks depending on their age, this category was broken down further.

Table 5.3: Injuries Rates per 100,000, by Age Group for those <15 years and by Location, 2012-2013

	Under 1	1-4	5-9	10-14	All Ages Under 15
Cape Girardeau	6,286.9	13,448.9	8,751.1	9,902.2	10,199.4
Missouri	6,014.3	12,993.9	9,116.0	10,863.0	10,517.4

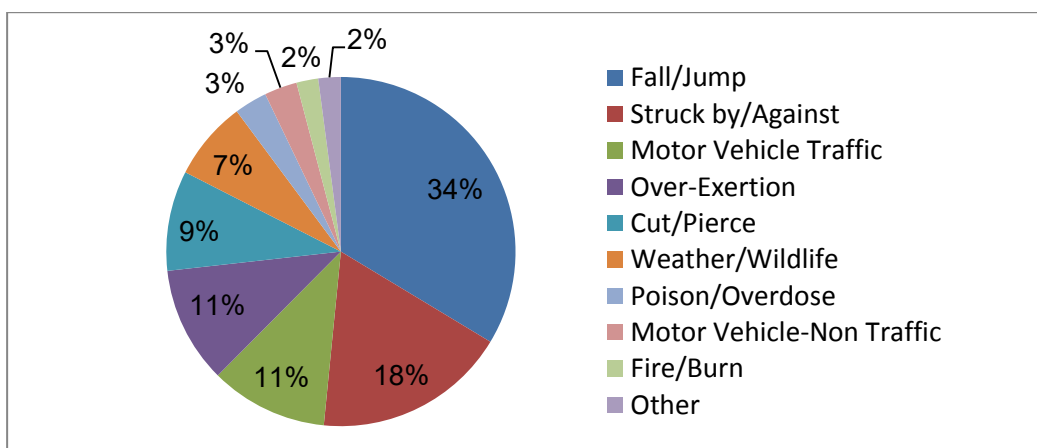
Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.

The category of 1-4 years old has the highest rate of injury followed by the 10-14 age category. The rate of injury in the county, compared to the state, is higher for children in the 1-4 category as well as the under 1 year of age category. Causes of injury with high rates of occurrence are explored in the following section.

Injury Rates, by Cause

Now that injury rates have been compared 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 being a needed area of focus.

Figure 5.1: Percent of Injury Mechanism Burden, Based on Rates per 100,000, for all Ages, 2012-2013



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.

The ‘other’ included, in order of most prevalent, injuries by Machinery, Abuse/Neglect, Firearm, Other Transportation, and Suffocation/Hanging all of which made up 2% or less of all of the rates of injuries.

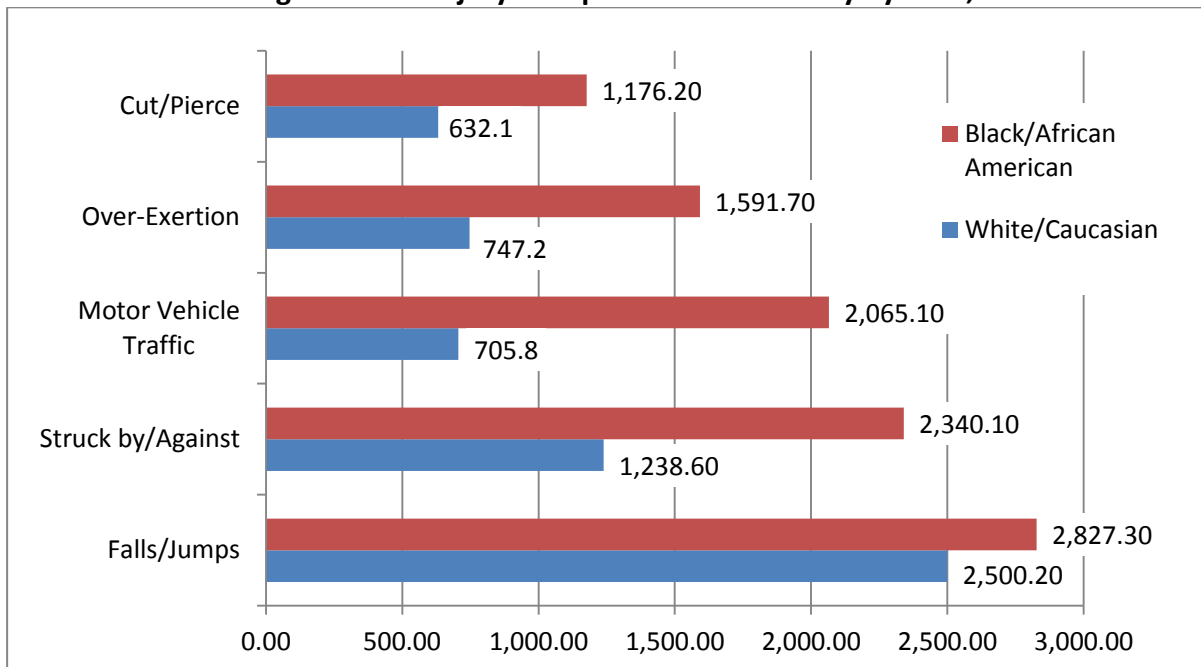
In comparison to the state, the rate in Cape Girardeau County was higher for the categories of Struck by/Against, Cut/Pierce, Over-Exertion, Weather/Wildlife, Machinery, and Fire/Burns. Leading causes of injury for all ages for the county is listed below with categories that are also higher than the state’s rates highlighted in red with the rate in parenthesis behind.

Leading Causes of Injury

1. Fall/Jump (2,562.4)
2. **Struck by/Against (1,365.1)**
3. Motor Vehicle Traffic (829.4)
4. **Over-Exertion (821.4)**
5. Cut/Pierce (705.5)

Race Primarily Affected by the Leading Causes

Figure 5.2: Rate of Leading Causes of Injury in Cape Girardeau County by Race, 2012-2013



Source: [Missouri Department of Health and Senior Services, Missouri Information for Community Assessment \(MICA\), Injuries, 2013.](#)

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 is the same for both races, with the exception of over-exertion and Motor Vehicles Traffic taking places compared to the leading causes identified for the whole population. Overall, blacks have a much higher rate of injury with the difference between races ranging anywhere between 12% difference

for injuries via Falls/Jumps and a 66% difference for injuries via Motor Vehicle Traffic. That means that for motor vehicle traffic injuries, there are 66% less whites that receive injuries than blacks.

Age Groups Primarily Affected by the Leading Causes

Table 5.4: Rate of Leading Causes of Injury by Age Group, 2012-2013

Cause of Injury	Under 15	15 - 24	25 - 44	45 - 64	64 and Over	All Ages
Fall/Jump	3,141.3	1,424.3	1,879.4	1,958.1	5,783.2	2,562.4
Struck by/Against	2,165.7	1,760.5	1,568.0	671.6	432.2	1,365.1
Motor Vehicle Traffic	300.2	1,409.8	1,207.4	707.6	427.9	829.4
Over-Exertion	629.0	1,008.6	1,314.0	540.3	268.0	821.4
Cut/Pierce	675.4	965.2	885.1	555.8	319.8	705.5
All Injuries	6,911.6	6,568.3	6,583.9	4,443.4	7,231.2	

Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.*

Table 5.4 breaks down the five leading causes of injury by age group to determine what groups are burdened most, with the two causes whose overall rate is higher than the state highlighted in red, as before. 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 are primarily injured by Falls/Jumps followed by being Struck by/against something. When the 15 and under age group is broken down further, as before, we see that area of focus for this age group may be prevention of ...

- Falls/Jumps Injuries
 - Children under 4 years of age (rate of 3,009.1 for under one and 4,696.9 for 1-4 year old)
- Being Struck by/against for all ages
- Over-Exertion
 - 10-14 year olds (rate of 1,096.7 compared to rates in the 600s for other ages)
- Cut/Pierce Injuries
 - 10-14 year olds (rate of 849.4)

Unintentional Injuries

Cape Girardeau experienced 240 deaths from unintentional injury during the period 2002 to 2012. The rate per 100,000 of deaths from unintentional injury in Cape Girardeau County is 12.5, which is very similar to the State's at 12.3.

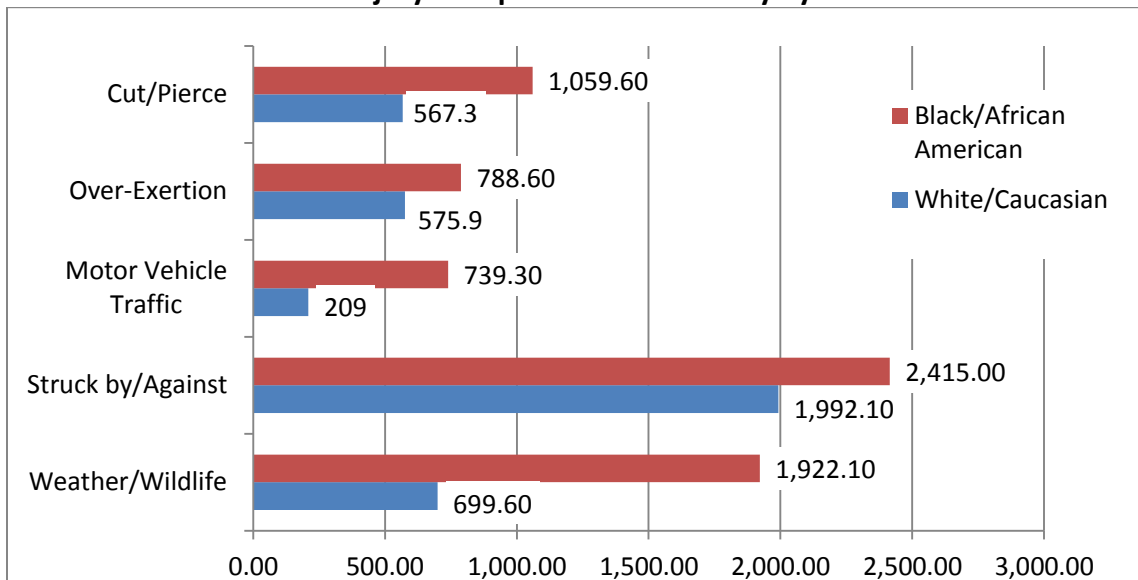
Table 5.5: Rate of Unintentional Injuries by Age Group, 2012-2013

	Under 15	15 - 24	25 – 44	45 - 64	64 and Over	All Ages
Cape Girardeau	9,906.4	8,184.2	8,897.2	5,750.8	8,337.7	8,195.3
Missouri	10,043.7	10,206.6	8,531.9	5,811.5	8,064.7	8,415.2

Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.*

Table 5.5 shows the rate of unintentional injuries by age group in Cape Girardeau County compared to the State of Missouri. The rate of unintentional injury is higher in the state than the county except for age groups 25-44 and 64 and over. The 25-44 age group had some of the higher overall injury rates as well, shown above. Some of the unintentional injuries burdening 25-44 year olds the most are Falls/Jumps, Over-Exertion, Motor Vehicle Traffic, and Struck by/Against. The unintentional injury most burdensome to individuals 64 and over is falls/jumps with a rate of 5,783.2 with the next most common unintentional injury in this age group being motor vehicle traffic with a rate of 427.9 per 100,000.

Figure 5.3: Rate of Unintentional Injury in Cape Girardeau County by Race

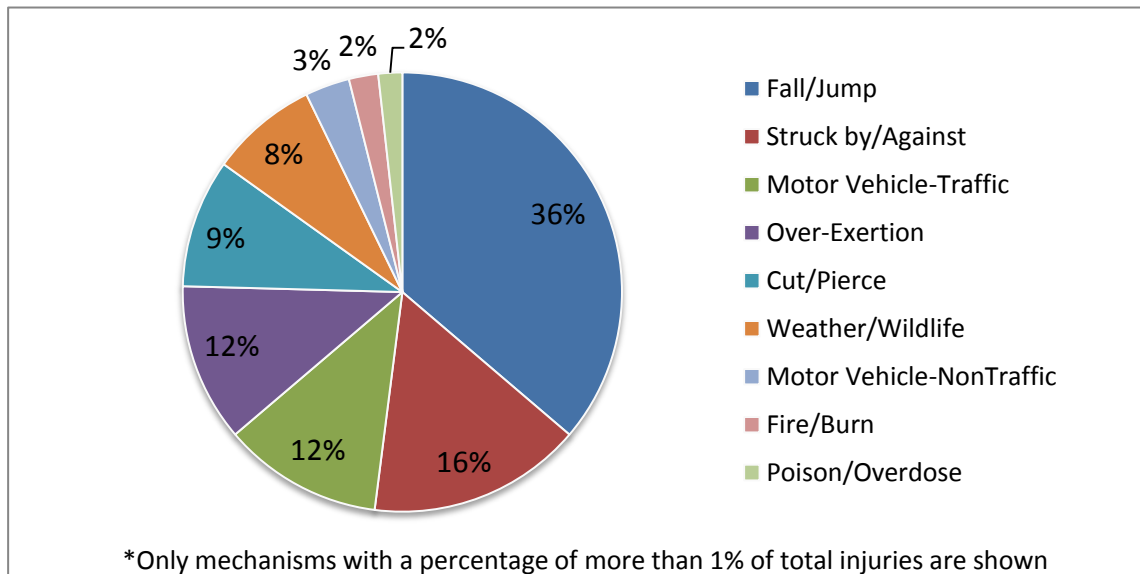


Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 013.*

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

compared to whites. The highest rate of unintentional injuries, for both races, occur with injuries where an individual is stuck by or against something. The biggest disparity between blacks and whites is unintentional injuries from weather and wildlife with the rate of injury being 1,922.1 per 100,000 for blacks and only 699.6 per 100,000 for whites. The rate of unintentional injury for white for all mechanisms was 9,166.9 per 100,000 compared to blacks, which was higher at 12,198.1.

Figure 5.4: Percent of Unintentional Injuries by Mechanism* in Cape Girardeau County, Missouri for all Ages, 2012-2013



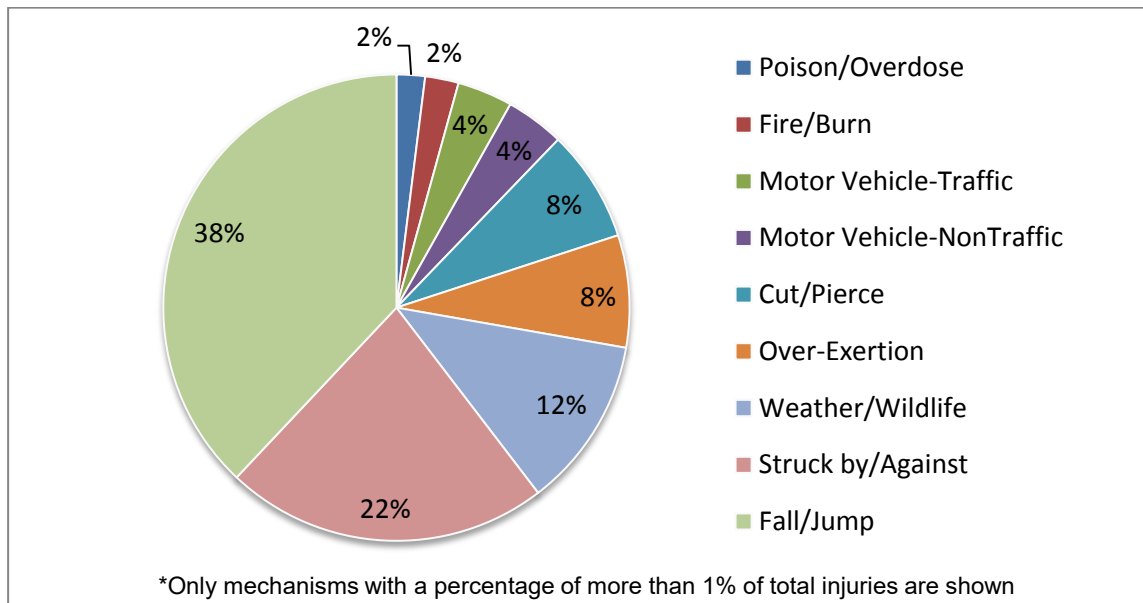
Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.

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 not included since these rates made up less than 2% of all unintentional injuries.

The leading causes of unintentional injury were injuries from falls/jumps, being struck by/against something, motor vehicles in traffic, and over-exertion. These four categories are in the same, and even 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, Missouri in 2013 in Children ≤ 15



Source: *Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Injuries, 2013.*

Figure 5.5 above shows the percentage of burden of unintentional injuries by mechanism in the county. Compared to the state, the county has higher rates of unintentional injuries by over exertion (rate of 607.6 compared to 503.0) and cuts and piercings (rate of 600.5 compared to 542.3). These categories are shown in red below in the list of priorities of unintentional injuries for children in Cape Girardeau County.

- ✓ Falls/Jumps
- ✓ Struck by/Against
- ✓ Weather/Wildlife
- ✓ Over Exertion
- ✓ Cuts/Piercings

**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 initiation of prenatal care. In 2013, in Cape Girardeau County, 69.8% of births had prenatal care initiated during the First Trimester, 29.3% during the Second or Third Trimester (considered Late Prenatal Care), and 0.9% of births had No Prenatal Care.

Rates of prenatal care are compared between Cape Girardeau County and Missouri as shown in Table 6.1. Inadequate Prenatal Care is defined as 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.

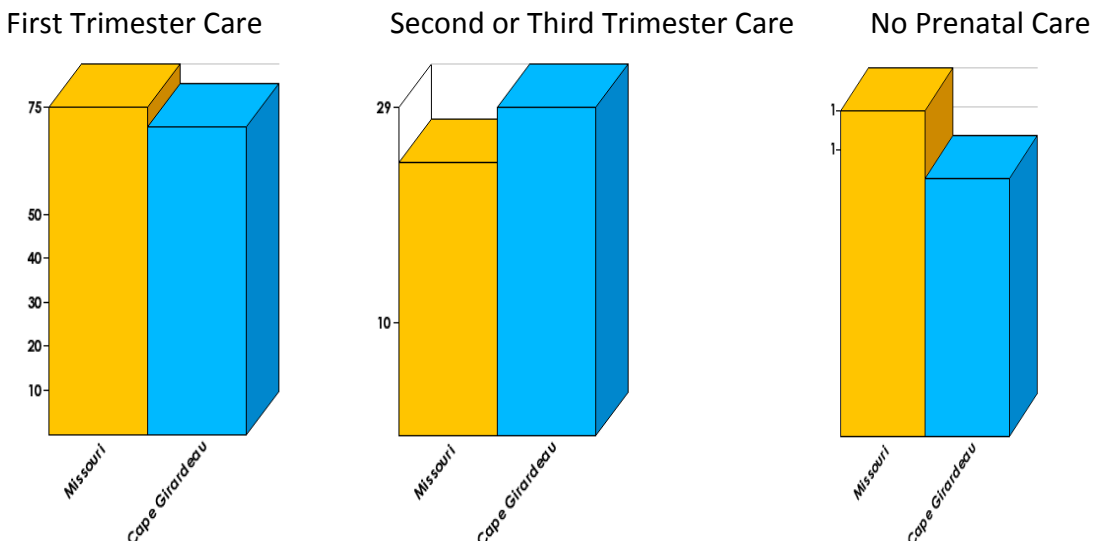
Table 6.1: Prenatal Care: Inadequate, 2013

	Rate per 100, 2010	Number, 2013	Rate per 100, 2013
Cape Girardeau	14.5	150	17.3
Missouri	16.8	12,982	18.6

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2013.

Although the rate of Inadequate Prenatal Care is lower for the county than for the state, Cape Girardeau County has 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 or Third Trimester, and No Prenatal Care.

Figure 6.1: Initiation of Prenatal Care, 2013



Source: Missouri Department of Health and Senior Services, MICA Births, 2013

Table 6.2: Initiation of Prenatal Care by Race, 2013

	White		African-American		White	African-American
	Number of Events	County Rate	Number of Events	County Rate	State Rate	State Rate
Care Began First Trimester	554	73.7	47	47.5	77.4	61.2
Late Care (2nd/3rd Trimester)	193	25.7	51	51.5	21.7	36.4
No Prenatal Care	5	0.7*	1	1.0*	0.9	2.4
Inadequate Prenatal Care	90	12.5	21	23.3	13.1	27.3

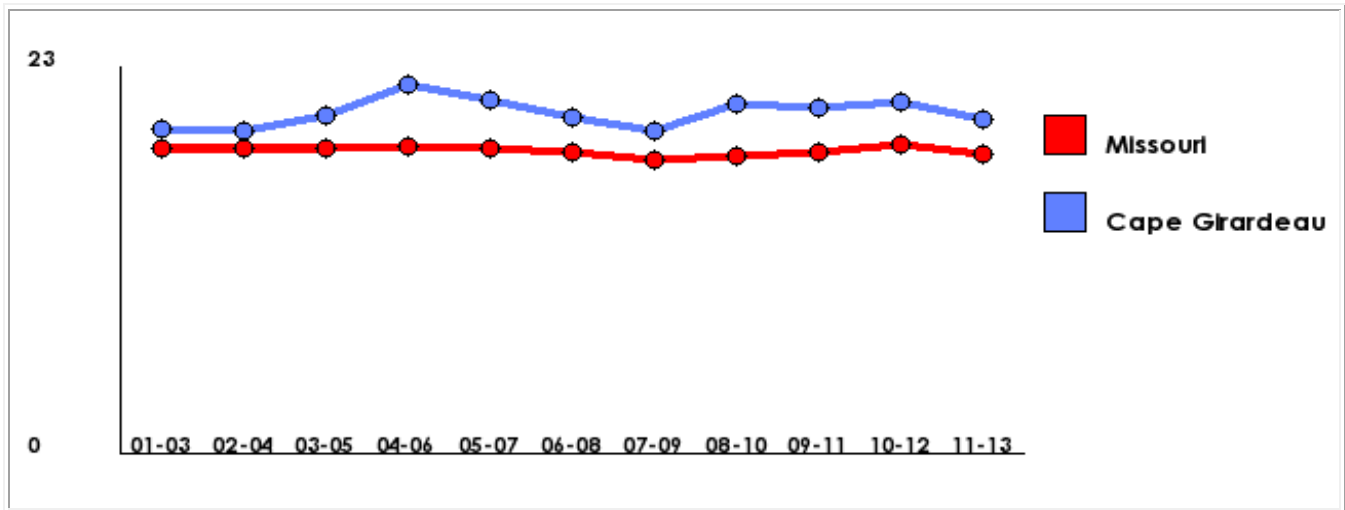
*Fewer than 20 events in numerator, rate is unstable

Source: Missouri Department of Health and Senior Services, MICA, Births, 2013

Care initiated in the first trimester was highest among the White race, 2nd or 3rd trimester care was highest among the African American Race, and Inadequate prenatal care was highest among the African American race.

Smoking During Pregnancy

Figure 6.2: Time Trend of Mother Smoked During Pregnancy



Source: Missouri Department of Health and Senior Services, Community Profiles, Prenatal, updated 4/30/15

According to Missouri Department of Health and Senior Services, 20.4 percent of mothers in Cape Girardeau County smoked during pregnancy compared to 17.5 percent of mothers in Missouri in 2013. The number and rate of mothers who smoked during pregnancy is shown in Table 6.3 for both the county and the state in 2010 and 2013.

Table 6.3: Rate (per 100,000) of Women who Smoked During Pregnancy, 2010 and 2013

	Rate, 2010	Number, 2013	Rate, 2013
Cape Girardeau	23.8	192	20.4
Missouri	18.7	13,155	17.5

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2013.

Although the county has experienced a decrease in the rate from 2010-2012 to 2011-2013, the trend over the past 14 years has not decreased significantly.

Table 6.4: Smoking during Pregnancy, Percentage by County, 2013

County	Rate
Bollinger	26.5
Butler	29.0
Cape Girardeau	20.4
Dunklin	29.6
Iron	35.2
Madison	31.6
Mississippi	32.7
New Madrid	32.1
Pemiscot	25.3
Perry	24.0
Ripley	23.2
Scott	27.1
St. Francois	31.2
Ste. Genevieve	19.5
Stoddard	28.90

Source: Missouri Department of Health and Senior Services, Community Profiles, Smoking During Pregnancy, 2013

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. All Southeastern District counties have a higher rate than the state and suggest consideration of a regional approach to addressing smoking during pregnancy.

Cape Girardeau County Public Health Center introduced the Smoking Cessation and Reduction in Pregnancy Treatment (S.C.R.I.P.T.) program through its pregnancy testing clinic early in 2013. Through this clinic women who have a positive pregnancy test are further assessed for temporary Medicaid eligibility and pregnancy related risk factors including smoking. Those individuals that are pregnant and smoke are offered the opportunity to participate in the S.C.R.I.P.T. program. The S.C.R.I.P.T. program is an evidence-based program shown to be effective in helping thousands of pregnant women quit smoking. It is designed as a patient education component and includes a guide for pregnant women, a quit smoking during and after pregnancy motivational DVD, and one-on-one education. Primary data collected from the Health Center clinic indicate that 289 pregnancy tests were performed in 2014 and

of those 286 clients received a prenatal Risk Appraisal. Of those risk appraisals completed, 155 were identified as eligible for and agreed to Prenatal Case Management. Of the 155 Risk Appraisals, 77 or 50% identified “Currently Smoking” as a qualifying Risk Factor. From the 77 prenatals identified with a smoking risk factor, 20 or 26% consented to participate in the S.C.R.I.P.T. program. It is felt that this early intervention has contributed to the decrease in the rate of women smoking in Cape Girardeau County.

Smoking during pregnancy rates in Cape Girardeau County is higher among the African American race (26.1) as compared to the white race (20.6). Table 6.4 compares the rates by age and race for 2013.

Table 6.4: Smoking Rate (per 100,000) during Pregnancy by Race, Cape Girardeau County, 2013

Mother's Age	Race					
	White		Black/African-American		All Races	
	Number	Rate	Number	Rate	Number	Rate
10-14	0	0.0	0	0.0	0	0.0
15-17	2	15.4	0	0.0	2	11.8
18-19	11	23.4	4	28.6	15	23.8
20-24	59	31.2	7	21.9	66	28.3
25-29	54	19.7	6	20.0	60	18.7
30-34	31	15.8	10	40.0	43	18.5
35-39	4	6.9	1	25.0	5	7.7
40 plus	0	0.0	1	50.0	1	11.1
Unknown	0	0.0	0	0.0	0	0.0
All Ages	161	20.6	29	26.1	192	20.4

Source: Missouri Department of Health and Senior Services, MICA, Smoking During Pregnancy, 2013

Births

According to the Missouri Department of Health and Senior Services, there were 922 Live Births in Cape Girardeau County during 2010, and 942 during 2013. This is an increase of 2.2% over the region. Table 6.5 shows the number of births by county and state. Birth data for the year 2014 was not available at the time this assessment was conducted.

Table 6.5: Number of Births, 2014

	Births, 2010	Births, 2013	Percent Change (%)
Cape Girardeau	922	942	2.2
Missouri	76,718	75,244	-1.9

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

Table 6.6 provides the number and percent of births by race and ethnicity for the years 2007, 2010, and 2013. 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 6.6: Live Births by Race / Ethnicity, 2007, 2010, 2013

Race	2007	2010	2013
White	823 (86.5%)	769 (83.4%)	783 (83.1%)
African American	108 (11.4%)	116 (12.6%)	111 (11.8%)
American Indian/Alaskan Native	2 (0.21%)	0	4 (0.42%)
Asian/Native Hawaiian/Pacific Islander	15 (1.5%)	10 (1.1%)	18 (1.9%)
Other Race	1 (0.11%)	22 (2.4%)	26 (2.8%)
Unknown Race	2 (0.21%)	5 (0.53%)	0
Ethnicity: Hispanic	32 (3.4%)	32 (3.5%)	37 (3.9%)
Ethnicity: Non-Hispanic	919 (96.6%)	890 (96.5%)	905 (96.1%)
Total Live Births	951	922	942

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2013

The largest percentage of births occurs in the White race followed by the African American race. Over the three years of data reviewed, there has been a 1% increase in live births in the American Indian/Alaskan Native race, 20% increase in the Asian race, and 15.6% increase in the Hispanic ethnicity.

Gestation

According to Missouri Department of Health and Senior Services, 11.5 percent of births in Cape Girardeau County had a gestation period of less than 37 weeks, in 2010. This compares to 11.9 percent in 2013. Preterm gestations, defined as less than 37 completed weeks of pregnancy, are shown by number and rate in Table 6.7.

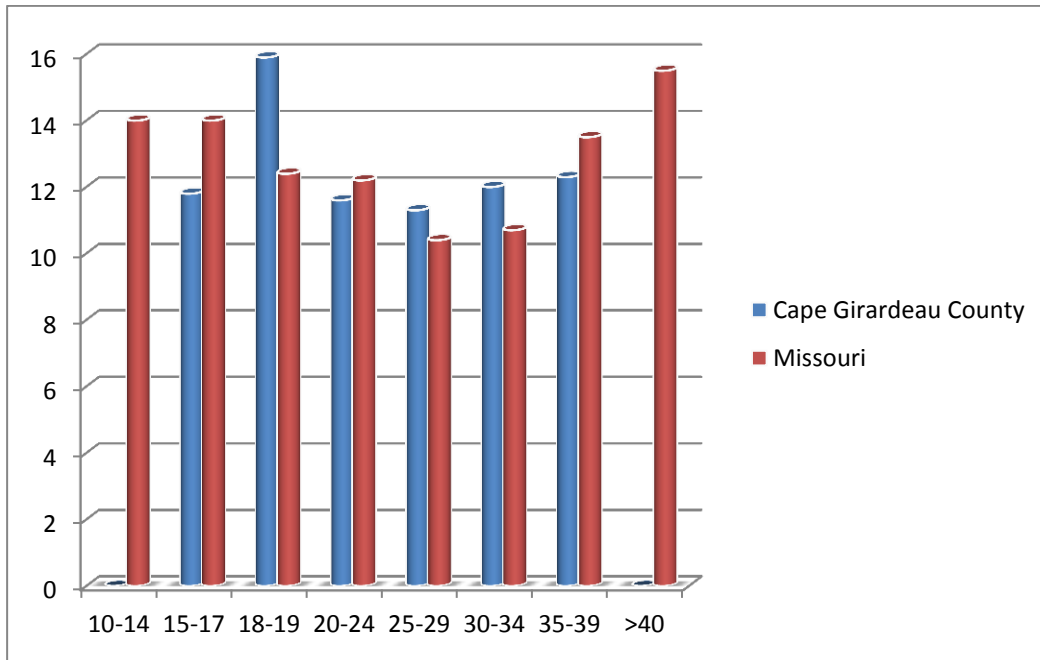
Table 6.7: Preterm Gestation (less than 37 completed weeks)

	Rate per 100, 2010	Number, 2013	Rate per 100, 2013
Cape Girardeau	11.5	112	11.9
Missouri	12.3	8,671	11.5

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2013

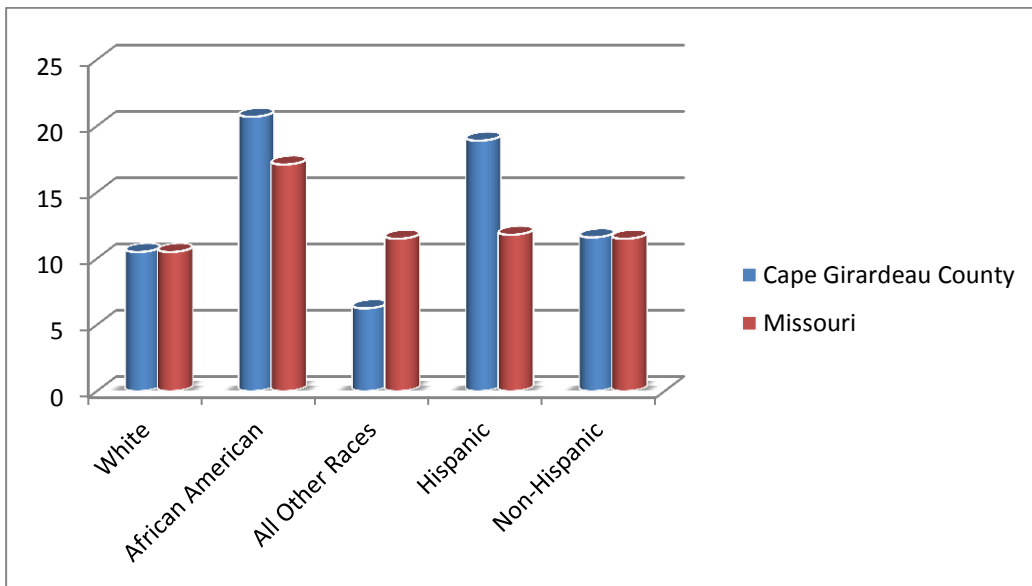
Figure 6.3 shows the Rate for Preterm Births for the year 2013 by age groups alone. Rates for preterm births were not available for age by race as the confidentiality rule was applied because the difference between any particular cell and the total number of events for all conditions is less than 10.

Figure 6.3: Preterm Gestation (less than 37 completed weeks) by Age Group, 2013



Source: Missouri Department of Health and Senior Services, MICA, 2013

Figure 6.4: Preterm Gestation (less than 37 completed weeks) by Race, 2013



Source: Missouri Department of Health and Senior Services, MICA, 2013

Figure 6.4 shows the Rate for Preterm Births for the year 2013 by Race alone. Preterm Birth Rates are highest among the African American race in Cape Girardeau County and the state. The county rate is lower than the state rate. In Cape Girardeau County, the age group with the highest preterm birth rate is the 18-19 year old and in Missouri it is the 40 years and older. 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 2010 and 2013 of Mother’s with fewer than 12 years of education are shown by county in Table 6.8.

Table 6.8: Education Status: Mother’s Years of Education, 2012

	Fewer than 12 years, 2010	Rate per 100	Fewer than 12 years, 2013	Rate per 100	% Change
Cape Girardeau	148	16.1	122	13.0	-19.3
Missouri	13,133	17.1	10,800	14.4	-15.8

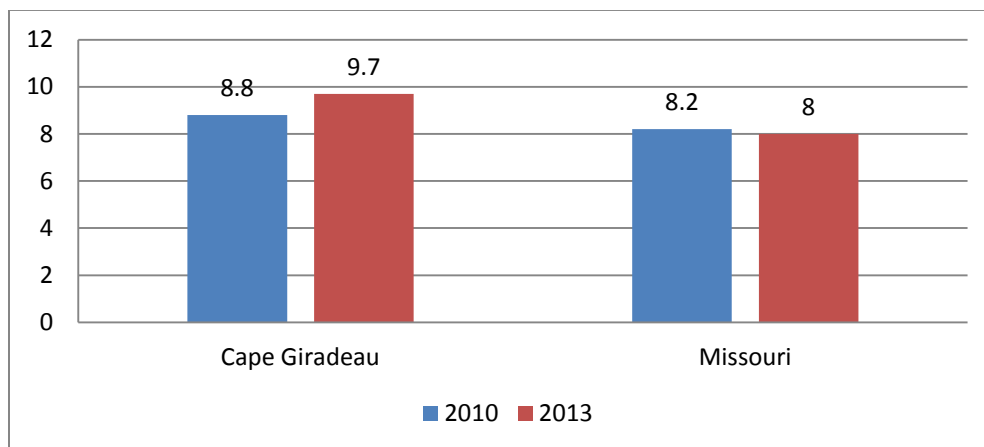
Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Birth, 2013

The rate for mother’s with less than a high school education (12 Years) decreased from 2010-2013 as did the rate for the state. Cape Girardeau County experienced a greater improvement in this rate. As identified in Section 1, 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, an increase of 10.2 percent from 2010 to 2013 while the state had a decrease in the percent of low birth weight rates. Figure 6.5 compares that increase in the Low Birth Weight Rate.

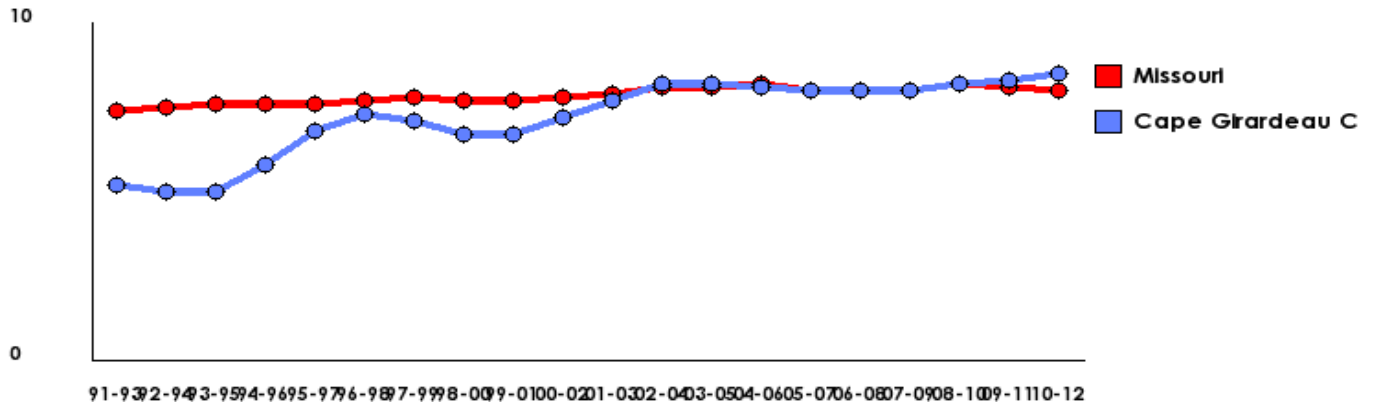
Figure 6.5: Percent Low Birth Weight, 2010 & 2013



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Births, 2013.

Figure 6.6 displays that the trend in rates for both Cape Girardeau County and Missouri have seen a statistically significant increase with Cape Girardeau County exceeding the state rate.

Figure 6.6: Time Trend of Low Birth Rate



Source: Missouri Department of Health and Senior Services, Community Data Profile (updated 2/23/15)

Further review of this indicator, as shown in Table 6.9, provides the rates for Low Birth Weight by race and age groups for Cape Girardeau County for 2013. Low Birth Weight rates are higher in the African American race in Cape Girardeau County (18.0) in comparison to the White (8.6) race. The 20-24 year old age group has had the highest rate (21.9) within the African American race and the > 40 year age group has had the highest rate (16.6) within the White race. The rate for the Hispanic ethnicity is 10.8 in Cape Girardeau County with the highest rates in the 18-19 year age group. Among all races, the highest rates were seen in the 18-19 year age group.

Table 6.9: Low Birth Weight Rate per 100,000 (Less than 2500 g) by Age, Race, and Ethnicity, Cape Girardeau County 2013

Mother's Age	Race						Ethnicity	
	White		Black/African-American		All Races		Hispanic	Non-Hispanic
	Number	Rate	Number	Rate	Number	Rate	Rate	Rate
10-14	0	0	0	0	0	0	0	0
15-17	1	7.7	0	0	1	5.9	0	6.7
18-19	7	14.9	3	21.4	11	17.5	33.3	16.7
20-24	19	10.1	7	21.9	28	12	20	11.7
25-29	21	7.7	4	13.3	26	8.1	8.3	8.1
30-34	14	7.1	5	20	19	8.2	0	8.4
35-39	4	6.9	1	25	5	7.7	0	7.9
40 plus	1	16.7	0	0	1	11.1	0	12.5
Unknown	0	0	0	0	0	0		
All Ages	67	8.6	20	18	91	9.7	10.8	9.6

Source: Missouri Department of Health and Senior Services, MICA, 2013

Teen Births

The rate of total births to women ages 15-19 per 1,000 female population age 15-19 is a relevant indicator as teen pregnancies and births to teen parents have unique social, economic, and health support services implications. Births to teens was 26.9 per 1,000 teens in Cape Girardeau County in 2013, as compared with the state rate of 30.0. The rate of births per 1,000 females age 15 to 19 is shown in Table 6.10.

Table 6.10: Births to Females Age 15 to 19, 2009-2013

	Births to Teens (15 to 19) 2009	Birth to Teens (15 to 19) 2013	Birth per 1,000 Teens 2013
Cape Girardeau County	94	80	26.9
Missouri	9,154	6,314	30.0

Source: Kids Count Data Book 2013

Table 6.11: Births to Teens by Age, Race, and Ethnicity, Cape Girardeau County, 2013

	Race			Ethnicity	
	White	Black/African- American	All Races	Hispanic	Non- Hispanic
Mother's Age	Number	Number	Number	Number	Number
10-14	0	1	1	0	1
15-17	3	3	17	2	15
18-19	47	14	63	3	60

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

The highest number of teen births, in Cape Girardeau County in the White and African American races, as well as the Hispanic ethnicity, was in the 18-19 year age group. Table 6.12 shows the distribution of Births to Teens by Age, Race, and Ethnicity for both Cape Girardeau County and Missouri.

Table 6.12: Births to Teens by Age, Race, and Ethnicity, Missouri, 2013

	Race			Ethnicity	
	White	Black/African- American	All Races	Hispanic	Non- Hispanic
Mother's Age	Number	Number	Number	Number	Number
10-14	14	23	43	9	34
15-17	990	389	1,456	138	1,311
18-19	3,180	1,006	4,356	275	4,058

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

Figure 6.7: Percent of Births by Age Group, 2013

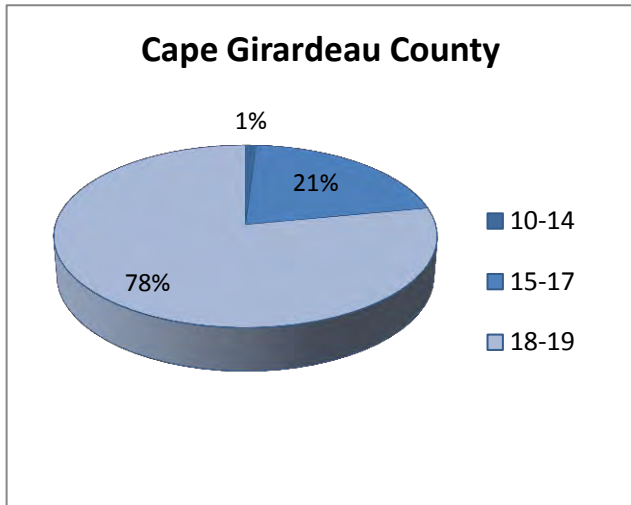
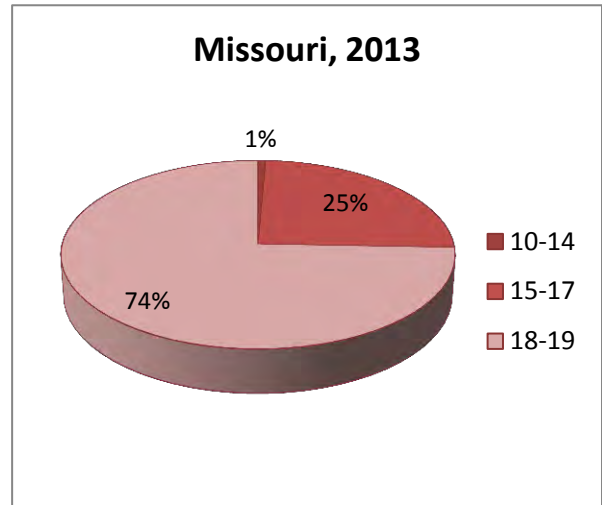


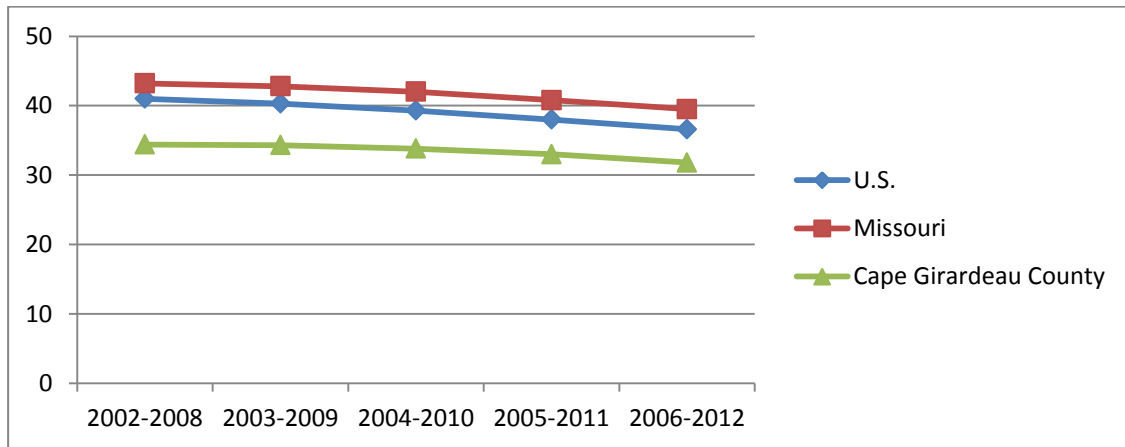
Figure 6.11: Percent of Births by Age Group, 2013



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

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.

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



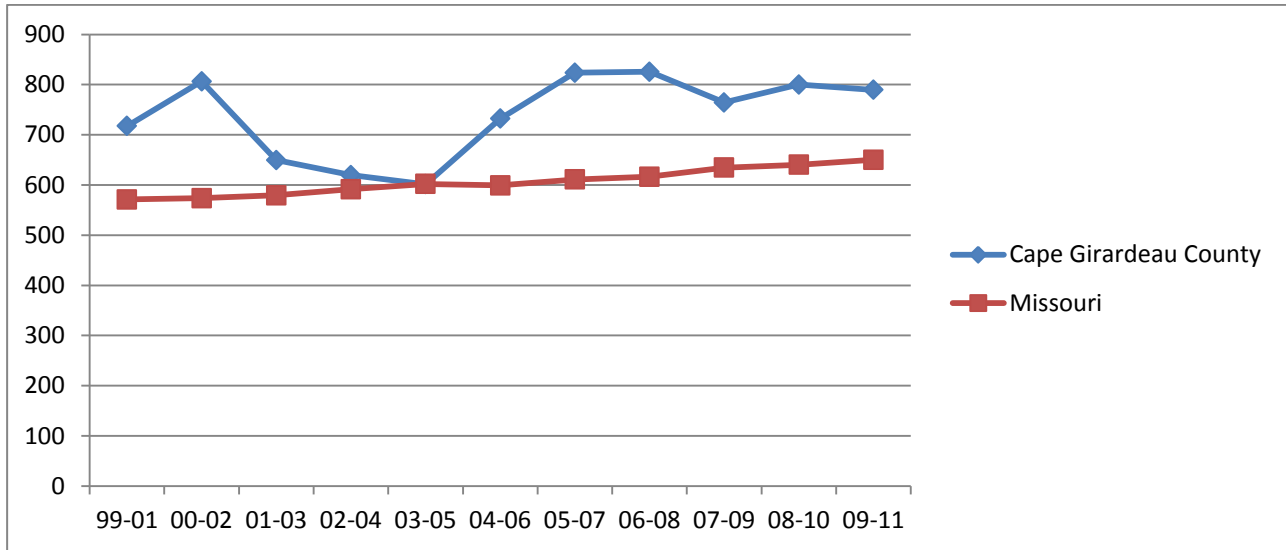
Source: American Community Survey, Community Commons Community Health Needs Assessment

Birth Defects

The Missouri Department of Health and Senior Services define 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 6.12 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. Although the Cape Girardeau County rates do not show a statistically significant trend from 1999-2011, the rates for the County have exceeded the state rates for the entire time period.

Figure 6.12: Birth Defects per 10,000 Three-Year Moving Average Rates



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

Table 6.13: Rate of Birth Defects (per 100,000)

	Years										
	99-01	00-02	01-03	02-04	03-05	04-06	05-07	06-08	07-09	08-10	09-11
Cape Girardeau	717.5	806.3	649.6	619.7	601.4	732.0	823.6	825.5	764.2	800.0	789.6
Missouri	571.0	573.7	579.3	591.6	601.9	599.0	611.0	616.4	634.4	640.4	650.3

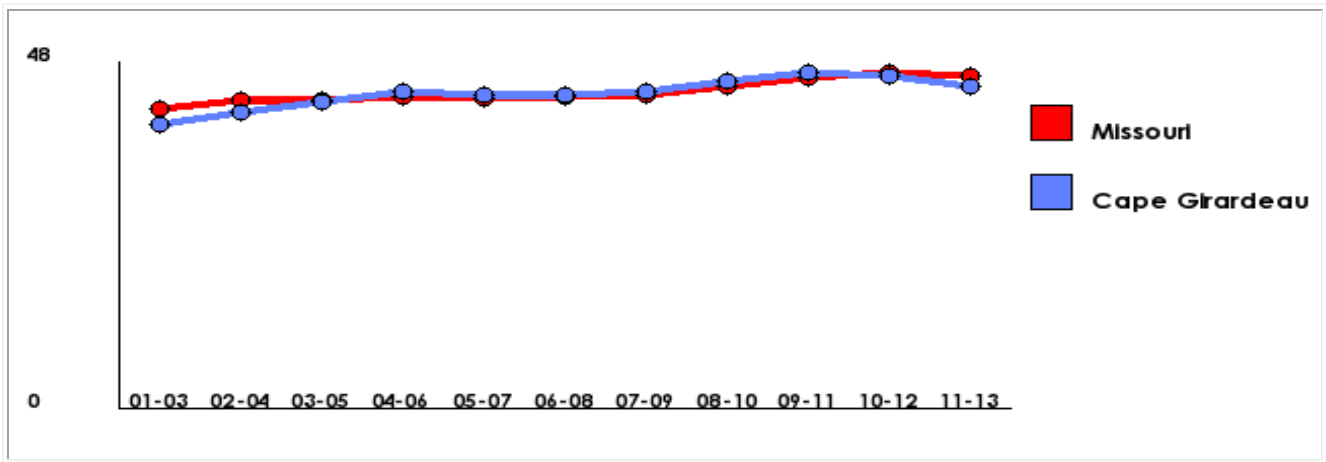
Source: Missouri Department of Health and Senior Services, Community Health Profiles, Birth Defects per 10,000

According to the Centers for Disease Control, “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. Cape Girardeau County has experienced higher than state rates for smoking during pregnancy from 2001-2013.

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 2001-2013 for Prenatals, Infants, and Children. Figure 6.8 shows a statistically significant increasing trend of participation by Prenatals for both Cape Girardeau County and the state. The 2013 rate for Cape Girardeau County (43.4) is slightly below that for Missouri (45.2).

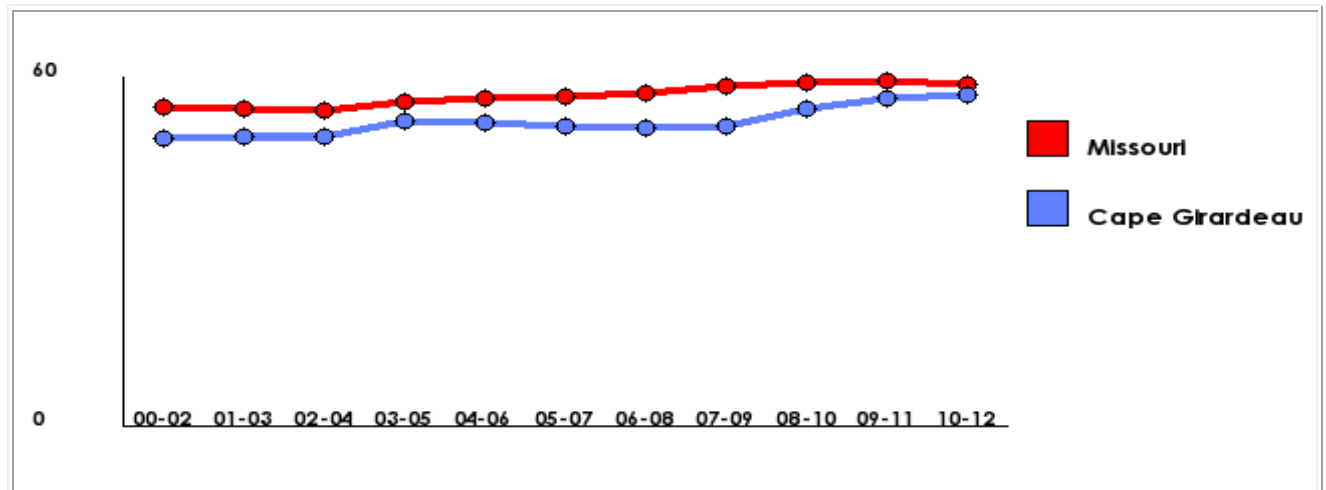
Figure 6.8: Time Trend of Prenatal WIC Three-Year Moving Average Rates



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

Figure 6.9 shows a statistically significant increasing trend of participation by Infants for Cape Girardeau County and a steady trend line of participation for the state. The 2013 rate for Cape Girardeau County (54.1) is slightly below that for Missouri (58.05).

Figure 6.9: Time Trend of Infants Participating in WIC

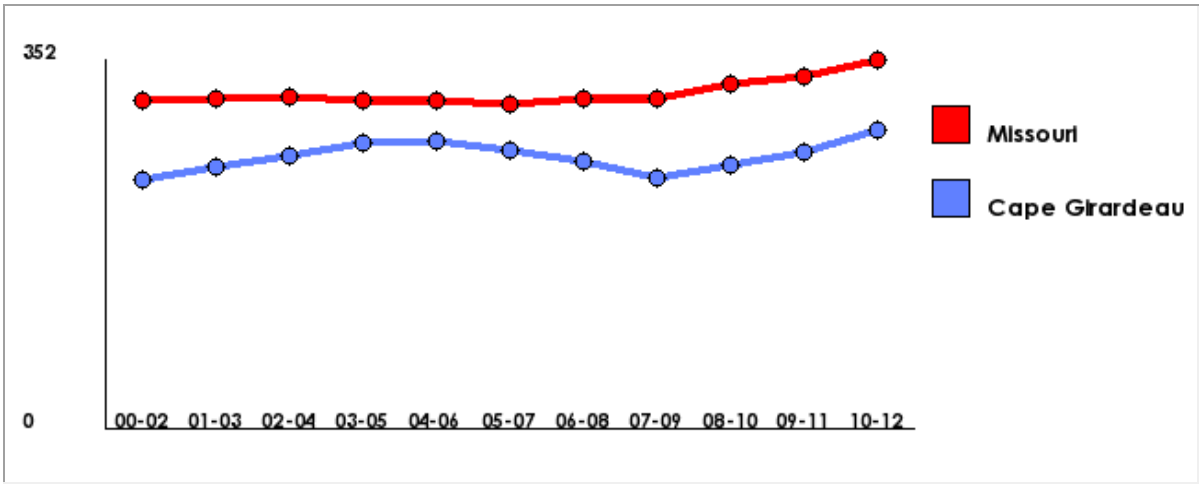


Source: Missouri Department of Health and Senior Services, Community Data Profiles, WIC Infant

Figure 6.10 reveals a statistically non- significant increasing trend of participation by children for Cape Girardeau County and a steady trend line of participation for the state. The 2013 rate for Cape

Girardeau County (284.2) is slightly below that for Missouri (351.2).

Figure 6.10: Time Trend of WIC Participation: Ages 12 to 59 months



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

Overall WIC participation in Cape Girardeau County has been increasing for prenatals, infants, and children, however, rates for the county in all three groups remains lower than the state participation rates.

**Section VII:
Infectious, Communicable, and
Vaccine Preventable Diseases**

Infectious Disease

The Missouri Department of Health and Senior Services defines emergency room visits, 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 8.1 per 1,000 in Cape Girardeau County compared to a rate of 9.0 per 1,000 in Missouri, during 2012. 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: Emergency Room Visits Related to Infection, 2012

	Number	Rate per 1000
Cape Girardeau	593	8.1
Missouri	55,149	9.0

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Diagnosis, Infection, 2012

Hospitalizations Related to Infections

According to the Missouri Department of Health and Senior Services, hospitalizations related to infections occurred at a rate of 36.1 per 10,000 in Cape Girardeau County compared to a rate of 42.2 per 10,000 in Missouri, during 2012. Table 7.2 compares hospitalizations related to infections by county, and state. Cape Girardeau County has a lower rate than the state, however, the county’s rate did increase from 2008 to 2012, as did the state rate.

Table 7.2: Inpatient Hospitalizations Related to Infection, 2012

	Number, 2008	Rate per 10,000, 2008	Number, 2012	Rate per 10,000, 2012
Cape Girardeau	141	17.0	317	36.1
Missouri	20,714	32.4	28,457	42.2

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Diagnosis, Infection 2012.

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 2013.

Table 7.3: Infection Diagnosis by Type, 2013

Diagnosis	Emergency Room Visits				Hospitalizations			
	Cape Girardeau		Missouri		Cape Girardeau		Missouri	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Tuberculosis	1	0	11	0	0	0	51	0.1
Septicemia	3	0	720	0.1	267	30.3	24,000	35.3
STD	24	0.3	1,280	0.2	1	0.1	91	0.2
Other Bacterial	4	0.1	697	0.1	2	0.4	187	0.3
HIV	2	0	750	0.1	7	1.0	491	0.9
Hepatitis	1	0	352	0.1	13	1.4	1,074	1.6
Other Viral	267	3.7	29,036	5.1	14	2.0	1,573	2.6

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Diagnosis, Infection 2012.

Cape Girardeau County had a slightly higher rate than the state for ER visits with an STD diagnosis. 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 2013.

Table 7.4: Deaths Related to Infection Rates per 100,000, 2013

	Cape Girardeau		Missouri			Cape Girardeau		Missouri	
	Number	Rate	Number	Rate		Number	Rate	Number	Rate
Tuberculosis	0	0	5	0.1	Pertussis	0	0	0	0
Septicemia	9	8.7	802	11.1	Scarlet Fever	0	0	0	0
Syphilis	0	0	1	0	Meningococcal	0	0	1	0
AIDS / HIV	3	4.6	78	1.2	Acute Poliomyelitis	0	0	0	0
Other Bacterial	5	4.8	1,454	20.3	Viral Encephalitis	0	0	0	0
Salmonella	0	0	2	0	Measles	0	0	0	0
Shigellosis	0	0	0	0	Viral Hepatitis	0	0	149	2
Other Intestinal	4	4	282	3.9	Malaria	0	0	0	0
					Other Viral	1	0.8	134	1.9

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), 2012.

Septicemia Infections had the highest rate of deaths in Cape Girardeau County followed by Other Bacterial and AIDS/HIV. The highest rate for the state was Other Bacterial.

Sexually Transmitted Diseases

According to the Missouri Department of Health and Senior Service’s Reportable Sexually Transmitted Diseases, there were 393 cases of Chlamydia in Cape Girardeau County during 2012. Table 7.5 describes the rate (per 100,000) cases of Chlamydia, Gonorrhea, and Syphilis in Cape Girardeau County compared to Missouri during 2012-2014.

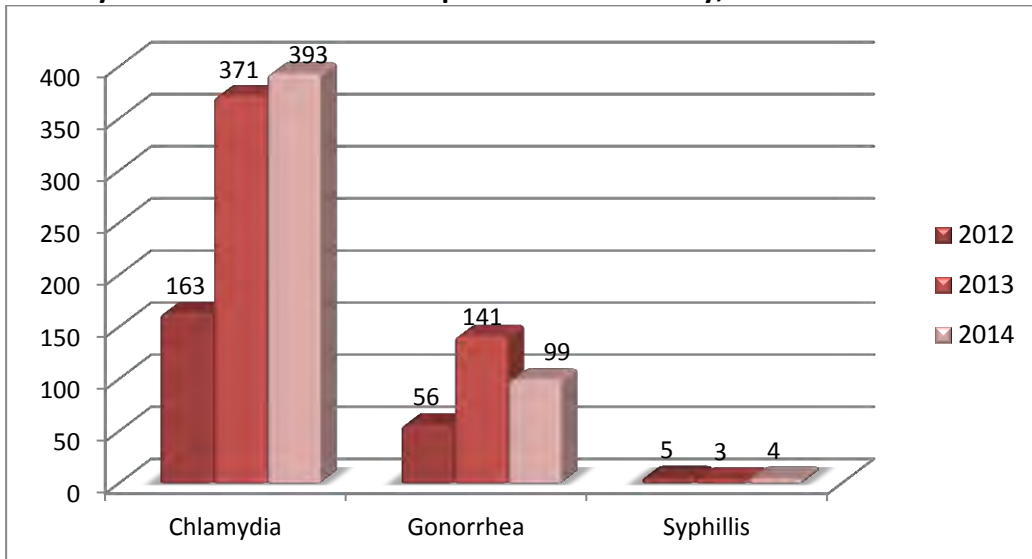
Table 7.5 Sexually Transmitted Disease, Cape Girardeau County and Missouri, 2012-2014

	2012 Rate		2013 Rate		2014 Rate	
	Cape Girardeau	Missouri	Cape Girardeau	Missouri	Cape Girardeau	Missouri
Chlamydia	519	464	478.5	450	503	436
Gonorrhea	130.8	131.7	181.9	124.8	126.9	121.8
Syphilis	5.9	2.62	3.9	9.9	5.1	12.7

Source: Missouri Department of Health and Senior Services, Bureau of Reportable Disease Informatics, STD, by County, 2012-2014.

In both Cape Girardeau County and the state, the highest rates of an STD were for Chlamydia in 2012, 2013, and 2014. In all three 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 2012, 2013, and 2014.

Figure 7.1: Sexually Transmitted Diseases Cape Girardeau County, 2012-2014



Source: Missouri Department of Health and Senior Services, Bureau of Reportable Disease Informatics, Reportable Sexually Transmitted Diseases, 2012-2013 Reportable Sexually Transmitted Disease

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 2013 and 2014.

Table 7.6: Cape Girardeau County Public Health Center STD Screening and Treatment, 2013-2014

	2013	2014
Chlamydia	162 (31 positive)	164 (9 positive)
Gonorrhea	162 (28 positive)	162 (1 positive)
Syphilis	163 (3 positive)	172 (7 positive)
Hepatitis C	13 (4 positive)	90 (19 positive)
EPI Treatment	53 individuals	50 individuals
Totals	313 individuals (340 screenings)	340 individuals (588 screenings)

Source: Cape Girardeau County Public Health Center, STD Clinic Data, 2013-2014

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 553 HIV disease cases diagnosed in the Southeast HIV Region from 1982 to 2013. Of those cumulative cases, 57% were still presumed to be living with HIV disease at the end of 2013. By the end of 2013, there were 313 persons living with HIV disease whose most recent diagnosis occurred in the Southeast HIV Region with 13 new HIV disease diagnoses in 2013. 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. However, the *rate* of individuals' living with AIDS was highest in Dunklin County.

Table 7.7: New and living HIV and AIDS cases and rates, by geographic area, Southeast HIV Region, 2013

	HIV Cases				AIDS Cases			
	Diagnosed 2013*		Living		Diagnosed 2013*		Living	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Cape Girardeau Co	3	3.9	25	32.5	0	0	27	35.1
Scott Co	0	0	16	40.9	0	0	11	28.1
St. Francois Co	1	1.5	20	30.2	0	0	28	42.5
Pemiscot Co	1	5.5	12	66.3	0	0	8	44.2
Dunklin Co	0	0	5	15.7	1	3.1	16	50.3
Butler Co.	5	11.6	19	44.1	1	2.3	16	37.2
Remainder of Region	0	0	45	20	1	0.4	65	28.9
SE HIV Regions Total	10	2	142	28.4	3	0.6	171	34.2

Source: Missouri Department of Health and Senior Services, 2013 Epidemiologic Profiles of HIV, STD, and Hepatitis in Missouri

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 2013 and 2014.

Table 7.8: HIV Screening Tests, 2013-2014

	Number of HIV Tests Performed	Number and (%) Positive
2013	170	1 (1%)
2014	178	3 (2%)

Source: Cape Girardeau County Public Health Center, STD Clinic data, 2013-2014

In addition to providing testing services for HIV infection, Cape Girardeau County Public Health Center also provides a Primary Health Care Clinic for individuals with a positive HIV test and for those diagnosed with AIDS. At the end of 2014, this clinic had a caseload of 150 patients who received primary health care provided by Cape Girardeau Infectious Disease Specialists.

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 (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.”

The Missouri Department of Health and Senior Services compile an annual report of Communicable Disease Surveillance. The most recent report available through the Bureau of Communicable Disease Control and Prevention is for 2012. Case numbers of Communicable Diseases for 2013 and 2014, for Cape Girardeau County, were obtained from the Missouri Department of Health and Senior Services statewide MOHSIS data base. Table 7.9 shows the number and type of reported Communicable Diseases for Cape Girardeau County for 2012-2014.

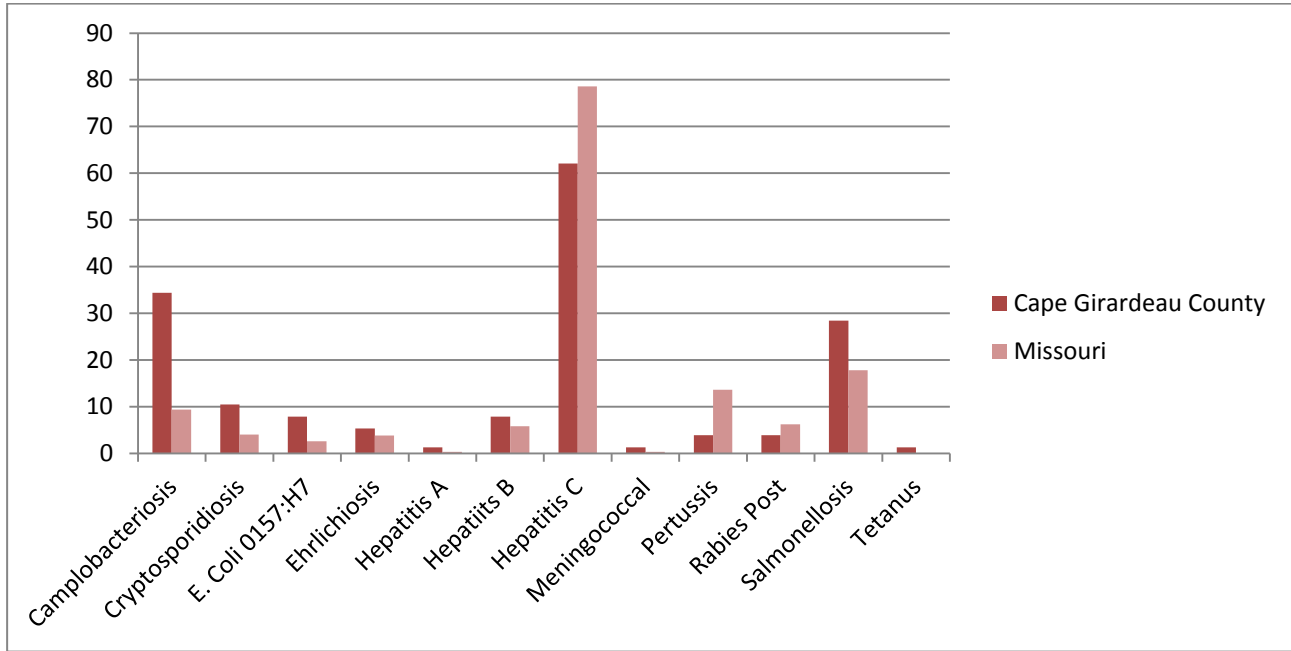
Table 7.9: Reportable Disease Case Counts, Cape Girardeau County, 2012-2014

	2012	2013	2014
Anaplasma Phagocytophilum		1	1
Animal Bites	5	4	12
Campylobacteriosis	26	24	26
Cryptosporidiosis	8	7	3
Dengue Fever	1	0	0
E.Coli Shiga Toxin Positive	8	3	3
E.Coli 0157 H7	6	2	6
Ehrlichiosis	4	1	6
Giardiasis		1	3
Haemophilus Influenzae		1	
Hemolytic Uremic Synd	1		
Hepatitis A, Acute	1	1	
Hepatitis B, Acute	0	9	10
Hepatitis B, Chronic	6	8	16
Hepatitis C, Acute	1		
Hepatitis C, Chronic	47	81	90
Legionellosis	1		2
Meningococcal Disuse	1		
MOT		18	18
Pertussis	3	2	1
Rabies Animal	0	2	1
Rabies Post Exposure Prophylaxis	3	4	12
Rocky Mountain Spotted Fever	0	3	4
Salmonellosis	22	15	23
Shigellosis	1	2	51
Strep-Pneumoniae Drug Resistant	6	9	4
Tetanus	1		
Tick-Borne Disease	7	0	0
Tuberculosis Disease		1	0
Tuberculosis Infection		32	54
Varicella (Chickenpox)	1	1	
Yersinosis		2	1

Source: Missouri Department of Health and Senior Services, Bureau of Communicable Disease Control and Prevention Communicable Disease Report (2010) and MOHSIS (2013-2014)

Figure 7.2 compares the rates of occurrence (per 100,000 population) for 2012 between Cape Girardeau County and Missouri.

Figure 7.2: Disease Rates for Cape Girardeau County and Missouri, 2012



Source: Missouri Department of Health and Senior Services, Bureau of Communicable Disease Control and Prevention, Communicable Disease Surveillance 2012 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 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. As shown in Table 7.9, LTBI increased from 32 in 2013 to 54 in 2014 which is a 68.8% increase. Cape Girardeau County Public Health Center provides screening for Tuberculosis with the Mantoux skin test. Tests performed in 2013 and 2014 along with the results as shown in Table 7.10.

Table 7.10: Tuberculosis Skin Testing, Number and Percent Significant, Cape Girardeau County, 2013-2104

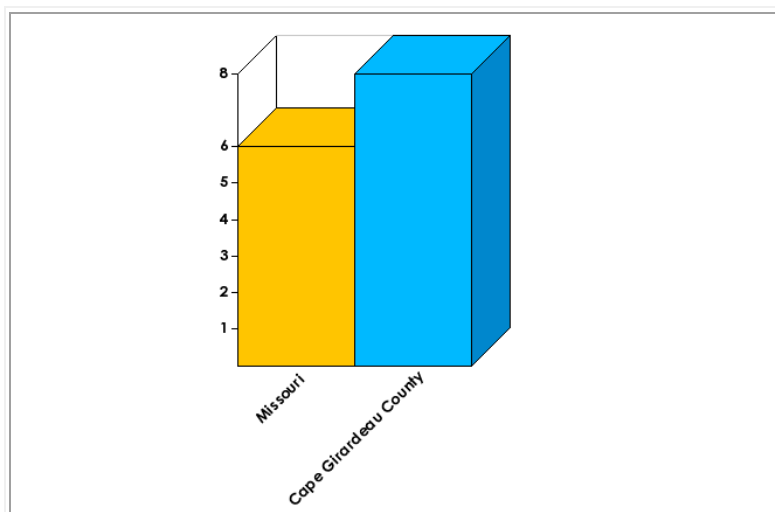
Year of Test	Number Administered	Percent Significant
2013	624	2.6%
2014	829	1.6%

Source: Cape Girardeau County Public Health Center, TB Skin Testing data, 2013-2014

Influenza

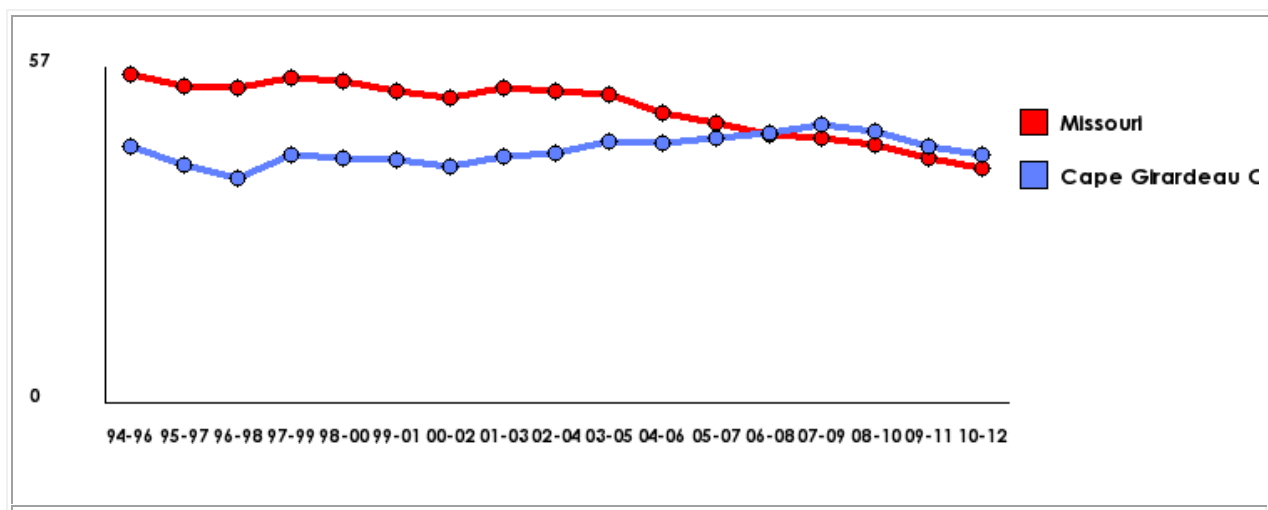
Influenza can cause mild to severe illness, and at times can lead to death. Populations that are disproportionately adversely affected are those 65 years of age and older, children under the age of two, and persons of any age with chronic medical conditions or compromised immune systems. The Influenza 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 Public Health serves as an Influenza Surveillance site and also collects 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 2012. Cape Girardeau County had a rate of 8.0 compared to the states 5.9.

Figure 7.3 Emergency Room Visit Rates: Pneumonia and Influenza, Cape Girardeau County and Missouri, 2012



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Emergency Room Visits, Pneumonia and Influenza, 2012

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



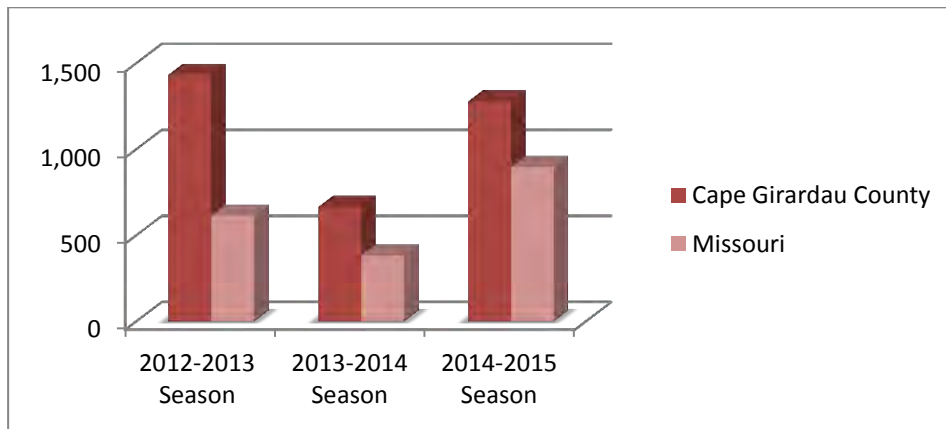
Source: Missouri Department of Health and Senior Services, Community Data Profiles, Hospitalizations, 2012

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Figure 7.4 compares Inpatient Hospitalizations with a primary diagnosis of Pneumonia and Influenza for Cape Girardeau County and Missouri in 2012. Cape Girardeau County had a slightly higher rate (42.1) of hospitalizations than Missouri (39.7) in 2012 but the trend has not been statistically significant.

In 2013 there were 1,111 cases of Influenza reported for Cape Girardeau County and 37,037 for Missouri. In 2014 there were 520 cases of Influenza reported for Cape Girardeau County and 23,046 for Missouri and in 2015, a total of 998 cases were reported for Cape Girardeau County and 54,316 for Missouri. Figure 7.5 compares the rate of Influenza cases (per 100,000 population) between Cape Girardeau County and Missouri. 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 7.5: Influenza Rates, per 100,000, 2012-2015



Source: Missouri Department of Health and Senior Services, Communicable Disease Surveillance, Influenza Data and Statistical Reports, 2012-2015

Influenza Vaccination

Table 7.11 provides the prevalence percent of adults, in Missouri, who reported on the Missouri 2013 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, 42.6% reported that they had received an Influenza immunization. In the 65 year and older age group that percentage increased to 69.5% and 71.0% for preventive pneumonia vaccination.

Table 7.11: Influenza and Pneumonia Preventive Vaccinations, 2013

	Prevalence
Influenza - Ages 18 and older	42.6
Influenza - Age 65 and older	69.5
Pneumococcal - Age 65 and older	71.0

Source: Missouri Department of Health and Senior Services, Behavioral Risk Factor Surveillance System, 2013

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The Behavioral Risk Factor Surveillance System does not record this data by individual counties in a 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. This shows the number of students immunized as well as the percent of the county’s student enrollment. In 2013, 13.1% of Cape Girardeau County school age children received an Influenza vaccination through School Based Clinics and 13.3% in 2014. The numbers and percentages in Table 7.12 do not include students who may have been vaccinated outside of the School Based Clinics.

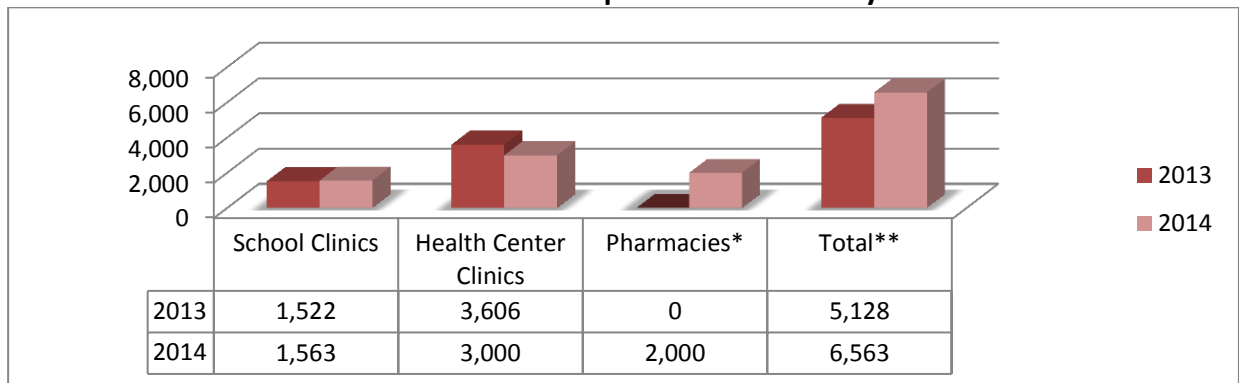
Table 7.12: School Based Influenza Immunizations, Cape Girardeau County, 2012-2013 School Year

School	2013		2014	
	Number	%	Number	%
Cape Girardeau	523	13.0	413	10.1
Delta	68	22.0	62	22.5
Jackson	590	12.7	640	13.5
Nell Holcomb	51	17.4	84	30.3
Oak Ridge	49	15.0	46	13.1
Parochial & Private	241	12.0	318	15.9
County Total	1,522	13.1	1,563	13.3

Source: Cape Girardeau County Public Health Center, School Influenza Clinic, 2013, 2014

In 2015, Cape Girardeau County Public Health Center conducted a phone survey of pharmacies in the county that provided Influenza vaccinations during the 2014 flu season. Primary data collected from this survey and the Health Center’s Influenza Immunization data is shown in Table 7.13 and provides the best resource for identifying Influenza vaccination rates for the adult population in the county. A limitation of the data is the inclusion of non-county residents receiving vaccinations at either the Health Center or a pharmacy. Although non-residents may be included in the total number vaccinated, those numbers are significant because they indicate coverage of individuals who could become infected with the Influenza virus had they not been vaccinated.

Table 7.13: Influenza Vaccinations Provided in Cape Girardeau County



*Data not available from Pharmacies for 2013

**Total does not include vaccinations given at private providers

Source: Cape Girardeau County Public Health Center, Influenza Immunization Data, 2013-2014

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 opportunity for immunization; 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)

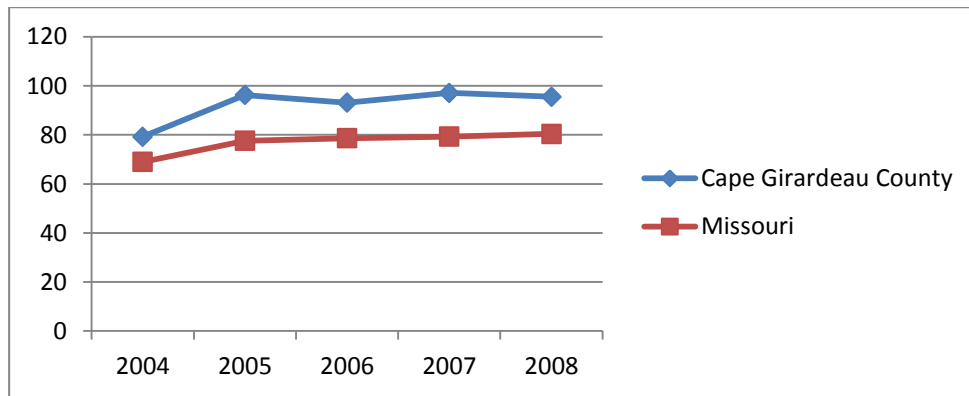
There are currently 11 VFC providers listed with the Missouri Department of Health and Senior Services. Cape Girardeau County Public Health Center is a VFC provider. The Annual VFC Audit Reports indicate that in 2012 children up-to-date with a complete series by the time they reach 24 months of age was at 64%. In 2013 this same audit revealed an increase to 77% and by the 2014 the percentage had increased to 78%. Several individual factors can affect these percentages, such as moving out of the area or receiving services from another health care provider, resulting in a “lost-to-follow-up” status. 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

Figure 7.14 shows the Up-to-Date Immunization Rates (per 100 Infants) participating in the WIC program for Cape Girardeau County and Missouri. This data, from 2004-2008, 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 7.14: Up-to-Date Immunizations, WIC Infant participants, per 100 Infants

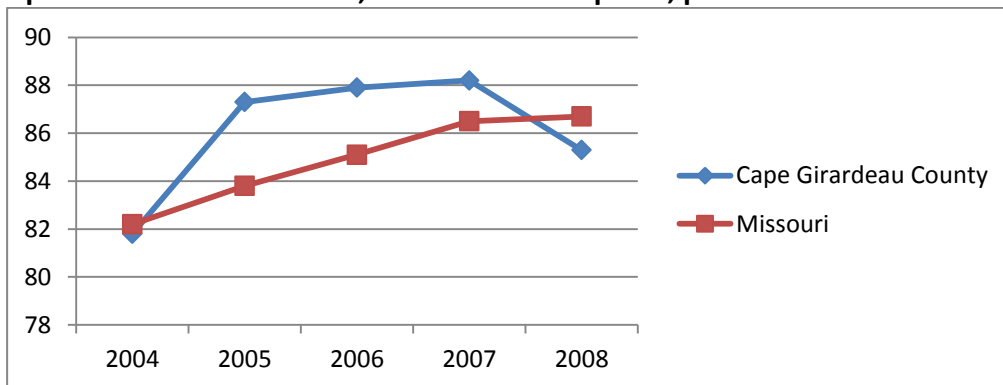


Source: Missouri Department of Health and Senior Services, MICA, WIC Infant, 2008

Cape Girardeau County has had a higher up-to-date immunization rate, than the state, for infants participating in the WIC program from 2004-2008.

Figure 7.15 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 2004-2008 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 7.15: Up-to-Date Immunizations, WIC Child Participants, per 100



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

Cape Girardeau County had a higher rate of Up-to-Date Immunization rates for children, age 12-60 months of age, from 2004-2007. In 2008 that rate decreased by 3% while the state of Missouri has had steady increase in the rate during the same time period.

School Immunizations

Local school districts in Cape Girardeau County were contacted and asked to share the data (non-individual identifying information) from the Summary Report of Immunization Status of Missouri Public, Private, Parochial, and Parish School Children. Three of the five public school districts consented to participate and provided raw data from the 2014-2015 school year. Table 7.13 shows the percent of Kindergarten students considered to be Up-to-Date with the recommended vaccination schedule for school attendance. The immunization rates for Cape Girardeau Public, Nell Holcomb, and Oak Ridge schools are very similar if not the same for every vaccine, religious exemptions, and medical exemptions.

Table 7.13: Percentage of Up-to-Date at Kindergarten Entrance, 2014-2015

	Cape Public Schools Children Enrolled** 327	Nell Holcomb Children Enrolled** 34	Oak Ridge Children Enrolled** 26	<i>Total</i> Children Enrolled** 387	Missouri Children Enrolled** 75,925
DTap	96.6% (316)	100%	92% (24)	96.6%	96.0%
IPV	96.9% (317)	100%	92% (24)	96.9%	96.4%
MMR	95.4% (312)	100%	92% (24)	95.6%	95.8%
Hep B	97.2% (318)	100%	92% (24)	97.2%	96.9%
Varicella	95.1% (311)	97.1% (33)	92% (24)	95.1%	95.1%
Percentage of Children with Exemptions					
Medical¹	0.6% (2)	2.9% (1)	0%	0.8%	0.1%
Religious²	1.8% (6)	0%	0.08% (2)	2.1%	1.7%

* Source: Data based on self-reported school summary report data in compliance with 19 CSR 20.28010

**Source: Data based on school validation assessments conducted to verify compliance with 19 CSR 20.28010

For all five vaccines, a total of six students were unvaccinated due to religious exemptions. Within the Nell Holcomb School District the rate of vaccination for every vaccine is higher than the state, religious exemptions are lower, and medical exemptions are higher.

This study further examined data from the same three school districts for eighth grade compliance with the requirement for Tdap vaccination as well as adequately immunized against Polio, Measles/Mumps/Rubella, Hepatitis B, and Chickenpox. Table 7.14 shows these percentages. All three districts are at 95% or above for the required Tdap vaccination and have at least a 90% or better compliance for all other vaccinations.

Table 7.14: Percentage of Eighth Grade Students Adequately Immunized, 2014-2016

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	Cape Public Schools Children Enrolled** 289	Nell Hollcomb Children Enrolled** 21	Oak Ridge Children Enrolled** 30	<i>Total</i> Children Enrolled** 340	Missouri Children Enrolled** 74,426
Tdap	99.7% (288)	95.2% (20)	100% (30)	99.4% (338)	96.9%
IPV	99.0% (286)	95.2% (20)	100% (30)	98.8% (336)	98.7%
MMR	99.0% (286)	95.2% (20)	100% (30)	98.8% (336)	98.5%
Hep B	99.0% (286)	95.2% (20)	100% (30)	98.8% (336)	98.6%
Varicella	95.2% (275)	90.5% (20)	90% (27)	94.7% (322)	96.0%
Percentage of Children with Exemptions					
Medical¹	0.0% (0)	4.7% (1)	0.0% (0)	0.003% (1)	
Religious²	0.3% (1)	4.7% (1)	0.0% (0)	0.006% (2)	

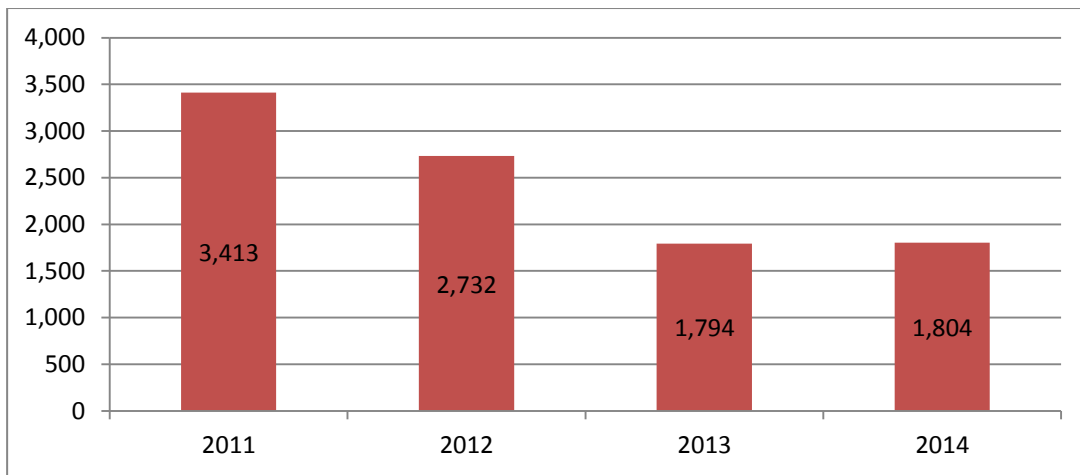
*Source: Data based on self-reported school summary report data in compliance with 19 CSR 20.28010

**Source: Data based on school validation assessments conducted to verify compliance with 19 CSR 20.28010

Adult Immunizations

Cape Girardeau County Public Health Center provides immunization opportunities for the adult population through community clinics and walk-in visits. Figure 7.16 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.

Figure 7.16: Adult Immunizations Provided at Cape Girardeau County Public Health Center



Source: Cape Girardeau County Public Health Center, Immunization Program Evaluation, 2014

There are additional opportunities in Cape Girardeau County for adults to receive immunizations. The

Section VII: Infectious, Communicable, and Vaccine Preventable Diseases

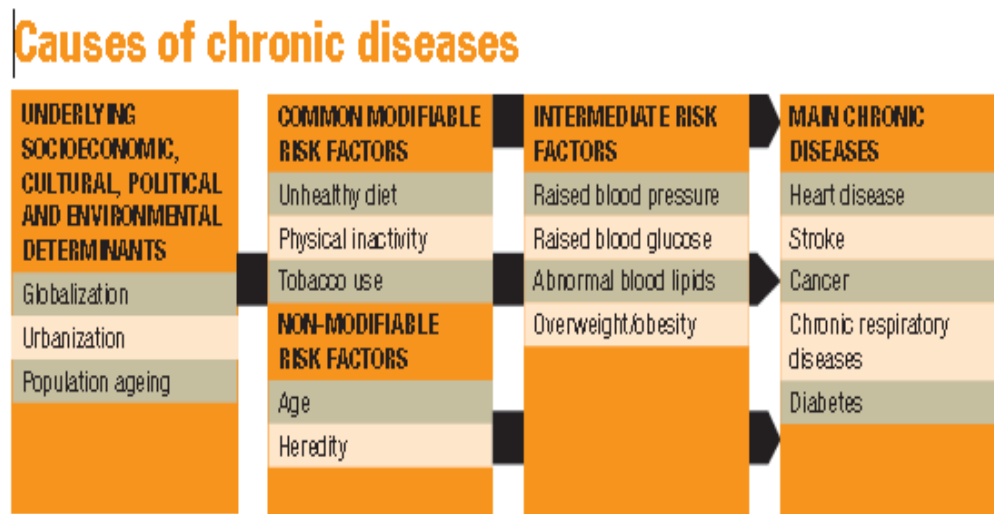
most recent Immunization Provider Survey was conducted by Cape Girardeau County Public Health Center in April 2015. A total of 18 primary care providers and 14 pharmacies, located in Cape Girardeau County were surveyed. 50% of health care and 57% of pharmacies completed the survey process. 100% of providers and pharmacies accept private health insurance for immunizations, 57% of private providers and 100% of pharmacies require co-pay at the time of service. 29% 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 Chronic Diseases are the leading cause of death and disability in the United States, but at the same time are among the most common, costly, and preventable of all health problems. Chronic Disease is characterized by long-lasting effects or is a specific disease that usually lasts for more than three months. The conditions or diseases listed as Chronic Diseases can be categorized into four main types – cardiovascular, chronic kidney disease, chronic obstructive pulmonary disease, respiratory, and metabolic (Diabetes) - but that list can include arthritis, asthma, cancer(s), high cholesterol, 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

Fair or Poor General Health Status

Table 8.1 compares the survey respondents that reported fair or poor general health status.

Table 8.1: Health Status

	# 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, 2007 and 2011

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.

Physical Inactivity

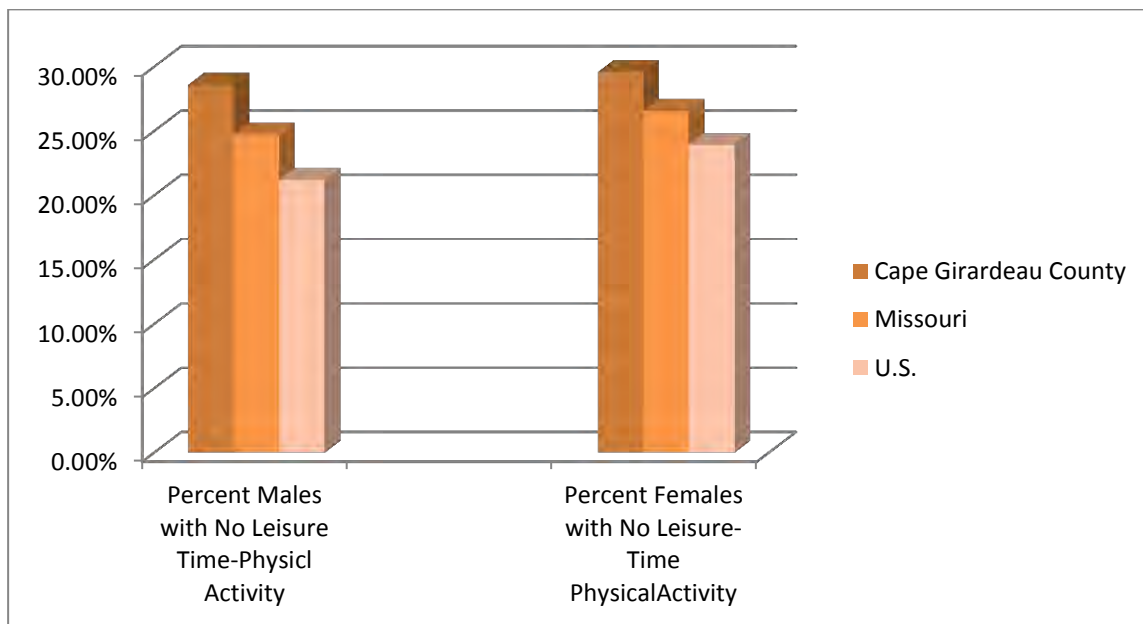
Table 8.2 compares the percent of survey respondents that reported an activity limitation, based on a "no" response to the following question: "During the past 30 days, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise?"

Table 8.2: Activity Limitation

	# 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

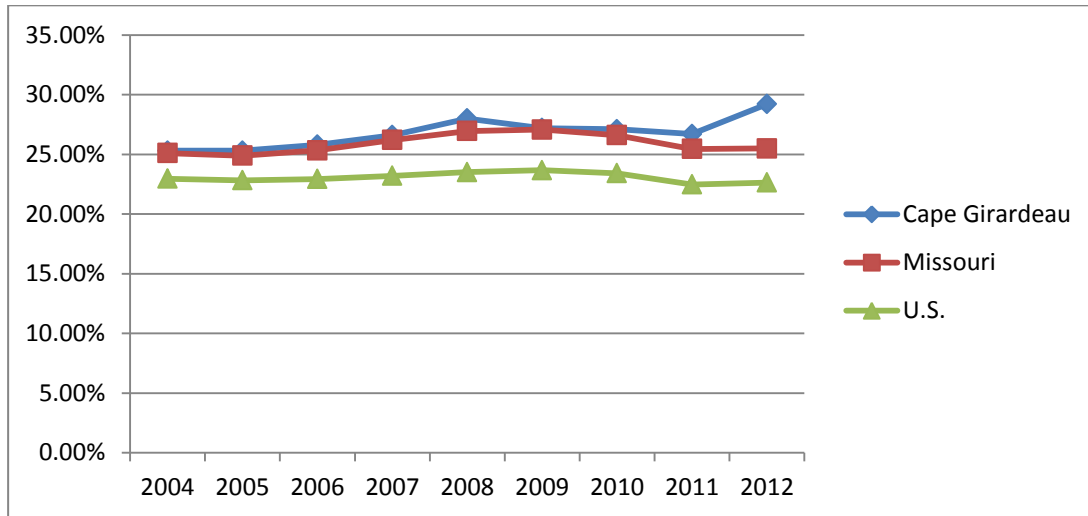
Sources: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County level Study

Figure 8.2 Adults with No Leisure-Time Physical Activity by Gender



Source: Community Health Needs Assessment, Community commons, Physical Inactivity, 2004-2012

Data collected by or reported to the Centers for Disease Control 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 8.3 compares that trend for Cape Girardeau County, Missouri and the U.S. Cape Girardeau has a higher percentage of adults that are physically inactive than the state or the nation.

Figure 8.3: Time Trend of Percent of Adults Physically Inactive by Year, 2004 through 2012

Source: Community Health Needs Assessment, Community Commons, Physical Inactivity, 2004-2012

Unhealthy Diet

Fruit and Vegetable Consumption

From the 2011 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, 86.4% of adults over the age of 18 in Cape Girardeau County are consuming less than 5 servings of fruits and vegetables each day. In Missouri the percent was 87.5%. A lower percentage of the population 18 and older in Cape Girardeau County has 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, 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 8.3 shows the prevalence percentage for Cape Girardeau County and Missouri for 2003, 2007, and 2011 for Tobacco related indicators.

Table 8.3: Tobacco Use Prevalence Percent / Significant Change, 2007 and 2011

Behavior Risk	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, 2003, 2007, 2011

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 2012 the prevalence rate for Cape Girardeau County was 20%, Missouri was 23%, and the U.S. was 14%.

High Blood Pressure

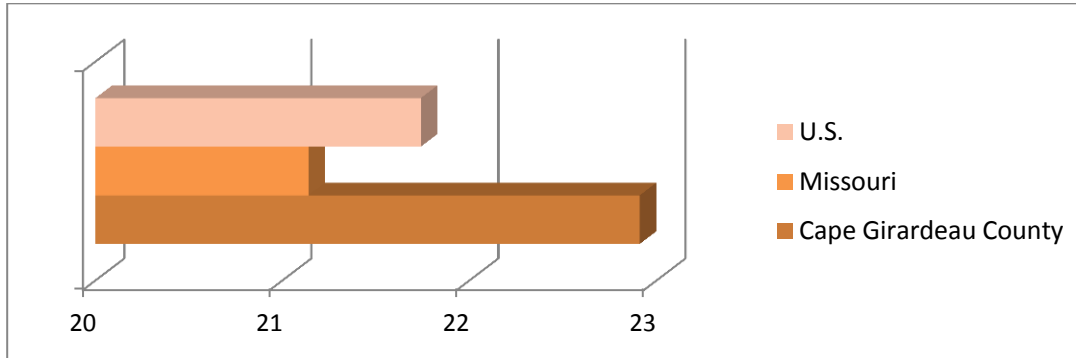
The percent of survey respondents determined to have high blood pressure was derived from a response of any length of time to the question, "About how long has it been since you last had your blood pressure checked?" AND "yes" responses to the following questions: “Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure? Do you still have high blood pressure?” Table 8.4 compares the percentage determined to have high blood pressure in 2007 and 2011. Cape Girardeau County has a higher percentage than the state and experienced a 16.2 percent increase from 2007 to 2011

Table 8.4: High Blood Pressure

	2007 Percent	2011 Percent	% Change
Cape Girardeau	19.7	36.0	16.2
Missouri	20.4	34.4	14.0

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

Additionally, data from the Centers for Disease Controls’ Behavioral Risk Factor Surveillance System (BRFSS), 2006-2010, 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 8.4 represent the percentage of those persons who answered that “yes” they have high blood pressure who also answered “no” that they are not currently taking medication to control it. As indicated here, 22.91% of adults in Cape Girardeau County self-reported that they are not taking medication for their high blood pressure, which is a higher percentage than for Missouri and the U.S.

Figure 8.4: Percent Adults with High Blood Pressure Not Taking Medication, 2006-2010

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

The relevance of this data to 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 are not taking their prescribed medication, their response could indicate a lack of access to preventive care, a lack of health knowledge, insufficient 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. Have you ever had your blood cholesterol checked? Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high? Do you still have high blood cholesterol?” Table 8.5 compares the percentage determined to have high cholesterol in 2007 and 2011. Cape Girardeau County had a higher percentage of the respondents than the state that indicated they had been told they had high cholesterol.

Table 8.5: High Cholesterol among Age 35 and Older Who Have Had Cholesterol Checked

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

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

Overweight or Obese

The percent of survey respondents identified as overweight or obese was determined 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 8.6 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.

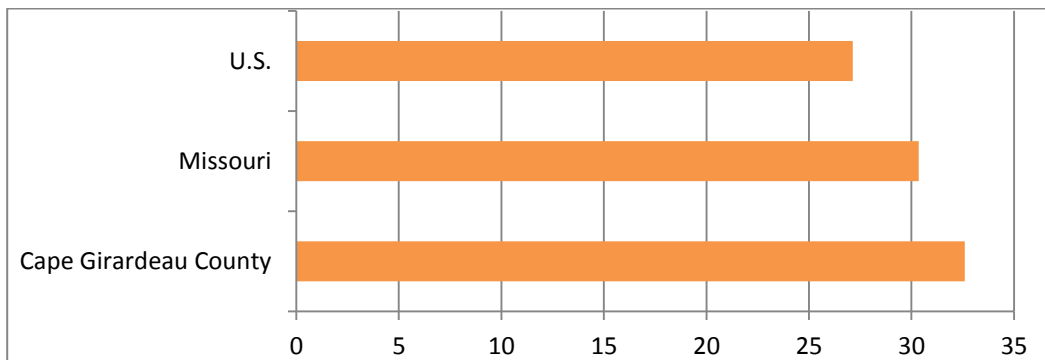
Table 8.6: Percent of Individuals Overweight (25.0-29.9 BMI) or Obese (>= 30 BMI)

	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%

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

Additionally, data from the Centers for Disease Control’s Behavioral Risk Factor Surveillance System (BRFSS), 2006-2010, was analyzed for “yes” responses to the question, “Has a doctor ever told you that you have diabetes?” along with a body mass index of 30 or greater. The percentages shown in Figure 8.5 represent the percentage of those persons who answered “yes.” As indicated here, 32.61% of adults 20 years of age and older in Cape Girardeau County self-reported that they have a BMI greater than 30.0 (obese), which is a higher percentage than for Missouri and the U.S.

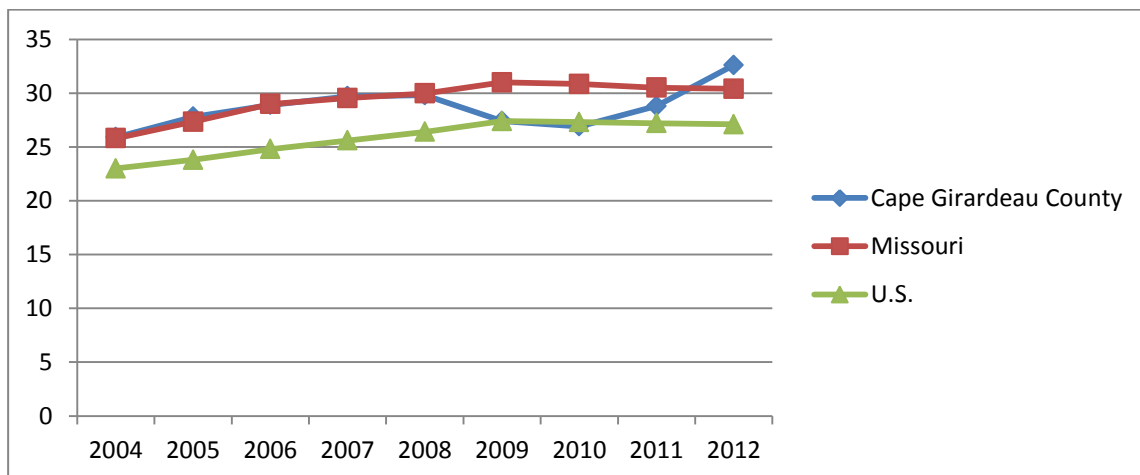
Figure 8.5: Percent of Adults with BMI > 30.0 (Obese), Cape Girardeau, Missouri, and U.S.



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

Figure 8.6 shows the trend from 2004-2012 of the gradual increase in the percent of adults that are Obese (2004-2008), the sharp decline (2008-2010) and the sharp increasing trend (2010-2012).

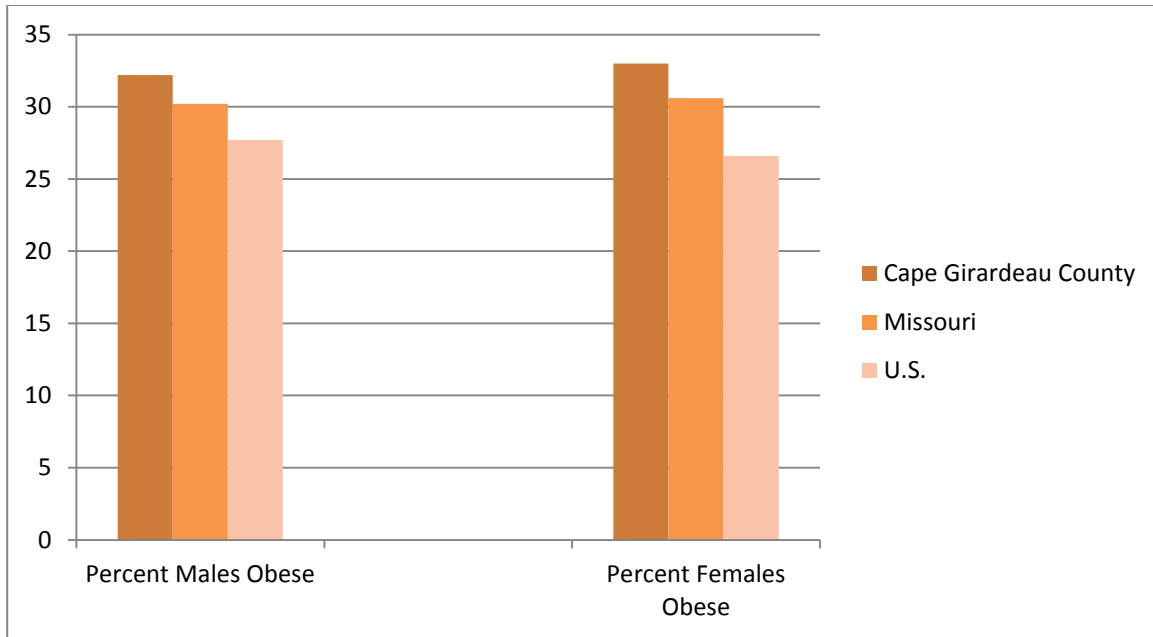
Figure 8.6: Percent Adults Obese (BMI >30.0 by Year, 2004-2012)



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

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 8.7 shows that breakdown by gender. Cape Girardeau County has a higher percent than both the state and the U.S. for both males and females. A slightly higher percent of the respondents are female.

Figure 8.7: Adults Obese (BMI >30) by Gender



Source: *Community Commons Community Health Needs Assessment, BRFSS (2004-2010)*

Throughout 2014, primary data on BMI status was compiled by the Health Communities Coalition from a variety of community resources. The Healthy Communities Coalition is a group of leaders in the community dedicated to promoting improved nutrition and active lifestyles. One of the coalition's first major efforts was to establish an accurate and current baseline of local data on BMI status. BMI was collected from Southeast Hospital (electronic medical records, physician practices and hospital data), Saint Francis Medical Center, and through on-site screenings at Sign-Up Saturday, a community event for youth. Through these efforts a total of 11,002 BMI's were collected for Cape Girardeau County residents. Table 8.7 shows the overall rate for all of the BMI's collected. 63.7% of all individual BMI's were in the "overweight" and "obese" categories.

Table 8.7: BMI Primary Data, Cape Girardeau County Overall Percentages

Cape County Overall		
BMI Category	Total	%
Underweight	283	2.57%
Normal	3,711	33.73%
Overweight	3,162	28.74%
Obese	3,846	34.96%
Grand Total	11,002	

Source: *Healthy Communities Coalition, 2014*

Table 8.8 provides a further breakdown of the data by age groups.

Table 8.8: BMI Primary Data by Age Category

Cape County - by Age Category											
Age	Underweight		Normal		Overweight		Obese		Overweight + Obese		Grand Total
	#	%	#	%	#	%	#	%	#	%	
2-4	43	8.10%	351	66.10%	67	12.62%	70	13.18%	137	25.80%	531
5-11	39	4.26%	576	62.88%	161	17.58%	140	15.28%	301	32.86%	916
12-14	12	3.97%	189	62.58%	52	17.22%	49	16.23%	101	33.44%	302
15-20	7	1.51%	310	66.67%	64	13.76%	84	18.06%	148	31.83%	465
21-30	31	3.88%	316	39.50%	199	24.88%	254	31.75%	453	56.63%	800
31-40	11	1.20%	264	28.73%	263	28.62%	381	41.46%	644	70.08%	919
41-50	13	1.15%	240	21.20%	341	30.12%	538	47.53%	879	77.65%	1,132
51-60	24	1.47%	329	20.21%	507	31.14%	768	47.17%	1,275	78.32%	1,628
61-70	27	1.51%	333	18.58%	598	33.37%	834	46.54%	1,432	79.91%	1,792
71-80	31	2.18%	353	24.86%	534	37.61%	502	35.35%	1,036	72.96%	1,420
81+	45	4.10%	450	41.02%	376	34.28%	226	20.60%	602	54.88%	1,097
Grand Total	283	2.57%	3,711	33.73%	3,162	28.74%	3,846	34.96%	7,008	63.70%	11,002

Source: *Healthy Communities Coalition, 2014*

The 71-80 year old age group had the highest percentage of “Overweight” while the 41-50 age group had the highest percentage of “Obese,” however when the overweight and obese totals were added together, the 61-70 year age group had the highest percentage.

WIC Participants

Data from the Missouri Department of Health and Senior Services WIC program for the year 2008 indicates that Cape Girardeau County participating prenatals had a Prepregnancy weight for height (BMI greater than 29.0) rate of 28.4 compared to a Missouri rate of 32.3. In the Caucasian population the rates were highest among the 35-39 year age group, in the African American population the rates were highest among the 25-29 year age group and in the Hispanic population the rates were highest among the 20-24 year age group.. Overall county rates were highest among the African American population.

Table 8.9 shows the comparison between Cape Girardeau County and Missouri infants that were “At risk for Overweight” by weight for length. Cape Girardeau County has a higher rate than the state.

Table 8.9: WIC Infants at Risk for Overweight, 2008

Cape Girardeau County	Missouri
10.9	9.2

Source: *Missouri Department of Health and Senior Services, MICA, WIC Infant, 2008*

Table 8.10 compares the rates of “Weight for Height (BMI) – overweight” for children participating in WIC in Cape Girardeau County and Missouri.

Table 8.10: WIC Children Weight for Height (BMI) – Overweight, 2008

Age Group	Cape Girardeau County	Missouri
12-23 months	0	0
24-35 months	22.0	18.1
36-47 months	13.8	19.0
48-59 months	20.4	18.4

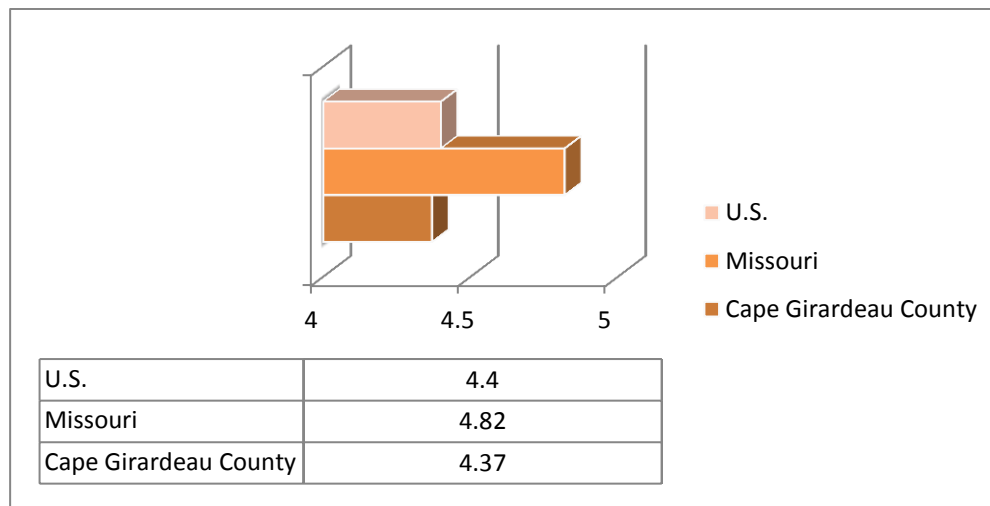
Source: Missouri Department of Health and Senior Services, MICA, WIC Child, 2008

Chronic Disease Risk Factors Summary

Heart Disease

The 2011-2012 Behavioral Risk Factor Surveillance System (BRFSS) conducted by the Centers for Disease Control 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 8.8 compares the percent of adults with Heart Disease in Cape Girardeau County, Missouri, and the U.S. Cape Girardeau County had a lower percentage.

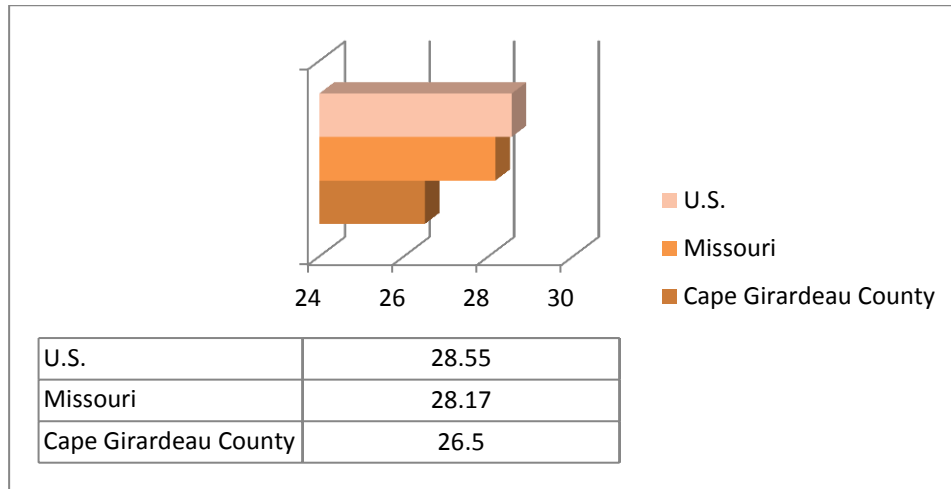
Figure 8.8: Percent Adults with Heart Disease, 2011-2012



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

In Figure 8.9 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 2012. Cape Girardeau County had a higher percentage of the Medicare population with Ischemic Heart disease than the state or the U.S.

Figure 8.9: Percentage of Medicare Fee-For-Service Population with Ischemic Heart Disease, 2012

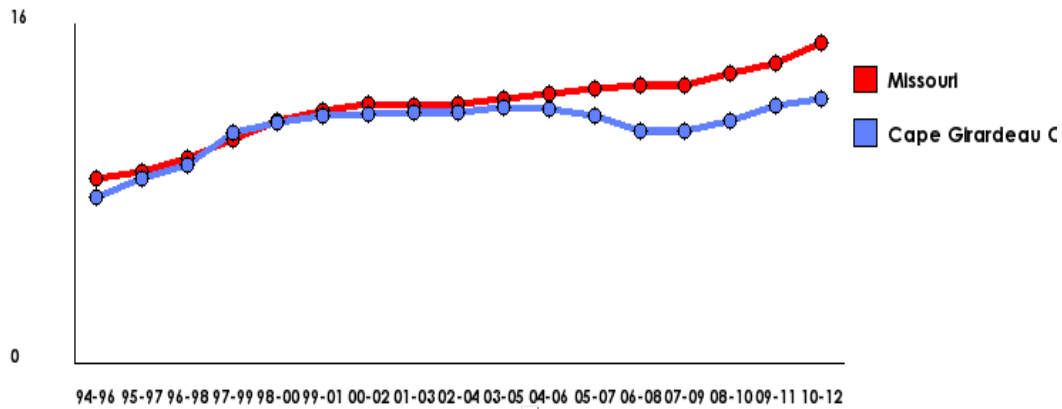


Source: Community Commons Community Health Needs Assessment, Heart Disease Medicare Population, 2012

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

Figure 8.10 shows the three-year moving average rates for ER Visits related to Heart Disease for Cape Girardeau County and Missouri. Cape Girardeau County rates for both the White and African American populations have shown a statistically significant increase with ER visits with the African American population exceeding the state rates.

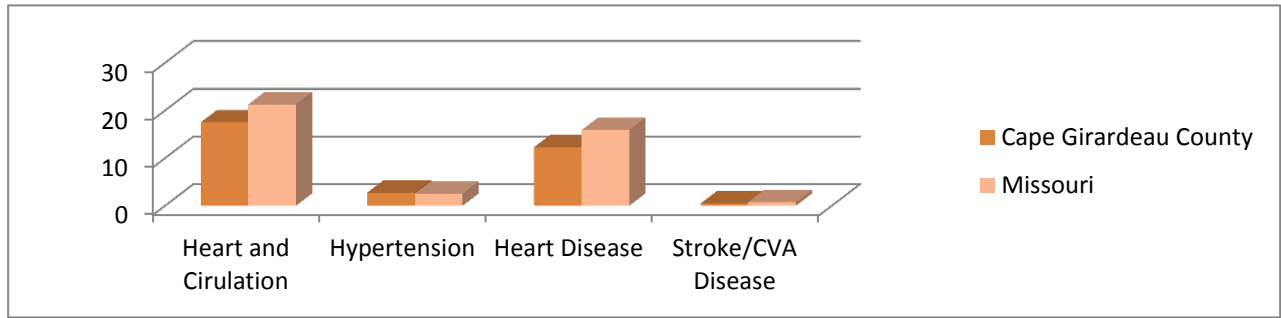
Figure 8.10: Time Trend of Emergency Room Visits Profile, Heart Disease



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Emergency Room Visits, 2012

Figure 8.11 compares the rates of all ER Vistis that had a primary diagnosis of a disease of the ciruclatory sytem which includes hyperstension, stroke, and any disease of the heart, veins or arteries. Heart and Circulation and Heart Disease were the top reasons for ER Visits in Cape Girardeau County as well as in Missouri.

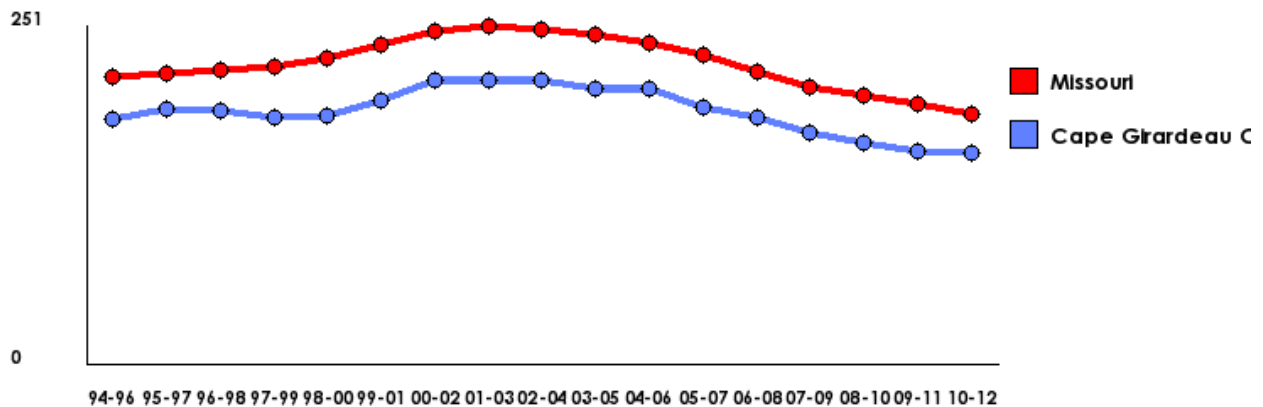
Figure 8.11: Emergency Room Visits for Heart Disease and Circulation, 2012



Source: Missouri Department of Health and Senior Services, MICA, Emergency Room Visits, 2012

Figure 8.12 shows the three-year moving average rates for Hospitalizations related to Heart Disease for Cape Girardeau County and Missouri. Cape Girardeau County rates for both the White and African American populations have shown a statistically significant increase with Hospitalizations for the African American population exceeding the state rates.

Figure 8.12: Time Trend of Inpatient Hospitalization for Cape Girardeau County Rates: Heart and Circulation



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Hospitalizations, Heart Disease, 2012

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 8.11 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 8.11: Asthma

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

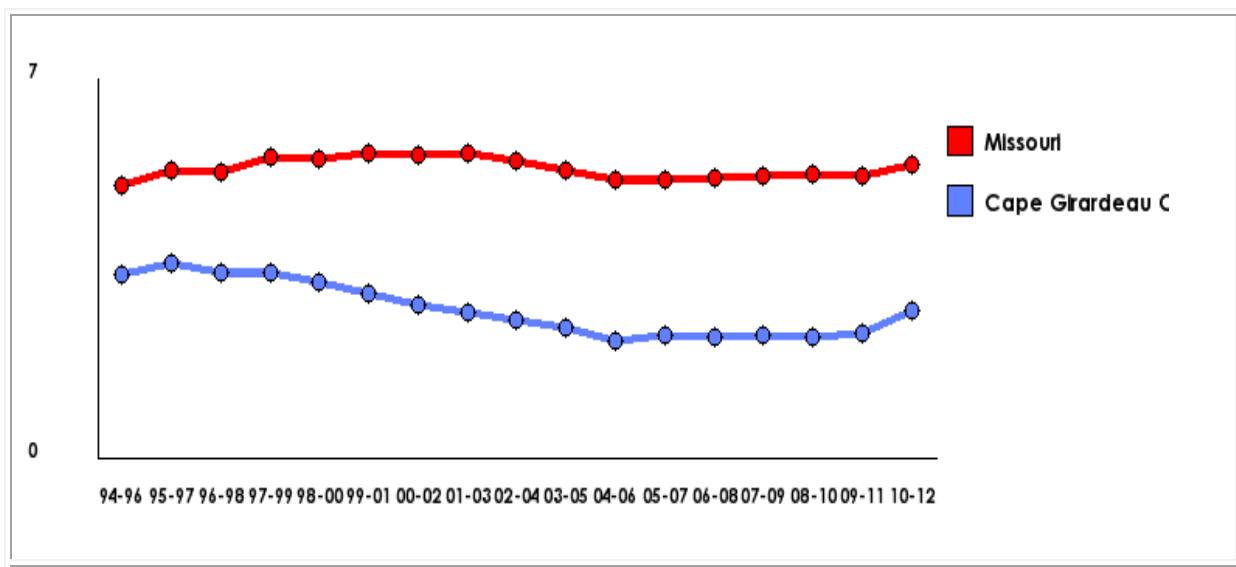
Source: Missouri Department of Health & Senior Services Office of Epidemiology 2007 - 2011 County level Study

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 10.38% - a slight increase from the 2011 County Level Study. During this same time frame Missouri had 14.15% and the U.S. had 13.36% of Adults reporting that they had asthma.

Figure 8.13 shows the three-year moving average rates for ER Visits related to Asthma for Cape Girardeau County and Missouri. Cape Girardeau County rates (2.7) have shown a statistically significant decrease and are lower than the state (5.4) rates for ER Visits.

Prevalence of Asthma among Medicare fee-for-service Beneficiaries was determined from the CMS data for a claim indicating that they were receiving a service or treatment for the specific condition. According to the Centers for Disease Control Community Health Status Indicators (CHSI) 2012 data report, 2.6% percent of older adults are living with asthma in Cape Girardeau County and 3.6% in the U.S.

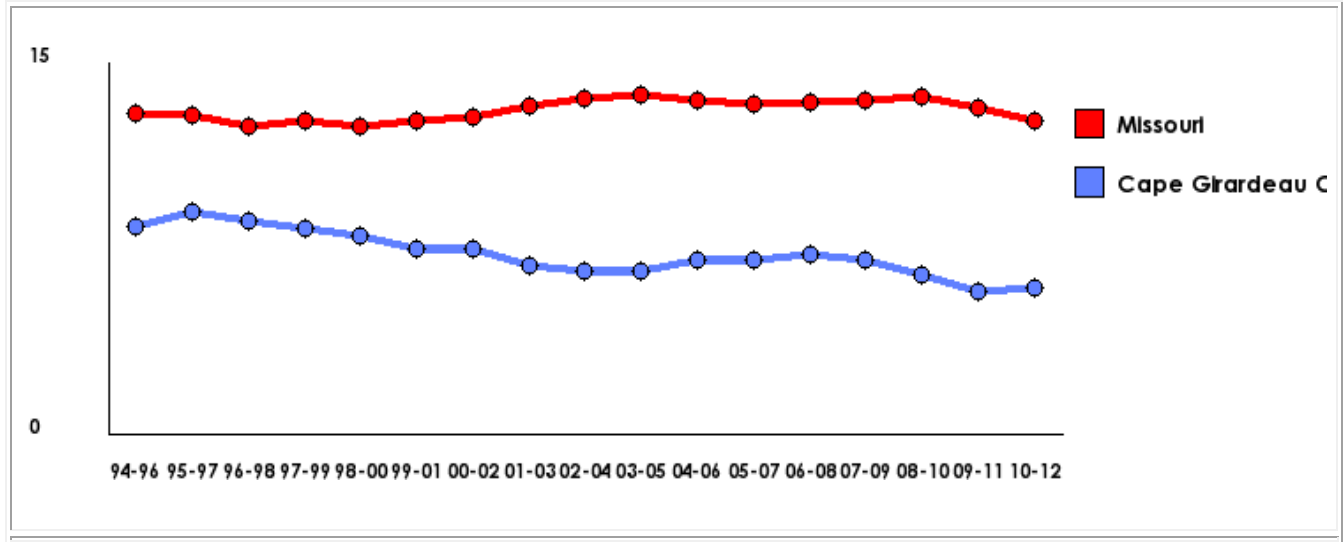
Figure 8.13: Time Trend of Emergency Room Visit Rates for Cape Girardeau County: Asthma



Source: Missouri Department of Health and Senior Services, Community Data Profiles, ER Visits, Asthma, 2012

Figure 8.14 compares hospitalization rates for Asthma between Cape Girardeau and Missouri. From 1994-2012, Cape Girardeau County rate trend shows a statistically significant decrease while the state has had an even trend. Cape Girardeau County rates are lower than Missouri rates.

Figure 8.14 Time Trend of Inpatient Hospitalization Rates for Cape Girardeau County and Missouri: Asthma

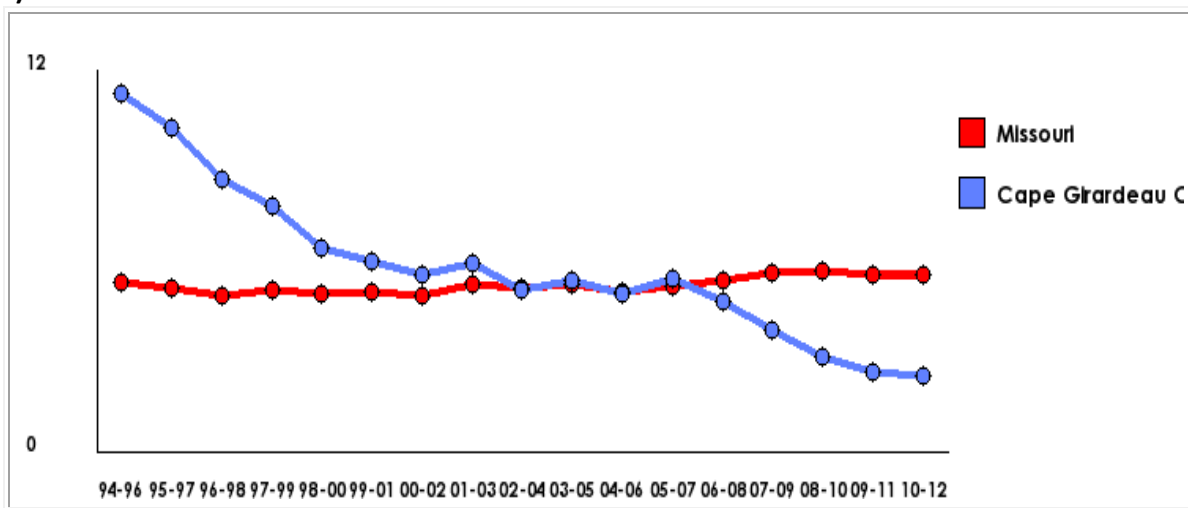


Source: Missouri Department of Health and Senior Services, Community Data Profiles, Hospitalizations, Asthma

Chronic Obstructive Respiratory 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 8.15: Time Trend of Emergency Room Visits Rates: Chronic Obstructive Pulmonary Disease (COPD)

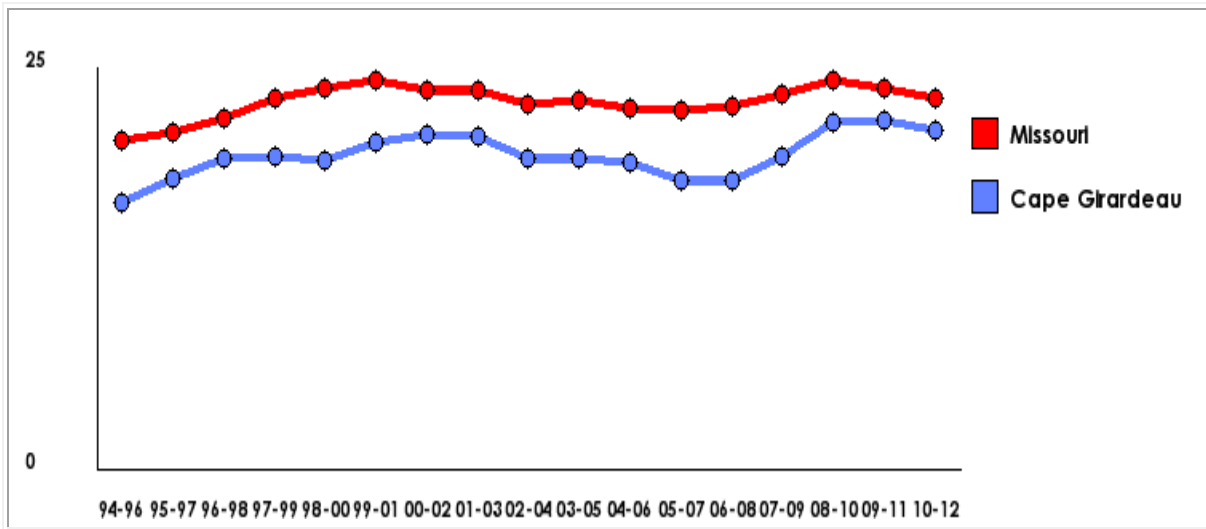


Source: Missouri Department of Health and Senior Services, MICA, Chronic Disease

Figure 8.15 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 8.16 compares the trend lines for Hospitalizations related to COPD from 1994-2012 for Cape Girardeau County and Missouri. Neither Cape Girardeau County, nor the state, show a statistically significant trend and the county rates are below the state rates.

Figure 8.16: Hospitalization Chronic Disease Rates for Chronic Obstructive Pulmonary Disease



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

Diabetes

According to the Centers for Disease Control, Diabetes affects an estimated 23.6 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.

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 8.12 compares the percentage determined to have diabetes in 2007 and 2011. The percentages for 2012 were obtained from the Centers for Disease Control.

Table 8.12: Diabetes Prevalence

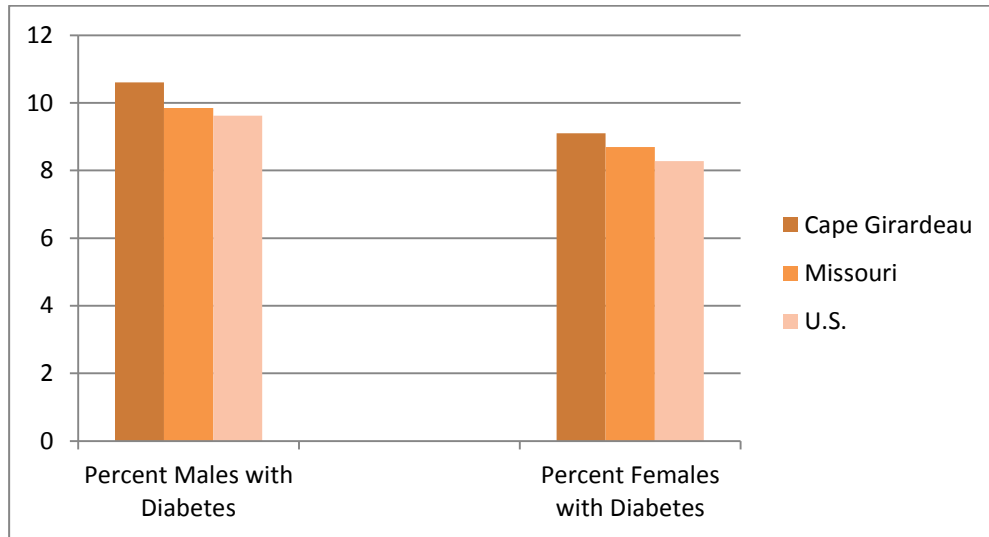
	2007	2011	2012 Percent *
Cape Girardeau	8.3%	9.9%	10.5%
Missouri	9.7%	10.7%	9.26%

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

*Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevent and Health Promotion, 2012

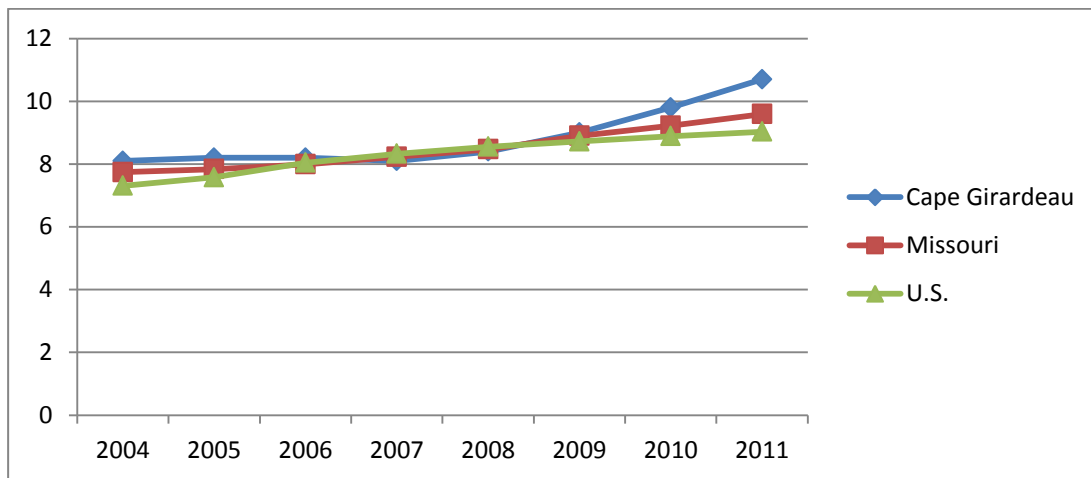
Figure 8.17 shows the percent of adults diagnosed with Diabetes, by gender, for Cape Girardeau County, Missouri, and the U.S. This data as well as the data in Figure 8.18, percent of adults with diagnosed diabetes by year, were compiled by the Centers for Disease Control in the Community Commons Community Health Needs Assessment. By gender the County, the State, and the nation have a larger percentage of males in the “Diagnosed with Diabetes,” group.

Figure 8.17: Adults with diagnosed Diabetes by Gender



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

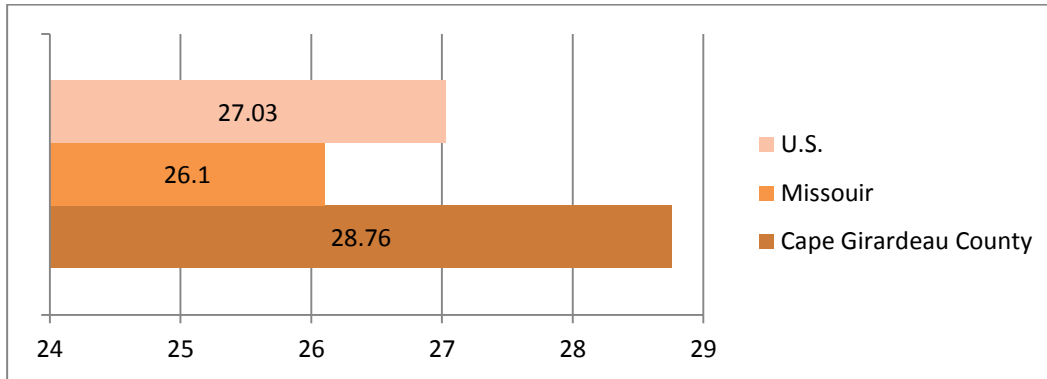
Figure 8.18: Percent Adults with Diagnosed Diabetes by Year, 2004-2012



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

Figure 8.19 provides the percentages acquired for 2012 from Centers for Medicare and Medicaid Services (CMS) Chronic Conditions Warehouse on 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 for individuals diagnosed with Diabetes.

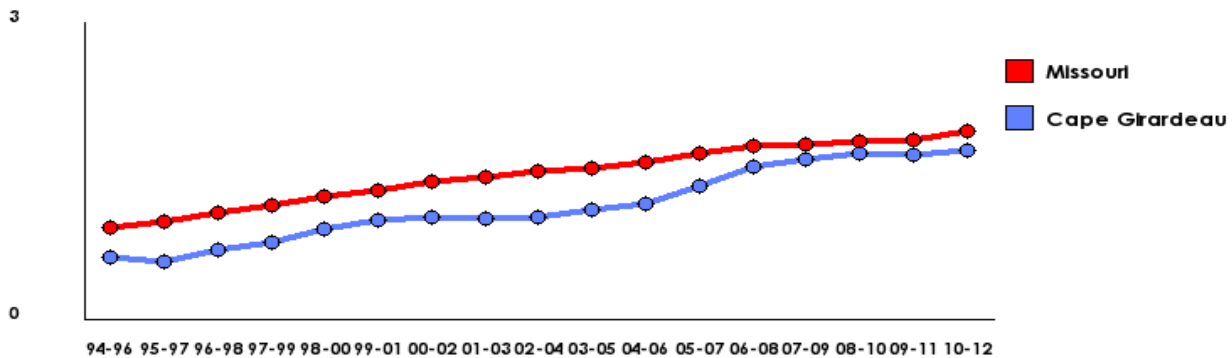
Figure 8.19: Percentage of the Medicare fee-for-service Population with Diabetes



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

Figure 8.20 shows a statistically significant increase in the trend of ER Visits for Diabetes in both Cape Girardeau County and Missouri from 1994-2012 with the state rates slightly exceeding the county.

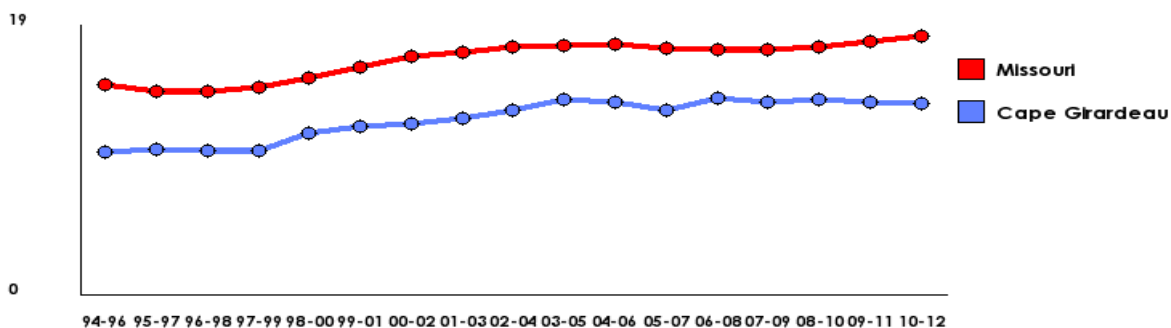
Figure 8.20: Time Trend of Chronic Disease ER Visits Rates Comparisons for Diabetes



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

Figure 8.21 shows a statistically significant increase in the trend of Hospitalizations for Diabetes in both Cape Girardeau County and Missouri from 1994-2012 with the state rates slightly exceeding the county.

Figure 8.21: Time Trend of Chronic Disease Comparisons of Hospitalization Rates for Diabetes Profile for Cape Girardeau



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

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 446.2 (Males 475.3, Females 429.2) and for Missouri the rate was 474.0 (Males 505.1, Females 455.3). The county has on overall lower cancer incidence than the state.

As shown in Table 8.13, a higher percentage of respondents (residents) did not obtain recommended or routine cancer related screenings.

Table 8.13: Cancer Preventive Practices / Health Screenings, 2007 to 2011

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 2007-2011

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 8.14 shows the top ten cancer incidence sites in Cape Girardeau County by all sexes and then by females and males for 2007-2011. While lung and bronchus cancer makes up the greatest percentage among all sexes, when looking at females and males separately, breast cancer is the most prevalent for females and prostate cancer is the most prevalent for males.

Table 8.14: Cape Girardeau County, Top Ten Cancer Incidence Sites (2007-2011)

	Cancer Site	Percent
All Sexes	Lung and Bronchus	16.25%
	Female Breast	15.9%
	Prostate	13.44%
	Colon and Rectum	9.73%
	Kidney and Renal Pelvis	4.92%
	Non-Hodgkin Lymphoma	4.00%
	Thyroid	3.72%
	Urinary Bladder	3.09%
	Oral Cavity and Pharynx	2.92%
	Corpus and Uterus, NOS	2.92%
Females	Female Breast	31.38%
	Lung and Bronchus	14.99%
	Colon and Rectum	9.93%
	Thyroid	6.09%
	Corpus and Uterus, NOS	5.76%
	Non-Hodgkin Lymphoma	3.95%
	Kidney and Renal Pelvis	2.93%
	Ovary	2.48%
	Pancreas	2.26%
	Melanoma of the Skin	2.03%
Males	Prostate	27.26%
	Lung and Bronchus	17.63%
	Colon and Rectum	9.51%
	Kidney and Renal Pelvis	6.96%
	Urinary Bladder	5.22%
	Non-Hodgkin Lymphoma	4.06%
	Oral Cavity and Pharynx	3.94%
	Melanoma of the Skin	3.25%
	Pancreas	2.55%
	Liver and Intrahepatic Bile Duct	2.4%

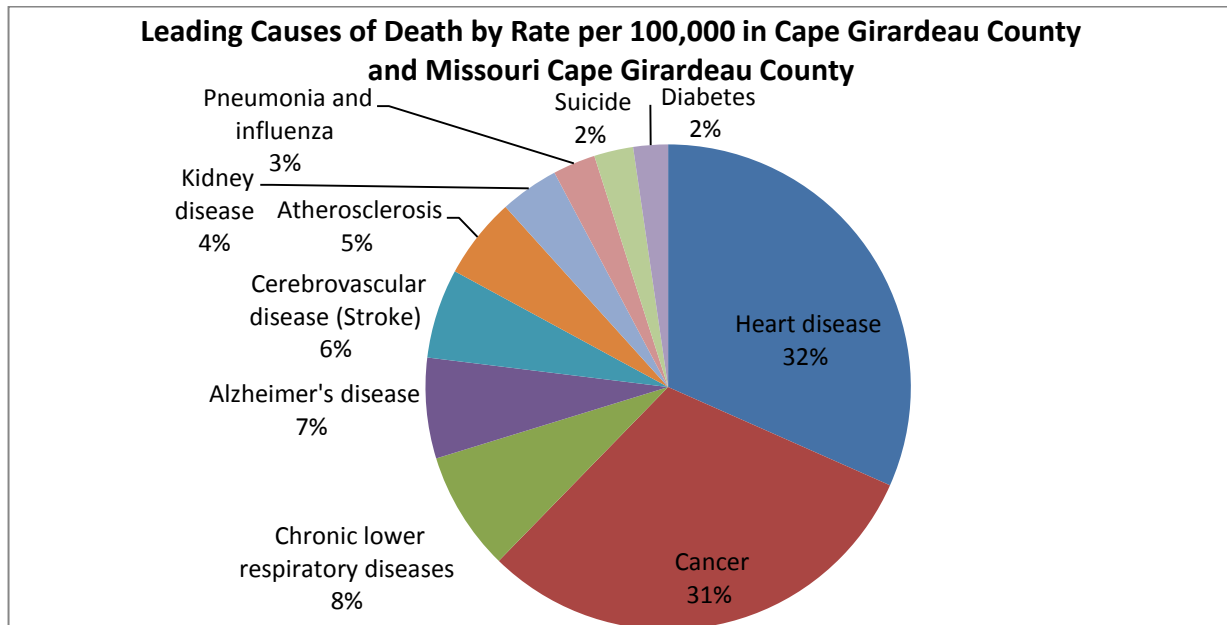
Source: Missouri Cancer Registry, Top Ten Cancer Incidence Sites, 2007-2011

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 1,451 deaths in Cape Girardeau County and 113,039 in Missouri during 2012-2013. Overall life expectancy at birth for a person in Cape Girardeau County is 78.1 years. For a male, life expectancy is 75.9 years and for a woman 80.2 years. There is a disparity noted for African-Americans as life expectancy drops to 71.9 years. Life expectancy data is 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. 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: Deaths in Cape Girardeau County, 2012-2013.



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2012-2013.

Table 9.1: Leading Causes of Death in Cape Girardeau by Number and Rate, 2012-2013

Cape Girardeau County	Number	Rate
Heart disease	346	178.1
Cancer	320	172.6
Chronic lower respiratory	88	44.8
Alzheimer's disease	78	37.7
Stroke	66	33.6
Atherosclerosis	68	30.4
Kidney disease	45	22.1
Pneumonia and influenza	33	16
Suicide	22	14.7
Diabetes	23	13

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2012-2013.

Table 9.2: Leading Causes of Death in Missouri by Number and Rate, 2012-2013

	Number	Rate
Heart disease	27,645	192.7
Cancer	25,733	179.9
Chronic lower respiratory diseases	7,442	52.2
Stroke	5,863	41
Alzheimer's disease	3,872	26.6
Diabetes	2,848	20
Kidney disease	2,550	17.8
Pneumonia and influenza	2,558	17.8
Suicide	1,859	15.1
Atherosclerosis	291	2

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2012-2013.

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 2013, the rate of YPLL per 100,000 calculated for Cape Girardeau County was 7,360 years and for Missouri it was 8,145 years.

Leading Causes of Death by Age for Cape Girardeau County

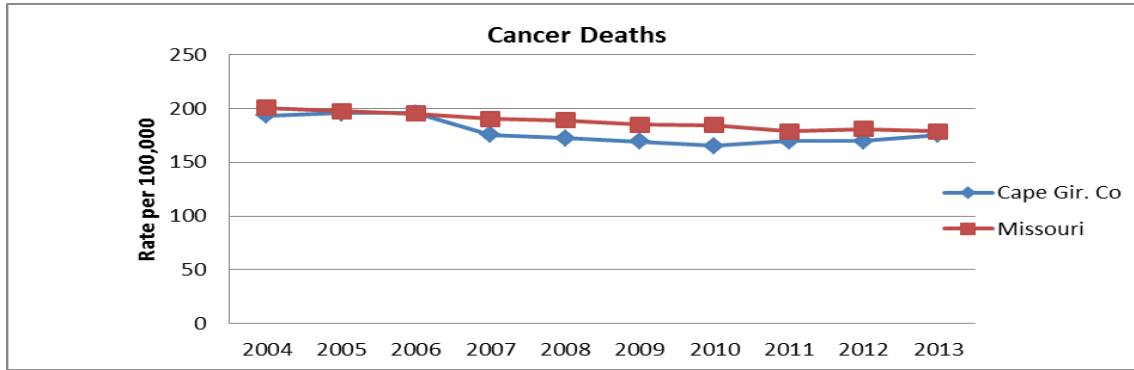
During 2012-2013, the leading cause of death for the under 15 year old age group was “conditions of the perinatal period” (early infancy). The 15-24 year old age groups experienced a higher rate of suicides than any other cause. For the 25-44 year old age group, “other accidents and adverse effects” was the leading cause of death but more specifically for this age group, 7 of the 11 deaths were caused by accidental poisoning and exposure to noxious substances. Cancer, specifically of the lung, was the leading cause of death in the 45-64 year old group and heart disease that was classified as “all other forms of chronic ischemic heart disease” lead the list of causes of death for the 65 and older group.

Deaths Related to Cancer

Cape Girardeau County experiences a slightly lower rate of death from cancer than the state. For the period of 2012-2013, deaths from cancer occurred at a rate of 172.6 per 100,000 in Cape Girardeau County compared to a state rate of 179.9 per 100,000. Cape Girardeau County’s rate shows an overall decrease to 175.5 in 2013 from a high of 196.0 in 2006. Figure 9.2 shows the rate of incidence comparing the county to the state for 2004-2013.

Both the county and the state show a slightly decreasing rate trend in cancer deaths.

Figure 9.2: Rates per 100,000 of Cancer Deaths for Cape Girardeau and Missouri, 2004-2013



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Cancer Deaths by Type

Although Cape Girardeau County has a slightly lower rate than the state for incidence of cancer deaths, Cape Girardeau County has a much higher rate than the state of lung cancer and colon cancer. The county has a slightly lower rate than the state for breast cancer. Table 9.3 demonstrates the comparison.

Table 9.3: Top 3 Cancer Rates per 100,000 and Numbers by State and County, 2012-2013

	Cape Girardeau County		Missouri	
	Number	Rate	Number	Rate
Lung Cancer	113	61.2	7958	55.1
Colon Cancer	34	18.5	2284	16.1
Breast Cancer	22	11.4	1724	12.2

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Cancer Deaths by Race

The African-American population in Cape Girardeau County is disproportionately affected by cancer deaths at a rate of 249.1 per 100,000 while whites are affected at a rate of 169.4 for 2011-2013. 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 during 2011-2013.

Table 9.4: Cancer Deaths by Number and Rate per 100,000 by Race

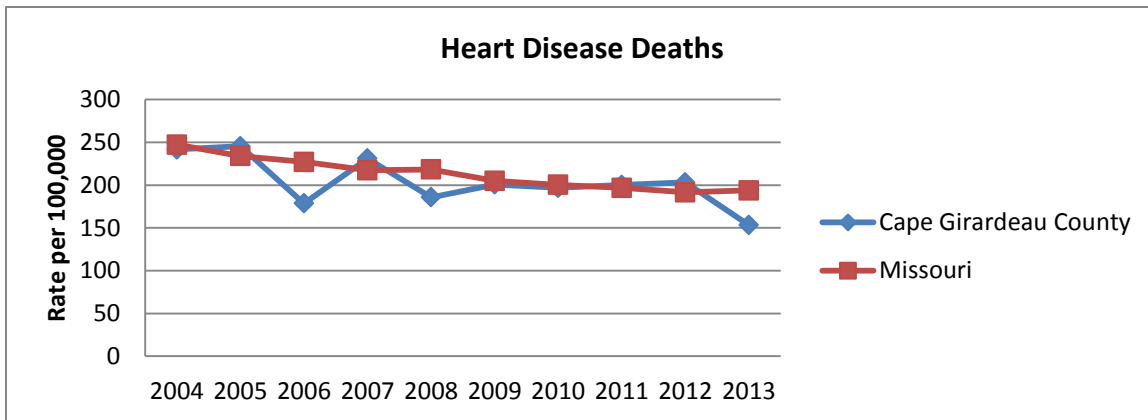
Cancer Deaths by Race for Cape Girardeau County 2011-2013			
White		Black/African--American	
Number	Rate	Number	Rate
449	169.4	21	249.1

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Deaths Related to Heart Disease

In 2013, Cape Girardeau experienced a lower rate of deaths due to heart disease, at 153.2 per 100,000, than the state at 193.8. Both the county and the state have experienced a decreasing trend in deaths due to heart disease from 2004-2013. With adequate preventive behavioral health practices, this rate could continue to decrease. The rates per 100,000 deaths from heart disease for the county and the state from 2004-2013 are shown in Figure 9.3.

Figure 9.3: Rates per 100,000 of Heart Disease Deaths for Cape Girardeau and Missouri, 2004-2013



Source: Missouri Department of Health and Senior Services (MICA), Deaths, 2013

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 is shown in Table 9.5.

Table 9.5: Heart Disease Deaths by Race for Cape Girardeau County and Missouri, 2012-2013

	Cape Girardeau County	Missouri
Whites	173.8	189.4
African-Americans	too few for reliable rate	227.0

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Heart Disease Deaths by Age

Heart disease was the leading cause of death for persons 65 years of age and older during 2012-2013 in Cape Girardeau. The county has a higher incidence rate, at 1305.3 per 100,000, than the state for this age group. Cape Girardeau County has a lower incidence rate of heart disease, at 102.9 per 100,000, than the state for the 45-64 year olds age group. Fewer than 20 deaths were reported in Cape Girardeau County for the under 15 years, 15-24 years and the 24-44 year old age groups so there is not enough data to establish a stable rate. Table 9.6 illustrates the comparison.

Table 9.6: Heart Disease Deaths by Age for Cape Girardeau and Missouri, 2012-2013

	Cape Girardeau County	Missouri
Less than 15	too few for reliable rate	1.2
Age 15-24	too few for reliable rate	2.6
Age 25-44	too few for reliable rate	22.5
Age 45-64	102.9	159.4
Age 65 +	1305.3	1213.2

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2012-2013.

Chronic Lower Respiratory Disease Deaths

As the 3rd leading cause of deaths for the county and the state during 2012-2013, chronic lower respiratory disease caused 88 deaths in the county and 7,443 in the state. When considering the rate of incidence, the county has a lower rate, 44.8 deaths per 100,000, than the state, 52.2 per 100,000. Table 9.7 shows the county to state comparison.

Table 9.7: Chronic Lower Respiratory Deaths, 2012-2013

	Chronic Lower Respiratory Disease	
	Number	Rate
Cape Girardeau County	88	44.8
Missouri	7442	52.2

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Chronic Lower Respiratory Disease Deaths by Age

For the review years of 2012-2013, "other chronic lower respiratory disease" was listed as the cause of death for 77 of the 78 people aged 65 years and older and also for 9 of the 10 persons aged 45-64 years. 1 person in the 65 and older category had the cause of death diagnosis of asthma and one person aged 45-64 had emphysema identified as the cause of death.

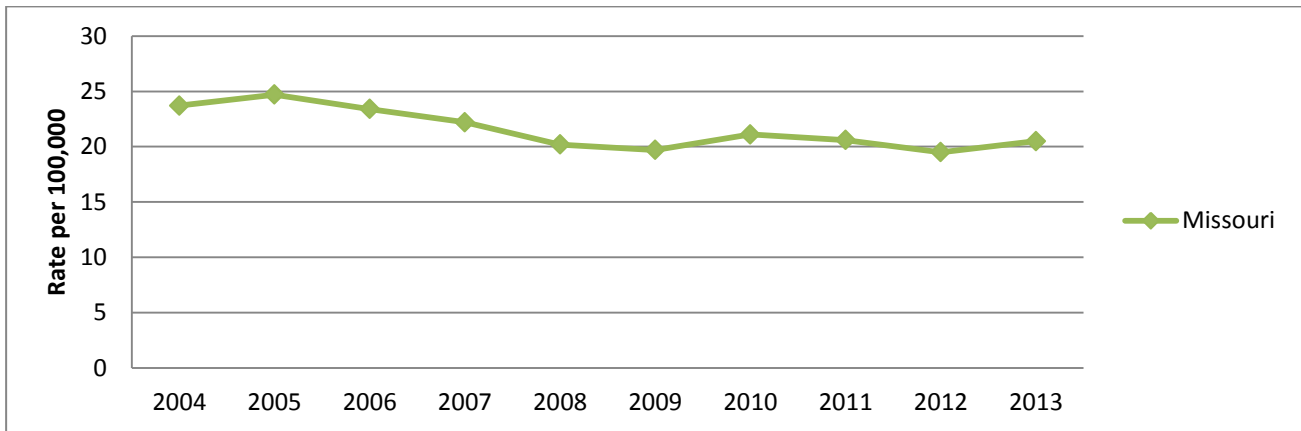
Chronic Lower Respiratory Disease Deaths by Race

For the review years of 2012-2013, 86 deaths occurred in whites and 2 occurred in African-Americans. "Other lower respiratory disease" was listed as the cause of death for 84 whites and 2 African-Americans. Both the asthma and the emphysema deaths were of the white race.

Diabetes Deaths

The death rates for diabetes ranked 6th in Missouri and 10th in Cape Girardeau County for 2012-2013 and held the rank of 6th for the county and state when 10 year data was reviewed. 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 for Missouri, 2004-2013



Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2012-2013.

Diabetes Deaths by Age

Diabetes was listed as the death diagnosis for a total of 165 persons during the period of 2004-2013. Of the 165 deaths, 7 were aged 24-44, 44 were aged 45-64, and 114 were aged 65 and older.

Diabetes Deaths by Race

At 18.6 per 100,000, the rate of diabetes deaths for the white race in Cape Girardeau County is lower than the rate for Missouri (19.7). According to the death data reported for diabetes deaths in African-Americans living in Missouri, the rate is considerably higher (42.3) 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.

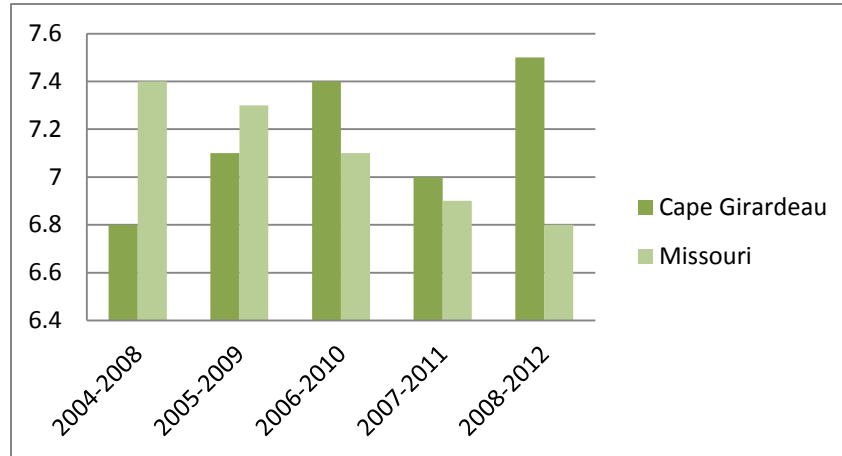
Table 9.8: Diabetes Deaths by Race for Cape Girardeau County and Missouri 2004-2013

	Cape Girardeau County	Missouri
White	18.6	19.7
African-American	too few for stable rate	42.3

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

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 2004-2012. The county has a higher infant mortality rate than the state during the latest data period of 2009-2013 of 7.8 deaths per 1000 live births. Infant deaths in Missouri increased for the 12 months ending with January 2013 from 475 to 495 with an associated rate of 6.6 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, 2004-2012

Source: KIDS COUNT Data Books, kidscount.org The Anne E. Casey Foundation, 2015

In the 2012 Missouri Child Fatality Review Program’s annual report, it was noted that of the 57 babies, less than one year of age, that died of unintentional suffocation in 2012 in the state of Missouri, 38 (67%) 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 along with numbers by race during the period 2009-2013 for Cape Girardeau County and Missouri. Four of the five deaths in 2013 were attributed to SIDS-related events, however, in a report by the Missouri Department of Health and Senior Services Bureau of Vital Statistics in February 2013, “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, 2009-2013

	Cape Girardeau County			Missouri		
	White	African American	Total	White	African American	Total
SIDS Related Events*	4	1	5	94	16	112
Total Number of Deaths	26	9	36	1,702	728	2,534

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Cape Girardeau County experienced a higher infant mortality rate overall (778.9 per 100,000) than did the state (662.9) for the data collection period 2009-2013.

Infant Mortality by Race, 2009-2013

The number of African-American infant deaths reported from 2009-2013 was less than 20 and provided an unstable rate. The rate for whites during this time period was 663.9 per 100,000 and is higher than the state (551.5). The state rate reported for African-Americans from 2009-2013 was significantly higher than whites at 1239.0 per 100,000.

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) experience 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 9.8 exhibits how the selected counties' rates compare to the state.

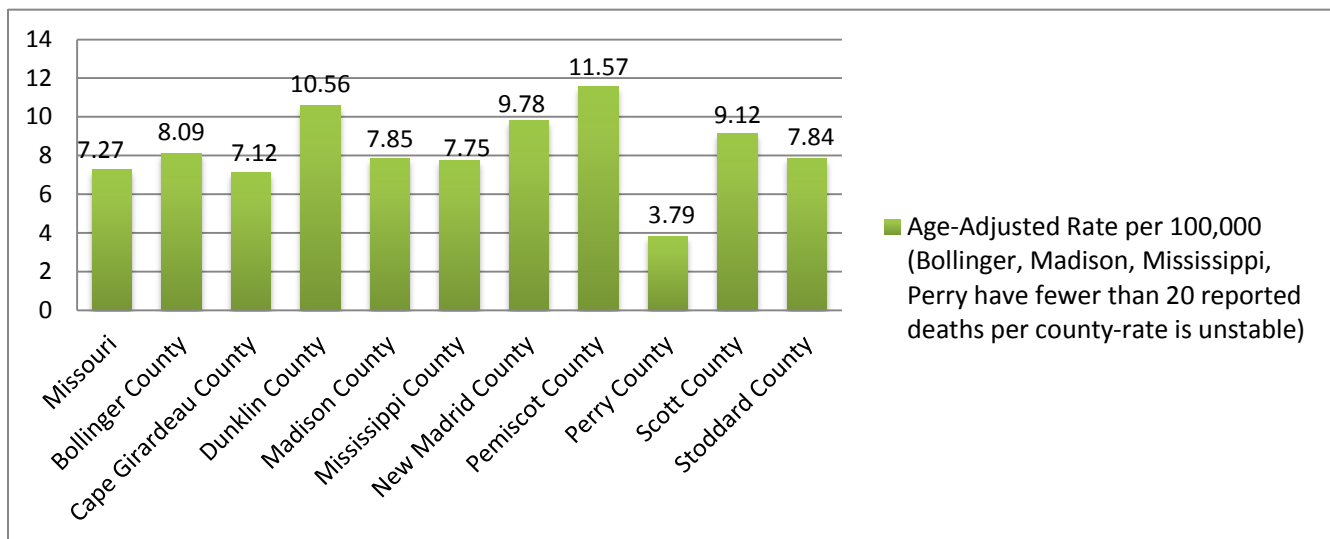
Table 9.10: Infant Mortality Rates per 1000 Live Births in Southeast Missouri 2002- 2012

	Number	Rate
Bollinger County	13	8.09*
Cape Girardeau County	72	7.12
Dunklin County	55	10.56
Madison County	13	7.85*
Mississippi County	16	7.75*
New Madrid County	26	9.78
Pemiscot County	39	11.57
Perry County	10	3.79*
Scott County	58	9.12
Stoddard County	31	7.84

* Fewer than 20 events in numerator; rate is unstable.

Source: Missouri Department of Health and Senior Services, Community Data Profiles, Infant Health Profile 2002-2012

Figure 9.6: Infant Mortality Average Rate, Missouri and Selected Counties, 2002-2012

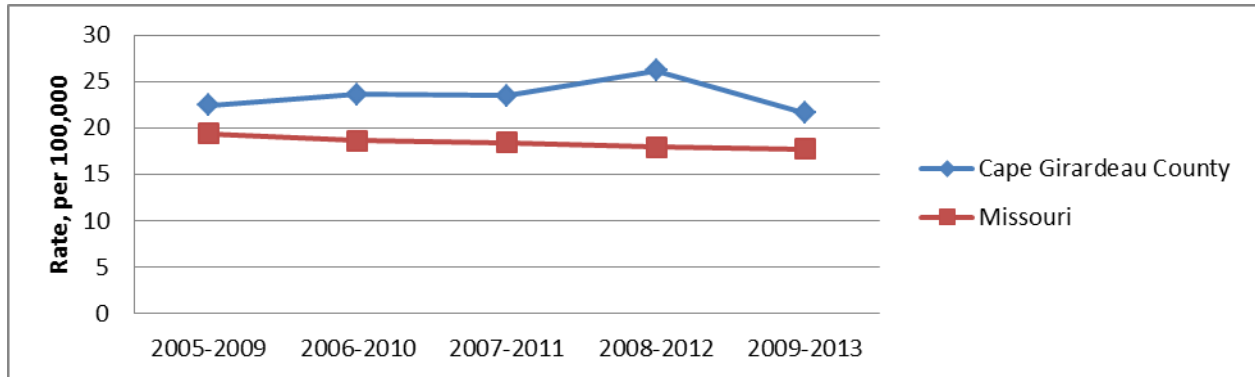


Source: Missouri Department of Health and Senior Services, Community Data Profiles, Infant Health Profile 2002-2012

Child Deaths for Children Age 1-14

Cape Girardeau County shows a higher rate of child deaths than Missouri. Child death rates were, however, trending lower for both the state and the county during the data collection period 2005-2013 as shown in Figure 9.7. Unintentional injury and motor vehicle accidents were the number one and two leading causes of death in general for county and the state for children ages 1-14.

Figure 9.7: Child Deaths Age 1-14 (per 100,000) for Cape Girardeau County and Missouri, 2005-2013

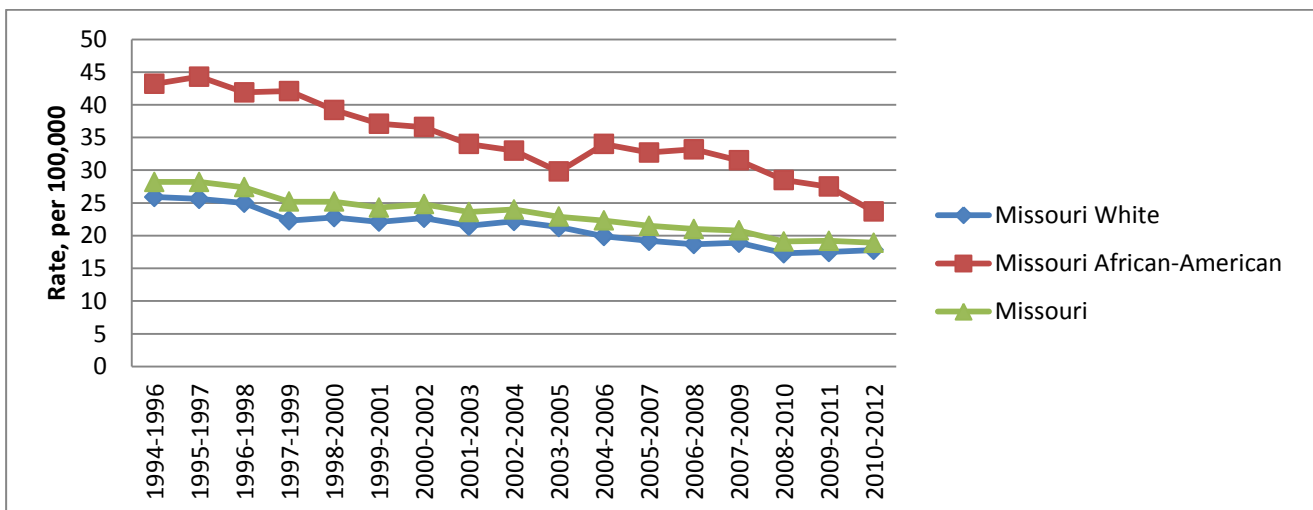


Source: kidscount.org/datacenter 2015

Child Deaths by Race Age 1-14

There were only 4 African-American deaths during the data review period which does not allow for a stable rate. There were 26 White deaths with an associated rate per 100,000 of 21.8 Figure 9.8 illustrates the comparison by race per 100,000 for the state of Missouri.

Figure 9.8: Child Deaths by Race per 100,000 in Missouri



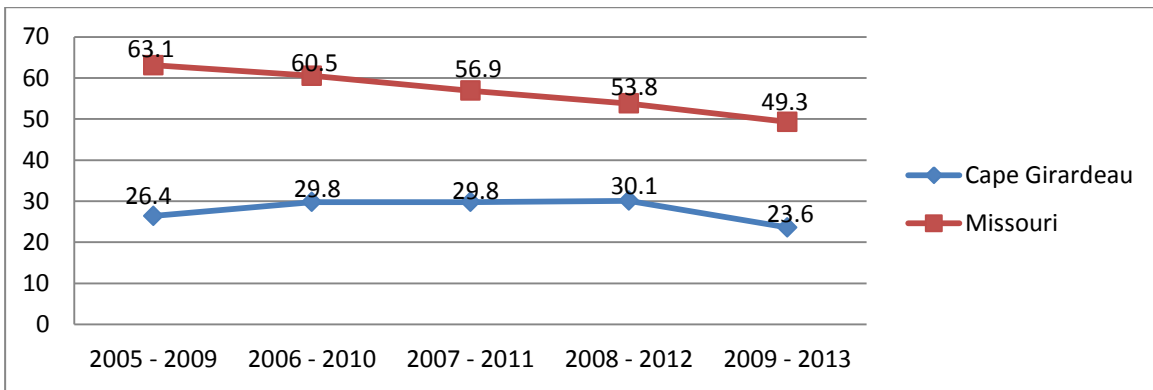
Source: *Missouri Department of Health and Senior Services, Community Data Profiles, Child Health Profile 2002-2012*

The rate trend in Missouri for whites and African/Americans shows a statistically significant decrease over the entire data collection period.

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 dropped to 23.6 and 49.3 respectively for 2009-2013. Figure 9.9 compares the rate of violent deaths, ages 15-19, for the county and the state during the data collection periods 2005-2013. Both the county and the state were showing fewer violent deaths over time for this age group.

Figure 9.9: Violent Deaths Ages 15-19, Rate per 100,000 for Cape Girardeau County and Missouri, 2005-2013



Source: Kids Count in Missouri 2015 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: Rates and Number of Violent Deaths, Ages 15-19 for Cape Girardeau County and Missouri, 2009-2013

	Cape Girardeau County		Missouri	
	Number	Rate	Number	Rate
Motor vehicle accidents	4	13.5*	407	19.7
All other accidents and adverse effects	0	0.0 *	171	8.3
Suicide	2	6.8 *	181	8.8
Homicide	1	3.4 *	261	12.6
Total for Selected Causes	7	23.6 *	1020	49.3

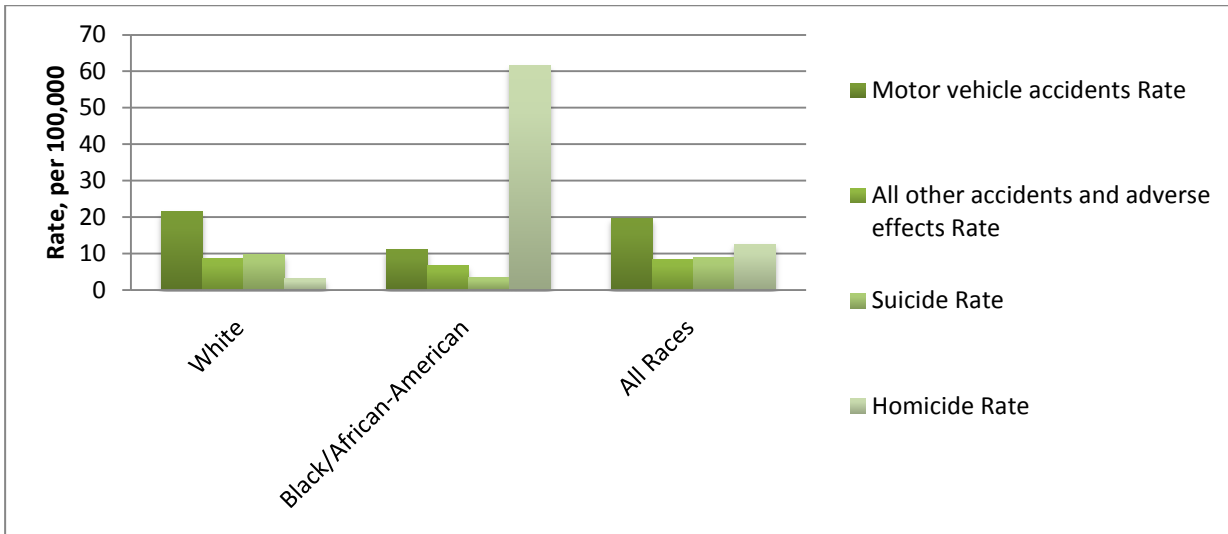
(*)Number of deaths less than 20 –rate unstable

Source: Missouri Department of Health and Senior Services, Missouri Information for Community Assessment (MICA), Deaths, 2013.

Deaths by Race and Cause

Figure 9.10 demonstrates the comparison of violent deaths by race and by cause. 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.

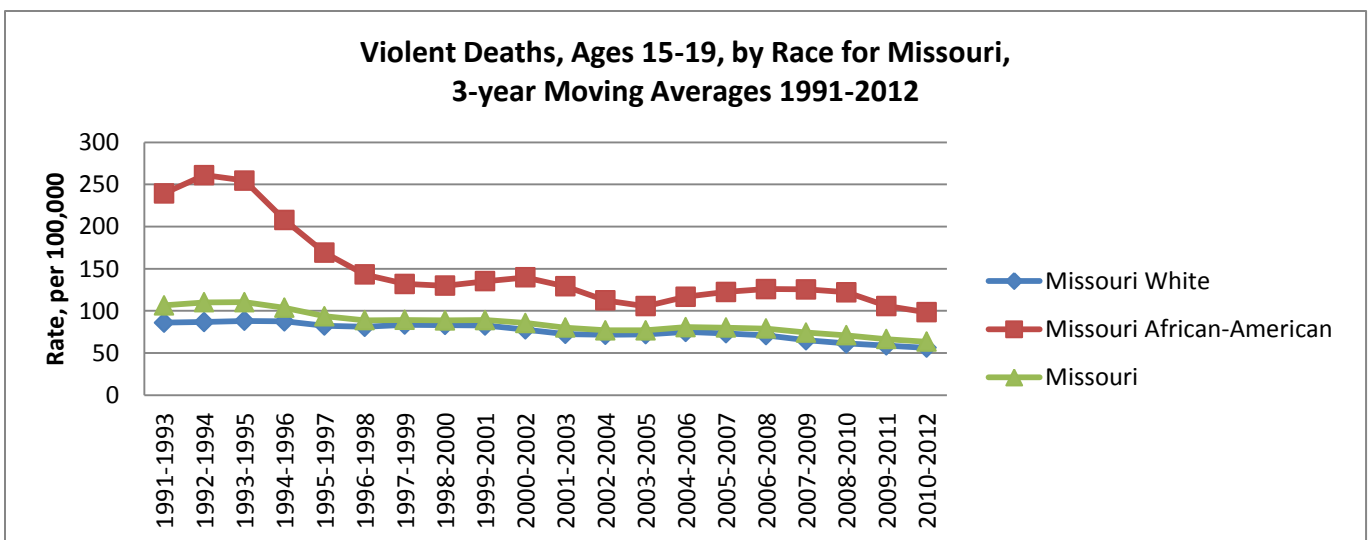
Figure 9.10 Violent Deaths Ages 15-19 by Race and Cause in Missouri, 2009-2013



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Child Health Profile 1991-2012

The White, African/American, and overall state rate trend shows a statistically significant decrease over the entire reporting period. This trend is shown in Figure 9.11.

Figure 9.11 Violent Deaths Ages 15-19 by Race for Missouri, 3-year Moving Averages, 1991-2012



Source: Missouri Department of Health and Senior Services, Community Data Profiles, Child Health Profile 1991-2012

**Section X:
Health Care System Indicators**

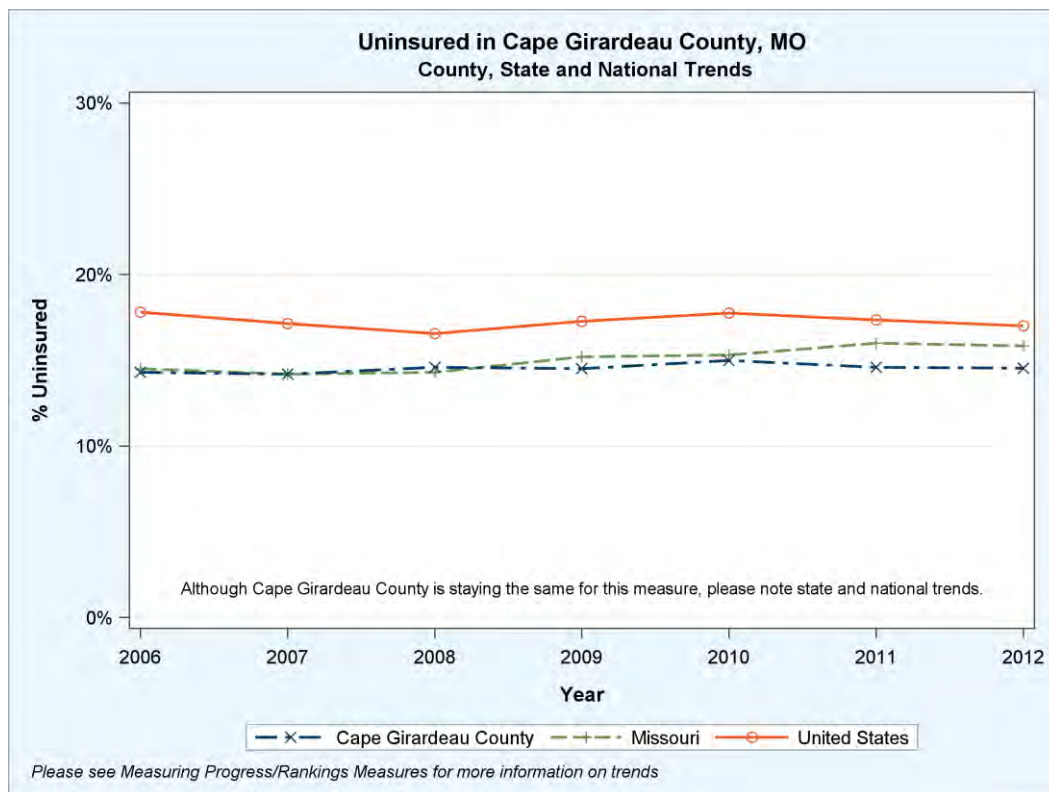
Access to Health Care

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 present 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 residents who are uninsured/insured, financial hardships, transportation barriers, cultural competency, and coverage limitations. It is also necessary to have comprehensive medical coverage and providers that accept the individual’s health insurance.

Insured and Uninsured Population

The County Health Rankings, created by the Robert Wood Johnson Foundation and the University of Wisconsin’s Population Health Institute, measures the uninsured population as the estimated percent of the population under age 65 that has no health insurance coverage. Using 2012 data from the U.S. Census Bureau, they determined that Cape Girardeau County has 15% of its population under age 65 uninsured, while Missouri has 16% and the U.S. has 11%. Figure 10.1 shows the trend from 2006-2012 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 does not have health insurance.

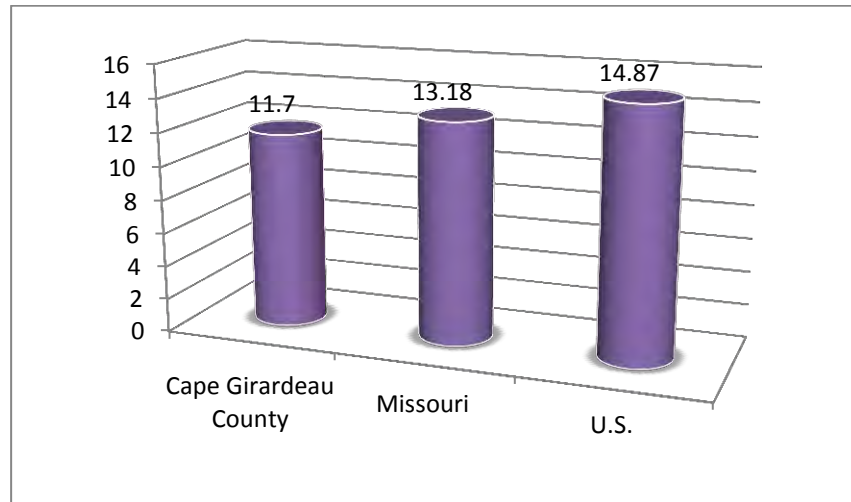
Figure 10.1: Uninsured Population, 2012



Source: Robert Woods Johnsons Foundation and University of Wisconsin Population Health Institute, County Health Rankings and Roadmaps

According to data estimates from the U.S. Census Bureau's American Community Survey at the end of the five year period of 2009-2013, the percentage of the population that is uninsured had decreased to 11.7% in Cape Girardeau County. Figure 10.2 compares the percentage of the uninsured population at the end of 2013, from the American Community Survey, for the county, state, and nation.

Figure 10.2: Percent Uninsured Population, 2009-2013



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

Uninsured Adults

The Small Area Health Insurance Estimates (SAHIE) program utilizes datasets from the U.S. Census Bureau and the American Community Survey from the years 2008-2012 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 17.4%. During these same time frames Missouri had a 19.19% and the U.S. had 20.76%. Cape Girardeau County had a smaller percentage of individuals 18-64 years of age that did not have medical insurance than the state and nation.

Uninsured Children

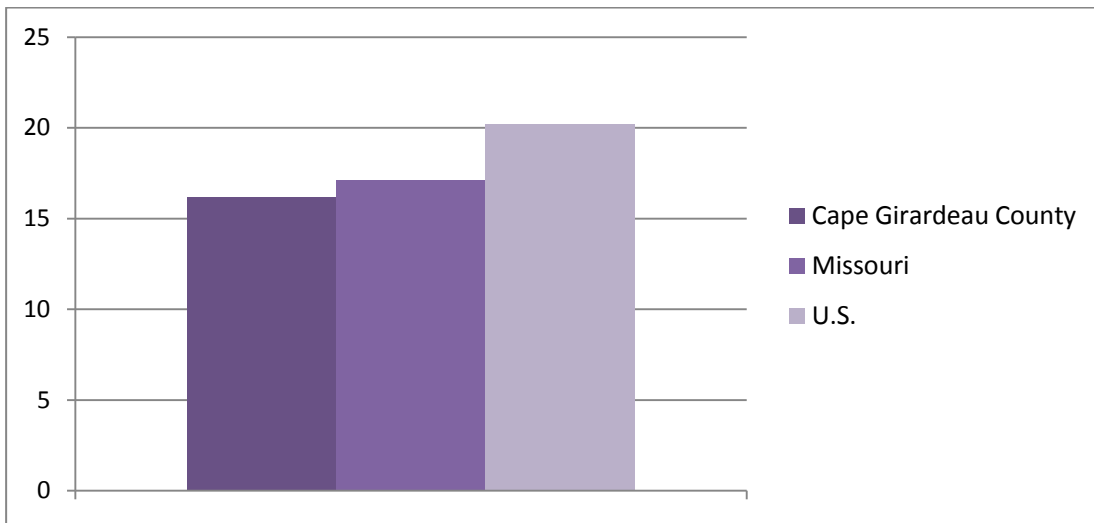
The Small Area Health Insurance Estimates (SAHIE) program utilizes datasets from the U.S. Census Bureau and the American Community Survey from the years 2008-2012, to model health insurance coverage for state and county level insurance estimates. The percent of children under age 19 years in Cape Girardeau County that did not have medical insurance was reported as 6.9%. During these same time frames Missouri had a 7.37% and the U.S. had 7.54%. Cape Girardeau County had a smaller 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 (2009-2013) for the county, state

and nation. Cape Girardeau County has a slightly lower percentage of the population receiving Medicaid than the state and the nation.

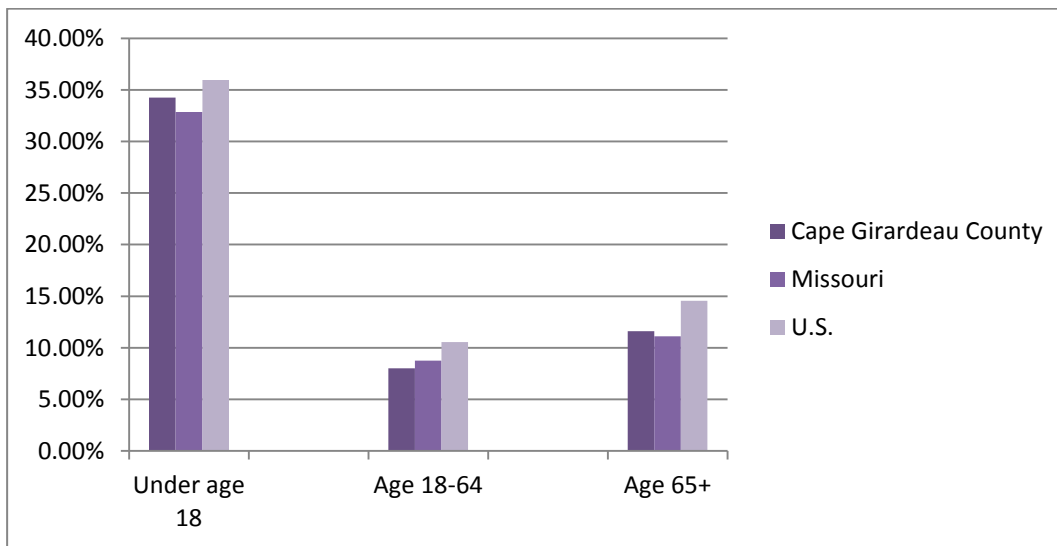
Figure 10.3: Percent of Insured Population Receiving Medicaid, 2009-2013



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

Figure 10.4 provides a percentage breakdown, by age groups, of the population that are receiving Medicaid.

Figure 10.4: Population Receiving Medicaid by Age Group, Percent



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

In all three locations, the less than 18 year age group has the highest percent of their 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 11,389 persons in Cape Girardeau County were receiving Medicare benefits during 2012. The total number of persons receiving Medicare is shown, by county, in Table 10.1.

Table 10.1: Medicare Enrollments

	Persons Over 65 Receiving Medicare	Disabled Persons Receiving Medicare	Total Persons Receiving Medicare
Cape Girardeau	11, 389	3,071	14,460
Missouri	836,522	184,652	1,021,174

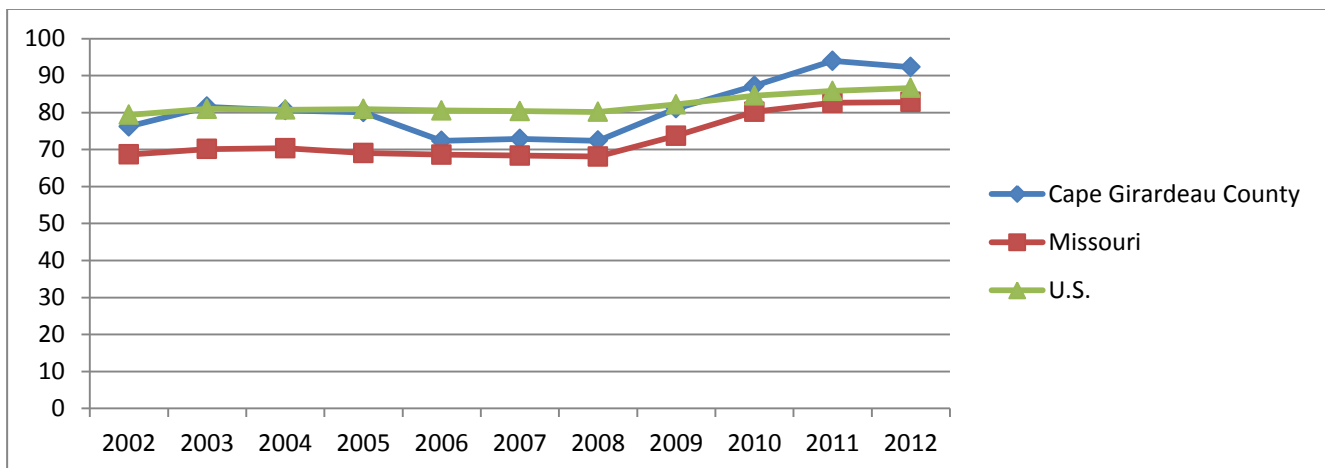
Source: U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, Medicare County Enrollment Report, as of July 1, 2013.

Health Care Providers

Physicians

Physician data acquired from the 2013-2014 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 92.27 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 69.5 and for the U. S. the rate was 74.5. 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 population over the time period of 2002-2012.

Figure 10.5: Rate of Primary Care Physicians per 100,000 Population, 2002-2012



Source: Community Health Needs Assessment, Community Commons, HRSA Area Health Resource File

Section X: Health Care System Indicators

In 2013, the County Health Rankings, 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 2013 is 1,084:1 for Cape Girardeau County, 1,439:1 for Missouri, and 1,045:1 for the U.S. Cape Girardeau County continues to experience a better ratio than the state. Table 10.2 compares these ratios.

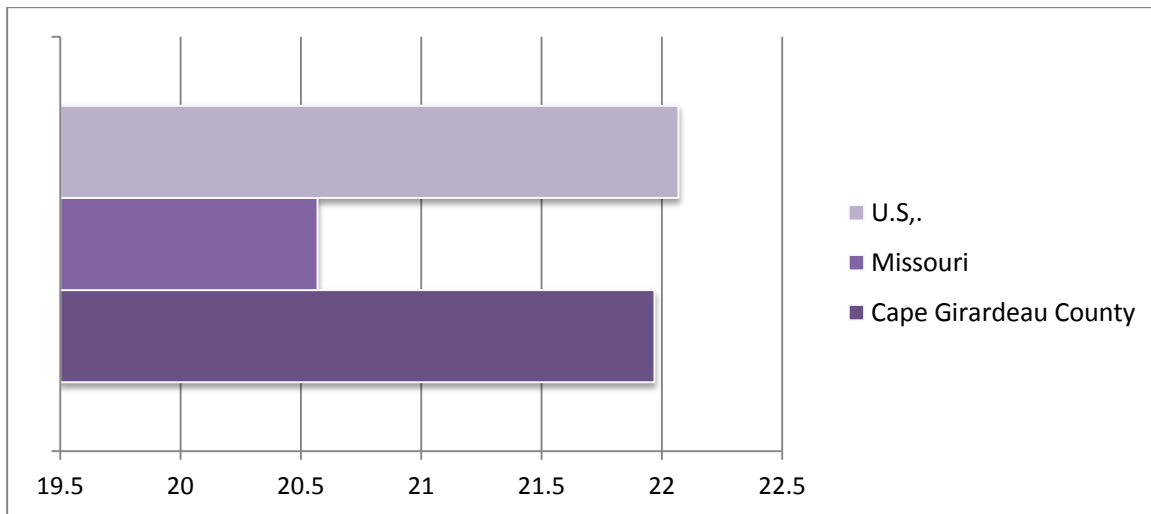
Table 10.2: Population to Primary Care Physician Ratios, 2013

	Population to Physician Ratio
Cape Girardeau	1,084:1
Missouri	1,439:1
U.S.	1,045:1

Source: County Health Rankings, Robert Wood Johnson Foundation

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 reports 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 of health care provider.” The percentage for Cape Girardeau County, as shown in Figure 10.6, is higher than both Missouri and the U.S.

Figure 10.6: Percent Adults without Any Regular Doctor, 2011-2012



Source: Community Health Needs Assessment, Community Commons.org

Hospitals

Information regarding hospitals and medical providers was obtained from the 2012 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

Section X: Health Care System Indicators

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, 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 280-bed facility that serves more than 650,000 people throughout Missouri, Illinois, Kentucky, Tennessee, and Arkansas. The 280 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' 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 is a premier Long Term Acute Care (LTAC) hospital serving a four-state area. The hospital operates as a joint venture between Landmark Holding of Missouri, LLC and Saint Francis Medical Center in Cape Girardeau. The facility has 30 single-occupancy rooms, for the average patient stay of 27 days. Primary diagnoses include: ventilator weaning, complex medical status, and wound care.

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

Section X: Health Care System Indicators

- 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 –Pediatric Medicaid patients only
- Immediate Convenient Care
- Jackson Family Care
- Jackson Physicians Associates
- Jackson Primary Care, LLC
- Medstop 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’s Population Health Institute and Robert Wood Johnson Foundation’s County Health Rankings, Cape Girardeau County has a mental health provider ratio of 413:1, whereas the state of Missouri has a ratio of 632:1, and the U.S. has 386:1. 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 2012 to 2014. Limitations of this data include the fact that providers who transmit electronic health records are required to obtain an identification number, but very small providers are not required to and therefore may not obtain a number. While providers do have the option of deactivating their identification number, some mental health professionals who are included in this data may no longer be practicing or accepting new patients resulting in a possible overestimate of active mental health professionals.

Table 10.3: Mental Health Provider Ratios, 2012 and 2014

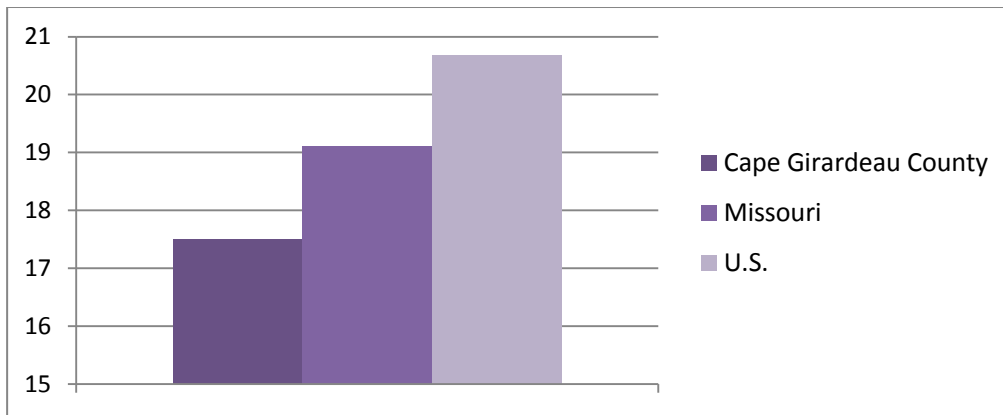
	2012 Ratio	2014 Ratio
Cape Girardeau County	12,203:1	413:1
Missouri	9,561:1	632:1

Source: County Health Rankings, Robert Wood Johnson Foundation and University of Wisconsin, PopOulation Health Institute

The 2006-2012 Behavioral risk Factor Surveillance System prevalence data reveals that when asked the

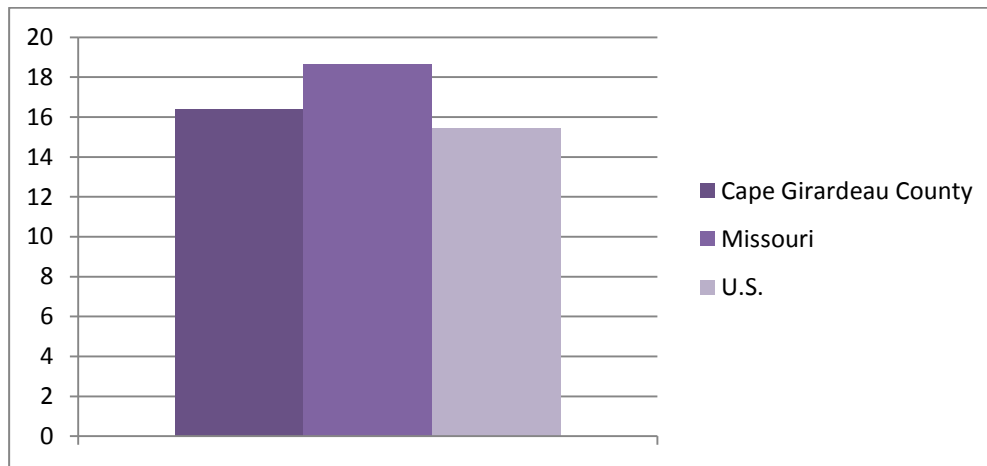
question, “How often do you get the social and emotional support you need?” 17.5% of adults 18 years and older indicated that they had inadequate social/emotional support. As an indicator this has relevance as social and emotional support can be critical to meeting the challenges of daily life as well as for good mental health. Good mental health, and 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 2012 for Cape Girardeau County, Missouri, and the U.S.

Figure 10.7: Percent Adults without Adequate Social / Emotional Support



Source: Community Health Needs Assessment, Community Commons.org

Figure 10.8: Percentages of Medicare Beneficiaries with Depression, 2012



Source: Community Health Needs Assessment, Community Commons.org

Likewise the BRFSS survey question “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?” self-reported by adults 18 years and older indicated that, on 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.

Section X: Health Care System Indicators

As reported in the Behavioral Health Profile from the Missouri Division of Behavioral Health, 1,880 Cape Girardeau 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 County in 2012 and 2013. Counts indicate the number of clients seen with each diagnosis per year. An individual client may have more than one admission within the same year.

Table 10.4: Comprehensive Psychiatric Services by Psychiatric Diagnosis, Cape Girardeau County, 2012 and 2013

	2012	2013
Adjustment Disorder	285	91
Anxiety Disorder	297	179
Developmental Disorder	5	*
Mood Disorder	1,293	726
Psychotic Disorder	249	174
Totals	2,494	1,880

*Counts fewer than 5 suppressed to protect identities

Source: Behavioral Health Profile, Cape Girardeau County, Missouri Division of Behavioral Health, <http://dmh.mo.gov/ada/mobhew>

This same profile reported that students, grades 6-12, in the county were asked about their mental health. 9.9% had considered suicide in the last year, 7.7% made a plan to commit suicide, and 1.1% actually attempted suicide resulting in an injury. In 2012, 6 Cape Girardeau County residents committed suicide.

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) provides behavioral health services via 41 programs and 330 professionals and staff working together so that residents living within CCC's service region of Bollinger, Cape Girardeau, Madison, Perry and Ste. Genevieve Counties receive the treatment they need. Table 10.5 identifies Emergency Room visits for mental disorders by age, race, and gender for both Cape Girardeau County and Missouri.

Table 10.5: Emergency Room Visits for Mental Disorders, by Age, Sex, Race, 2013

	Cape Girardeau County					Missouri				
	Male		Female		All	Male		Female		All
	White	Afr. Amer.	White	Afr. Amer.		White	Afr. Amer.	White	Afr. Amer.	
Under 15	2.7*	5.9*	4.4	13.5*	4.6	3.5	5.5	3.6	5.4	4.0
15-24	12.9	29.9	14.9	22.5*	15.8	18.6	25.6	18.6	23.6	19.9
25-44	29.6	31.0	27.9	29.2	28.8	20.7	39.8	19.7	25.2	21.8
45-64	16.2	14.2*	10.8	30.6*	13.9	12.5	35.9	10.2	15.7	13.0
65 and over	4.1	16.8*	6.9	12*	5.9	5.4	11.7	7.0	7.9	6.6

*Rate considered unreliable, numerator less than 20

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

According to the Missouri Department of Health and Senior Service’s database Missouri Information for Community Assessment (MICA), in 2013 Cape Girardeau County experienced a rate of 15.7 for Emergency Room visits with a Mental Disorder diagnosis. During the same report time, Missouri had a rate of 13.9. Considering only the reliable rates, the highest percentage of Emergency Room visits for mental disorders were in the 25-44 year age African American male group in both Cape Girardeau County and Missouri.

Dental Health

According to the University of Wisconsin’s Population Health Institute and Robert Wood Johnson Foundation’s County Health Rankings, in 2013 Cape Girardeau County had a dentist ratio of 1,406:1, while the ratio for Missouri is 1,920:1 and for the U.S. it is 1,377:1. This same report identifies 55 dentists for the county. In early 2015, the Community Caring Council conducted an assessment of dental providers in the county to determine the availability of services for new patients, Medicaid patients, and pediatric patients. Table 10.6 compares the availability of the 26 providers contacted, 4 of which are pediatric providers. The Community Caring Council serves as the coordinating organization for the Oral Health Coalition. This coalition is comprised of members from community agencies, dental providers, school personnel and Health Center staff that work toward providing dental screenings and fluoride treatment in the schools and identifying financial support for children with dental needs.

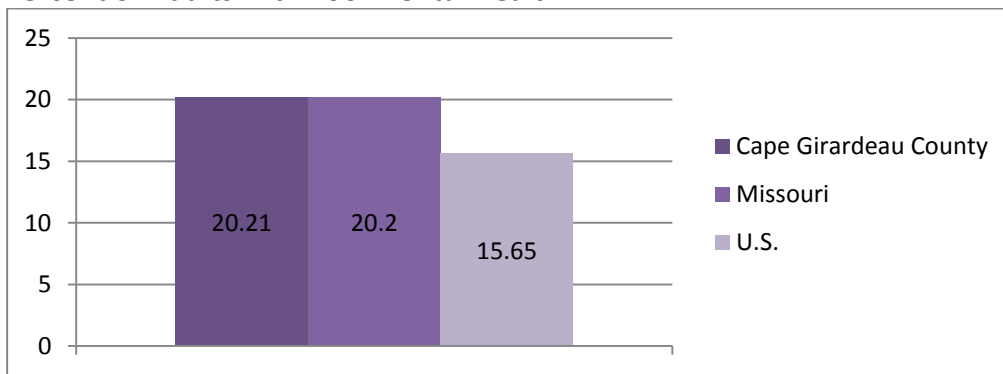
Table 10.6: Dental Provider Assessment, Cape Girardeau County, 2015

New Patients with Medicaid	New Patients with Previous Medicaid	New Patients – No Medicaid	Pediatric New Patients with Medicaid
4 (15%)	6 (23%)	15 (58%)	4 (100%)

Source: Community Caring Council, Dental Provider Assessment, February 2015

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.

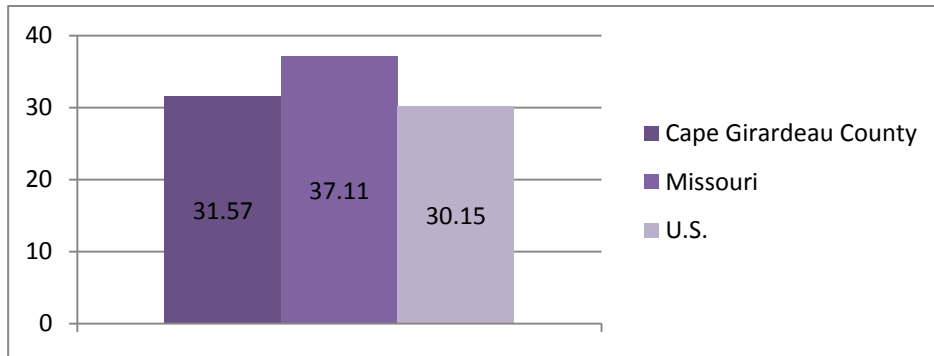
Figure 10.9: Percent of Adults with Poor Dental Health



Source: Community Health Needs Assessment, Community Commons, BRFSS, 2010

In addition, the BRFSS also asked participants the questions, “How long has it been since your last visited a dentist or a dental clinic for any reason, including 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 either lack the health knowledge related to the need for dental care or lack access to preventive care. There could also be an insufficient number of providers and/or there are social barriers preventing utilization of services.

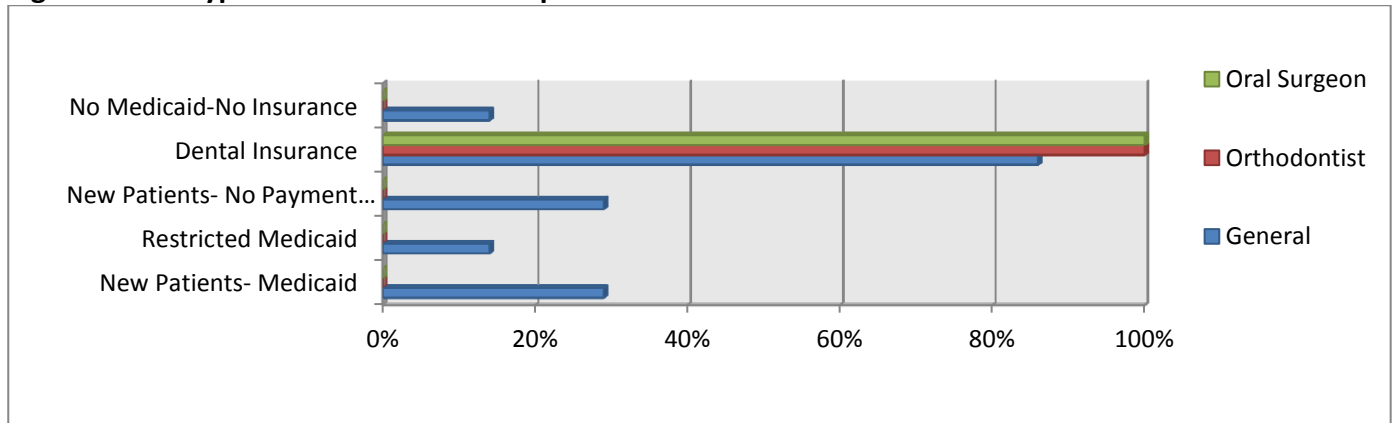
Figure 10.10: Percent Adults without Recent Dental Exam



Source: Community Health Needs Assessment, Community Commons, BRFSS, 2010

In March 2015, Cape Girardeau County Public Health Center, along with community partners and stakeholders, conducted a Local Public Health Systems Assessment. One area of health care identified as lacking through this assessment process was the availability of dental health services. In response to this finding, the Cape Girardeau County Public Health Center conducted a Dental Provider Survey, in 2015, in an effort to address the Oral Health needs and availability of services within the county. A total of 42 dental providers were identified that provide oral health services in Cape Girardeau County, including general practice dentists, orthodontists, oral surgeons, and pediatric dentists. Of the 42 surveys distributed, only 21% of individual dentists returned the completed surveys. Figure 10.11 compares the response to the types of new patients that they are currently accepting.

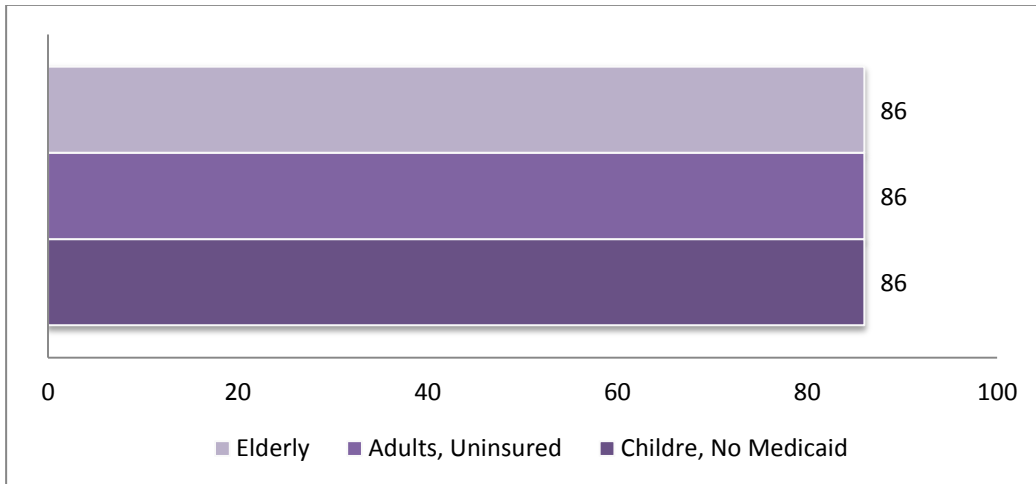
Figure 10.11: Type of New Patients Accepted



Source: Cape Girardeau County Public Health Center, Dental Provider Survey, 2015

Survey results showed that 29% of General Practice Dentists are accepting new patients that have Medicaid, 14% are accepting new patients that have Medicaid but only a limited number each month, and 14% are accepting low-income patients that do not have Medicaid, private insurance or are unable to pay. Figure 10.12 shows the provider’s responses to “Who do you feel are the populations or groups that are in greatest need of dental services and/or experience barriers to obtaining dental care?” Respondents feel children without Medicaid / Low-Income, Uninsured or underinsured adults, and the elderly experience the greatest barriers.

Figure 10.12: Populations Experiencing Barriers to Dental Care



Source: Cape Girardeau county Public Health Center, Dental Provider Survey, 2015

Emergency Services

Ambulatory

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 immediate access to verbal guidance in life-saving techniques such as CPR, Heimlich Manuever for choking, and how to stop serious bleeding as examples. 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, if appropriate.

Fire and Air Evacuation Services

There are 7 *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

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	1	11	1	18	0	0
North Cape County Fire District	Volunteer	1	19	19	0	0	0

*Licensed as an Emergency Medical Response Agency

Source: Fire Departments Network, Fire Department Listings by County

Source: Missouri Department of Health & Senior Services, Emergency Medical Services, Directories

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 region's 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 rooms, three trauma rooms, two triage rooms, and a special procedure 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 10.8 provides a listing of the number, by category and location, of Long-Term Care Facilities in Cape Girardeau County.

Table 10.8: Long-Term Care Facilities in Cape Girardeau County

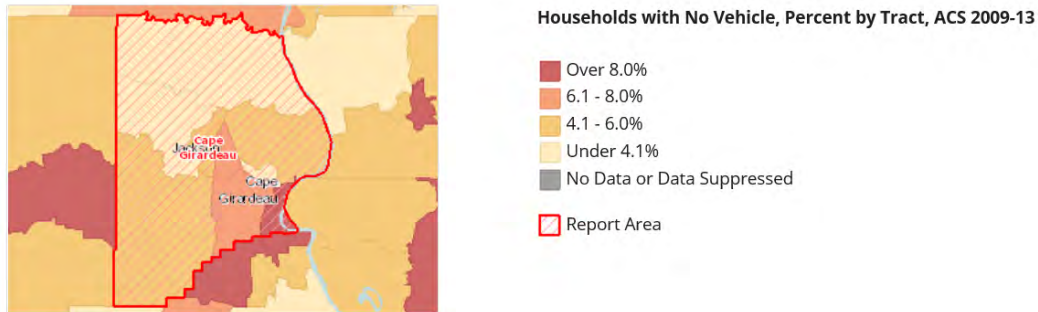
Category of Facility	City of Cape Girardeau	City of Jackson	Oak Ridge
Residential Care Facilities (RCF)	6	1	
Assisted Living Facilities (ALF)	6		1
Skilled Nursing Facilities (SNF)	7	1	

Source: Missouri Department of Health and Senior Services, *Show Me long Term Care in Missouri*

Transportation

According to the American Community Survey, data estimates for the five year period of 2009-2013 indicate that in Cape Girardeau County 6.24% of households did not have a motor vehicle, which is better than the 7.33% in Missouri and 9.07% in the U.S. Figure 10.13 shows, by census tract, the percentage of households without a motor vehicle. The highest percentage within the county (Over 8%) occurs in the South-Eastern 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.

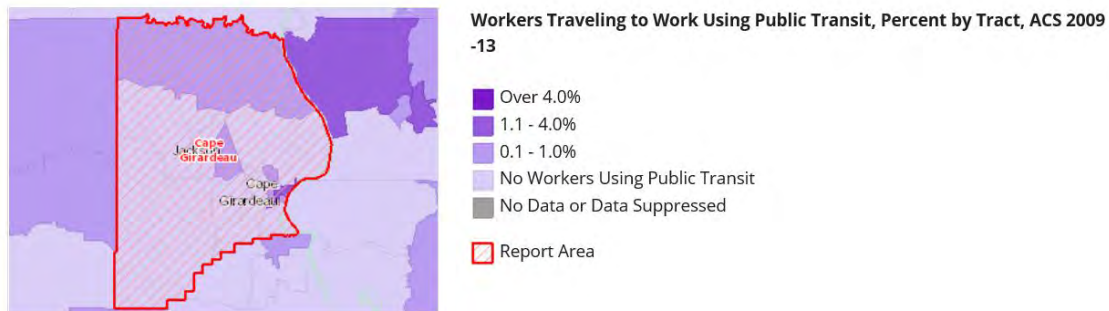
Figure 10.13: Households with No Vehicle, Percent by Tract, ACS 2009-2013



Source: Community Commons, Community Health Needs Assessment Report, American Community Survey, 2009-2013

One further indicator that the American Community Survey reported was the Use of Public Transportation. During the same time frame, 2009-2013, 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, 0.33% indicated that they used Public Transit for their commute to work. This percentage was lower than Missouri at 1.47% and the U.S. at 5.01% 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 10.14 displays, by census tract, the percentages within the county of workers who use Public Transit to travel to work. The highest concentration (1.1-4.0%) was located in the South Eastern portion of the City of Cape Girardeau.

Figure 10.14 Workers Traveling to Work Using Public Transit, Percent by Tract, ACS, 2009-2013



Source: Community Commons, Community Health Needs Assessment Report, American Community Survey, 2009-2013

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. The NEMET program may use public transportation or bus tokens, vans, taxi, or even an 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 that takes MO HealthNet or MO Healthnet managed care and the health care 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 (CGTA), 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 Taxi services. These are transit services in which 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 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 5pm. 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 monthly pass for \$35. The 2-week pass and the monthly pass allow 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 entity go directly to raising local match for our 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, 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 Cancer, Heart Disease, 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 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 areas of concern.

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 topic, for Cape Girardeau County residents are shown in Table 11.1

Table 11.1: Population Survey Rank Order of Individual Priority Issues

Rank Order	General Health	Environmental Issues	Risky Behaviors	Social Issues
1	Obesity	Safe Drinking Water	Drunk Driving	Child Abuse / Neglect
2	Mental Health	Food Safety	Texting while Driving	Mental Health
3	Heart Disease / Stroke	Outdoor Air Quality	Unsafe Sex	Domestic Violence
4	Diabetes & Substance Abuse	Sewage Disposal	Alcohol / Drug Use	Poverty
5	High Blood Pressure	Indoor Air Quality	Violent Behavior	Dental Health

Source: Cape Girardeau County Public Health Center 2015 Community Health Assessment Population Survey

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 Prioritization of Selected Diseases and Conditions, 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

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 measures 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 measures 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 2015 County Health Rankings, Cape Girardeau County ranked 36th out of the 115 counties in Missouri for overall ranking of all Health Outcomes combined. The County ranked 10th out of the 115 for overall Health Factors. In 2012 those rankings were 24th for overall Health Outcomes and 15th on overall Health Factors. Table 11.2 compares the 2012 to the 2015 Rankings.

Table 11.2 Comparison of County Health Rankings for Cape Girardeau County, 2012 to 2015

Year	Health Outcomes	Health Factors
2012	24	36
2015	15	10

Source: County Health Rankings and Roadmaps, Robert Wood Johnson Foundation

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. Through this process, seven public health issues were identified then through the prioritizing process the following five ranked the highest.

- 1. Obesity**
- 2. Smoking**
- 3. Heart Disease**
- 4. Child Injury and Infant Mortality (tie)**
- 5. Dental Health and Mental Health (tie)**