

Stone County  Community Health Coalition™



**December 2023**  
**Community Health Assessment**  
**Stone County, MO**

The Community Themes and Strengths Assessment is a vital part of a community health improvement process. Data gathered serves as the foundation for analyzing and identifying community health issues and determining where the community stands in relation to peer communities, state data, and national data. Data collected during this process also serves as a guideline for determining the goals and strategies to include in the Community Health Improvement Plan.

Submitted By:

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# Stone County Community Health Coalition Community Health Assessment

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### Resources/ Partners:

- Blue Eye Library
- Blue Eye Schools
- Children's Smile Center
- City of Branson West
- City of Reeds Spring
- College of the Ozarks Nursing Students
- Community Members
- Cox Medical Center Branson
- Crane Library
- Crane Schools
- Epi Info 7 database
- Fordland Clinic in Kimberling City
- Galena Library
- Galena Schools
- GOCAPS Students and Staff
- Healthy Families Taskforce
- Hurley Schools
- Ignite Church
- Kimberling Area Library
- Kimberling City Police Department
- Kimberling United Methodist Church
- Mercy EMS
- Missouri State University
- Mobilizing for Action through Planning and Partnership, MAPP, Handbook
- National Association of County and City Health Officials, [www.NACCHO.org](http://www.NACCHO.org)
- New Testament Church
- OACAC Neighborhood Center
- OWN It (Ozark Wellness Network)
- Parents as Teachers Reeds Spring
- Parkinson Group of the Ozarks
- Pregnancy Life Line
- Reeds Spring Schools
- SCHD Board of Trustees
- Silver Dollar City Attractions
- Skaggs Foundation
- Southern Stone County Fire
- Southwest Center for Independent Living
- Southwest Rehab Center
- Stone County Assessor's Office
- Stone County Board of Probation/ Parole (Drug Court)
- Stone County Children's Division
- Stone County Commission
- Stone County Emergency Services/ 911
- Stone County Health Department
- Stone County Prosecuting Attorney's Office
- Stone County Public Health Volunteers
- Table Rock Lake Chamber of Commerce
- Taney County Health Department
- University of Missouri Extension
- Wedgewood Gardens

Project made possible by:



## **Introduction: What is a Community Health Assessment?**

The Stone County Health Department worked hard to implement the Stone County Community Health Coalition in order to gain community feedback and participation in the development of the Community Health Assessment and Community Health Improvement Plan. As a coalition of over 30 participating agencies and more than 45 members, the Community Health Coalition has completed the Four Assessments included in the Mobilizing for Action through Planning and Partnership (MAPP) Process.

The Community Health Assessment is completed after gathering local, state, and national data about certain characteristics of the people living in the community. Such statistics give information about the population, socioeconomic status, health care resources, behavioral risk factors, environmental health indicators, social and mental health, maternal and child health, death, illnesses, injuries, infectious diseases, and sentinel events. Through this process, the community members gain an understanding of the health, concerns, and health care systems of the community by identifying, collecting, analyzing, and disseminating information on community assets, strengths, resources, and needs. A community health assessment usually culminates in a report, or a presentation, about the health of the community as it is today, and about the community's capacity to improve the lives of residents. A thorough assessment involves scanning existing information about the community, developing a family focus, identifying community assets and their accessibility, and analyzing information. Assessments should view the community from multiple perspectives and recognize cultural, linguistic, ethnic, and economic diversity.

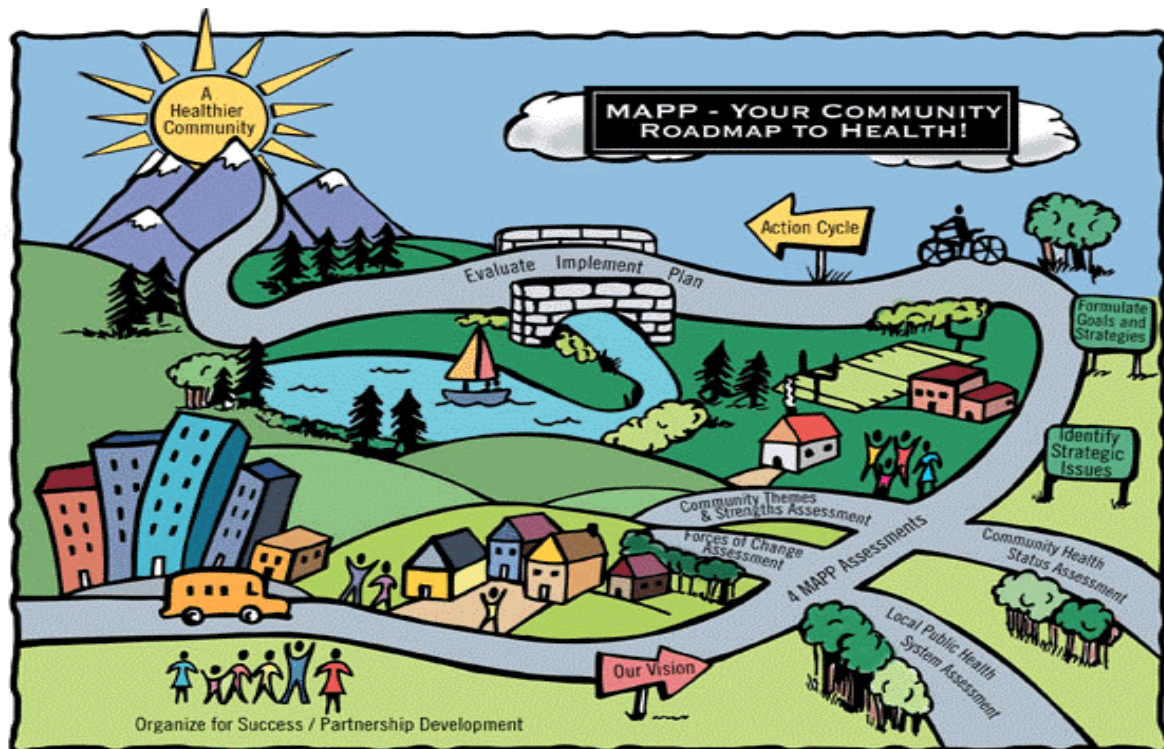
The Stone County Community Health Coalition will utilize this community assessment to assess and generate awareness of the issues being studied, and to implement a Community Health Improvement Plan (CHIP). A successful community assessment provides comprehensive, usable, and accurate information for decision-making. Community assessments that result in this information begin with an assessment of the current situation. The current capacities of the community – services and other resources provided by local agencies, institutions and associations, and the skills and abilities of individuals, children and youth, and their families – are identified. Information on needs is collected through data that already exists (secondary data) and through newly collected data, also known as primary data. The gap between current capacities and needs is identified and ideas on how to eliminate the gap can be generated. Successful community assessments also begin with a vision of the future and allow questions to drive the information gathering process. Finally, community assessments that result in useful, comprehensive information address issues that stakeholders – people with an interest in the issue such as parents, students, agency personnel, and government officials – perceive as important. A community health assessment can provide the basis for discussion and action to influence a change in the health behaviors of a community.

## Methodology

Mobilizing for Action through Planning and Partnership (MAPP) is a process taught by the National Association of County and City Health Officials (NACCHO). NACCHO is the guiding organization for the 2800 local public health departments across the United States. MAPP has been recognized as an evidence-based program for best developing the Community Health Assessment and Community Health Improvement Plan. With community input in the process, each participating organization/member achieves a sense of ownership over the process and the success of the CHIP. MAPP has six phases which are designed to best facilitate this process and develop a community coalition. The Stone County Health Department facilitated this process to create the Community Health Coalition with the help of many public health partners.

The Six MAPP Phases are:

1. Organizing for Success
2. Visioning
3. Four MAPP Assessments
4. Identify Strategic Issues
5. Formulate Goals and Strategies
6. Action Cycle (Plan, Implement, Evaluate)



Source: NACCHO

From the illustration above, it is clear to see that this process is not one that is done quickly or carelessly. Each process is a journey that each participating member goes through together- a journey that results in a Healthier Community. Developing a Healthy Community is a long-term endeavor, well-planned, integrated into the big picture, initiated and supported by community members, benefits the community, and grounded in experience that leads to best-practice programs. MAPP provides the framework, guidance, structure, and best practices for developing healthy communities. Benefits of MAPP include increasing the increasing the visibility of public health, creating advocates for public health, creating a healthy community and better quality of life, anticipating and managing change, creating a stronger public health infrastructure, building stronger partnerships, and building public health leadership.

Throughout the process, key partners were invited to join the coalition. The longest portion of the process was completing each of the four MAPP Assessments: Community Health Assessment, Community Themes and Strengths, Forces of Change, and Local Public Health System Assessment. A combination of surveys, sub-groups, data collection, and several meetings were used in order to gather the information necessary for each of these assessments. Each assessment is attached at the end of this document.

Finally, after collecting and analyzing local data compared to state and national data, the coalition identified four Health Priorities. These priorities are the focus of the Community Health Coalition's efforts to improve health in Stone County. Goals, strategies, and objectives will be created to address each health priority and will be found in the Community Health Improvement Plan.

For future health improvement, the Community Health Coalition will enter the Sixth Phase: The Action Cycle. This phase consists of Planning, Implementing, and Evaluating programs designed to address each Health Priority. To keep the coalition accountable and ensure ongoing success of the wellness improvement efforts, meetings of the coalition will continue along with subcommittees focusing on each Health Priority. Data from the Community Health Assessment will be available for each partner organization participating in the Community Health Coalition for program development and grant proposals. Continued updating of the local county data will continue as statistics become available or on a three-year cycle.

The Trademarked look and logo of the coalition will be used to promote the coalition at events and give a designated look to the group.

## **Mission, Vision, and Values Statements**

### ***Mission:***

Promoting a healthier, happier, and safer Stone County, MO by focusing on the reduction of substance use and misuse, mental health challenges, and cardiovascular disease.

### ***Vision:***

The Community Health Coalition will promote a healthier, happier, and safer Stone County, MO.

### ***Values:***

Accessible health and safety through Innovation, Collaboration, and Excellence.



## Health Priorities

After analyzing the data presented from the Community Health Assessment, the Community Health Coalition identified four Health Priorities. These priorities were deemed to be High Priority/ Low Status, meaning that they are major concerns in the community.

The Health Priorities are also considered to be Strategic Issues: fundamental policy changes or critical health challenges that must be addressed for a community to achieve its vision.

### **Health Priorities:**

1. Behavioral Health (substance use and misuse)
2. Mental Health and Wellness (suicide)
3. Chronic Disease (heart disease)
4. Social Health (poverty)

Other strategic issues were identified to be in other categories including:

<p><b><u>Behavioral Health</u></b> Tobacco Use Substance Use and Misuse Domestic Violence Child Abuse and Neglect Bullying Child Safety Teen Pregnancy Cyberbullying</p>	<p><b><u>Chronic Disease</u></b> Heart Disease Obesity/Exercise COVID-19</p>
<p><b><u>Mental Health and Wellness</u></b> ADD/ADHD Anxiety Trauma Suicide</p>	<p><b><u>Social Health</u></b> Childcare Food Insecurity Poverty</p>

Each of these Health Priorities is addressed in detail in the Community Health Improvement Plan. Goals, Strategies, and Objectives will be developed to address each issue and include the community's participation.

## Community Health Assessment

### Chapter 1: Demographics of Stone County Residents

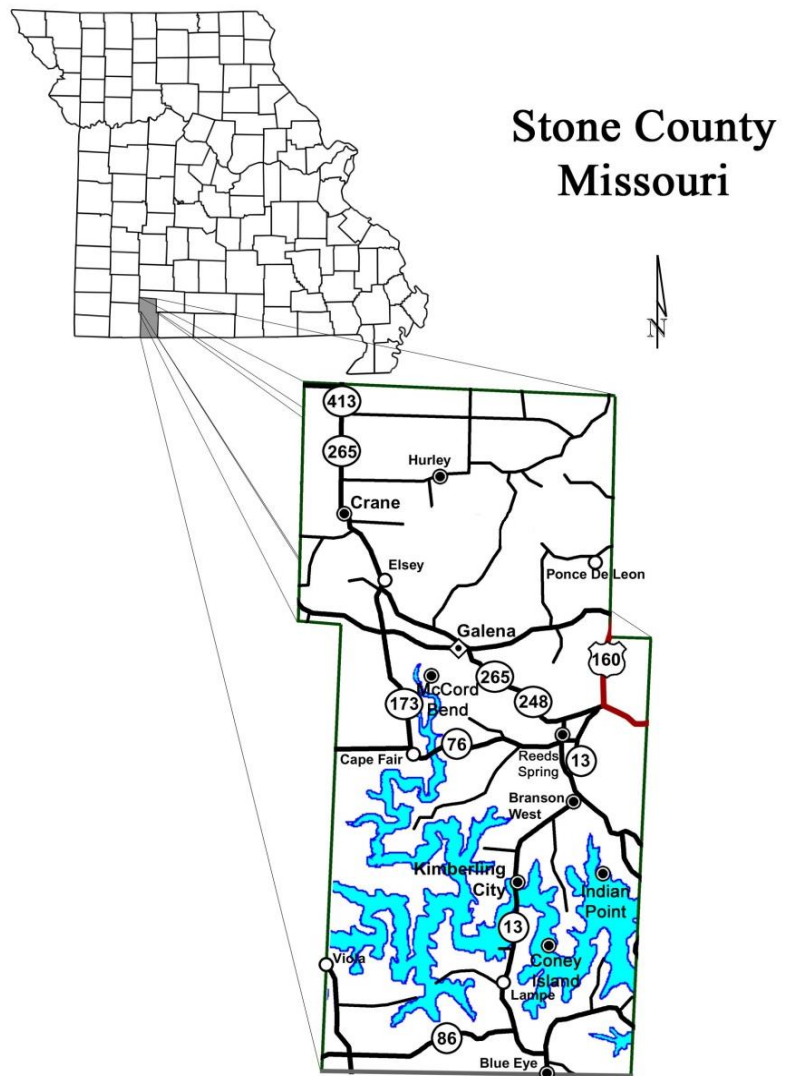
#### Location

Stone County lies in Southwest Missouri and is bordered by Barry and Lawrence counties to the west, Christian County to the north and east, Taney County to the southeast, and Carroll County, Arkansas to the south. The county covers 510.9 square miles, including 463.2 square miles of land and 47.7 square miles of surface water; the county is 34.5 miles long and 15 miles wide. Table Rock Lake, a reservoir maintained by the U.S. Army Corps of Engineers, is located in the southern portion of the county.

Incorporated communities include the villages of Coney Island, Indian Point, and McCord Bend, the town of Blue Eye, and the cities of Branson West, Crane, Galena, Hurley, Kimberling City, and Reeds Spring. There are also several unincorporated settlement areas in the county, including Cape Fair, Ponce DeLeon and Elsey in the northern section of the county and Lampe, and Viola the southern portion. The City of Galena is the county seat.

#### Form of Government

Missouri is divided into 114 counties and the City of St. Louis by the Revised Statutes of Missouri (RSMo) §46.040. Counties are political subdivisions of the State for governmental, political, and public purposes, and have a wide range of governmental responsibilities. The Missouri legislature has established four classes of counties, based on the assessed valuation of real and personal property (RSMo §48.820). Stone County is classified as a third-class county and is governed by a three-member Commission. Under the provisions of RSMo §49.010, counties are divided into two districts of nearly equal population (in Stone County, the northern district and the southern district). Each district elects one commissioner, and the presiding commissioner is elected by the county as a whole. Commissioners serve four-year terms.



## Population

Stone County’s population decreased from 32,154 in 2010 to 31,076 in 2020, a decrease of over a thousand residents equating to -3.35 percent. According to the latest data from the 2020 U.S Census, two-thirds of the nation’s rural counties lost population over the last ten years, with a notable decline in the Midwest and Great Plains. This decrease in growth contradicts the past trends of an increasing population attributable to the immigration of workers attracted by employment opportunities in the Branson/Lakes area tourism industry and retirees attracted by the area’s quality of life and natural environment. Unincorporated populations represented 78 percent of total population in 2000, increasing slightly to 78.4 percent in 2010, and decreased to 76.9 percent in 2020.

**Table 1.1: Stone County Demographic Summary, 2019**

Health Indicator	Population	Percent of Total
Population estimate (July 2022)	32,136	100.0%
Population, percent change (2020-2022)		3.40%
Persons under 5 years of age	1,318	4.1%
Persons under 18 years of age	5,335	16.6%
Persons 65 years of age and over	10,187	31.7%
Female	16,229	50.5%
White	30,883	96.1%
Black or African American	161	0.5%
American Indian and Alaskan Native	289	0.9%
Asian	161	0.5%
Native Hawaiian and Other Pacific Islander	32	0.1%
Two-or-More Races	578	1.8%
Hispanic or Latino	836	2.6%
Persons per household	3	
With a disability, under age 65	3,599	11.2%
Persons in poverty	4,692	14.6%
High school graduate or higher, age 25 years+		90.1%
Bachelor’s degree or higher, age 25 years+		20.7%
Primary Language Spoken		
English		97.8%
Spanish		1.12%
Other Indo-European languages		0.8%
Asian and Pacific Island languages		0.29%

*Source: U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates*

Stone County has decreased in population size. The population within Stone County decreased from 2017 to 2020 by -1.4%. While the population of cities within Stone County primarily fluctuated in the negative direction, three cities fluctuated in the positive direction. Indian Point Village experienced the fastest growth rate at approximately 18.3%, followed by Reeds Springs with a 3.9% increase. Coney Island Village had the largest decrease in population during that

period, with a 34.7% decrease. Table 1.2 provides population change information for specific areas of the county from 2010 to 2020.

**Table 1.2: Population Growth, 2010-2020**

Jurisdiction	2010 Population	2017 Population	2020 Population	Change 2017-2020	Approx. % Change 2017-2020
Stone County Total	32,003	31,529	31,076	-453	-1.4%
Blue Eye Town	129	284	289	5	1.8%
Branson West City	664	625	484	-141	-22.6%
Coney Island Village	47	72	47	-25	-34.7%
Crane City	2,206	1,621	1,495	-126	-7.8%
Galena City	585	486	455	-31	-6.4%
Hurley City	299	243	176	-67	-27.6%
Indian Point Village	1,137	465	550	85	18.3%
Kimberling City	2,653	2,754	2,344	-410	-14.9%
McCord Bend Village	316	282	212	-70	-24.8%
Reeds Spring	1,078	1,093	1,136	43	3.9%

*Source: U.S. Census Bureau, 2017-2019 American Community Survey 5-Year Estimates U.S. Census Bureau, 2010-2020 American Community Survey*

Population shifts among Missouri regions have followed similar patterns for many years. Trends have been from rural agricultural areas to urban areas to rural areas rich in recreational amenities. Contrary to predictions, the population has decreased in Stone County.

**Table 1.3: Population Estimates and Projections for Stone County, 1990-2025**

Population Estimates and Projections for Stone County, 1990-2025							
Year	1990	2000	2004	2005	2015	2020	2025
Stone Co.	19,078	28,658	30,720	30,931	35,328	32,465	39,113
Missouri	5,117,073	5,595,211	5,754,618	5,800,310	6,184,390	6,152,000	6,580,868

*Source: U.S. Census Bureau, 2020, and MO Office of Administration*

Table 1.4 is a review of the reported populations in Stone County for each gender from 2007 to 2020 and revealed no significant change in population distribution for any given gender.

**Table 1.4 Population Estimate Trends for Stone County by Gender, 2013-2017**

Year	2013	2014	2015	2016	2017	2020
Male	15,401	15,211	15,130	15,181	15,471	15,967
Female	15,950	15,893	15,813	15,866	16,228	16,498
All	31,351	31,104	30,943	31,047	31,699	32,465

*Source: Missouri Department of Health and Senior Services, MICA, 2022*

## Age Characteristics

Youth (under 20) represent approximately 18.4 percent of the total population in Stone County; while working-aged citizens represent 51.3 percent, see Table 1.5. The retirement age population (65 and over) constitutes 30.3 percent of the population. The three largest cohorts though, are the 45-54, 60-64 and the 65-74 age groups. The median age of the population is 53.6 years, an older median age than the state or other nearby counties in Southwest Missouri. Stone County's older median age and larger percentage of population 65 years and older reflects the immigration of retirement-aged persons.

**Table 1.5: Stone County Age Specific Population, 2019**

Age Cohort	Population	Percent of Total
Under 5	1,233	3.9%
5 to 9	1,143	3.6%
10 to 14	1,823	5.8%
15 to 19	1,624	5.1%
20 to 24	1,357	4.3%
25 to 34	2,465	7.8%
35 to 44	2,962	9.4%
45 to 54	3,765	11.9%
55 to 59	2,739	8.7%
60 to 64	2,913	9.2%
65 to 74	5,855	18.5%
75 to 84	2,689	8.5%
85+	1,047	3.3%
<b>Total</b>	<b>31,615</b>	<b>100</b>

*Source: U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates*

This can be attributed to several factors, including the popularity of the “Lakes Area” as a retirement destination as well as the affordability of residing in Stone County compared to other areas. As this group continues to age, and with the increased rate of individuals retiring to Stone County, it will likely add an increasing burden to the healthcare system in Stone and surrounding counties. It is important at this time to begin preparing for a surge in healthcare needs and the environmental impact of this predicted growing population.

Of the municipalities in Stone County, Crane has the largest percentage of population under the age of 18 followed by McCord Bend, Hurley, and Galena, respectively. The Village of Coney Island has the greatest percentage of population aged 65 and older followed by Indian Point and Kimberling City, respectively.

Table 1.6 contains information for dependent age groups and median age for the entire county as well as incorporated communities.

**Table 1.6: Stone County and Municipalities, Population by Age, 2020**

Jurisdiction	Total Population	Percent Under 18	Percent 18 - 64	Percent 65 and over	Median Age
Stone County	31,076	16.5	52.7	30.8	54.2
Blue Eye	289	11.9	54.8	33.3	60.6
Branson West	484	21.2	48.8	30.0	50.0
Coney Island	47	7.8	49.1	43.1	48.5
Crane	1,495	28.3	49.7	22.0	33.6
Galena	455	24.1	64.6	11.3	34.7
Hurley	1,032	25.6	61.1	13.3	36.3
Indian Point	550	13.5	46.9	39.6	60.3
Kimberling City	2,344	15.7	50.2	34.1	53.7
McCord Bend	212	27.6	56.5	15.9	42.5
Reeds Spring	1,136	22.5	55.3	22.2	37.0

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

## Race

Stone County’s population is primarily white, with other populations representing 8.9 percent of the total population in 2020 (increase in diversity noted from 3.5 percent of the total population in 2017) as depicted in Table 1.7. The Hispanic or Latino population has continued to grow rapidly in Southwest Missouri since 2000, particularly in counties located west and south of Stone County. Although the Hispanic or Latino population represented only 2.5 percent of Stone County’s total population in 2020, the number of individuals identified as Hispanic or Latino increased from 298 in 2000 to 553 in 2010, to 662 in 2017, and to 776 in 2020.

**Table 1.7: Race and Hispanic Population Percentages, 2020**

Jurisdiction	White	Black or African American	American Indian and Alaska Native	Asian	Hawaiian and Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (any race)
Stone County	91.1	0.3	0.7	0.4	0.1	0.3	4.8	2.5
Blue Eye	91.0	1.4	0.3	1.0	0.0	3.8	2.4	5.6
Branson West	85.7	0.6	0.8	0.4	0.2	4.5	7.6	7.6
Coney Island	89.4	2.1	0.0	0.0	0.0	0.0	6.4	2.1
Crane	90.8	0.2	0.9	0.1	0.0	0.3	5.6	2.1
Galena	86.4	0.7	1.3	0.7	0.2	0.4	6.8	3.5
Hurley	90.7	3.9	1.1	0.5	0.1	0.9	4.7	1.7
Indian Point	91.1	0.2	0.2	1.1	0.0	1.5	2.7	3.3
Kimberling City	89.8	0.3	1.0	0.4	0.04	0.2	5.7	2.6
McCord Bend	88.7	0.0	0.5	0.0	0.0	0.0	8.5	2.4
Reeds Spring	86.7	0.4	0.3	1.1	0.2	0.6	6.0	4.8

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Groups that could potentially experience disparity in health status or barriers to accessing health care or preventive services include those who cannot speak or read English, those without

transportation, those from lower socioeconomic groups, those with less educational attainment, as well as minority racial and ethnic groups. In order to provide services in a culturally competent manner, Stone County Health Department is staffed with bi-lingual English/Spanish staff in an effort to prepare for the anticipated continued growth of the Hispanic population in Stone County.

## Household Characteristics

The total number of households decreased from 13,297 households in 2011 to 12,689 households in 2020. In 2020, 70 percent of Stone County households were family households; however, the traditional family household of married couples with children under the age of 18 represented only 13.9 percent of the total households in the county. Non-family households accounted for 29.7 percent of all households and single parent households with children under the age of 18 accounted for 3.6 percent.

Over 70 percent of non-family households reside in the rural areas of the county, with the largest numbers of non-family households that reside in municipalities living in the cities of Crane and Kimberling City. Of the county’s 454 single parent households with children under the age of 18, 261 (42.5 percent) reside in rural areas, as shown in Table 1.8.

**Table 1.8: Household Characteristics, 2020**

Jurisdiction	Total Households	Total Families	Married Couple w/ children under 18	Single Parent w/ children under 18	Non-Family Household	Average Household Size
Stone County	12,689	8,922	1,770	454	3,767	2.48
Blue Eye	188	83	16	8	105	2.01
Branson West	235	129	32	7	106	2.31
Coney Island	17	16	2	1	1	3.00
Crane	518	331	133	40	187	2.62
Galena	223	146	102	44	77	3.44
Hurley	63	41	14	6	22	2.56
Indian Point	194	122	14	5	72	2.13
Kimberling City	1,182	810	117	106	372	2.29
McCord Bend	144	74	37	5	70	2.74
Reeds Spring	401	267	84	39	134	2.89

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

## Special Housing Characteristics

Stone County’s housing stock increased from 20,866 units to 21,253 units between 2017 and 2020, an increase of 1.9 percent. The decrease in the housing market in 2008 has not curbed growth in the county. The immigration of persons attracted by employment opportunities in the growing Branson/Tri-Lakes area tourism economy and retirees attracted by the area’s moderate climate, natural environment and lower cost of living serve as the primary catalyst for the housing construction boom in Stone County during the 1990s and continuing into the early 2000’s.

**Table 1.9: Stone County Housing Characteristics, 2020**

Housing Characteristics	Stone County
Total Housing Units	21,253
Total Owner-Occupied Units	10,571
Total Renter-Occupied Units	2,118
Vacant Units	8,564
Vacancy Rate - Home Owner	1.5%
Vacancy Rate - Rental	5.9%
Median Value Owner-Occupied Units	\$185,900
Median Monthly Mortgage Cost	\$1,167
Median Gross Rent	\$707

*Source: U.S. Bureau of the Census: 2016-2020 American Community Survey*

The number of vacant units in the county (8,564 units – increase of 7.2% since 2017), is of significance. In Stone County, a high percentage of all vacant units are for seasonal use. Many are second homes occupied by owners during the summer season and units rented out to individuals and families vacationing in the area. A natural disaster occurring during the peak tourist season could affect significantly greater numbers of occupied housing units around the Table Rock Lake area. Over 71 percent of the housing units in the county are single family detached units seen in Table 1.10. The second largest type of housing unit in Stone County is mobile homes, accounting for 14.5 percent of all housing units. The median year structure built for housing units in the county is 1981.

**Table 1.10: Housing Structure Characteristics, Stone County 2020**

Housing Units	Number
Total Housing Units	21,253
1, detached	15,209
1, attached	515
2	207
3 or 4	377
5-9	866
10 to 19	649
20+	484
Manufactured Home	2,918
Boat, RV, Van	28

*Source: US Census Bureau, 2016-2020 American Community Survey*

Mobile homes are located in a few mobile home parks, but the majority of mobile homes are primarily scattered on individual lots throughout the rural areas of the county.



## Chapter 2: Socioeconomic Characteristics of Stone County

### Educational Attainment

The educational attainment of Stone County’s population has slightly increased since 2017. Data from the 2020 Census, presented in Table 2.1 indicates that 88.7 percent of the population aged 25 and older are high school graduates or higher (includes equivalency) compared to 86.8 percent in 2017 and 83.8 percent in 2011. Also, 19.8% percent of the county’s population aged 25 and older have a bachelor’s degree or higher, compared to 16.2 percent in 2011 and 18.4 percent in 2017.

Within the incorporated communities, Indian Point’s population aged 25 and older has the highest educational attainment level, with 94.4 percent high school graduates or higher and 34.6 percent with bachelor’s degree or higher education. Hurley’s population aged 25 and older had a tremendous increase with 72.5 percent attaining a high school degree in 2017 to 83.5 in 2020.

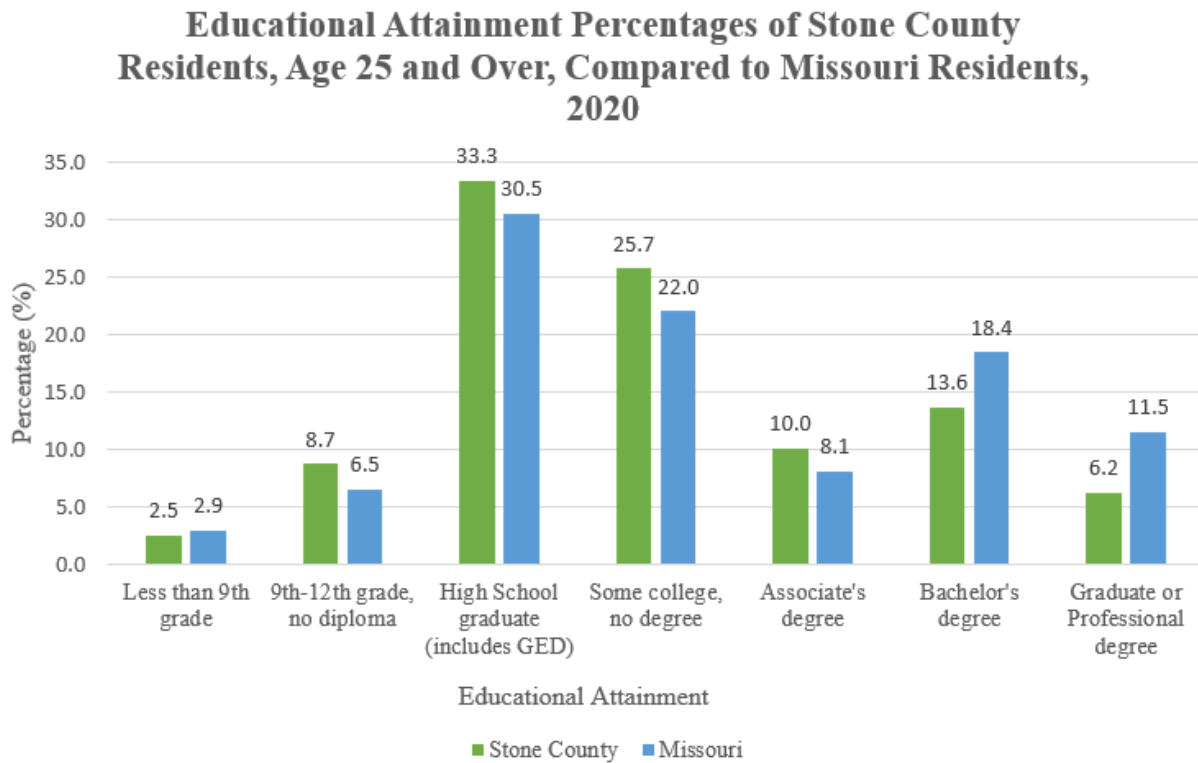
**Table 2.1: Educational Attainment, Population 25 Years and Older, 2020**

Jurisdiction	Less than 9 <sup>th</sup> Grade	9 <sup>th</sup> – 12 <sup>th</sup> Grade, no diploma	High School Graduate	Some College, no degree	Assoc. degree
Stone County	623	2,162	8,230	6,343	2,463
Blue Eye	0	44	107	47	47
Branson West	16	35	115	142	32
Coney Island	0	2	22	5	0
Crane	31	97	425	243	58
Galena	10	67	188	176	25
Hurley	7	6	18	23	14
Indian Point	5	14	105	77	22
Kimberling City	31	132	537	508	376
McCord Bend	17	27	122	73	19
Reeds Spring	22	53	300	160	39
Jurisdiction	Bachelor’s degree	Graduate or Professional Degree	High School Graduate or Higher (%)	Bachelor’s degree or higher (%)	
Stone County	3,366	1,529	88.7%	19.8%	
Blue Eye	32	18	85.1%	16.9%	
Branson West	62	15	87.8%	18.4%	
Coney Island	4	0	81.6%	10.5%	
Crane	46	33	86.3%	8.5%	
Galena	12	6	84.1%	3.7%	
Hurley	6	5	83.5%	13.9%	
Indian Point	62	56	94.4%	34.6%	
Kimberling City	426	160	92.5%	27.0%	
McCord Bend	10	6	83.9%	5.8%	
Reeds Spring	10	6	83.9%	5.8%	

Source: U.S. Bureau of the Census, American Community Survey 2016-2020

The level of educational attainment and poverty rates both correlate with health status. The educational attainment for Stone County is displayed in Figures 2.2 and 2.3. Educational attainment for persons 25 years of age and older is higher in Stone County than in Missouri, except at the college level, from bachelor’s degree to graduate or professional degree. Figure 2.2 shows each level of education and the corresponding percentages of the population for both Missouri (in blue) and Stone County (in green) for the year 2017.

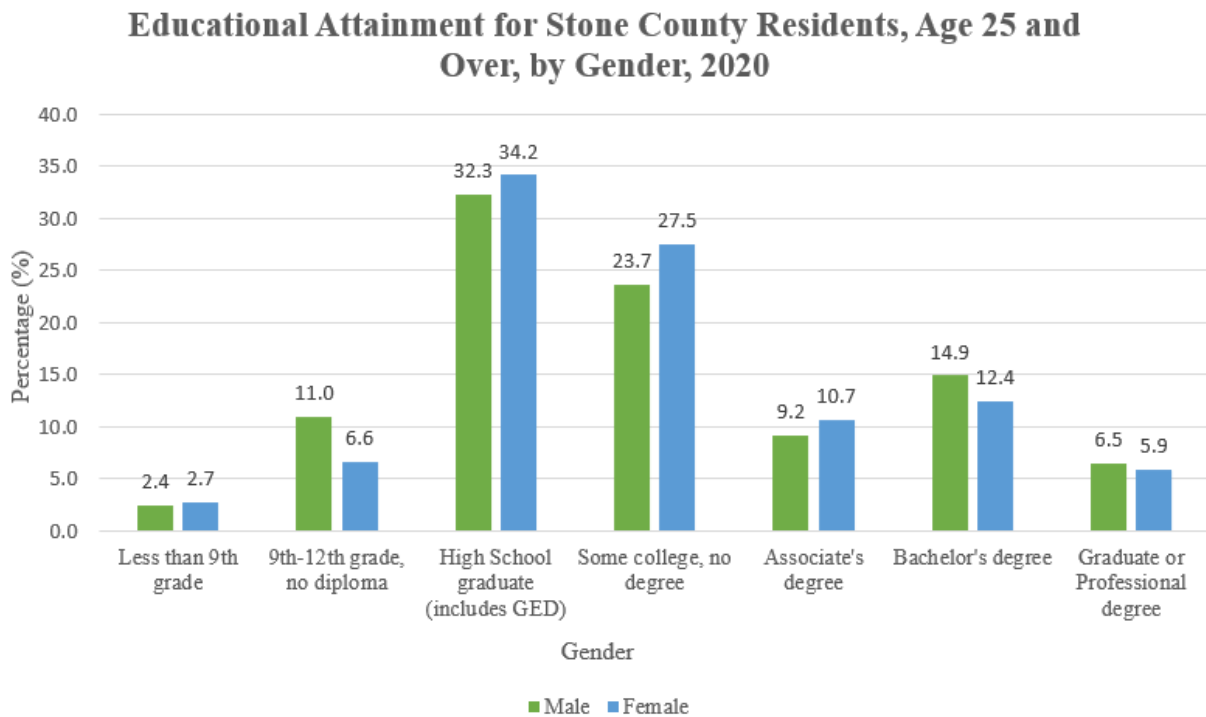
**Figure 2.2: Educational Attainment Percentages of Stone County Residents, Age 25 and Over, Compared to Missouri Residents, 2020**



Source: U.S. Bureau of the Census, 2016-2020 American Community Survey

Figure 2.3 shows each level of education and the corresponding percentages of the population separated by Stone County Males (green) and Stone County Females (blue) for the year 2020. The female population in Stone County has higher levels of educational attainment at the levels of high school graduate, associate’s degree, and bachelor’s degree. Males, however, represent a slightly higher educational attainment of graduate or professional degrees than females.

**Figure 2.3: Educational Attainment for Stone County Residents, Age 25 and over, by Gender, 2020.**



Source: U.S. Bureau of the Census, 2016-2020 American Community Survey

### Income Characteristics

Stone County’s 2020 median household income estimate was \$51,476, lower than that of the State of Missouri (\$55,461) and the nation (\$62,843). The 2020 per capita income for Stone County, \$28,897, is lower than state and national figures. The majority of Stone County residents (49.6 percent) reported \$25,000 to \$75,000 income in 2020. 21.1 percent of the population make less than \$24,999 while 29.3 percent make over \$75,000, as shown in Table 2.4.

**Table 2.4: Stone County Income, 2016-2020**

Income	Number of Households	Percent of Total
Less than \$10,000	683	5.4
\$10,000 to \$14,999	477	3.8
\$15,000 to \$24,999	1,513	11.9
\$25,000 to \$34,999	1,250	9.9
\$35,000 to \$49,999	2,150	16.9
\$50,000 to \$74,999	2,886	22.7
\$75,000 to \$99,999	1,397	11.0
\$100,000 to \$149,999	1,374	10.8
\$150,000 to \$199,999	585	4.6
\$200,000 or more	374	2.9
Total	12,689	100.0
Median Household Income	\$51,476	--
Mean Income	\$69,336	--

Source: Missouri Census Data Center, ACS Profile Report 2016-2020

Table 2.5 shows that all the median household income is less than the state or nation in all ages except for the age group less than 25. This correlates with the percentage of poverty in Stone County that is shown in Table 2.7.

**Table 2.5: Median Household Income by Age in Stone County, 2020**

Age	Stone County	MO	U.S.
Less than 25	\$45,938	\$31,485	\$34,805
25 to 44	\$45,329	\$65,496	\$71,738
45 to 64	\$65,326	\$68,158	\$78,550
65 or over	\$46,814	\$42,839	\$47,484

Source: Missouri Census Data Center, ACS Profile Report 2016-2020; U.S. Census Bureau,

The federal poverty guidelines are used to define poverty states for families based on family size. These guidelines shown in Table 2.6 are used to determine the poverty status for families by government agencies. The figures below are also used to determine distribution for WIC (Women, Infants, and Children).

**Table 2.6 Federal Poverty Guidelines, WIC Income Eligibility Guidelines**

Size of Family Unit	Year 2008	Year 2012	Year 2018	Year 2021
1	\$18,889	\$20,665	\$22,311	\$23,828
2	\$25,327	\$27,991	\$30,044	\$32,227
3	\$31,765	\$35,317	\$37,777	\$40,626
4	\$38,203	\$42,643	\$45,510	\$49,025
5	\$44,641	\$49,969	\$53,243	\$57,424
6	\$51,079	\$57,295	\$60,976	\$65,825
7	\$57,517	\$64,621	\$68,709	\$74,222
8	\$63,955	\$71,947	\$76,442	\$82,621
Ea. Add'l person add:	\$6,436	\$7,326	\$7,733	\$8,399

Source: United States Department of Agriculture, Food and Nutrition Service, 2021

Table 2.7 compares Stone County population poverty to the state and national percentages. The table shows that the poverty percentage of the county is below the state and national percentages. However, there exists a great deal of income inequality and poverty in Stone County. There are large percentages of the population who retire to lake communities with larger retirement incomes.

**Table 2.7: Poverty Comparison**

Jurisdictions	Population	Population in Poverty	Percentage of Population in Poverty
United States	318,564,128	40,910,326	12.8
Missouri	5,942,813	772,992	13
Stone County	31,465	3,884	12.3
Blue Eye	378	34	9
Branson West	557	120	21.5
Coney Island	51	2	3.9
Crane	1,380	230	16.7
Galena	768	256	33.3
Hurley	161	22	13.7
Indian Point	414	39	9.4
Kimberling City	2,711	302	11.1
McCord Bend	393	48	12.2
Reeds Spring	1,132	153	13.5

Source: U.S. Bureau of the Census, 2016-2020 American Community Survey

Table 2.8 presents the percentage of individuals under the age of 18 and those over the age of 65 below poverty levels according to their reported income.

**Table 2.8 Percent of Persons Below Poverty Level by Age -Stone County, 2020**

	≤18 Years	18-64 Years	>65 Years
Stone	18.9%	12.0%	9.4%
Missouri	17.4%	12.6%	8.6%

Source: U.S. Bureau of the Census, 2016-2020 American Community Survey

### Labor Force Characteristics

According to the Missouri Economic Research and Information Center’s civilian labor force data for 2018, Stone County averaged a labor force of 13,763 persons. Employed persons accounted for 12,398 while unemployed persons totaled 1,037 equaling an unemployment rate of 7.7 percent. Table 2.9 shows the unemployment rates for Stone County per month, including the total labor force numbers, employment numbers, and unemployment numbers.

**Table 2.9: Unemployment Rates in Stone County, 2020**

Jurisdiction	Labor Force	Employment	Unemployment	Unemployment Rate
Stone County	13,435	12,398	1,037	7.7%
Blue Eye	167	163	4	2.4%
Branson West	209	204	5	2.4%
Coney Island	21	21	0	0.0%
Crane	539	520	19	3.5%
Galena	362	345	17	4.7%
Hurley	92	79	13	14.1%
Indian Point	193	185	8	4.1%
Kimberling City	1,063	949	114	10.7%
McCord Bend	96	86	10	10.4%
Reeds Spring	599	542	57	9.5%

Source: U.S. Bureau of the Census, 2016-2020 American Community Survey

### Disabilities

Disabled employed workers represented 6.0% of the population 18 to 64 years of age in Stone County, or 705 residents in 2019. Table 2.10 also identifies 7.1% of the population without a disability (or 824 residents) as not employed.

**Table 2.10: Disability and Employment Status - Stone County, 2019**

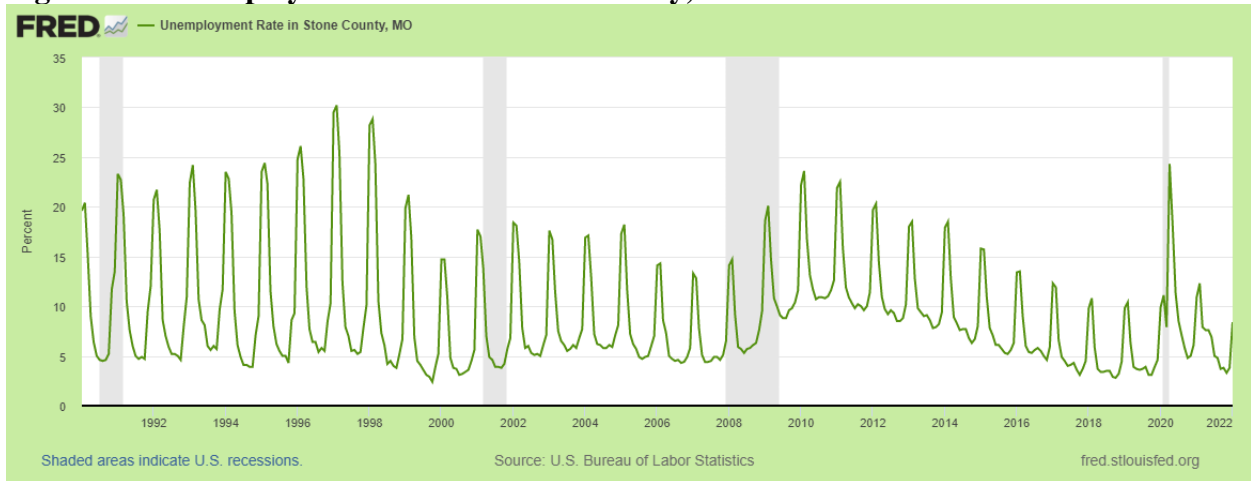
Individuals with a Disability	Total	Percentage of Total Workforce
<b>Total Workforce Population, 18-64 years</b>	<b>11,661</b>	<b>100%</b>
<b>With a Disability</b>	<b>705</b>	<b>6.0%</b>
Disabled and Employed	640	5.5%
Disabled and Not Employed	65	0.6%
<b>Without Disability</b>	<b>10,956</b>	<b>94.0%</b>
Employed	10,132	86.9%
Not Employed	824	7.1%

Source: US Census Bureau, 2019 American Community Survey 1 Year Estimates

## Unemployment

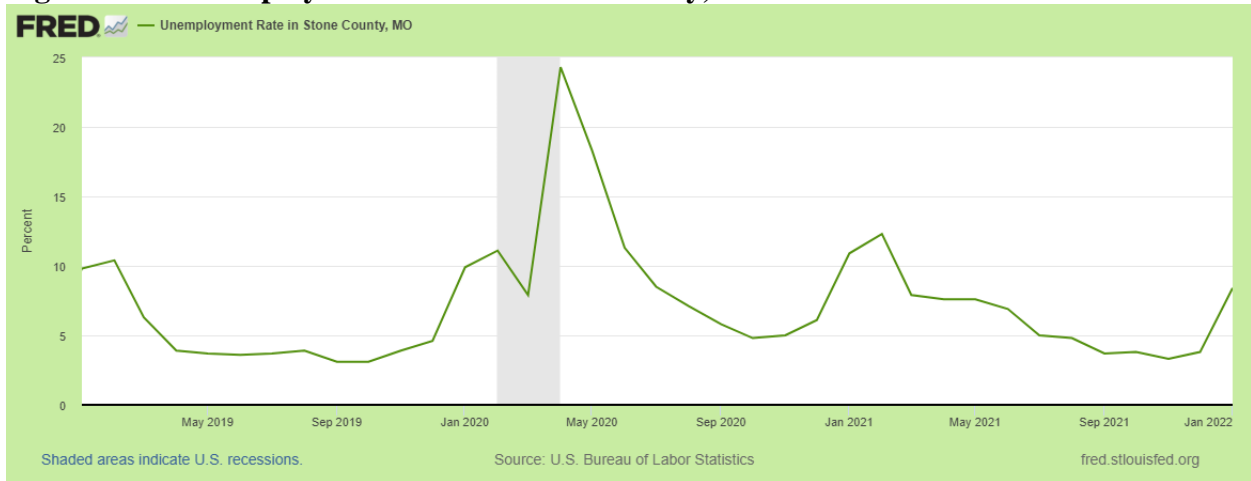
Stone County’s unemployment rate reflects the impact of seasonal employment in the tourism industry. Usually, unemployment rates are highest from January to March due to the tourist economy, as shown in Figure 2.9. For example, the county’s May 2012 unemployment rate was 8.6 percent, whereas the unemployment rate during February 2012 was 18.6 percent. However, much of the unemployment rate during the off-season months comes from employees who are semi-retired or those who intentionally only work part of the year. The unemployment rate for Stone County has traditionally been higher than the state’s rate. Figure 2.10 shows trends in unemployment rate from 1990- 2022. This graph depicts the fluctuations in the rates caused by the tourism industry and seasonal employment. The highest unemployment rate for Stone County was 24.3% in April of 2020. Figure 2.10 illustrates the unemployment rate from 2019 to 2022, emphasizing the impact the COVID-19 pandemic on the tourism industry in Stone County.

**Figure 2.9: Unemployment Rates in Stone County, MO**



Source: US Department of Labor: Bureau of Labor Statistics 2022

**Figure 2.10: Unemployment Rates in Stone County, MO – Continued**

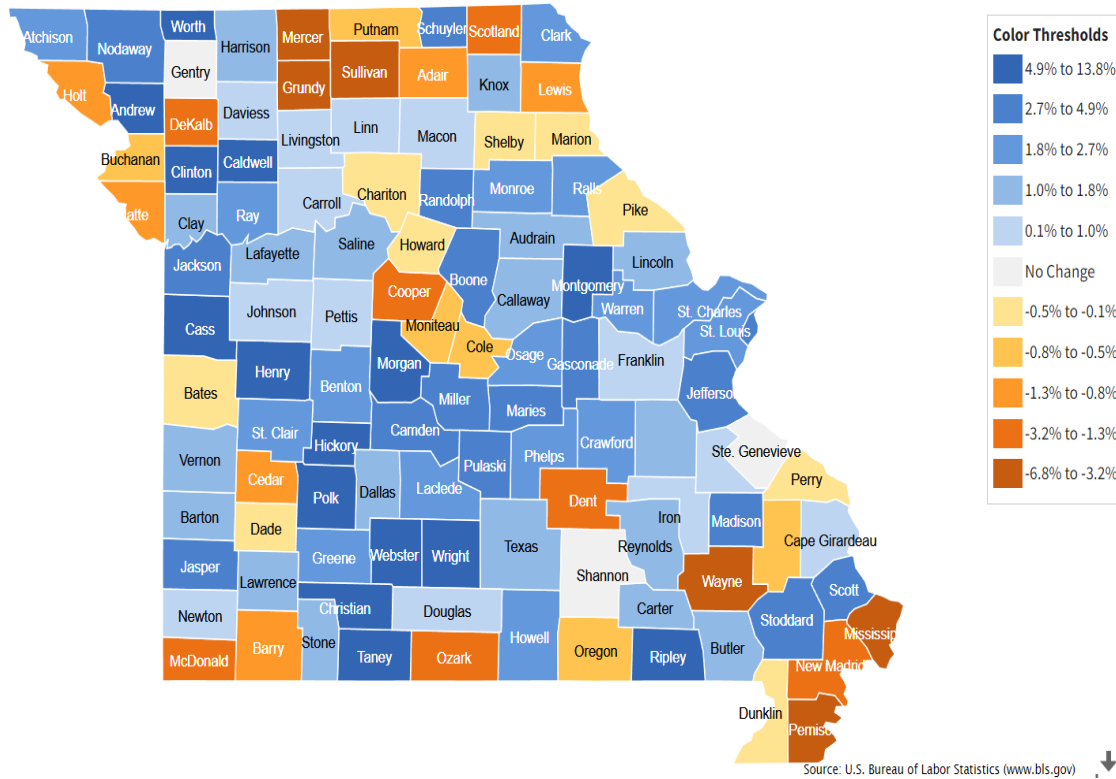


Source: US Department of Labor: Bureau of Labor Statistics 2022

Figure 2.11 depicts the 12-month change in employment for all industries per county between September 2020-September 2021. Stone County has seen a change of 1.1%. Although an increase in employment is noted, surrounding counties are better positioned, with the exception of Barry County. Christian County experienced an increase in employment of 5.6% and Taney County experienced an increase in employment of 6.8%.

**Figure 2.11: 12 Month Percent Change in Employment September 2020-September 2021**

12 month percent change in employment, Total, all industries Total Covered Sep 2020-Sep 2021 (p)



### Economy, Employment, and Industry

Data concerning the connection between economics and health have shown that people in the lower economic strata usually experience more negative health consequences. Traditionally, families in poverty have less access to routine health care, less nutritious diets, and other risk factors, such as higher stress, that negatively affect health. Besides poverty, other economic factors are useful in identifying trends in the community that impact health. For instance, increased employment rates for the population may indicate more access to health insurance coverage leading to increased overall community health. Conversely, an increase in unemployment could indicate that some families would lose access to their source of routine preventive health care.

As shown in Table 2.12, the greatest numbers of Stone County’s labor force are employed in the Education, Health, and Social Services industries, with 1,768 persons employed in these industries accounting for 21.11 percent of the total employed. The retail industry saw a steady rise in employment changing from 13.8 percent in 2000 to 14.8 in 2011 followed by a decrease to 10.81%



by 2017 and 9.55% by 2020. The data in Table 2.12 reflect employment of Stone County residents by industry and not by actual place of employment.

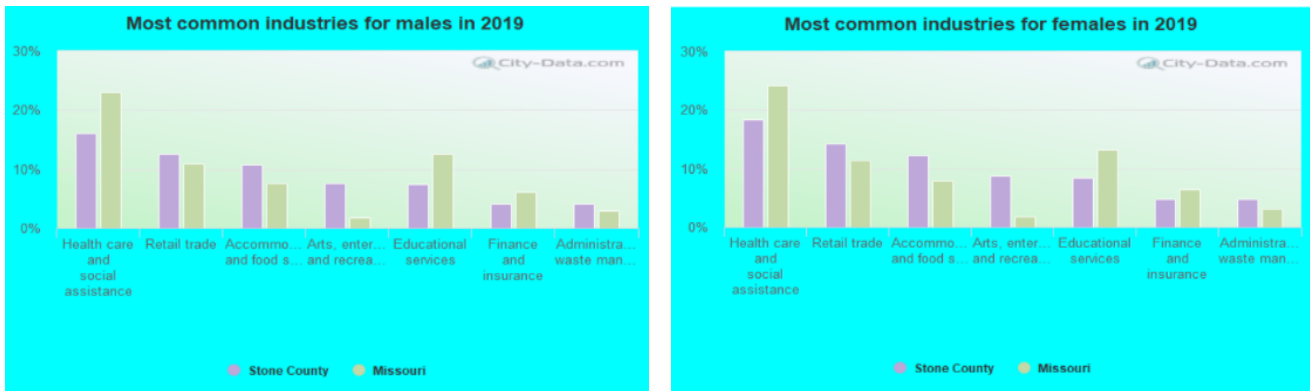
**Table 2.12: Stone County Employment by Industry, 2020**

Industry	Number Employed	Percent of Total
Agriculture, Forestry, Fishing and Hunting, and Mining	278	3.32%
Construction	594	7.09%
Manufacturing	910	10.86%
Wholesale Trade	177	2.11%
Retail Trade	800	9.55%
Transportation and Warehousing, and Utilities	723	8.63%
Information	109	1.30%
Finance, Insurance, Real Estate, and Rental and Leasing	608	7.26%
Professional, Scientific, Management, Administrative, and Waste Management Services	631	7.53%
Education, Health, and Social Services	1,768	21.11%
Arts, Entertainment, Recreation, Accommodation, and Food Services	1,142	13.63%
Other Services (except Public Administration)	378	4.51%
Public Administration	259	3.09%
Total	8,377	100%

Source: US Census Bureau, 2016-2020 American Community Survey

Figure 2.13 highlights the most common employment industries by gender in 2019, as seen in Stone County compared to the State of Missouri. As seen in the depiction for males on the right, and the depiction for females on the right, the industry that was the highest for both groups was healthcare and social assistance, at 16% and 18% respectively.

**Figure 2.13: Most Common Employment Industries by Gender.**



- Health care and social assistance (16%)
- Retail trade (13%)
- Accommodation and food services (11%)
- Arts, entertainment, and recreation (8%)
- Educational services (7%)
- Finance and insurance (4%)
- Administrative and support and waste management services (4%)

- Health care and social assistance (18%)
- Retail trade (14%)
- Accommodation and food services (12%)
- Arts, entertainment, and recreation (9%)
- Educational services (9%)
- Finance and insurance (5%)
- Administrative and support and waste management services (5%)

Source: City-Data.com, 2019

Figure 2.14 provides information regarding the most common occupations, for males on the left and females on the right. The most common occupation for the male population was construction and extraction occupations, at 17%, while the most common occupation for the female population was office and administrative support occupations at 21%.

### 2.14: Most Common Occupations by Gender



- Construction and extraction occupations (17%)
- Management occupations (11%)
- Transportation occupations (10%)
- Installation, maintenance, and repair occupations (9%)
- Sales and related occupations (8%)
- Production occupations (6%)
- Building and grounds cleaning and maintenance occupations (6%)

- Office and administrative support occupations (21%)
- Sales and related occupations (14%)
- Food preparation and serving related occupations (10%)
- Management occupations (9%)
- Healthcare support occupations (7%)
- Health diagnosing and treating practitioners and other technical occupations (5%)
- Educational instruction, and library occupations (5%)

City-Data.com; 2016

Approximately 50.9 percent of the county’s work force worked in Stone County in 2020, as shown in Table 2.15. The remaining 49.1 percent worked outside the county. According to the Census Transportation Planning Package, most workers commute to places of employment outside of the county. The major counties of employment for Stone County workers are Taney County (23.3%), Greene County (16.8%), and Christian County (6.3%).

**Table 2.15: Place of Employment, 2020**

Employed Residents	Number	% of Total
Work in Stone County	6,177	50.9%
Work Outside Stone County	5,606	46.2%
Work Outside of State	352	2.9%
Total	12,135	100%

Source: American Community Survey 2016-2020

### Primary Industries

Table 2.16 lists businesses by industrial sector located in Stone County and number of employees. The largest numbers of businesses in the county are in the Construction, Retail Trade, Accommodation and Food Services, and Health Care and Social Assistance industries. However, the greatest numbers of persons are employed in the Arts, Entertainment, and Recreation industry located in Stone County.

**Table 2.16: Number of Businesses and Employees in Stone County, 2019**

Business Sector	Number Businesses	Percent of Total	Number Employees
Agriculture, forestry, fishing and hunting	3	0.43%	6
Utilities	4	0.58%	33
Construction	113	16.38%	527
Manufacturing	19	2.75%	100
Wholesale trade	12	1.74%	38
Retail trade	99	14.35%	876
Transportation and warehousing	20	2.90%	33
Information	6	0.87%	22
Finance and insurance	31	4.49%	144
Real estate and rental and leasing	43	6.23%	156
Professional, scientific, and technical services	42	6.09%	143
Administrative and support and waste management and remediation services	36	5.22%	216
Educational services	3	0.43%	2
Health care and social assistance	48	6.96%	375
Arts, entertainment, and recreation	16	2.32%	1,189
Accommodation and food services	102	14.78%	904
Other services (except public administration)	91	13.19%	413
<b>Total for all sectors</b>	<b>690</b>	<b>100.00%</b>	<b>5,190</b>

Source: U.S. Bureau of the Census, 2019 County Business Patterns

## Tourism and Commuting Workers

As the development and population continues to grow, the significance of the daily influx of commuters and guests into Stone County is becoming increasingly important. As individuals enter and leave the county, the population increases and decreases substantially on a daily basis. This poses many potential public health challenges for the Health Department. Potential challenges include but are not limited to disease surveillance (as demonstrated by COVID-19), emergency response (as demonstrated by COVID-19), environmental impact/pollution, and traffic/transportation issues. Consequently, as the population in the region continues to increase more cooperation between the contiguous county health departments will be necessary to avoid public health problems that easily move across jurisdictional boundaries.

## Chapter 3: Health Resources Availability

### Health Care Providers and Facilities

Stone County does not have a hospital or acute care facility. Residents and guests that require emergency treatment must travel to Cox Medical Center Branson, or to the Mercy Regional Centers or CoxHealth Medical Centers, located in Springfield. Small community hospitals are also located in Cassville (Barry County) and Aurora (Lawrence County). The closest walk-in care facilities are located over 30-miles away in Branson, Cassville, or Nixa.

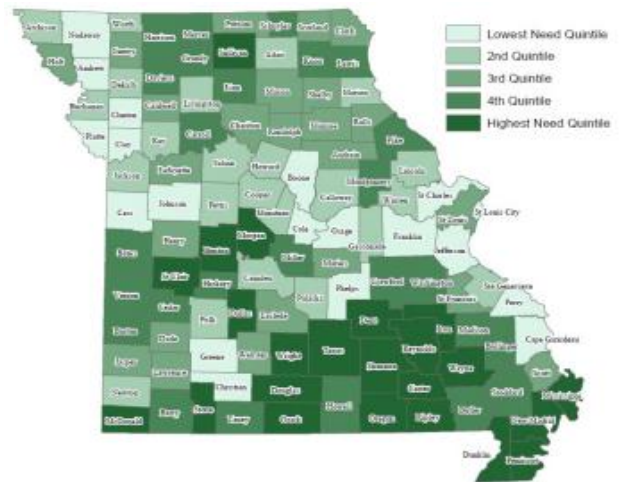
There are eleven physicians that practice primary health care medicine in Stone County. According to the Missouri Department of Health and Senior Services, the ratio of primary care physicians per population in Stone County is 1:2,890, while Taney County's ratio is 1:1,330, Lawrence County's ratio is 1:1,830, and Barry County's ratio is 1:1,560. Uninsured residents (8% of children uninsured; 18% of adults uninsured) have limited resources to receive routine and preventative health care services. Missouri Department of Health and Human Services 2020

Primary Care Needs Assessment (PCNA) ranks Stone County as 93 in health care access, characterized as the highest need quantile for areas with greatest unmet health care needs. Stone County faces a grave challenge of providing health care access for the residents in conjunction with acknowledging health disparities and health inequities among residents to reduce the barrier.

Although physicians practicing in Stone County will accept individuals without health insurance, if the individual does not qualify for a discounted fee, they are responsible to pay the full fee at the time of the service. This frequently places a financial burden on the individual and therefore they do not seek medical care. Additional problems that stand between Stone County residents and adequate health care involve lack of transportation, lack of understanding of a health situation and the importance of preventive health maintenance, and health literacy issues. Table 3.1 demonstrates the health needs that contribute to the overall healthcare access rank, highlighting the numerous areas of unmet health needs in Stone County.

Figure 3.1: Healthcare Access Rank

County	Health Care Access Rank
Ripley	115
Oregon	114
Pemiscot, Iron, Wayne, Shannon, Ozark	109
Wright, Dent	107
Douglas	106
Dunklin, Mississippi, Reynolds, McDonald, Texas, Sullivan, Dallas	99
Carter	98
St. Clair	97
Morgan	96
New Madrid, Benton, Stone	93



Source: MOPHIMS

**Table 3.1: Stone County, MO Health Care Access Rankings, 2020**

Health Needs	Rankings
Poverty	2
Uninsured	4
Medicaid Enrollment	2
Medicare Enrollment	5
Inadequate Prenatal Care	5
Low Birth Weight	5
Mammogram Screenings	2
Pap Smear Screenings	5
Sigmoidoscopy & Colonoscopy Screenings	4
Preventable Hospitalizations	2
Dental Visit in the Past Two Years	4
Dental ER Visits	4
Population to PC Provider Ratio	4
Population to Mental Health Care Provider Ratio	4
Population to Dentist Ratio	5
Total Quantile Points	57
Health Care Access Rank	93

Source: Missouri Department of Health and Senior Services, 2020

### Medicaid Providers

Although there are health care providers in Stone County who accept Medicaid, there are not enough to meet the demand. The following health care providers are available to the residents of Stone County that are enrolled in Medicaid:

<b>Table 3.2 Healthcare Provider and Healthcare Indicators, Stone County, MO, 2023</b>		
<b>Healthcare Provider and Healthcare Indicators, Stone County</b>		
	<b>Number in Stone County</b>	<b>Number per 1,000</b>
<b>Total Healthcare Providers (MDs, DOs, Dentists, etc.)</b>	<b>31</b>	<b>1.0</b>
<b>Number of MDs &amp; DOs</b>	<b>12</b>	<b>0.4</b>
<b>Number of MD's &amp; DOs in Family Practice</b>	<b>5</b>	<b>0.2</b>
<b>Number of Dentists</b>	<b>3</b>	<b>0.1</b>
<b>Non-Physician Healthcare Professionals</b>	<b>19</b>	<b>0.6</b>
<b>Advanced Practice Nurse Midwife</b>	<b>0</b>	<b>0.0</b>
<b>Advanced Practice RN</b>	<b>9</b>	<b>0.3</b>
<b>Certified Nurse Midwife</b>	<b>1</b>	<b>0.0</b>
<b>Clinical Nurse Specialist</b>	<b>0</b>	<b>0.0</b>
<b>Nurse Practitioner</b>	<b>7</b>	<b>0.2</b>
<b>Physician Assistant</b>	<b>2</b>	<b>0.1</b>

<b>SNF Beds per 10,000</b>	<b>69.6</b>	
<b>Total Medicaid enrollment (children)</b>	<b>2,404</b>	
<b>Percent of Children enrolled in Medicaid</b>	<b>46.2%</b>	
<b>Total Medicaid enrollment (adults)</b>	<b>1,630</b>	
<b>Percent of adults enrolled in Medicaid</b>	<b>6.1%</b>	
<b>Cox Medical Center Branson (Taney County)*</b>		
<b>Total Beds</b>	<b>157</b>	
<b>Med/Surg Beds</b>	<b>88</b>	
<b>ICU Beds</b>	<b>20</b>	
<b>OB Beds</b>	<b>14</b>	
<b>Psych Beds</b>	<b>14</b>	
<b>Rehab Beds</b>	<b>13</b>	
<b>Pediatric Beds</b>	<b>8</b>	

*Source: Center for Health Economics and Policy, Institute for Public Health, Washington University*

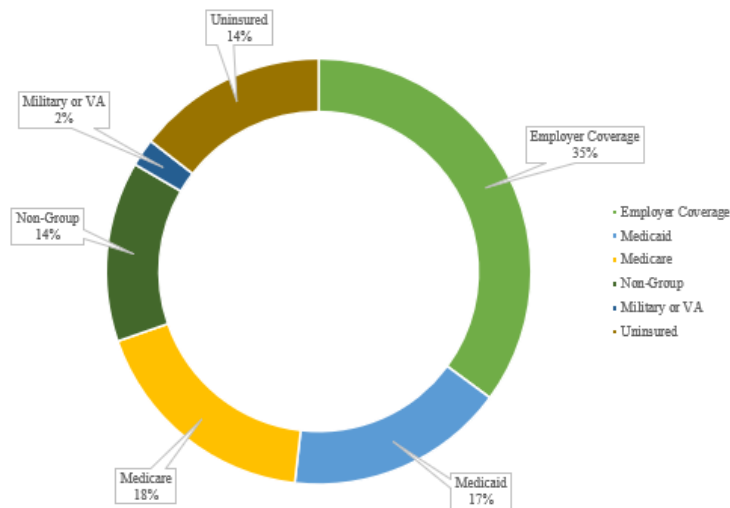
*\*Source: Missouri Department of Health and Senior Services, MO Hospital Profiles by County, May 2023*

For those who have no other transportation to medical appointments, the OATS Way-to-Go bus runs a regular route for a minimal cost (\$1.00 per trip). A large drawback is that the routes are not always convenient to access for all who need them.

Poverty and unemployment rates also lead to high rates of un- and underinsured individuals and families in Stone County and the surrounding areas. The following pie charts in Figure 3.1 show the distribution of the uninsured in Stone County and Missouri by combining Census “Public-Use Microdata Areas” (PUMAs) and data from DATA USA. Each PUMA is an area within a state that contains at least 100,000 residents. In densely populated areas, PUMAs are limited to smaller areas within a county. In sparsely populated areas, PUMAs typically comprise one or more neighboring counties within a given state.

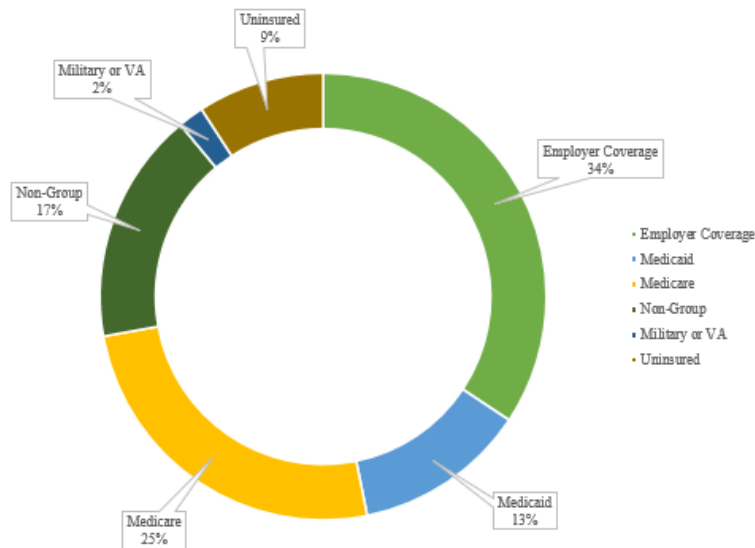
**Figure 3.1: Uninsured Rates in Stone County**  
Place(s) within this PUMA: Taney County, Barry County, Stone County, and McDonald County

Health Care Coverage - Taney County, Barry County, Stone County, and McDonald County, 2019



Approximately **20,800 (14.5%)** individuals are uninsured within these counties.

Health Care Coverage - Stone County, 2019



Approximately **9.16%** of residents are uninsured in Stone County.

Source: DATA USA, 2019

Table 3.3 shows the data for patients who were served at Cox Health Center Branson West in 2020 and 2021. A slight increase is noted in the number of patients served from 2020 to 2021, while a slight decrease is noted in the number of patient visits and number of new patient visits from 2020 to 2021.

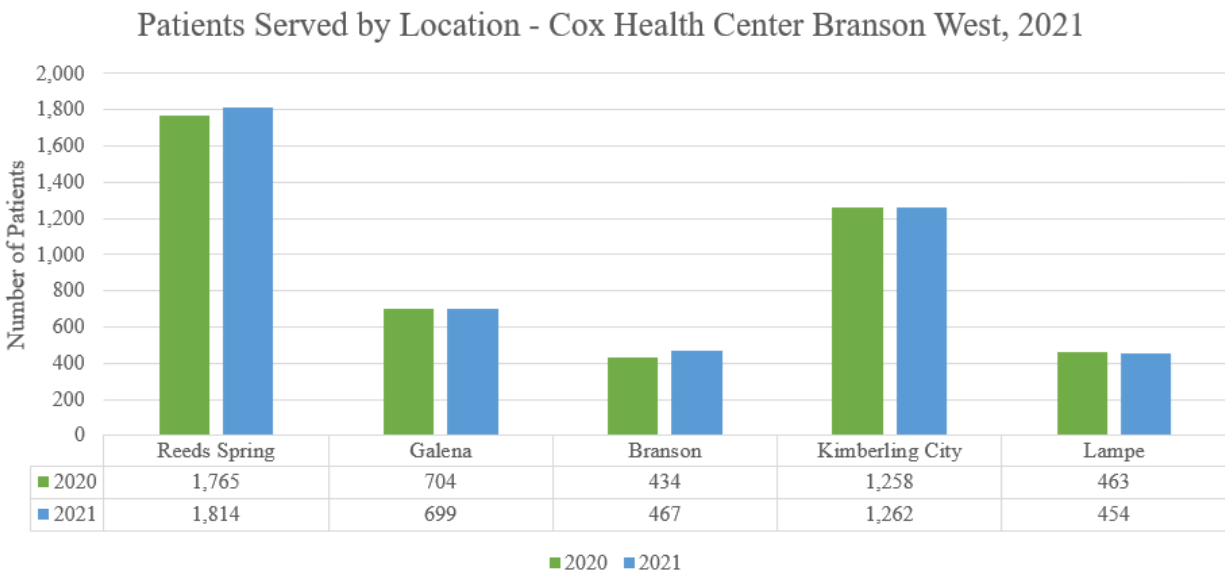
**Table 3.3: Patients Served**

	2020	2021
Number of Patients Served	5,199	5,953
Number of Patient Visits	72,922	70,477
Number of New Patient Visits	712	532

Source: Cox Health Center Branson West, 2021

Figure 3.2 shows the distribution of patients by location. Cox Health Center Branson West patients are primarily from Reeds Spring and Kimberling City. As seen in the figure, the lowest number of patients in 2020 were from Branson, however in 2021 the lowest number of patients served were from Lampe.

**Figure 3.2: Patients Served by Location**

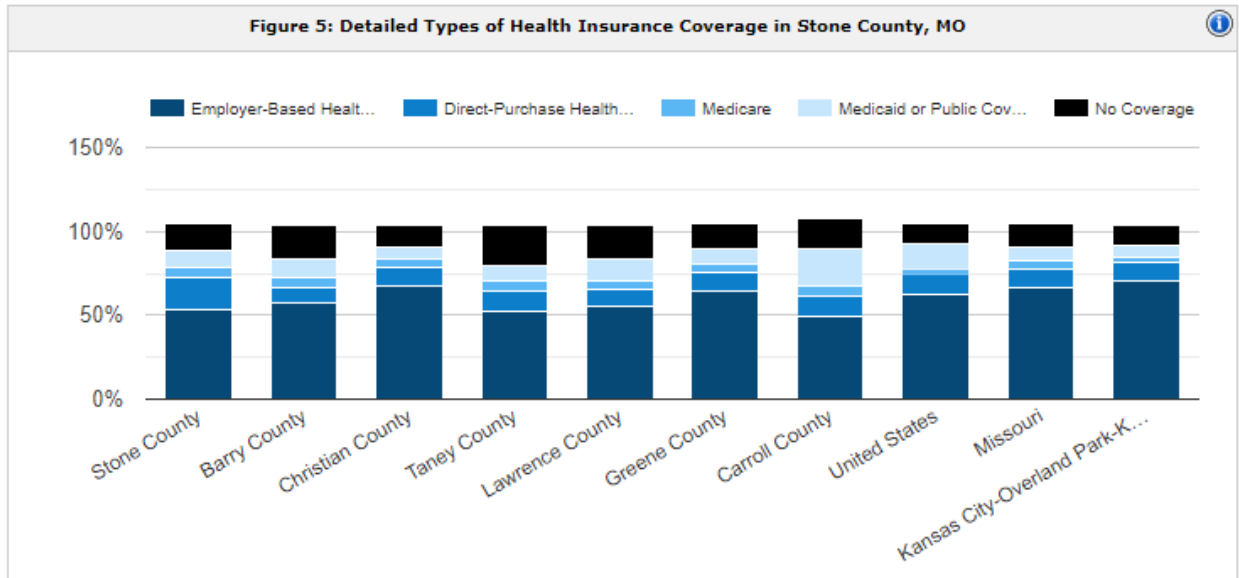


Source: Cox Health Center Branson West, 2021

Figure 3.3 shows the types of Health Insurance coverage in Stone County as compared to other counties in southwest Missouri.



**Figure 3.3: Insurance Source for County Residents**

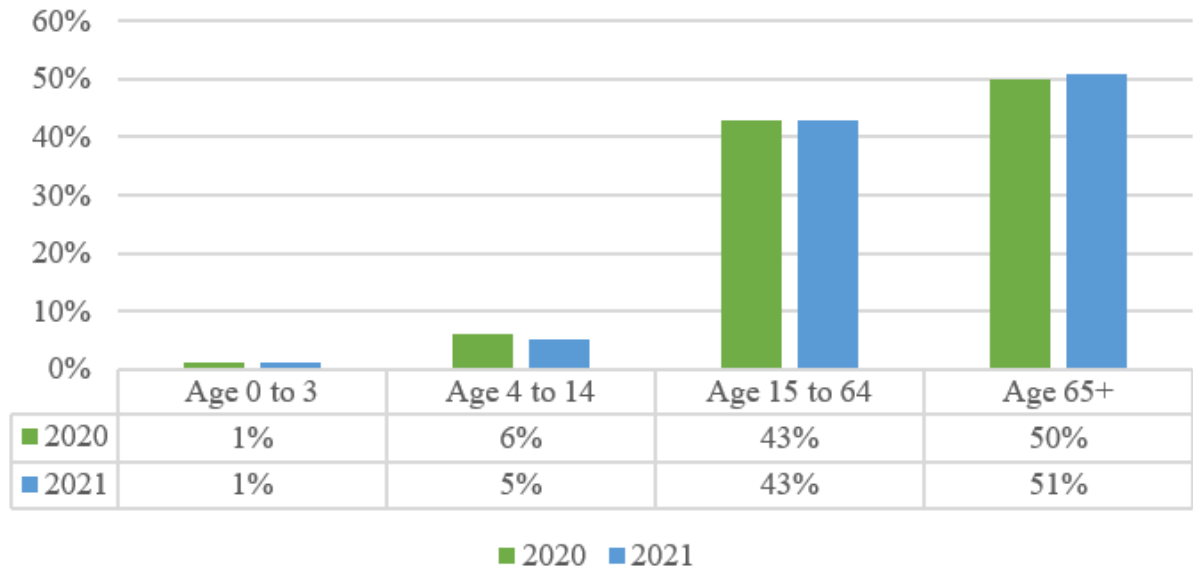


Source: Towncharts.com, 2023

Figure 3.4 is a descriptive breakdown of Cox Medical Center Branson West patient case load for 2020-2021 by age. For ages 0-9. Patients are primarily in the 65+ age group. From 2020 to 2021 a slight decrease is noted in the 4 to 14 age group and a slight increase in the 65+ age group.

**Figure 3.4: Percentages of Patients Served by Age**

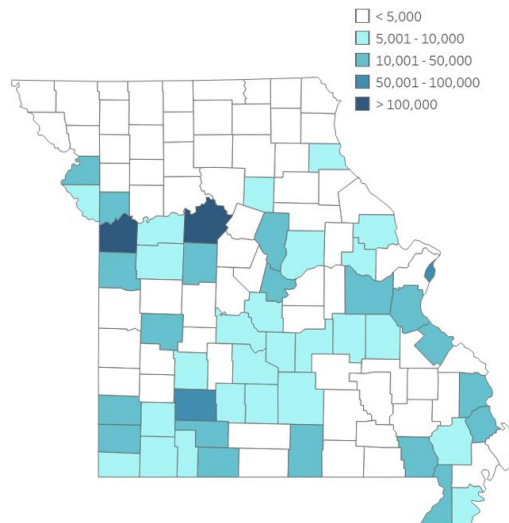
### Age Groups of Patients Served - Cox Health Center Branson West, 2020-2021



Source: Cox Health Center Branson, 2021

The following map in Figure 3.5 represents the number of Stone County residents receiving MO HealthNet (Medicaid) insurance coverage. MO HealthNet, Missouri’s Medicaid program covers qualified medical costs for 5,278 Stone County residents (uninsured women, children, families, Medicaid expansion - certain adults aged 19-64) who meet eligibility requirements.

**Figure 3.5: MO HealthNet**

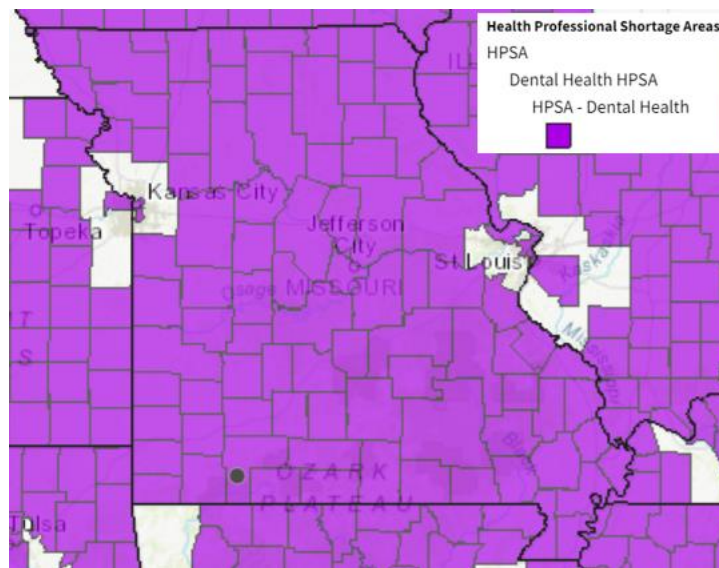


Source: Missouri Department of Social Services, 2021

## Dental Health

Dental health is an important aspect of overall health. Strides are being made to provide better dental health care access to all income levels in Stone County. At this time, the Smile Clinic, located in Branson West, Ozark, and Aurora is a program available for children living in the counties of Stone, Christian, and Lawrence who are on Medicaid. Due to the location, transportation is a major barrier to children in Stone County and parts of Christian, which keeps them from receiving the full benefit of this clinic. The Elks Lodge also works with the Stone County Health Department to help subsidize dental care for those in dire need. Additionally, one dentist in Crane will treat children who are enrolled in Medicaid and have severe dental issues. The Fordland Clinic offers dental services to all ages, starting with the very important 12-month check-up. Most insurance plans are accepted there, and services are provided free to children with Medicaid and at a discounted rate for those without insurance who meet income eligibility guidelines. Figure 3.6 shows the current dentist shortage for all of Missouri.

**Figure 3.6: Missouri's Dentist Shortage**



Source: Health Resources and Services Administration, 2022

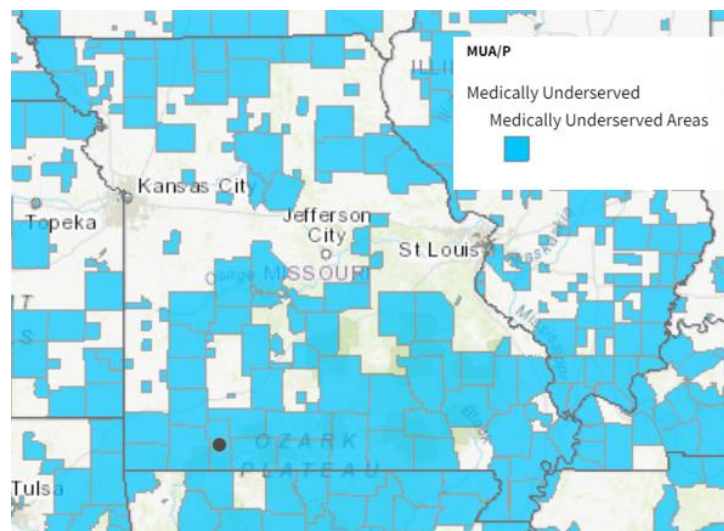
## Health Care Services

The designation of areas or populations as medically underserved is based on an index of four variables - the ratio of primary medical care physicians per 1,000 population, the infant mortality rate, the percent of the population with incomes below the poverty level, and the percent of the population age 65 and over (Health Resources and Services Administration, HHS).

## Health Professional Shortage Areas

HPSAs are those areas that “have shortages of primary medical care, dental or mental health providers and may be urban or rural areas, population groups, or medical or other public facilities” (Health Resources and Services Administration, HHS). Within Missouri, many areas of the state are designated as primary care HPSAs for the total or low-income populations. Figure 3.7 highlights the medically underserved areas in Missouri and surrounding states, per the Health Resources and Services Administration.

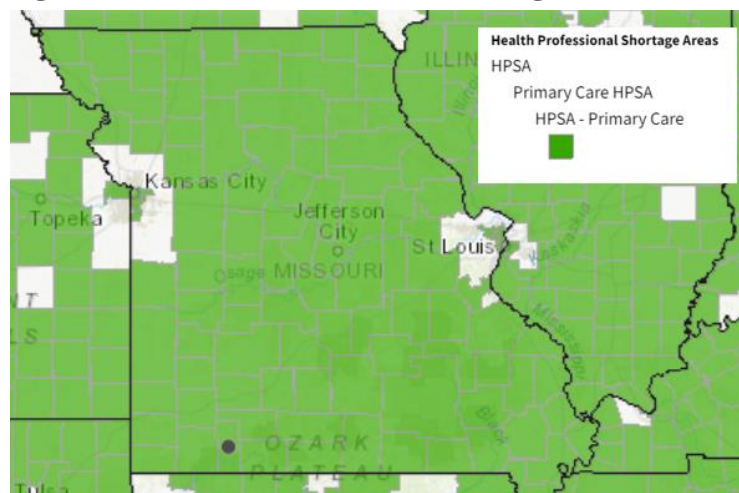
**Figure 3.7: Medically Underserved Areas**



Source: Health Resources and Services Administration, 2022

Medically Underserved Areas in Missouri is based off the population per medical provider. To be considered a MUA, the variance must be larger than 3500:1. Health Professional Shortage Areas are based on three categories: Total Population, Low Income Population, and Medicaid Eligible Population. As seen in Figure 3.8, Stone County is considered in the shortage area based on our level of Low-Income Population.

**Figure 3.8: Health Professional Shortage Areas**



Source: Health Resources and Services Administration, 2022

Figure 3.9 shows the grading scale used by the Health Resources and Services Administration (HRSA).

HRSA is the official organization providing this designation. Stone County is in a Primary Care Health

Professional Shortage Area (score 16), a Mental Health Professional Shortage Area (score 17), and a Dental Care Health Professional Shortage Area (score 16), overall, Stone County is considered a Medically Underserved Area.

**Figure 3.9: Health Care Shortage Designations**

Dental Health HPSA - perimeter polygons		Primary Care HPSA - perimeter polygons	
HPSA Name	LI-Christian and Stone Counties	HPSA Name	LI-Stone County
HPSA ID	6294299739	HPSA ID	1295468500
Designation Type	HPSA Population	HPSA Score	16
HPSA Discipline Class	Dental Health	Designation Type	HPSA Population
HPSA Score	16	HPSA Discipline Class	Primary Care
		HPSA Status	Designated
Medically Underserved Areas		Mental Health HPSA - perimeter polygons	
Service Area Name	STONE SERVICE AREA	HPSA Name	LI - Springfield
MUA/P Source Identification Number	01888	HPSA ID	7297331951
MUA Service Area Type Description	Unknown	Designation Type	HPSA Population
Designation Type	Medically Underserved Area	HPSA Discipline Class	Mental Health
		HPSA Score	17
		HPSA Status	Designated

Source: Health Resources and Services Administration; 2022

## Chapter 4: Behavioral Risk Factors

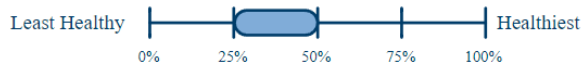
### Risk Factors

Lifestyle behaviors can result in the development or prevention of many chronic diseases. In the following tables, several behavioral risk factors are presented. Stone County is ranked among the least healthy counties in Missouri, emphasizing the need to address modifiable risk factors. The data was collected from the University of Wisconsin Population Health Institute in collaboration with the Robert Wood Johnson Foundation.



### Health Outcomes

Stone (ST) is ranked among the least healthy counties in Missouri (Lowest 0%-25%)



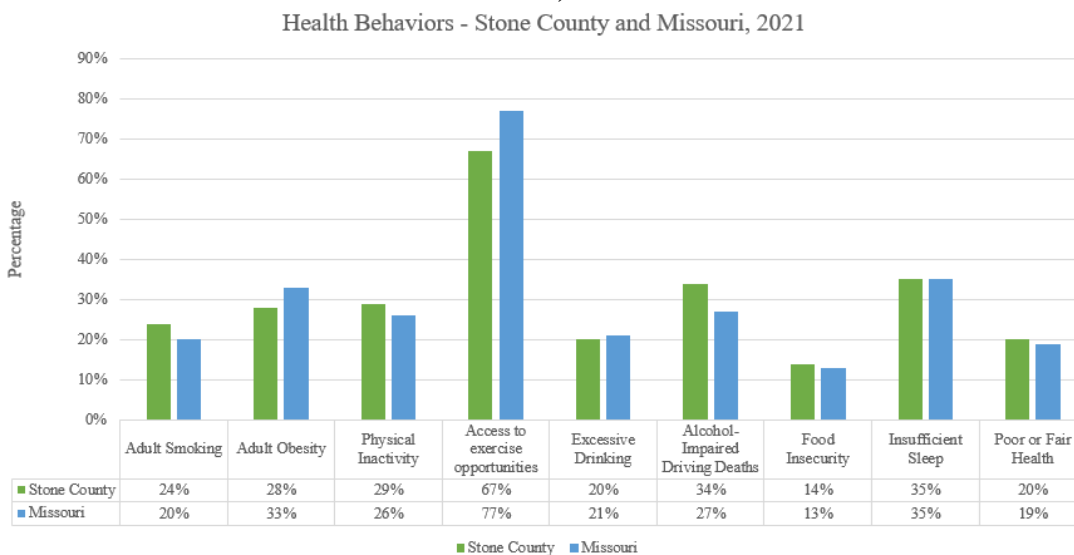
### Health Factors

Stone (ST) is ranked in the lower middle range of counties in Missouri (Lower 25%-50%)

Source: County Health Rankings, University of Wisconsin Population Health Institute, 2021

Figure 4.1 indicates that Stone County residents were not significantly different from other state and region residents. However, each of these prevalence percentages indicates an area of concern. For example, the obesity rate of 28%, the physical inactivity rate of 29% signifies the increasing risk that many county residents are developing for chronic diseases associated with being overweight and obese. County residents have a higher prevalence of smokers, alcohol-impaired driving deaths, and physical inactivity (coupled with a rate less than Missouri in access to exercise opportunities) compared to Missouri.

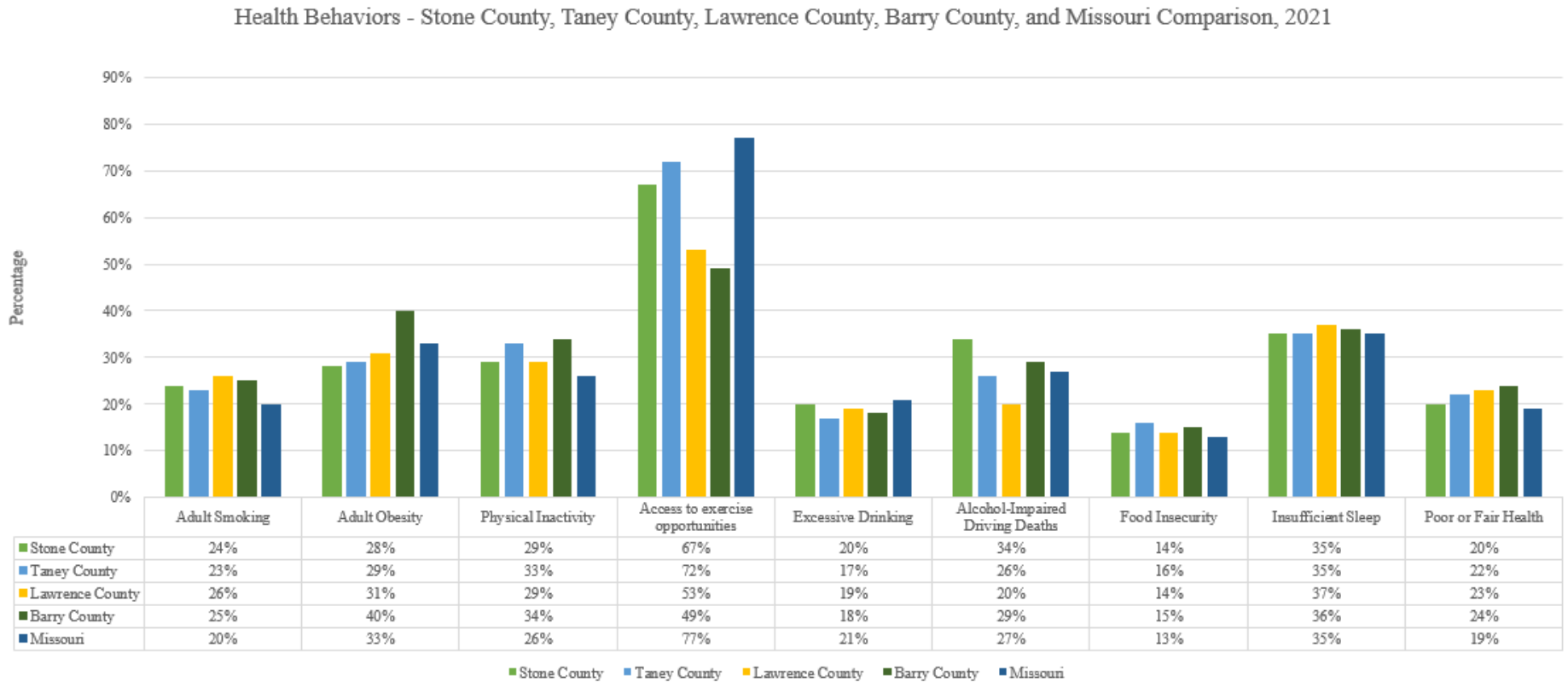
**Figure 4.1: Behavioral Risk Factors for Health, 2021**



Source: County Health Rankings, University of Wisconsin Population Health Institute, 2021

Figure 4.2 shows a comparison of Stone County residents with surrounding counties for Behavioral Risk Factors.

**Figure 4.2: Behavioral Risk Factors, Compared to Surrounding Counties**



Source: County Health Rankings, University of Wisconsin Population Health Institute, 2021

Table 4.1 shows the utilization of screening tests among men and women in Stone County measured in prevalence. In Stone County 39.9% of women 40 years old or older reported not having had a mammogram in the past two years. This rate was higher than both the southwest Missouri region and the state average. The number of women 18 years and older who did not have a pap test in the last three years is 38.71%, much higher than the state and regional average. Similar trends were observed with sigmoidoscopy and colonoscopy.

**Table 4.1: Screening Test and Utilization**

	Prevalence Percentage		
	Stone	Southwest Region	State
<b>Women</b>			
No mammogram within past two years among women age $\geq 40$	39.9	35.39	30.9
No Pap test in last 3 years – Among women age 18 and older	38.71	33.93	27.01
<b>Men and Women</b>			
Never had a sigmoidoscopy or colonoscopy – Among men and women age 50 and older	35.24		30.4
No colonoscopy within last 10 years or sigmoidoscopy within 5 years among adults age $\geq 50$	39.44	40.43	36.08

Source: Missouri Department of Health and Senior Services, 2016



## Chapter 5: Mental and Social Health

The need for mental health services is increasing in Stone County. This is due to a variety of causes, including but not limited to increased retired and veteran population, increased screening, increased awareness, or increased law enforcement involvement. The Department of Mental Health provides information and resources, including regional Access Crisis Intervention. By calling the Burrell ACI System hotline at (800)-494-7355, Stone County residents have access to behavioral health crisis services that are free and available to both youth and adults.

Figure 5.1 shows the number of individuals who received psychiatric services and the disorders that were identified in Stone County. Some individuals do present with multiple disorders, so the numbers listed are not necessarily the number of patients, but the number of psychiatric disorders.

**Figure 5.1: Mental Health Diagnoses in Stone County**

Individuals who received psychiatric services had the following types of disorders. The total number of diagnoses is larger than the number served because some individuals had more than one type of disorder.

<b>DIAGNOSIS CATEGORY</b>	<b>FY2021</b>	<b>FY2020</b>	<b>FY2019</b>
Anxiety and Fear Disorders	163	105	50
Bipolar Mood Disorders	29	27	22
Depressive Mood Disorders	142	119	85
Developmental and Age Related Disorders	75	59	32
Impulse Control and Conduct Disorders	68	49	31
Personality Disorders	21	19	15
Schizophrenia and Psychotic Disorders	50	38	34
Sexual Disorders	*	0	0
Trauma and Stress Related Disorders	131	103	70
Other Disorders	9	8	5
Diagnosis Unknown	*	*	23
<b>Total Disorders Diagnosed</b>	<b>691</b>	<b>529</b>	<b>367</b>

*Source: Missouri Department of Mental Health, Division of Behavioral Health Southwest Region, 2022*

Figure 5.2 shows the distribution of socioeconomic factors of residents who received psychiatric services and the disorder that was identified in Stone County.

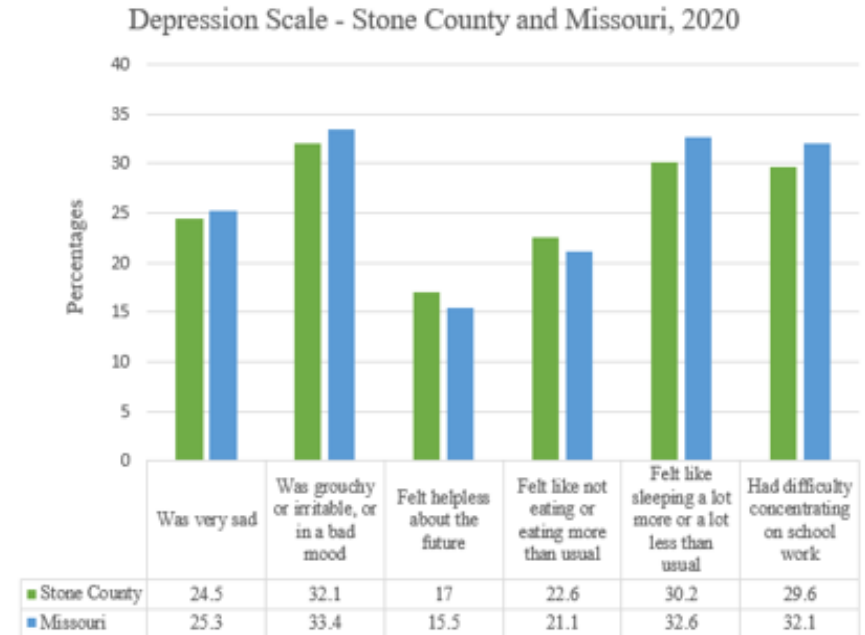
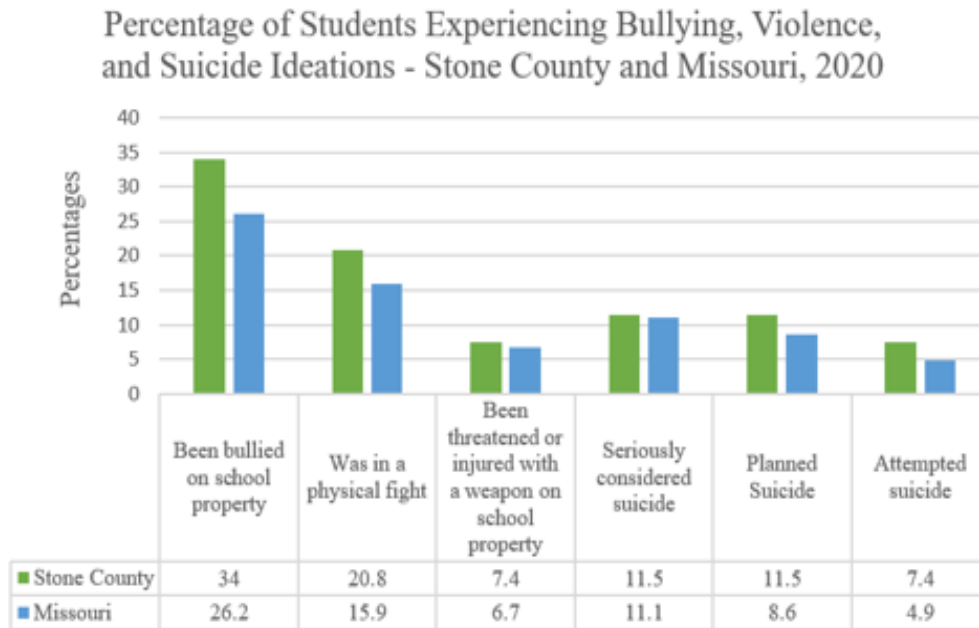
**Figure 5.2: Mental Health Diagnoses in Stone County**

	FY2021	FY2020	FY2019		FY2021	FY2020	FY2019
<b>NUMBER SERVED</b>							
Total Individuals Served	368	279	225				
<b>AGE</b>				<b>EDUCATION</b>			
Under 6	9	8	*	Less than High School Diploma	224	165	118
6 to 9	71	57	45	High School Grad or G.E.D.	53	51	42
10 to 13	100	53	32	Associate Degree or Some College	20	16	19
14 to 17	64	50	37	Bachelor or Advanced Degree	*	*	*
18 to 24	14	12	6	Education Level Unknown	70	42	43
25 to 29	5	*	7	<b>EMPLOYMENT</b>			
30 to 34	9	9	10	Employed	11	8	6
35 to 39	20	16	11	Unemployed	15	12	12
40 to 44	11	14	10	Not in Labor Force	40	36	39
45 to 49	17	19	19	Employment Status Unknown	302	222	168
50 to 54	18	14	19	<b>HOUSING / LIVING ARRANGEMENT</b>			
55 to 59	15	13	16	Independent Living	53	46	55
60 and Over	15	13	9	Dependent Living	16	25	15
Age Unknown	0	0	0	Homeless	6	5	7
<b>GENDER</b>				Other	236	175	115
Male	185	149	121	Housing Unknown	57	27	33
Female	183	130	104	<b>TREATMENT REFERRAL SOURCE</b>			
Gender Unknown	0	0	0	Self / Family / Friend	89	74	72
<b>RACE / ETHNICITY</b>				School	188	115	61
Caucasian	316	241	199	Mental Health Provider	7	5	8
African American	5	*	*	Health Care Provider	43	48	47
Native American / Alaskan	6	*	*	Court / Criminal Justice	12	7	9
Asian / Pacific Islander	*	0	0	Other	28	27	25
Hispanic	19	14	10	Referral Source Unknown	5	*	*
Other Race	40	33	23	<b>TYPE OF COMMITMENT</b>			
Race/Ethnicity Unknown	0	0	0	Voluntary	361	272	219
<b>TREATMENT ACCOMMODATION</b>				Civil	0	*	0
Hearing Impaired	*	*	*	Criminal	*	*	*
Past or Current Military Service	*	*	*	Sexual Predatory	0	0	0
				Commitment Type Unknown	*	*	*

Source: Missouri Department of Mental Health, Division of Behavioral Health Southwest Region, 2022

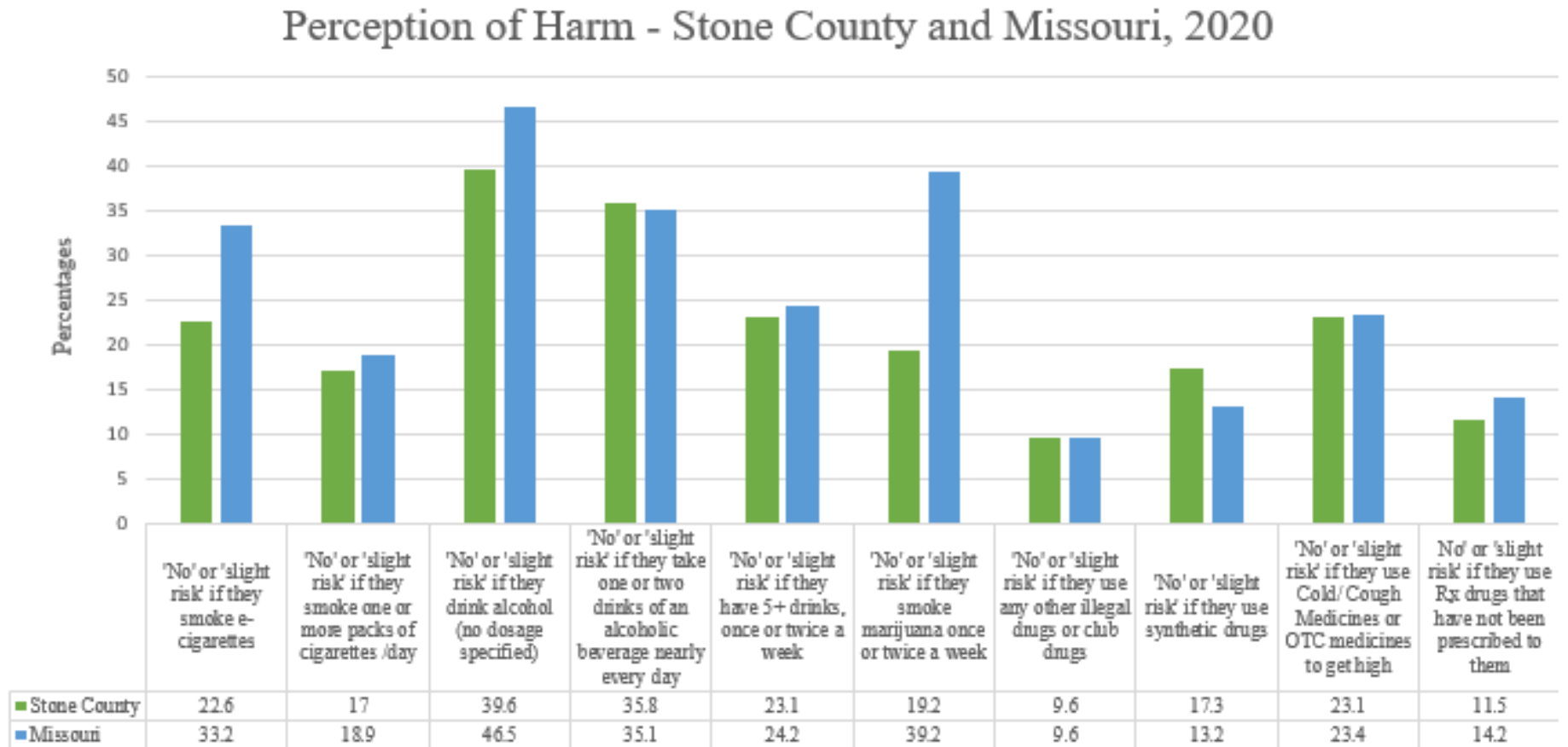
The data from the figures below are from the 2020 Missouri Student Survey. Figure 5.3 represents the students in Stone County and Missouri and their experiences with bullying, violence, and suicidal ideations. When comparing Stone County and Missouri, it is evident that students in Stone County are at a higher risk of suicidal ideations. Figure 5.4 depicts thoughts potentially resulting from depression. Figure 5.5 shows the percentage of students who believe that harm could result from alcohol, cigarette, marijuana, and other illicit drugs.

**Figure 5.3: Students Experiencing Bullying, Violence, and Suicidal Ideations, 2020 & Figure 5.4: Depression Scale, 2020**



Source: Missouri Department of Mental Health, Missouri Student Survey, 2020

Figure 5.5: Perception of Harm of Using Substances, 2020

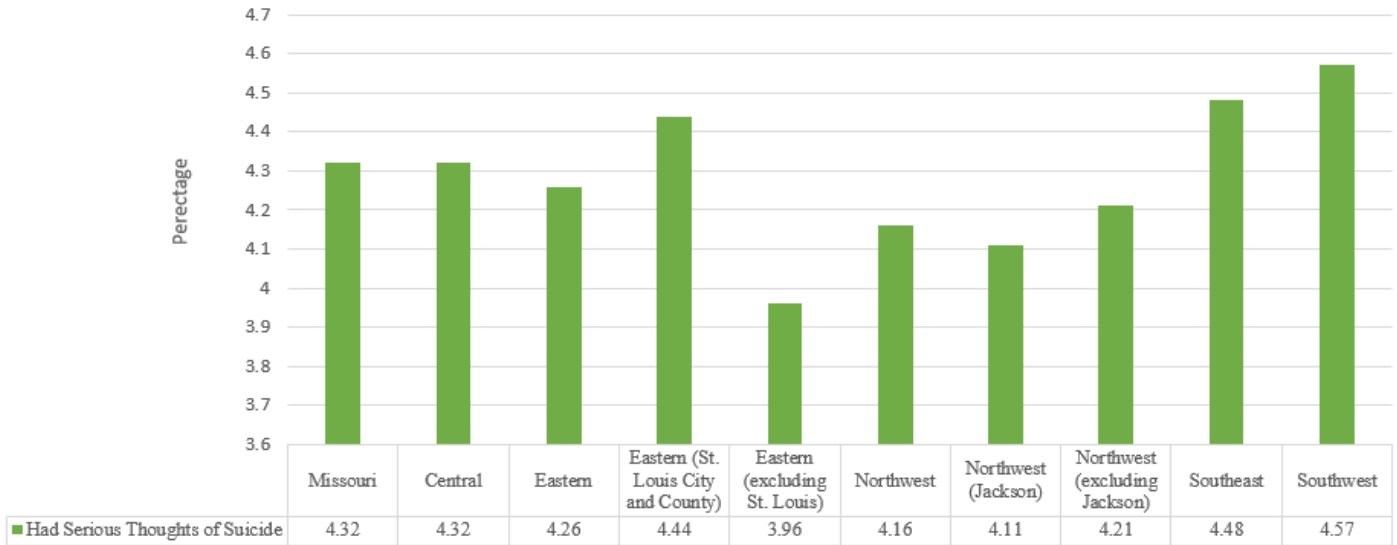


Source: Missouri Department of Mental Health, Missouri Student Survey, 2020

When looking at adults, those in Southwest Missouri had the highest rate of Thoughts of Suicide in Missouri, which was higher than the state’s rate. Figure 5.6 shows each of the regions of Missouri and the Thoughts of Suicide rate. Clearly Missouri, especially the Southwest Region needs to focus on Mental Health.

**Figure 5.6: Estimated Past-Year Serious Thoughts of Suicide (%) Among Adults Ages 18 and Older, Annual Averages Based on 2016, 2017, and 2018 NSDUHs.**

Estimated Past-Year Serious Thoughts of Suicide (%) Among Adults Ages 18 and Older - Missouri and DBH Regions, 2018



Source: U.S. Dept of Health and Human Services, SAMHSA. National Survey on Drug Use and Health. Estimates are 3-year averages 2016-2018

## Chapter 6: Maternal and Child Health

### Maternal and Child Health Indicators

Maternal and child health issues are of great importance as healthier mothers, infants, and children contribute to the continued overall health of the community. Infants and children who are exposed to alcohol, tobacco, child abuse, and poor nutrition may develop detrimental health conditions such as asthma, diabetes, and obesity early in life. Because of this, severe chronic diseases such as heart disease can develop at younger ages leading to a decreased life expectancy.

A variety of maternal and child health issues such as teen pregnancy, infant deaths, child abuse, and maternal tobacco use are examined in this chapter. These issues are very important and can have severe consequences for the overall health of our community. Healthier children and mothers can ultimately result in a healthier, happier, and more productive community.

### Characteristics of Live Births: Birth Trends

Table 6.1 displays the trend in the number of live births in Stone County from 1990-2019. From the year 1990 to the year 2019, 8,383 births have occurred. This averages to 290.1 new births each year. Over the span shown below, approximately 52% of the newborn population in Stone County is male, and 48% is female.

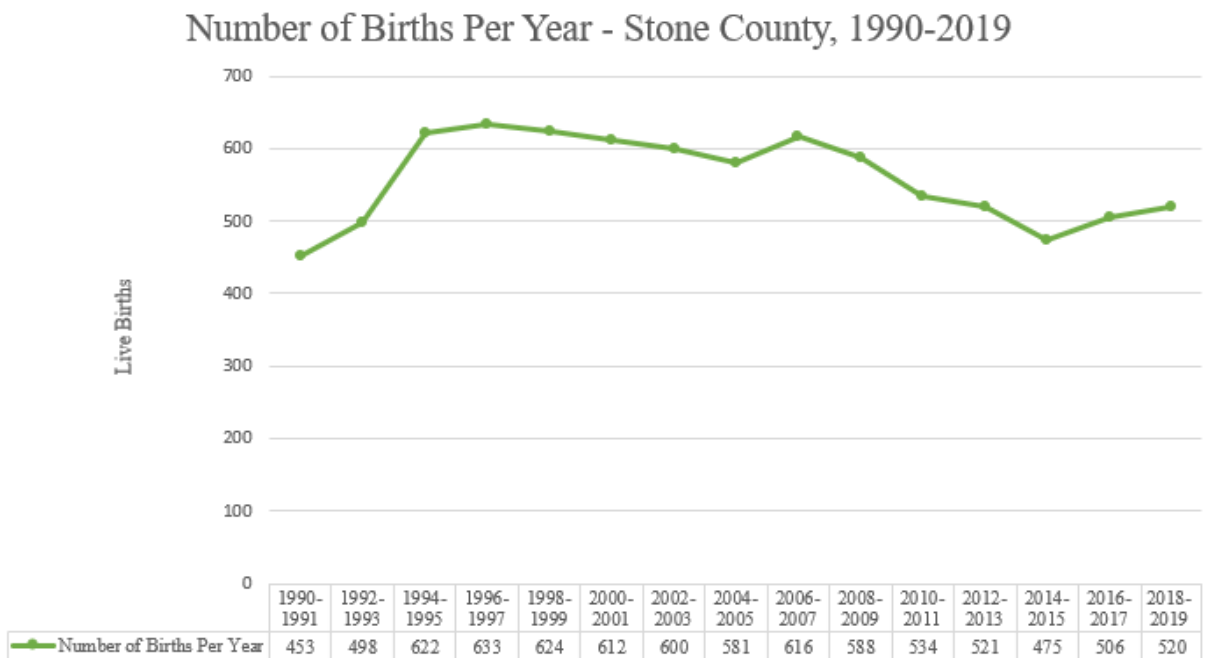
**Table 6.1: Live Births by Gender, Stone County, 1990-2019**

Year	Sex				Total Number
	Male		Female		
	Number	Percent	Number	Percent	
1990-1991	222	49.01%	231	50.99%	453
1992-1993	275	55.22%	223	44.78%	498
1994-1995	315	50.64%	307	49.36%	622
1996-1997	331	52.29%	302	47.71%	633
1998-1999	326	52.24%	298	47.76%	624
2000-2001	313	51.14%	299	48.86%	612
2002-2003	307	51.17%	293	48.83%	600
2004-2005	299	51.46%	282	48.54%	581
2006-2007	319	51.79%	297	48.21%	616
2008-2009	293	49.83%	295	50.17%	588
2010-2011	277	51.87%	257	48.13%	534
2012-2013	275	52.78%	246	47.22%	521
2014-2015	246	51.79%	229	48.21%	475
2016-2017	291	57.51%	215	42.49%	506
2018-2019	262	50.38%	258	49.62%	520
<b>Total</b>	<b>4,351</b>	<b>51.94%</b>	<b>4,032</b>	<b>48.06%</b>	<b>8,383</b>

Source: Missouri Department of Health and Senior Services, 2019

Figure 6.1 shows the trend of live births from 1990 to 2019.

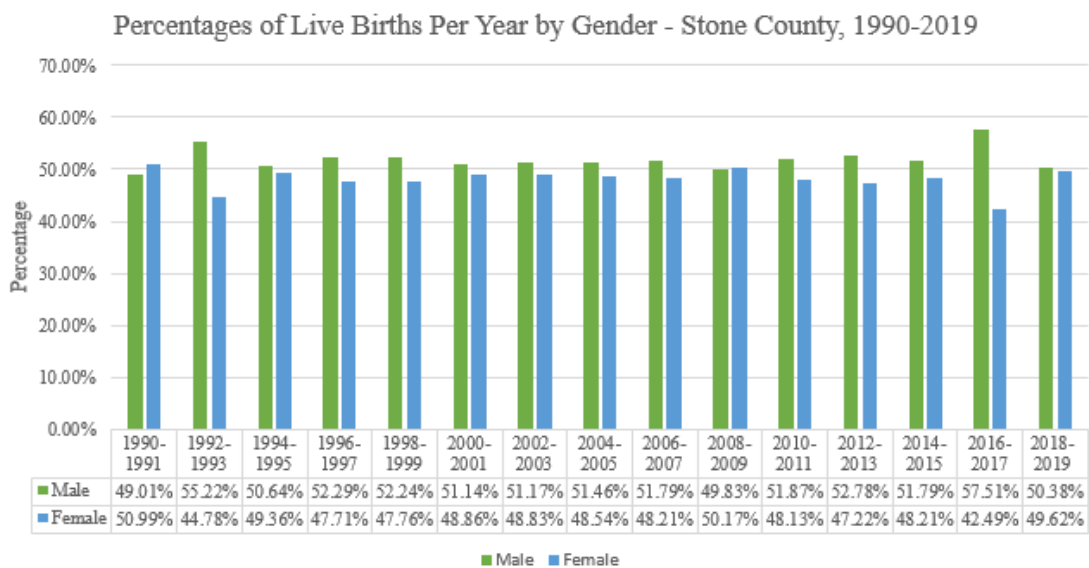
**Figure 6.1: Number of Live Births per Year, 1990-2019**



Source: Missouri Department of Health and Senior Services, 2019

Figure 6.2 shows a graphical representation of each sex born in Stone County, MO from 1990-2019. As indicated in the legend, green represents males born, and blue represents females born.

**Figure 6.2: Percentage of Live Births by Gender, per Year, 1990-2019**



Source: Missouri Department of Health and Senior Services, 2019

**Table 6.2: Live Birth Characteristics, 2011-2020**

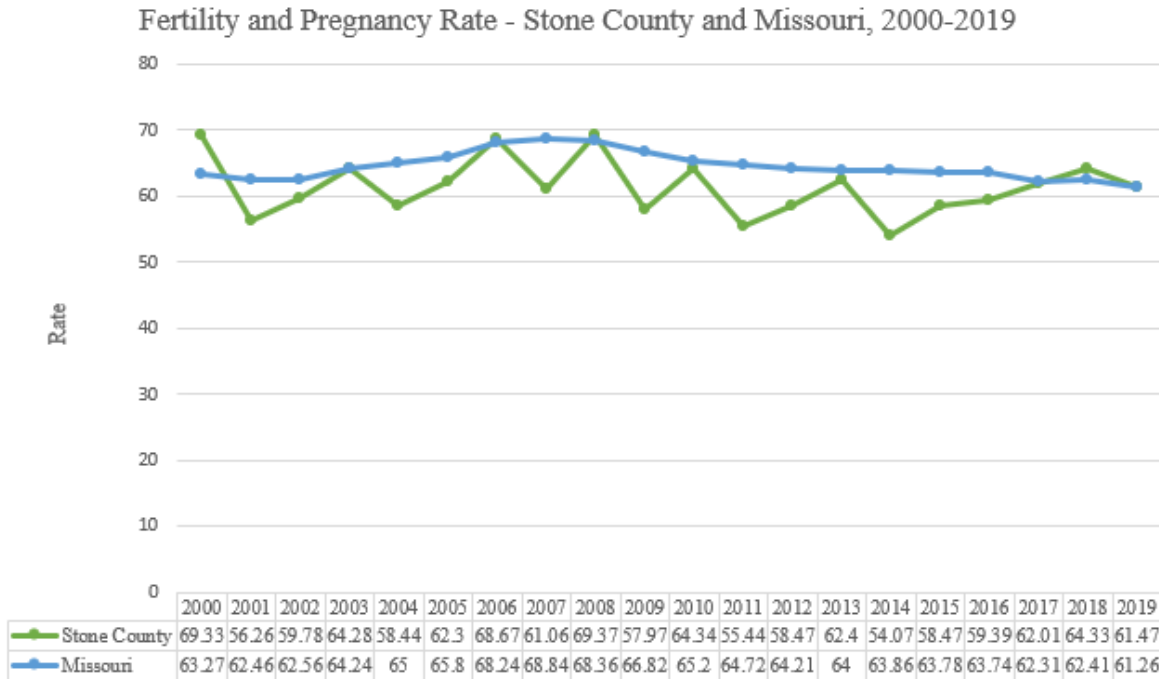
Live Birth Characteristics by Mother's Education: Stone County, 2011-2020					
	Mother's Education Level				
	Less than 12 years	12 years (HS graduate)	Some post-HS education	4 or more years of post-HS ed	Total for selection
	Rate per 100	Rate per 100	Rate per 100	Rate per 100	Rate per 100
Birth Spacing Less than 18 months since last live birth	18.78	16.40	10.18	8.37	13.47
Diabetes	6.70	9.25	11.67	9.56	9.69
Not Married	65.79	53.08	35.14	8.01	42.27
Inadequate Prenatal Care	42.59	27.76	21.43	11.26	25.45
No Prenatal Care	3.58	1.19	0.99	1.33	1.53
Prenatal Care Began First Trimester	52.94	63.10	68.53	82.98	66.36
Prenatal Care Began Third Trimester	8.18	7.38	4.96	1.86	5.84
Prenatal Utilization: Food Stamps	64.34	43.56	28.08	5.16	35.94
Prenatal Utilization: Medicaid	89.35	72.02	53.63	17.59	60.40
Prenatal Utilization: WIC	78.16	71.56	53.98	20.53	58.97
Pre-pregnancy Weight for Height BMI 25.0-29.9	22.17	20.62	21.52	24.93	21.83
Pre-pregnancy Weight for Height BMI 30 or greater	21.20	28.46	30.44	21.75	26.91
Smoking during pregnancy	45.19	30.05	16.92	2.59	23.94
Number of live births	418	876	848	387	2529

Source: MICA, Birth Data, Missouri Department of Health and Senior Services.  
<https://healthapps.dhss.mo.gov/MoPhims/QueryBuilder?qbc=BM&q=1&m=1>

Figure 6.3 also highlights the General Fertility Rate for Stone County. Specifically in this figure, Stone County rates are compared to those of Missouri from 2000 – 2019. Stone County rates showed more significant levels of change year-to-year showing sharp peaks, than that of the state of Missouri did which showed similar waves across the entire 20-year span. However, despite having the appearance of sharp and drastic changes, the trends were relatively neutral over the 2000 to 2013 period, consistently trending up and down and then increasing from 2014 to 2019.



**Figure 6.3: Fertility Rate and Pregnancy Rate of Stone County Compared to Missouri, 2000-2019**

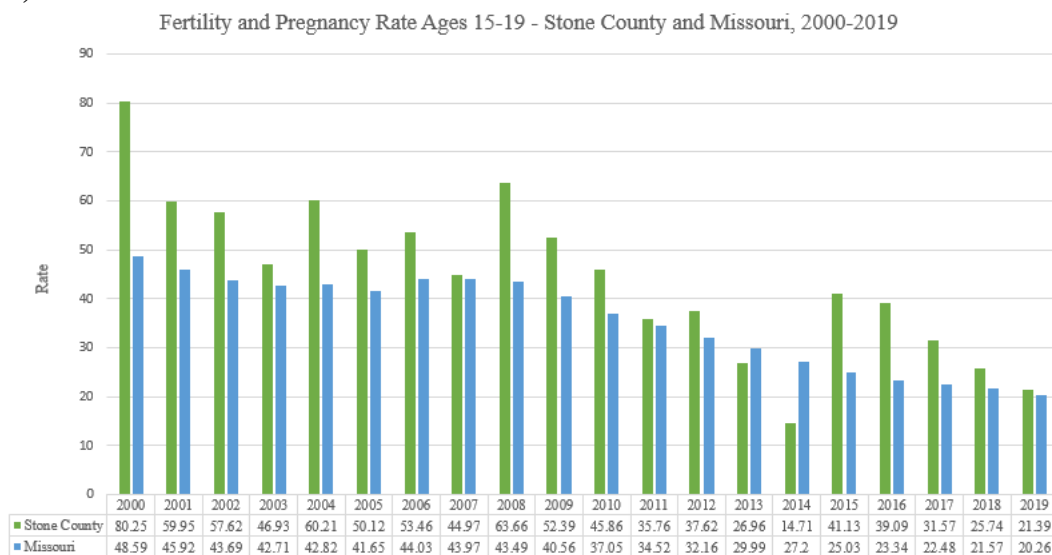


Source: Missouri Department of Health and Senior Services, 2019

### Teen Pregnancy

Figure 6.5 displays the fertility and pregnancy rates for females 15-19 years of age. The figure for teen pregnancy in Stone County as well as the state of Missouri has shown a gradually decreasing trend since 2000.

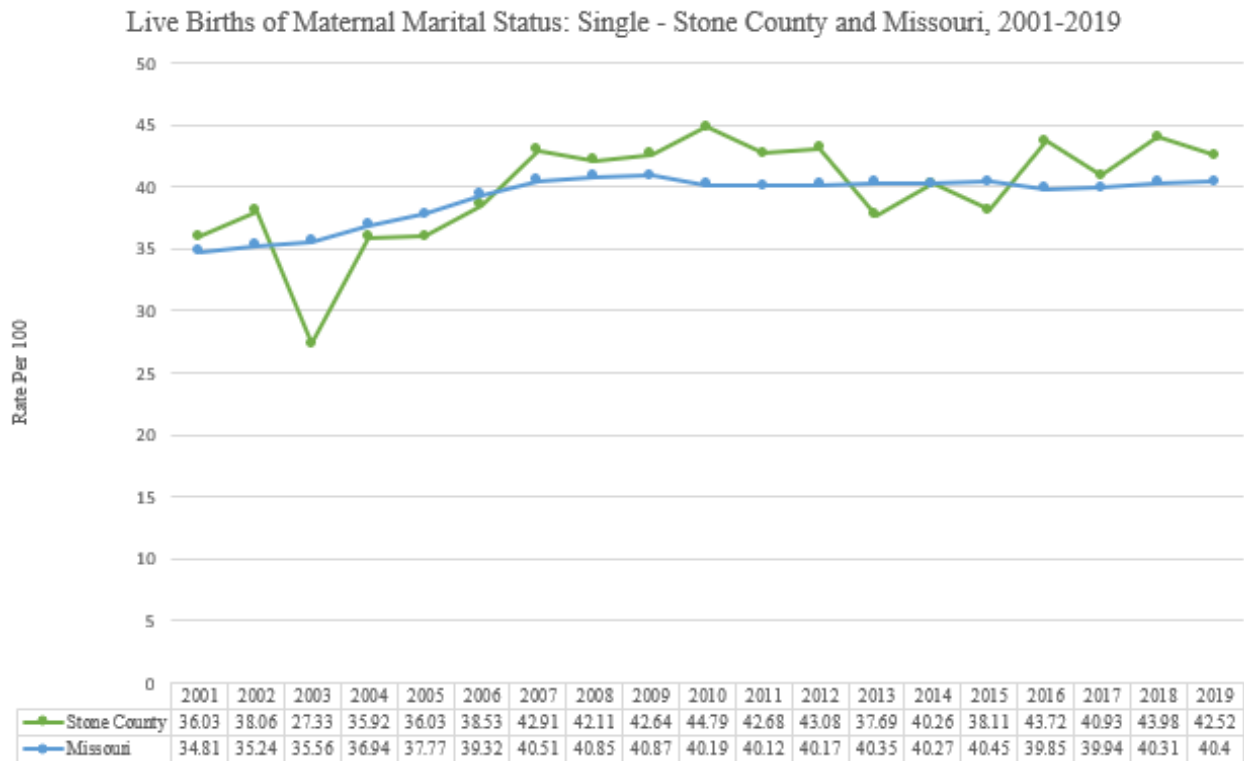
**Figure 6.5: Fertility & Pregnancy Rates, Ages 15-19, in Stone County Compared to Missouri, 2000-2019**



Source: Missouri Department of Health and Senior Services, 2000-2019

Figure 6.6 represents the numbers of total births for women in Missouri and in Stone County born out-of-wedlock. Missouri and Stone County are comparable in births born out-of-wedlock.

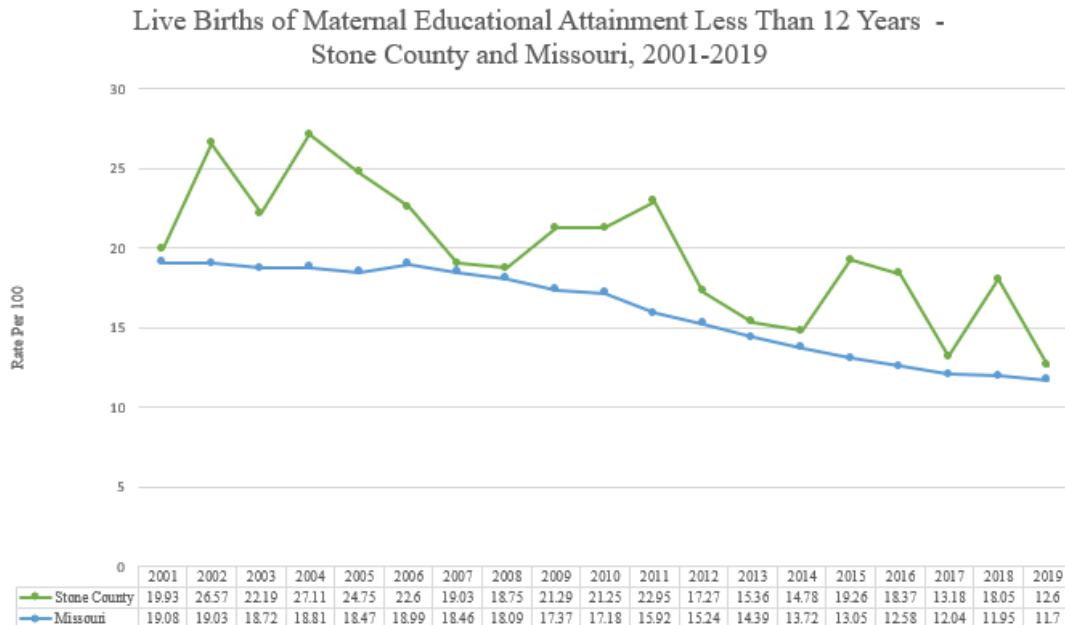
**Figure 6.6: Live Births of Maternal Marital Status: Stone County Compared to Missouri, 2001-2019**



Source: Missouri Department of Health and Senior Services, 2001-2019

Like the previous figure, Figure 6.7 also highlights live births to mothers in Stone County and in Missouri. However, this figure focuses on babies born to mothers with less than 12 years of education. It is shown in the graph and table associated, that for those births to mothers with less than twelve years of education, the rates are higher for Stone County than for Missouri as a whole.

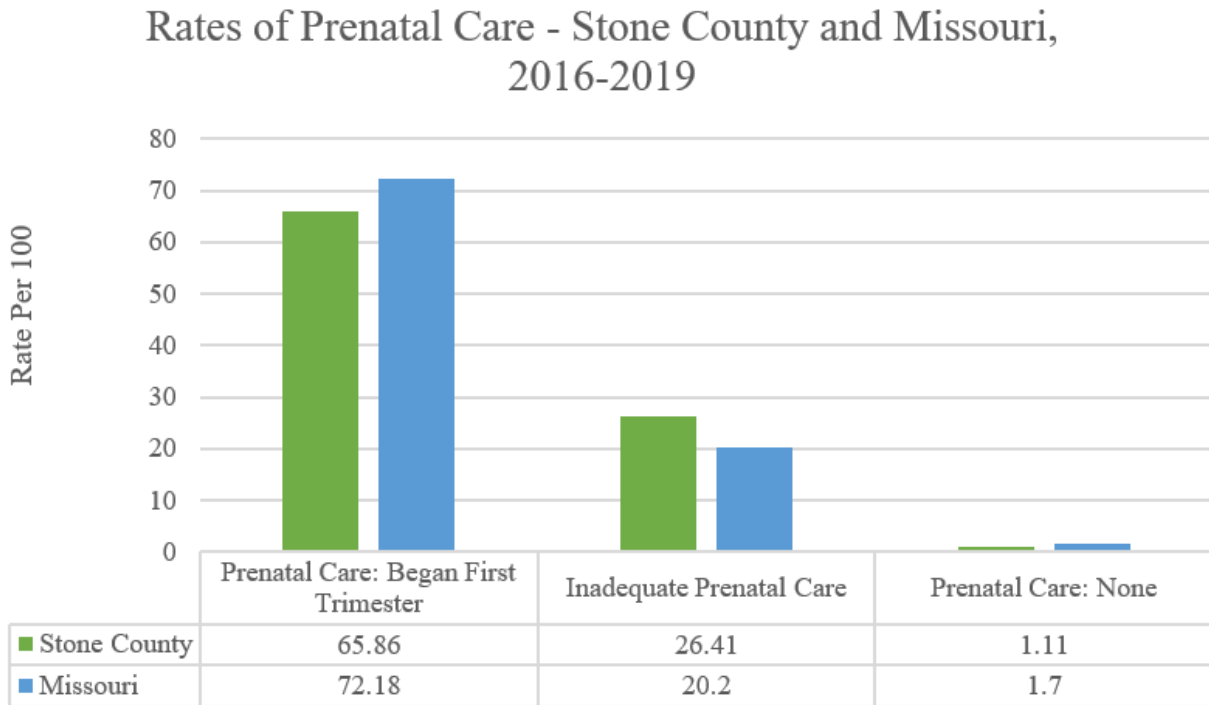
**Figure 6.7: Births to Mothers with Less than 12 years of Education, 2001-2019**



*Source: Missouri Department of Health and Senior Services, 2001-2019*

Figure 6.8 reflects that 65 percent of Stone County residents had infants receiving prenatal care beginning in the first trimester (considered adequate care); however, this amount was lower than the state rate (72%). 26 percent of Stone County residents received inadequate prenatal care (care beginning after the first trimester of pregnancy, which this rate was higher than the state rate (20%). 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. If adequacy of prenatal care could be determined even if month care began or visits were unknown, then these records were included. A very small percentage received no prenatal care for pregnancies occurring between 2016 and 2019.

**Figure 6.8: Rates in Which Prenatal Care for Pregnancies Was Sought, 2016-2019**



Source: Missouri Department of Health and Senior Services, 2019

### Birth Spacing

Figure 6.3 shows that from 2009-2019, Stone County has birth spacing less than 18 months at a rate of 12.3 per 100 births, which was higher than the state rate of 12.07 per 100 births. Child spacing is important, as research has shown that increasing child spacing beyond two years increases the likelihood of healthier infants and mothers. Mothers are more likely to avoid anemia and other nutritional deficiencies, death during childbirth, and third trimester bleeding.

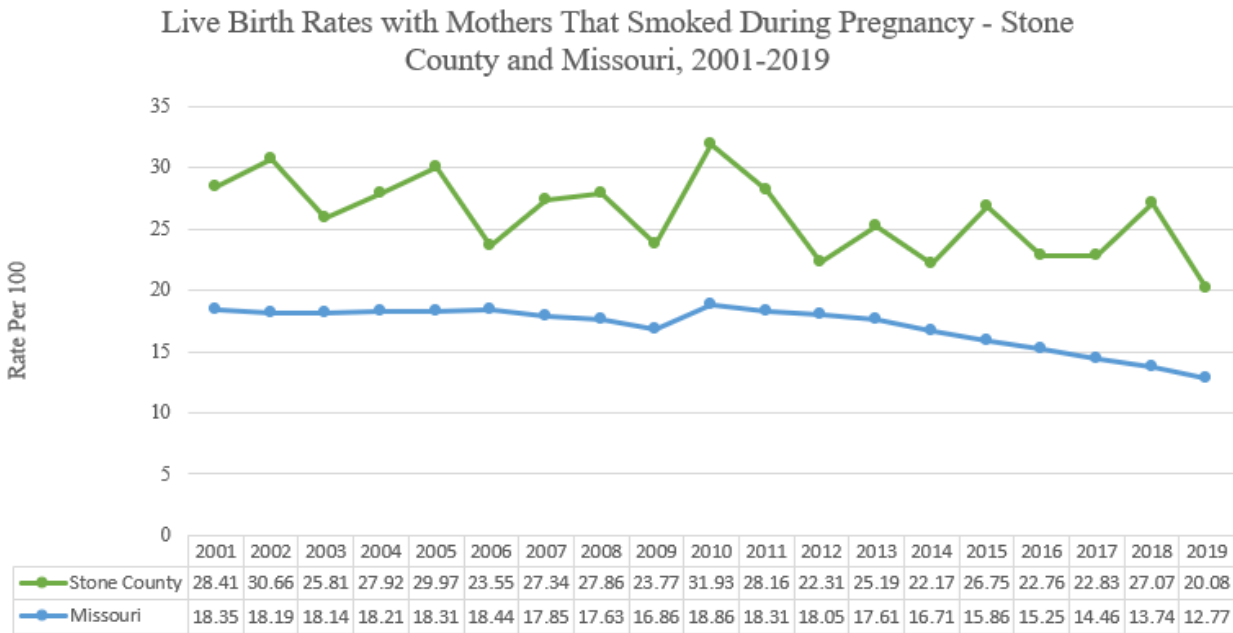
**Table 6.3: Rates of Birth Spacing Less than 18 Months, Stone County and Missouri, 2009-2019**

	Years	Number of Births Spacing <18 Months	County Rate	State Rate
<b>Spacing Less Than 18 Months</b>	<b>2009-2019</b>	<b>197</b>	<b>12.3</b>	<b>12.07</b>

Source: Missouri Department of Health and Senior Services, 2019

The percentage of expectant mothers who smoked in Stone County fluctuated over the years 2001 to 2019 as seen in Figure 6.9. In 2010, the percentage of expectant mothers who smoked peaked, and then declined. In 2019, the percentage expectant mothers who smoked reached a minimum of 20.08%. Overall, across the state, there is a trend of decline in the number of mothers who smoke.

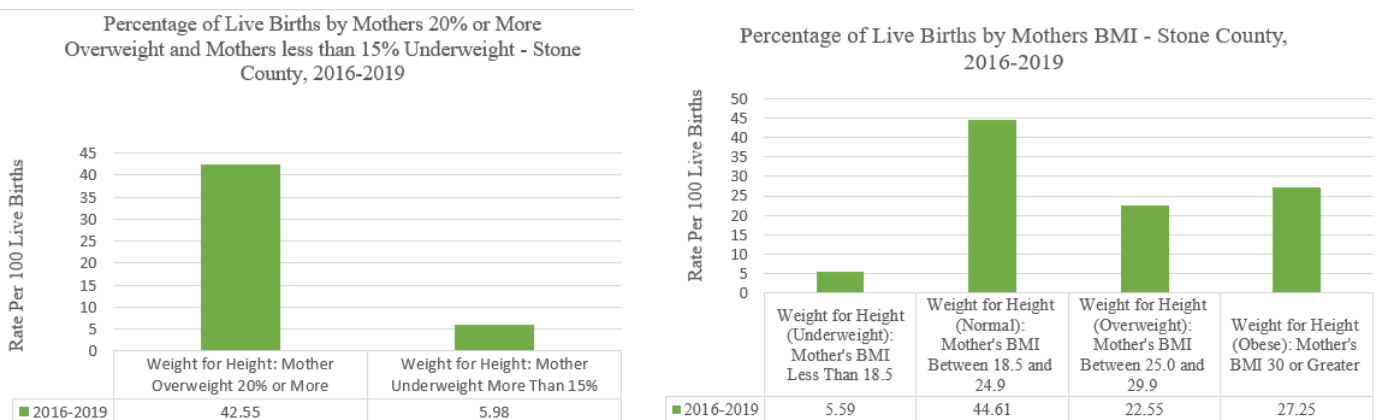
**Figure 6.9: Rates of Mothers That Smoked During Pregnancy, 2001-2019**



Source: Missouri Department of Health and Senior Services, 2019

Figure 6.10 shows the percentage of mothers in Stone County in the category of 20% or more overweight and less than 15% underweight. Over 40% of mothers are 20% or more overweight, an issue that is considered a concern for the health of infants at birth. Figure 6.13 shows the percentage of mothers in Stone County in the categories Overweight and Obese equate to 49.8% of live births, which imposes potential health risks for infants at birth.

**Figure 6.10: Mothers 20% or More Overweight and Mothers less than 15% Underweight by Rate - Stone County, 2016-2019 & Figure 6.13: Mothers BMI by Rate – Stone County, 2016-2019**



Source: Missouri Department of Health and Senior Services, 2019

## Characteristics of Childhood Health and Safety

Assessing children’s health and safety is key to understanding the priority health areas for the county. Once these priorities are identified by Community Health statistics, these areas can be focused on to ensure that the children of Stone County are as safe and healthy as possible.

### Children Immunizations

Figure 6.11 illustrates the 2021-2022 school requirements regarding immunizations. The Stone County Health Department provides immunizations for children before their 19th birthday. Those who are eligible include uninsured, children with MO HealthNet (Medicaid) and underinsured.

**Figure 6.11: School Vaccine Requirements**

Vaccines Required for School Attendance	Dose Required by Grade												
	K	1	2	3	4	5	6	7	8	9	10	11	12
DTaP/DTP/DT <sup>1</sup>	4+	4+	4+	4+	4+	4+	4+	4+	4+	4+	4+	4+	4+
Tdap <sup>2</sup>									1	1	1	1	1
MCV <sup>3</sup> (Meningococcal Conjugate)									1	1	1	1	2
IPV (Polio) <sup>4</sup>	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+
MMR <sup>5</sup>	2	2	2	2	2	2	2	2	2	2	2	2	2
Hepatitis B <sup>6</sup>	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+	3+
Varicella <sup>7</sup>	2	2	2	2	2	2	2	2	2	2	2	2	1

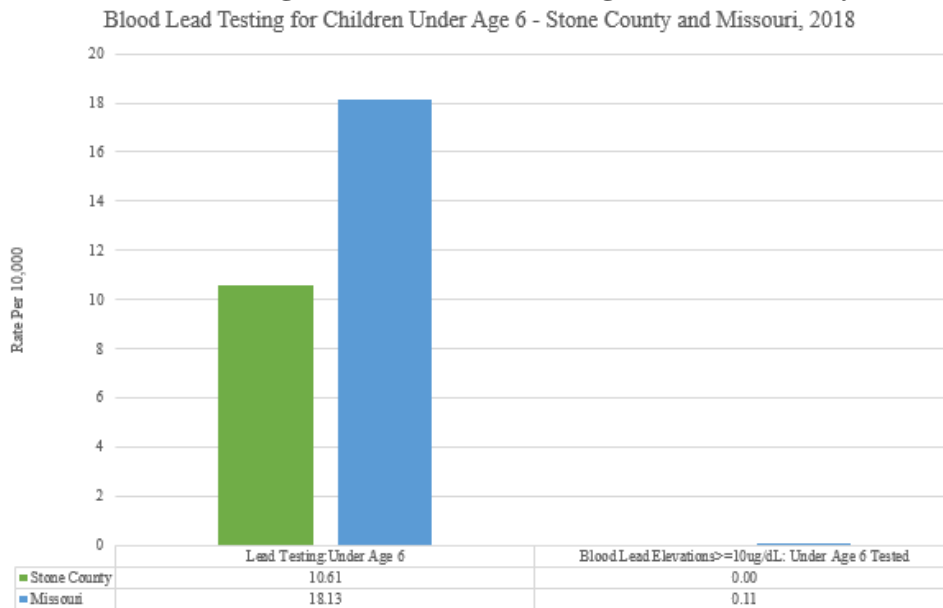
- Last dose on or after the fourth birthday and the last dose of pediatric pertussis before the seventh birthday. **Maximum needed:** six doses.
- 8-12 Grades: Tdap, which contains pertussis vaccine, is required.
- Grade 8-11: One dose of MCV is required. Dose must be given after 10 years of age.  
Grade 12: Two doses of MCV are required unless the first dose was administered to a student who was 16 years of age or older, in which case only one dose is required. At least one dose must be given after 16 years of age.
- Kindergarten-11 Grade: Last dose must be administered on or after the fourth birthday. The interval between the next-to-last and last dose should be at least six months.  
Grade 12: Last dose on or after the fourth birthday. Any combination of four doses of IPV and OPV constitutes a complete series. **Maximum needed:** four doses.
- First dose must be given on or after twelve months of age.
- There must be at least four weeks between dose one and two; at least 8 weeks between dose two and three; at least 16 weeks between doses one and three and final dose must be given no earlier than 24 weeks of age.
- First dose must be given on or after twelve months of age.  
Kindergarten-11 Grade: As satisfactory evidence of disease, a licensed health care provider may sign and place on file with the school a written statement documenting the month and year of previous varicella (chickenpox) disease.  
Grades 12: As satisfactory evidence of disease, a parent/guardian or MD or DO may sign and place on file with the school a written statement documenting the month and year of previous varicella (chickenpox) disease.

Source: Missouri Department of Health and Senior Services, 2022

## Lead Testing

The rates of children under age six that have been tested for lead in 2018 totaled 18.13% of the population under age six in Missouri and 10.61% of the population under age six in Stone County seen in Figure 6.12. Of those tested, only 0.11% had Blood Lead Elevations  $\geq 10\mu\text{g/dL}$  in Missouri.

**Figure 6.12: Blood Lead Testing for Children Under Age 6, Stone County, 2018**



Source: Missouri Department of Health and Senior Services, 2018

## Childhood Obesity

Table 6.4 presents the data concerning Women, Infant, and Children (WIC) participants who were identified as overweight or obese from 2009-2020. The large timeframe was used in order to establish stable rates for the small subpopulation groups in Stone County.

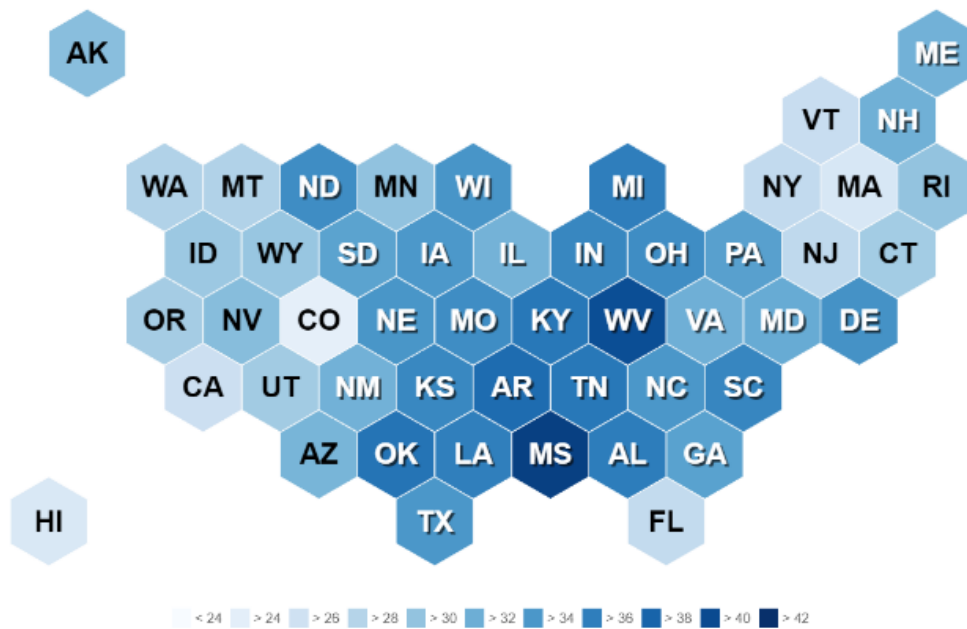
**Table 6.4: Overweight and Obese-WIC Children, Stone County, 2020**

WIC Children	Stone County	Missouri
Obese, <5 Years (2020)	12.5%	15.78%
Obese, <5 Years, White (2009-2020)	12.48%	16.4%
Obese, <5 Years, Black/African American (2009-2020)	11.48%	14.0%
Obese, <5 Years, Multi race (2009-2020)	11.86%	17.1%
Obese, <5 Years, Hispanic/Latino (2009-2020)	12.0%	20.42%

Overweight, <5 Years	13.36%	18.03%
Overweight, <5 Years-White (2009-2020)	15.16%	18.49%
Overweight, <5 Years-Black/African American (2009-2020)	13.31%	15.76%
Overweight, <5 Years-Multi Race (2009-2020)	19.49%	18.35%
Overweight, <5 Years, Hispanic/Latino (2009-2020)	20.92%	19.76%

Source: Missouri Department of Health and Senior Services, MOPHIMS, 2023

Figure 6.13 Obesity Rate by State



Source: World Population Review, Obesity Rate by State, 2022

## Dental Health

Dental health is an important aspect of overall health. Strides are being made to provide better dental health care access to all income levels in Stone County. At this time, the Smile Clinic, located in Ozark, Missouri (Christian County) and Aurora, Missouri (Lawrence County) is a program available for children living in the counties of Stone and Christian who are on Medicaid. Due to the location, transportation is a major barrier to children in Stone County (and parts of Christian) from receiving the full benefit of this clinic. The Elks Lodge also works with Stone County Health Department to help subsidize dental care for those in dire need. Additionally, one dentist in Crane will treat children who are enrolled in Medicaid and have severe dental issues.



**Child Abuse and Neglect**

From 2010 to 2019 rates of Probable Child Abuse/ Neglect reported to the Missouri Department of Health and Senior Services increased from 3.8 per 1,000 to 7.30 per 1,000. Missouri rates are historically significantly lower than Stone County. The Probable Child Abuse/ Neglect rate in Stone County is almost twice the rate in Missouri, ranking number 87 out of 114 as the highest rate of counties in the state shown in Figure 6.15.

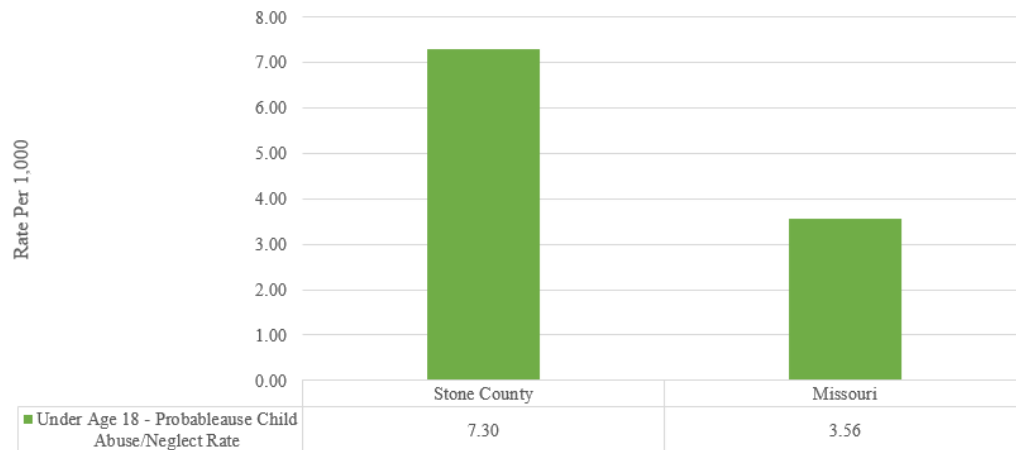
**Figure 6.14: Child Protection and Permanency in Stone County**

Child Protection and Permanency	
Children Involved In Hotline Reports	389
Children With Substantiated Abuse Or Neglect	3
Children With Completed Family Assessments	285
Avg. Monthly Children In Foster Care	87
Children Adopted	18
Children’s Services Expenditures	\$2.8 mil
Avg. Monthly Children Receiving CC Subsidy	39
Child Care Expenditures	\$133,452

Source: Missouri Department of Social Services, 2020

**Figure 6.15: Probable Cause Child Abuse/ Neglect Rates per 1,000, 2019**

Under Age 18 - Probable Cause Child Abuse/Neglect Rate - Stone County and Missouri, 2019



Source: Missouri Department of Health and Senior Services, 2019

Table 6.5 shows the reported and substantiated number of children involved in abuse/neglect cases in Stone County and Missouri. The table also shows each category of abuse/neglect, and the percentage of children who were affected by each category.

**Table 6.5: Substantiated Children of Abuse/ Neglect, Stone County and Missouri, 2020**

Category of Abuse/ Neglect	Stone County		Missouri	
	Number of Children	Percent of Children	Number of Children	Percent of Children
Physical Abuse	1	14.3%	1,571	33.2%
Neglect	3	42.9%	2,505	52.9%
Emotional Abuse	0	0.0%	751	15.9%
Medical Neglect	0	0.0%	125	2.6%

Educational Neglect	0	0.0%	58	1.2%
Sexual Abuse	5	71.4%	1,514	32.0%

Source: Missouri Department of Social Services, Child Abuse/Neglect, 2020

Table 6.6 shows the number of Child Abuse and Neglect Fatalities by year from 2014-2020. Stone County had two deaths due to Child Abuse and Neglect from 2014 - 2020. During the same period, 301 children died throughout the state.

**Table 6.6: Substantiated Child Abuse/ Neglect Fatalities by Year of Death, 2020**

Region	2014	2015	2016	2017	2018	2019	2020
Stone County	0	0	1	0	1	0	0
Missouri	35	40	43	43	49	44	47

Source: Missouri Department of Social Services, Child Abuse/Neglect, 2020

According to the Missouri Department of Health and Senior Services, the low number of children and infants who died from unintentional injuries in Stone County creates rates that are not stable and are potentially inaccurate in making comparisons to Missouri. The following Table 6.7 gives the number of each event that was recorded for each category and a rate per 100,000.

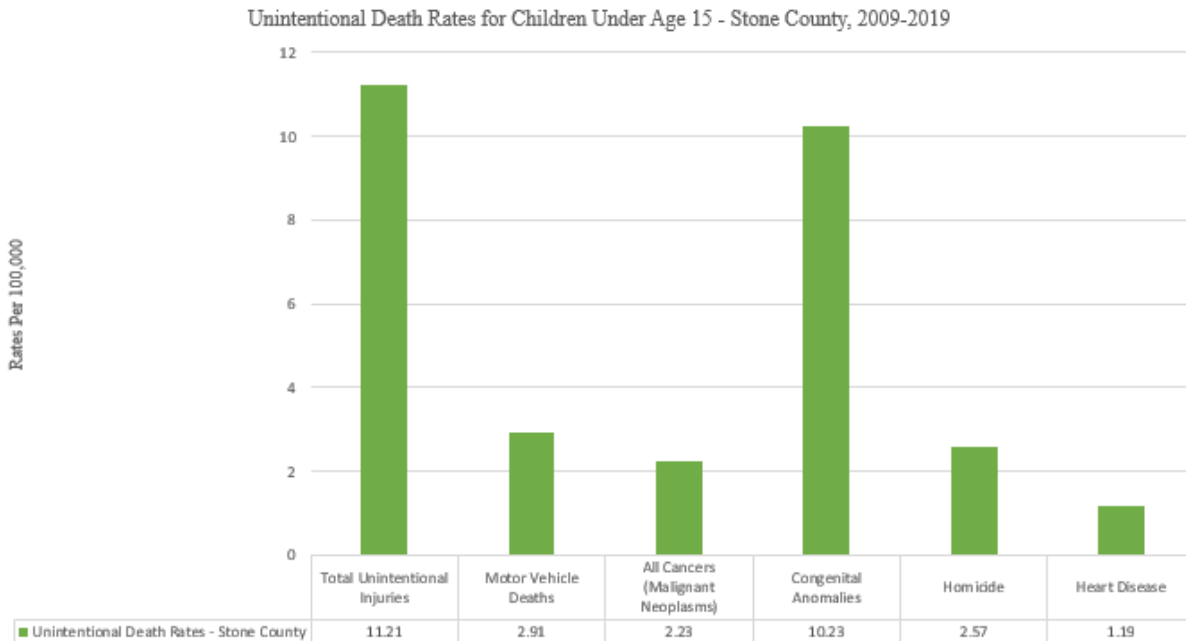
**Table 6.7: Unintentional Death Rates per 100,000 for Children Under Age 15 in Stone County and Missouri, 2009-2019**

Deaths Ages Under 15	Number of Events	Stone County Rate	Missouri Rate
Total Unintentional Injuries	9	18.45	11.21
Motor Vehicle Deaths	4	8.20	2.91
All Cancers (Malignant Neoplasms)	1	2.05	2.23
Congenital Anomalies	8	16.40	10.23
Homicide	0	0	2.57
Heart Disease	4	8.20	1.19

Source: Missouri Department of Health and Senior Services, 2019

Figure 6.16 is a graphical representation of each category of deaths for children ages under age fifteen in Stone County for the period of 2009-2019. Rates are per 100,000. Congenital Anomalies are the second leading cause of child deaths behind unintentional injury deaths with motor vehicle accidents the third leading cause of child deaths in Stone County.

**Figure 6.16: Unintentional Death Rates per 100,000 for Children (1-14), 2009-2019**



Source: Missouri Department of Health and Senior Services, 2019

Table 6.8 shows the number of students enrolled in free and reduced lunch in Stone County, born with a low birth weight, suffered child abuse and neglect, born to teen mothers, recipients of food stamps, enrolled in Medicaid. All of these factors contribute to the livelihood of the child and increase the at-risk potential for both child abuse and neglect.

**Table 6.8: Stone County Children and Families Profile**

Children and Families		
	Stone County	MO
Children <18 yo living in poverty	24.5%	17.0%
Food insecurity	18.3%	15.2%
Low birthweight infants	9.2%	8.6%
Preventable hospitalizations for all causes, children under 18 (rate/1,000)	5.2	6.9
Child asthma ER rate (per 1,000)	3.4	7.0
Births to teens, age 15-19 (per 1,000)	21.4	20.3
Substantiated child abuse/neglect cases (per 1,000)	2.9	3.2
High school graduation	94.5%	91.7%
Minority child population under 18 as % of child population	8.2%	
Child homelessness	5.6%	

Source: Missouri Kids County Data, 2021

## Chapter 7: Injury, Chronic Illness, and Death

### Injuries and Chronic Disease

Injuries have an enormous impact on residents of Stone County. Injuries result in economic losses, as well as disabilities that affect quality and length of life. Some of these negative consequences can be avoided by taking proper safety precautions.

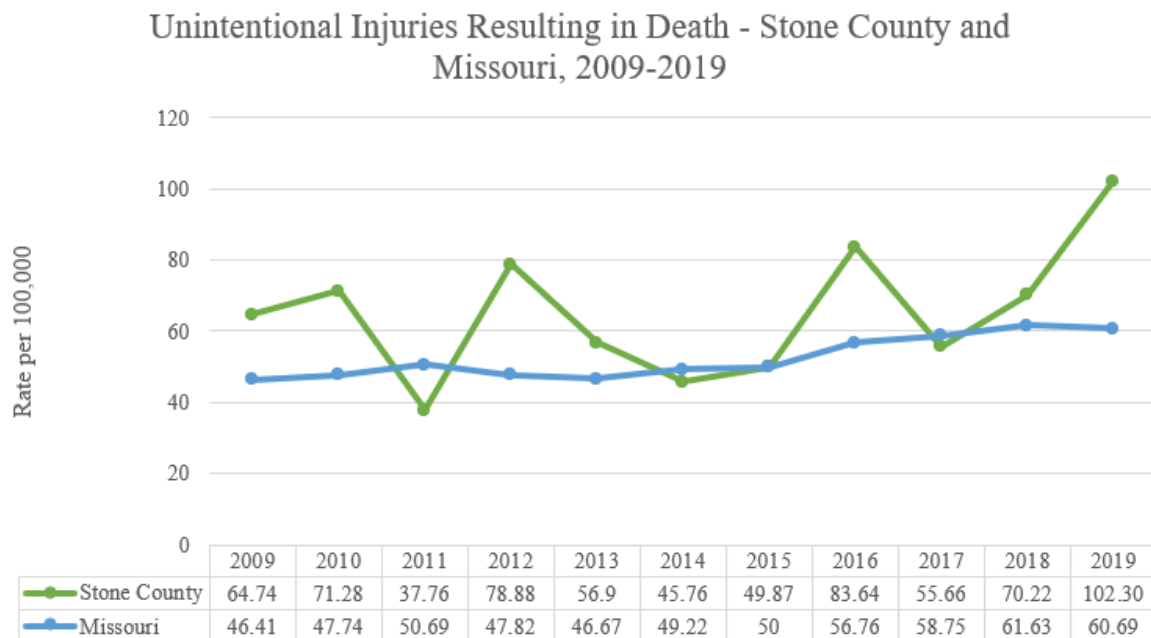
Numerous deaths due to cancer, heart disease, stroke, and other chronic diseases occur every year. Longitudinal studies have shown that both genetic and lifestyle components affect these diseases. In order to decrease the prevalence of chronic diseases, prevention through lifestyle changes and early detection need to occur.

Unfortunately, it is difficult to monitor the incidence of active and developing chronic diseases in the community. This can be accomplished through health surveys that inquire about lifestyle risk factors and diagnosed disease conditions. Using existing data, local public health agencies must monitor mortality trends closely to measure the impact that chronic diseases have on the community.

### Unintentional Deaths and Hospitalizations

Missouri consists of 114 counties; these counties are divided to rank counties in order by rate. The highest rates are ranked with a 1 and the lowest rates are ranked with a 5. Stone County is ranked as a 4 in Total Unintentional Deaths and 1 in hospitalizations due to Falls and emergency room visits due to Poisoning from Gas, Cleaner, or Caustic agents.

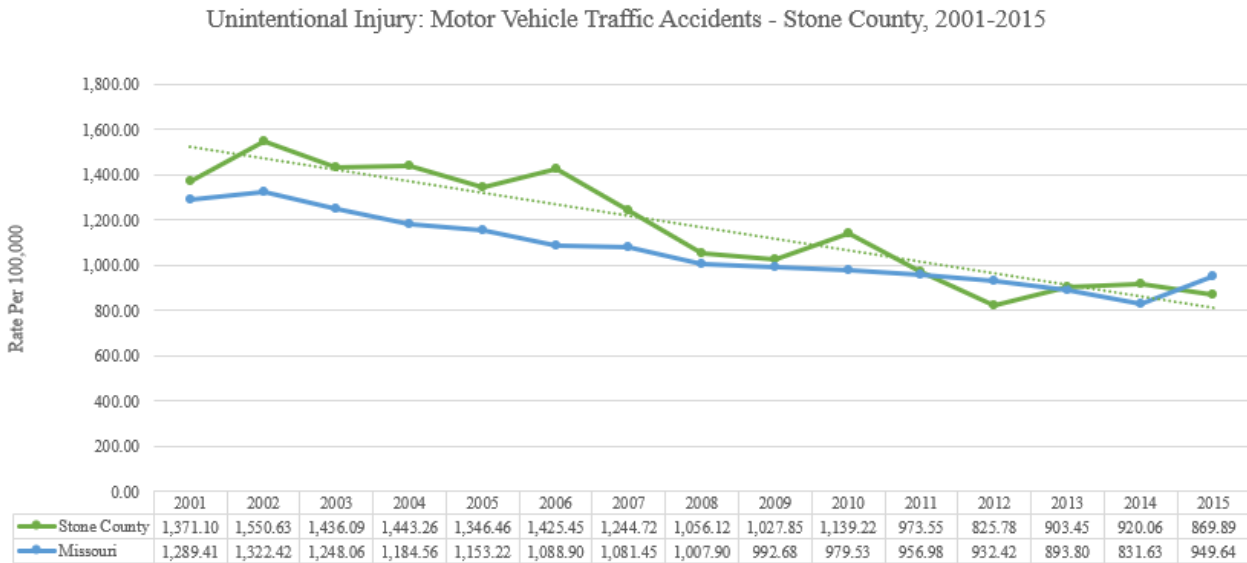
**Figure 7.1: Unintentional Injury Profile for Stone County Deaths: Total Unintentional Injury Deaths 2009-2019**



Source: MO Department of Health and Senior Services, 2019

Figure 7.2 shows the number of injuries due to Motor Vehicle Accidents for the years 2001 to 2015 in Stone County and Missouri. The trend lines show that Stone County and Missouri have steadily decreased in motor vehicles injuries over time.

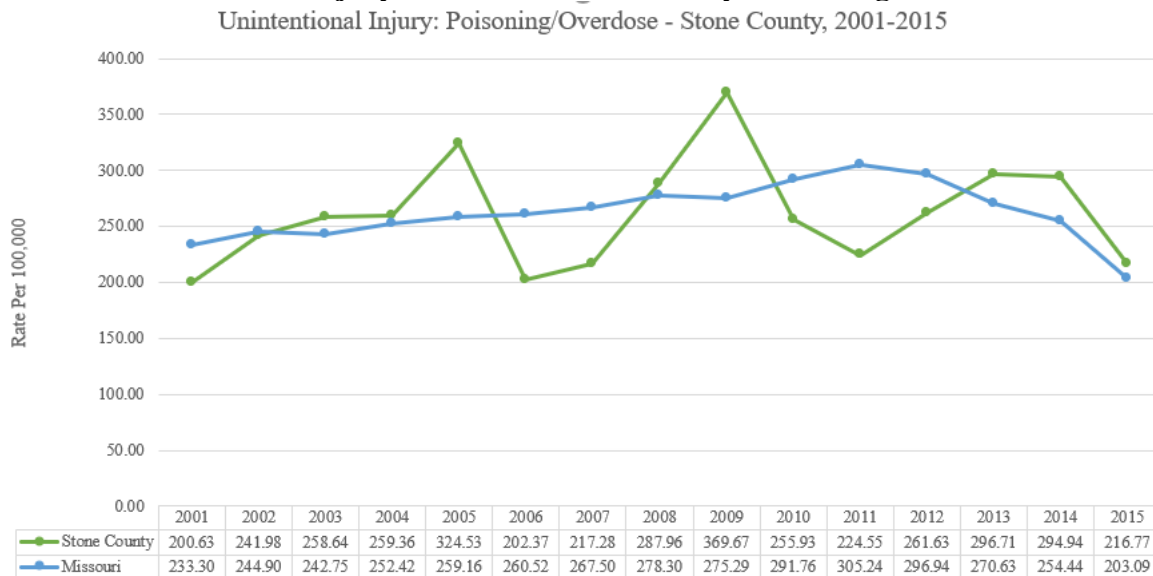
**Figure 7.2: Unintentional Injury Profile for Stone County: Motor Vehicle Traffic Accidents 2001-2015**



*Source: MO Department of Health and Senior Services, 2015*

Figure 7.3 shows the number of injuries due to Poisoning/Overdose for the years 2001-2015. The trend lines show that Stone County and Missouri have slightly increased in Poisoning/Overdose injuries, despite the fluctuation of trendlines over the years. In an effort to reduce overdose deaths, Stone County First Responders carry Naloxone, the antidote for opioid poisoning.

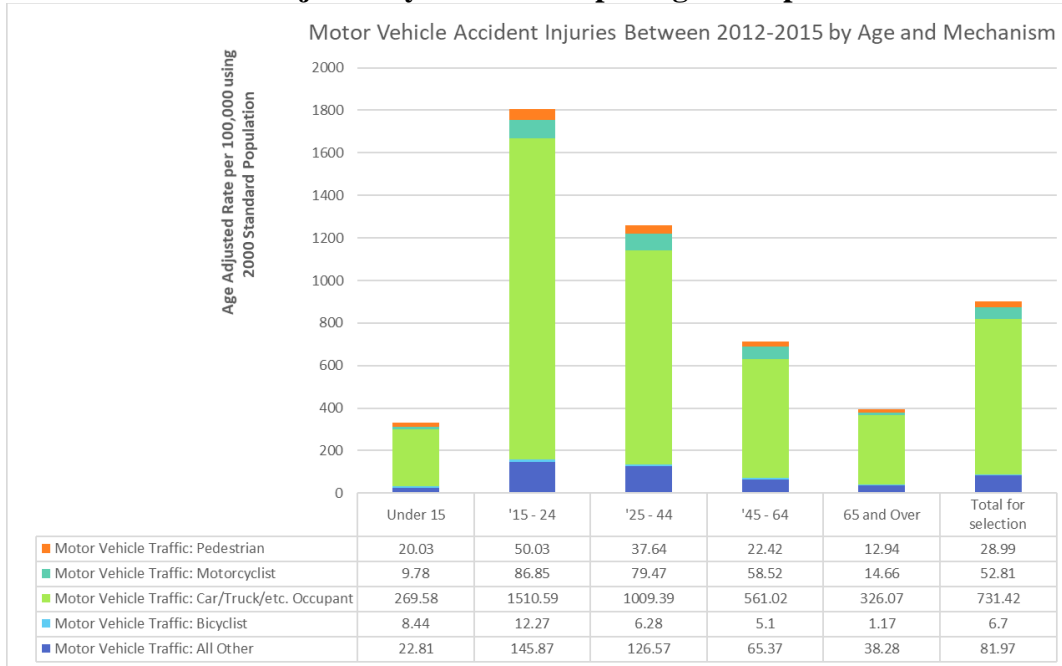
**Figure 7.3: Unintentional Injury Profile for Stone County: Poisoning/Overdose 2001-2015**



*Source: MO Department of Health and Senior Services, 2015*

Figure 7.4 shows the mechanism of injuries by age group. The 15-24 age group leads all categories by mechanism. Ages 25-44 follows closely behind. Bicycle injuries are minimal, most likely due to the low availability of sidewalks in the county.

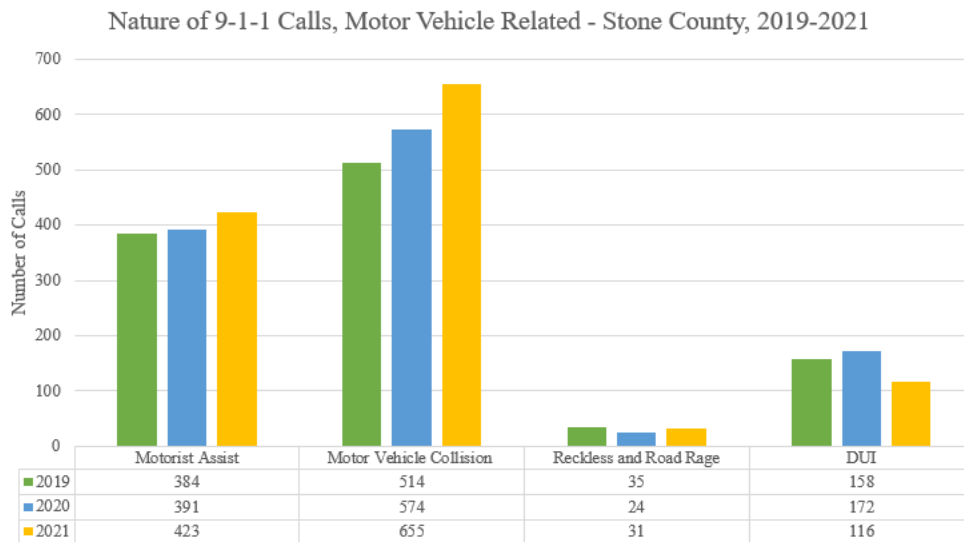
**Figure 7.4: Unintentional Injuries by Mechanism per Age Group**



Source: MO Department of Health and Senior Services, 2015

Figure 7.5 is a representation of the nature of 9-1-1 calls relating to motor vehicle instances. Motorist Assists, Careless and Imprudent Driving, and DUI lead for each year.

**Figure 7.5: Nature of 9-1-1 Calls, Motor Vehicle, 2019-2021**

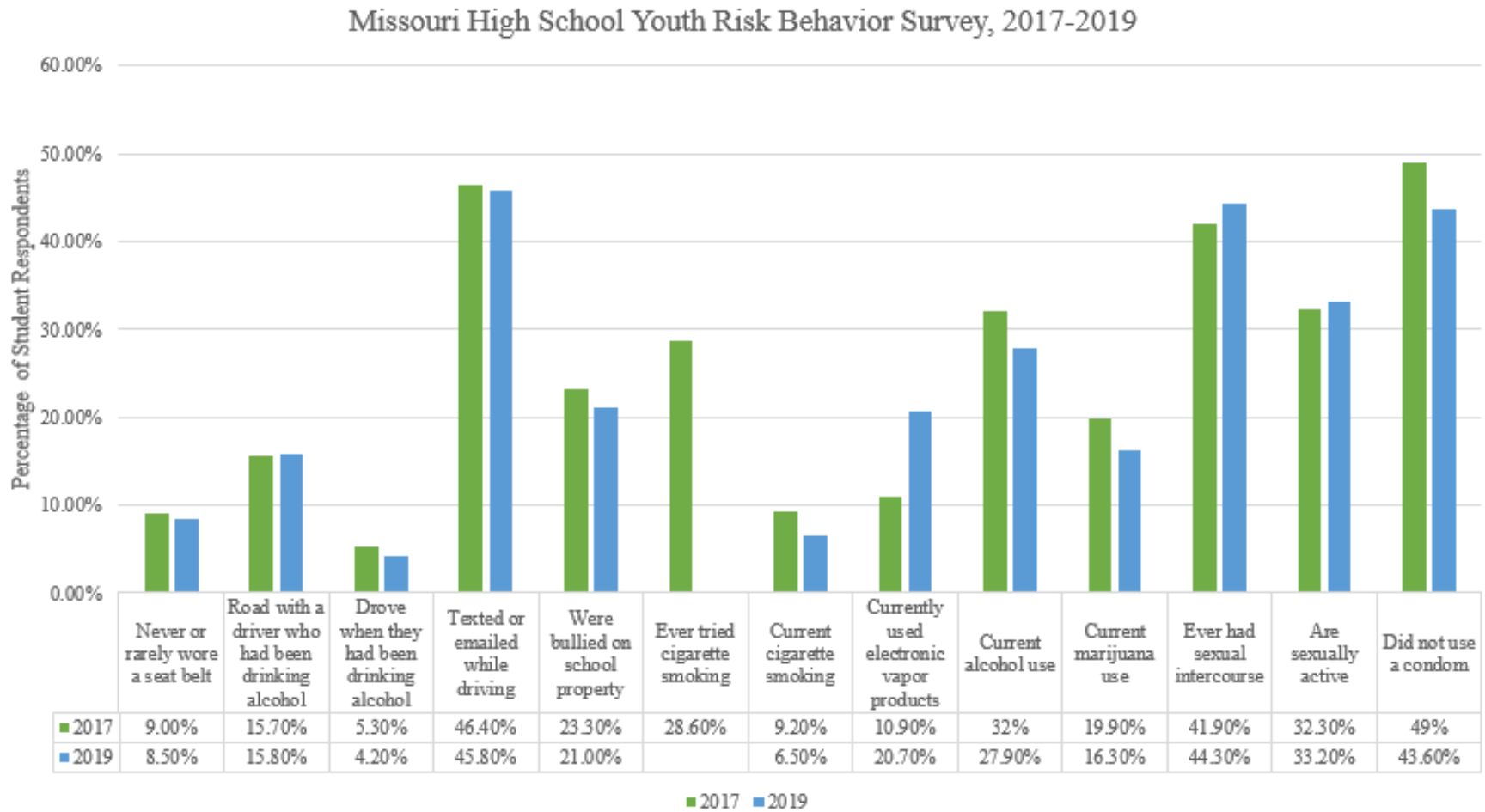


Source: Stone County Emergency Services, 2021

Figure 7.6 is a highly descriptive representation from the Behavior Risk Factor Survey for Missouri Youth for both 2017 and 2019. Risk-related behaviors for Stone County youth include Texted/

Emailed While Driving, Ever Had Sexual Intercourse, and Are Sexually Active. The categories that showed an increase are Road with a Driver Who Had Been Drinking Alcohol, Currently used Electronic Vapor Products, and Are Sexually Active.

**Figure 7.6: Missouri High School Youth Risk Behavior Survey, 2017-2019**



Source: Centers for Disease Control and Prevention, Behavior Risk Factor Survey, 2019

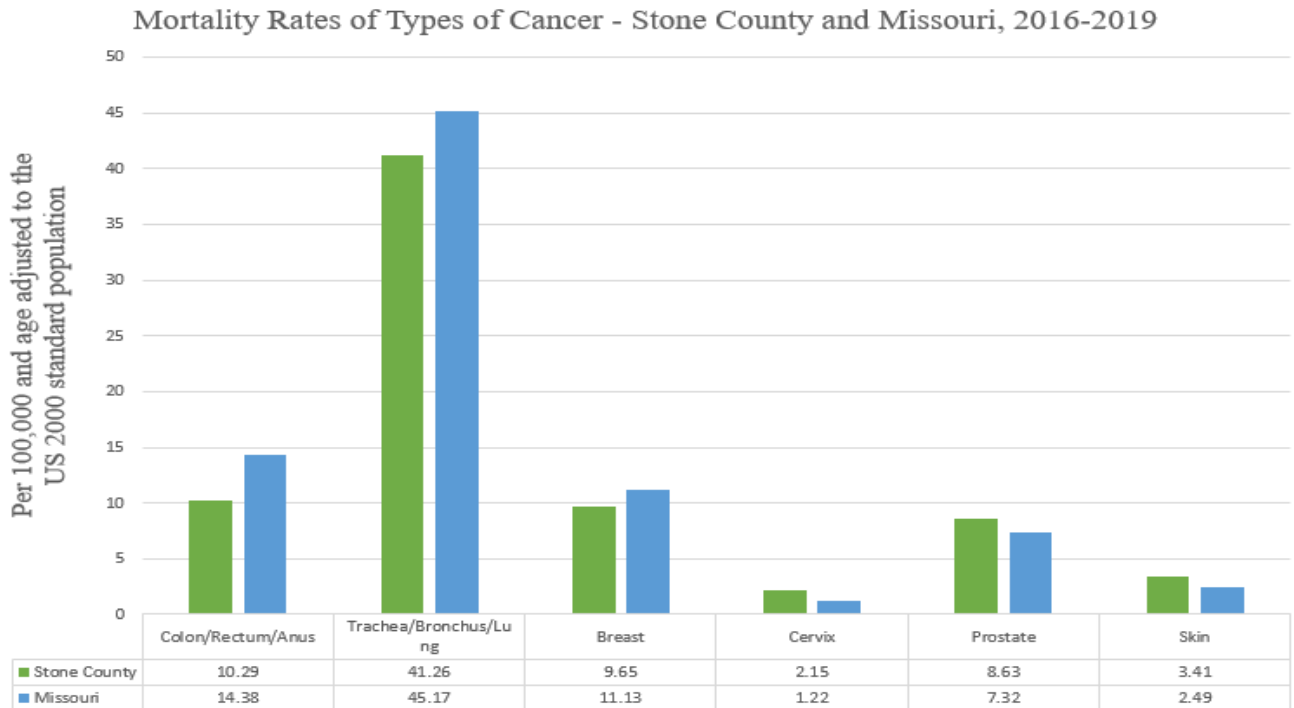


## Chronic Diseases

### Cancer

Figure 7.7 illustrates the proportion of deaths in Stone County by the most common cancer sites. Stone County has higher rates of cervical, prostate, and skin cancer than the state.

**Figure 7.7: Rate of Total Cancer Deaths, 2016-2019**

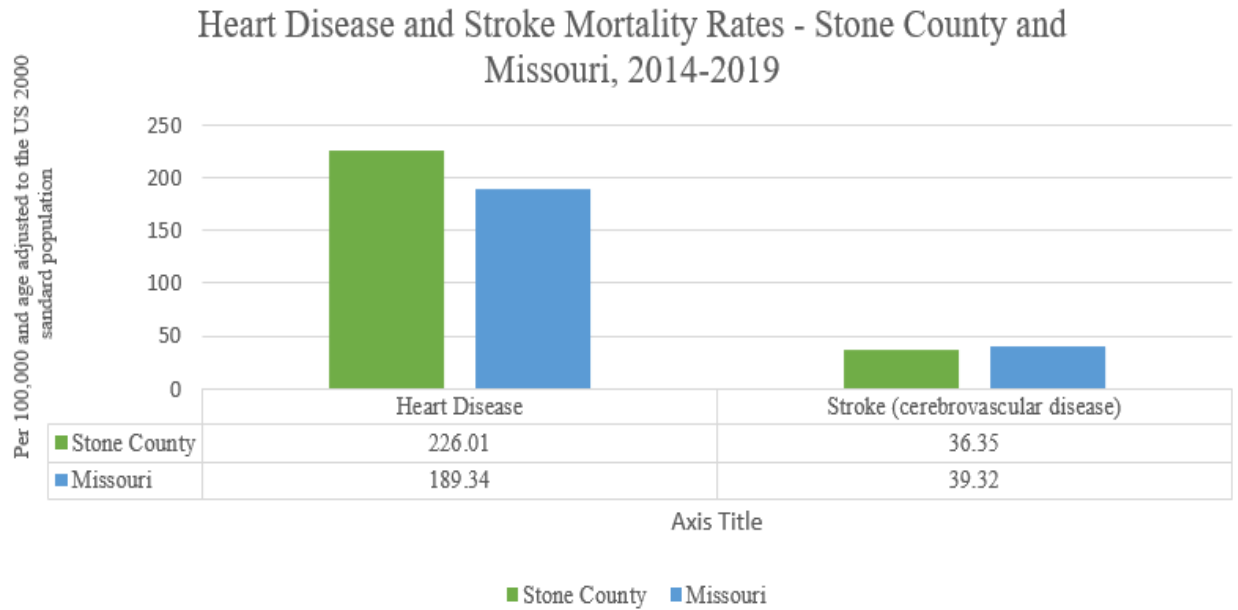


Source: Missouri Department of Health and Senior Services, 2019

### Cardiovascular and Cerebrovascular Disease

Figure 7.8 illustrates heart disease and stroke mortality rate comparisons between Stone County and Missouri. Overall, the rate for heart disease in Stone County is higher than the state. However, the rates are nearly identical with regards to stroke. These should be monitored closely due to heart disease being the leading cause of death in Stone County.

**Figure 7.8: Mortality of Heart Disease & Stroke, 2014-2019**

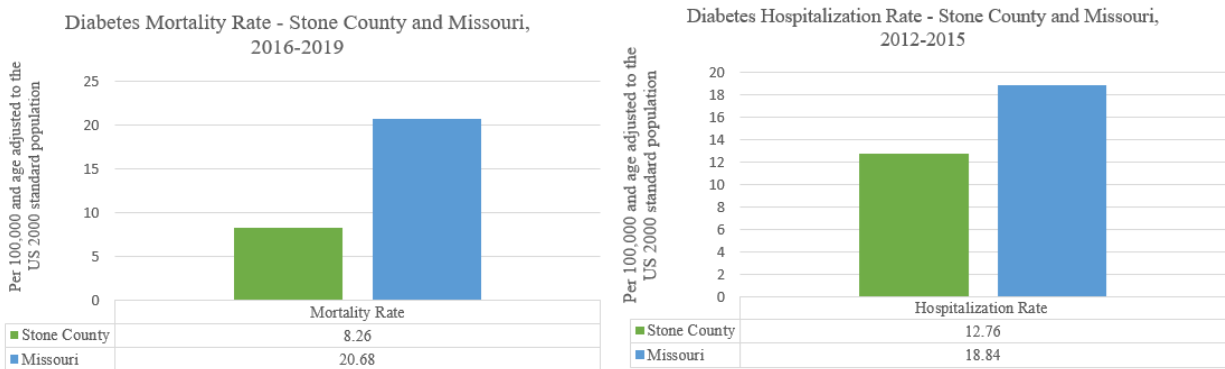


Source: Missouri Department of Health and Senior Services, 2019

### Diabetes Mellitus

Diabetes is one of the most common diseases today and can be attributed to many factors – genetics, diet, inactivity, and failure of other organ systems in the body. Figure 7.9 compares mortality and hospitalization rates for diabetes mellitus for Stone County and Missouri.

**Figure 7.9: Mortality and Hospitalization Rate for Diabetes Mellitus, 2012-2015; 2016-2019**

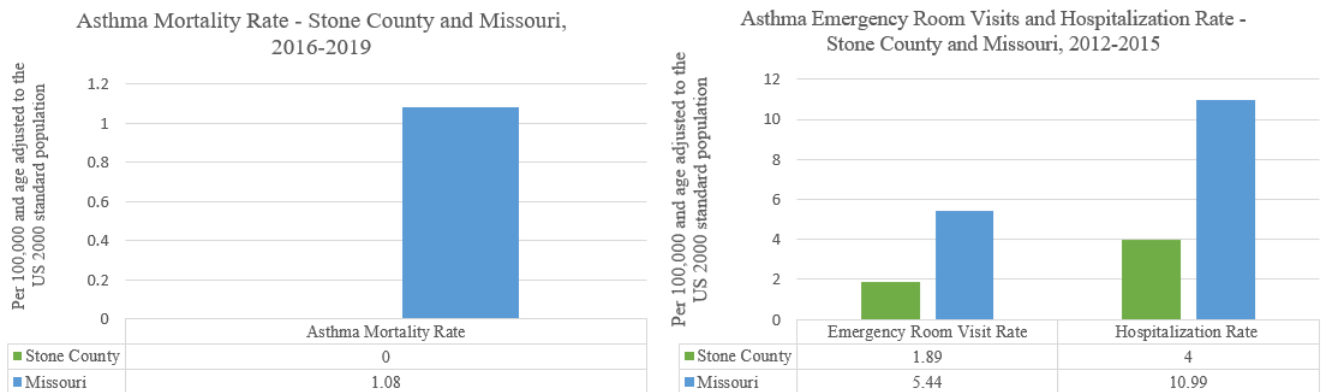


Source: Missouri Department of Health and Senior Services, 2015, 2019

### Asthma

The mortality, hospitalization, and ER visit rates for asthma are significantly higher in the state than it is in Stone County as seen in Figure 7.10.

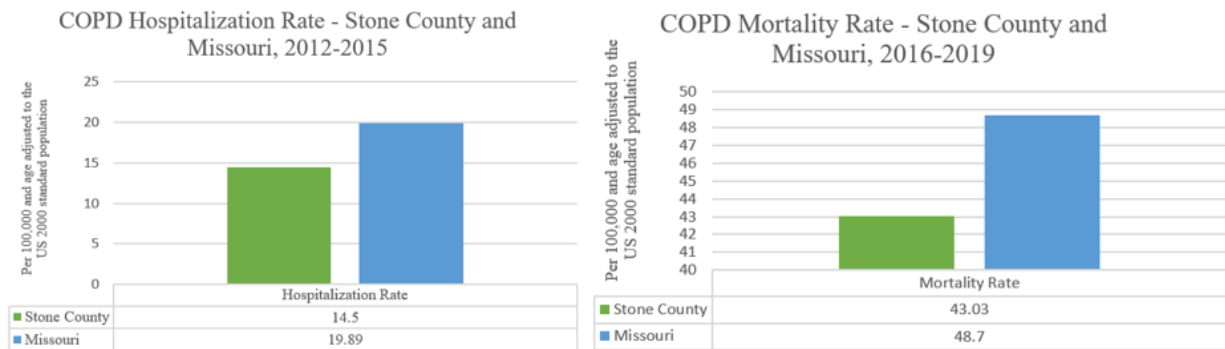
**Figure 7.10: Mortality, Hospitalization, and ER Visit Rates of Asthma, 2012-2015; 2016-2019**



Source: Missouri Department of Health and Senior Services, 2015, 2019

Figure 7.11 shows the rate for deaths due to Chronic Obstructive Pulmonary Disorder (COPD) is slightly lower than that of the state but the rate for hospitalizations is much higher.

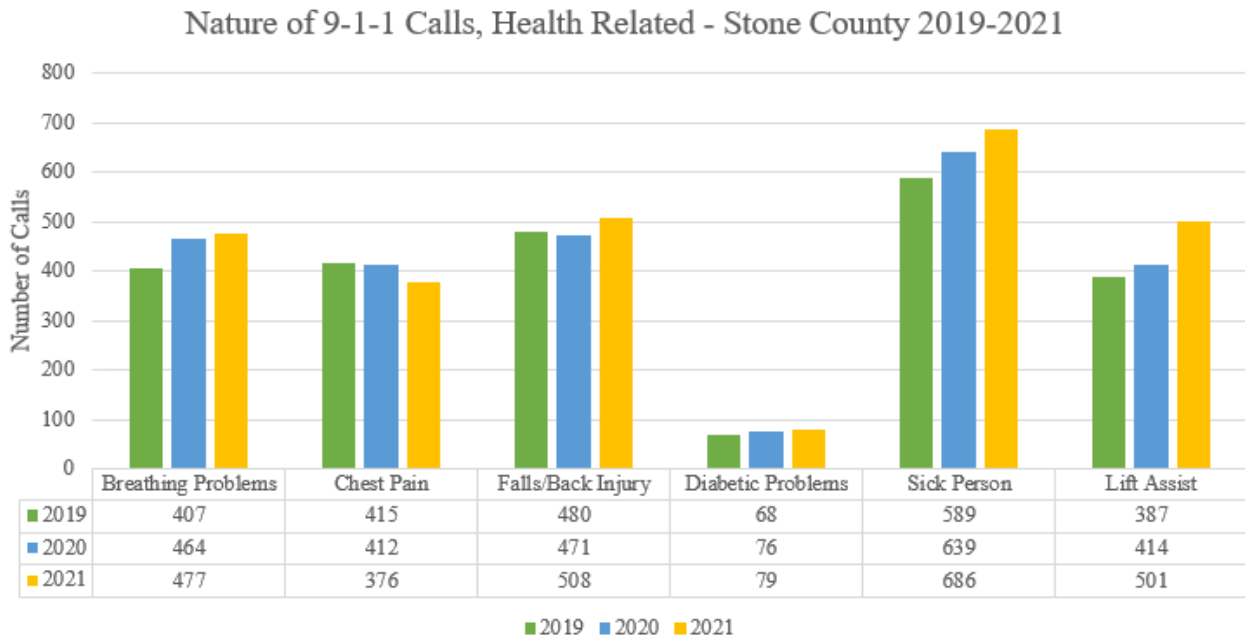
**Figure 7.11: Hospitalization and Mortality Rate of COPD, 2012-2015; 2016-2019**



Source: Missouri Department of Health and Senior Services, 2015, 2019

Figure 7.12 shows a representation of the nature of 9-1-1 Emergency Calls related to health conditions. Sick Person holds the highest number for 2019, 2020, and 2021. With the rise of COVID-19, breathing problem related 911 calls increased from 2019 through 2021, in conjunction with the pattern of COVID-19 cases (shown in Figure 8.7).

**Figure 7.12: Nature of 9-1-1 Calls, Health Related, 2019-2021**



Source: Stone County Emergency Services, 2021

Figure 7.13 is a display of the top 5 Chronic Disease Diagnosis at Cox Health Center Branson in 2020 and 2021.

**Figure 7.13: Chronic Disease Diagnoses**

**2020 Top 5 Chronic Diagnosis**

- ◆ Essential Primary Hypertension I10
- ◆ Type 2 DM Without Complications E11.9
- ◆ Mixed Hyperlipidemia E78.2
- ◆ Hypothyroid E03.9
- ◆ Other Hyperlipidemia E78.49

**2021 Top 5 Chronic Diagnosis**

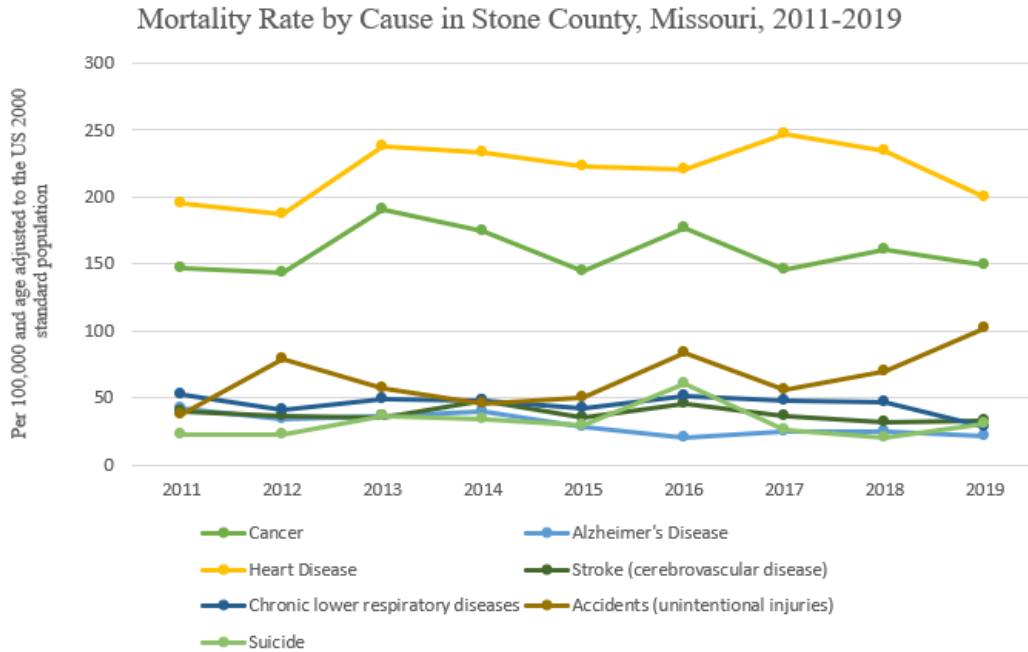
- ◆ Essential Primary Hypertension I10
- ◆ Type 2 DM Without Complications E11.9
- ◆ Mixed Hyperlipidemia E78.2
- ◆ Hyperlipidemia E78.5
- ◆ Hypothyroidism E03.9

Source: Cox Health Center Branson, 2021

### Leading Causes of Mortality

The leading causes of mortality in Stone County are heart disease and cancer, as seen in Figure 7.14. Other leading causes of mortality in Stone County include chronic lower respiratory diseases, accidents, stroke, Alzheimer’s disease, and suicide.

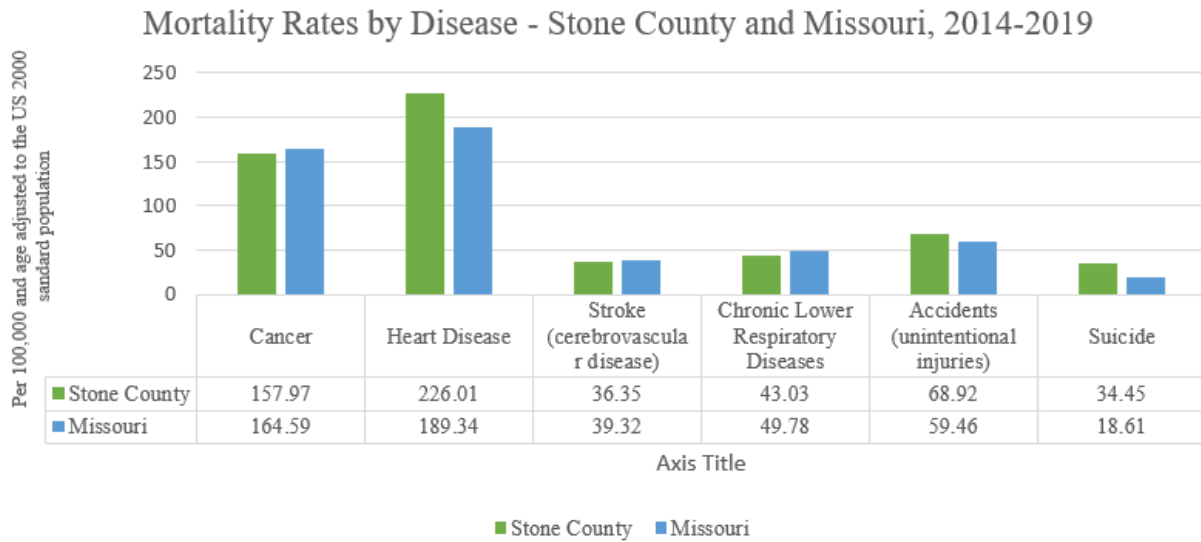
**Figure 7.14: Mortality Rates 2011-2019**



*Source: Missouri Department of Health and Senior Services, 2019*

The mortality rate for cancer in Stone County is slightly lower than the state. However, the rate for heart disease is significantly higher than that of the state. When looking at mortality rates by disease in Figure 7.15, we see that Stone County exceeds the state in heart disease, suicide, and accidents.

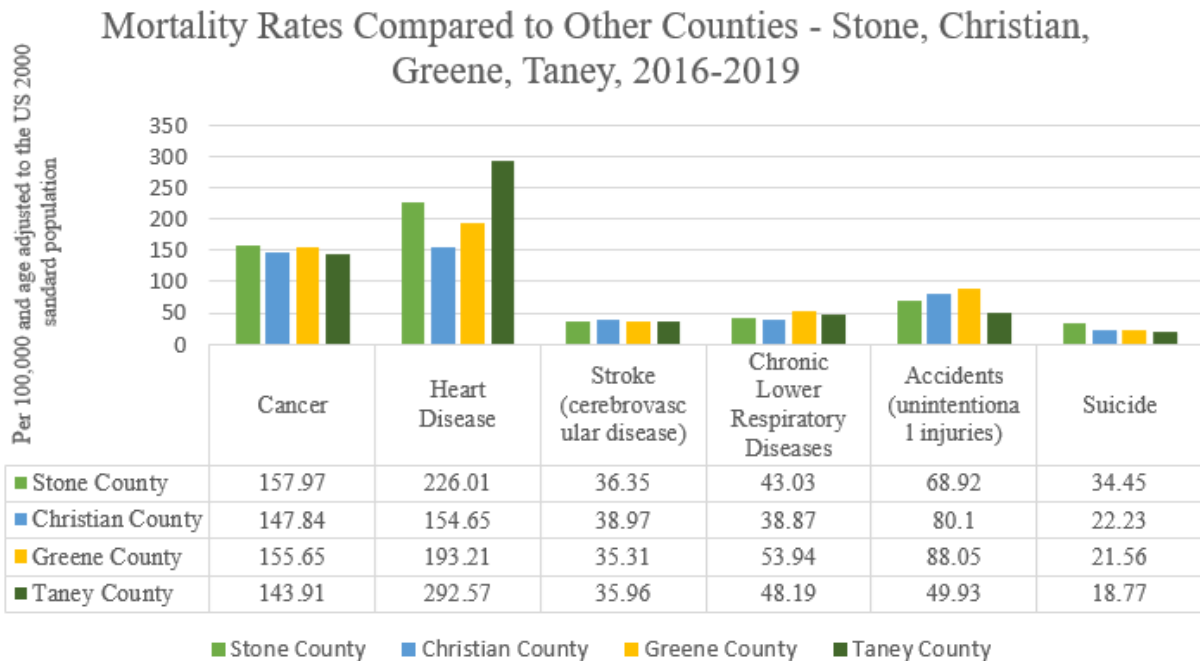
**Figure 7.15: Mortality Rates by Disease, 2014-2019**



Source: Missouri Department of Health and Senior Services, 2019

Figure 7.16 shows that Stone County exceeds closely surrounding counties in the number of deaths from suicide and cancer and that it exceeds Christian and Greene counties in deaths due to heart disease. The difference is relatively small in the other areas.

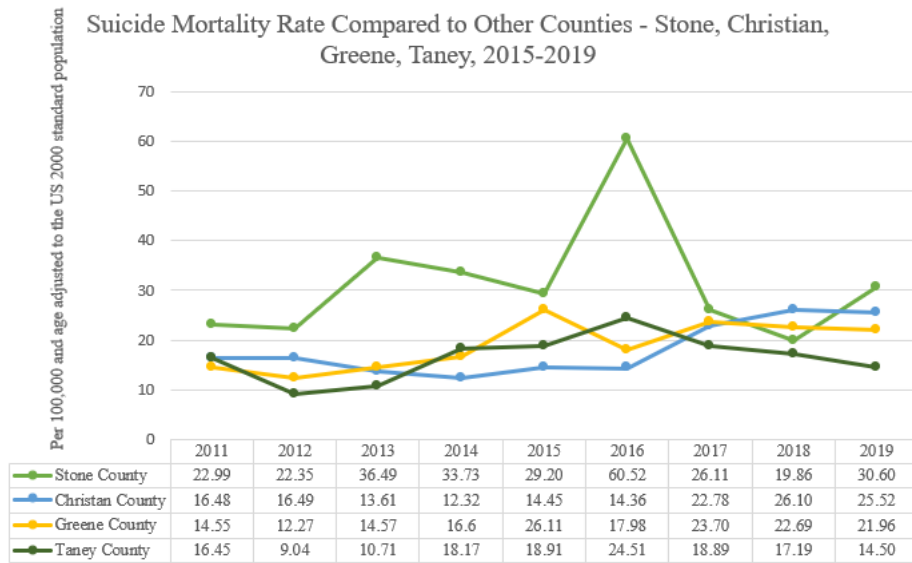
**Figure 7.16: Mortality Rates Compared to Other Counties, 2019**



Source: Missouri Department of Health and Senior Services, 2019

Figure 7.17 shows that Stone County has consistently exceeded deaths from suicide compared to the surrounding counties since 2011 (except for 2018) with a large spike in the rate in 2016.

**Figure 7.17: Suicide Mortality Rates Compared to Other Counties, 2011-2019**



Source: Missouri Department of Health and Senior Services, 2019

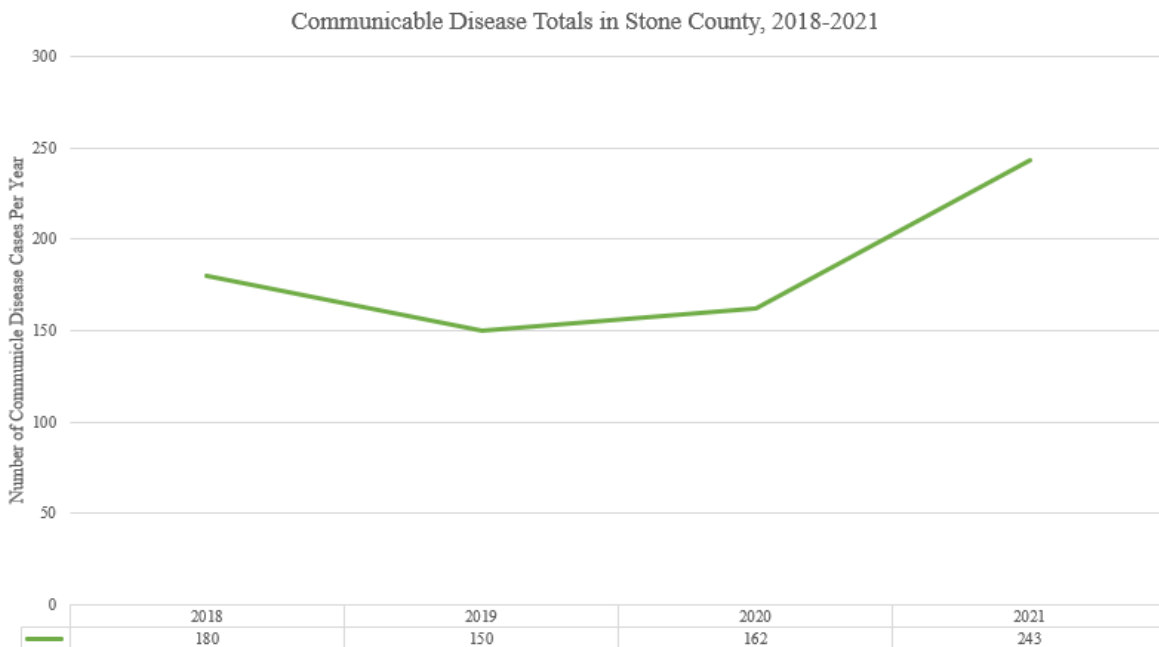
## Chapter 8: Infectious/Communicable Disease

### Infectious/ Communicable Disease

Infectious, or communicable, diseases are those that are transmitted from person to person, or animal to person, and involve microorganisms such as bacteria, viruses, fungi, or parasites. Specific modes of transmission are required for each pathogen to spread. Preventing the continued spread of these diseases involves breaking the chain of transmission. Identification of specific diseases in the population is one step in disease surveillance and prevention. This chapter will focus on the prevalence of certain diseases in Stone County reported by area hospitals, labs, and physicians as required by law. This list of diseases is not exhaustive, but it will focus on those reportable diseases that are a common threat to public health.

Figure 8.1 illustrates the number of communicable disease cases reported for Stone County from 2018-2021.

**Figure 8.1: Stone County Communicable Disease Counts, 2018-2021**



*Source: Stone County Health Department, 2021*

Figure 8.2 is a complete display of Case Counts of Communicable Diseases for Stone County from 2018-2022.



**Figure 8.2: Reported Number of Communicable Diseases-Stone County, 2018-2022**

Condition Name	Year					5-Year Total	5-Year Average
	2018	2019	2020	2021	2022**		
ANAPLASMA PHAGOCYTOPHILUM	0	0	0	0	1	1	0.2
CAMPYLOBACTERIOSIS	19	11	7	9	11	57	11.4
CHLAMYDIA	78	77	58	57	43	313	62.6
COCCIDIOIDOMYCOSIS	0	0	0	1	1	2	0.4
CREUTZFELDT-JAKOB DISEASE (CJD)	0	1	1	0	0	2	0.4
CRYPTOSPORIDIOSIS	3	2	2	2	0	9	1.8
E COLI SHIGA TOXIN POSITIVE	4	1	1	1	17	24	4.8
E. COLI O157 H7	0	1	0	0	0	1	0.2
EHRlichIA CHAFFEENSIS	3	9	6	1	7	26	5.2
EHRlichIA EWINGII	0	1	1	0	0	2	0.4
GIARDIASIS	0	0	0	2	2	4	0.8
GONORRHEA	22	19	28	29	19	117	23.4
HAEMOPHILUS INFLUENZAE, INVASIVE	0	1	2	0	0	3	0.6
HEPATITIS A ACUTE	1	1	5	0	0	7	1.4
HEPATITIS B (PREGNANCY) PRENATAL	0	0	1	1	0	2	0.4
HEPATITIS B ACUTE	0	0	1	0	0	1	0.2
HEPATITIS B CHRONIC INFECTION	2	1	0	1	1	5	1
HEPATITIS C CHRONIC INFECTION	31	26	22	19	21	119	23.8
INFLUENZA A	57	84	56	10	133	340	68
INFLUENZA B	63	31	53	10	59	216	43.2
INFLUENZA UNKNOWN OR UNTYPED	1	0	0	0	0	1	0.2
LEGIONELLOSIS	1	0	0	1	1	3	0.6
MOTT	1	4	5	4	0	14	2.8
PERTUSSIS	1	1	0	0	0	2	0.4
Q FEVER ACUTE	0	1	0	0	0	1	0.2
RABIES ANIMAL	1	0	0	1	0	2	0.4
RABIES POST EXPOSURE PROPHYLAXIS	4	1	4	18	10	37	7.4
ROCKY MOUNTAIN SPOTTED FEVER	3	0	3	0	1	7	1.4
SALMONELLOSIS	10	4	8	2	4	28	5.6
SHIGELLOSIS	1	0	0	0	0	1	0.2
STREP PNEUMONIAE INVASIVE	4	3	3	2	0	12	2.4
SYPHILIS, CONGENITAL	0	0	1	0	0	1	0.2
SYPHILIS, EARLY LATENT	0	0	3	4	4	11	2.2
SYPHILIS, LATE LATENT	1	0	4	3	3	11	2.2
SYPHILIS, PRIMARY	0	0	1	4	3	8	1.6
SYPHILIS, SECONDARY	3	0	3	2	4	12	2.4
TB DISEASE	0	1	0	0	0	1	0.2
TB INFECTION	0	1	0	2	0	3	0.6
TULAREMIA	0	0	0	1	0	1	0.2
VARICELLA (CHICKENPOX)	2	3	0	0	0	5	1
VIBRIOSIS	1	1	0	0	0	2	0.4
YERSINIOSIS	0	0	1	0	3	4	0.8
<b>Year Total (All Conditions)</b>	<b>317</b>	<b>286</b>	<b>280</b>	<b>187</b>	<b>348</b>	<b>1418</b>	<b>283.6</b>
*Rates for 2018-2019 based on U.S. Census Data from 2010 for Stone County Population: 32,202							
*Rates for 2020-2023 and 5-Year (Total/All Conditions) based on U.S. Census Data from 2020 for Stone County Population: 31,076							
**2022 data is provisional							
***Rates where condition has <5 cases are unreliable in all sections							
<i>Source: Missouri Department of Health and Senior Services, 2023</i>							

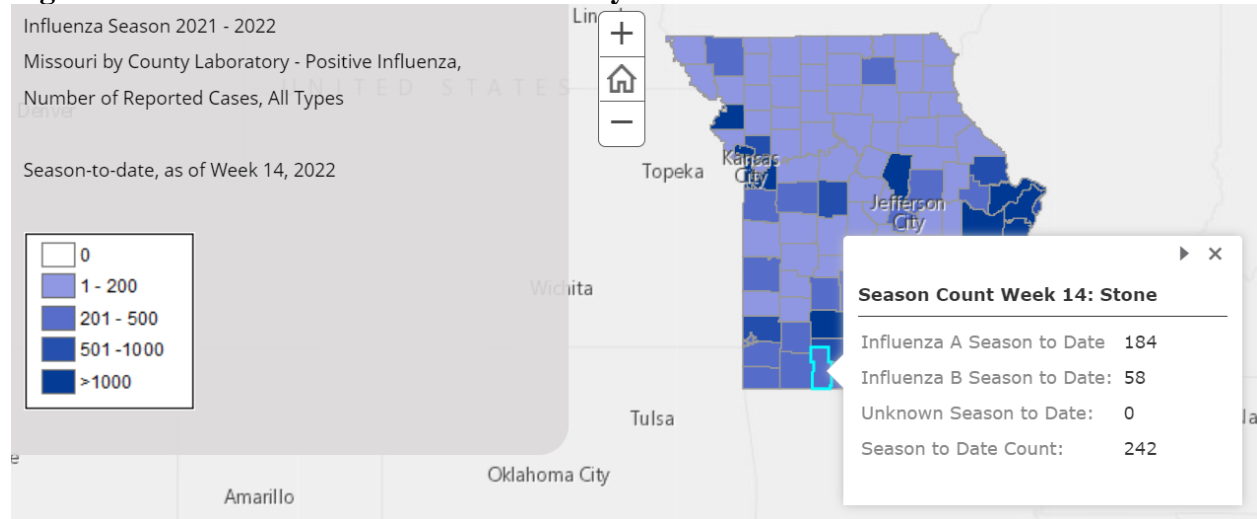
## Influenza

Influenza is more commonly referred to as the “flu” and is caused by several influenza viral types. The severity of the disease varies from mild to severe illness, with life threatening complications and death occurring quite frequently. The Centers for Disease Control and Prevention estimates that 10-20% of the U.S. population contracts the disease annually, resulting in 36,000 deaths nationwide. Symptoms usually include fever, headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose, and muscle aches. Symptoms such as nausea, vomiting, and diarrhea are associated more with children than adults (CDC, 2005). Those people who are at increased risk for developing severe illness include seniors, people who have chronic medical conditions, pregnant women, and children.

The best method of protection against the flu is by vaccination each fall. If the vaccine is unavailable, other ways to protect yourself and others from the virus include avoiding close contact with people who are sick; staying home when you are sick; covering your nose and mouth with a tissue when sneezing or coughing; washing your hands often; and avoiding hand contact with your eyes, nose, or mouth.

Figure 8.3 shows the total Influenza Cases in Stone County from January 2022 to April 2022.

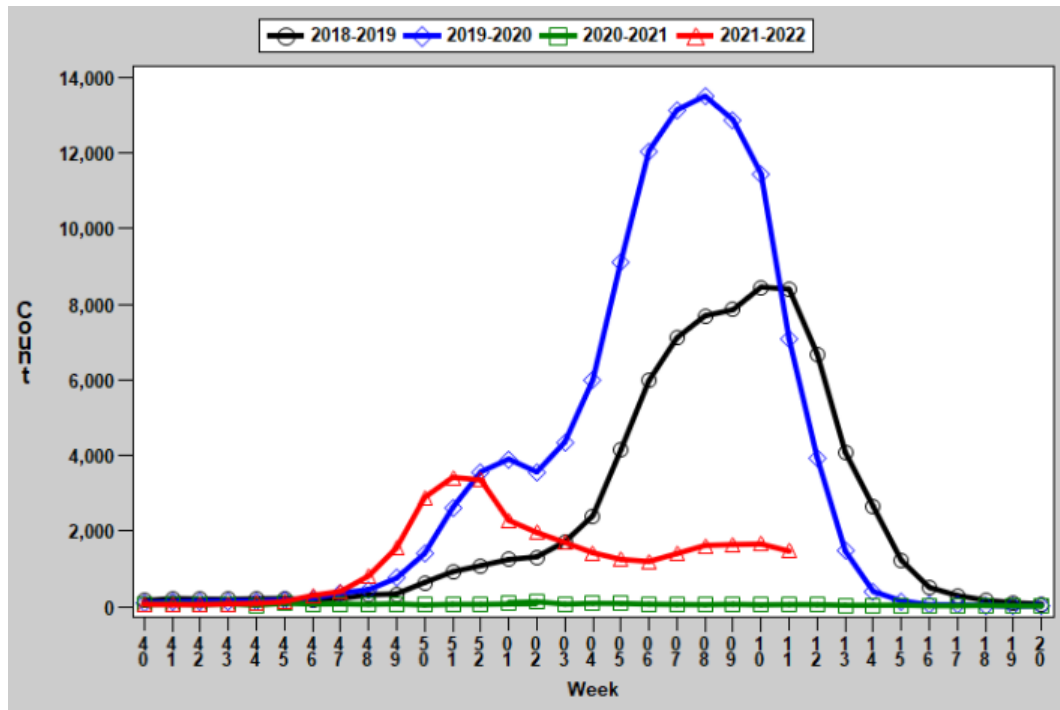
**Figure 8.3: Influenza Cases for Stone County**



Source: Missouri Department of Health and Senior Services, 2022

Figure 8.5 shows the number of laboratory confirmed influenza in Missouri for 2018-2022.

**Figure 8.4: Number of Laboratory Positive Influenza Cases by CDC Week, Missouri, 2018-2022**

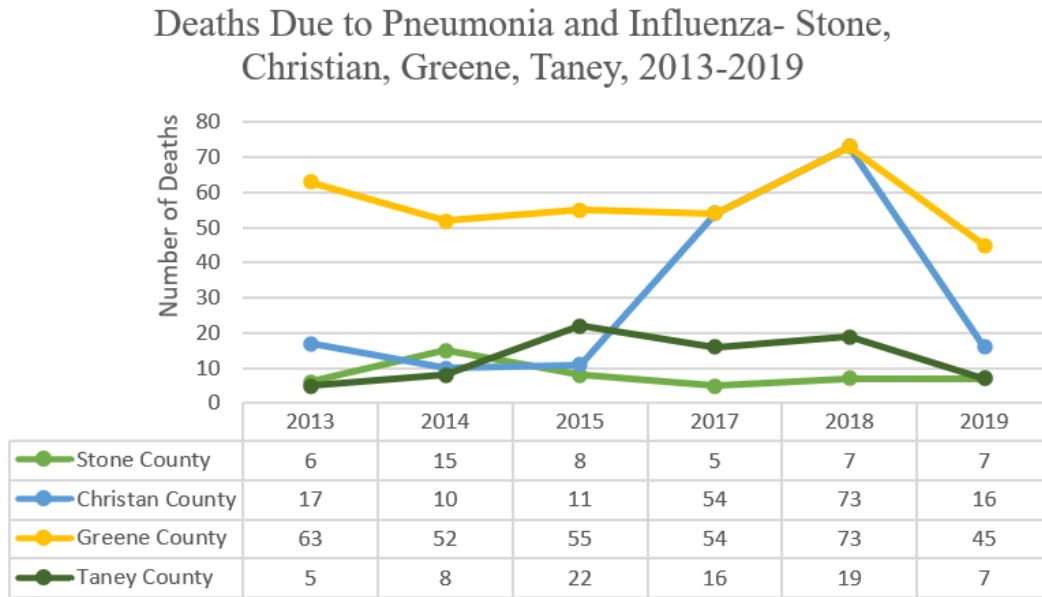


† Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.  
\*2021-2022 season-to-date through the week ending May 21, 2022 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv)

Source: Missouri Department of Health and Senior Services, May 2020

Of the four counties in Figure 8.5, Stone County had the fewest number of deaths from pneumonia and influenza. Each county has had steep spikes since 2017. Stone County had a spike in 2014, declining in deaths due to pneumonia and influenza in 2015, and is in a steady state since 2018.

**Figure 8.5: Deaths Due to Pneumonia and Influenza- Stone, Christian, Greene, Taney**

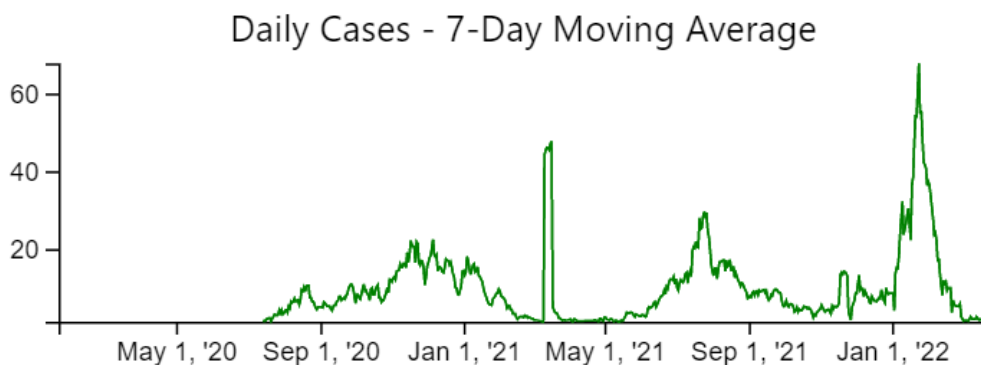


Source: Missouri Department of Health and Senior Services, 2019

### Coronavirus Disease 2019

Coronavirus is more commonly referred to as “COVID-19” and is caused by several variants of the virus, SARS-CoV-2. The severity of the disease varies from mild to severe illness, with life threatening complications and death occurring quite frequently, resulting in the 6,173 cases, 7 hospitalizations, 107 deaths in Stone County. Symptoms usually include fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of smell or taste, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (CDC, 2020). Those people who are at increased risk for developing severe illness include seniors, people who have chronic medical conditions (heart disease, lung disease, diabetes), people who are immunocompromised, pregnant women, and children. Figure 8.6 shows the progression of cases during the pandemic since March of 2020. The graph depicts peaks approximately every six months in correlation with variants of COVID-19.

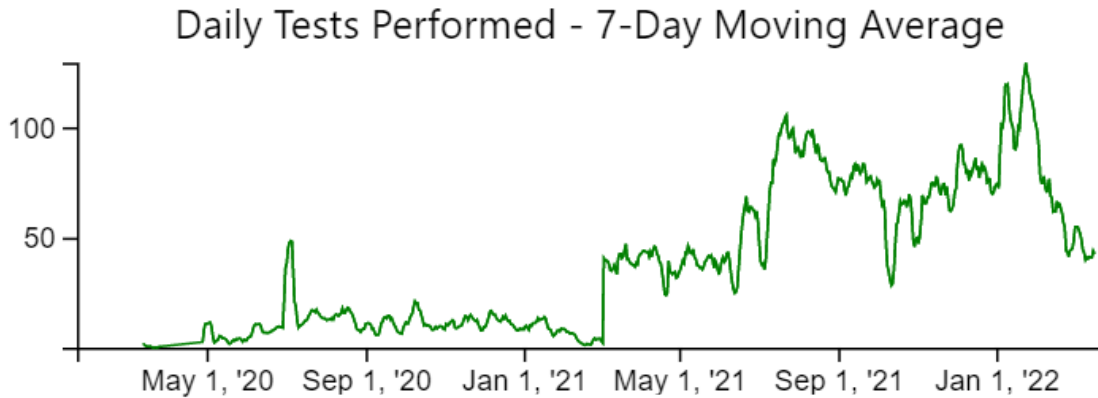
**Figure 8.6: Daily Cases in Stone County, Missouri, January 21<sup>st</sup> 2020-March 24<sup>th</sup>, 2022**



Source: Centers for Disease Control and Prevention, 2022

Figure 8.7 illustrates the number of COVID-19 tests performed in Stone County between January 2020 and March 2022.

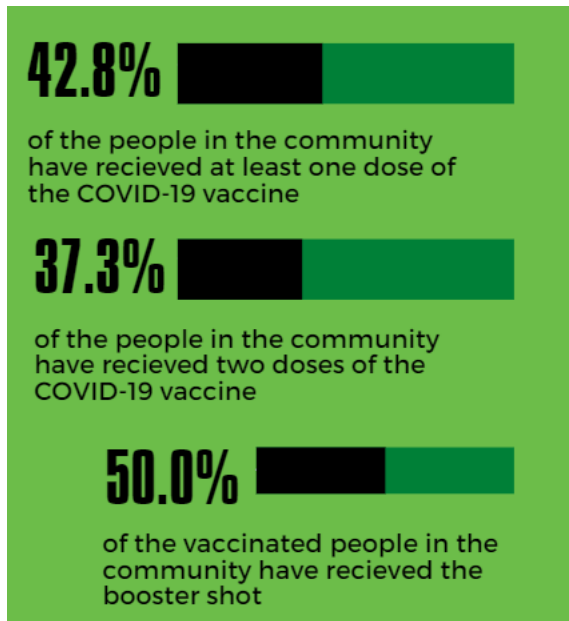
**Figure 8.7: COVID Tests Performed in Stone County, MO January 21, 2020-March 24, 2022**



Source: Centers for Disease Control and Prevention, 2022

The best method of protection against COVID-19 is by receiving the vaccination. Figure 8.9 Shows the vaccination rate in Stone County. In addition to receiving the vaccine, other ways to protect yourself and others from the virus include wearing a mask in crowded, indoor areas; avoiding close contact with people who are sick; staying home when you are sick (adhering to quarantine guideline); covering your nose and mouth with a tissue when sneezing or coughing; washing your hands often; and avoiding hand contact with your eyes, nose, or mouth.

**Figure 8.9: Vaccination Rates in Stone County, Missouri, 2022**



To reduce the spread of COVID-19 and the severity of illness and death, the Centers of Disease Control and Prevention recommends individuals to get vaccinated. Residents who have received at least one dose of the vaccine includes 13,682 people with a vaccination of 42.8%; 11,925 residents are fully vaccinated (received two doses of Pfizer or Moderna vaccines or received a single shot dose of Johnson & Johnson); 5,958 residents who are fully vaccinated received a booster shot.

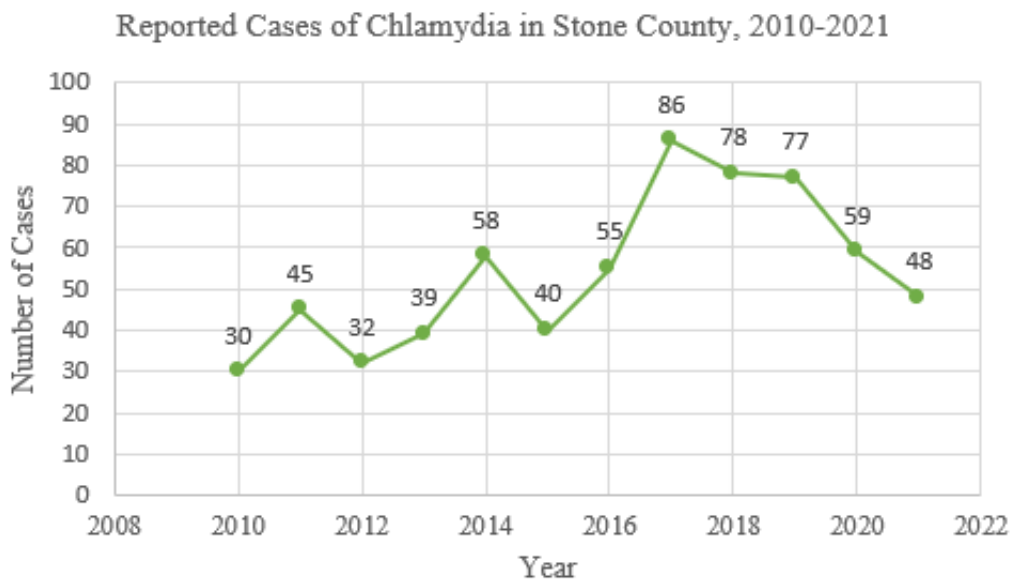
The Stone County Health Department is currently vaccinating individuals 12 years and over for COVID-19, to make an appointment call the Health Department at (417)-357-6134.

Source: Centers for Disease Control and Prevention, 2022

### Sexually Transmitted Infections

Chlamydia is a sexually transmitted infection caused by the bacteria *Chlamydia trachomatis*. Infection can occur in the anus, oral cavity, female cervix, and male urethra. If untreated, severe complications can occur. Figure 8.10 illustrates that there has been a decreasing trend of chlamydia in Stone County in more recent years.

**Figure 8.10: Reported Cases of Chlamydia, 2010-2021**

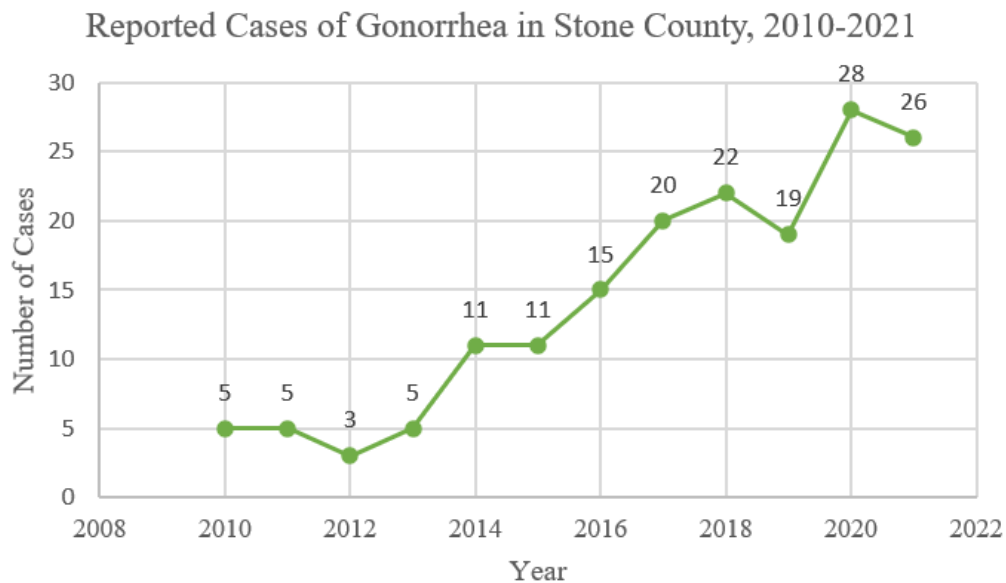


Source: Missouri Department of Health and Senior Services, 2021

## Gonorrhea

Gonorrhea is a sexually transmitted infection caused by the bacteria *Neisseria gonorrhoeae*. The disease is characterized by a purulent discharge 2 to 7 days after exposure. If left untreated, females can develop pelvic inflammatory disease that can result in infertility. Figure 8.11 indicates the trend in Stone County by number from 2010 to 2021. The data presented indicates that there is a substantial increase in gonorrhea cases in 2020 compared to previous years.

**Figure 8.11: Reported Cases of Gonorrhea, 2010-2021**



Source: Missouri Department of Health and Senior Services, 2021

## HIV and AIDS

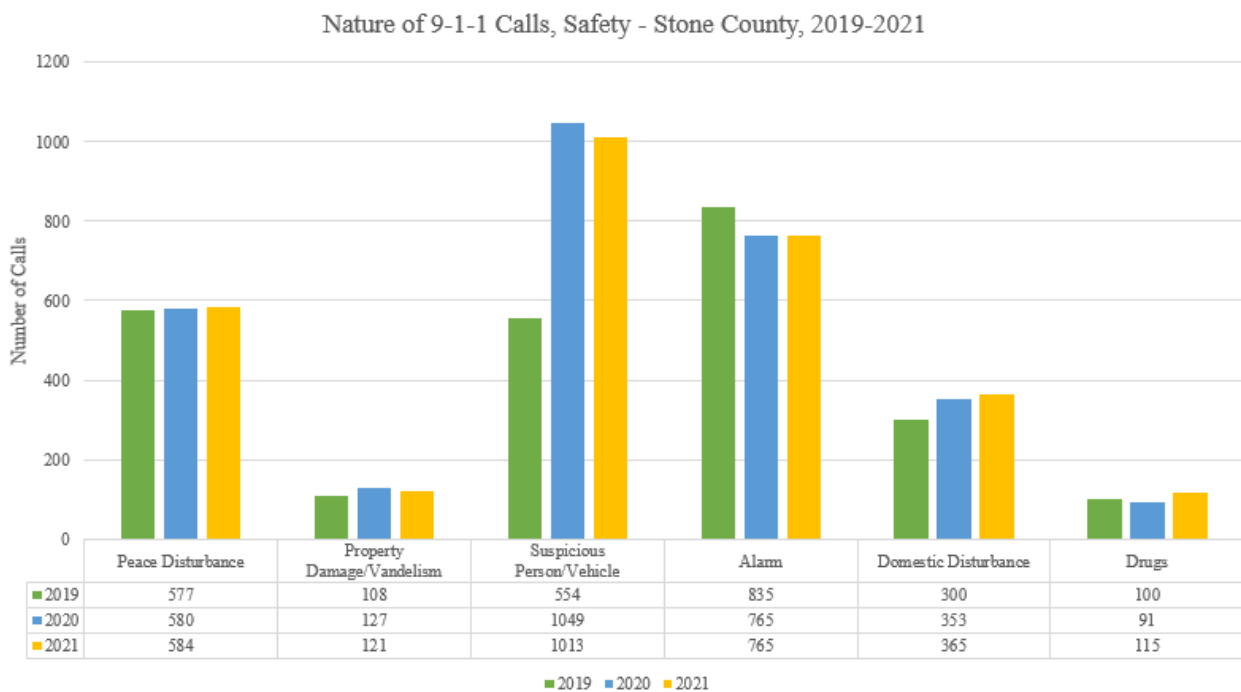
The Human Immunodeficiency Virus (HIV) is the causative agent that leads to Acquired Immune Deficiency Syndrome (AIDS). Better treatments are available to slow the progression to AIDS, but a cure still does not exist. According to the 2021 Epidemiologic Report for STD/HIV in southwest Missouri, between 1982-2021 there are 1079 living HIV Cases of which 506 are living AIDS cases in the Southwest HIV Care region.

## Chapter 9: Quality of Life/Safety

The quality of life can be largely determined by several characteristics in a community. In this portion of the Assessment, Safety will be the primary focus. For more Quality-of-Life information, see the Community Themes and Strengths Assessment at the end of this document.

Figure 9.1 shows the nature of 9-1-1 calls related to safety. A majority of 9-1-1 calls have been to report a Suspicious Person/Vehicle and Alarms. The number of Peace Disturbance calls and Domestic Disturbance calls have increased from 2019-2021.

**Figure 9.1: Nature of 9-1-1 Calls, Safety, 2019-2021**

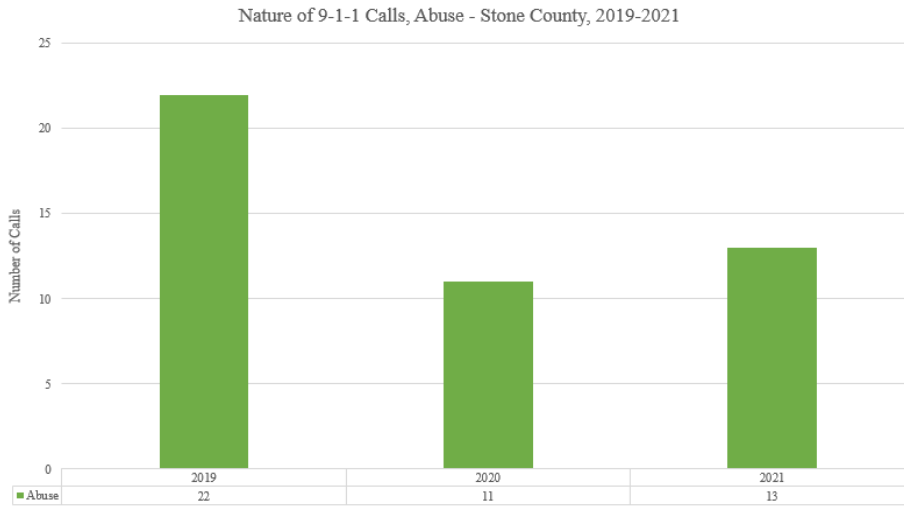


*Source: Stone County Emergency Services, 2021*

Figure 9.2 shows the 9-1-1 calls related to abuse for 2019-2021. Abuse issues may largely contribute to the quality of life in a community.



**Figure 9.2: Nature of 9-1-1 Calls, Safety, 2019-2021**



Source: Stone County Emergency Services, 2021

## **Chapter 10: Environmental Health Indicators**

### **Physical Characteristics**

Stone County is located on the Ozarks Plateau of the Interior Highlands physiographic province. The topography of Stone County is very rugged and is characterized by deep, narrow valleys below sharp ridges. Approximately 45 percent of Stone County has slopes of greater than 10 percent, with slopes of 20 percent or greater in the southern portion of the county. Ground travel throughout Stone County is difficult due to the widespread area of Table Rock Lake and congested, narrow, winding roads.

The topographic landscape exhibits features of karst, including sinkholes, losing streams, springs and caves. These features result from the weathering and dissolution of the underlying limestone bedrock by surface waters and carbonic acids in the atmosphere. These karst features allow surface water, including contaminants from development and poorly planned livestock operations, to enter the groundwater system relatively quickly with little filtration. Karst features are found throughout the county, with larger concentrations located near Blue Eye, Reeds Spring, and in the northern half of the county. The major source of groundwater supplies in the county today is from deep wells in the Cambrian and Ordovician aged dolostones which produce from 300 to over 1,000 gallons of water per minute.

Numerous springs and caves are found in the county, several of which were focal points of historical settlement in the county and today contribute to the tourism economy. One such community is Reeds Spring, first settled in the late 1800s near a spring that is the city's namesake. The spring, which pumps out over one million gallons of water per day, provided the water to operate the steam powered drills used to dig out a 2,000-foot tunnel through the hills for the construction of the White River-Iron Mountain Railroad in the early 1900s. Marvel Cave at Silver Dollar City and Talking Rocks Cavern, located south of Branson West on Highway 13, are two of the 176 known caves in the county and major tourist attractions.

### **Sewage Control**

Stone County, MO has an established Onsite Wastewater Treatment System ordinance. Property Transfer Certificate (PTC's) regulations are located inside Section 5.11 of the Onsite Wastewater Treatment Systems Ordinance within the Stone County Health Code. This ordinance requires permits for the construction, modification, installation, and operation of Onsite Wastewater Treatment Systems with maximum flows of 3,000 gallons per day within Stone County. The ordinance does allow for penalties for violations as well.

The purpose of a Property Transfer Certificate is to, at the time of a property transfer (i.e. sale of a property), verify the adequacy of the existing Onsite Wastewater Treatment System (OWTS) if it was previously approved and permitted, or assure that an unapproved OWTS will be permitted and approved within one year of the property transfer. This ensures that septic systems are operating properly. Septic systems that leak can potentially contaminate drinking water systems and recreational water sources.

According to the Table Rock Lake Water Quality, Inc. (TRLWQ) approximately half of Stone County is in the Table Rock Lake watershed, which includes about 5,600 OWTS's. A study done by the US Environmental Protection Act in March 2003 revealed that about 20% of septic systems are failing to some degree- that equates to about 1,100 failing septic systems in the Table Rock Lake watershed within Stone County- and that's only half the county!

It is very important that we are proactive in ensuring the functionality of the OWTS's in Stone County. The Stone County Health Department Environmental Health Section has issued 617 PTC's since 2009. Of those, 135 systems did require some sort of corrective action including pumping, tank replacement, lateral line, or full system replacement.

Not all properties require a PTC. Only a property that contains an OWTS that is ten (10) years old or older, or is not on file at Stone County Health Department, will need a certificate. At the time of property transfer, property owners with an approved OWTS that is 10 years old or older, or not on record, will need to obtain an onsite wastewater treatment system inspection report to ensure that it operates properly. The property owner might be required to obtain a repair permit to correct deficiencies or obtain an agreement signed by the new owners acknowledging they have accepted responsibility for the repair. The OWTS Inspection report must be filed with the SCHD office within 90 days, and the PTC is good for 4 years once approved.

## **Water Quality**

Stone County covers four different watersheds, meaning the runoff from the county impacts four different water supplies. Because of the terrain of the county, runoff is a very easy situation to have and concern could become large, especially in high water periods. Runoff concern comes from the high number of farms, resulting in both fertilizers and manure contamination in the water. Figure 10.1 shows the watershed areas of Stone County.

In order to ensure that the recreational waters affected by runoff remain safe to swim in, Stone County Health Department routinely tests the water from the public access points along the James River for coliform bacteria and *E. coli*. SCHD also partners with the US Army Corps of Engineers to test the waters in the public access areas of Table Rock Lake. Figure 10.3 illustrates the recreational water testing results from July 8th, 2019. This is during a period of high water. High water does increase the bacterial levels in the lakes and rivers because of the increased runoff.

Figure 10.1: Watersheds of Stone County



Source: US Environmental Protection Agency, 2015

**Figure 10.2: Table Rock Lake Recreational Water Report**

SWIMMING BEACH	DATE COLLECTED	DATE REPORTED	E.coli/CFU's/100 ML
Aunts Creek / Left Side	8/23/21	8/24/21	2.0
Aunts Creek / Right Side	8/23/21	8/24/21	<1
Baxter Park/ Left Side	8/23/21	8/24/21	4.1
Baxter Park/ Right Side	8/23/21	8/24/21	3.1
Big M / Left Side	8/23/21	8/24/21	<1
Big M / Right Side	8/23/21	8/24/21	<1
Campbell Point / Left Side	8/23/21	8/24/21	2.0
Campbell Point /Right Side	8/23/21	8/24/21	1.0
Cape Fair / Left side	8/23/21	8/24/21	1.0
Cape Fair / Right side	8/23/21	8/24/21	1.0
Eagle Rock / Left Side	8/23/21	8/24/21	1.0
Eagle Rock / Right Side	8/23/21	8/24/21	<1
Indian Point / Left side	8/23/21	8/24/21	13.0
Indian Point / Right side	8/23/21	8/24/21	18.9
Mill Creek / Left Side	8/23/21	8/24/21	3.1
Mill Creek/Right Side	8/23/21	8/24/21	6.3
Moonshine Beach/Left Side	8/23/21	8/24/21	2.0
Moonshine Beach/Right Side	8/23/21	8/24/21	2.0
Old 86/left side	8/23/21	8/24/21	<1
Old 86/right side	8/23/21	8/24/21	<1
Viola Park/Left Side	8/23/21	8/24/21	<1
Viola Park/Right Side	8/23/21	8/24/21	<1

Source: Stone County Health Department, US Army Corps of Engineers, 2021

## Food Establishment Inspections

In order to ensure that food establishments are safely storing, preparing, and serving food to the residents and visitors of Stone County, the Stone County Health Department Environmental Health Division performs inspections on approximately 200 food establishments. Some information about food inspections include:

- **Inspection Frequency:**

Restaurant inspection frequency is based upon the priority rating of the facility. Establishments are rated high, medium or low depending on the complexity of the menu, how much food is made from raw products, and how much is made in advance rather than cooked-to-order. Food-borne illnesses can increase with the number of times that a food product is handled during preparation. (For example: restaurants that handle food more frequently are rated as high priority and are inspected more frequently than a facility that serves food such as a packaged sandwich.)

- **Violations (Two types of violations may be cited):**

**Critical Violations:** Violations of the food service code, which, if left uncorrected, are more likely than other violations to directly contribute to food contamination and illness. Examples of critical violations include inadequate temperatures. Such problems can create environments that cause bacteria to grow and thrive, which puts the consumer at risk for food-borne illness.

**Non-Critical Violations:** Violations not directly related to the cause of food-borne illness, but if uncorrected, could impede the operation of the restaurant. The likelihood of food-borne illness in these cases is very low. Examples of non-critical violations include

a lack of facility cleanliness and maintenance or improper cleaning of non-food contact surfaces.

- **Types of Inspections:**

**Routine:** This is scheduled inspection, unannounced to the restaurant. An inspector will conduct a complete inspection covering all items in the regulations for compliance.

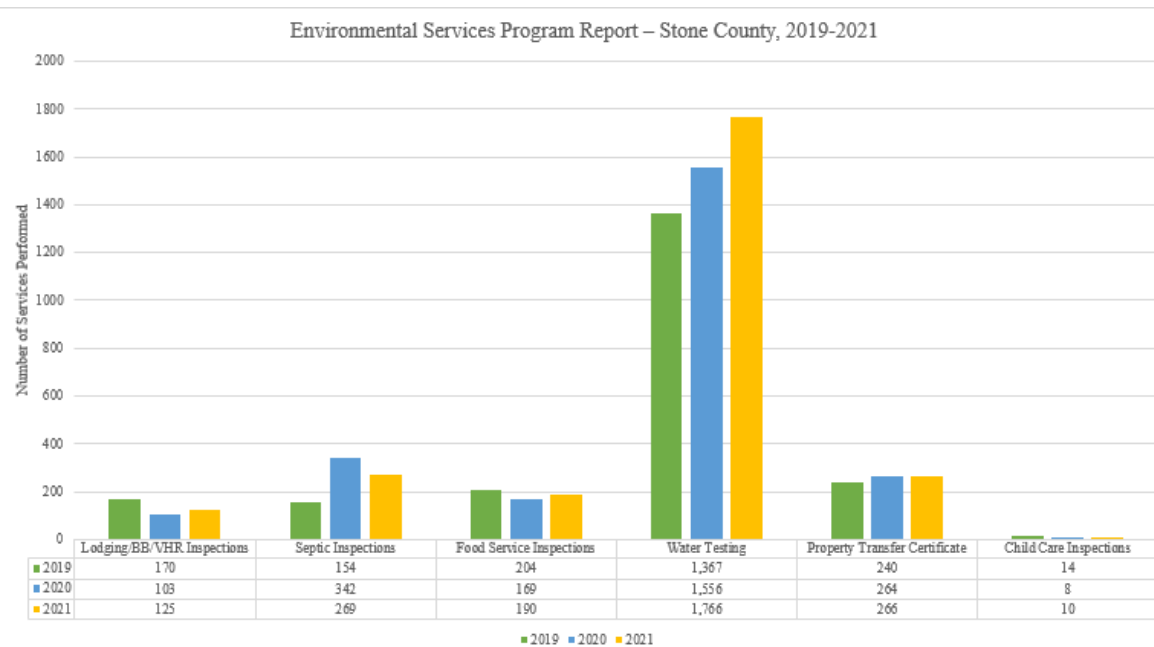
**Follow-up Inspection:** This is an inspection for the specific purpose of re-inspecting items that were not in compliance at the time of the routine inspection.

**Training:** The inspector visits the restaurant to present a formal training event for the restaurant's staff.

**Complaint:** This is an inspection conducted as a result of a complaint received by the health department. The specifics of the complaint will be evaluated and discussed with the person in charge.

Figure 10.3 shows the Environmental Services Program Report from 2019 to 2021. More information on the Food, Lodging, and Child Care Inspections conducted by SCHD is available on the SCHD website.

**Figure 10.3: Environmental Services Program Report – Stone County, 2019-2021**



Stone County Health Department, 2019-2021

## MAPP Assessments

### Community Themes and Strengths Assessment

The Community Themes and Strengths Assessment is a vital part of a community health improvement process. During this phase, community thoughts, opinions, and concerns are gathered, providing insight into the issues of importance to the community. Feedback about quality of life in the community and community assets is also gathered. This information leads to a portrait of the community as seen through the eyes of its residents. Mobilizing and engaging the community may be a daunting task. However, when successful, it ensures greater sustainability and enthusiasm for the process.

In order to prepare for this Assessment, the Community Health Coalition was presented with three surveys to complete: Community Health Survey, Quality of Life Survey (updated in Spring 2023), and Assets Survey. The group completed the surveys during the Spring 2023 meeting and also participated in discussions answering the same questions posed on the Assets Survey. The following questions were presented:

1. What is important to our community?
2. How is the quality of life perceived in our community?
3. What assets do we have that can be used to improve community health?

Open discussion was used to elicit community concerns, opinions, and comments in an unstructured way. Asking open-ended questions ensures that issues of concern and interest to the community are raised. Questions about the quality of life in the community can identify specific concerns. Information on perceptions about quality of life in a community can be gathered through a community survey or community discussions.

With the aim of gathering more community responses, these surveys were disseminated throughout the community via printed format and online survey format through Survey Monkey. The more community input that can be gathered, the stronger the assessment will be. In total, there were 172 responses to the Community Health Survey, and 148 responses to the Quality-of-Life Survey.

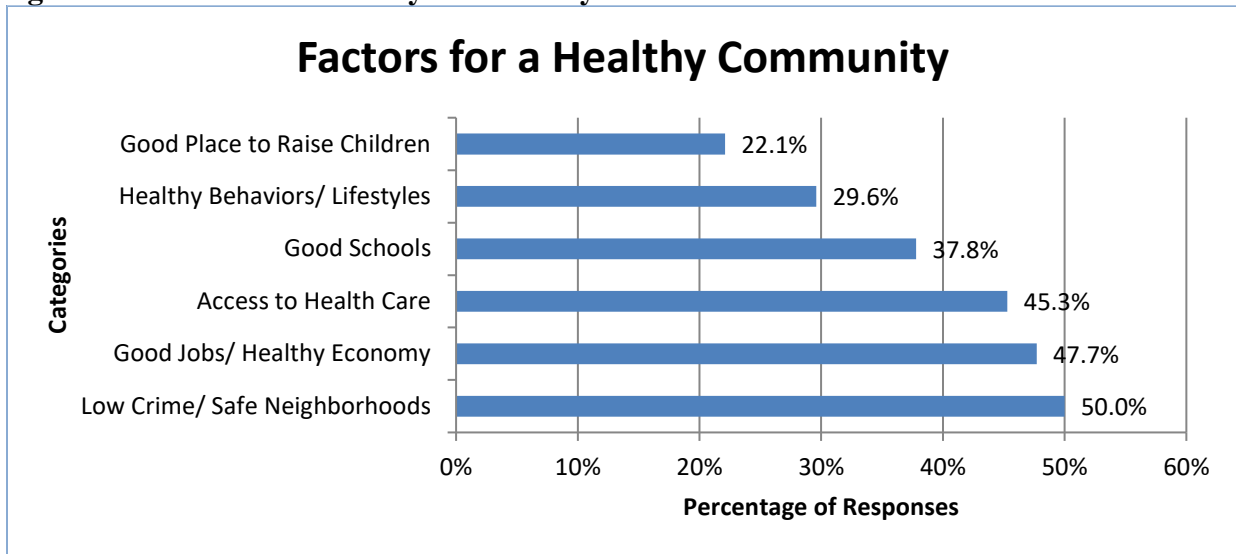
The Community Health Survey asked three questions:

1. What do you think are the three most important factors for a “Healthy Community?”
2. What do you think are the three most important “health problems” in our community?
3. What do you think are the three most important “risky behaviors” in our community?

See list below and Figure 1 for results of Question 1:

- Low Crime/ Safe Neighborhoods: 50%
- Good Jobs and Healthy Economy: 47.7%
- Access to Health Care: 45.3%
- Good Schools: 37.8%
- Healthy Behaviors and Lifestyles: 29.6%
- Good Place to Raise Children: 22.1%

**Figure 1: Factors for a Healthy Community**

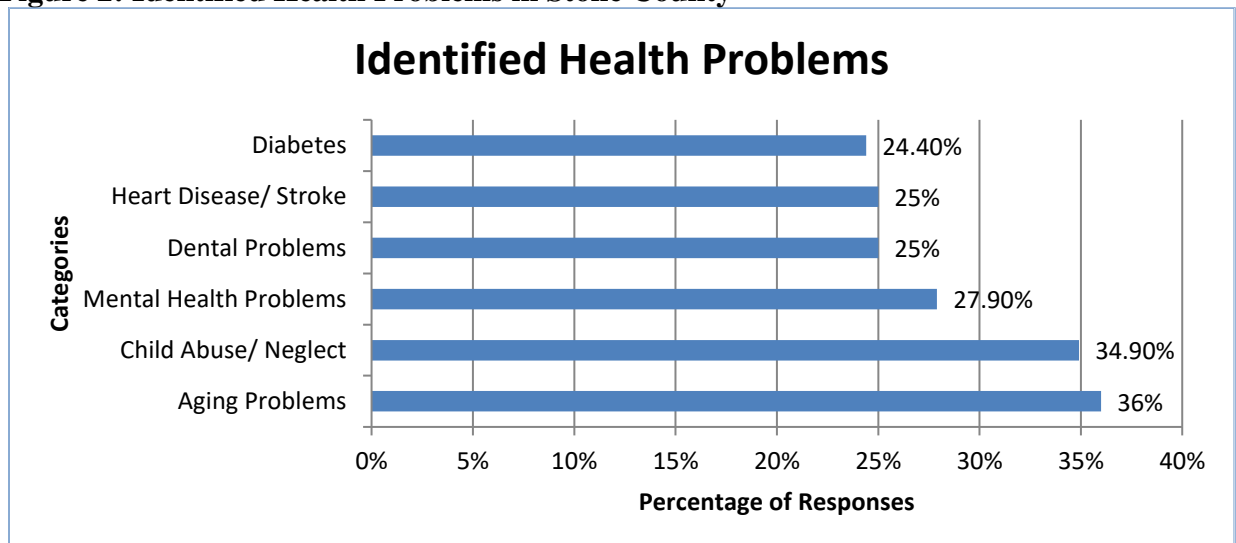


Source: Stone County Health Department, Community Health Survey 2014

See list below and Figure 2 for results of Question 2:

- Aging Problems: 36%
- Child Abuse/ Neglect: 34.9%
- Mental Health Problems: 27.9%
- Dental Problems: 25%
- Heart Disease/ Stroke: 25%
- Diabetes: 24.4%

**Figure 2: Identified Health Problems in Stone County**



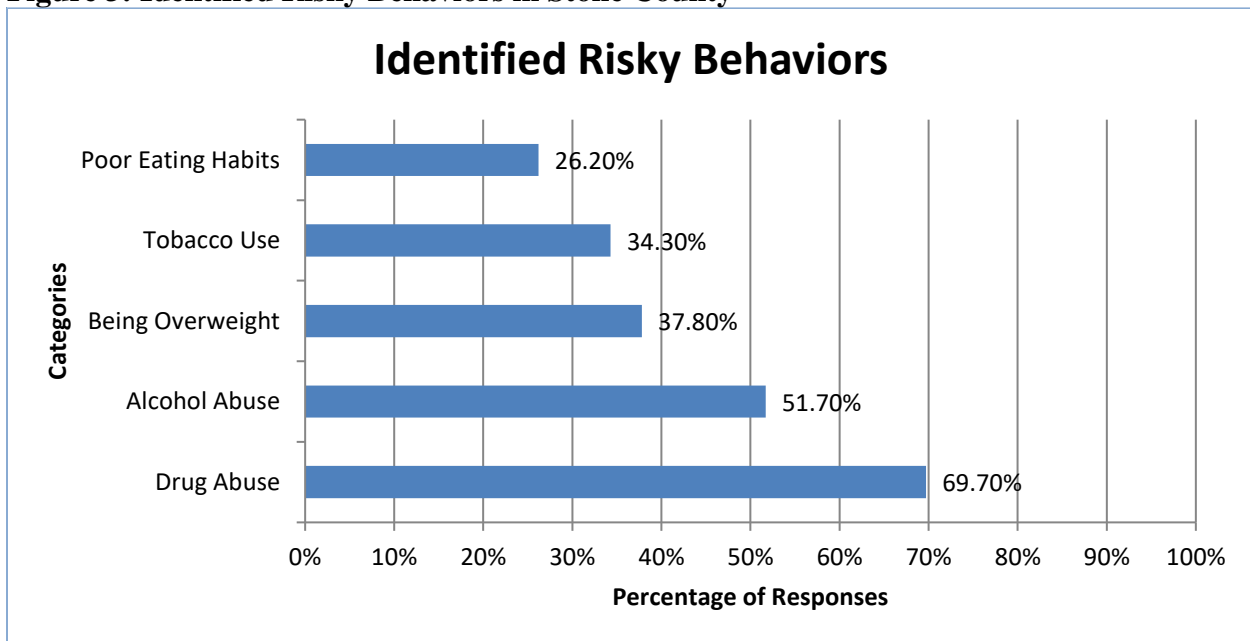
Source: Stone County Health Department, Community Health Survey 2014



See list below and Figure 3 for results of Question 3:

- Drug Abuse: 69.7%
- Alcohol Abuse: 51.7%
- Being Overweight: 37.8%
- Tobacco Use: 34.3%
- Poor Eating Habits: 26.2%

**Figure 3: Identified Risky Behaviors in Stone County**



Source: Stone County Health Department, Community Health Survey 2014

### Quality of Life Survey

The Quality of Life Survey was readministered on a larger scale using an online survey software in Spring 2023, and asked participants to rank their opinion on each topic from 1-5, with 1 being the most negative and 5 being most positive. This survey allowed for information to be gathered regarding the community's thoughts on their quality of life for Stone County, as well as to be broken down to look deeper at each individual community within the county. The questions included in the survey were:

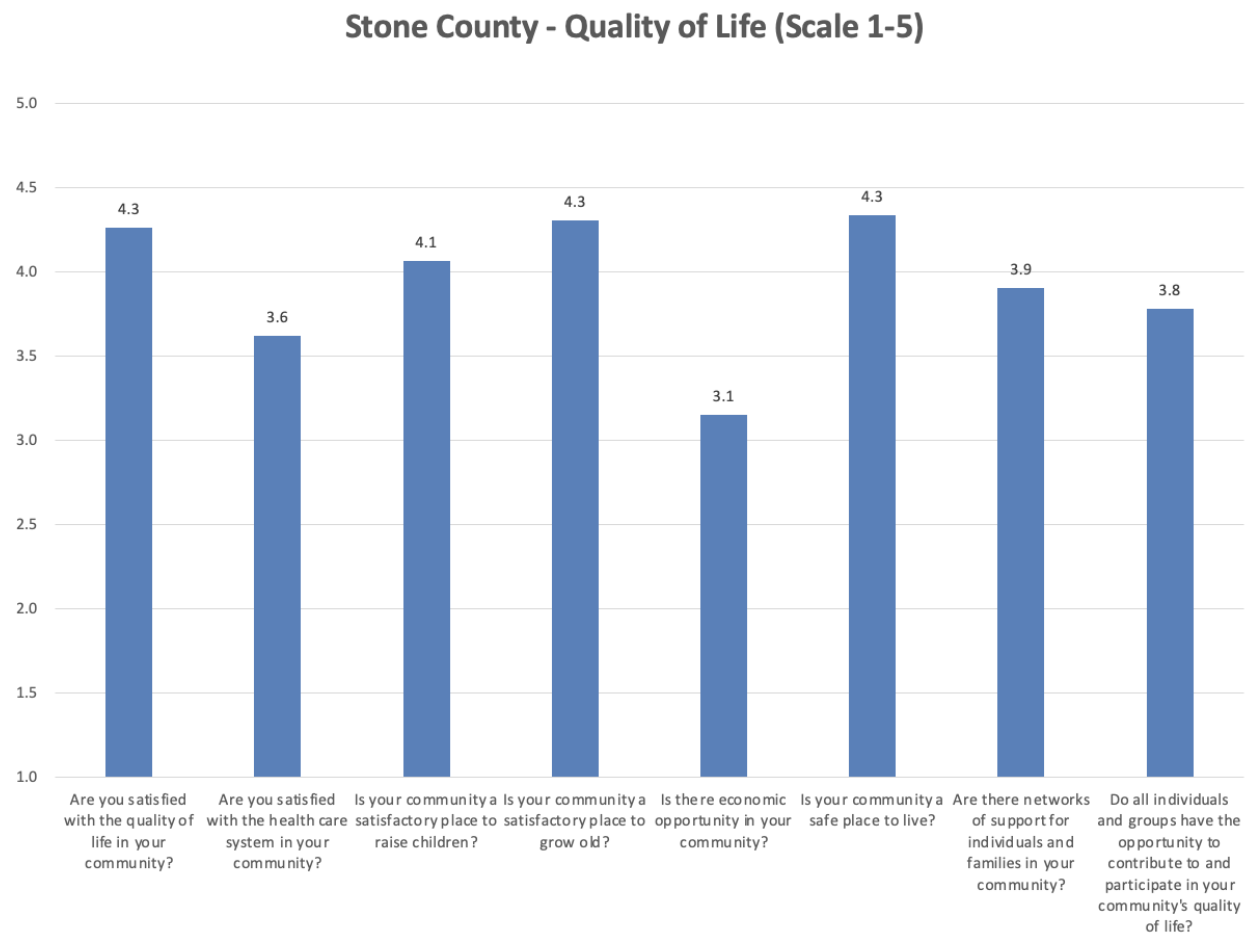
1. Are you satisfied with the quality of life in your community?
2. Are you satisfied with the health care system in your community?
3. Is your community a satisfactory place to raise children?
4. Is your community a satisfactory place to grow old?
5. Is there economic opportunity in your community?
6. Is your community a safe place to live?
7. Are there networks of support for individuals and families in your community?

8. Do all individuals and groups have the opportunity to contribute to and participate in your community’s quality of life?

Surveys were administered using an online survey program, SurveyMonkey, as well as administered in-person for individuals who did not have access to a computer. The survey received 268 responses from February 14 to March 14, 2023. 232 of the total responses came from individuals who were residents of Stone County, while the other 36 responses were from individuals who work in Stone County.

Figure 4 highlights the overall Quality-of-Life opinions from individuals for Stone County as a whole. These survey responses come from individuals who live and/or work in the county. Of the 268 responses, the bar chart shown highlights the average opinions for the 8 questions that were asked. The average for all questions for all of Stone County was above 3 (which indicated a neutral opinion) but lower than a 4.4 (which indicated a somewhat positive opinion).

**Figure 4: Quality of Life Survey Stone County Results**



Source: Stone County Health Department, 2023

Table 1 highlights individual average results from the Quality of Life survey that was administered in Spring 2023. This survey included a section for respondents to include their zip-code, which

allowed researchers to look at each municipality on a deeper level. Looking at each specific location provided the opportunity to see any deviations to the average opinions for Stone County, which at a later point may serve as a basis for deeper intervention into those areas with more concerns for their quality of life. Having the zip-code data highlights difference such as in Lampe, MO the average response to question 5 was 2.5/5 regarding their satisfaction toward economic opportunity in their community, which was a 3.1/5 in overall Stone County.

**Table 1: Quality of Life Survey Results**

Location	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	# of Responses
Stone County	4.3	3.6	4.1	4.3	3.1	4.3	3.9	3.8	268
Blue Eye	4.7	3.8	4.5	5.0	3.2	5.0	4.5	4.5	6
Branson West; Reeds Spring	4.1	3.5	3.9	4.1	3.1	4.2	3.8	3.5	55
Cape Fair	4.6	3.6	4.5	4.6	3.0	4.5	3.5	3.7	17
Crane	4.1	3.5	4.2	4.1	3.3	4.4	4.1	3.8	17
Galena	4.1	3.6	3.9	4.0	3.1	4.1	3.8	3.7	66
Hurley	4.7	3.7	4.7	4.7	2.0	4.7	3.7	4.3	3
Kimberling City	4.6	3.8	4.4	4.8	3.3	4.8	4.0	4.0	57
Lampe	4	3.3	3.5	3.6	2.5	3.5	3.7	3.1	11

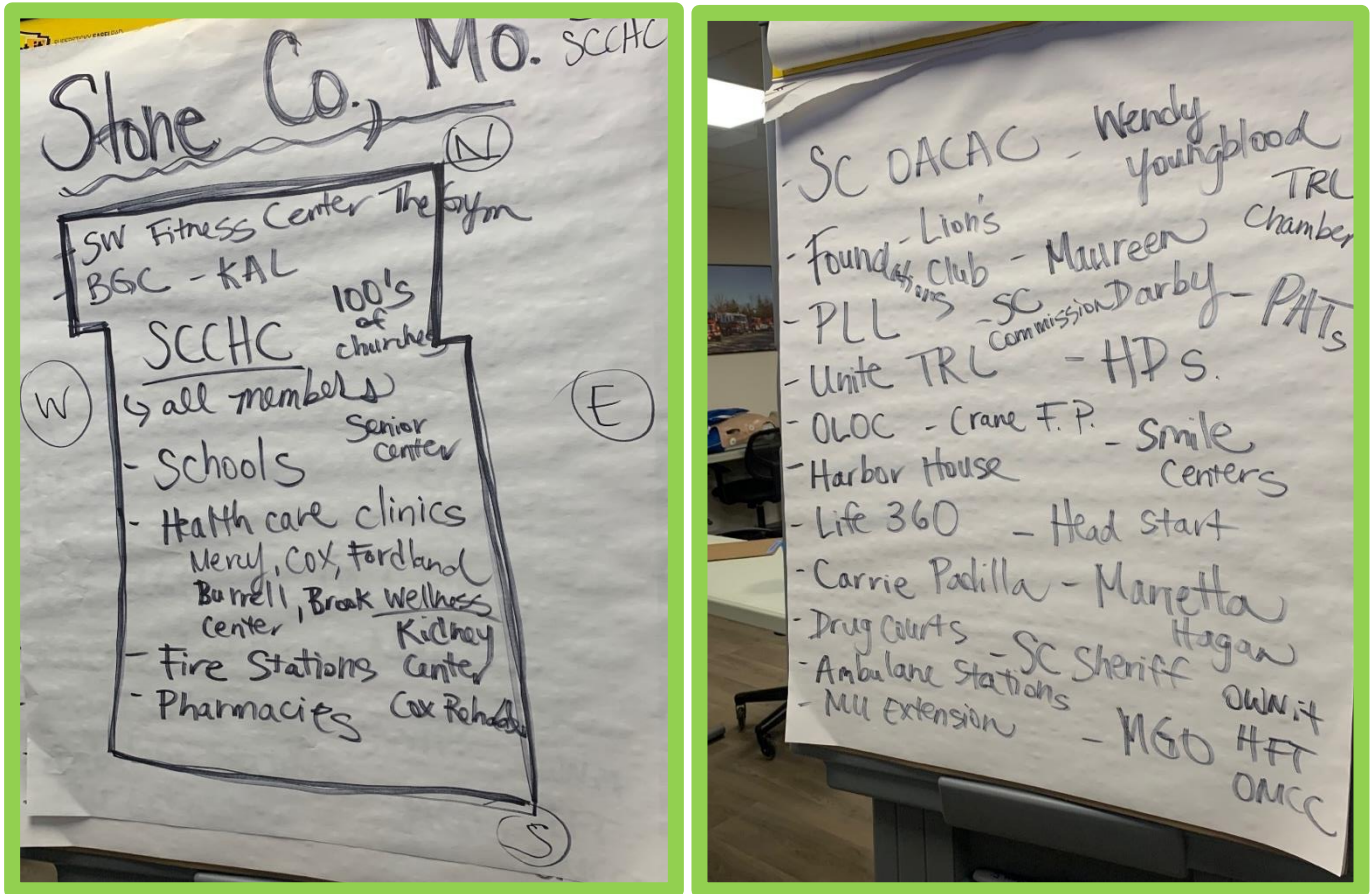
Source: Stone County Health Department, 2023

### Asset Mapping

Asset mapping is an important tool for mobilizing community resources. It is the process by which the capacities of individuals, civic associations, and local institutions are inventoried. The Community Health Coalition also charted the assets available in Stone County on a map provided by the Stone County Assessor’s Office.

Resources identified in the county include both health department locations, health clinic locations, farmers, libraries, river/ lake, camping/ recreation, golf courses, schools, Way-to-Go bus, churches, county offices, food pantries, festivals, and gas/ internet access. Knowing these resources will help us to plan programs based on what we need and see which areas are less predominately populated with resources. Please see Figure 5 below for the map as completed by the Community Health Coalition.

Figure 5: Asset Mapping of Stone County



Source: Stone County Health Department, Asset Mapping 2022

## Forces of Change Assessment

The Forces of Change Assessment is aimed at identifying forces—such as trends, factors, or events—that are or will be influencing the health and quality of life of the community and the work of the local public health system. Trends are patterns over time, such as migration in and out of a community or a growing disillusionment with government. Factors are discrete elements, such as a community’s large ethnic population, an urban setting, or the jurisdiction’s proximity to a major waterway. Events are one-time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation.

In order to prepare for this Assessment, the Community Health Coalition was presented with a worksheet to complete asking for examples of Forces occurring in the county, and then describe any opportunities or threats that could potentially arise from those forces. The group completed the worksheet during the Spring 2023 meetings and also participated in discussions answering the same questions posed on the Worksheet. The following questions were presented to the group:

1. What has occurred recently that may affect our local public health system or community?
2. What may occur in the future?
3. Are there any trends occurring that will have an impact? Describe the trends.
4. What forces are occurring locally? Regionally? Nationally? Globally?
5. What characteristics of our jurisdiction or state may pose an opportunity or threat?
6. What may occur or has occurred that may pose a barrier to achieving the shared vision?

Open discussion was used to elicit community concerns, opinions, and comments in a structured way. Asking open-ended questions ensures that issues of concern and interest to the community are raised. Each member was encouraged to participate in the brainstorming session to ensure that a diversity of perspectives is represented.

Forces can include a variety of categories. It is important to include those that are:

- Social
- Economic
- Political
- Technological
- Environmental
- Scientific
- Legal
- Ethical

The following notes include the Forces, Opportunities, and Threats that the Stone County Community Health Coalition developed.

**SCCHC's Meeting on May 19, 2022 identified...  
4 Major Threats and Opportunities to Stone County, MO**

**1. Mental Health/Wellness**

- Coping with Stress and Anxiety
- Substance Use and Misuse
- Depression
- Suicide
- Domestic Violence

**Mental Health/Wellness - What can we do?**

Mental Health First Aid, QPR, Partner with 211, NAMI, OACAC, focus on nutritious food and exercise, focus on improving protective factors and reducing risk factors

**2. Economy**

- Poverty
- Workforce
- Supply chains

**Economy - What can we do?**

Partner with OMCC, the Chamber, and/or OACAC, focus on access to jobs (transportation), focus on crime/violence prevention, support local business, encourage sustainable wages

**3. Global Stressors**

- Misinformation
- Disinformation
- World conflict/War
- Russian's Influence and Power

**Global Stressors - What can we do?**

Use credible resources and sources, teach how to use credible sources

**4. Reoccurring Pandemic Issues**

- Vaccines
- Lockdowns

**Reoccurring Pandemic Issues - What can we do?**

Use credible resources and sources, teach how to use credible sources, continue to teach about covid-19 and the vaccine options

**Forces of Change Conclusion:**

After completing the Forces of Change worksheet and brainstorming session, the Community Health Coalition has discovered which Forces that are currently, have in the past, or could in the future, impact the Local Public Health System in Stone County. These forces each presented potential Opportunities and Threats in which the group, along with the whole community, need to be prepared. The list of forces in the table will act as a good indicator of which areas the coalition will need to focus priority when developing the goals and objectives as part of the Community Health Improvement Plan.

## Local Public Health System Assessment

The Local Public Health System Assessment was completed from October 2021-August 2022 via individual survey at many county events in Branson West, Blue Eye, Crane, Galena, Kimberling City, and Reeds Spring. A total of 282 Stone County Residents were surveyed.

The top 4 health areas and 15 top issues that were identified by Stone County Residents are shown in Figure 6. The top 4 areas included behavioral health, chronic disease, mental health and wellness, and social health.

**Figure 6: Top Health Areas and Issues by Stone County Residents:**

<p><b><u>Behavioral Health</u></b> Tobacco Use Substance Use and Misuse Domestic Violence Child Abuse and Neglect Bullying Child Safety Teen Pregnancy Cyberbullying</p>	<p><b><u>Chronic Disease</u></b> Heart Disease Obesity/Exercise COVID-19</p>
<p><b><u>Mental Health and Wellness</u></b> ADD/ADHD Anxiety Trauma Suicide</p>	<p><b><u>Social Health</u></b> Childcare Food Insecurity Poverty</p>

**Conclusion:**

The list of identified health priorities will act as a good indicator of which areas the coalition will need to focus priority when developing the goals and objectives as part of the Community Health Improvement Plan. This work will continue during the 2023 coalition meetings.



## Resources

- Centers for Disease Control and Prevention. [www.cdc.gov](http://www.cdc.gov)
- Centers for Disease Control and Prevention, Data and Statistics. [www.cdc.gov/DataStatistics/](http://www.cdc.gov/DataStatistics/)
- Centers for Disease Control and Prevention, Behavior Risk Factor Surveillance Survey. [www.cdc.gov/brfss/index.html](http://www.cdc.gov/brfss/index.html)
- Centers for Disease Control and Prevention, National Public Health Performance Standards Program. <https://www.cdc.gov/publichealthgateway/nphps/index.html>
- City Data. [www.City-Data.com](http://www.City-Data.com)
- County Health Rankings, University of Wisconsin Population Health Institute. [/www.countyhealthrankings.org/reports/2022-county-health-rankings-national-findings-report](http://www.countyhealthrankings.org/reports/2022-county-health-rankings-national-findings-report)
- Health Resources and Services Administration. [www.hrsa.gov/](http://www.hrsa.gov/)
- Missouri Economic Research and Information Center. <https://meric.mo.gov/>
- Missouri Census Data Center. [mcdc.missouri.edu/](http://mcdc.missouri.edu/)
- Missouri Department of Health and Senior Service. <https://health.mo.gov>
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- Missouri Department of Health and Senior Services, Behavior Risk Factor Surveillance Survey. <https://health.mo.gov/data/brfss/index.php>
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