



# Carroll County Memorial Hospital

## 2015 Community Health Needs Assessment



**Conducted on behalf of: Carroll County Memorial Hospital**

**December 2015**

**Author: Jenny Butterfield, MPH, DrPH (c)**

# Carroll County Community Health Needs Assessment

## Table of Contents

<b>I. Executive Summary</b>	<b>3</b>
<b>II. Community Health Needs Assessment: Community Defined</b>	<b>5</b>
<i>Description of the community served by CCMH</i>	5
i. Geography	5
ii. Population	6
iii. Education & Socioeconomics	8
iv. Other Health Services Available in the Same Community Area	13
<b>III. Community Health Needs Assessment: Process and Methodology</b>	<b>14</b>
i. Process	14
ii. Primary Research Survey Design	14
iii. Primary Research Methodology	14
iv. Secondary Data	15
<b>IV. Community Health Needs Assessment: Findings and Results</b>	<b>16</b>
<b>I. Secondary Data</b>	<b>16</b>
i. Chronic Diseases & Risk Factors	16
ii. Preventable Hospitalization	19
iii. Readmission Rates	20
iv. Hospitalization	20
v. Emergency Room Utilization	20
vi. Leading Cause of Mortality	21
vii. Cancer	24
viii. Injuries	24
ix. Mental Health/Substance Abuse	25
<b>II. Primary Survey Results</b>	<b>28</b>
i. Key Participants Demographic Characteristics	28
ii. Overall Health	28
iii. Health Behaviors	29
iv. Child Health	33
v. Medical Usage/Access to Care	33
vi. Community Health	37
vii. Socioeconomic Factors	40
viii. Other Questions	42
<b>V. Conclusions</b>	<b>48</b>
<b>VI. Dissemination</b>	<b>49</b>
<b>VII. Implementation Plan</b>	<b>50</b>
<b>VIII. References</b>	<b>54</b>
<b>IX. Appendix A: Primary Data Survey</b>	<b>55</b>

## **I. Executive Summary**

The Patient Protection and Affordable Care Act, requires hospitals with a 501(c)(3) tax-exempt status to conduct a community health needs assessment [CHNA] and adopt an implementation strategy at least once every three years. The following community health needs assessment for Carroll County, Missouri has been conducted on behalf of Carroll County Memorial Hospital [CCMH]. The last community health needs assessment for CCMH was conducted in 2012. The CHNA aims to improve the health and well being of Carroll County by identifying areas of need and then adopting an implementation strategy.

Carroll County Memorial Hospital is located in the city of Carrollton, Missouri. The city of Carrollton is located within Carroll County, Missouri. Since 1957, CCMH has been providing healthcare for Carroll County residents and surrounding rural communities. CCMH is a not-for-profit, 25-bed critical access hospital with a long-term care unit. CCMH manages four-physician clinics with three physicians, a Physician Assistant and two Licensed Nurse Practitioners. Additionally, CCMH provides Lifestyle Fitness, a unique rehab and fitness center, which incorporates an indoor pool, sauna, hot tub, indoor 1/16-mile walking track, and state of the art fitness equipment with certified therapists and trainers providing therapy and programs to residents of Carroll County and the surrounding areas. CCMH also hosts Jefferson Park, an upscale 30-unit Independent Living Center and the Senior Center of Carroll County. This all takes place on an 11-acre campus located in Carrollton, MO

CCMH continues to partner with nationally recognized specialists to bring specialty care to the patients it serves. The programs brought to the hospital have been a direct result of patient need. The hospital outpatient clinic offers the following specialties:

- Cardiology
- Chemotherapy
- Dermatology
- Gastroenterology
- Geriatric Psychiatry
- Oncology
- Orthopedics
- Pathology
- Podiatry
- Pulmonology
- Radiology
- Surgical
- Urology
- Women's Health Clinic
- Wound Care Clinic

Other services provided include: acute care services, emergency services, laboratory services, home health, outpatient services, primary care clinics, and skilled nursing care.

CCMH's mission to improve the health of the community is exemplified by not only assuring excellent medical care, but also by providing a healthy lifestyle to the community. This concept and vision is exhibited by the reality of CCMH's campus and ongoing commitment to healthcare.

To assess the needs of Carroll County, this assessment utilized primary data and secondary data collected from the U.S. Census Bureau, *County Health Rankings*, Missouri Department of Health and Senior Services, and the Missouri Hospital Association. Along with the primary and secondary data analysis, input was gathered from healthcare service providers and key stakeholders in the community. Data collection started in 2014 with the community stakeholder meetings and ended in June 2015 upon completion of the primary data analysis. The findings from the CHNA will be used to develop an implementation strategy aimed at improving the health and wellbeing of Carroll County residents. The key findings below will be expanded on in the implementation plan.

### **Key Findings**

Access to Care

Chronic Diseases: Heart Disease, Cancer, and Obesity

Mental Health/Substance Abuse

## II. Community Health Needs Assessment: Community Defined

A community is defined as the geographic area from which a significant number of the patients utilize CCMH hospital service. The zip codes listed below are considered within the community defined.

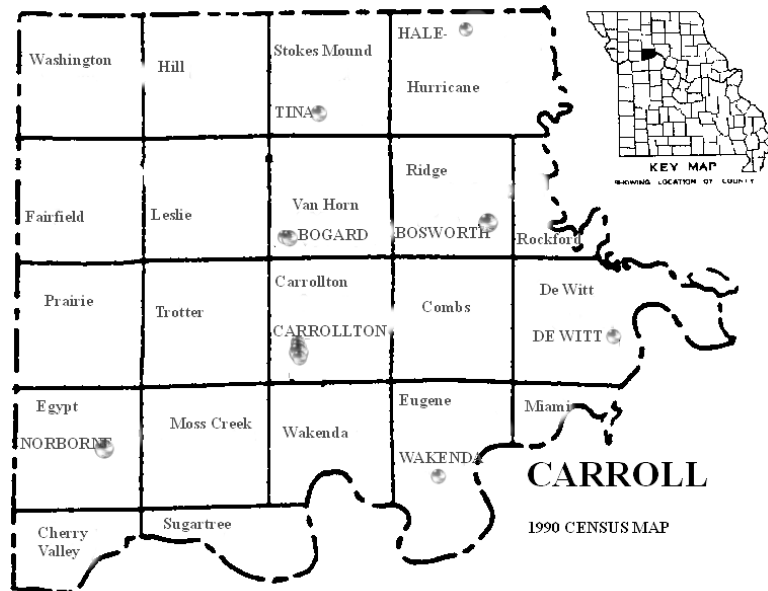
### i. Geography

Carroll County is located in the Northwest Region of Missouri. According to the U.S. Census Bureau (2015), Carroll County makes up approximately 694.62 square miles with a population density of 13.4 persons per square mile. Carroll County is located in a rural area. It is estimated that 64.5% of the population of Carroll County live in a rural area (U.S. Census Bureau, 2015). The county includes the following towns/cities and zip codes:

Towns/Cities and zip codes within Carroll County

Town/City	Zip Code
Bogard	64622
Bosworth	64623
Carrollton (County Seat)	64633
De Witt	64639
Hale	64643
Norborne	64668
Tina	64682
Wakenda	64687

A map image of Carroll County is below:



**ii. Population**

According to the U.S. Census Bureau American Community Survey (ACS) 2009-2013 5-year estimates, the total population of Carroll County is 9,216. Approximately 48.5% of the population is male and 51.5% is female. The median age for residents of Carroll County is 41.8.

The table below shows the age distribution of the estimated population of Carroll County for 2013 based on the U.S. Census Bureau ACS 2009-2013 5 Year estimates:

*Sex and Age Composition of Carroll County*

Subject	Carroll County, Missouri	
	Estimate	Percent
SEX AND AGE		
<b>Total population</b>	<b>9,216</b>	
<b>Male</b>	<b>4,474</b>	<b>48.5%</b>
<b>Female</b>	<b>4,742</b>	<b>51.5%</b>
Under 5 years	500	5.4%
5 to 9 years	546	5.9%
10 to 14 years	707	7.7%
15 to 19 years	644	7.0%
20 to 24 years	512	5.6%
25 to 34 years	940	10.2%
35 to 44 years	1,107	12.0%
45 to 54 years	1,264	13.7%
55 to 59 years	622	6.7%
60 to 64 years	612	6.6%
65 to 74 years	912	9.9%
75 to 84 years	581	6.3%
85 years and over	269	2.9%
<b>Median age (years)</b>	<b>41.8</b>	
Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey		

The 2013 estimated race and ethnicity composition of Carroll County is 97.5% white and 1% African American with the rest of the population being some other race (U.S. Census Bureau, 2015). A detailed table of the 2013 estimates of races and ethnicities is listed below in the table below:

*Race and Ethnicity Composition of Carroll County*

Subject	Carroll County, Missouri	
	Estimate	Percent
<b>RACE</b>		
Total population	9,216	
<b>One race</b>	<b>8,989</b>	<b>97.5%</b>
<b>Two or more races</b>	<b>227</b>	<b>2.5%</b>
<b>One race</b>	<b>8,989</b>	<b>97.5%</b>
White	8,840	95.9%
Black or African American	90	1.0%
American Indian and Alaska Native	1	0.0%
Cherokee Tribal Grouping	1	0.0%
Asian	9	0.1%
Filipino	9	0.1%
Some other race	49	0.5%
<b>Two or more races</b>	<b>227</b>	<b>2.5%</b>
White and Black or African American	118	1.3%
White and American Indian and Alaska Native	38	0.4%
White and Asian	45	0.5%
<b>HISPANIC OR LATINO</b>		
Total population	9,216	
<b>Hispanic or Latino (of any race)</b>	<b>121</b>	<b>1.3%</b>
<b>Not Hispanic or Latino</b>	<b>9,095</b>	<b>98.7%</b>
Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey		

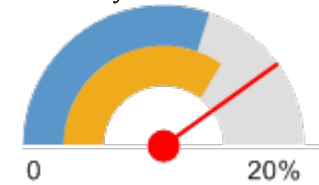
*Population with Any Disability*

This indicator report below is the percentage of the total civilian non-institutionalized population with a disability. This indicator is relevant because disabled individuals comprise a vulnerable population that requires targeted services and outreach by providers (Community Commons, 2015).

In comparison with the State of Missouri (14.01%) and the United States (12.13%) overall percentages, Carroll County has a slightly higher percent of total population with a disability (16.05%).

Report Area	Total Population (For Whom Disability Status Is Determined)	Total Population with a Disability	Percent Population with a Disability
Carroll County, MO	9,115	1,463	16.05%
Missouri	5,892,726	825,674	14.01%
United States	306,448,480	37,168,876	12.13%

Percent Population with a Disability

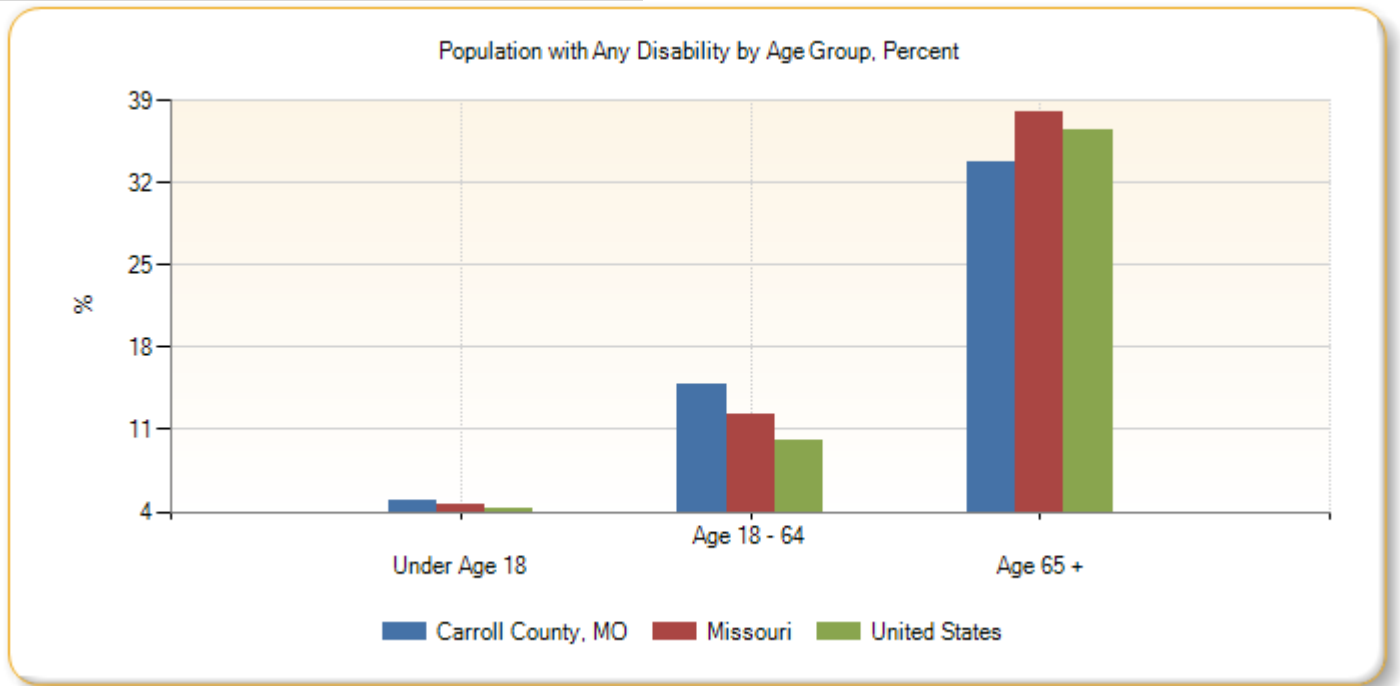


- Carroll County, MO (16.05%)
- Missouri (14.01%)
- United States (12.13%)

Source: US Census Bureau, American Community Survey. 2009-13. Source geography: Tract  
 Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015

The population with any disability by Age Group, Percent for Carroll County is higher for Age 18-64 (14.88%) and Under Age 18 (5.02%) than Missouri and the United States.

Report Area	Under Age 18	Age 18 - 64	Age 65
Carroll County, MO	5.02%	14.88%	33.76%
Missouri	4.56%	12.23%	38.06%
United States	4.03%	10.1%	36.48%



Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015

**It should be noted that Carroll County has an Amish community that would be considered an at-risk population. We estimate their community to consist of approximately 200 residents, however there is no available data.**

*iii. Education & Socioeconomics*

Carroll County consists of 5 school districts: Carrollton, Tina, Bosworth, Hale, and Norborne. According to the U.S. Census (2015) 83.9% of the population age 25 and over are high school graduates or higher. The average median household income was \$46,002. The persons in poverty rate for Carroll County is 17.7%, which is slightly larger than the persons in poverty rate for the State of Missouri. The table below contains more in-depth information on the population characteristics of Carroll County.

*Carroll County Population Characteristics*

<b>People</b>	<b>Carroll County, Missouri</b>	<b>State of Missouri</b>
<b>Population Characteristics</b>		
Veterans, 2009-2013	869	479828
Foreign born persons, percent, 2009-2013	1.1	3.9
<b>Housing</b>		
Housing units, July 1, 2013, (V2013)	4602	2719001
Owner-occupied housing unit rate, 2009-2013	80.3	68.4
Median value of owner-occupied housing units, 2009-2013	83900	137000
Median selected monthly owner costs -with a mortgage, 2009-2013	999	1227
Median selected monthly owner costs -without a mortgage, 2009-2013	357	388
Median gross rent, 2009-2013	521	727
Building permits, 2013	10	13708
<b>Families and Living Arrangements</b>		
Households, 2009-2013	3613	2360131
Persons per household, 2009-2013	2.52	2.47
Living in same house 1 year ago, percent of persons age 1 year+, 2009-2013	91.7	83.8
Language other than English spoken at home, percent of persons age 5 years+, 2009-2013	1.9	6.1
<b>Education</b>		
High school graduate or higher, percent of persons age 25 years+, 2009-2013	83.9	87.6
Bachelor's degree or higher, percent of persons age 25 years+, 2009-2013	15.6	26.2
<b>Health</b>		
With a disability, under age 65 years, percent, 2009-2013	12	10.1
Persons without health insurance, under age 65 years, percent	16.9	15.2
<b>Transportation</b>		
Mean travel time to work (minutes), workers age 16 years+, 2009-2013	24.4	23.1
<b>Income and Poverty</b>		

Median household income (in 2013 dollars), 2009-2013	46002	47380
Per capita income in past 12 months (in 2013 dollars), 2009-2013	24073	25649
Persons in poverty, percent	17.7	15.9
QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.		

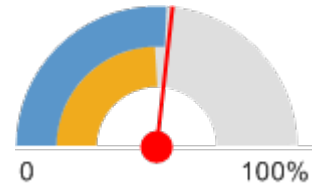
Source: U.S. Census Bureau 2009-2013 5-Year American Community Survey

*Children Eligible for Free/Reduced Price Lunch* (Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015)

Within the report area 800 public school students or 53.66% are eligible for Free/Reduced Price lunch out of 1,491 total students enrolled. This indicator is relevant because it assesses vulnerable populations, which are more likely to have multiple health access, health status, and social support needs. Additionally, when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Report Area	Total Students	Number Free/Reduced Price Lunch Eligible	Percent Free/Reduced Price Lunch Eligible
Carroll County, MO	1,491	800	53.66%
Missouri	916,933	452,824	49.73%
United States	50,195,195	26,012,902	52.35%

Percent Students Eligible for Free or Reduced Price Lunch

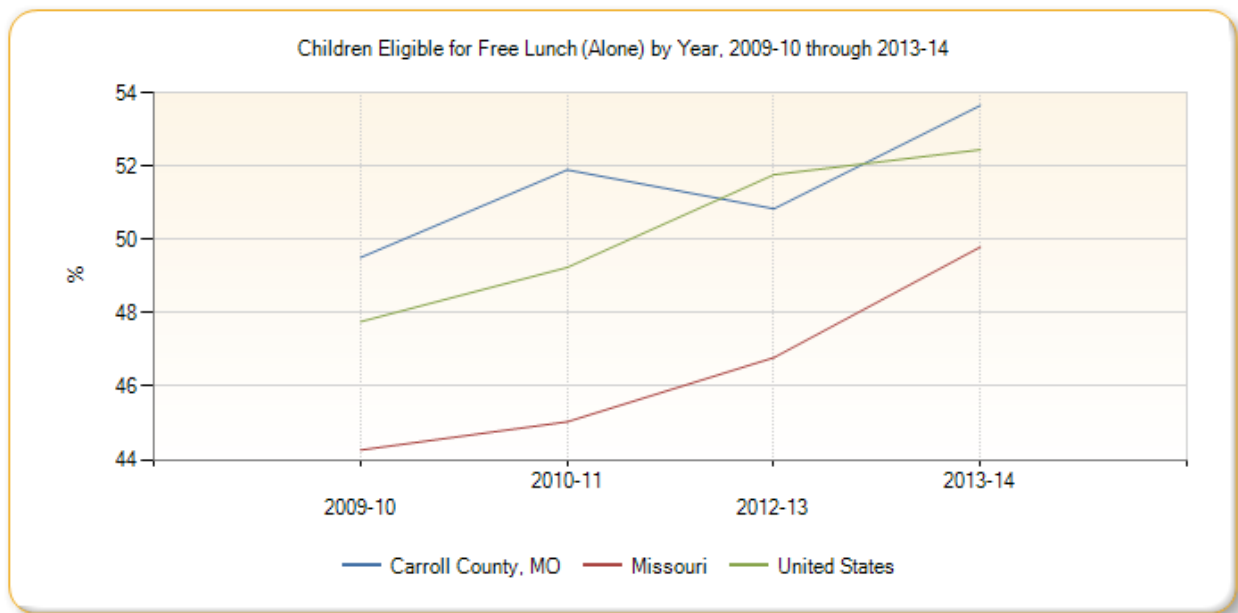


- Carroll County, MO (53.66%)
- Missouri (49.73%)
- United States (52.35%)

Data Source: National Center for Education Statistics, NCES - Common Core of Data. 2013-14. Source geography: Address

### Children Eligible for Free Lunch (Alone) by Year, 2009-10 through 2013-14

The graph below shows local, state, and National trends in student free and reduced lunch eligibility.

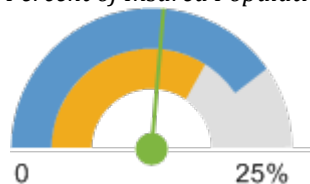


Note: Data for the 2011-12 school year are omitted due to lack of data for some states.  
 Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015

*Insurance-Population Receiving Medicaid* (Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015)

This indicator graph below reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance) in Carroll County (13.14%) compared to Missouri (17.1%) and the United States (20.21%). This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

*Percent of Insured Population Receiving Medicaid*



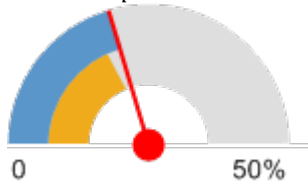
- Carroll County, MO (13.14%)
- Missouri (17.1%)
- United States (20.21%)

*Insurance-Uninsured Adults* (Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015)

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

This indicator graph below reports the percentage of adults age 18 to 64 without health insurance coverage in Carroll County (20.28%) compared to Missouri (18.45%) and the United States (20.44%). This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

Percent Population Without Medical Insurance



- Carroll County, MO (20.28%)
- Missouri (18.45%)
- United States (20.44%)

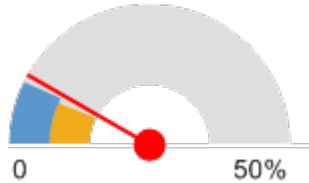
*Insurance-Uninsured Children* (Courtesy: Community Commons, <<http://www.communitycommons.org>>, 10/02/2015)

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

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

Report Area	Total Population Under Age 19	Population with Medical Insurance	Percent Population With Medical Insurance	Population Without Medical Insurance	Percent Population Without Medical Insurance
Carroll County, MO	2,144	1,965	91.65%	179	8.35%
Missouri	1,434,519	1,333,337	92.95%	101,182	7.05%
United States	76,195,402	70,470,743	92.49%	5,724,663	7.51%

Percent Population Without Medical Insurance



- Carroll County, MO (8.35%)
- Missouri (7.05%)
- United States (7.51%)

Data Source: US Census Bureau, Small Area Health Insurance Estimates. 2013.  
Source geography: County

*iv. Other Health Services Available in the Same Community Area*

CCMH is the only hospital located in Carroll County. There are four physician clinics managed by CCMH; three clinics are located in Carrollton and one clinic is located in Hale. The Carroll County Health Department does offer some health services such as: blood pressure/sugar/cholesterol clinics; family planning; in-home nursing; immunization clinics; health wellness presentation; WIC; and other public health services. Burrell Behavioral Health has a clinic in Carrollton that offers a limited range of mental health services. There is also a private independent mental health counselor in Carrollton that offers some counseling services to the area. Carrollton also has two dental clinics that offer a variety of dental services. A new health clinic, Live Well Community Health Center, is planning on opening up in January 2016. They will offer a wide range of medical services for the community.

### **III. Community Health Needs Assessment: Process and Methodology**

#### ***i. Process***

Based on the findings from the 2012 CHNA, CCMH has continuously been working on community health engagement. In April 2014, the Chief Operating Officer at the time, Shannon Jordan started working with Jenny Butterfield on a community health and wellness project. Jenny was responsible for gathering and authoring the 2015 Carroll County CHNA. Jenny obtained her Bachelor of Health Science degree and Masters of Public Health degree from the University of Missouri-Columbia. Jenny is currently finishing her Doctorate of Public Health degree from Loma Linda University and is expected to graduate in June 2016. Carroll County Memorial Hospital employees Jeanne Rector and Cindy Gilman also contributed and assisted with the 2015 Carroll County CHNA.

Two community stakeholder meetings were conducted at CCMH during August and October 2014 to assess public perceptions of the county's health status and unmet needs. The stakeholders included those knowledgeable about the community, influential leaders, and health care providers/services. One-on-one meetings were also conducted with key stakeholders such as the administrator of the Carroll County Health Department.

The report followed the 2015 Guidance for *Completing A Community Health Needs Assessment* published by the Missouri Hospital Association [MHA] in addition to the most recent laws and regulations requirements for tax-exempt hospitals.

#### ***ii. Primary Research Survey Design***

The 2015 Carroll County CHNA Survey was developed from the template provided by the Missouri Hospital Association. The survey had 30 questions that addressed: demographics, social and economic factors, medical care and services, and health behaviors. The majority of the questions were multiple choice or yes/no. At the end of the survey, three open-ended questions were used to help identify any health service gaps. Social and economic factor questions were placed toward the end of the survey to prevent any negative reactions/barriers of these questions from influencing the answers to the previous questions.

#### ***iii. Primary Research Methodology***

The survey period was June 1<sup>st</sup>, 2015 to June 15<sup>th</sup>, 2015. The Carroll County CHNA survey was available online at the following link: <https://www.surveymonkey.com/s/CCMHsurvey>. The survey link was shared on Carroll County social media group pages; emailed to school administrators to distribute to their faculty at Hale, Norborne, Carrollton, Bosworth, and Tina public schools; emailed to CCMH employees; and distributed in flyers to other Carroll County residents. A total of 184 participants completed the online survey. A 105 paper copies were also distributed in Carroll County to the following locations: CCMH Specialty Clinic and physician clinics; Premier Eye Care; Carroll County Health Department; Carrollton Public Library; Austin Assisted Living Home/Apartments; Red Cross Pharmacy; Hometown Pharmacy; YMCA; and Missouri Valley Community Action

Agency. The paper locations were targeted to attempt to gather information from underserved populations in Carroll County that maybe medically underserved, low-income, or chronically ill. 50 paper surveys (response rate for paper surveys was 47.6%) were returned and entered into the same online survey service that was used to collect online responses to better analyze the results. A total of 234 surveys were completed and analyzed. A copy of the survey is in Appendix A.

#### iv. **Secondary Data**

Secondary data was compiled from a variety of local, county, and state sources to reflect the most current information available. The following sources were used to collect secondary data:

- U.S. Census Bureau
- Community Commons
- Missouri Department of Health and Senior Services
- U.S. Bureau of Labor Statistics
- Robert Wood Johnson Foundation County Health Rankings
- Missouri Hospital Association
- Missouri Division of Behavioral Health and the Substance Abuse and Mental Health Services Administration

A wide variety of health indicators, outcomes, and measures were reviewed and some were compared to the whole population of Missouri rates/standards in order to determine significance and the overall quality of health in the population of Carroll County. This report presents a summary that highlights the data findings and presents the key needs and gaps in the health of Carroll County.

## **IV. Community Health Needs Assessment: Findings**

### **I. Secondary Data**

#### ***i. Chronic Diseases and Risk Factors***

In the United States, chronic diseases are the leading cause of disability and death (Center for Disease Control and Prevention, CDC, 2015). “Chronic diseases – such as heart disease, stroke, cancer, diabetes, obesity, and arthritis – are among the most common, costly, and preventable of all health problems in the U.S.” (CDC, para 1, 2015)

Using RWJF County Health Rankings 2014 data for Carroll County:

##### *Health Behaviors*

- 32% of Carroll County were found to have a body mass index (BMI) greater than 30, which is slightly more than the state percentage of 31%
- 21% of Adults smoke which is less than the state percentage of 23%
- 29% of residents in Carroll County reported having no leisure physical activity
- 37% reported to having access to exercise opportunities which is greatly less than the state rate

##### *Clinical Care*

- 16% are uninsured
- The ratio of mental healthcare providers to the population is 9,086:1
- Preventable hospital stays is 105, which is the number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees. This number is significantly higher than the state rate of 72
- The Percentage of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring 71%

The table below shows the 2008-2012 chronic disease comparison profile for Carroll County vs. the State of Missouri. Those chronic diseases with significantly higher rates than the state rates were hospitalizations and ER visits for heart disease; ER visits: ischemic heart disease; ER visits: stroke/other cerebrovascular disease; hospitalization for lung cancer; ER visits diabetes; hospitalizations for COPD; hospitalization asthma; and hospitalization arthritis/lupus.

<b>Chronic Disease Comparisons Profile for Carroll Residents 2008-2012</b>			
	Age-Adjusted Rate	Significantly Different	Age-Adjusted Missouri Rate
Hospitalizations: Heart Disease	159	H	129.8
ER Visits: Heart Disease	21.7	H	14.3
Hospitalizations: Ischemic Heart Disease	44.2	N/S	41.6
ER Visits: Ischemic Heart Disease	2.5	H	0.7
Hospitalizations: Stroke/Other Cerebrovascular Disease	29.8	N/S	29.3

ER Visits: Stroke/Other Cerebrovascular Disease	1.4	H	0.8
Hospitalizations: All Cancers (Malignant Neoplasms)	39.5	N/S	34.6
Hospitalizations: Colorectal Cancer	5.3	N/S	4.4
Hospitalizations: Lung Cancer (SEER)	7.2	H	4.6
Hospitalizations: Breast Cancer	2.4*	N/S	1.7
Hospitalizations: Cervical Cancer	0.2*	N/S	0.6
Hospitalizations: Prostate Cancer	2.6*	N/S	2.5
Hospitalizations: Diabetes Mellitus	20.7	N/S	17.8
ER Visits: Diabetes Mellitus	2.5	H	1.8
Hospitalizations: Chronic Obstructive Pulmonary Disease Excluding Asthma	55.6	H	23.6
ER Visits: Chronic Obstructive Pulmonary Disease Excluding Asthma	6.1	N/S	5.7
Hospitalizations: Asthma	23	H	13.1
ER Visits: Asthma	3.3	L	5.3
Hospitalizations: Arthritis/Lupus	58.2	H	41.7
ER Visits: Arthritis/Lupus	9.4	N/S	9.9

Source: Missouri Department of Health and Senior Services, Community Data Profile, Chronic Disease Comparison 2008-2012

Death rates are per year per 100000 population and are age-adjusted to the U.S. 2000 standard population. Hospitalization rates are per year per 10000 population and are age-adjusted to the U.S. 2000 standard population. Emergency Room rates are per year per 1000 population and are age-adjusted to the U.S. 2000 standard population. \* Fewer than 20 events in numerator; rate is unstable. Trends are available only if each 3-year period of the moving average has an average of 20 or more events.

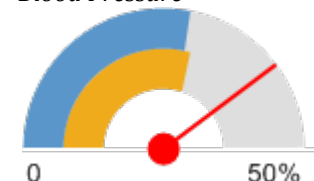
The following are from the Core Health Indicators Report for Carroll County, Missouri (Community Commons, 2015):

*High Blood Pressure (Adult)*

2,854, or 39.7% of adults aged 18 and older have ever been told by a doctor that they have high blood pressure or hypertension.

Report Area	Total Population (Age 18)	Total Adults with High Blood Pressure	Percent Adults with High Blood Pressure
Carroll County, MO	7,190	2,854	39.7%
Missouri	4,532,155	1,336,986	29.5%
United States	232,556,016	65,476,522	28.16%

Percent Adults with High Blood Pressure



■ Carroll County, MO (39.7%)  
■ Missouri (29.5%)  
■ United States (28.16%)

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-12. Source geography: County

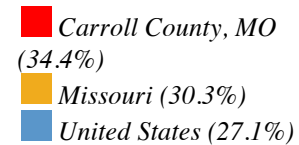
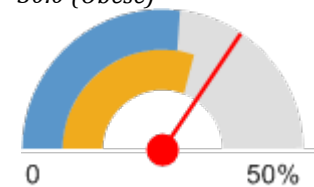
## Obesity

34.4% of adults aged 20 and older self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese) in the report area. Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population Age 20	Adults with BMI > 30.0 (Obese)	Percent Adults with BMI > 30.0 (Obese)
Carroll County, MO	6,781	2,319	34.4%
Missouri	4,456,386	1,365,174	30.3%
United States	231,417,834	63,336,403	27.1%

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County

Percent Adults with BMI > 30.0 (Obese)



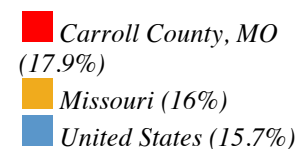
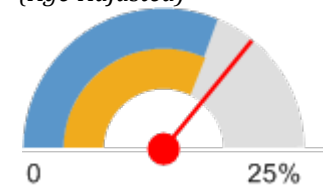
## Poor General Health

Within the report area 20.1% of adults age 18 and older self-report having poor or fair health in response to the question "Would you say that in general your health is excellent, very good, good, fair, or poor?". This indicator is relevant because it is a measure of general poor health status.

Report Area	Total Population Age 18	Estimated Population with Poor or Fair Health	Crude Percentage	Age-Adjusted Percentage
Carroll County, MO	7,190	1,445	20.1%	17.9%
Missouri	4,532,155	765,934	16.9%	16%
United States	232,556,016	37,766,703	16.2%	15.7%

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

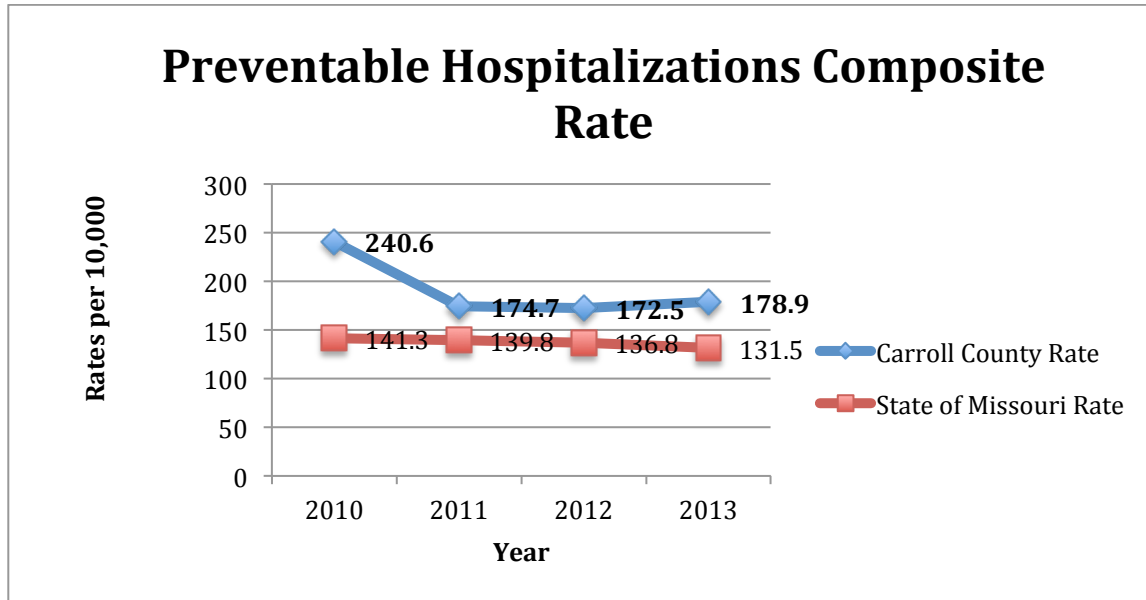
Percent Adults with Poor or Fair Health (Age-Adjusted)



**ii. Preventable Hospitalization**

Preventable hospitalizations are "diagnoses for which timely and effective outpatient care can help to reduce the risks of hospitalization by either preventing the onset of an illness or condition, controlling an acute episodic illness or condition, or managing a chronic disease or condition..." (Billings et al., 1993).

Carroll County has a significantly higher preventable hospitalization rate then compared to the rest of the State of Missouri.



Source: Missouri Department of Health & Senior Services, MICA, Preventable Hospitalizations Age Adjustment Uses Year 2000 Standard Population; Confidence Interval for Rates by the Inverse Gamma Method; 95 percent confidence interval

2011-2013 MODHSS Preventable Hospitalizations for Carroll County vs. State of Missouri shows that Carroll County has a significant higher rate of preventable hospitalizations for the following:

**Preventable Hospitalizations, Diagnosis**

	Carroll County	Missouri
<b>Chronic Conditions</b>		
Chronic Obstructive Pulmonary Disease (COPD)	26.6	11.2
<b>Acute Conditions</b>		
Bacterial pneumonia	27.9	16.9
Cellulitis	26.7	14
Gastroenteritis	9.4	11.2
Kidney/Urinary infection	13.7	7.8

Source: Missouri Department of Health & Senior Services, MICA, Preventable Hospitalizations Rates per 10,000; Age Adjustment Uses Year 2000 Standard Population; Confidence Interval for Rates by the Inverse Gamma Method; 95 percent confidence interval

**iii. Readmission Rates**

The table below shows the CCMH readmission rates per quarter in 2014.

	1 <sup>st</sup> Quarter 2014	2 <sup>nd</sup> Quarter 2014	3 <sup>rd</sup> Quarter 2014	4 <sup>th</sup> Quarter 2014
30 Day Re-admits	<b>5</b>	<b>3</b>	<b>2</b>	<b>2</b>
Re-admission rate	<b>7.5 %</b>	<b>5.8%</b>	<b>4.4%</b>	<b>3.12%</b>

**iv. Hospitalization**

CCMH had 721 inpatients in 2014, 66.4% of these patients were from Carrollton and 60.2% were 65 years of age or older. The top admitting diagnoses for CCMH in 2014 were chest pain (106), other specified rehabilitation (85), pneumonia (44), dehydration (37), chronic bronchitis with/ exacerbation (31), congestive heart failure (25), anemia (20), and urinary tract infection (19).

**v. Emergency Room Utilization**

CCMH is the only emergency department within Carroll County. Emergency room usage provides information on the conditions affecting the health of Carroll County residents. In 2014, 3,522 patients utilized the CCMH emergency room. The average age of patients utilizing the ER was 35.22. Infants, adolescents, and teens 18 years old and under made up 24.1% of the ER users. The top four payers for patients utilizing the ER in 2014 were Medicare 30.90%; Blue Cross & Commercial Insurance 26.89%; Medicaid 25.18%; and Self Pay 15.61%.

Listed below are the 2014 top diagnoses for CCMH Emergency Department utilization.

Diagnosis	Total Number
Chest pain	155
Upper respiratory infection	76
Migraine	59
Urinary tract infection	57
Pneumonia	56
Influenza	56
Nausea with vomiting	54
Strep sore throat	52
Chronic bronchitis with exacerbation	48
Acute bronchitis	46
Headache	46
Sprain/strain unspecified site	43
Hypertension	42
Open wound	42
Dehydration	41
Acute pharyngitis	41
Otitis media	40
Pain in limb	39

Source: CCMH Emergency Department

**vi. *Leading Causes of Mortality***

Heart disease and cancer are the top leading cause of death in the state of Missouri as well as Carroll County. Carroll County does have significantly higher age-adjusted rate of 323.5 than the state rate of 216.7. The rates for unintentional injuries and pneumonia/influenza are also significantly higher for Carroll County than the state of Missouri rates. The top leading causes of death for Carroll County compared to the Missouri age-adjusted rates are listed below:

**Leading Causes of death 2003-2013**

	Carroll County Age-Adjusted Rate	Missouri Age-Adjusted Rate	Significantly Different
Heart Disease	323.5	216.7	H
Cancer	174.1	188.9	N/S
Unintentional Injuries	70.8	47.5	H
Chronic Lower Respiratory Disease	49.3	50.3	N/S
Stroke/Other Cerebrovascular Disease	43.6	47.8	N/S
Pneumonia and Influenza	30.7	20.3	H

Source: Missouri Department Health & Senior Services MICA (Mortality rates are per year per 100,000 population)

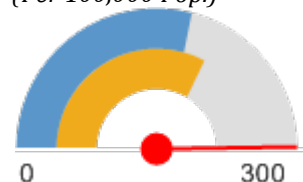
The following are mortality results are from the Community Commons (2015) Core Health Indicator Reports:

*Mortality - Heart Disease*

Within the report area the rate of death due to coronary heart disease per 100,000 population is 298.8. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are re-summarized for report areas from county level data, only where data is available. This indicator is relevant because heart disease is a leading cause of death in the United States.

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Carroll County, MO	9,216	43	470.9	298.8
Missouri	6,005,372	13,881	231.14	198.5
United States	311,430,373	600,899	192.95	175

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



- Carroll County, MO (298.8)
- Missouri (198.5)
- United States (175)

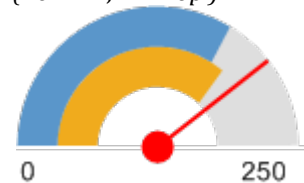
Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2009-13. Source geography: County

### Mortality - Cancer

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

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Carroll County, MO	9,216	28	299.5	196.7
Missouri	6,005,372	12,689	211.3	182.4
United States	311,430,373	577,313	185.4	168.9
<a href="#">HP 2020 Target</a>				<= 160.6

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



- Carroll County, MO (196.7)
- Missouri (182.4)
- United States (168.9)

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2009-13. Source geography: County

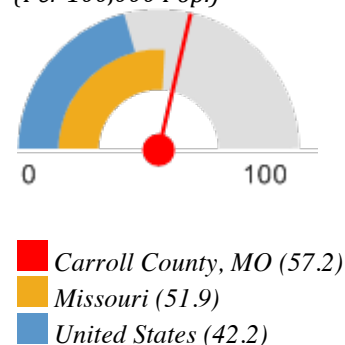
### Mortality - Lung Disease

This indicator reports the rate of death due to chronic lower respiratory disease per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are re-summarized for report areas from county level data, only where data is available.

This indicator is relevant because lung disease is a leading cause of death in the United States.

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Carroll County, MO	9,216	8	88.97	57.2
Missouri	6,005,372	3,591	59.79	51.9
United States	311,430,373	142,214	45.66	42.2

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



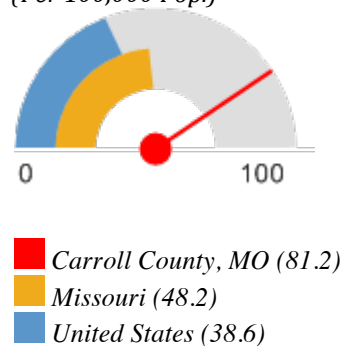
Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2009-13. Source geography: County

### Mortality - Unintentional Injury

This indicator reports the rate of death due to unintentional injury (accident) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are re-summarized for report areas from county level data, only where data is available. This indicator is relevant because accidents are a leading cause of death in the U.S.

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Carroll County, MO	9,216	8	86.8	81.2
Missouri	6,005,372	3,013	50.18	48.2
United States	311,430,373	124,733	40.05	38.6
<a href="#">HP 2020 Target</a>				<= 36.0

Unintentional Injury (Accident) Mortality, Age-Adjusted Death Rate (Per 100,000 Pop.)



Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2009-13. Source geography: County

**vii. Cancer**

Lung/bronchus and breast cancer are the top 2 cancers in Carroll County. According to the Cancer Registry, Cancer Incidence data for all stages of cancer the top five sites 2010-2012 for Carroll County were:

Cancer Site	Total Number of Incidence
Lung and Bronchus	38
Breast	26
Colon, Rectum, and Recto sigmoid	16
Prostate	16
Urinary Bladder	7

Source: Missouri Department of Health & Senior Services, MICA, Cancer Registry

**viii. Injuries**

MICA data shows the Carroll County rate for unintentional injuries are higher than that of the state rate for visits to hospitalizations and Emergency Department as well as death rates for certain injury locations. The table below is based on the MICA data:

**Unintentional Injury Profile for Carroll County Residents 2002-2012**

	Age-Adjusted Carroll County Rate	Significantly Different	Age-Adjusted State Rate
Deaths: Total Unintentional Injury	69.5	H	47.3
Deaths: Motor Vehicle Traffic**	26.4	H	16.6
Deaths: Firearm	1.2*	N/S	0.3
Deaths: Fall	17.2	H	9.7
Deaths: Poisoning: Drugs/Alcohol	8.1*	N/S	10.9
Deaths: Poisoning: Gas/Cleaner/Caustic	1.2*	N/S	0.4
Deaths: Fire/Burn	4.1*	N/S	1.5
Deaths: Drowning	1.2*	N/S	1.2
Deaths: Injury at Work	5.5*	N/S	1.5
Hospitalizations: Total Unintentional Injury	70.6	H	54.7
ER Visits: Total Unintentional Injury	102.2	H	88.5
Hospitalizations: Motor Vehicle	14.9	H	10.3

Traffic**			
ER Visits: Motor Vehicle Traffic**		8.1	L
Hospitalizations: Firearm	0.0*		0.3
ER Visits: Firearm	0.1*		N/S
Hospitalizations: Fall		35.9	H
ER Visits: Fall		29.6	H
Hospitalizations: Poisoning: Drugs/Alcohol		1.8	L
ER Visits: Poisoning: Drugs/Alcohol		0.5	L
Hospitalizations: Poisoning: Gas/Cleaner/Caustic	0.4*		N/S
ER Visits: Poisoning: Gas/Cleaner/Caustic	0.2*		N/S
Hospitalizations: Fire/Burn		2.6	H
ER Visits: Fire/Burn		2.2	H
Hospitalizations: Drowning	0.1*		N/S
ER Visits: Drowning	0.0*		N/S

Source: Missouri Department of Health & Senior Services, Community Data Profiles, Unintentional Injury  
 Death rates are per year per 100,000 population and are age-adjusted to the U.S. 2000 standard population. Hospitalization rates are per year per 10,000 population and are age-adjusted to the U.S. 2000 standard population. ER Visit rates are per year per 1000 population and are age-adjusted to the U.S. 2000 standard population. Trends are available only if each 3-year period of the moving average has an average of 20 or more events.

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

\*\* Excludes those not traffic-related.

\*\*\* Includes drowning involving watercraft.

### ix. *Mental Health/Substance Abuse*

#### *Mental Health*

Mental health illnesses can increase the risk for homicide, suicide, and other accidents as well as chronic conditions. Access to mental health providers is a barrier in Carroll County.

The 2015 Status Report on Missouri’s Substance Abuse and Mental Health Problems: Carroll County:

<b>2012 Hospital Episodes<sup>1</sup></b>	
<i>Hospitalization, no Emergency Room</i>	
Mental Illness Principal Diagnosis	53
Mental Illness Secondary Diagnosis	186
<i>Emergency Room + Hospitalization</i>	
Mental Illness	19

Principal Diagnosis	
Mental Illness Secondary Diagnosis	186
<i>Emergency Room, no hospitalization</i>	
Mental Illness Principal Diagnosis	65
Mental Illness Secondary Diagnosis	122

Diagnosis Counts for hospital and ER services are based on codes developed by the Healthcare Cost and Utilization Project.

A report published by the Missouri Division of Behavioral Health (2015) for Carroll County indicated that in 2014, 124 Carroll County Residents received treatment for serious mental illness at publicly-funded facilities. The top diagnoses categories for those seeking treatment in 2014 were (some individuals had more than one disorders so the total number of diagnoses is larger than the number of served): Mood Disorders (92); Anxiety disorder (73); Impulse Control Disorder (27); Personality Disorder (23); Psychotic Disorder (12); Adjustment Disorder (11); Developmental Disorder (5); and Other Diagnosis (8).

The ages of those seeking care were: under 17 years of age (29); 18 to 34 years of age (23); 35 to 59 years of age (56); and 60 years of age and older (16).

#### *Substance use*

The availability of data on county level substance use and abuse is limited. The 2015 Behavioral Health Profile: Carroll County published by Missouri Division Behavioral Health and the Substance Abuse and Mental Health Services Administration reported the following:

- In 2014, 42 individuals in Carroll County were admitted into Substance Abuse Treatment Programs.
  - o Age of individuals: 18 to 24 (6); 25 to 29 (10); 30 to 34 (8); 35 to 39 (6); and 40 to 44 (7).
  - o The primary drug problem for those admitted: Alcohol (12) and Stimulant: Methamphetamine (21).
  - o Treatment referral source: Self/Family/Friend (5); Court/Criminal Justice (26); and Other Referral Source (9).
- In 2013, Carroll County had 38 DWI arrests, 21 liquor law violations, 20 drug-related arrests, and 1 methamphetamine lab seizure.
- In 2013, Carroll County had 11 alcohol-related crashes.

In 2013, 25.2% of mothers in Carroll County reported smoking during pregnancy, which is significantly greater than the state of Missouri rate of 17.5%.

The Missouri Student Survey (2014) provides estimates for youth substance use and abuse in Missouri counties. The survey is administered to even-numbered years to 6<sup>th</sup> through 12<sup>th</sup> grade. The following results are from 2014 Missouri Student Survey for Carroll County:

- 40.5% of the students had used alcohol which significantly greater than the whole state of Missouri average of 33.3%
- 21.8% of the students had used cigarettes which is less than state average

- 19.8% of the students had used chewing tobacco which is significantly greater than the state of Missouri average of 9.8%
- The average age of students' first use of:
  - Alcohol 12.25
  - Cigarettes 13.08
  - Marijuana 13.62
  - Inhalants 11.35
- The following were higher than state averages for current substance abuse use: 21.8% of students had used alcohol in the past 30 days, 1.8% of students had used inhalants in the past 30 days; 1.8% of students had abused OTC's in the past 30 days.

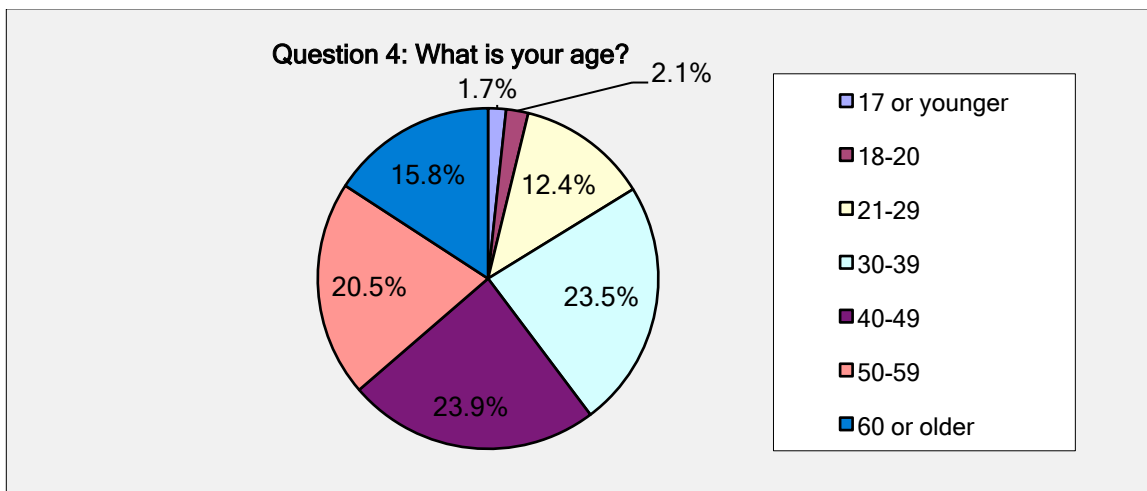
## II. Primary Survey Results

The results for the primary survey questions are listed below:

### i. *Key Participants Demographics & Characteristics (n=234)*

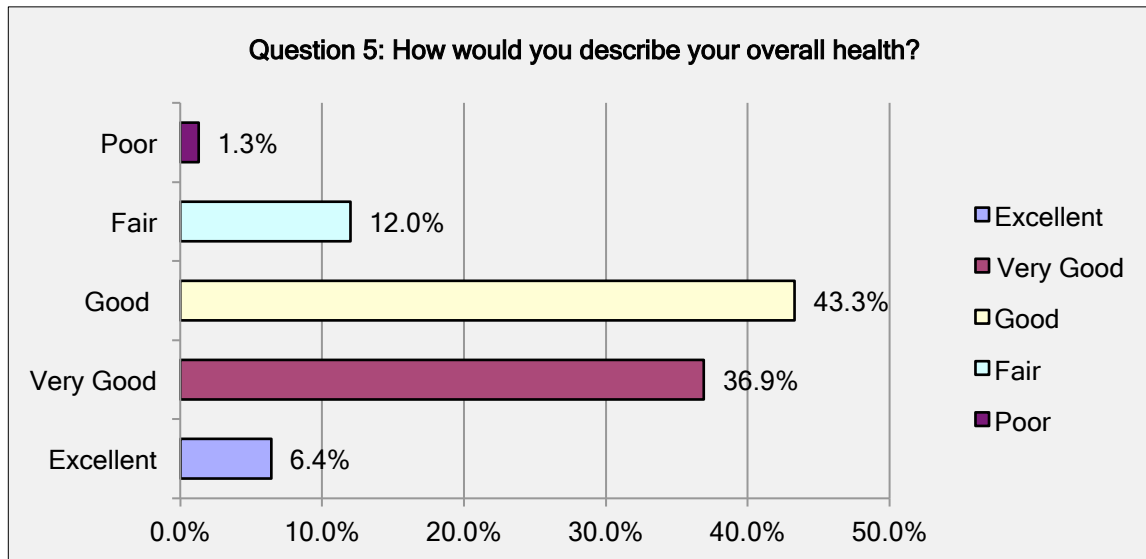
- Location of Participants' House: 63.48% Carrollton, 10.87% Hale, 5.65% Bogard, 5.22% Norborne, 3.91% Tina, 2.17% Bosworth, 0.43% DeWitt, and 8.26% other
- 209 Female (89.7%) and 24 Male (10.3%)
- White/Caucasian 97.41%, 1.29% American Indian or Alaskan Native, and 1.29% Black of African American

The majority of respondents were age 40 to 49 (23.9%), age 30 to 39 (23.5%), and age 50 to 59 (20.5%).



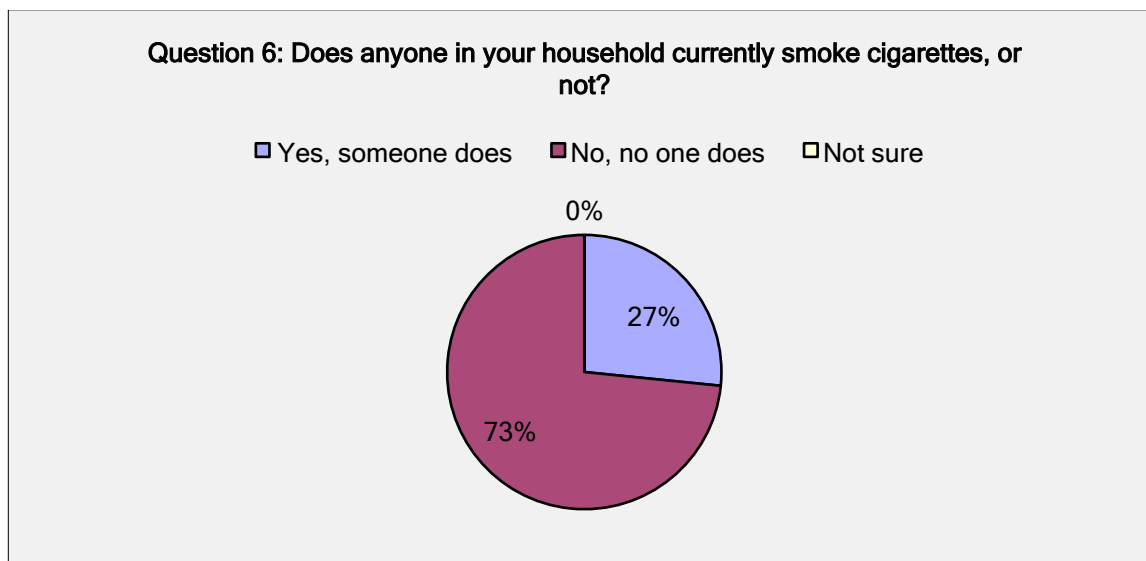
### ii. *Overall Health*

The respondents were first asked to describe their overall health (excellent to poor). The majority of respondents reported their health as good (43.5%) and very good (36.9%).

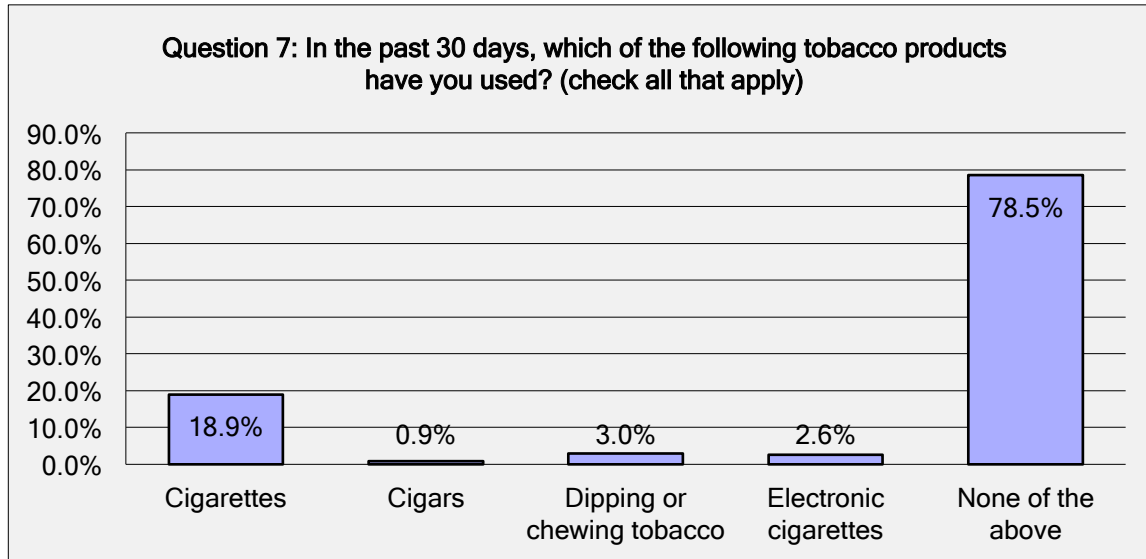


**iii. Health Behaviors**

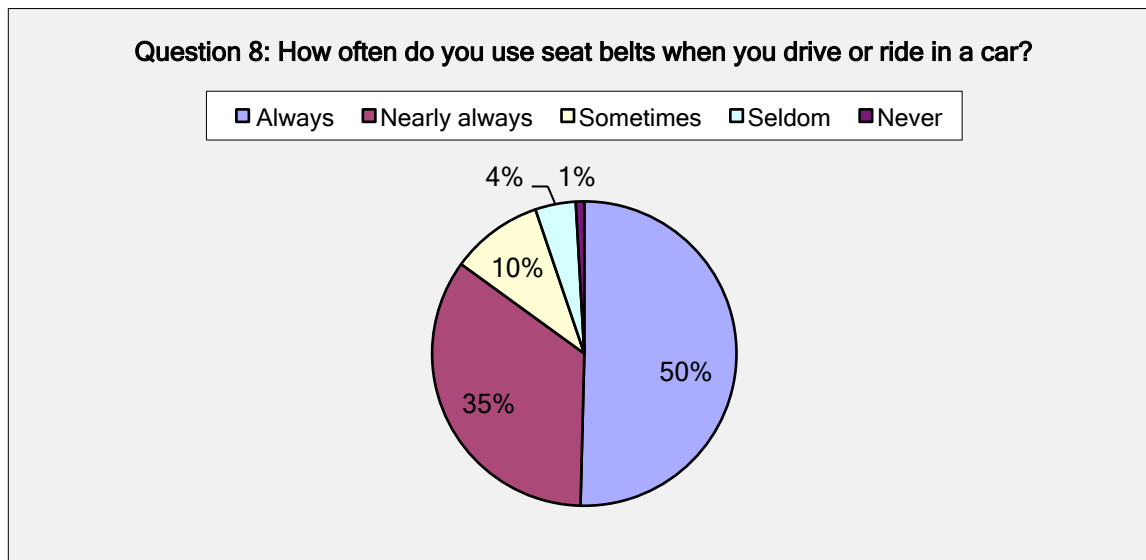
Only 27% of the respondents reported that someone in their household currently smoke cigarettes.



Out of the 62 respondents (27%) who have used tobacco products in the past 30 days the most common tobacco product used was cigarettes (18.9%) followed by dipping or chewing products (3.0%) and electronic cigarettes (2.6%).



The majority of respondents always (50%) or nearly always (35%) use seatbelts when they drive or ride in a car.



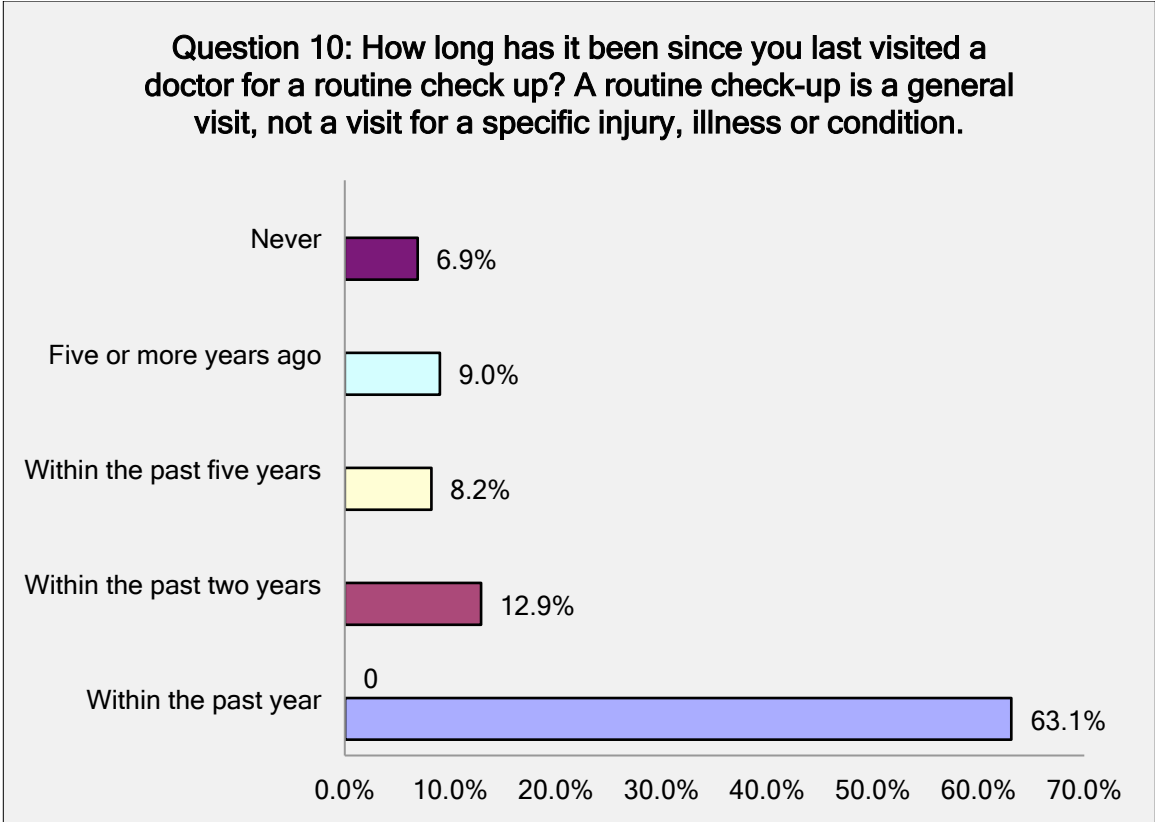
Based on the age range for the respondents, some of the preventative procedures would not be relevant or recommended for their current age. However, there were very minimal skin cancer screenings (6.9%); cardiovascular screening (6.9%); bone density test (3.4%); hearing screening

(5.6%); and colon/rectal exam (8.2%). It should also be noted that only 2.1% (5) of the 24 males that completed the survey have had a prostate cancer screening in the past 12 months.

**Question 9: Which of the following preventative procedures have you had in the past 12 months?**

Answer Options	Response Percent
Mammogram (if woman)	35.6%
Pap smear (if woman)	42.9%
Prostate cancer screening (if man)	2.1%
Flu shot	60.1%
Colon/rectal exam	8.2%
Blood pressure check	76.4%
Blood sugar check	51.5%
Skin cancer screening	6.9%
Cholesterol screening	47.2%
Vision screening	54.9%
Hearing screening	5.6%
Cardiovascular screening	6.9%
Bone density test	3.4%
Dental cleaning/x-rays	54.1%
Physical exam	37.3%
None of the above	5.2%

The majority of respondents had been to a physician for a routine check up within the past year (63.1%).



The majority of the 88 respondents whose last visit was more than two years ago selected the following explanations: not having a medical condition that requires any care (38.6%); do not routinely receive any health screenings (28.4%); and could not afford the payments due, regardless of insurance status (27.3%).

**Question 11: If your last visit was more than two years ago, is it because you- (Only 88 participants answered the following question):**

Answer Options	Response Percent	Response Count
Do not have a medical condition that requires any care and receive health screenings from another provider service	38.6%	34
Do not routinely receive any health screenings	28.4%	25
Could not schedule due to work or personal conflicts with normal business hours	5.7%	5
Could not afford the payments due, regardless of insurance status	27.3%	24
Could not arrange transportation	0.0%	0
Other (please specify)		8

The following question asked about current prescription medications. Common answers: respondents who were currently taking prescriptions for high blood pressure (74); high cholesterol (46); anxiety (43); allergies (41); depression (39); GERD or heartburn (38); thyroid (33); pain (28); diabetes or high blood sugar (23).

Question 12: Are you currently taking prescription medication for:					
Answer Options	Yes	Have a prescription but do not take regularly or as directed by doctor	No	Rating Average	Response Count
High blood pressure	74	2	124	2.25	200
Diabetes or high blood sugar	23	3	149	2.72	175
High Cholesterol	46	4	131	2.47	181
Asthma	13	2	148	2.83	163
Depression	39	3	126	2.52	168
Attention deficit disorder (ADD) or Attention deficit hyperactivity disorder (ADHD)	5	2	151	2.92	158
Pain	28	8	131	2.62	167
Weight loss	8	0	151	2.90	159
Anxiety	43	5	125	2.47	173
GERD or heartburn	38	3	134	2.55	175
Allergies	41	5	120	2.48	166
Thyroid	33	1	138	2.61	172
COPD	4	1	155	2.94	160

Other (please specify)	17
<b>Total participants who answered question</b>	<b>222</b>
<b>Total participants who skipped question</b>	<b>12</b>

**iv. Child Health**

Only 13 respondents have a child in their household that has been told by a doctor that they have asthma and only 12 respondents have a child that has been told by a doctor that they have attention deficit disorder/ attention deficit hyperactivity disorder.

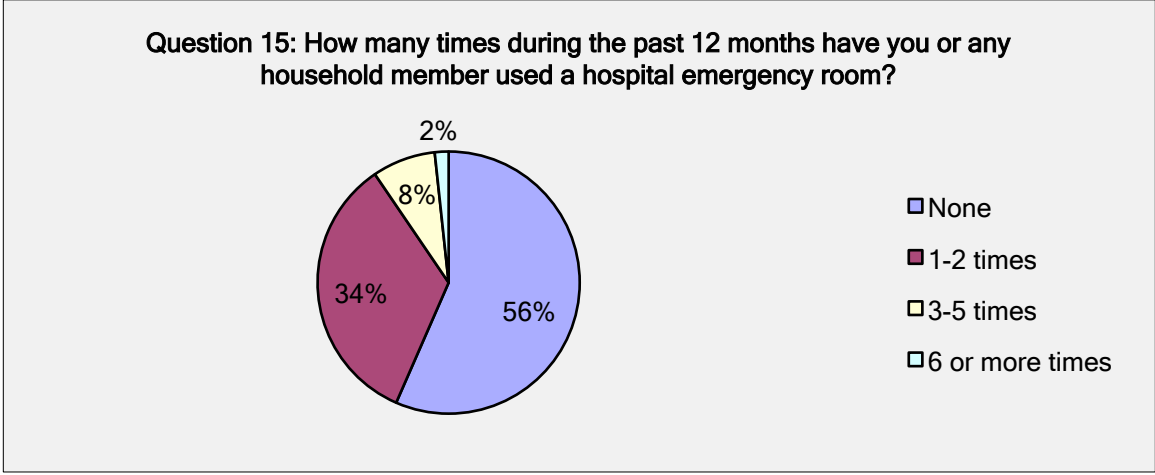
<b>Question 13: Has a child in your household (age 17 or younger) been told by a doctor that they have one of the following conditions? (check all that apply)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Asthma	6.5%	13
Diabetes	2.0%	4
Overweight or obesity	3.0%	6
Attention deficit disorder (ADD)/Attention deficit hyperactivity disorder (ADHD)	6.0%	12
None of the above	86.1%	173
<b>Total participants who answered question</b>		<b>201</b>
<b>Total participants who skipped question</b>		<b>33</b>

The majority of the respondents (96.4%) answered that their child/children have not used alcohol, drugs, or tobacco.

<b>Question 14: Has a children in your household (age 17 or younger) used the following? (check all that apply)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Alcohol	2.6%	5
Drugs	1.0%	2
Tobacco	3.1%	6
None of the above	96.4%	189
<b>Total participants who answered question</b>		<b>196</b>
<b>Total participants who skipped question</b>		<b>38</b>

**v. Medical Usage/Access to Care**

Respondents were asked about hospital emergency room usage in the past 12 months. During the past 12 months the respondent or any member of the respondents household used the emergency room 1-2 times (34%), 3-5 times (8%), and 6 or more times (2%).



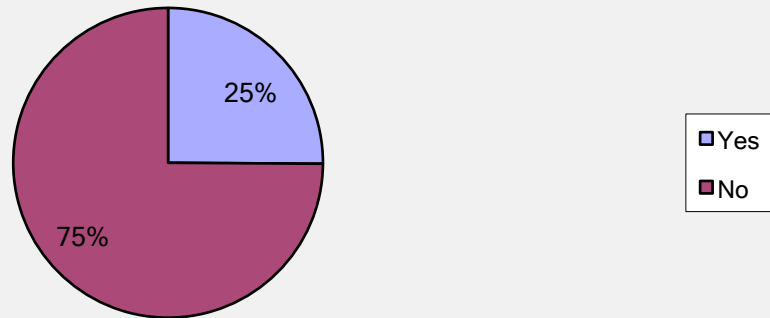
Out of the 85 respondents who responded to using the emergency room in the past 12 months were due to: an injury that required immediate attention (54.1%), an injury that did not require immediate attention but it was the most convenient/only service available (22.4%), or an ongoing illness (23.5%).

**Question 16: If you or a household member used a hospital emergency room in the past 12 months, was it due to:**

Answer Options	Response Percent	Response Count
An injury that required immediate attention	54.1%	46
An injury that did not require immediate attention but it was the most convenient/only service available	22.4%	19
An ongoing illness	23.5%	20
Other (please specify)		21
<b>Total participants who answered question</b>		<b>85</b>
<b>Total participants who skipped question</b>		<b>149</b>

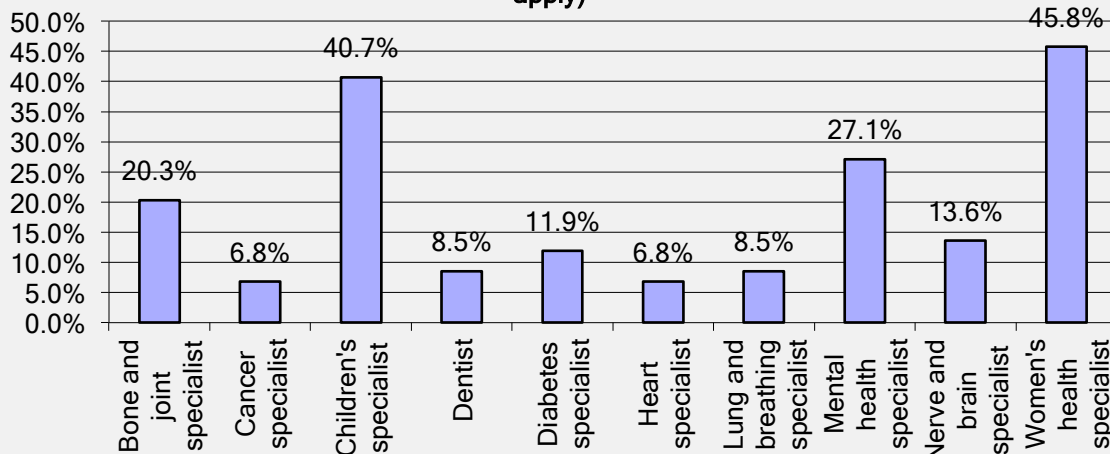
The next question asked respondents questions in regards to access to specialty physicians: 25% of respondents answered that they have or someone in their household has had difficulty finding a doctor that treats specific illnesses or conditions within the past two years.

**Question 17: Have you or anyone in your household had any difficulty finding a doctor that treats specific illnesses or conditions in your area within the past two years?**



If the respondent answered “Yes” (59) to the previous question, they were asked to select which kind of specialist(s) they have looked for: Women’s health specialist (45.8%), children’s specialist (40.7%), mental health specialist (27.1%), and bone joint specialist (20.3%) were the most common specialist respondents have looked for. \*Participants had the opportunity to select “Other” and fill in the blank, 6 participants indicated the need for a dermatologist in Carroll County.

**Question 18: If yes, what kind of specialist did you look for? (check all that apply)\***



Next, respondents were asked to select the top three health challenges they face.

The top three health challenges respondents face were

1. Obesity (49.8%)
2. Joint pain or back pain (37.4%)
3. High blood pressure (29.5%)

**Question 19: Please select the top THREE health challenges you face.**

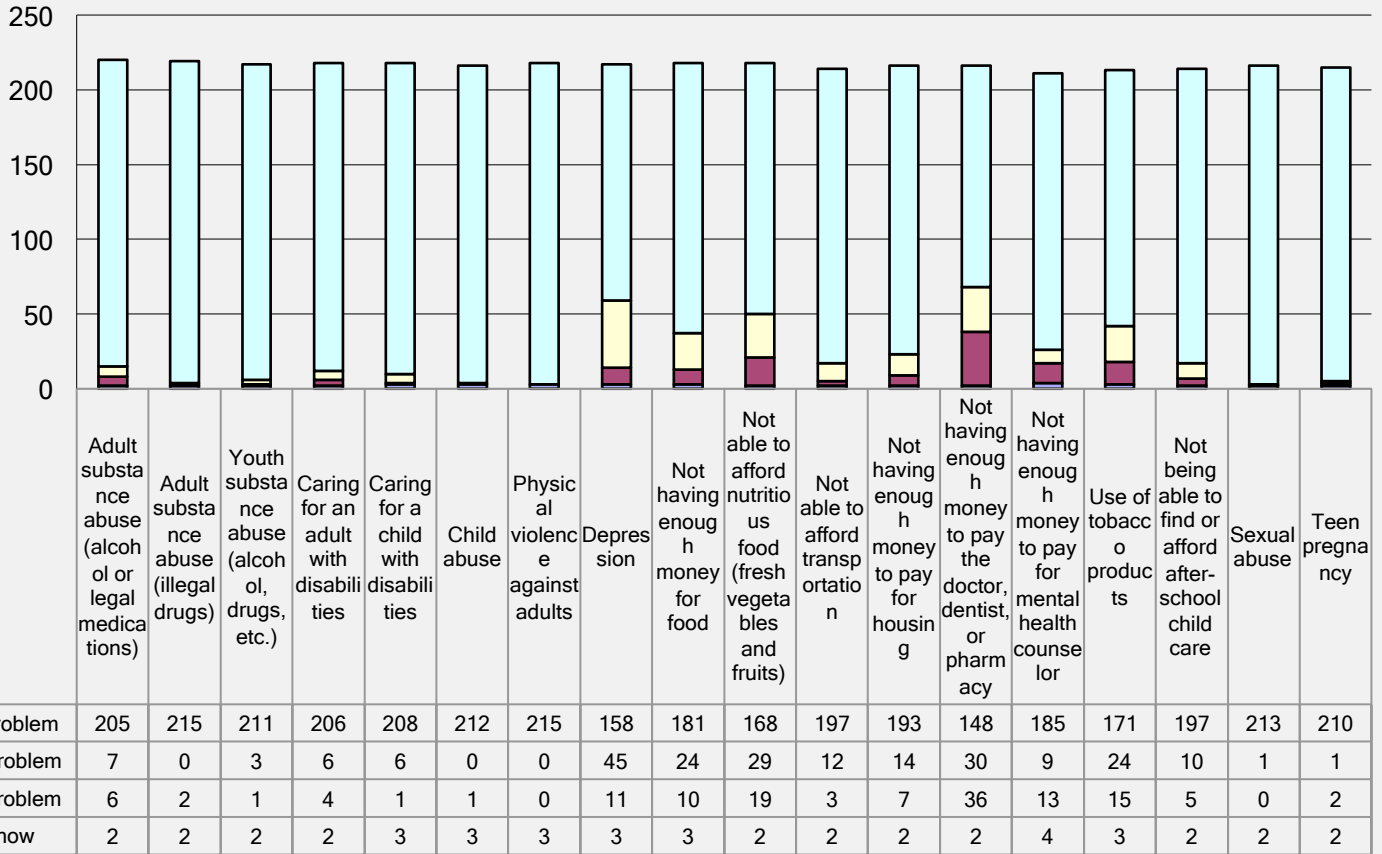
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Cancer	6.2%	14
Diabetes	15.4%	35
Stroke	3.1%	7
<b>Overweight/obesity</b>	<b>49.8%</b>	<b>113</b>
Lung disease	3.5%	8
High blood pressure	29.5%	67
Heart disease	7.0%	16
Joint pain or back pain	37.4%	85
Mental health issues	10.6%	24
Alcohol overuse	0.9%	2
Drug Addiction	0.0%	0
I do not have any health challenges	22.0%	50
Other (please specify)		14
<b>Total participants who answered question</b>		<b>227</b>
<b>Total participants who skipped question</b>		<b>7</b>

The following were common answers to the next question, which asked for responses for household issues that the respondent or someone in the respondents home has faced in the last twelve months:

- Not having enough money to pay the doctor, dentist, or pharmacy
  - Major Problem 36
  - Minor Problem 30
- Not able to afford nutritious food (fresh vegetables and fruit)
  - Major Problem 19
  - Minor Problem 29
- Depression
  - Major Problem 11
  - Minor Problem 45
- Not having enough money for food
  - Major Problem 10
  - Minor Problem 24
- Not having enough money to pay for mental health counselor
  - Major Problem 13
  - Minor Problem 9
- Use of tobacco products
  - Major Problem 15
  - Minor Problem 24

In general, monetary issues were the most common major problems faced by households.

**Question 20: Household issues: Some of the following may have been a problem for you or someone in your household. If it has been a problem in your household during the past 12 months, please tell us how much of a problem it has been.**



**vi. Community Health**

Respondents were asked to select the most pressing health problems in the community. They could select multiple answers.

Respondents top ten ranking of the most pressing health problems in the community:

1. Ability to pay for care
2. Cost of health care
3. Lack of health insurance
4. Drug abuse- prescription medications
5. Obesity in adults
6. Drug abuse- prescription medications
7. Cancer
8. Tobacco use/smoking adults
9. Prescription medication to expensive
10. Tobacco use/smoking among teenagers

**Questions 21. What do you think are the most pressing health problems in your community? (check all that apply)**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Ability to pay for care	61.1%	138
Alcohol- dependency or abuse	28.3%	64
Alcohol- underage binge or abuse	25.2%	57
Drug abuse- prescription medications	46.0%	104
Drug abuse- illegal substances	51.8%	117
Cancer	42.9%	97
Child abuse	11.9%	27
Cost of health care	58.4%	132
Domestic violence	12.4%	28
Lack of health insurance	52.2%	118
Lack of transportation to health care services	20.8%	47
Lack of dental care	23.5%	53
Lack of prenatal care	15.0%	34
Mental health	28.8%	65
Obesity in adults	46.5%	105
Obesity in children and teenagers	32.3%	73
Prescription medication too expensive	38.1%	86
Teen pregnancy	11.9%	27
Tobacco use/smoking among adults	38.9%	88
Tobacco use/smoking among teenagers	34.5%	78
Suicide	19.5%	44
Lack of wellness prevention services	19.5%	44
Other (please specify)		4
<b>Total participants who answered question</b>		<b>226</b>
<b>Total participants who skipped question</b>		<b>8</b>

Respondents were asked to select the type(s) of health education services most needed in the community.

Three of the top 5 health education services most needed in the community are related to substance abuse: alcohol abuse, drug abuse, and smoking cessation and/or prevention.

**Question 22: Please check the types of health education services most needed in your community? (check all that apply)**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
<b>Alcohol abuse</b>	<b>42.7%</b>	91
Alzheimer disease	21.1%	45
Asthma	5.2%	11
<b>Cancer Screening</b>	<b>42.7%</b>	91
Child abuse/family violence	25.8%	55
<b>Diabetes</b>	<b>43.2%</b>	92
Depression	41.8%	89
<b>Drug abuse</b>	<b>50.7%</b>	108

Exercise/physical activity	42.3%	90
Fall prevention for the elderly	16.0%	34
HIV/AIDS	7.0%	15
Mental Health	38.5%	82
Nutrition	30.5%	65
Sexually transmitted diseases	18.8%	40
<b>Smoking cessation and/or prevention</b>	<b>42.7%</b>	91
Stress management	41.3%	88
Suicide prevention	37.1%	79
Wellness services	33.3%	71
Other (please specify)		4
<b>Total participants who answered question</b>		<b>213</b>
<b>Total participants who skipped question</b>		<b>21</b>

Respondents were then asked to rank the medical services are needed most in the community 1 to 11, with 1 being the top priority/greatest need and 11 being the least needed. The results shown in the graph below are based on the averages of the ranks they received.

Therefore, “Cancer Treatment” was determined to be the greatest medical service in need and “Orthopedic Care (bone and joint)” was the least medical service needed.

Based on averages each rank received the following medical services would be ranked 1 to 11, with 1 being the priority/greatest need and 11 being the least need.

1. Cancer treatment
2. Alcohol and drug abuse treatment
3. Emergency/trauma care
4. Diabetes care
5. Adult primary care services
6. Counseling/mental health services
7. Heart care services
8. Pediatric services
9. Women’s services, such as obstetrics/gynecological services
10. Wellness services
11. Orthopedic care (bone and joint)

**Question 23: What medical services are most needed in your community? Please rank them in order 1 to 11, 1 being the top priority/greatest need and 11 being the least needed)**

	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00
Women's services, such as obstetrics/gynecological services						1	11	11	1	11
Wellness services										
Pediatric services										
Orthopedic care (bone and joint)										
Heart care services										
Emergency/trauma care										
Diabetes care										
Counseling/mental health services										
Cancer treatment										
Alcohol and drug abuse treatment										
Adult primary care services										

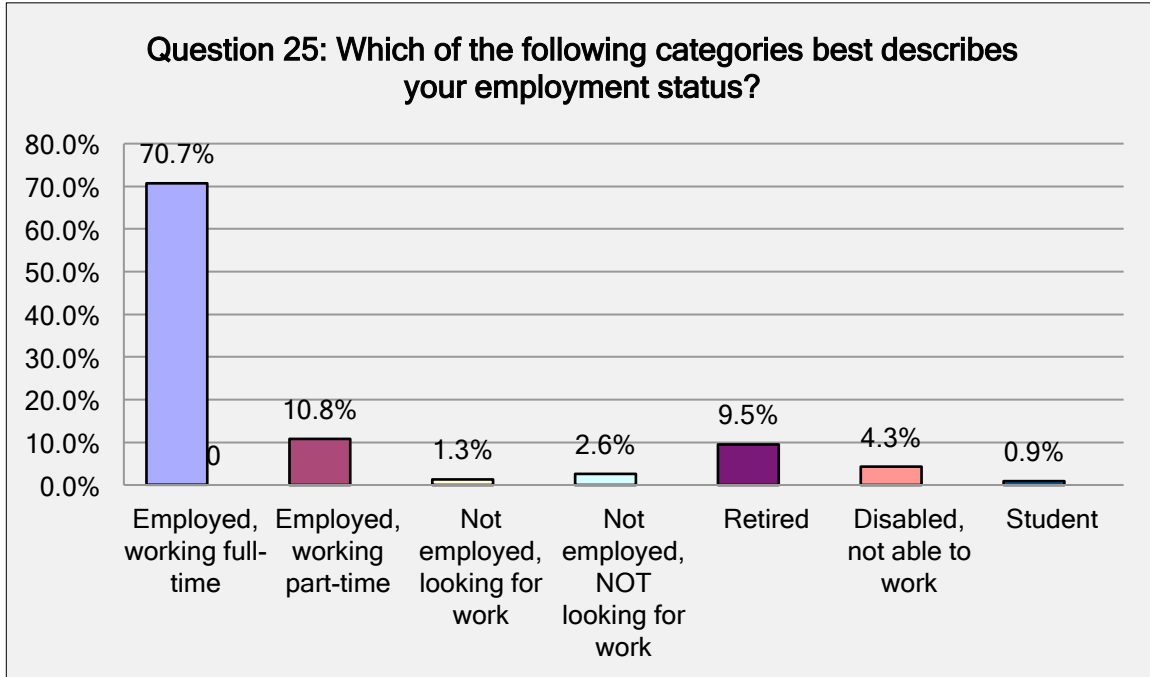
A large number of participants report traveling more than 40 miles to see specialty physicians (156). However, 105 of the 225 (46.6%) participants answered to only traveling 1-5 miles to see their regular doctor.

<b>Question 24: How many miles do you travel, one way:</b>									
<b>Answer Options</b>	<b>1-5 Miles</b>	<b>6-10 Miles</b>	<b>11-20 Miles</b>	<b>21-30 Miles</b>	<b>30-40 Miles</b>	<b>Greater than &gt;40 Miles</b>	<b>N/A</b>	<b>Rating Average</b>	<b>Response Count</b>
To see your regular doctor?	105	25	31	31	16	14	3	2.41	225
To a hospital?	91	21	34	32	18	23	7	2.70	226
<b>To see a specialist?</b>	14	6	6	8	17	<b>156</b>	17	5.30	224
To school or job training?	43	10	11	13	12	31	97	3.28	217
For child care?	56	8	13	4	4	1	128	1.78	214
For work?	83	18	33	22	15	13	35	2.49	219
<b>Total participants who answered question</b>									<b>227</b>
<b>Total participants who skipped question</b>									<b>7</b>

**vii. Socioeconomic Factors**

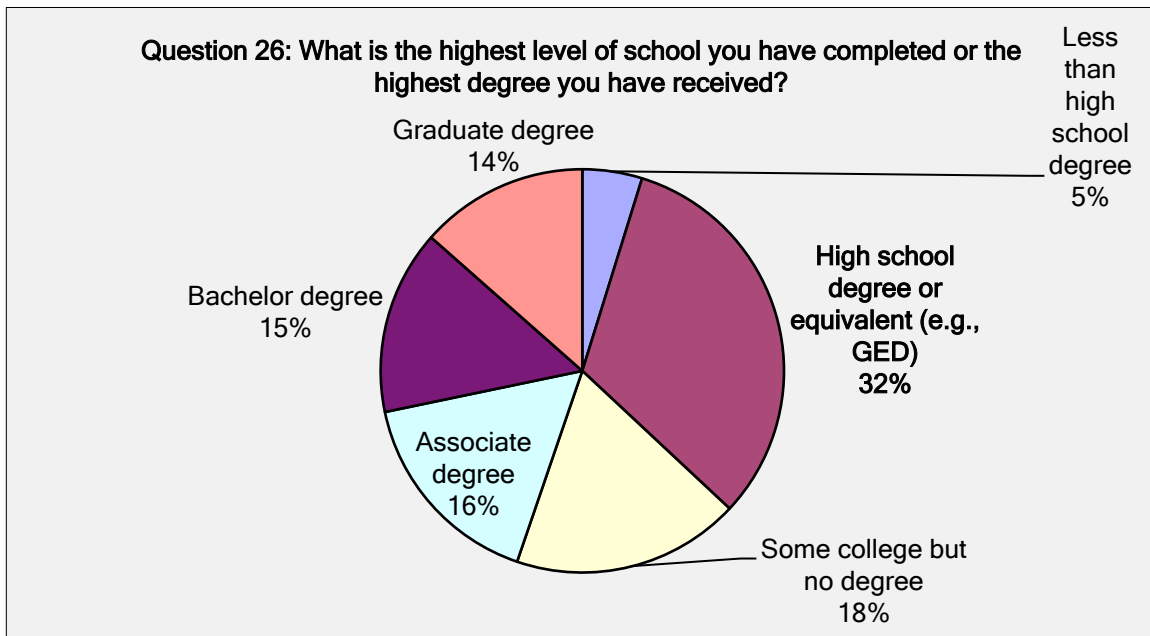
**Employment status of respondents**

The majority (70.7%) of participants who participated in the survey were employed working fulltime.



**Respondents Education Level**

The majority of respondents highest level of school completed was high school or equivalent (32%). Only 4.78% (11 of the 230 respondents) had less than a high school degree.



**Respondents Income**

Combining answer categories from less than \$20,000 to \$69,000, 65.56% of the respondents have an income in this range. The largest single selected answer by respondents was an income between \$100,000 to \$199,999 (14.2%). Due to the sensitive nature of income questions they maybe inaccurate Self-report data does have limitations and bias answers may occur.

**Question 27: Counting all income sources from everyone in your household, what was the combined household income last year?**

Answer Options	Response Percent	Response Count
Less than \$20,000	10.8%	23
\$20,000 to \$29,999	9.9%	21
\$30,000 to \$39,999	12.7%	27
\$40,000 to \$49,999	7.5%	16
\$50,000 to \$59,999	13.7%	29
\$60,000 to \$69,999	10.8%	23
\$70,000 to \$79,999	4.2%	9
\$80,000 to \$89,999	6.1%	13
\$90,000 to \$99,999	6.1%	13
\$100,000 to \$199,999	14.2%	30
\$200,000 or more	3.8%	8
<i>Total participants who answered question</i>		<b>212</b>
<i>Total participants who skipped question</i>		<b>22</b>

**viii. Other Questions**

**In addition to the questions above, respondents were asked three open-ended responses.**

**Question 28:** What health or community services should Carroll County Memorial Hospital provide that currently are not available?

102 respondents answered this question. The most frequently voiced answers included: cancer services, obstetrics/gynecological, mental health services/substance abuse, and pediatric services. Obstetrics was the single most frequent answer with 30 people incorporating obstetrics within their response.

Below are responses by participants that are relevant to the question:

- Mental health services for youth, our community is very much in need of mental health care for those under the age of 25. What we currently have available is inadequate.
- A place for cancer treatment. Chemo and radiation so people in the community do not have to drive clear to the city for treatment.
- Substance Abuse treatment programs in and out patient

- Pediatrics
- Obstetrics/gynecological
- Drug and alcohol treatment programs cancer specialist
- Outpatient services, procedures that can be done within a day with no overnight stay, offering services like dialysis or chemotherapy for cancer so patients don't need to travel to other communities.
- Cancer diabetes
- Pediatric services
- More general doctors
- More pediatric specialty doctors
- Free clinic minute clinic
- Women's care pulmonologist
- Nurse line to ask questions- Urgent care clinic at affordable prices- depression support groups
- Low cost dental
- More specialist
- Pediatric emergency care
- Better prenatal options and birthing unit
- Our hospital is already very accommodating
- Workshops to educate people on different topics so they can ask questions to gather pamphlet information on whatever they may have questions and or concerns about
- Cancer treatment and minor surgery
- Drug counseling
- Mental health for general population drug rehab
- Pediatric specialties services
- Dialysis
- Radiation
- Probably hard to do but OB would be nice.
- More psych services for our adults and teens; several come here for suicidal thoughts but have nowhere to go for counseling. Also, a taxi service would be appreciated
- Something that would not cost the people much to have a child looked at and treated.
- OB
- Surgical services
- Cardiac
- Neurology, endocrinology, and dermatology clinics
- Cancer care/diabetic care
- Make it possible to courier labs to Quest Diagnostics
- More specialist; doctors that only treat one thing. And not one that comes in once a month.
- Full time OBGYN, Pediatrician
- Mental health services
- Pain Management
- OB
- Baby delivery
- Psychiatric/mental health care for all ages; dermatology; diabetes clinic
- I wish they had a pediatrician who focus on kids only

- Health children learn to take care of their aging parents
- Chemotherapy
- 24 hour clinic
- Drug and alcohol education and prevention
- Pediatrician women's doctor
- Delivery babies
- Nutritionist, cancer center, OB unit
- Cancer center or dialysis center
- Dialysis
- Women's care and pediatrics
- More dentists and more affordable dental care
- Ob and bone and joint and gastric
- Face-to-face dermatology, neurology
- Pediatrics
- Counseling, ENT
- OBGYN services, diabetes specialists
- Dialysis
- OB
- Source for free or very low cost insulin and other diabetic medication
- Pediatrics and obstetrics
- OB Cancer
- OB
- Psychiatric care
- Psych services for more of the population
- OB/GYN; Suicide
- OB
- OB
- Mental health services and true therapy
- Chemo/radiation
- Walk in clinic weekends
- Drug and alcohol abuse management
- Labor and delivery
- Drug addiction program
- Labor and delivery ambulatory surgery
- Delivering babies
- Diabetes specialist, drug and alcohol addiction
- Prenatal
- Delivery room for babies
- Pediatrics
- Women's care with delivery option; not just a clinic for check-up
- Obgyn, trans surgery
- After school program for kids
- OB/GYN services, delivering babies, NICU
- Orthopedics, spiritual wellness
- Help with prescription medication cost
- Wellness services, skin cancer screenings

- Diabetes/endocrinology
- Cancer treatment
- Pediatrics, women's health (gynecology, prenatal, delivery)
- Walk in clinic

**Question 29:** What ideas or suggestions do you have for improving the overall health of the area community?

76 respondents answered this question. The majority of ideas/suggestions from respondents were issues such as: help with reducing drug abuse and improved counseling services; tobacco cessation and smoking policies; improved access to health care providers/clinics; affordability of services; and more community wellness and health education opportunities.

Below are select responses by participants that are relevant to the question:

- Counseling services
- Reduce drug abuse
- A doctor available for urgent care other than the E.R. – more help for working middle income
- More health fairs
- Education of school aged children. Preventive and knowledge based programs.
- Urgent care after 5pm
- Continue to promote health and wellness activities, importance of health, active, etc
- Get people active and aware of obesity health related issues so it does not run in to serious health problems
- Need doctor offices that will be open on weekends and maybe an evening during the week.
- More information about obesity, drug abuse, and general wellness for low income families.
- No smoking in all public places; smoking cessation
- Passing no smoking in public places ordinance. Education about nutrition and the dangers of processed food. Work with school districts to enhance student understanding of making meals from scratch and avoiding processed foods, how to care for families.
- Wellness programs
- Affordable health care
- Enhanced patient education within the hospital, outreach programs
- Smoking cessation at public facilities/restaurants
- Educate the youth in the benefits of overall health and importance of the same
- Better health care instructions. Knowing when to see a PCP and when to go to the ER
- More access to alcohol and drug abuse treatment. Preventive health. Help to quit smoking.
- Go smoke free
- Monthly classes on variety of subjects
- Involving the community in wellness activities

- Non smoking city
- More affordable gym/workout areas for people of all income levels

**Question 30:** Do you have any other comments or concerns about the health and/or health services offered in the community?

Only 50 respondents answered this question. Some of the respondents expressed concerns with the ability to achieve quality care locally, cost of care, and access to providers. However, 18 (36%) of the respondents answered “none” or had positive comments towards the current services offered.

Below are select responses by participants that are relevant to the question:

- Very pleased with our hospital
- I'm glad to see our community offering more active lifestyles it just needs to keep improving
- Excessive costs for lab work, outpatient at hospital
- We may actually benefit from an urgent care center as our ED is overrun with clinic type patients a lot of the time.
- Keep up the great work and commitment to the community.
- ER overused due to lack of insurance
- Patient rooms at Jefferson Medical aren't sound proof. Often hear people talking in adjacent room. Also, receptionist station not private.
- Reduce prices for dr and hospital visits
- I do use the prescription drug grant that you offer. I don't have prescription coverage. I do appreciate that grant very, very much!
- Long wait to see doctors. Some doctors with bad attitudes and rude to patients.
- We are thankful for Dr. Smith and Greg coming to our communities.
- Lack of addiction programs available, this community is in a crisis.
- I do see and feel the changes in health services being offered in our area are for the good. As for the Community, if we set back and do nothing we will never be able to grow or provide for them. So many changes in the health areas are happening all the time, so we must make changes ourselves to be able to provide for the community.
- I am concerned with the abuse of emergency services provided. ER and Ambulance services are not for issues that could wait until a regular doctor is open. Abuse of prescription pills. Mental health issues that are not being addressed because it is a small town and gossip is a problem. We need more education and outreach for the system to work and function successfully.
- I am very impressed with the effort put forth by CCMH to meet the increasing medical needs of this community.
- Carrollton is an aging community and riddled with those in the lower classes living in poverty. Carroll County, as a whole, has been losing population consistently. Addressing transportation issues is most important for those seeking health care.

- The hospital has gotten a bad reputation for years, changing the mindset of the community will be the most challenging. Especially important in ER, if ER is ineffective or rude or won't listen to the patients... the "band aid stop" persona will remain attached to the Carroll County name.
- Education of people to the overuse of the Emergency Department

## **V. Conclusions**

A review of the primary and secondary data from the Carroll County Community Health Assessment indicates heart disease, cancer, obesity, injuries, and mental health are five health areas that account for a significant amount of the disease burden in Carroll County. Research has suggested that modification of lifestyle behaviors can impact chronic health conditions. Increased awareness of the benefit of healthy lifestyles to prevent chronic diseases is an area for continued emphasis. Another critical area related for chronic health conditions is assisting individuals with chronic health problems learn to manage their condition and maintain optimum health. Ideally, better management decreases hospitalizations and emergency room visits due to chronic health conditions.

Similar to the 2012 CHNA findings, Heart Disease remains one of the top health priorities of the community. Access to healthcare remains a barrier for Carroll County residents. Carroll County residents are traveling to see specialty doctors even though CCMH offers a great number of specialty clinics. Other important health issues are obesity, mental health services, and substance use. Addressing these concerns in the youth population as well as adults would be beneficial for the overall community health. All of these health concerns will be addressed in the future development of the CHNA implementation plan.

### **Prioritized Community Health Needs**

- Chronic Health Conditions: Cancer, Heart Disease, Obesity
- Mental Health/Substance Abuse
- Access to Care

## **VI. Dissemination**

Based on the findings of this CHNA, the CCMH is in the process of developing an implementation to adopt. Starting May 27<sup>th</sup>, 2016 the assessment report will be made available to the public online at [carrollcountyhospital.org](http://carrollcountyhospital.org). The public may also request a paper copy at the front desk at CCMH. CCMH will also share the assessment with the Carroll County Health Department to help distribute to community members.

## **VII. Implementation Plan**

### **Carroll County Memorial Hospitals Approach to Community Needs**

The goal of Carroll County Memorial Hospital's community needs program is to recognize and respond to the identified community health needs. Through this program, we will increase access and improve health status for the most underserved and vulnerable individuals in our community.

### **Carroll County Memorial Hospitals Mission, Vision, and Values**

The mission, vision, and values of Carroll County Memorial Hospital are crucial statements that direct the conduct and decisions made by our physicians, leaders, and staff.

#### **Our Mission**

CCMH is dedicated to the health and well-being of all we serve.

#### **Our Vision**

To be the Premier Health Care Destination

#### **Our Values**

**Integrity**  
**Compassion**  
**Always**  
**Respect**  
**Excellence**

### **Community Health Needs Assessment**

A comprehensive Community Health Needs Assessment was conducted for Carroll County. Data collection began in 2014 and ended in June 2015. The analysis included careful review of the most current health data available and input from healthcare service providers and key stakeholders in the community with special knowledge. It was concluded that these health needs are currently of great concern to the communities served by this hospital. These identified areas of concern will address the youth population as well as adults. They are listed below in order of priority.

1. Chronic Health Conditions: Cancer, Heart Disease, Obesity
2. Mental Health/Substance Abuse
3. Access to Care

### **Carroll County Memorial Hospital's Approach to Implementation**

Carroll County Memorial Hospital formed a Community Needs Committee to guide and oversee the development of the Implementation Plan for Carroll County. The Implementation Plan was developed to directly address the health needs and concerns that were identified in the CHNA. These activities and services are intended to positively impact the communities we serve.

Our Community Needs Committee is composed of distinct individuals that are key to implementing the identified strategic plan-Dietary, Administration, Nursing, Education, Social Services, Quality and Marketing.

Our plan was developed by reviewing the health needs identified through our CHNA. We also considered the availability of resources within and outside our hospital.

### **Our Plan**

The Carroll County Memorial Hospital’s Community Needs Council began with our emphasis on three priorities, **Chronic Health Conditions**- with a focus on education and lifestyle choices, **Mental Health**- with a focus on education and support, and **Access to care**- with a focus on cost, geography, and awareness of resources. We developed the following three priority goals:

**Short-term Goal** - Implement initiatives to promote positive health behaviors, health awareness and education, to reduce life-threatening conditions such as obesity, and heart disease.

**Intermediate Goal**-Vigorously promote a robust network of resources for our community.

**Long-term Goal**- Increase and maintain community impact through alliance and partnership.

<b>Community Health Needs Priority #1 Chronic Health Conditions</b>
---

### **Rationale:**

Chronic Diseases are responsible for 7 out of 10 deaths each year, and treating people with chronic diseases accounts for 86% of our nation’s health care costs (Center for Disease Control and Prevention, 2015). Obesity is linked to many health conditions including, but not limited to, diabetes, heart disease, stroke, and cancer. Heart Disease and cancer are top leading causes of death in Carroll County. 32% of Carroll County residents were found to have a BMI greater than 30. Health awareness initiatives that promote positive health behaviors, such as exercise and proper nutrition, will motivate individuals to attain and maintain healthy lifestyles.

### **Goals and Strategies:**

1. Decrease the overall risk of heart disease in Carroll County by offering programs and services to enhance knowledge of heart disease management and control risk factors of heart disease.
  - a) Explore implementation of a cardiac support group for the public.
  - b) Increase community outreach efforts including lectures and screenings (blood pressure and cholesterol) by participating in community events (fairs, senior center events, and American Heart Association programs/events)
  - c) Provide cardiopulmonary resuscitation classes for the community.
  - d) Explore weight management programs and classes.
  - e) Increase awareness of current Cardiac Rehab program.
  - f) Offer community classes focusing on general health/wellness and disease specific management.
  - g) Partner with local pharmacies to continue to provide prescription medication education to consumers on an ongoing basis. (Particularly those medications to treat chronic health conditions).

2. Explore partnership with community groups to increase awareness of obesity-related diseases and illnesses and increase education for diabetes prevention, early identification of disease management.
  - a) Explore pre-diabetes education programming in hospital and community.
  - b) Explore expansion of diet and exercise education to meet the needs of the community.
  - c) Partner with the local YMCA.
  - d) Explore implementation of free dietician-led nutrition workshops for fitness center members.
  - e) Investigate grant money available to pursue decision of a population health plan.
  - f) Collaborate with local food pantry and grocery store to provide education information to consumers on health heart food options.
  
3. Explore development of programs for children and families to reduce the prevalence of obesity in children and families living in the service area.
  - a) Explore need for nutrition counseling for families.
  - b) Focus on working with local child care centers.
  - c) Explore providing education to local schools.
  - d) Explore healthy cooking demos specifically for children in partnership with schools, Boy and Girl Scouts, and 4-H.
  - e) Explore providing nutrition and fitness education for summer recreation programs.
  - f) Continue collaboration with the local YMCA to promote an active and health lifestyle for the youth of Carroll County.
  - g) Partner with the local health department(Breastfeeding initiatives)
  - h) Explore conducting adult health cooking demos.
  - i) Explore implementation of an annual health fair for children.

<p><b>Community Health Needs Priority #2</b>  <b>Mental Health/Substance Abuse</b></p>
--

**Rationale:**

Per the CHNA, Mental health illnesses can increase the risk for homicide, suicide, and other accidents as well as chronic conditions. Access to mental health services is of increasing concern to the communities that CCMH serves. Alcohol and substance abuse can be related to many leading causes of death. In 2014, 42 individuals in Carroll County were admitted into substance abuse treatment programs. By increasing access and awareness of existing services, more community members will be able to find and utilize the care they need.

**Goals and Strategies:**

1. Increase awareness of community resources.
  - a) Create a community resource guide.
  - b) Explore partnership with behavioral health community to identify additional public locations for resource guide distribution.
  - c) Explore partnership with local libraries to make resource information publicly available.
  - d) Explore partnership with Burrell Behavioral Health to promote current services available to the community.
  - e) Market our current Senior Life Solutions program to provide the community with information about the program.

2. Collaborate with local school districts to review current methods of identifying youth at risk for mental health issues and offer collaborative assistance.
  - a) Reach out to local school counselor and provide statistics from the most recent CHNA.
  - b) Provide schools with Burrell Behavioral Health contact information to assist with resources for students and administration.
3. Provide resources to support and assist with prevention and treatment of alcohol and substance abuse.
  - a) Explore collaboration with community based programs such as I Choose Recovery (ICR) and AA/NA meetings.
  - b) Provide contact information for these programs in our resource guide.
  - c) Assist with partnership and collaboration between local law enforcement and Community Mental Health Liaison and other local counseling services.

<p><b>Community Health Needs Priority #3</b>  <b>Access to Care</b></p>
---

**Rationale:**

The CHNA revealed that access to care is a problem within our community, particularly with our vulnerable populations. This population is more likely to need assistance finding those health services that are available to them and their families.

**Goals and Strategies:**

- 1) Improve the ability of community members to access basic and preventative care and especially for the uninsured and underinsured.
  - a) Provide community education on how to access health care.
  - b) Collaborate with key community partners to develop a Carroll County resource guide that will include available health, wellness, dental, spiritual, mental health, and fitness services. Place the guide on the CCMH website and throughout the County at key points of contact.
  - c) Collaborate with the Health Care Coalition of Lafayette County to increase medical and dental services offered to the underserved population through creation of FQHC.
  - d) Create a marketing plan to increase awareness of services offered at or through CCMH.
  - e) Finalize construction and expansion services to include: larger outpatient specialty clinic to house additional specialties, outpatient surgery center, and centralized medical office building.
  - f) Explore partnership with community based organizations to increase outreach and education about health care coverage enrollment service through CCMH staff.
  - g) Explore collaboration with the National Rural ACO to start Patient Centered Medical Home Program.

## VIII. References

- Billings, J., Zeitel, L., Lukomnik, J., Carey, T.S., Blank, A.E., & Newman, L. Impact of socioeconomic status on hospital use In New York City. *Health Affairs* 1993; (Spring): 162-173.
- Community Health Needs Assessment: Health Indicators Report. *Community Commons*. Retrieved October 02, 2015, from [www.communitycommons.org](http://www.communitycommons.org)
- Center for Disease Control and Prevention. (2015). *Chronic disease prevention and health promotion*. Retrieved from <http://www.cdc.gov/chronicdisease/overview/index.htm#ref1>
- U.S. Census Bureau (2015). Quick Facts: Carroll County, Missouri. Retrieved from <http://www.census.gov/quickfacts/table/PST045214/29033,29>
- U.S. Census Bureau, American Community Survey Profile Report: 2009-2013 (5-year estimates). Retrieved from <http://census.missouri.edu/acs/profiles/report.php?p=23&g=05000US29033>

## IX. Appendix A: Primary Data Survey

Carroll County Memorial Hospital is conducting a Community Health Needs Assessment Survey. By taking a few minutes to complete these questions, you will help us identify the most important health needs in our community so that we can develop goals to improve them.

### Carroll County Community Health Needs Assessment

1. In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 00544 or 94305)

2. Are you male or female?

- Female
- Male

3. Which race/ethnicity best describes you? (Please choose only one.)

- American Indian or Alaskan Native
- Asian / Pacific Islander
- Black or African American
- Hispanic American
- White / Caucasian

Multiple ethnicity / Other (please specify)

4. What is your age?

- 17 or younger
- 18-20
- 21-29
- 30-39
- 40-49
- 50-59
- 60 or older

5. How would you describe your overall health?

- Excellent
- Very Good
- Good
- Fair
- Poor

6. Does anyone in your household currently smoke cigarettes, or not?

- Yes, someone does
- No, no one does
- Not sure

7. In the past 30 days, which of the following tobacco products have you used? (check all that apply)

- Cigarettes
- Cigars
- Dipping or chewing tobacco
- Electronic cigarettes
- None of the above

Other (please specify)

8. How often do you use seat belts when you drive or ride in a car?

- Always
- Nearly always
- Sometimes
- Seldom
- Never

9. Which of the following preventive procedures have you had in the past 12 months? (check all that apply)

- Mammogram (if woman)
- Pap smear (if woman)
- Prostate cancer screening (if man)
- Flu shot
- Colon/rectal exam
- Blood pressure check
- Blood sugar check
- Skin cancer screening
- Cholesterol screening
- Vision screening
- Hearing screening
- Cardiovascular screening
- Bone density test
- Dental cleaning/x-rays
- Physical exam
- None of the above

10. How long has it been since you last visited a doctor for a routine check up? A routine check-up is a general visit, not a visit for a specific injury, illness or condition.

- Within the past year
- Within the past two years
- Within the past five years
- Five or more years ago
- Never

11. If your last visit was more than two years ago, is it because you -

- Do not have a medical condition that requires any care and receive health screenings from another provider service
- Do not routinely receive any health screenings
- Could not schedule due to work or personal conflicts with normal business hours
- Could not afford the payments due, regardless of insurance status
- Could not arrange transportation

Other (please specify)

12. Are you currently taking prescription medication for:

	Yes	Have a prescription but do not take regularly or as directed by doctor	No
High blood pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diabetes or high blood sugar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High Cholesterol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asthma	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attention deficit disorder (ADD) or Attention deficit hyperactivity disorder (ADHD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weight loss	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anxiety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GERD or heartburn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Allergies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thyroid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COPD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

13. Has a child in your household (age 17 or younger) been told by a doctor that they have one of the following conditions? (check all that apply)

- Asthma
- Diabetes
- Overweight or obesity
- Attention deficit disorder (ADD)/Attention deficit hyperactivity disorder (ADHD)
- None of the above

14. Has a children in your household (age 17 or younger) used the following? (check all that apply)

- Alcohol
- Drugs
- Tobacco
- None of the above

15. How many times during the past 12 months have you or any household member used a hospital emergency room?

- None
- 1-2 times
- 3-5 times
- 6 or more times

16. If you or a household member used a hospital emergency room in the past 12 months, was it due to:

- An injury that required immediate attention
- An injury that did not require immediate attention but it was the most convenient/only service available
- An ongoing illness

Other (please specify)

17. Have you or anyone in your household had any difficulty finding a doctor that treats specific illnesses or conditions in your area within the past two years?

- Yes
- No

18. If yes, what kind of specialist did you look for? (check all that apply)

- Bone and joint specialist
- Cancer specialist
- Children's specialist
- Dentist
- Diabetes specialist
- Heart specialist
- Lung and breathing specialist
- Mental health specialist
- Nerve and brain specialist
- Women's health specialist

Other (please specify)

19. Please select the top THREE health challenges you face.

- Cancer
- Diabetes
- Stroke
- Overweight/obesity
- Lung disease
- High blood pressure
- Heart disease
- Joint pain or back pain
- Mental health issues
- Alcohol overuse
- Drug Addiction
- I do not have any health challenges

Other (please specify)

20. Household issues: Some of the following may have been a problem for you or someone in your household. If it has been a problem in your household during the past 12 months, please tell us how much of a problem it has been.

	Not a problem	Minor problem	Major problem	Don't Know
Adult substance abuse (alcohol or legal medications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adult substance abuse (illegal drugs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Youth substance abuse (alcohol, drugs, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caring for an adult with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caring for a child with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Child abuse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical violence against adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having enough money for food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not a problem	Minor problem	Major problem	Don't Know
Not able to afford nutritious food (fresh vegetables and fruits)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not able to afford transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having enough money to pay for housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having enough money to pay the doctor, dentist, or pharmacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not having enough money to pay for mental health counselor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of tobacco products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not being able to find or afford after-school child care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sexual abuse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teen pregnancy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

21. What do you think are the most pressing health problems in your community? (check all that apply)

- Ability to pay for care
- Alcohol- dependency or abuse
- Alcohol- underage binge or abuse
- Drug abuse- prescription medications
- Drug abuse- illegal substances
- Cancer
- Child abuse
- Cost of health care
- Domestic violence
- Lack of health insurance
- Lack of transportation to health care services
- Lack of dental care
- Lack of prenatal care
- Mental health
- Obesity in adults
- Obesity in children and teenagers
- Prescription medication too expensive
- Teen pregnancy
- Tobacco use/smoking among adults
- Tobacco use/smoking among teenagers
- Suicide
- Lack of wellness prevention services

Other (please specify)

22. Please check the types of health education services most needed in your community? (check all that apply)

- Alcohol abuse
- Alzheimer disease
- Asthma
- Cancer Screening
- Child abuse/family violence
- Diabetes
- Depression
- Drug abuse
- Exercise/physical activity
- Fall prevention for the elderly
- HIV/AIDS
- Mental Health
- Nutrition
- Sexually transmitted diseases
- Smoking cessation and/or prevention
- Stress management
- Suicide prevention
- Wellness services

Other (please specify)



25. Which of the following categories best describes your employment status?

- Employed, working full-time
- Employed, working part-time
- Not employed, looking for work
- Not employed, NOT looking for work
- Retired
- Disabled, not able to work
- Student

26. What is the highest level of school you have completed or the highest degree you have received?

- Less than high school degree
- High school degree or equivalent (e.g., GED)
- Some college but no degree
- Associate degree
- Bachelor degree
- Graduate degree

27. Counting all income sources from everyone in your household, what was the combined household income last year?

- Less than \$20,000
- \$20,000 to \$29,999
- \$30,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$69,999
- \$70,000 to \$79,999
- \$80,000 to \$89,999
- \$90,000 to \$99,999
- \$100,000 to \$199,999
- \$200,000 or more

28. What health or community services should Carroll County Memorial Hospital provide that currently are not available?

29. What ideas or suggestions do you have for improving the overall health of the area community?

30. Do you have any other comments or concerns about the health and/or health services offered in the community? (please explain in detail)

**Thank you for taking the time to complete our survey. If you have any questions regarding this survey please contact Jenny Butterfield at 816-809-8004.**