

# Community Health Needs Assessment 2016

**St Anthony Regional Hospital  
and Nursing Home**



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Anyone interested in providing feedback or commenting on the 2016 Community Health Needs Assessment or Community Health Improvement Plan is invited to submit written comments to John Munson, Chief Financial Officer, at 311 S. Clark St., Carroll, IA 51401.

## **Summary of Priority Needs**

The following priority health needs were identified in the St Anthony Regional Hospital and Nursing Home service area through this community health needs assessment process. The needs are presented in alphabetically order.

### ***Alcohol and Tobacco Use***

Reduce the high rates of alcohol and tobacco use prevalent among area adults and youth.

### ***Cancer***

Reduce prevalence of, and deaths resulting from, cancer among area residents.

### ***Chronic Disease Management & Health Education***

Expand chronic disease management programs, especially for resident with diabetes and heart disease, and health education programs.

### ***Cost***

Expand coverage and provide relief from financial barriers to improve access to care for uninsured and insured residents.

### ***Hours of Operation***

Expand clinical services hours to avoid lost wages due to taking time off from work.

### ***Insurance Issues***

Provide informational sessions on health insurance coverage and optimal use of insurance.

### ***Linguistic/Cultural Issues***

Expand linguistic and cultural awareness and capabilities of providers to meet the needs of an increasingly diverse patient population.

### ***Maternal and Child Health***

Expand access to prenatal care to all pregnant women in the service area to improve birth outcomes.

### ***Mental Health***

Improve access to mental health services provided in the most appropriate setting, for both adults and youth.

### ***Nutrition, Obesity and Exercise***

Improve nutrition, reduce the rate of obesity and increase physical activity for area residents.

### ***Transportation***

Improve access to transportation for health and medical visits.

### ***Vaccinations***

Increase vaccination as means of reducing flu and pneumonia, particularly among elderly residents.

## Introduction

### Background

St Anthony Regional Hospital and Nursing Home conducted this community needs assessment in accordance with Section 501 r requirements of the Internal Revenue Code. The federal Patient Protection and Affordable Care Act passed in 2010 established new requirements that hospitals must comply with in order to maintain their federal tax exempt status. Conducting health needs assessments is included among these requirements; the assessments must be done a minimum of every three years.

As with the previous assessment completed in 2013, this assessment is intended to help the hospital better understand the health needs of residents in the St Anthony Hospital service area. This assessment will be used to target interventions focused on selected community health needs.

The federal requirement also call on hospitals to develop implementation strategies, or health improvement plans, based on the assessment to ensure that community benefit investments focus on documented needs. St Anthony Hospital intends to coordinate efforts with the Carroll County Public Health Department to ensure that community benefit resources address area needs and improve the health of residents in our service area.

### Description of the City of Carroll

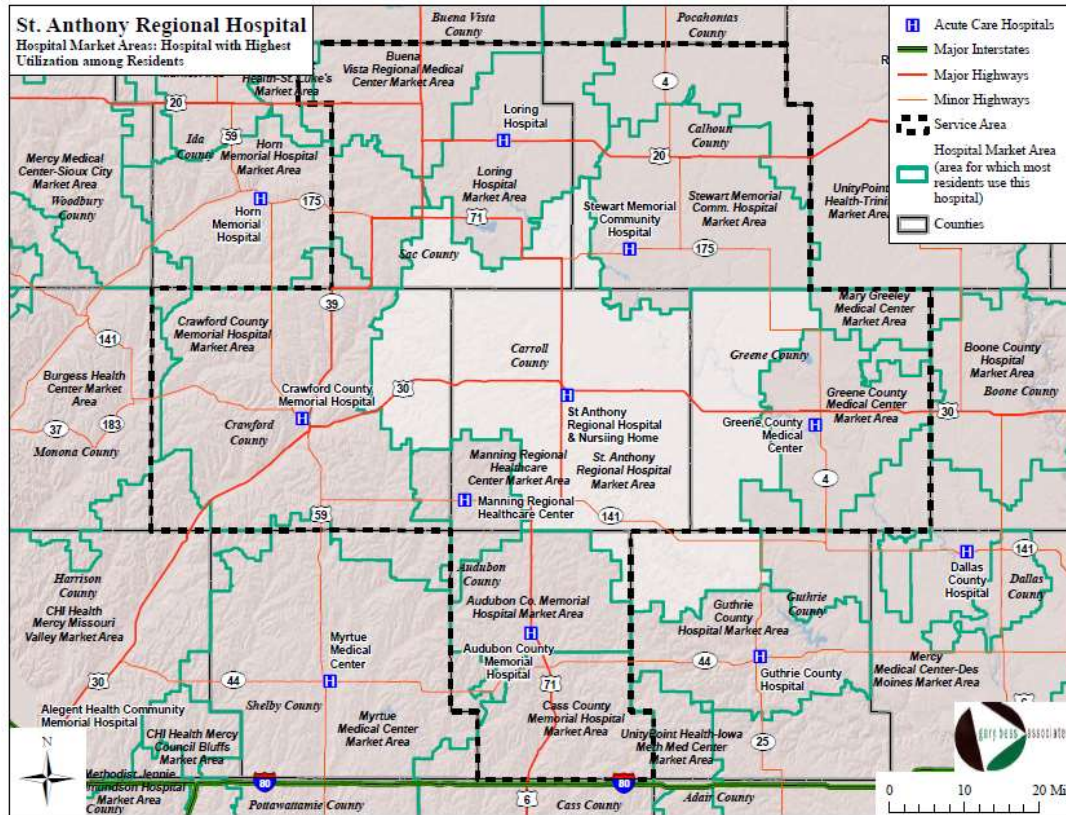
St. Anthony Regional Hospital & Nursing Home is located at 311 South Clark Street, Carroll, Iowa. The city is in Carroll County which is located in the western part of central Iowa. The estimated population of the county is 20,562. Of this total, 24% are under the age of 18 and 19%, are over 65 years of age. The vast majorities (96%) of residents are White/Caucasian and 2.3% are Hispanic or Latino. Ninety-one percent have are high school graduates or higher.

The homeownership rate is 75%. Median household income is estimated to be \$48,998 and 9.6% of Carroll County's population lives below the poverty level. Veterans comprised 7% of the county's population.

### Service Area Description

St. Anthony Regional Hospital service area was determined by a review of past year inpatient admissions and outpatient visits. Approximately 90% of patients came from six counties. Given that this is a sparsely populated area, the secondary data used in this assessment was county level data. The six counties of Audubon, Carroll, Calhoun, Crawford, Greene, and Sac comprise the hospital's primary service area.

The six county service area of the hospital is outlined in the map below. Within the service area outlined in the lighter pink color are the zip codes from which St Anthony draws of a plurality of patients from that particular zip code. Not surprisingly, this map shows that in areas closer to Carroll, residents are more likely to utilize St Anthony Hospitals for care.





## Methods

### Secondary Data

Secondary data were collected from a variety of sources to present community demographics, social and economic factors, health access, birth characteristics, leading causes of death, chronic disease, and health behaviors.

Given the availability of data and the small size of many of the service area cities, analyses were conducted at the county unit level for the hospital primary service area. Sources of data include the U.S. Census Bureau, American Community Survey, Iowa Department of Public Health, Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention, Health Indicators Warehouse, Iowa Cancer Registry, Iowa Kids County, Iowa Workforce Development, Iowa Youth Survey, Uniform Data Set, and County Health Rankings. When possible, these data sets are presented in the context of the State of Iowa, framing the scope of an issue as it relates to the entire state.

The report includes benchmark comparison data that measures the service area data findings with Healthy People 2020 objectives (Attachment 1). Healthy People 2020 objectives are a national initiative to improve the public's health by providing measurable objectives and goals that are applicable at national, state, and local levels.

### Primary Data Collection

#### Community Interviews

Primary data collection efforts included key stakeholder interviews and a web-based, community survey. The stakeholder interviews were conducted face-to-face and through telephone interviews by Mark Rukavina in May and June of 2016. Interviews were conducted with representatives from local public health departments, non-profit health and human service organizations serving low-income and minority populations, and others to gather information directly serving residents of the six county service area. Twenty individuals were interviewed through this process.

#### Community Survey

The primary data collection efforts included a web-based, community survey. This survey was posted on-line, during the month of January 2016. Similar versions of the survey were distributed by the Carroll County Public Health Department and Manning Regional Healthcare Center. The survey questions were based on six factors important for health and well-being. Participation in the survey was voluntary and responses were anonymous. Just over 250 people participated in completing the community survey.

## Demographics

### Population

It is estimated the population of St. Anthony's six county service area was 72,685 in 2014.

#### Estimated Population, 2014

Area	Population
Carroll County	20,562
Audubon County	5,794
Calhoun County	9,866
Crawford County	17,228
Greene County	9,200
Sac County	10,035
<b>St. Anthony Service Area</b>	<b>72,685</b>

*Source: U.S. Census Bureau, Population Estimates 2014*

### Household Income

The median household income for all counties in the service area is less than the median Iowa household income of \$52,716, as well as the national median household income of \$53,482.

#### Estimated Household Income, 2014

Area	Household Income
Carroll County	\$48,989
Audubon County	\$47,556
Calhoun County	\$44,934
Crawford County	\$47,347
Greene County	\$47,225
Sac County	\$48,581
<b>Iowa</b>	<b>\$52,716</b>

*Source: U.S. Census Bureau, Population Estimates 2014*

### Race/Ethnicity

The majority of the population in the St. Anthony, six county service area is White/Caucasian. Crawford County has a significant Hispanic population, with more than one-quarter of the population being Hispanic.

### Estimated Population, 2014

Area	White/ Caucasian	Black/African American	Hispanic
Carroll County	96%	.8%	2.3%
Audubon County	97.3%	.4%	1.1%
Calhoun County	95%	1.9%	2%
Crawford County	68.5%	2.3%	27.3%
Greene County	94.8%	.6%	2.9%
Sac County	95.7%	.3%	2.8%

Source: U.S. Census Bureau, Population Estimates 2014

### Language Other Than English Spoken in Home

The majority of the service area is comprised of English speaking residents. The exception is in Crawford County where nearly one-quarter of the population speaks a language other than English in the home; nearly all of them being Spanish speaking.

### Percentage Speaking Language Other Than English in the Home, 2010-2014

Area	Percent
Carroll County	2.7%
Audubon County	1%
Calhoun County	1.5%
Crawford County	23.4%
Greene County	2.4%
Sac County	2.8%
<b>Iowa</b>	<b>7.4%</b>

Source: U.S. Census Bureau,  
2010-2014 American Community Survey 5-Year Estimates

## Social and Economic Factors

### Social and Economic Factors Ranking

The County Health Rankings order counties according to health factors data. Social and economic indicators are examined as a contributor to the health of a county's residents. Iowa's 99 counties are ranked according to social and economic factors with 1 being the county with the best factors to 99 for the county with the poorest factors. This ranking examines: high school graduation rates, unemployment, children in poverty, social support, and others. Carroll County ranked in the top quartile of all Iowa counties, ranking 19<sup>th</sup> out of 99, according to social and economic factors.

#### Social Economic Indicators

Area	Ranking
Carroll County	19
Audubon County	57
Calhoun County	66
Crawford County	69
Greene County	54
Sac County	26

Source: County Health Rankings, 2016

### Poverty among Children, in Households with Children and Headed by Females

Examining poverty levels for families with children, shows that 13% of families in Carroll County experience poverty. Where there is a female head of household, the rate by which these families experience poverty is quite significant with more than one-third (32.3%) living in poverty in Carroll County, and even greater percentages in nearly all of the other counties in the service area.

#### Poverty Levels Families with Children under 18, And Female Households with Children

Area	Children Under 18 Years Old	Number Of Families	Female Head of Household with Children under 18	Number Of Families
Carroll County	13%	2,405	32.3%	576
Audubon County	10.2%	713	30.1%	153
Calhoun County	22%	1,089	47.1%	263
Crawford County	22.9%	2,172	65.3%	441
Greene County	17.8%	1,088	43.8%	256
Sac County	8.6%	1,080	35.1%	174
<b>Iowa</b>	<b>13.9%</b>	<b>368,964</b>	<b>39.1%</b>	<b>81,619</b>

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

## Free or Reduced Price Meals

The percentage of students eligible for the free or reduced price meal program is one indicator of socioeconomic status. In the Carroll County, 36% of the students qualify for this program.

**Free and Reduced Price Meals Eligibility**

Area	Percent
Carroll County	36%
Audubon County	36%
Calhoun County	35%
Crawford County	61%
Greene County	49%
Sac County	44%
<b>Iowa</b>	<b>41%</b>

*Source: Iowa Kids Count, 2014*

## Median Household Income

The median household in Carroll County was \$48,998. All counties in the service area had a median household income of than the median household income of \$52,716 for the State of Iowa.

**Median Household Income**

Area	Median Household Income
Carroll County	\$48,998
Audubon County	\$47,556
Calhoun County	\$44,934
Crawford County	\$47,437
Greene County	\$47,255
Sac County	\$48,581
<b>Iowa</b>	<b>\$52,716</b>

*Source: 2010-2014 American Community Survey 5-Year Estimates*

## Household Supportive Benefits

In the State of Iowa, 13% of residents receive food assistance. In Carroll County, 9% of the residents receive this assistance, a rate lower than that for most of the counties in the service area and also the

State of Iowa. Fourteen percent of Carroll County residents filing income taxes qualified for the Earned Income Tax Credit (EITC). The EITC is a federal tax credit for low- and moderate-income working people.

### Household Supportive Benefits

Area	Food Stamps/SNAP	EITC
Carroll County	9%	14%
Audubon County	10%	17%
Calhoun County	10%	15%
Crawford County	12%	18%
Greene County	15%	18%
Sac County	9%	14%
<b>Iowa</b>	<b>13%</b>	<b>15%</b>

Source: Iowa Kids Count, 2014

### Unemployment

The unemployment rate in Carroll County was 3.1% at the end of 2015, the lowest of the six counties in the service area. This compares to a rate of 3.4% for the State of Iowa.

### Unemployment Rates, 2014

Area	Percent
Carroll County	3.1%
Audubon County	4.2%
Calhoun County	4.8%
Crawford County	4.9%
Greene County	3.9%
Sac County	4.1%
<b>Iowa</b>	<b>3.4%</b>

Source: Iowa Workforce Development

<https://www.iowaworkforcedevelopment.gov/iowa-county-unemployment-rate-map-december-2015>

### High School Graduation Rates

High school graduation rates are determined by the percent of ninth grade students in public schools who graduate in four years. The graduation rate of 93% in Carroll County is higher than the graduation rate of 91% for the State of Iowa.

### High School Graduation Rate, 2014

Area	Percentage
Carroll County	93%
Audubon County	98%
Calhoun County	93%
Crawford County	89%
Greene County	92%
Sac County	98%
<b>Iowa</b>	<b>91%</b>

Source: Iowa Kids County, 2014

## Health Access

### Statewide Ranking for Access to Clinical Care

Iowa's 99 counties are ranked according to access to health care with 1 being the county with the best factors to 99 for that county with the poorest factors. Carroll County is ranked in the top ten of all Iowa counties for health access, Crawford and Sac are ranked among the lowest of counties in Iowa on this measure.

**Health Access Ranking**

Area	County Ranking (out of 99)
Carroll County	9
Audubon County	79
Calhoun County	60
Crawford County	91
Greene County	14
Sac County	89

Source: County Health Rankings, 2016

### Lack of Insurance Coverage for Children and Adults

The percent of children who are uninsured in Carroll County is 4% and for the working aged adult population ages 18-64 it is 10%, the lowest among the counties in the service area. In the service area, Crawford County has the highest percentage of the population with no insurance.

**Lacks Health Insurance, Population, Ages 0-17, and Adults 18-64, 2013**

Area	Population, Ages 0-17	Adults Ages 18-64
Carroll County	4%	10%
Audubon County	6%	13%
Calhoun County	6%	11%
Crawford County	8%	20%
Greene County	5%	12%
Sac County	6%	12%
<b>Iowa</b>	<b>4%</b>	<b>12%</b>

Source: County Health Rankings, 2016



## Unmet Medical Need

Six percent of adults in Carroll County, and 15% of Crawford County adults, had an unmet medical need saying they did not see a doctor due to the cost of care. This rate of unmet need for the entire State of Iowa adults was 8%. (Data not available for other counties in service area.)

**Adults with Unmet Medical Need Due to Cost, 2006-2012**

Geographic Area	Percent
Carroll County	6%
Crawford County	15%
<b>Iowa</b>	<b>8%</b>

Source: Behavioral Risk Factor Surveillance System 2006-2012  
Accessed on *County Health Rankings, 2015*

## Health and Human Service Providers

### Primary Care Physicians - National Data

From information obtained through the County Health Rankings data, Carroll County has 19 primary care physicians. The ratio of the population to primary care physicians in Carroll County is 1,084:1. The national benchmark for this indicator is 1,040:1 (the benchmark is set at the 90<sup>th</sup> percentile for all counties nationally). This ratio for Carroll County compares favorably to the ratio for the State of Iowa, which is 1,350:1, as well as the national benchmark.

This figure includes practicing physicians (M.D.'s and D.O.'s) under the age of 75 years and specializing in general practice medicine, family medicine, internal medicine, and pediatrics. It is based on data obtained from the Health Resources and Services Administration (HRSA).

**Primary Care Physicians, Number and Ratio, 2013**

Area	Number of primary care physicians	Ratio of population to primary care physicians
Carroll County	19	1,084:1
Audubon County	8	2,937:1
Calhoun County	6	1,654:1
Crawford County	6	2,906:1
Greene County	5	1,828:1
Sac County	6	1,679:1
<b>Iowa</b>	<b>2287</b>	<b>1350:1</b>

*Source: County Health Rankings, 2016*

### Hospital Facilities

Carroll County is served by two hospitals; St Anthony Regional Hospital in Carroll and Manning Regional Healthcare Center in Manning. There is one hospital serving each of the other five counties in the broader St Anthony service area.

### Hospitals in Service Area

Geographic Area	Hospital	Community
Carroll County	St Anthony Regional Hospital	Carroll
	Manning Regional Healthcare Center	Manning
Audubon County	Audubon County Memorial Hospital	Audubon
Calhoun County	Stewart Memorial County Hospital	Lake City
Crawford County	Crawford County Memorial Hospital	Denison
Greene County	Greene County Medical Center	Jefferson
Sac County	Loring Hospital	Sac City

Source: Iowa Hospital Association, Iowa Community Hospital Map (<http://map.ihaonline.org/>) 2015

### Access to Primary Care Community Clinics

There are no federally supported community clinics located in Carroll County to provide primary care (including medical, dental and mental health services) for uninsured and medically underserved populations. This assessment was doing using ZIP Code Tabulation Area data for Carroll County and information from the Uniform Data System (UDS).

### Dentists

Carroll County has a ratio of population to dentists of 1,582:1, which is lower than the state ratio of 1,670. The national benchmark for this indicator is 1,340:1 (the benchmark is set at the 90<sup>th</sup> percentile for all counties nationally).

### Dentists, Number and Ratio, 2014

Area	Number of dentists	Ratio of population to dentists
Carroll County	13	1,582:1
Audubon County	1	5,794:1
Calhoun County	5	1,973:1
Crawford County	7	2,461:1
Greene County	3	3,067:1
Sac County	3	3,345:1
<b>Iowa</b>	<b>1,907</b>	<b>1,630:1</b>

Source: County Health Rankings, 2016

## Other Community Clinics

The service area has a number of clinics providing primary care and mental health services. Some of the counties are also served by free clinics. Carroll County is served the Carroll Community and New Opportunities Free Medical Clinic, which is open one-half day per week.

### Other Community Clinics

Geographic Area	Clinic	Community
Carroll County	Carroll Community and New Opportunities Free Medical Clinic	Carroll
	Carroll VA Community Based Outpatient Clinic	Carroll
	McFarland Clinic	Carroll
	Richmond Community Mental Health Center	Carroll
	St Anthony Clinic	Locations in Breda, Carroll, Coon Rapids, Manning
Audubon County	Audubon County Free Clinic	Exira
	Exira Medical Clinic	
Calhoun County		
Crawford County	West Iowa Community Mental Center	Denison
	Crawford County Clinic	Denison
	St Anthony Clinic	Westside
Greene County	McFarland Clinic	Jefferson
	Unity Point Clinic	
Sac County	Unity Point Clinic	Lake View
	Unity Point Clinic	Sac City
	St Anthony Clinic	Wall Lake

Source: Free Clinics of Iowa Website (<http://www.freeclinicsofiowa.org/find-clinic>), Iowa Department of Human Services Iowa Community Mental Health Centers <http://dhs.iowa.gov/mhds/service-providers>, McFarland Clinic PC Website, Unity Point Health Website, St Anthony Regional Hospital and Nursing Home Website, US Department of Veterans Affairs - VA Central Iowa Health Care System

## Public Health Departments

Each of the six counties in the St Anthony Service area has a local public health department. They provide a range of public and home health services.

### County Public Health Departments

County	Name	Address
Carroll County	Carroll County Public Health Services, A Division of St. Anthony Home Health Agency	318 S. Maple St. Suite #3 Carroll, IA 51401
Audubon County	Audubon County Public Health Nursing Service	318 Leroy St #10 Audubon IA 50025-1255
Calhoun County	Calhoun County Public Health	501 Court Street Rockwell City, IA 50579
Crawford County	Crawford County Home Health, Hospice & Public Health	105 N. Main Street Denison, Iowa 51442
Greene County	Greene County Medical Center Public Health Department	1000 W Lincolnway St Jefferson, IA 50129-1645
Sac County	Sac County Public Health	Courthouse Annex 116 S. State St-Suite A Sac City, Iowa 50583

## Birth Characteristics

### Births

In 2014, there were 254 live births in Carroll County, 233 in Crawford County and 119 in Sac County.

### Teen Birth Rate

The teen birth rate of 39 per 1,000 live births, in Carroll County was less than the rate of other counties in the service area and the rate of 53 per 1,000 live births for the State of Iowa. (Other counties not shown since counts of five or less births, and rates based on these counts, are suppressed to protect confidentiality.)

#### Births to Teenage Mothers (Under Age 20)

Area	Births to Teen Mothers	Total Live Births	Teen Birth Rate/1,000 Live Births
Carroll County	10	254	39
Crawford County	21	233	90
Sac County	9	119	76
<b>Iowa</b>	<b>2,101</b>	<b>39,465</b>	<b>53</b>

Source: Iowa Department of Public Health, Vital Statistics 2014

### Prenatal Care

Ninety percent of pregnant women in Carroll County received prenatal care in the first trimester of their pregnancy. This rate of early entry into prenatal care exceeds the rate of 84% of women entering prenatal care in the first trimester for the State of Iowa.

#### First Trimester Entry into Prenatal Care, 2014

Area	Prenatal Care	Percent
Carroll County	228	90%
Audubon County	55	87%
Calhoun County	105	86%
Crawford County	174	75%
Greene County	78	80%
Sac County	101	85%
<b>Iowa</b>	<b>33,070</b>	<b>84%</b>

Source: Iowa Kids County, 2014

## Low Birth Weight

Low birth weight is a negative birth indicator. Babies born at a low birth weight are at higher risk for disease, disability and possibly death. For this measurement, a lower rate is a better indicator. In Carroll County the rate of low birth weight babies was 5.1%, in Greene County the rate was 12.2%. The rate of low birth weight for the State of Iowa was 6.8%.

### Low Birthweight, births weighing at less than 5.5 pound, 2014

Area	Low Birth Weight	Percent
Carroll County	13	5.1%
Audubon County	*	*
Calhoun County	12	9.7%
Crawford County	11	4.7%
Greene County	12	12.2%
Sac County	9	7.6%
<b>Iowa</b>	<b>2,683</b>	<b>6.8%</b>

Source: Iowa Kids Count, 2014

( \*Audubon County not shown since counts of five or less births and rates based on these counts are suppressed to protect confidentiality.)

## Infant Mortality

There were no reported cases of infant mortality in St Anthony Service area in 2014.

### Infant Mortality Rate

Area	Infant Deaths	Live Births	Percent
St. Anthony Service Area	0	254	0
<b>Iowa</b>	<b>190</b>	<b>39,685</b>	<b>4.8%</b>

Source: Iowa Kids County, 2014

## Chronic Disease

### Health Status

When asked to self-report on health status, 11% of adults in Carroll County indicated they were in fair or poor health.

**Fair or Poor Health, Adults, 2014**

Area	Percent
Carroll County	11%
Audubon County	11%
Calhoun County	13%
Crawford County	17%
Greene County	13%
Sac County	11%
<b>Iowa</b>	<b>13%</b>

*Source: County Health Rankings, 2016*

### Diabetes

The percentage of adults aged 20 and above with diagnosed diabetes was similar to, or less than, the overall statewide rate of 8.6%.

**Diagnosed Diabetes among Adults,  
Age-Adjusted Percentage, 2012**

Area	Percent
Carroll County	8.2%
Audubon County	7.9%
Calhoun County	8.7%
Crawford County	9%
Greene County	7.9%
Sac County	7.7%
<b>Iowa</b>	<b>8.6%</b>

*Source: CDC, National Diabetes Surveillance System, 2012*



## Cancer

Overall cancer incidence rates for Carroll County and two other counties in the service area do not exceed the rate for the State of Iowa. However, the rate for cancer of the digestive system in Carroll County and three other counties in the service area is greater than that of Iowa.

**Cancer Incidence Rates, Age-Adjusted, per 100,000 persons, 2008-2012**

Area	All Sites	Digestive System	Respiratory System	Urinary System	Breast (Female)
Carroll County	494.73	90.71	65.99	32.26	122.97
Audubon County	529.3	96.2	50.4	49.8	140.1
Calhoun County	554.3	75	58.9	60.1	149.4
Crawford County	489.8	82.8	55.9	54.9	138.9
Greene County	541.5	104.6	77.2	77.3	149.8
Sac County	482.9	96.1	61.4	42.1	153.5
<b>Iowa</b>	<b>516.9</b>	<b>85.7</b>	<b>71.3</b>	<b>42.2</b>	<b>152.2</b>

Source: Iowa Cancer Registry, 2015

## Hospitalization Rates

### Pneumonia

In Carroll, Calhoun and Sac Counties, there are high rates of hospitalization for pneumonia for adults 55 years and older.

**Hospitalization Rates,  
Per 10,000 Persons, 2010-2014**

Area	Pneumonia, 55 and Older
Carroll County	124.1
Audubon County	103.4
Calhoun County	157.9
Crawford County	94.1
Greene County	106.5
Sac County	238.7
<b>Iowa</b>	<b>118.5</b>

Source: Iowa Department of Public Health, County Health Snapshots, 2010-2014

### Asthma

Asthma hospitalization rates for children ages 5-14 were only available for Carroll County where the rate is lower than that of the overall statewide rate.

**Hospitalization Rates,  
Per 10,000 Persons, 2010-2014**

Area	Asthma, Ages 5-14
Carroll County	5.97
Audubon County	*
Calhoun County	*
Crawford County	*
Greene County	*
Sac County	*
<b>Iowa</b>	<b>6.54</b>

Source: Iowa Department of Public Health, County Health Snapshots, 2010-2014

2016

## Health Behaviors

County Health Rankings examines healthy behaviors and ranks counties according to health behavior data. Iowa's 99 counties are ranked from 1 (healthiest) to 99 (least healthy) based on a number of indicators that include: adult smoking, obesity, physical inactivity, excessive drinking, sexually transmitted infections, and others.

### Health Behaviors Ranking

Area	County Ranking (out of 99)
Carroll County	25
Audubon County	39
Calhoun County	77
Crawford County	65
Greene County	52
Sac County	5

Source: County Health Rankings, 2016

## Overweight and Obesity

In Carroll County, 30% of adults report a BMI of 30 or greater and 25% report no leisure time physical activity.

### Adult Obesity, 2012 & Physical Inactivity, 2014

Area	Percent Obese	Percent Inactive
Carroll County	30%	25%
Audubon County	33%	28%
Calhoun County	33%	25%
Crawford County	33%	31%
Greene County	29%	30%
Sac County	31%	26%
<b>Iowa</b>	<b>31%</b>	<b>25%</b>

Source: County Health Rankings, 2016

## Activity

Sixth, eighth and twelfth graders were asked to identify how many of the past 7 days they were physically active for a total of 60 minutes (1 hour) or more per day. Only a small percentage of youth in

the service area reported no days of physical activity. In Carroll County, one-third were active for one hour a day, seven days a week.

#### Youth, All Grades, Physical Activity 2014

Area	0 Days	7 Days
Carroll County	3%	33%
Audubon County	2%	37%
Calhoun County	2%	34%
Crawford County	6%	27%
Greene County	6%	28%
Sac County	2%	35%
<b>Iowa</b>	<b>5%</b>	<b>30%</b>

Source: Iowa Youth Survey, 2014

#### Recreational Facilities

A majority of the population in all but two of the counties in the service area reports adequate access to locations for physical activity.

#### Percentage of Resident with Access To Exercise Opportunities, 2014

Area	Percent
Carroll County	71%
Audubon County	60%
Calhoun County	47%
Crawford County	55%
Greene County	42%
Sac County	73%
<b>Iowa</b>	<b>76%</b>

Source: County Health Rankings, 2016

#### Fresh Fruits and Vegetables

The CDC recommends eating five servings of fruits and vegetables a day. Among youth in 6<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> grades, a small number consume five servings a fruit a day, and five servings of vegetables each day.

### Youth Consume 5 or More Servings of Fruits or Vegetables a Day

Area	Fruits	Vegetables
Carroll County	5%	6%
Audubon County	2%	1%
Calhoun County	6%	6%
Crawford County	8%	4%
Greene County	5%	4%
Sac County	7%	7%
<b>Iowa</b>	<b>6%</b>	<b>5%</b>

Source: Iowa Youth Survey, 2014

### Access to Food

A healthy food environment is important to health. The lack of regular access to nutritious food is related to negative health outcomes such as weight-gain and premature mortality.

### Food Insecurity

Food insecurity is defined as the percentage of the overall population lacking access to a reliable source of food during the past year. Nearly one out nine Carroll County residents experienced food insecurity in 2013.

### Percentage of Resident Lacking Adequate Access to Food, 2013

Area	Percent
Carroll County	11%
Audubon County	12%
Calhoun County	12%
Crawford County	9%
Greene County	12%
Sac County	11%
<b>Iowa</b>	<b>13%</b>

Source: County Health Rankings, 2016

### Limited Access to Health Foods

Limited access to healthy foods measures the proportion of the population who are both living in poverty and do not live close to a grocery store. In non-Metropolitan areas, living close to a grocery

store is defined as living less than 10 miles from a grocery store. In Carroll County only 1% of the residents living in poverty have limited access to healthy food, in Calhoun County this rate is 15%.

### Percentage of Low-Income Populations Not Living Near Grocery Store, 2010

Area	Percent
Carroll County	1%
Audubon County	1%
Calhoun County	15%
Crawford County	8%
Greene County	8%
Sac County	6%
<b>Iowa</b>	<b>6%</b>

Source: County Health Rankings, 2016

## Sexually Transmitted Diseases

Chlamydia is the sexually transmitted disease that is most prevalent in the service area.

### STD Cases, 2014

Area	Chlamydia	Gonorrhea	Primary, Secondary, Early Latent Syphilis
Carroll County	46	7	1
Audubon County	13	0	1
Calhoun County	18	1	0
Crawford County	77	3	0
Greene County	26	1	0
Sac County	14	0	0
<b>Iowa</b>	<b>11,632</b>	<b>1,626</b>	<b>243</b>

Source: Iowa Department of Public Health, Bureau of HIV, STD and Hepatitis  
Reportable Sexually Transmitted Disease Data 2014

## Tobacco Use

Among 6<sup>th</sup>, 8<sup>th</sup>, and 11<sup>th</sup> grade youth, 6% in Carroll County currently use tobacco products, though a greater percentage of older youth use tobacco regularly.

### Youth, Current Tobacco Use, 2014

Area	All -6 <sup>th</sup> , 8 <sup>th</sup> and 11 <sup>th</sup> grades	Students in the 11 <sup>th</sup> grade
Carroll County	6%	16%
Audubon County	7%	17%
Calhoun County	7%	13%
Crawford County	9%	20%
Greene County	8%	14%
Sac County	5%	15%
<b>Iowa</b>	<b>6%</b>	<b>14%</b>

Source: Iowa Youth Survey, 2014

Among adults, 16% in Carroll County smoke cigarettes. The smoking rate for the service area is lower than the rate of 19% for the State of Iowa.

### Adult Cigarette Smoking, 2014

Area	Percent
Carroll County	16%
Audubon County	16%
Calhoun County	18%
Crawford County	17%
Greene County	17%
Sac County	15%
<b>Iowa</b>	<b>19%</b>

Source: County Health Snapshot, 2015

### Alcohol and Drug Use

Twelve percent of 6<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> grade youth in Carroll County have had at least one alcoholic drink in the last 30 days. Binge drinking is defined as 5 or more drinks of alcohol per occasion. Carroll County 11<sup>th</sup> grade used reported a high rate of binge drinking (18%), as did Crawford County (19%) and Greene County (16%).

### Youth Alcohol Use, 2014

Area	Alcohol Use in Last 30 Days	Binge Drinking Students in 11 <sup>th</sup> Grade
Carroll County	12%	18%
Audubon County	14%	8%
Calhoun County	12%	11%
Crawford County	12%	19%
Greene County	14%	16%
Sac County	9%	8%
<b>Iowa</b>	<b>10%</b>	<b>14%</b>

Source: Iowa Youth Survey, 2014

Among adults, 20% in Carroll County drink excessively. Excessive Drinking is the percentage of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average.

### Adult Excessive Drinking, 2014

Area	Percent
Carroll County	20%
Audubon County	18%
Calhoun County	18%
Crawford County	18%
Greene County	18%
Sac County	19%
<b>Iowa</b>	<b>22%</b>

Source: Iowa Department of Public Health, Behavioral Risk Factor Surveillance System  
Accessed: County Health Snapshot, 2016

The percent of 11<sup>th</sup> graders who reported marijuana use in the past 30 was 10% in Carroll County. No county in the service area had marijuana use among 11<sup>th</sup> grade students that exceeded the 11% overall rate for the state.



### Youth Current Marijuana Use, 11<sup>th</sup> Graders, 2014

Area	Percent
Carroll County	10%
Audubon County	3%
Calhoun County	7%
Crawford County	7%
Greene County	10%
Sac County	6%
<b>Iowa</b>	<b>11%</b>

Source: Iowa Youth Survey, 2014

### Mental Health

The average number of mentally unhealthy days reported by adults in the past 30 days was 2.9 in Carroll County.

### Fair or Poor Health, Adults, 2014

Area	Average Days
Carroll County	2.9
Audubon County	2.8
Calhoun County	3.0
Crawford County	3.1
Greene County	3.0
Sac County	2.8
<b>Iowa</b>	<b>3.1</b>

Source: County Health Rankings, 2016

When youth were asked if they felt sad or hopeless for two weeks or more to the point they stopped some regular activities, 23% of Carroll County 11<sup>th</sup> graders indicated these feelings of depression and 18% of 11<sup>th</sup> graders in Carroll County had seriously considered suicide.

### 11<sup>th</sup> Graders, Feelings of Depression, 2014

Area	Felt Sad or Hopeless	Seriously Considered Suicide
Carroll County	23%	18%
Audubon County	20%	10%
Calhoun County	24%	19%
Crawford County	25%	19%
Greene County	18%	14%
Sac County	17%	11%
<b>Iowa</b>	<b>23%</b>	<b>16%</b>

Source: Iowa Youth Survey, 2014

### Immunization of Children

School readiness immunization rates are very high with rates for recommended immunizations among two year olds being 76% in Carroll County. The immunization rate for K-12 children is 100% when approved exemptions are considered.

### Childhood Immunization Rates, 2014

Geographic Area	K-12	2-Year Olds
Carroll County	100%	76%
Audubon County	100%	76%
Calhoun County	100%	74%
Crawford County	97%	65%
Greene County	99%	83%
Sac County	99%	72%
<b>Iowa</b>	<b>99%</b>	<b>69%</b>

Source: Iowa Department of Public Health, Immunization Program, 2014

Among adolescents, ages 13-15, up-to-date immunization rates were 30% in Carroll County. HPV immunizations protect females from cervical cancer. Carroll County HPV immunization rate was 17%.

### Adolescent Immunization Rates, 13-15 Year Olds 2014

Geographic Area	Up-to-Date Immunizations	Female HPV
Carroll County	30%	17%
Audubon County	52%	35%
Calhoun County	27%	23%
Crawford County	42%	29%
Greene County	40%	24%
Sac County	32%	25%
<b>Iowa</b>	<b>45%</b>	<b>27%</b>

Source: Iowa Department of Public Health, Immunization Program, 2014

### Influenza Vaccination

Three-quarters of adults age 65 and older reported receiving an influenza vaccination in the previous year.

#### Adults Age 65 and Older, Influenza Vaccine in Previous Year, 2006-2012

Geographic Area	Percent
Carroll County	75%
Audubon County	*
Calhoun County	78%
Crawford County	72%
Greene County	78%
Sac County	*
<b>Iowa</b>	<b>73%</b>

Source: Health Indicators Warehouse, BRFSS, 2006-2012

\*No data for particular indicator in this county.

### Pneumococcal Vaccination

Percent of adults age 65 and older that report ever having a pneumococcal (pneumonia) vaccination in Carroll County is 77%. The other counties in the service area report lower rates.

### Adults Age 65 and Older, Pneumococcal Vaccine, 2006-2012

Geographic Area	Percent
Carroll County	77%
Audubon County	*
Calhoun County	60%
Crawford County	59%
Greene County	67%
Sac County	*
<b>Iowa</b>	<b>70%</b>

*Source: Health Indicators Warehouse, BRFSS, 2006-2012*

*\*No data for particular indicator in this county.*

### Preventive Screening

Among Carroll County women ages 50 and over, 85% have had a screening mammogram, 71% of women 18 years of age and older had a Pap test.

Adults 50 and over are recommended to have colorectal screening. 60% of adults in Carroll County have had the recommended screening.

### Adult Preventive Screenings, 2006-2012

Geographic Area	Mammograms Women 50+	Pap Test Women 18+	Colonoscopy/Sigmoidoscopy Adults 50+
Carroll County	85%	71%	60%
Audubon County	*	*	61%
Calhoun County	*	83%	70%
Crawford County	64%	75%	53%
Greene County	*	80%	58%
Sac County	*	*	48%
<b>Iowa</b>	<b>79%</b>	<b>80%</b>	<b>60%</b>

*Source: Health Indicators Warehouse, BRFSS, 2006-2012*

*\*No data for particular indicator in this county.*

### Mammograms

Percentage of female Medicare enrollees ages 67-69 that received mammography screening was 69% in Carroll County.

### Mammograms, Females Age 67-69, 2013

Area	Percent
Carroll County	69%
Audubon County	57%
Calhoun County	60%
Crawford County	69%
Greene County	71%
Sac County	65%
<b>Iowa</b>	<b>67%</b>

Source: County Health Snapshot, 2016

### Diabetic Monitoring

Percentage of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring.

### Diabetic Medicare Enrollees Age 67-75 Receiving HbA1c Monitoring, 2013

Area	Percent
Carroll County	90%
Audubon County	87%
Calhoun County	88%
Crawford County	84%
Greene County	96%
Sac County	88%
<b>Iowa</b>	<b>90%</b>

Source: County Health Snapshot, 2016

## Mortality/Leading Causes of Death

### Premature Death

Measuring premature mortality focuses on deaths that could have been prevented. Premature age-adjusted mortality measures the number of deaths among residents under the age of 75 per 100,000 persons in population.

#### Premature Death, before Age 75, per 100,000 Persons, 2011-2013

Area	Number	Age-Adjusted Mortality
Carroll County	206	290
Audubon County	66	290
Calhoun County	118	320
Crawford County	175	310
Greene County	127	370
Sac County	147	410
<b>Iowa</b>	<b>31,027</b>	<b>310</b>

Source: County Health Snapshots, 2016

### Mortality Rates - Disease Type

Heart disease and cancer are the top two leading causes of death in the service area.

#### Mortality Rates, Age-Adjusted, per 100,000 persons, 2010-2014

Area	Heart Disease	Cancer	Stroke	Lung Disease
Carroll County	158.9	175.6	36.8	38.5
Audubon County	130.6	179.8	33.6	32.7
Calhoun County	157.3	184.5	25.0	43.7
Crawford County	144.5	147.3	26.8	42.0
Greene County	168.8	176.6	17.5	51.8
Sac County	153.9	167.3	57.2	50.5
<b>Iowa</b>	<b>165.2</b>	<b>168.7</b>	<b>34.5</b>	<b>46.8</b>

Source: Iowa Department of Public Health, County Health Snapshots, 2010-2014

### Cancer Mortality Rates

The cancer mortality rate in all but one county in the service area is higher than the rate for the overall statewide rate.

### Cancer Mortality Rates, Age-Adjusted, per 100,000 persons, 2008-2012

Geographic Area	All Sites	Digestive System	Respiratory System	Urinary System	Breast (Female)
Carroll County	179.9	43.6	48.2	14.5	15.9
Audubon County	174.7	46.0	28.5	*	*
Calhoun County	169.2	44.1	44.4	*	17.1
Crawford County	153.2	39.8	31.8	12.3	26.3
Greene County	185.7	53.7	59	*	*
Sac County	175.7	43.9	41.8	14.7	22.4
<b>Iowa</b>	<b>170.5</b>	<b>41.6</b>	<b>48.9</b>	<b>9.4</b>	<b>20.5</b>

Source: Iowa Cancer Registry, 2016

\*Fewer than 10 cases

### Cancer Mortality Rates, Age-Adjusted, Per 100,000 persons, 2008-2012

Area	Colorectal	Lung	Prostate
Carroll County	18.8	46.9	22.4
Audubon County	21.8	28.5	33.9
Calhoun County	21.4	41.9	*
Crawford County	13.6	30.9	21.8
Greene County	29.9	54.9	30.3
Sac County	19.3	39.3	35.5
<b>Iowa</b>	<b>16.7</b>	<b>47.5</b>	<b>20.7</b>

Source: Iowa Cancer Registry, 2016

\*Fewer than 10 cases

### Mortality Rates - Unintentional Injury, Suicide, Motor Vehicle Accidents

Carroll County had higher rates of deaths due to motor vehicle accidents and suicide than the rate for the State of Iowa. Other counties in the service area had very high mortality rates in the various categories.

### Mortality Rates, Age-Adjusted, per 100,000 persons, 2010-2014

Area	Unintentional Injury	Suicide	Motor Vehicle Accident
Carroll County	37.4	16.3	14.5
Audubon County	72.1	19.9	40.8
Calhoun County	59.4	*	23.6
Crawford County	33.9	13.2	11.7
Greene County	71.8	10.5	36.3
Sac County	45.1	15.4	19.2
<b>Iowa</b>	<b>39.3</b>	<b>13.2</b>	<b>11.7</b>

Source: Iowa Department of Public Health, County Health Snapshots, 2010-2014

## Ambulatory Care Sensitive Conditions

### Background

Ambulatory care sensitive conditions (ACSC) are those conditions resulting in hospital admissions that care could otherwise have been avoided, with improved quality outpatient services. The result would be lower cost to the hospital and better quality of life for the patient. These indicators can assist hospitals in identifying care warranting further examination and in providing insight into community outpatient needs, access and systems.

### Analysis

The analysis is based on data available through the Iowa Hospital Association for discharges between January 2014 and September 2015. St. Anthony Hospital had a total of 3,209 discharges during this time period, 523 of those discharges were for ACSC. This amounted to 16.3% of total discharges. When analyzing the 2,385 discharges of residents residing in the St. Anthony service area, 471 were for ACSC. This amounted to 19.7% of total discharges for patients residing in the service area.

#### Top Ten ACSC Diagnoses Treated at St. Anthony Hospital Residents of Service Area, January 2014-September 2015

Diagnosis	Number Treated at St. Anthony
Pneumonia And Influenza	135
Heart Failure	91
COPD And Allied Conditions	86
Infections Of Skin And Subcutaneous Tissue	48
Urinary Tract Infection	31
Dehydration	29
Diabetes	14
Gastroenteritis, Noninfectious & Unspecified	9
Acute Respiratory Infections	9
Infections Of Kidney	7

### Discussion

The largest percentage of the ACSC discharges was associated with pneumonia and influenza; next were heart failure and chronic obstructive pulmonary disease (COPD).



## Primary Data

Community input was gathered through a web-based survey and stakeholder interviews. Findings from this primary data are presented below.

### Community Interviews

Key informant interviews were conducted in person and through telephone interviews by Mark Rukavina, of Community Health Advisors, LLC. The interviews were designed to gain perspective into the community health needs of the multi-county service area.

A total of twenty individuals were interviewed, the majority being external stakeholders from the area. Attachment 2 includes the names and affiliation for the stakeholders interviewed for this assessment. People were interviewed during the months of May and June 2016.

Community Health Advisors conducted community interviews using structured questions with key stakeholders asked to discuss community health needs and the availability of services and recommendations for improving community health. CHA reviewed and analyzed the interviews to identify the most frequently mentioned community health issues.

### Interview Findings

The following health issues were identified as concerns based on the interviews with key informants. They are arranged in alphabetical order, not order of significance.

#### *Alcohol and Tobacco Use*

Many interviewees noted high rates of alcohol and tobacco use in the area. Some stakeholders connected alcohol abuse and the high rates of injury in the area.

#### *Cancer*

The prevalence of cancer in the area was brought up as a concern by many interviewees. Many speculate that the high prevalence is due to the chemicals associated with agricultural work and/or the presence of radon gas in the area.

#### *Chronic Disease Management*

Interviewees noted the high incidences of chronic health conditions such as diabetes and heart disease as a problem. The need for more educational and self-management programs was cited by a number of stakeholders.

#### *Cost*

Though health insurance coverage has been expanded in the region, cost sharing through deductibles, co-payment and co-insurance continues to be a problem for some residents in the area. Several of the interviewees said that their clients have difficulty paying for their medications or the fees associated with sliding fee scales for some particular services. There is a perception that elderly residents are experiencing access issues related to cost.

### ***Health Education***

Many interviewees cited the need for health education and prevention services. A wide-range of topics was noted in terms of potential education sessions.

### ***Hours of Operation***

Several stakeholders commented on the need for expanded hours so that people do not need to take time off from work in order to be seen by a doctor or other healthcare provider. Missing work can be costly and in certain cases can be the grounds for dismissal from a position.

### ***Insurance Issues***

Some stakeholders said that unfamiliarity with private health insurance leaves many people confused and that this may make them reluctant to access care. Others noted Iowa Medicaid's recent shift to manage care as creating confusion among beneficiaries and providers seeking proper authorization for services.

### ***Linguistic/Cultural Issues***

Given that St Anthony draws diverse patients from across the region, several stakeholders noted the need to ensure that care is provided in a culturally sensitive manner. They also noted the need to provide language services, if providers do not speak the language of limited English proficient patients.

### ***Maternal and Child Health***

Several community stakeholders said that there is a need for ongoing education on the various programs available to pregnant mother to ensure that they receive prenatal care during early stages of pregnancy.

### ***Mental Health***

Interviewees identified the need for mental health services in the area. Some noted the challenge of overcoming the stigma associated with accessing mental health services. There is a perceived shortage of mental health services for youth and their families. The lack of easily accessible services to address mental health needs for those in crisis was cited by many interviewees.

### ***Nutrition, Obesity and Exercise***

The fact that area resident may experience difficulty accessing affordable, nutritious food is an issue that was raised by a number of stakeholders. Others mentioned obesity and the need to encourage exercise and physical activity as needs for the area.

### ***Transportation***

Most interviewees noted challenges related to transportation issues. Given the lack of public transportation in the service area, many people in need of medical care have a difficult time access the care they need, at the time they need it. Related to the hours of operation, it may be required that a family member or a friend take time off from work in order to provide transportation to a medical appointment.

## ***Vaccinations***

Several stakeholders described the need for increased the percentage of people receiving vaccinations, especially for HPV vaccines among youth and flu and pneumonia vaccines for adults, in particular those over 65 years of age.

## ***Community Survey***

A community survey conducted in conjunction with the Carroll Public Health consisted of more than 20 questions and was posted on-line during January 2016. Half of the survey respondents lived in two zip codes; 27% in 51401 and 22% in 51455. Most of the respondents were between the ages of 25 and 65. Three percent were under the age of 25 and 8% over the age of 65. The vast majority of respondents were female (83%) and had private health insurance coverage (89%). Only two percent of respondents had no health insurance.

## ***Survey Findings***

Respondents were asked questions based on six factors important for the health and well-being of a community.

### ***What services should be considered a priority for health living?***

Two issues were ranked a priority by more than half of all respondents. They were mental health (57%) and cancer (56%). Other issues identified as priorities included alcohol and other drugs (39%), heart disease and stroke (37%), infant, child, and family health (35%), elder wellness (34%) and diabetes (30%). Of these issues, the vast majority of respondents felt that there were services available in the area to address them. There was one exception, nearly one-quarter of the respondents selecting mental health as a priority said these services were not readily available in the area.

### ***What services should be considered a priority for preventing injuries?***

The top issue ranked by two-thirds (65%) of respondents, was emergency medical services, followed by addressing violent/abusive behavior which was ranked as a priority by half of respondents (49%). Other issues identified as priorities for preventing injuries included disability (38%), motor vehicle accidents (36%), suicide (35%), and falls (33%). Of these priorities, respondents said that while services were available in the area on suicide and violent/abuse behavior, two-thirds felt that the services failed to meet the need.

### ***What services should be considered a priority preventing epidemics?***

The following issues ranked highly in terms of priorities preventing epidemics: immunizations/vaccinations (72%), disease control and surveillance (53%), sexually transmitted disease (38%), and disease investigation (30%).

### ***What issues should be considered a priority for protecting against environmental hazards?***

The following issues ranked highly in terms of priorities for protecting against environmental hazards: drinking water protection (69%), food safety/food waste (62%), healthy homes (58%), radon (53%) and vector problems or disease-carrying animals/insects (50%).

**What issues should be considered a priority for prepare for, respond to & recover from public health emergencies?**

The following issues ranked highly in terms of priorities for preparing for, responding to or recovering from public health emergencies: emergency response (71%), emergency planning (67%) and communication (57%).

**What issues should be considered a priority for strengthening the health infrastructure?**

The following issues ranked highly in terms of being a priority for strengthening the healthcare infrastructure: access to quality health services (63%), health insurance coverage (58%), education (54%), healthcare facilities (54%), financial security/adequate income (49%) and community engagement (47%). Of these priorities, respondents said that while services were available in the area on health insurance coverage and issues related to financial security/adequate income, two-thirds felt that the available services failed to meet the need in the area.

## **Prioritized Description of Significant Health Needs**

The health of residents is influenced by many factors including those that are social, behavioral, economic, nutritional, and environmental. In identifying needs in the service area, some are related to chronic conditions that are prevalent among residents. Others from barriers to care that are the result of financial, transportation, or linguistic/cultural issues. Certain needs may be accentuated by limited capacity being available in the area or due to the hours that the services are provided.

Through examination of existing data, and based on interviews with community leaders, we identified the following significant health needs for our area.

- *Access to Care Related to Cost and Use of Insurance*
- *Cancer – Treatment and Prevention*
- *Chronic Disease Management*
- *Health Education*
- *Mental Health Services*
- *Nutrition and Exercise*
- *Obesity and Diabetes*
- *Substance Abuse -Tobacco and Alcohol*
- *Transportation*
- *Vaccinations*

## **Process and Criteria Used to Identify Significant Health Needs**

The process of prioritizing significant health needs involved reviewing secondary data sets and hospital discharge data, as well as interviewing community leaders and surveying area residents. We interviewed people with community knowledge, health expertise, as well as representatives of public health and medically underserved populations. Members of the St Anthony Regional Hospital leadership team were also asked to identify significant health needs in the area.

Senior St Anthony leaders examined this information, the results of a web-based survey, and the resources available to address particular needs. There was significant overlap regarding priority needs. Needs were prioritized based on prevalence, severity, urgency, and community perception of the importance of the need. The leadership team will take into consideration these priorities needs, as well the feasibility and the effectiveness of possible interventions to design an implementation strategy to address selected needs.

## Resources Potentially Available to Address Significant Needs

In addition to the health and human services listed in this assessment, the following resources are available in the area to address health needs.

*Communities of Concern Food Pantry* – food security and nutrition

*Department of Human Services* - social service needs in each county

*Elderbridge Agency on Aging* – insurance information, care coordination, and nutritional services for the elderly

*Lutheran Services in Iowa* – mental health counseling and youth programming

*New Hope Village* - therapeutic, residential and vocational services for individuals with disabilities

*New Opportunities, Inc.* – a wide range of health and community supportive services

*Plains Area Mental Health Center* – mental health services

## Evaluation of Actions Taken Since Last Assessment

After the previous assessment, an Implementation Strategy was developed to address particular needs identified in the assessment. Outlined below is an assessment of the actions taken since the last assessment.

### Access to Health Care

In order to maintain and improve access to care for residents of the area, especially for those without adequate insurance coverage, St Anthony sought to address financial barriers.

#### *The following steps were taken to do so*

- Distributed annually 750 copies of outreach and education materials on the St. Anthony Cares financial assistance program
- Four staff members received certification as certified application counselors to help people in the community sign up in health exchanges.
- Developed and distributed Spanish materials to help non-English speaking population.

As a result of our efforts, and other community partners, the number of uninsured residents in the service area has declined. There has been an increase in the number of applications returned for the St Anthony Cares program. Access to care for limited-English proficient populations was improved the development of Spanish language materials.

### Alcohol and Tobacco Use

St Anthony sought to reduce tobacco use among area adults by taking the following steps.

#### *The following steps were taken to do so*

- Implemented routine screening on tobacco use for all hospital admissions and clinic visits.

- Referrals, as appropriated, made for assistance with tobacco cessation.
- Implemented routine screening on alcohol use for all patients admitted to hospital.

## **Cancer**

St Anthony sought to reduce the death rate from cancer for area residents by improving screening for cancer and cancer treatment.

### *The following steps were taken to do so*

- Created public awareness campaign aimed at cancer screening.
- Provided 1,500 mammograms annually
- Expanded capacity and remodeled radiation oncology department.

## **Chronic Disease Management Programs**

St Anthony sought to expand access to chronic disease management programs and increase the number of area residents maintaining control over their chronic disease, especially for those with chronic obstructive pulmonary disease, diabetes, and heart disease.

### *The following steps were taken to do so*

- Hired Health Coach to help patients navigate system and access appropriate care.
- Designed new space called St. Anthony Chronic Care Clinic that offers diabetes education, wound care and health coaching.
- Implemented Healthy Bodies exercise program for at risk patients.

## **Mental Health**

St Anthony sought to improve access to quality, mental health services that are provided in the most appropriate setting.

### *The following steps were taken to do so*

- Partnered with mental health providers to extend coverage to include additional providers and adolescent care.
- Supported Carroll County Supervisors and area schools' efforts to increase access to mental health in area.

## **Obesity**

St Anthony sought to promote activities to reduce the rate of obesity and increase physical activity for area residents.

### *The following steps were taken to do so*

- Added a Health Coach to develop programming through chronic Care Clinic
- Established diabetes education and healthy bodies exercise program.
- Promoted support group for anyone affected by diabetes, along with families, friends and any others in a supporting role.
- Worked with local employers to promote wellness programs.

## **Prevention Services**

St Anthony sought to reduce the incidence of flu and pneumonia among area residents through increased rates of vaccination.

### ***The following steps were taken to do so***

- Collaborated with Public Health departments to promote and administer vaccines.
- Designed a public education message on the importance of flu vaccine.

## **Unintentional Injury and Motor Vehicle Accident Deaths**

St Anthony sought to reduce the number of deaths among area residents due to injury or accident.

### ***The following steps were taken to do so***

- Continued work to better understand the cause of accidental injuries through analysis of data.

## **Community Education Programming**

Community Education Programming was a component of the many of issues included in the implementation strategy described above. For details on the sessions offered since the last assessment, see Attachment 3.



## Attachment 1: Benchmark Comparisons

Where data were available, indicators in Carroll County were compared to Healthy People 2020 objectives.

Carroll County Data	Healthy People 2020 Objectives
Child health insurance rate 4%	Child Health Insurance Rate 100%
Adult health insurance rate 10%	Adult Health Insurance Rate 100%
Prenatal Care In First Trimester 90%	Prenatal Care In First Trimester 77.9%
Infants Born With Low Birth Weight 5.1%	Infants Born With Low Birth Weight 7.8%
Infant Mortality Rate 0 Per 1,000 Live Births	Infant Mortality Rate 6 Per 1,000 Live Births
Deaths Caused By Unintentional Injuries 37.4 Deaths Per 100,000 People	Deaths Caused By Unintentional Injuries 36.4 Deaths Per 100,000 People
Adults No Leisure Time Activity 25%	Adults No Leisure Time Activity 32.6%
<b>Adults Who Smoke Cigarettes 16%</b>	Adults Who Smoke Cigarettes 12.0%
Adults Binge Drinking During 20%	Adults Binge Drinking During 24.4%.
<b>Adults 65 + Pneumonia Vaccination 77%</b>	Adults 65 + Pneumonia Vaccination 90%
<b>Adult Influenza Vaccine 75%</b>	Adult Influenza Vaccine 90%
<b>Female human papillomavirus (HPV) vaccine for females by age 13 to 15 17%</b>	Female human papillomavirus (HPV) vaccine for females by age 13 to 15 years 80%
Breast Cancer Death Rate of 15.9 Deaths per 100,000 Females	Breast Cancer Death Rate 20.7 Deaths Per 100,000 Females
Prostate Cancer Death Rate 22.4 Deaths Per 100,000 Males	Prostate Cancer Death Rate 21.8 Deaths Per 100,000 Males
Lung Cancer Death Rate 46.9 Deaths Per 100,000 Persons	Lung Cancer Death Rate 45.5 Deaths Per 100,000 Persons
<b>Colorectal Cancer Death Rate 18.8 Deaths Per 100,000 Persons</b>	Colorectal Cancer Death Rate 14.5 Deaths Per 100,000 Persons
Stroke Death Rate 36.8 Deaths Per 100,000 Population	Stroke Death Rate 34.8 Deaths Per 100,000 Population
<b>Heart Disease Death Rate 158.9 Deaths Per 100,000 Population</b>	Heart Disease Death Rate 103.4 Deaths Per 100,000 Population

## Attachment 2: Listing of Key Informants

Name and Organizational Affiliation	Area of Expertise
Cindy Carstens, Chief Operating Officer, Stewart Memorial Community Hospital, Lake City	Public health expertise with focus on Calhoun County
Kim Fineran, BSN RN, Crawford County Home Health, Hospice & Public Health, Denison	Public health expertise with focus on Crawford County
Jim Greteman, Board Member, Community Foundation of Carroll County and St Anthony Foundation	Health needs of area residents
Eric Hammer, Vice President for Networking, St Anthony Regional Hospital	Health service and medical staffing needs for service area
Christy Jenkins, Prevention/Mentoring Director, New Opportunities, Carroll	Health needs of low income residents in service area
Leo Kanne, United Food and Commercial Workers Union Local 440, Denison	Health insurance cost and coverage issues for diverse union membership from service area
Paula Klocke, Health Services Director, New Opportunities, Carroll	Health needs of low income residents in service area
John Munson, Vice President/Chief Financial Officer, St Anthony Regional Hospital	Health service and medical staffing needs for service area
Lynette Ludwig, BSN RN, Crawford County Home Health, Hospice & Public Health, Denison	Public health expertise with focus on Crawford County
Linda Paulson, Information and Referral Specialist, Elderbridge Agency on Aging, Carroll	Health and social needs of the elderly in service area
Marcia Schaefer, RN, Director, Home Health, Hospice, and Public Health Carroll County Public Health, Carroll	Public health and home health expertise with focus on Carroll County
Patrick Schmitz, LMHC, Executive Director, Plains Area Mental Health Center, Le Mars	Mental health needs of residents in service area
Marie Sharon, Behavioral Health Director, New Opportunities, Carroll	Health needs of low income residents in service area
Edward Smith, Jr., President and CEO, St Anthony Regional Hospital	Health service and medical staffing needs for service area
Karen Timm, Vice President for Patient Services, St Anthony Regional Hospital	Healthcare needs of service area residents
Barbara Toohey, Director of Quality Management, St Anthony Regional Hospital	Clinical care and quality
Julie Towne, RN, Public Health Clinical Coordinator, Home Health, Hospice, and Public Health Carroll County Public Health, Carroll	Public health and home health expertise with focus on Carroll County
Virginia Tuel, RN, Allied Health Services Director, New Hope, Carroll	Healthcare needs of individuals with disabilities
Holly Warner, Financial Assistance, St Anthony Regional Hospital	Financial needs of low income residents of service area
Becky Wolf, Public Health Director, Greene County Public Health Department, Jefferson	Public health expertise with focus on Greene County

### **Attachment 3: St. Anthony Sponsored Community Programs 2014 -2016**

***Managing Diabetes*** presented by Mark Collison, M.D., Deb Dieter, RN, CDE, and Addie Sparks, RLD, in January 2014. The program focused on managing diabetes and diet.

***Women's Heart Health*** presented by Kyle Ulveling, M.D., and Anita Schrad, RN to celebrated National Heart Health month, in February 2014.

***No Symptoms Required*** presented by Josh Smith, D.O., Dianna Wiese and Jeanna Jones, in March 2014. The topic was diagnosis and treatment of colon cancer.

***Pain Management*** presented by Greg Perkins, M.D. and Drue Chandler, CRNA, in April 2014. The topic was treatments to manage chronic pain.

***Anatomy of a Bicycle*** presented by Mark Collison, M.D., on June 18, 2014 at the Carroll Chamber of Commerce

***Girls Night Out*** presented by Tina Flores-Schechinger, M.D. and Hope Jensen, ARNP, on August 6, 2014, at the Santa Maria Winery. The program focused on women's health issues.

***Advance Care Planning Conversations*** presented by Norma Hirsch on September 30, 2014, at St. Anthony Regional Hospital. The topic focused on the importance of having advanced directives in place to help families deal with traumatic health situations.

***My Heart is Fluttering, Is it Love, or Should I See My Doctor,*** presented March 5, 2015. This program focused on abnormal and irregular heart rhythms, when to seek medical attention for symptoms, and treatment options. Featured speaker was Suzy Feigofsky, M.D.

***Making the Most of a Healthy Heart*** presented March 12, 2015. This program focused on maintaining a healthy lifestyle to support good cardiac function. Kyle Ulveling, M.D., and Deb Adams, ARNP, from the St. Anthony Chronic Care Clinic presented.

***Cancer: The Emperor of All Maladies,*** by Ken Burns, presented by Iowa Public Television. St. Anthony hosted a community screening of the IPT documentary followed by a panel discussion on March 19, 2015.

***Change 4 Life- Eat Well, Move More, Live Longer*** presented April 9, 2015. This program focused on maintaining a healthy lifestyle and good health. Mark Collison, M.D. was the presenter.

***Feeding Your Young Child*** was presented by Susan Tegatz, M.D., on September 23, 2015. The program focused on eating guidelines for children from infancy.

***Healthy Active Children,*** presented on October 14, 2015. This program offered a practical guide for healthy active living for families, along with tips to better nutrition and fitness. Featured speakers for the event included Tina Flores Schechinger MD, Family Medicine Physician, Krista Heuton, LD, RD, Dietitian, and Steve Schable, ACT/L, Exercise Specialist.

*Talking about Men's Health – Not for Men Only!* presented November 4, 2015. This program provided a practical guide for general check-up and screening guidelines for men of all ages, along with a discussion of common concerns related to prostate health. Featured speakers were Mark Collison MD, Internal Medicine Specialist, and Richard Sazama, Urologist.

*Hot Hot Hot* presented by Hope Jensen, ARNP, Certified Menopause Educator, on February 16, 2016. The topic was women's health and issues caused by menopause such as hot flashes.

*Hold it Sister* presented by Maria Hernandez, M.D. and focused on women's urinary incontinence.

2016

## **Attachment 4: About Community Health Advisors, LLC**

St Anthony Regional Hospital and Nursing Home contracted with Community Health Advisors, LLC (CHA) for assistance with this assessment. Community Health Advisors provides customized service to hospitals and other health care providers seeking to improve community health. Specializing in assisting non-profit hospitals in their community health needs assessments, health improvement efforts and community benefit programming, CHA works with clients to ensure compliance with Section 501(r) regulatory requirements.

Community Health Advisors was established in Massachusetts in 2012 by Mark Rukavina. Mr. Rukavina has more than two decades of experience working in the non-profit health care sector, including directing a national, non-profit, research and advocacy organization and managing a hospital-based, community health demonstration program sponsored by the American Hospital Association's Health Research and Educational Trust. He holds an MBA from Babson College and a BS from the University of Massachusetts in Amherst.

Community Health Advisors contracted with Gary Bess Associates (GBA) for analysis of inpatient and outpatient hospital discharge records. Warren Jensen at GBA analyzed the data to identify ambulatory care sensitive conditions being treated at St. Anthony Regional Hospital.