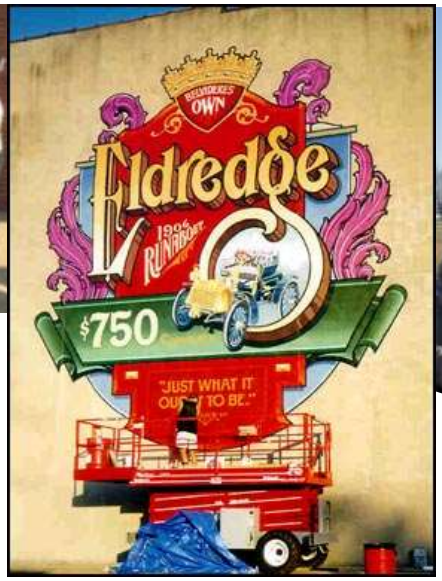
Boone County
Community Health Status Assessment
2017-2018









Public Health
Prevent. Promote. Protect.
Boone County
Health Department



Build Our Best Boone

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Overview

Introduction The Community Health Status Assessment (CHSA) is one of four assessments conducted as a part of the Mobilizing for Action through Planning and Partnerships (MAPP) process. In the MAPP graphic below, the six phases of the MAPP process are shown in the center of the model, while the four MAPP Assessments—the key content areas that drive the process—are shown in four outer arrows.



Figure 1: https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/community-health-assessment/mapp

During this assessment, information regarding demographics, health status, health behaviors and social determinants in the community is gathered and analyzed. Data is collected from a variety of resources and analyzed comparing local, state and national benchmarks when available. This assessment is conducted to meet the Health Department's Illinois Department of Public Health IPLAN (Illinois Project for Local Assessment of Needs) requirement every five years.

The Community Health Status Assessment (CHSA) answers the question, "How healthy is our community?" and "What does the health status of our community look like?" The results of the CHSA provide the MAPP Committee with an understanding of the community's health status and ensure that the community's priorities include specific health status issues (e.g., high lung cancer rates or low immunization rates).

The graphic below tells the story of public health. Health defined as more than just not being sick, includes behaviors, community and physical environment which encompasses the built

environment, government policies and practices, and lastly, clinical care. All share equally in the resulting health outcomes.

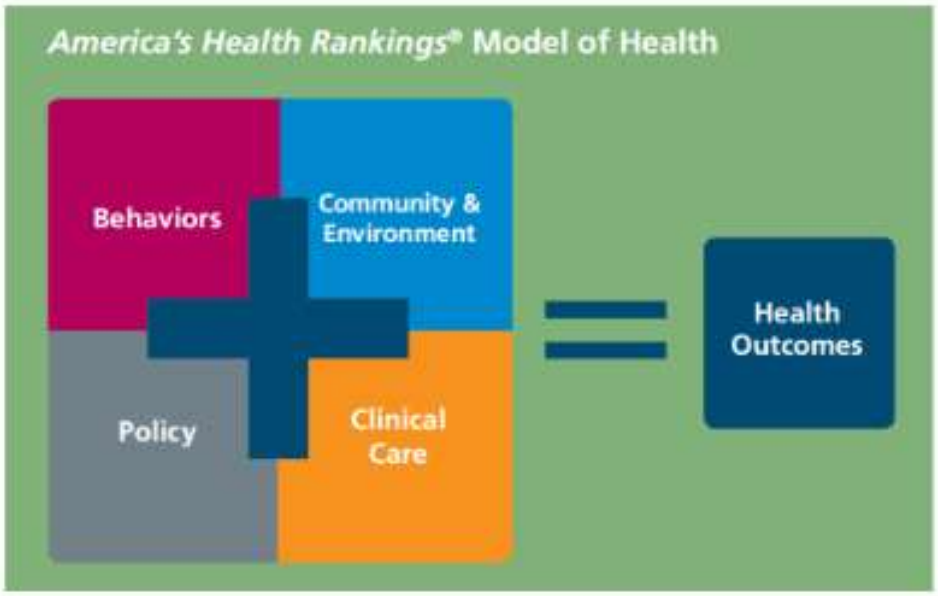


Figure 2: https://www.americashealthrankings.org

Indicators include population distribution by age and race or ethnicity; education level achieved, proportion of children living below the poverty line, number of single-parent families, causes of death and infant mortality. It also looks at health behaviors such as number of adults who are obese, the number of smokers and healthcare spending. Last but not least, it looks at the community's perception of its quality of life.

Core Indicators

The MAPP process recommends and identifies health indicators in the following categories for conducting the CHSA (definitions are provided at the beginning of each section):

- Demographics
- Socioeconomics
- Health Status Indicators
- Health Perception/Quality of Life
- Healthcare Delivery
- Environmental Factors
- Sentinel Events

A variety of existing (secondary) data sources were used to develop this report. Data for Boone County were obtained from the following sources (specific citations are included with the graphs and tables throughout this report):

- Behavioral Risk Factor Surveillance System (BRFSS)
- Centers for Disease Control & Prevention
- Community Commons
- Illinois Department of Children and Family Services
- Illinois Department of Public Health
- Illinois State Police
- Illinois Youth Survey
- National Cancer Institute, State Cancer Profiles
- US Census Bureau, American Community Survey
- US Department of Agriculture, Economic Research Service
- US Department of Health & Human Services, Health Resources and Services Administration (HRSA)
- US Department of Labor, Bureau of Labor Statistics
- American Health Rankings
- US Census Bureau, American Factfinder
- Illinois Department of Commerce and Economic Opportunity (ILDCEO)
- DataUSA
- Federal Reserve Bank of St. Louis
- SwedishAmerican Hospital
- Mercy Health System
- County health rankings, a project of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health
- Voices4Kids
- Institute for Health Metrics and Evaluation
- Illlinois Department of Transportation
- R-1 Planning
- Boone County Comprehensive Plan
- Boone County Conservation District
- Federal Bureau of Investigation

Even though this assessment is comprehensive, it cannot measure all health aspects in the community or adequately represent all populations. As for the content, this report was designed to provide a broad overview of the overall health of Boone County. However, there are a number of medical conditions that are not specifically addressed and medical information we were not able to access due to many major medical conditions being treated in neighboring counties.

Methodology

State and County level data from public sources were used. Not all of these data sources break out data at the city, zip code or census tract levels. In addition, some data sources may not be as current or complete as others. The MAPP process began in early 2017, with the study of assessments and assessment tools by a Public Health Advisor from the Centers for Disease Control and Prevention who was stationed at the Boone County Health Department. The data was collected and summarized and eventually compiled into a report which will be made available on the Boone County Health Department website.

I. Demographic and Socioeconomic Indicators

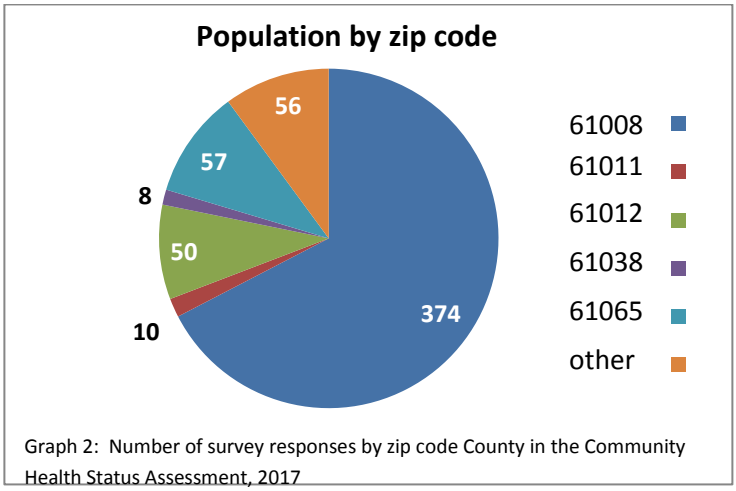
Population



Graph 1: Boone County, IL population change. DataUSA

The county covers an area of 280.72 square miles, 2/3rds of which are rural with less than 20% of the population considered as living in rural areas. As you can see in graph 1, Boone County's population has more than doubled since 1970. According to the U.S. Census Bureau (as cited in 2015), Boone County's population estimate for 2016 was 53,503, 1.2% less than 2010 and 128% more than in 2000. The population of males to females is almost evenly distributed throughout the county.

When considering Belvidere, alone, the population in 2014 was 25,282, or nearly half of Boone County. Belvidere had also seen a 21.4% increase in its population since 2000. Most of the 61008 zip code is comprised of Belvidere. Graph 2 demonstrates the zip code composition of our survey responses. Table 2 represents the population change by community or township from 2000-2010.



Graph 2: Number of survey responses by zip code County in the Community Health Status Assessment, 2017

Boone County Community Populations 2000-2010

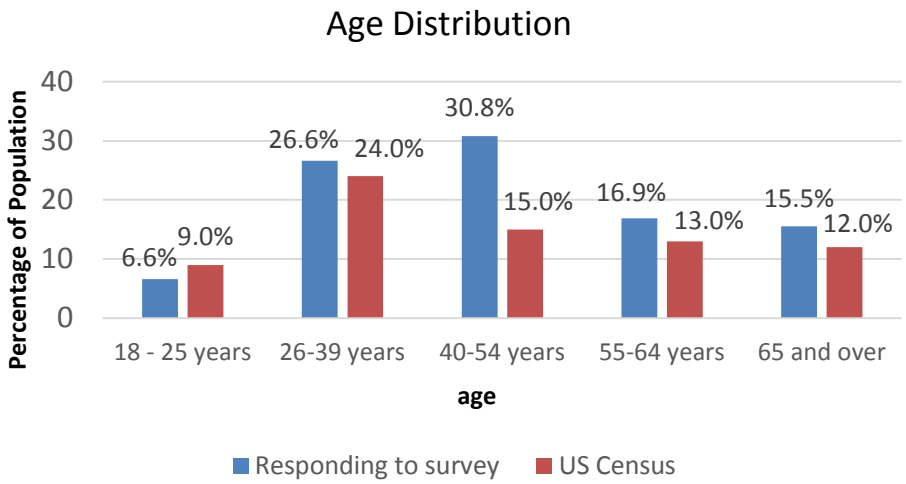
Area	2000	2010
Boone County	**41,786**	**54,165***
Community		
Belvidere City	20,820	25,585
Caledonia Village	199	197
Capron Village	961	1,376
Poplar Grove Village	1,368	5,023
Timberlane Village	234	934
Balance of Boone County	18,150	21,050

Township		
Belvidere Township	25,212	30,109
Bonus Township	2,662	4,340
Boone Township	1,671	1,968
Caledonia Township	4,416	7,439
Flora Township	2,175	2,981
LeRoy Township	542	485
Manchester Township	931	895
Poplar Grove Township	3,176	5,054
Spring Township	1,001	894

Table 1: Boone County by township and village. US Census American Factfinder.

The population breakdown by age is demonstrated in the graph below (Graph 3), comparing census data (red bars) against those responding to the survey (blue bars). In many categories, BCHD was able to closely capture a representative number.

*Please note that there is a five year difference between the population given in Table 2 and the population in Graph 1.



Graph 3: Age of Population of Boone County in 2012. Source: SwedishAmerican and factfinder2.gov.

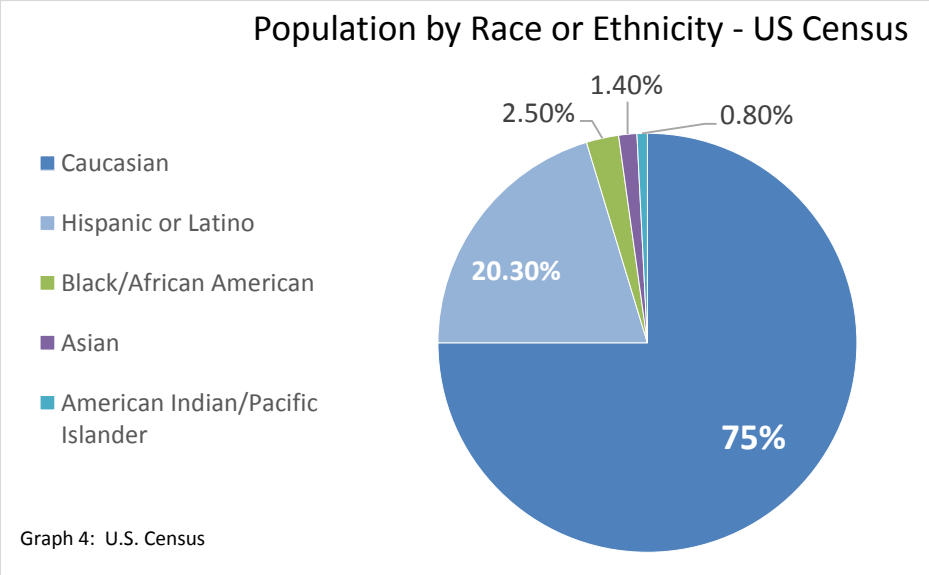
Table 2 below offers projections of growth in the over 65 population during the next decade and beyond.

Projected 65 and Older Population

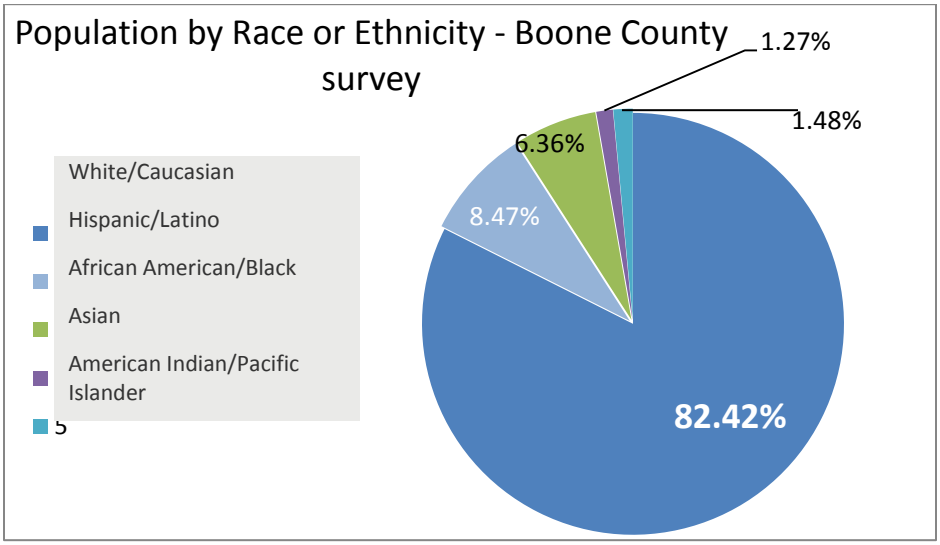
	2000	2005	2010	2015	2020	2025	2030
State of Illinois	12%	12%	12%	14%	15%	17%	19%
Cook County	12%	12%	12%	13%	14%	16%	18%
Boone County	11%	11%	13%	15%	17%	19%	22%
Ogle County	13%	14%	15%	17%	19%	21%	23%
Winnebago County	13%	13%	13%	15%	16%	18%	19%

Table 2: Provided by Illinois Department of Commerce and Economic Opportunity. www.ildceo.net

Population by race or ethnicity according to the U.S. Census is demonstrated in Graph 4. Graph 5 represents the ethnic composition of our survey respondents.



Graph 4: U.S. Census



Graph 5: Ethnic mix of survey respondents County in the Community Health Status Assessment, 2017

Projected Hispanic Population

	2000	2005	2010	2016	2021	2026	2031
State of Illinois	12%	13%	14%	18%	21%	23%	25%
Cook County	20%	22%	24%	27%	31%	34%	37%
Boone County	**12%**	**13%**	**20%**	**23%**	**26%**	**29%**	**32%**
Winnebago County	**7%**	**7%**	**11%**	**12%**	**14%**	**16%**	**19%**

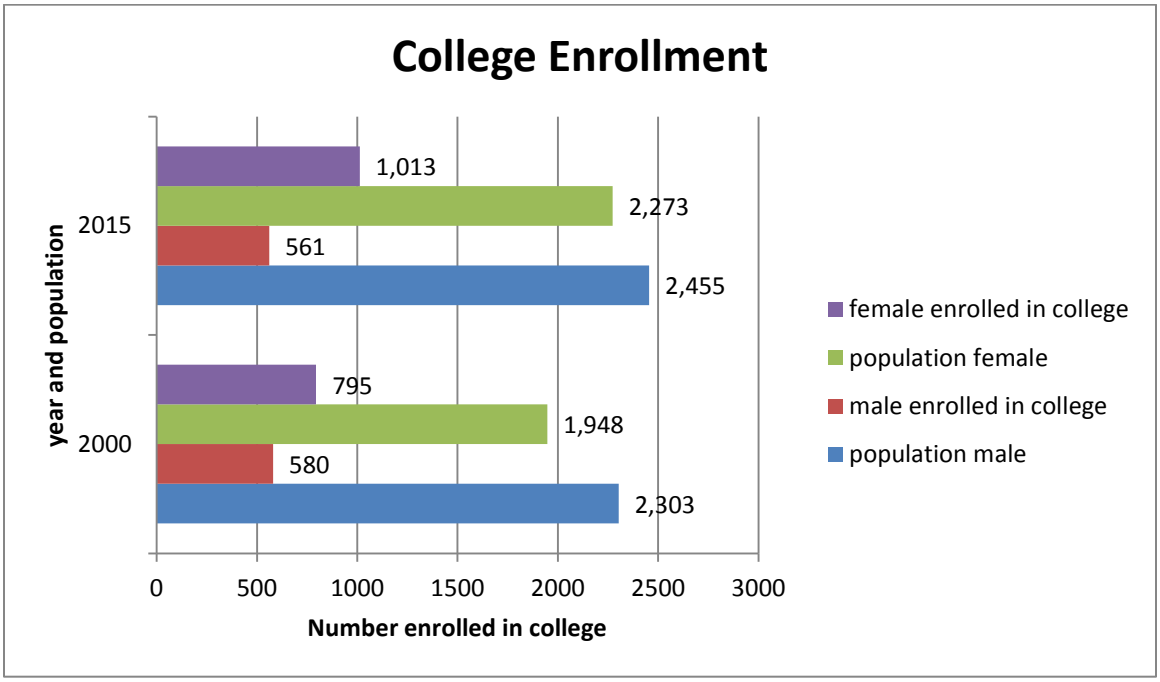
Table 3: Projected Hispanic population. www.ildceo.net

As shown in Table 3, the Hispanic population is projected to continue to grow in Boone and surrounding counties. Though Boone County is believed to be about 20% Hispanic/Latino, it has been estimated that Belvidere, the largest city in Boone County, is 30-33% Hispanic/Latino. Of the 20% +/- individuals how compose the Hispanic/Latino population in Boone County, approximately one-half were born outside of the U.S.

Education

Educational attainment is important to consider when looking at income and health. Studies have proven that education often leads to better paying jobs as well as improved life skills. Those with less education often have fewer resources and incur higher levels of stress, which we know has a negative effect on overall health, and often results in unhealthy behaviors.

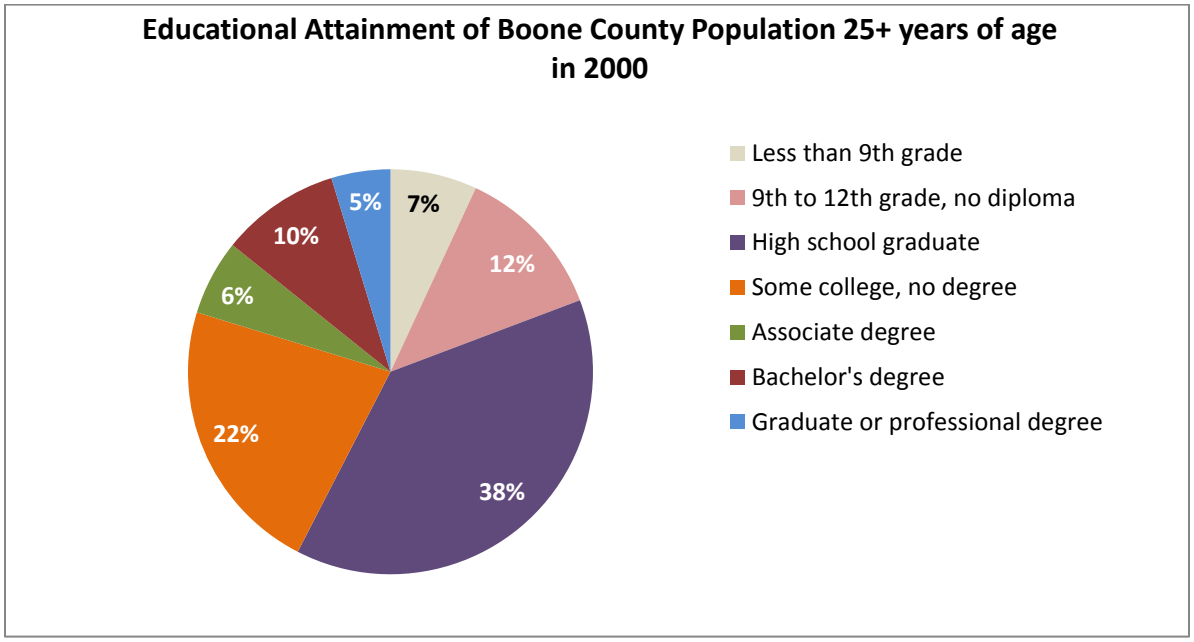
Graph 6 shows the population of Boone County, ages 18-24, by gender and college or graduate school enrollment. Between the years 2009 and 2015, Boone County saw a 27% increase in college enrollment among females and 3.2% drop among males.



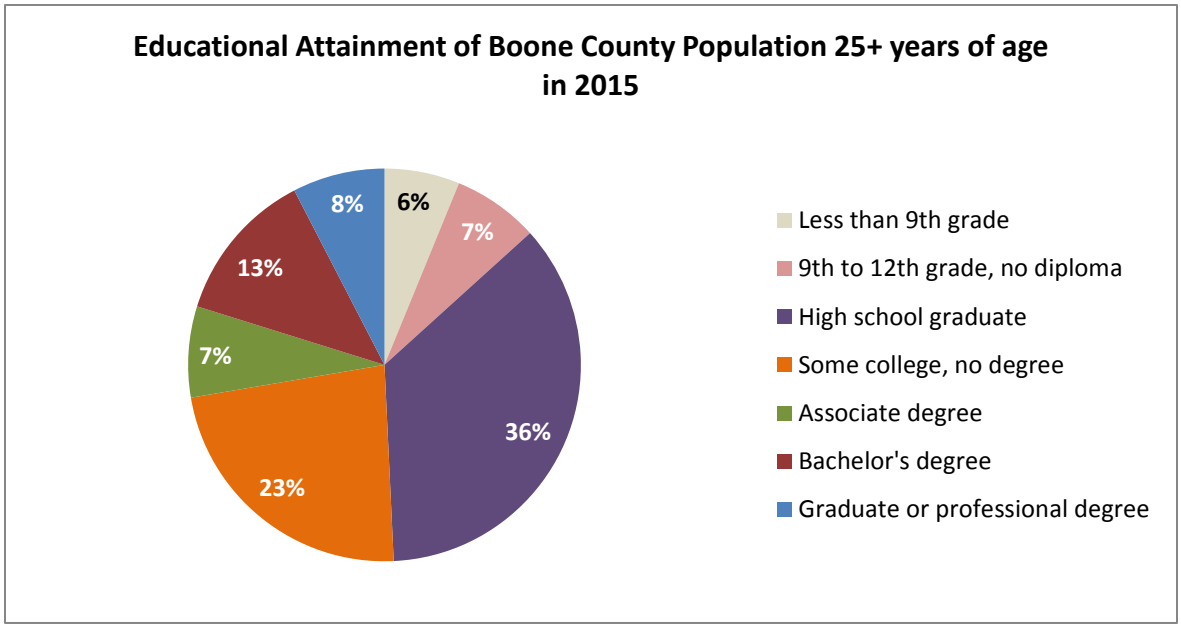
Graph 6: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

Graph 7 and 8 demonstrate the differences in the educational attainment of Boone's population between 2000 and 2015. We see slight increases in those who have entered and completed four years of college, and a 3% increase in those who have gone on to pursue graduate or professional degrees. At the same time, there was a reduction in the number terminating their education before high school graduation.

Among those answering our survey, only 70% chose to answer the question regarding educational attainment. The numbers in Graph 9 represent the numbers responding to each category. Graph 10 shows the considerable disparity in educational attainment between Boone County's Hispanic/Latino population and the non-Hispanic and Latino population. The only areas close to equal are in completion of technical and trade school.

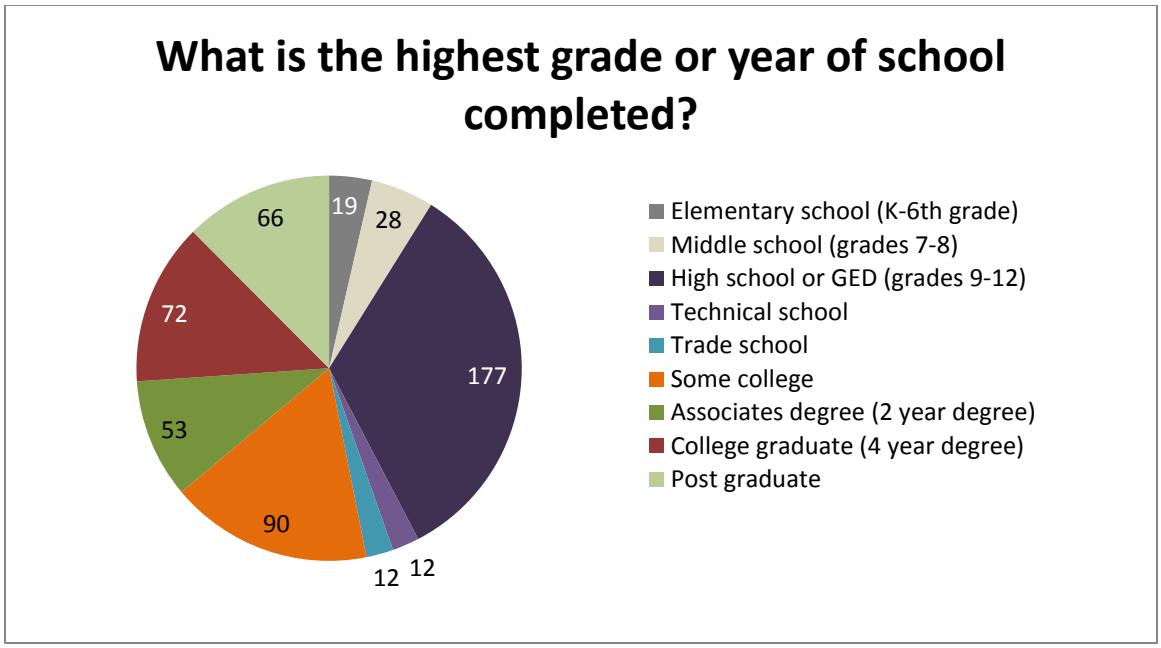


Graph 7: Educational Attainment of Boone County Population 25+ years of age in 2000

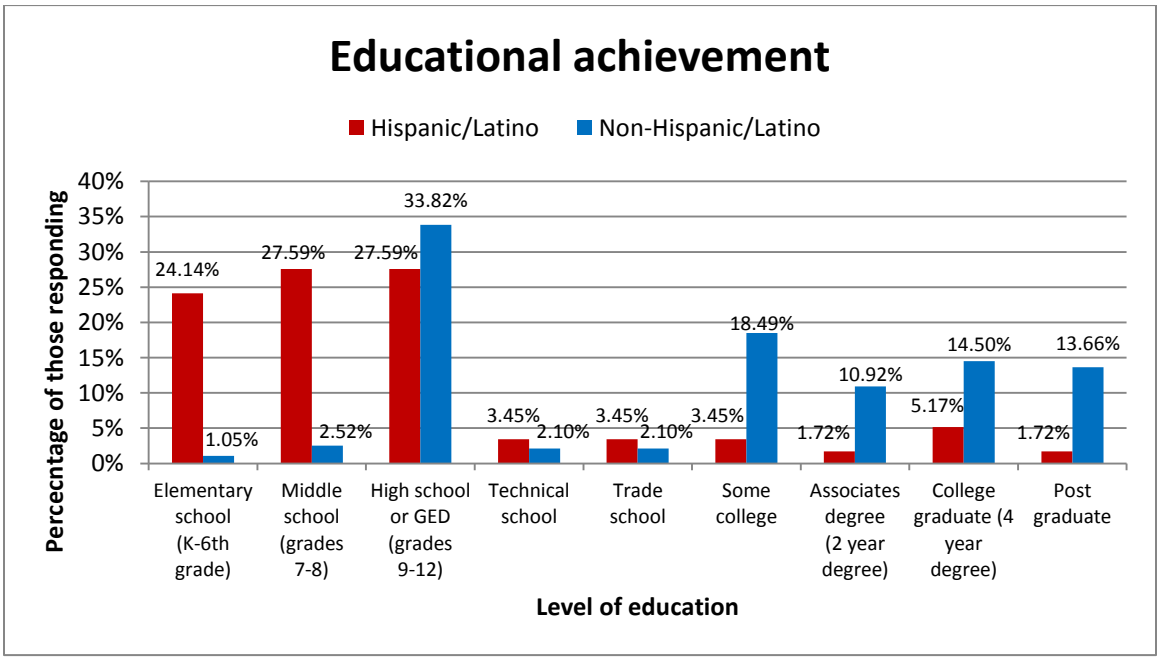


Graph 8: Educational Attainment of Boone County Population 25+ years of age in 2015

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk



Graph 9: Educational Attainment by all survey respondents to Community Health Status Survey



Graph 10: Educational Attainment by survey respondents by percent of those responding to Community Health Survey

Employment

Employment has been growing by about 1.5% per year over recent years. The figures below illustrate the industry distribution of most common jobs and occupations.



Figure 2: Source: https://datausa.io/profile/geo/boone-county-il/#economy

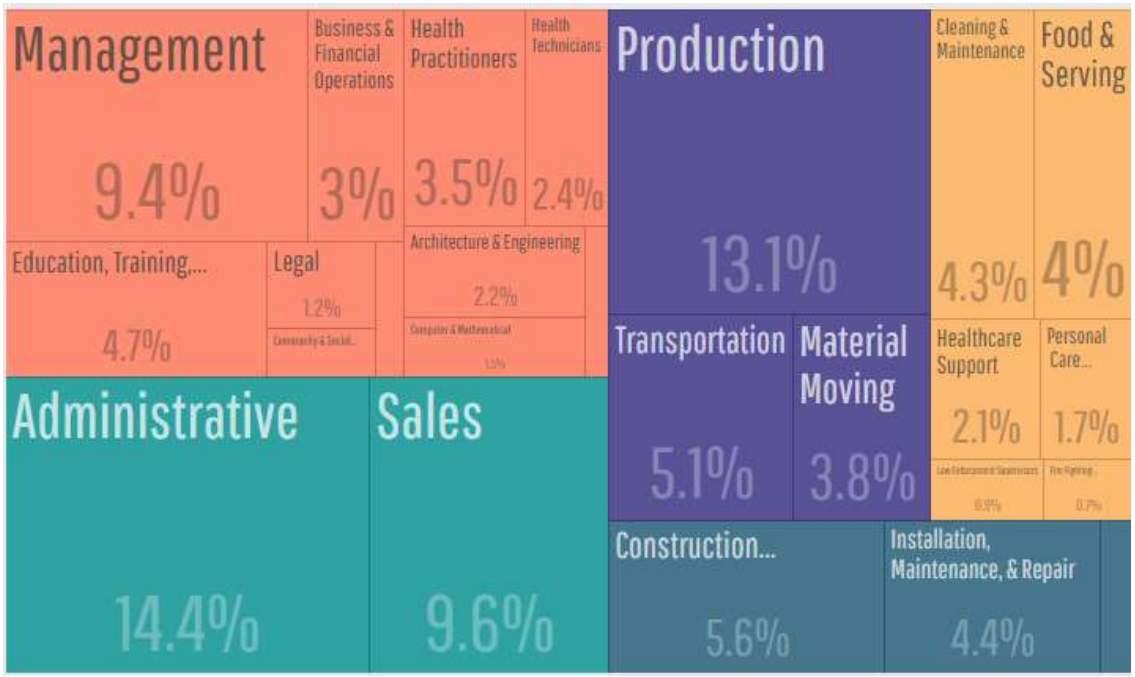
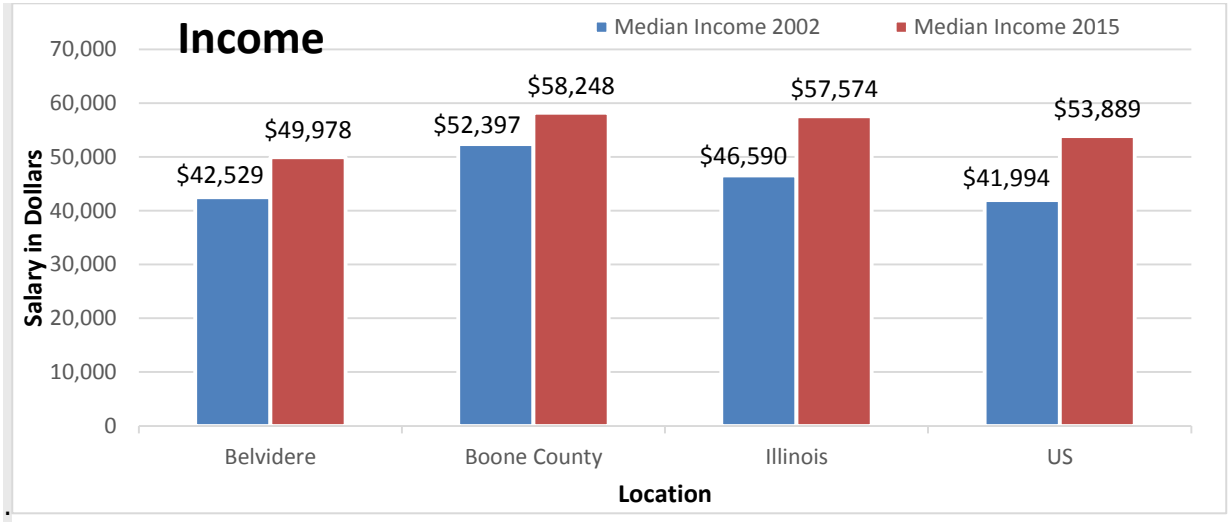


Figure 3: Source: https://datausa.io/profile/geo/boone-county-il/#economy

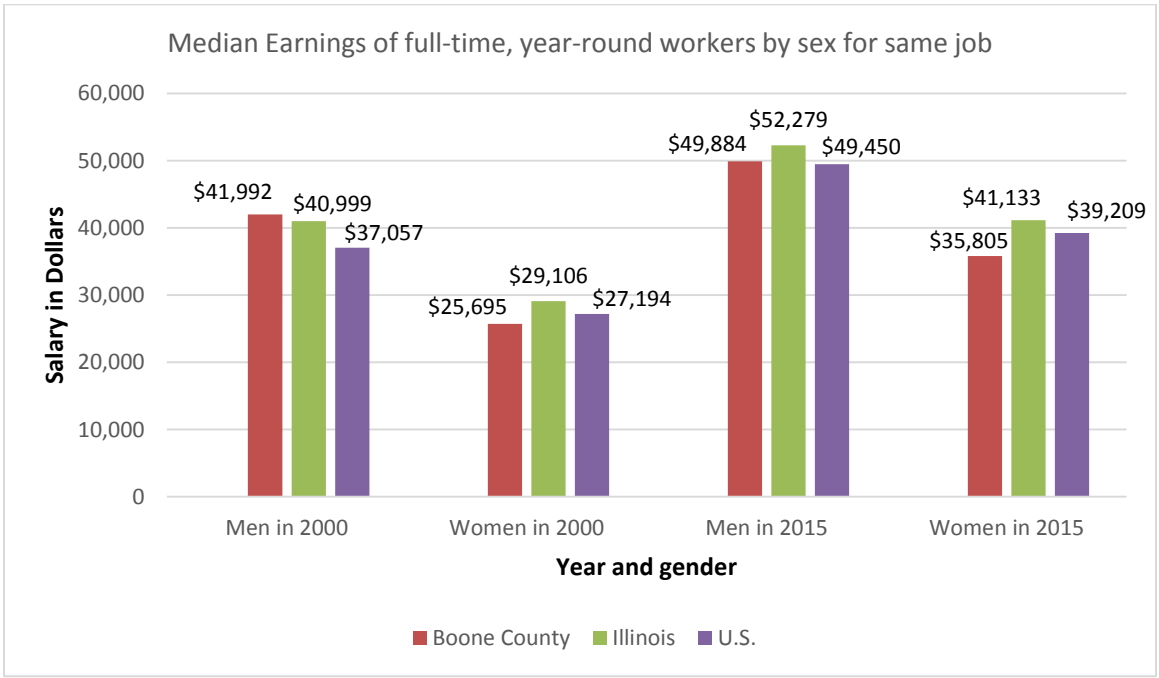
Income

Households in Boone County, IL, had a median income of $58,248 in 2015. However, that number dropped to $49,978 in Belvidere. Median income for the entire state of Illinois was $57,574, while in the U.S. in 2015, median income was $53,889.



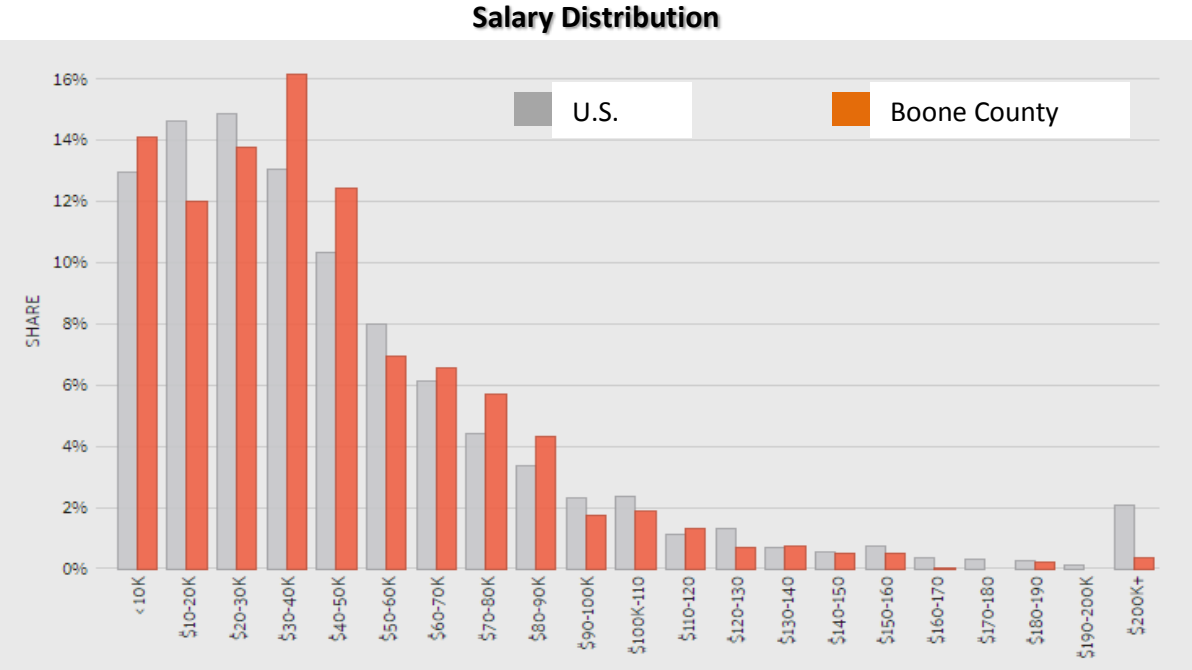
Graph 11: Median Income 2002 and 2015. Source: US Census 2000 and 2015.
https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

In 2015, male full-time employees in Boone County earned an average salary of $49,884, 1.3 times more than women who were full time workers making only $35,805 for the same job.

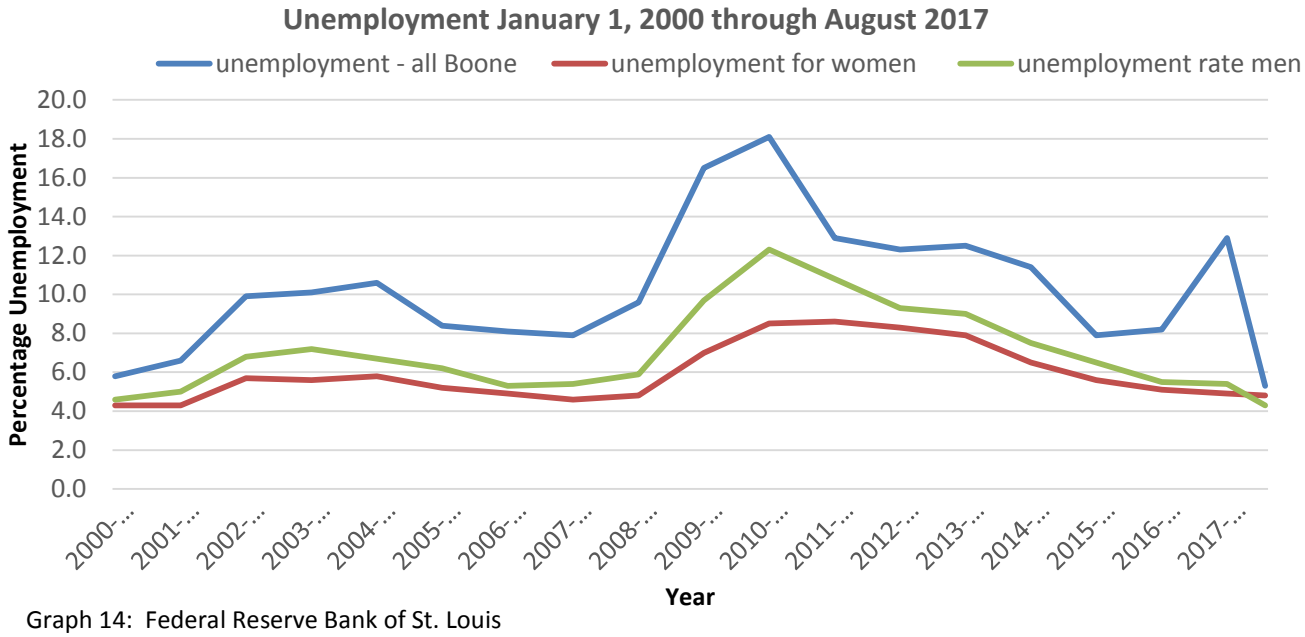


Graph 12: Earnings disparities. Source: US Census 2000 and 2015.
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

The chart below shows the overall salary distribution for Boone County in 2015. The left axis measures the percentage of the population falling in each income category while the horizontal axis below gives the salary distribution. This chart indicates that 14% of Boone County's population earns less than $10,000 per year versus the US average which is about 13%, indicated by the grey bar. Conversely 2% of the US population earns between $100,000 and $110,000 annually while Boone County appears to be close to .05%.



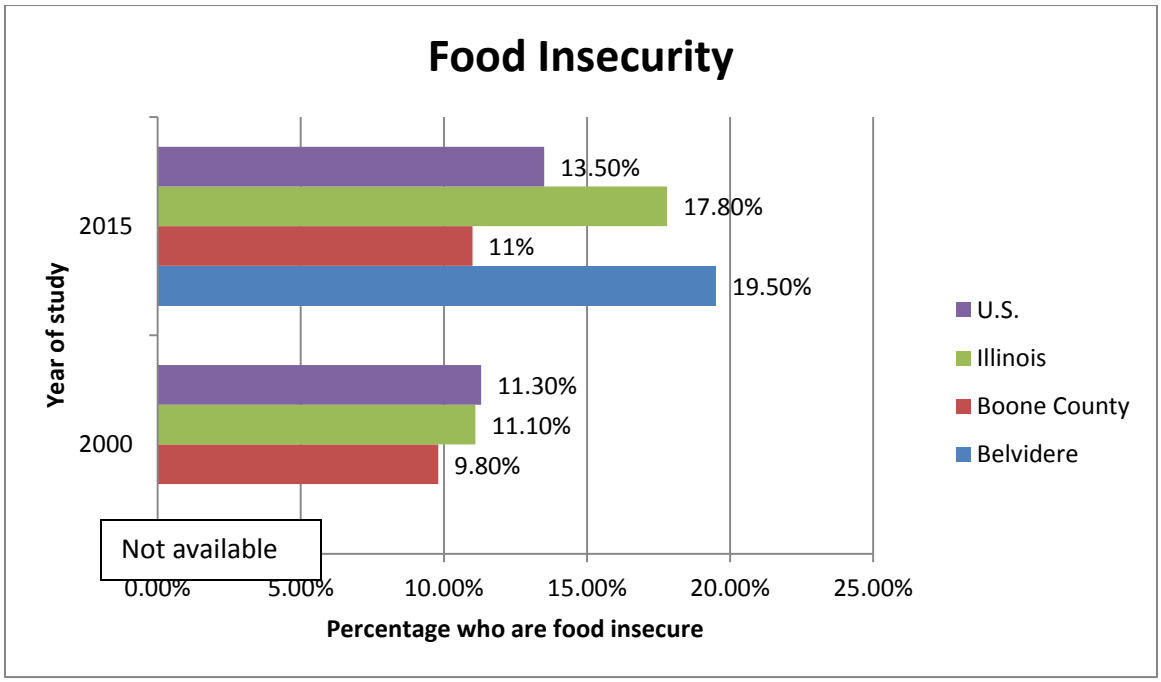
Graph 13, Salary distribution. Source: https://datausa.io/profile/geo/boone-county-il/#economy



Graph 14: Federal Reserve Bank of St. Louis

Poverty

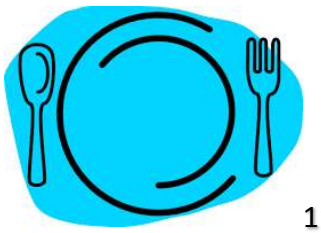
According to the 2014 Racism Report on Illinois Poverty, the overall poverty rate in Boone County is 10.9%, with 22.8% of Boone County's children living in poverty and 31.5% of families are dependent on Supplemental Nutrition Assistance Program (SNAP) or other public benefits. Additionally, in 2014, 43% of Belvidere students were on the Free and Reduced Lunch Program increasing to 57% by 2016. The study also shows that 11% of Boone County residents are food insecure with 21.2% of children being food insecure.



Graph 15: Source: US Census 2000 and 2015



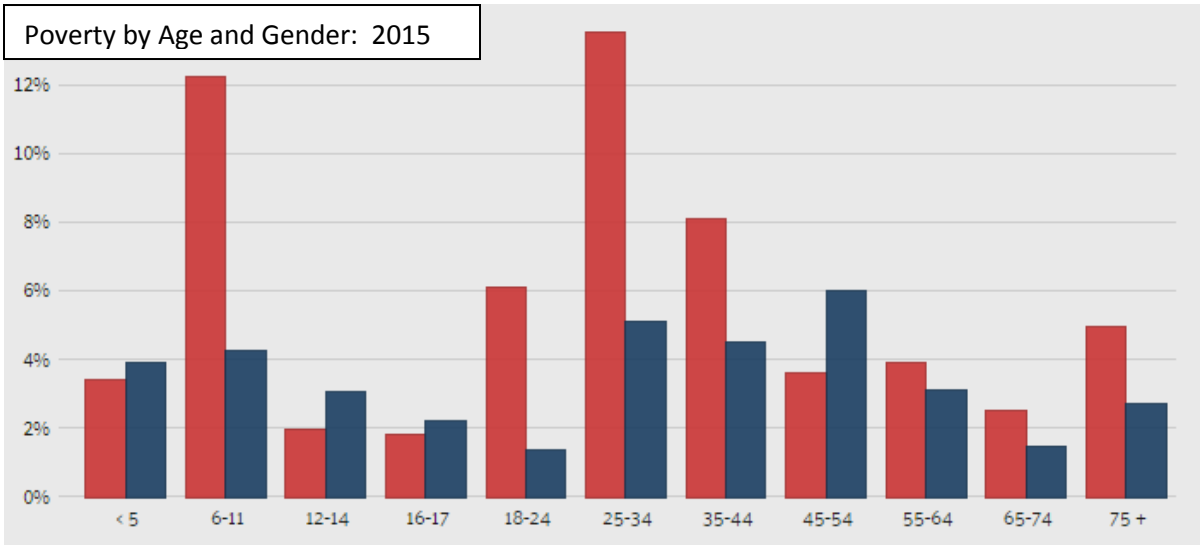
31.5% of families are dependent on SNAP benefits



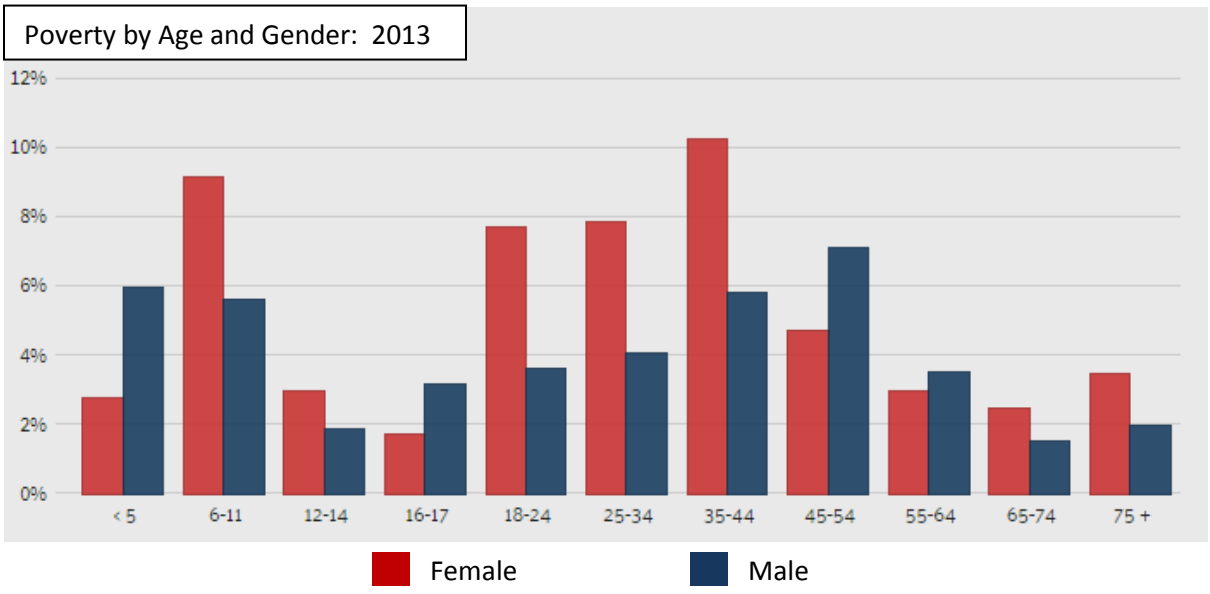
11% of families in Boone County are Food Insecure

Poverty by Age and Gender

Boone County's poverty level is lower than the national average, however the largest group living in poverty is females, between the ages of 25 and 34, followed by females 6-11 years and females aged 35 to 44. The following graphs represent a percentage change in poverty level with a minor separation of two years, 2013-2015.



Graph 16: Source: https://datausa.io/profile/geo/boone-county-il/#economy

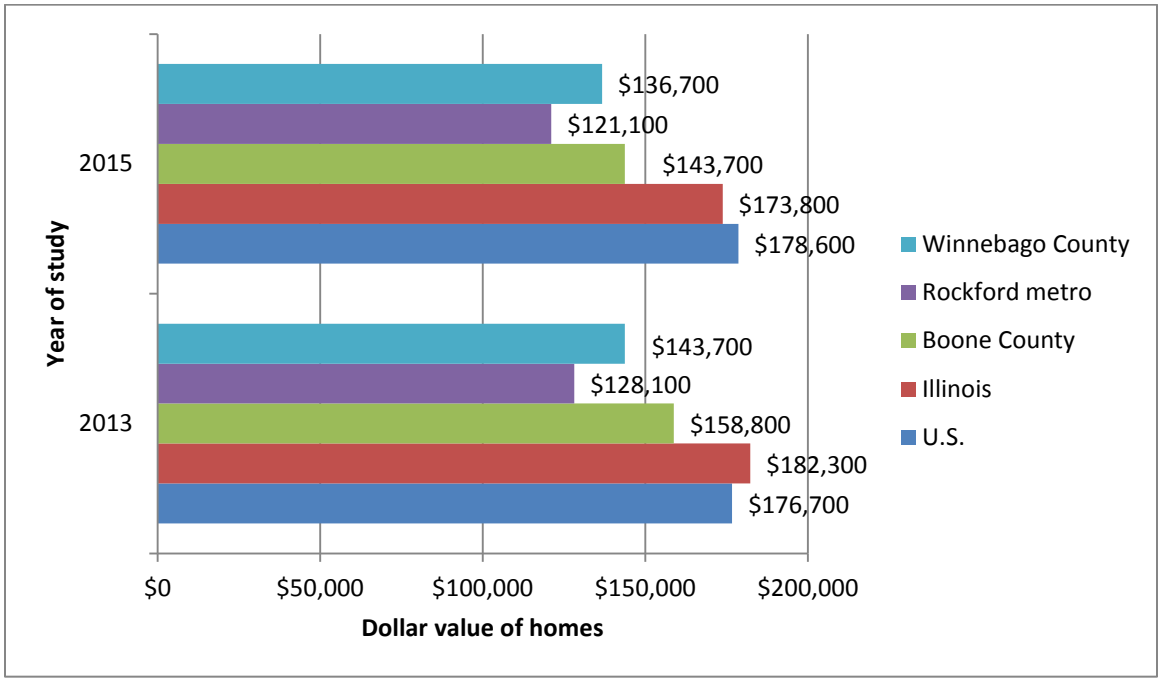


Graph 17: Source: https://datausa.io/profile/geo/boone-county-il/#economy

Housing

Housing prices are often a reflection of a community's livability. Beyond price, a home's value is affected by the neighborhood, availability of transportation, recreation, and shopping. The environment in which is the home is located, i.e. proximity to factories or plants vs. greenspace, closeness of schools, playgrounds and schools, and many other characteristics that the potential home-buyer finds attractive have an influence on prices as well.

The chart below looks at median property value in Boone County vs. surrounding areas, Illinois and the US in 2013 and 2015.

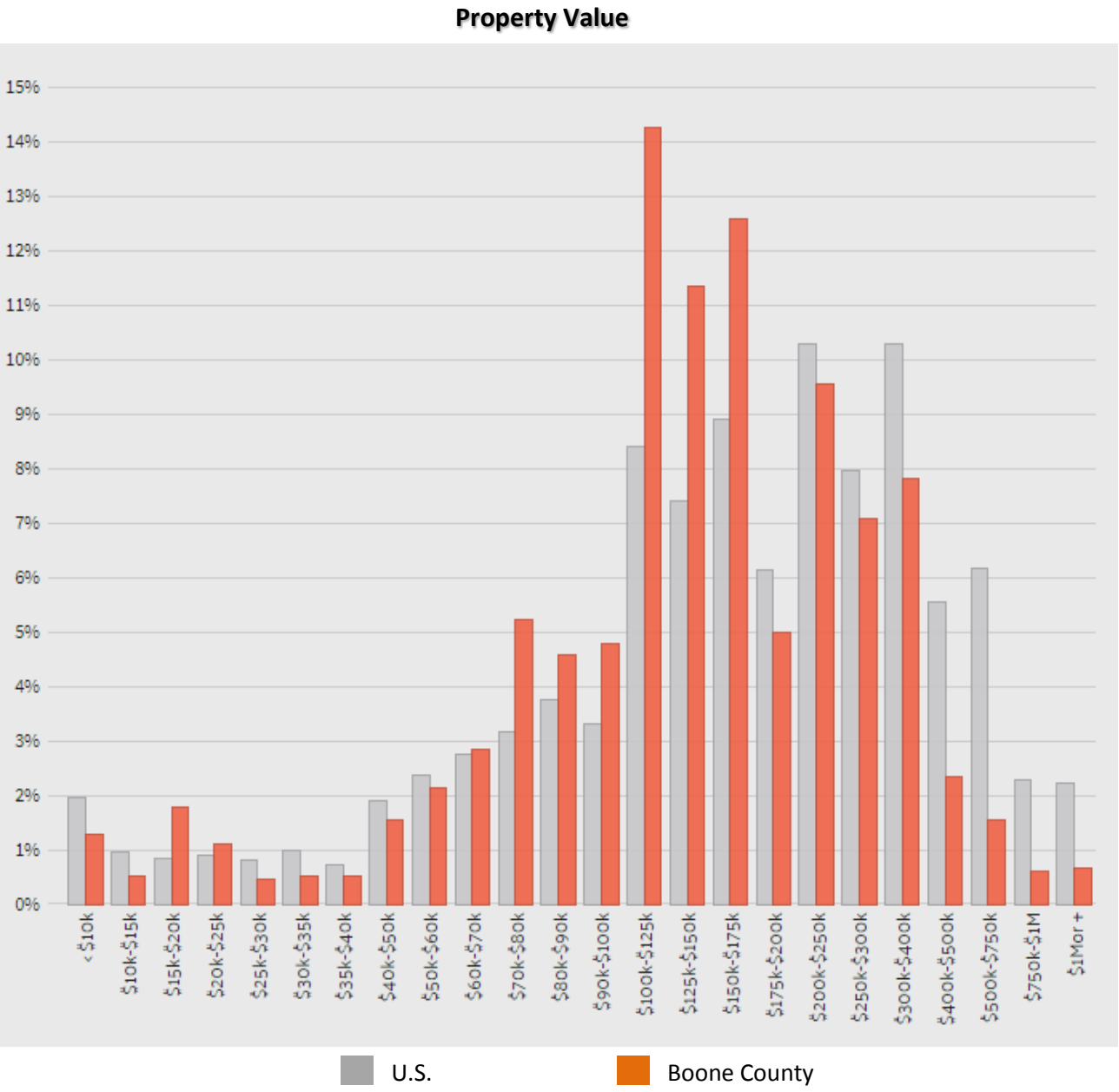


Graph 18: Source: Dataset: ACS 5-year estimate; source: Census Bureau. Accessed at https://datausa.io/profile/geo/boone-county-il/#housing;

A recent CDC report on the social and structural determinants of health included a measure for housing stress. Housing stress is defined as 'housing that is available at a cost which causes substantial hardship to the occupants.' In Boone County, the estimate of those stressed by housing concerns is 36.1%. The national median is 28.1%. In a recent survey, nearly half of those surveyed said they were sometimes stressed about not having enough to pay their rent or mortgage.

Below is a display of property values in Boone County (in orange) as compared with the US median property value (in grey) in 2015. The vertical axis displays the percentage of the homes in each category, i.e. more than 14% of Boone County's homes are valued between $100,000

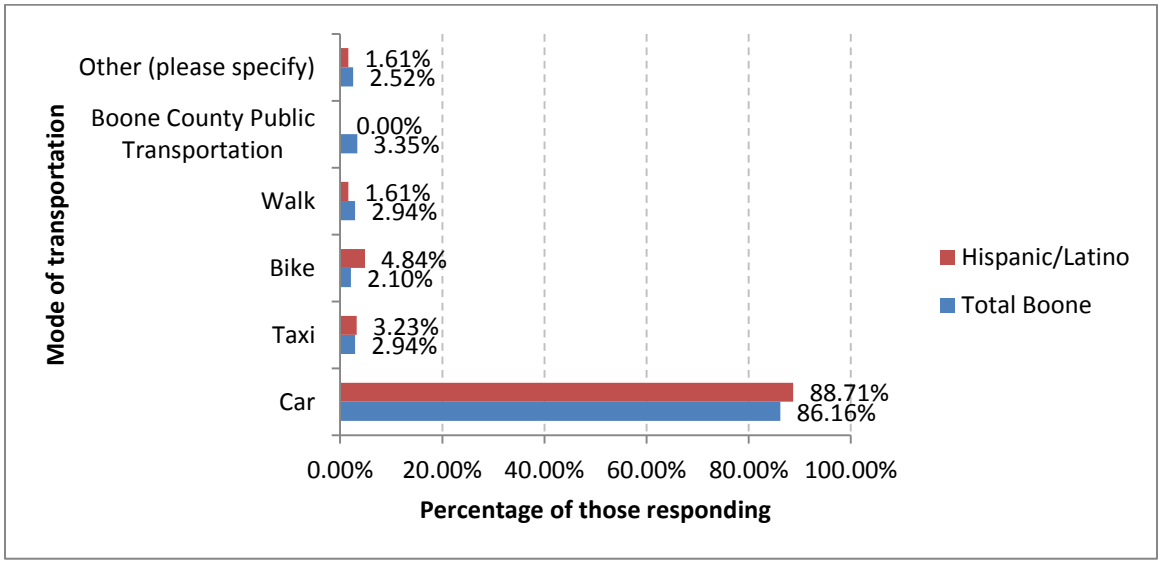
and $125,000. Please note that there are as many properties valued at $15,000 or below as properties valued between $500,000 and $750,000.



Graph 19: Source: Dataset: ACS 5-year estimate; source: Census Bureau. Accessed at https://datausa.io/profile/geo/boone-county-il/#housing;

Transportation

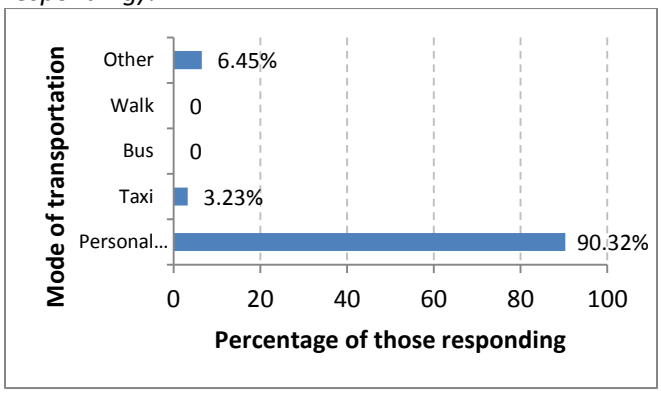
How do you get to work, shopping, and appointments (in percent of those responding)?



Graph 20: forms of transportation available

Questions asked of BCHD clients to list the following modes of transportation:

How did you get to BCHD today (in percent of those responding)?



Graph 21: transportation utilized

If a taxi is taken to the health department, reported fare is in excess of $7.00. Taxi and personal auto are the modes of transportation used for all shopping, 67% of the time at a cost in excess of $7.00.

When asked if they ever used the bus, 100% of health department survey respondents said NO. For those who did not use the bus, the reasons most often given were that they did not speak Spanish and it was not convenient.

II. Health Status Indicators:

County Health Rankings 2018

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute published their first *County Health Rankings* in February 2010. In that first ranking, Boone ranked #29 in Health Outcomes. The table below indicates a ranking of 14 – a sizeable improvement from 2010. Boone has seen more than a ten point (favorable) increase in health behaviors, due more to unfavorable increases in other parts of Illinois than the adoption of healthy behaviors in Boone County. Boone has also lost a few points in its access to clinical care due in part to the growing shortage of dental care providers. Boone moved up in Social & Economic Factors most likely due to drop in unemployment. Income inequality is, however, increasing. The percentage of children in single parent households has also increased by 2% over 2017.

County Health Rankings 2018

	Boone County	Error Margin	Top U.S. Performers^	Illinois	Rank (out of 102)
Health Outcomes					14
Length of Life					10
Premature death	5,000	4,400-5,700	5,300	6,300	
Quality of Life					48
Poor or fair health**	16%	16-17%	12%	17%	
Poor physical health days**	3.9	3.7-4.1	3.0	3.8	
Poor mental health days**	3.7	3.4-3.8	3.1	3.5	
Low birthweight	7%	7-8%	6%	8%	
Health Factors					54
Health Behaviors					28
Adult smoking**	15%	15-16%	14%	16%	
Adult obesity**	32%	26-40%	26%	28%	
Food environment index	9		8.6	8.7	
Physical inactivity	24%	19-31%	20%	22%	
Access to exercise	91%		91%	91%	
Excessive drinking**	21%	20-21%	13%	21%	
Alcohol-impaired driving deaths	21%	12-31%	13%	33%	
Sexually transmitted infections	261.7		145.1	540.4	
Teen births	21	19-24	15	26	
Clinical Care					86
Uninsured	8%	7-9%	6%	8%	
Primary care physicians	1,910:1		1,030:1	1,240:1	
Dentists	3,150:1		1,280:1	1,330:1	
Mental health providers	5,940:1		330:1	530:1	
Preventable hospital stays	61	53-69	35	55	
Diabetes monitoring	84%	78-91%	91%	86%	

Mammography screening	61%	54-69%	71%	64%	
Social & Economic Factors					51
High school graduation	84%		95%	86%	
Some college	56%	50-62%	72%	68%	
Unemployment	6.3%		3.2%	5.9%	
Children in poverty	13%	11-17%	12%	18%	
Income inequality	3.9	3.5-4.4	3.7	5.0	
Children in single-parent households	28%	22-34%	20%	32%	
Social associations	7.5		22.1	9.8	
Violent crime	134		62	388	
Injury deaths	53	44-62	55	56	
Physical Environment					72
Air pollution – particulate matter**	10.6		6.7	10.5	
Drinking water violations	No				
Severe housing problems	15%	12-18%	9%	18%	
Driving alone to work	84%	82-87%	72%	73%	
Long commute – driving alone	37%	32-41%	15%	40%	

Table 4: County health rankings, a project of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health

Maternal child health

Families with income over $75,000:

44.57%



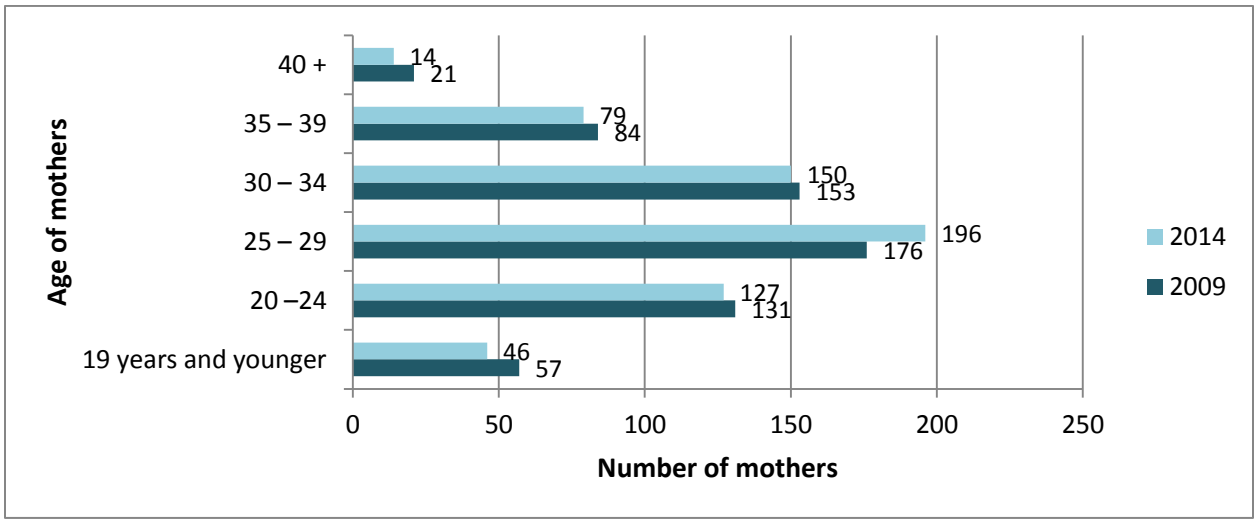
Families in poverty:

28.12%

Population under 18 in poverty	**13.94%**	Children eligible for free or reduced lunch	**46.4%**

Figure 4 Source: mercyhealthsystem.org/wp-content/uploads/2016/08/Community-Analysis-socioeconomicfactors.pdf

Births and Ages of Mothers in Boone County



Graph 22: Source: IDPH birth stats.

The Boone County Health Department sees over 4,000 clients in the Women, Infants and Children (WIC) program each year. Over 1,200 come to the health department for nutrition education. The average total active caseload averages 826 clients on our books in any given month, some months seeing more than 860. State mandated case load is 90% of 900, or 810.

Family and Household Composition

Eighty-nine percent of Boone County's population lives in family household which is higher than the state average of 82%. The remainder lives in nonfamily households, often alone. About one-third of the single person households are aged 65 and older.

Married couples with children account for 28.9% of all households while single parent households account for 12%. Three times as many are headed by females with children under the age of 18 at home (9.2%) as males with children (2.8%). In Boone County, the figures are 43.2% with one or more children, and 19.7% which contain at least one senior. In Boone County, the average household size is 3.14 persons while the average family size, that is all persons related, is 3.65 - larger than those of both the State and the Nation.

- 16.8% of females live alone.
- Families comprise 74.9% of all Boone County households.
- The remainder lives in nonfamily households, often alone.
- About one-third of the single person households are aged 65+.

Boone County Marriage and Divorce rate

Boone County	2010	2011	2012	2013
Marriages	240	267	241	241
Divorces	186	159	155	179
%	77.5	59.5	64.3	74.2

Table 5: Source IDPH

- 22% of Boone County children live with single mothers.
- Single parent households account for 12% of Boone families.
- Three times as many are headed by females with children under the age of 18 at home (9.2%) as males with children (2.8%).
- In Boone County, 34.3% of the female-headed families with children are in poverty.
- Among female-headed families with pre-school age children, 76.3% live at or below the poverty level.

Living arrangements for children answering Illinois Youth

Both parents
Parent and step parent
Mother only
Father only
Legal guardian
Foster parent (including relatives if they are yo
Group home or residential care
Grandparents only
Living independently
Multiple living situations

Table 5: Source: Illinois Youth Survey 2017

Child Abuse and Neglect

The rate of child abuse and neglect in Boone County is higher than that of Cook County, the state of Illinois and the nation when looking at rates per 1,000.

Rate of Child Abuse and Neglect (2013)

	Rate of Child Abuse and Neglect (Rate per 1,000)
United States	9.30
Illinois	9.50
Cook County	6.20
Boone County	**12.80**
Winnebago County	**19.80**

Table 7: Source: www.voices4kids.org

The Boone County Health Department as the Health Authority is responsible for protecting the health and safety of the entire Boone County Population. In addition to providing the 10 Essential Services that comprise the definition and framework of public health, BCHD serves the community as a connector of services to those in need, regardless of the nature of the services or the status of the individual.

One of BCHD's many community partners is the Boone County Court Appointed Special Advocate (CASA) Program was started in 1991 as a non-profit organization dedicated to helping abused, neglected and dependent children throughout Boone County. Volunteer advocates are appointed by the Court to act as a child's Guardian ad Litem (GAL). They perform a thorough investigation of the minor's situation which includes visiting their home and speaking with

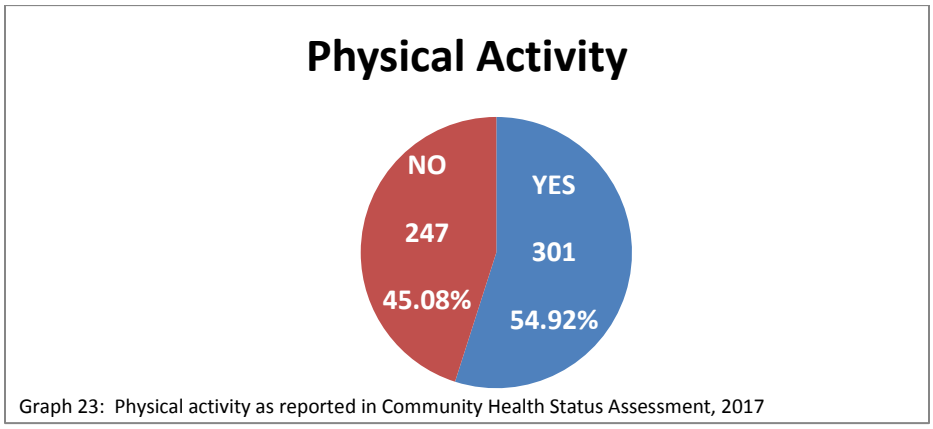
anyone who may have relevant information. The advocate compiles all the information and submits it, along with specific recommendations, to the Juvenile Court Judge. In a system where children can easily “slip through the cracks” the advocate is able to provide stability and a powerful voice for the child so that his/her best interests are always protected.

Overweight, Obesity and Inactivity

Physical activity can be a predictor of overall health. Evidence has shown that physical activity can delay or even prevent obesity and the onset of type 2 diabetes as well as the heart disease and high blood pressure that many in Boone County suffer from.

The survey asked many questions regarding behavioral health in addition to physical activity such as alcohol consumption, tobacco use and sexual health. Graphs 13 through 16 and Table 6 summarize survey responses.

Are you physically active for at least 150 minutes per week outside of regular work activity?



Graph 23: Physical activity as reported in Community Health Status Assessment, 2017

The Illinois Youth Survey (IYS), which is conducted every two years, surveyed nearly 1,000 students from Boone County in grades 8, 10 and 12, asking about many of the same issues that were examined in the County Health Assessment including physical activity, fruit and vegetable consumption, and drug, alcohol and tobacco use. That data is presented here from the IYS survey in 2016. For example, less than 30% of students queried said they exercised daily.

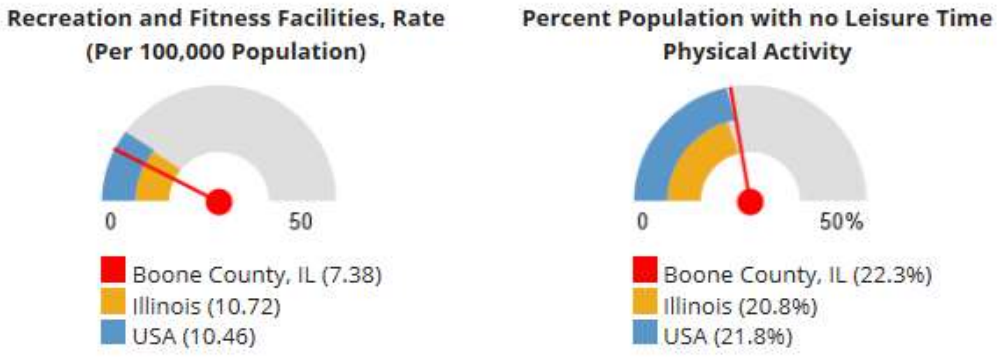
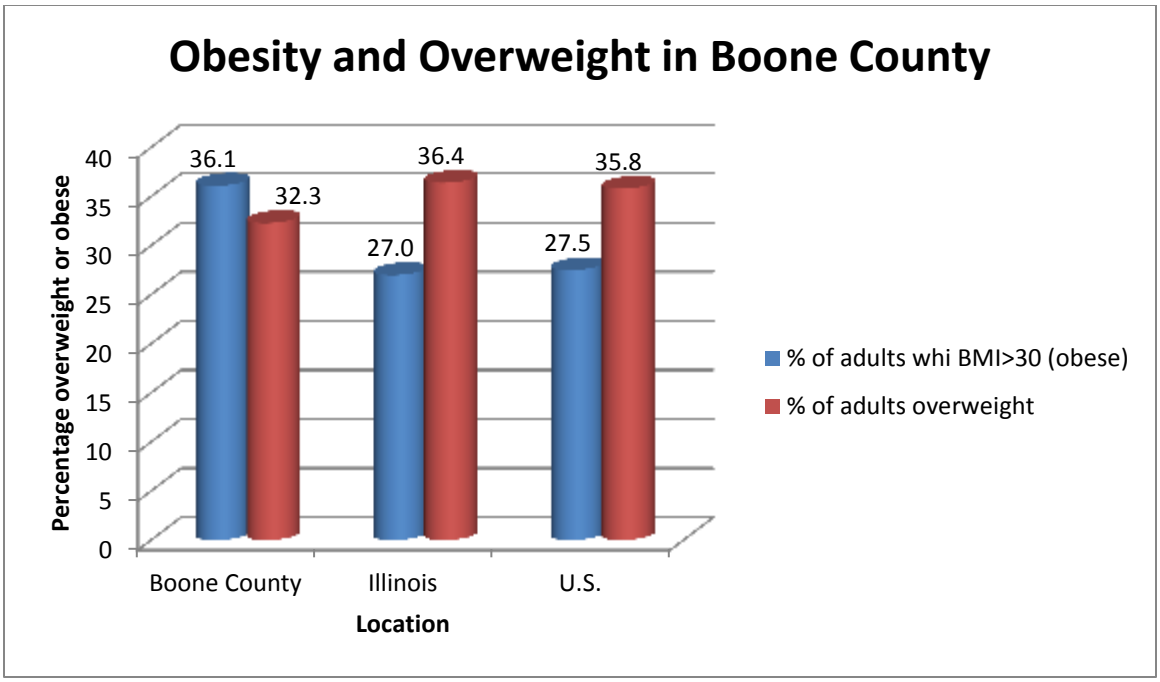


Figure 5: Physical activity as reported by Rockford Health Council in *Summary Report for Social & Economic Factors* - 2017

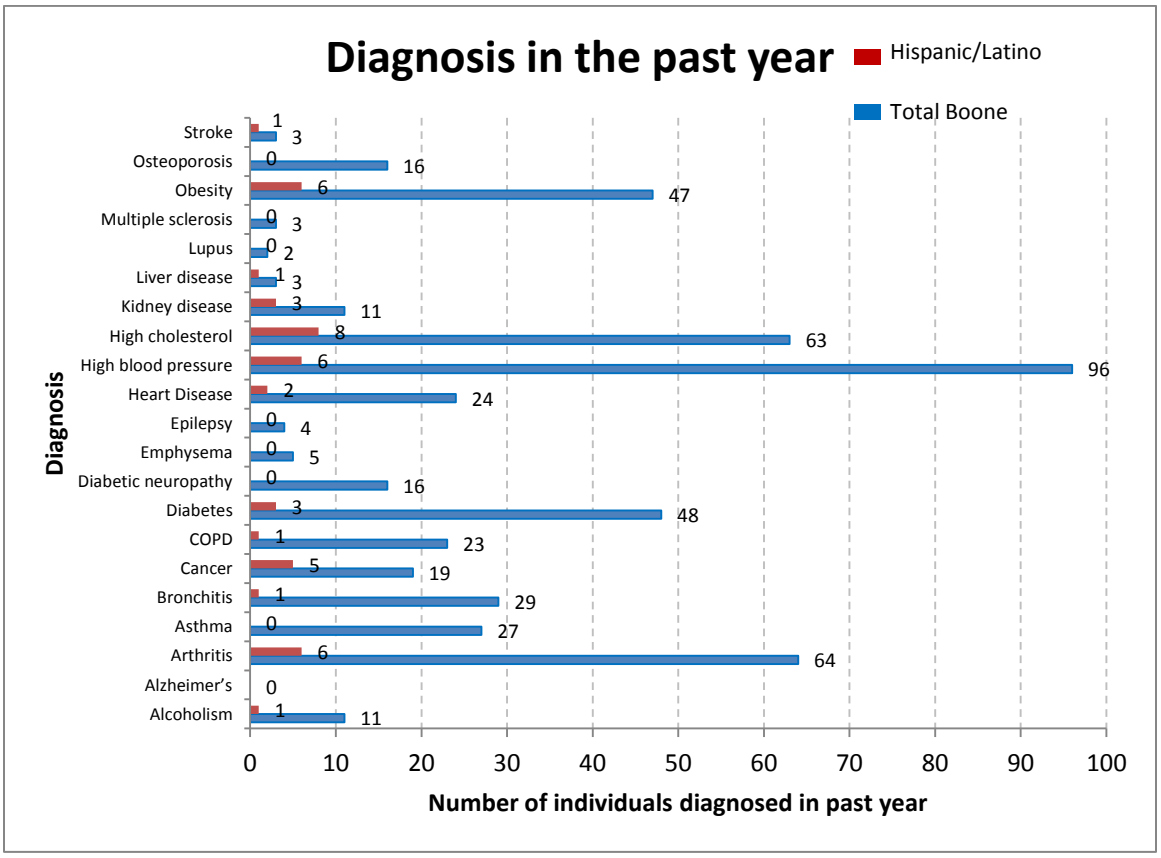


Graph 24: Overweight and obesity in Boone County, the state of Illinois and the US.
https://www.communitycommons.org/groups/salud-america/report-card/?geoid=05000US17007

Obesity and diabetes were the #1 and #2 concerns in Boone County in 2012. In 2017, they were tied for #5 and #6.

Disease Prevalence

Many of the numbers below could be explained by the fact that over 60% of total respondents were 40 years and older when asked *Have you been diagnosed with any of the following during the past year?*



Graph 25: Illnesses and conditions diagnosed in past year as reported in the Community Health Status Assessment, 2017

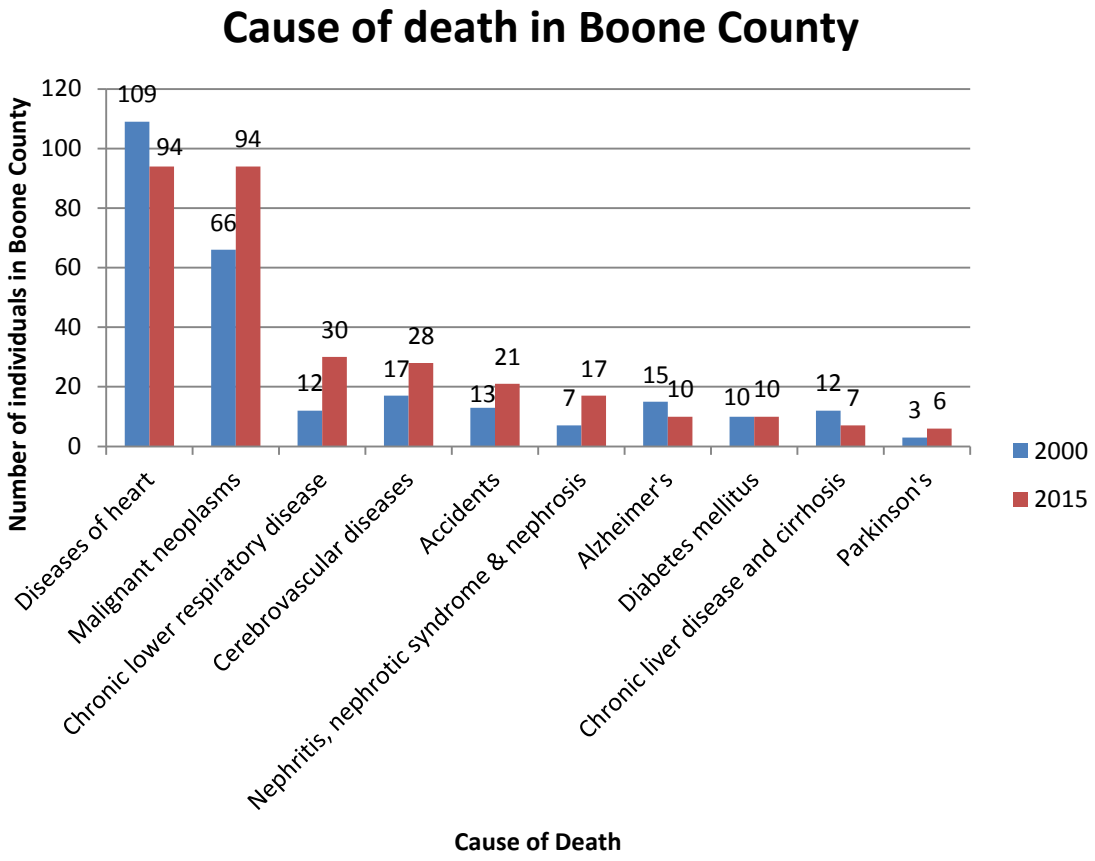
Chronic Disease

Consistently in the top spot for the past ten years, either as chronic disease or one of its manifestations – obesity, type 2 diabetes, heart disease – chronic disease remains a threat for both the long-term and short-term health of all in Boone County. Chronic disease is the major cause of death and disability in Illinois – cancer, diabetes, heart disease, stroke, and pulmonary conditions. A chronic disease is one lasting 3 months or more, by the definition of the U.S. National Center for Health Statistics. Chronic diseases generally cannot be prevented by vaccines or cured by medication, nor do they just disappear. Eighty-eight percent of Americans over 65 years of age have at least one chronic health condition (as of 1998). Health damaging behaviors - particularly tobacco use, lack of physical activity, and poor eating habits - are major contributors to the leading chronic diseases.

- At least 80 percent of premature heart disease, stroke and type 2 diabetes, and 40 percent of cancer diagnoses could be prevented through healthy diet, regular physical activity and avoidance of tobacco products.
- $12.5 billion a year in direct health care dollars, $6.6 billion in diabetes alone
- $43.6 billion in lost work days and lowered productivity
- Diabetes burden in Illinois averages 9.9% of population (range is 6 - 17.6%)
- In Boone County, that number is at least 10.6%

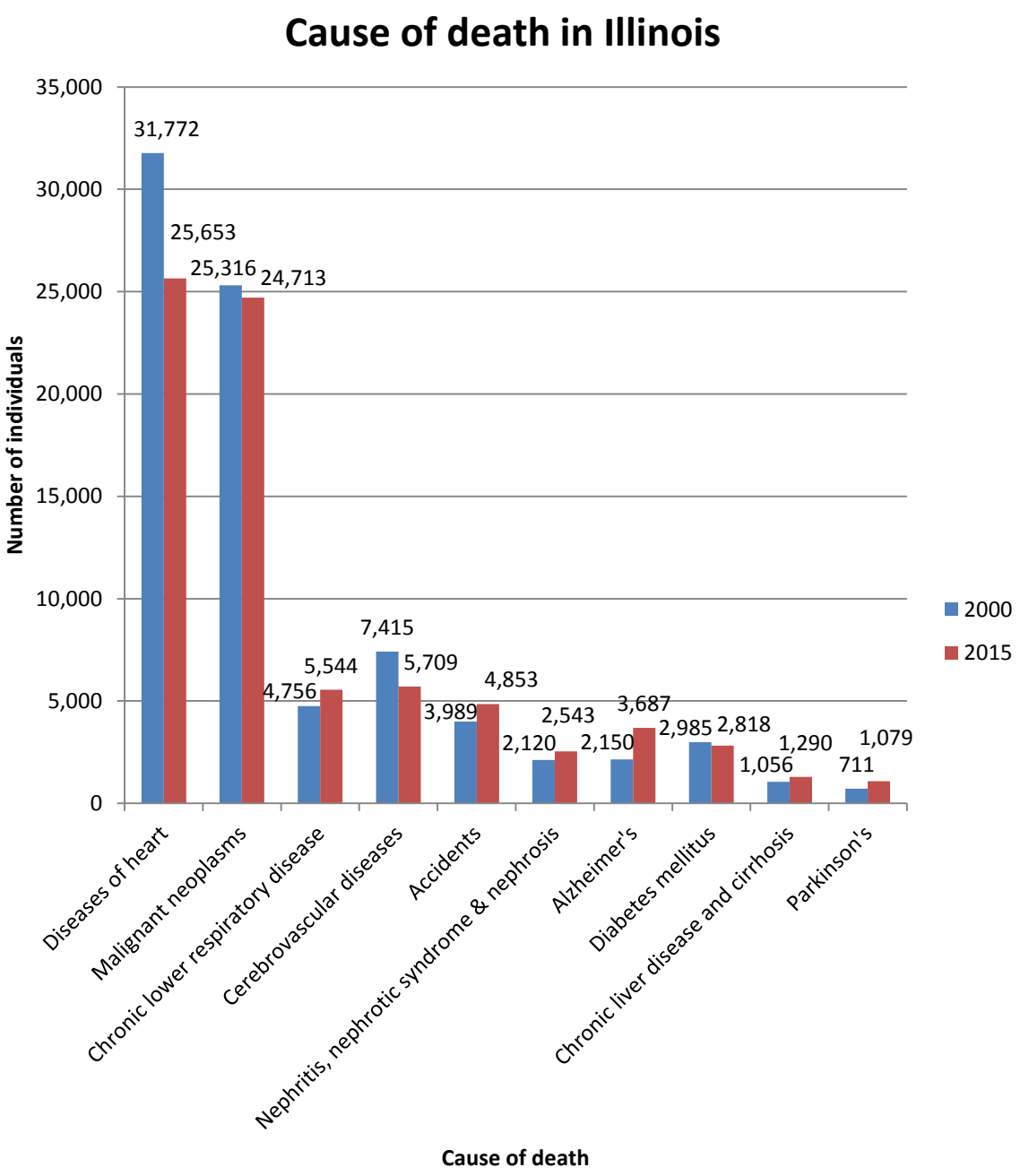
Top Ten Causes of Death in Boone County in 2000 and 2015

The top ten causes of death in Boone County are similar to the top ten in Illinois, although the order may vary slightly. It is worth noting that eight of the top ten causes of death are often due to lifestyle choices and are co-morbidities. For example, Diabetes is often associated with chronic liver and kidney disease, high blood pressure is associated with stroke though it is not named as the primary cause of death. There were eight deaths due to opioids in 2016, bringing the total to 30 over the past four years.



Graph 26: Top Ten Causes of death, 2000 and 2015. In 2015, there were 398 deaths from all causes
Institute for Health Metrics and Evaluation (IHME), US County Profile: Boone County, Illinois. Seattle, WA: IHME, 2016.

Top Ten Causes of Death the state of Illinois



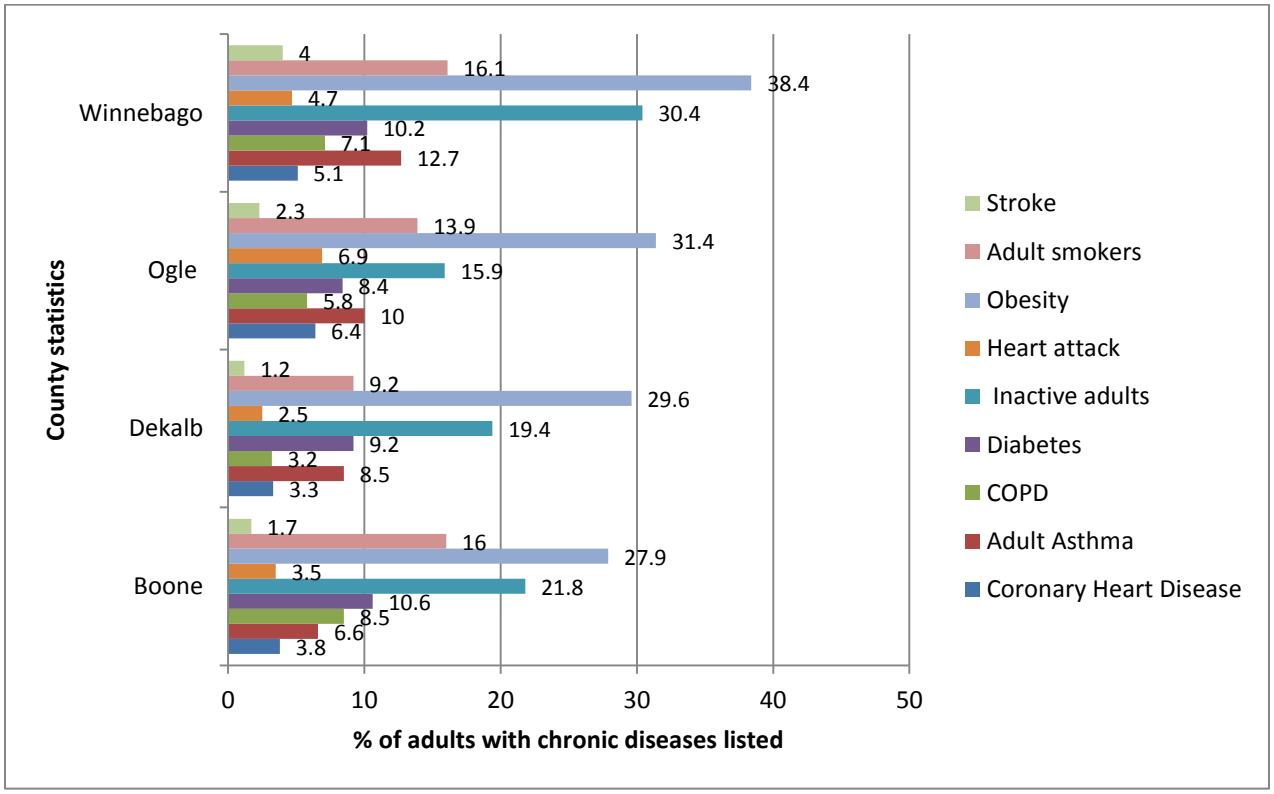
Graph 27: Top ten causes of death in Illinois, 2000 and 2015

Institute for Health Metrics and Evaluation (IHME), US County Profile: Boone County, Illinois. Seattle, WA: IHME, 2016.

Behaviors and conditions leading to death of adults in Boone and across the region

The Illinois Behavioral Risk Factor Surveillance System (BRFSS) is a state-based program that gathers information on physical and mental health risk factors and conditions among Illinois adults 18 years of age and older through a telephone survey. It is the primary source of information for health departments on the behaviors and conditions related to the leading causes of death for adults in the general population. The chart below represents the percentages of adults within the population in Boone County and surrounding counties over a 5 year period, 2009-2014.

Deaths due to chronic disease in Boone and neighboring counties



Graph 28: Illinois Behavioral Risk Factor Surveillance System (BRFSS)

BRFSS offered good news and bad news for Boone County in 2014 – the most recent data we have for the following:

The Good News:

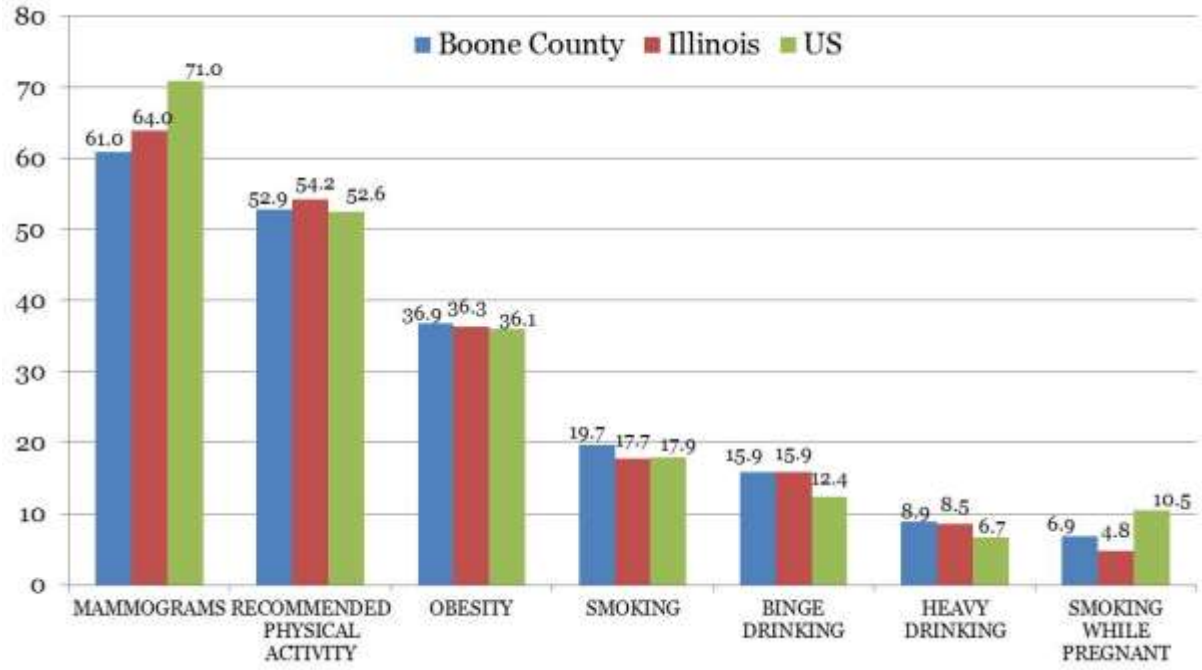
- 18,000 women over 40 had a clinical breast exam; 11,700 women over 40 had at least one mammogram
- Nearly 18,000 had a pap smear (no age given)
- Women are 20% more likely than men to meet minimum activity standards
- 56% of the women surveyed said they took vitamins and supplements

The Bad News:

- 20,000 members of Boone's population complained of chronic joint pain in a BRFS (**Behavioral Risk Factor Survey).** Half were women, 20% under 45 years of age.
- That same survey found that 3,300 individuals in Boone had COPD, 48% were women.
- 7.9% of Boone's population were unable to see a doctor due to cost.
    - This represents over 4,200 people,
    - Over 2,800 of these were women.
    - Almost all Caucasian, not Hispanic nor Latino.
    - More than half were employed while 20% were retired or disabled.

The Institute for Health Metrics and Evaluation (IHME) looked at some health behaviors of the women in Boone County compared to the rest of Illinois and the US. The Institute discovered that women in Boone were less likely to get a mammogram than those in the rest of the state or the nation. At the same time, women in Boone County were more likely to be obese and more likely to smoke, even while pregnant, to drink heavily and/or binge drink.

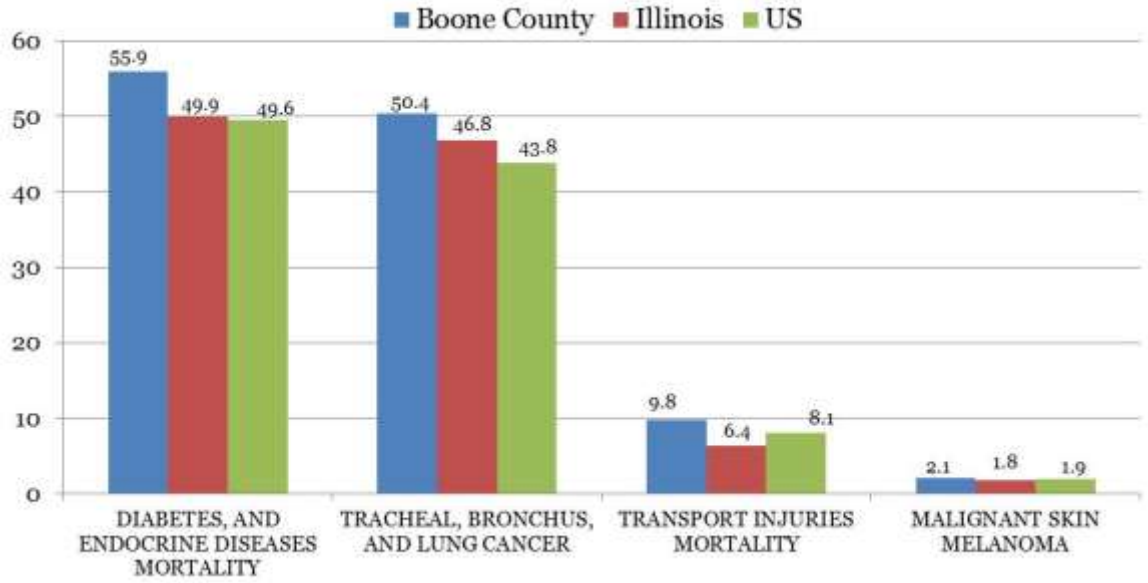
Health behaviors of women in Boone County in 2014.



Graph 29: Source: Institute for Health Metrics and Evaluation (IHME), US County Profile: Boone County, Illinois. Seattle, WA: IHME, 2016.

As a result, the leading causes of death for women in Boone County are diabetes and diabetes related diseases and lung cancer.

Leading causes of death in women



Graph 30: Source: Institute for Health Metrics and Evaluation (IHME), US County Profile: Boone County, Illinois. Seattle, WA: IHME, 2016.

According to the Centers for Disease Control and Prevention (CDC), Boone County is doing a number of things well, in many cases surpassing the national averages. Among them:

Chronic disease or condition	Boone County	US Median
Cancer deaths	169.2 per 100,000	185 per 100,000
Female Life Expectancy	80.9 years	79.8 years
Male Life Expectancy	77.4 years	75.0 years
Motor vehicle deaths	14.2 per 100,000	19.2 per 100,000
Unintentional injury	33.5 per 100,000	50.8 per 100,00
Adult diabetes	6.6%	8.1%
Alzheimer's/dementia	8.3%	10.3%
Gonorrhea	14.7 per 100,000	30.5 per 100,000
HIV	57.5 per 100,000	105.5 per 100,000
Adult smokers	17.5%	21.7%
Teen births	29.8 per 1,000	42.1 per 1,000
Children in single parent households	25.0%	30.8%
Access to parks	49% live within ½ mile	14% within a 1/2mile

Table 8: Health statistics according to the CDC

Although Boone County shows lower than US median in cancer deaths, Boone also has a higher rate than US median of cancer incidence.

• Boone and Winnebago Counties Lung and Bronchus Cancer rates in females (78.0 and 65.0 per 100,000 respectively, compared to 58.5 per 100,000 statewide)

• Boone County Bladder Cancer rates in males (42.0 per 100,000 compared to 38.2 per 100,000 statewide)

• Boone County Skin Melanoma Cancer rates in females (25.0 per 100,000 compared to 15.0 statewide)

• Boone County Leukemia rates in males (24.0 per 100,000 compared to 17.1 statewide)

• Boone County Ovarian Cancer rates (19.0 per 100,000 compared to 11.9 statewide)

Healthy People 2020 set objectives related to cancer include decreasing cancer mortality rates, including invasive colorectal and prostate cancers. Other key cancer objectives relate to increasing screening and cancer awareness through primary health care providers.

III. Health Perceptions and health-related behaviors:

Quality of Life

The Community Health Assessment survey asked those participating '*How satisfied are you with the following factors that affect the quality of life in the community where you live?*' Quality of life is defined as personal satisfaction/happiness (or dissatisfaction/unhappiness) with the conditions in which one lives. Participants were asked to place an "x" in the rating box that most closely matched their opinions.

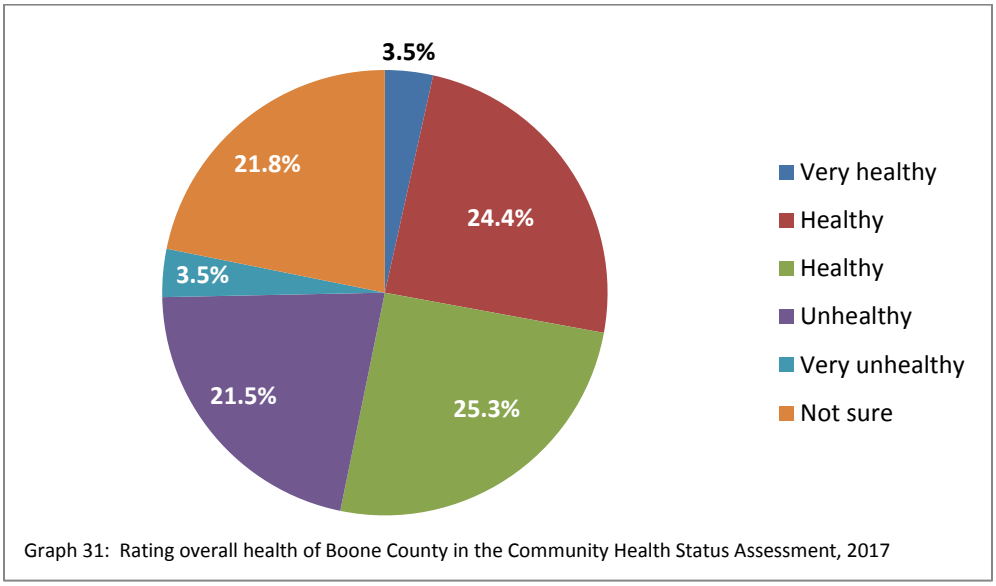
Top satisfiers were friendly community, access to healthcare services, parks and recreation opportunities, and safe neighborhoods. Top dissatisfiers were good paying jobs, public transportation, economic opportunity, and opportunities for higher education.

Community Satisfaction with services and circumstances survey responses	Very satisfied	Satisfied	Sat and Very Sat combined	Neutral/ No Opinion	Dissatisfied	Very Dissatisfied	Dissat and very dissat
Access to healthcare services	30.04%	48.15%	78.19%	10.70%	8.44%	2.67%	11.11%
Access to healthy food	28.22%	44.38%	72.60%	8.18%	15.54%	3.68%	19.22%
Affordable housing	18.18%	41.53%	59.71%	22.52%	13.84%	3.93%	17.77%
After school activities	13.08%	24.47%	37.55%	49.37%	11.39%	1.69%	13.08%
Arts and cultural events	11.34%	33.20%	44.54%	35.26%	16.70%	3.51%	20.21%
City/County government	12.47%	38.46%	50.93%	29.11%	14.76%	5.41%	20.17%
City/County services	13.03%	47.90%	60.93%	24.79%	11.13%	3.36%	14.49%
Community connectedness	11.36%	37.81%	49.17%	30.17%	17.56%	3.10%	20.66%
Community pride	16.28%	40.71%	56.99%	23.38%	16.28%	3.55%	19.83%
Economic opportunity	10.06%	33.75%	43.81%	28.09%	23.27%	4.82%	28.09%
Environment (air, water, trash)	17.73%	52.37%	70.10%	18.14%	7.42%	4.33%	11.75%
Friendly community	22.65%	56.12%	78.77%	11.22%	7.76%	2.24%	10.00%
Good paying jobs	6.79%	28.66%	35.45%	28.24%	29.51%	6.79%	36.30%
Good schools	18.98%	46.70%	65.70%	22.81%	8.74%	4.05%	12.79%
Interpreters (language or sign)	8.07%	17.62%	25.69%	66.03%	6.37%	2.12%	8.49%
Opportunities for higher education	12.31%	31.21%	43.52%	33.12%	19.32%	4.03%	23.35%
Parks and recreation opportunities	27.35%	49.90%	77.25%	12.94%	7.52%	2.51%	10.03%
Public transportation	10.74%	26.32%	37.06%	34.32%	19.37%	9.26%	28.63%
Religious and spiritual values	18.39%	42.07%	60.46%	34.67%	3.38%	1.48%	4.86%
Safe neighborhood	20.80%	52.31%	73.11%	12.61%	11.34%	3.15%	14.49%
Senior services	18.32%	37.05%	55.37%	38.32%	4.84%	1.89%	6.73%
Strong family values	17.62%	48.62%	66.24%	23.35%	9.55%	1.70%	11.25%
The way people work together to solve community problems	10.83%	32.70%	43.53%	35.03%	17.20%	4.25%	21.45%
Transportation for those w/disabilities	13.75%	30.83%	44.58%	41.25%	10.83%	3.54%	14.37%
Walkable/bike-able community	15.30%	47.38%	62.68%	18.45%	13.21%	5.66%	18.87%

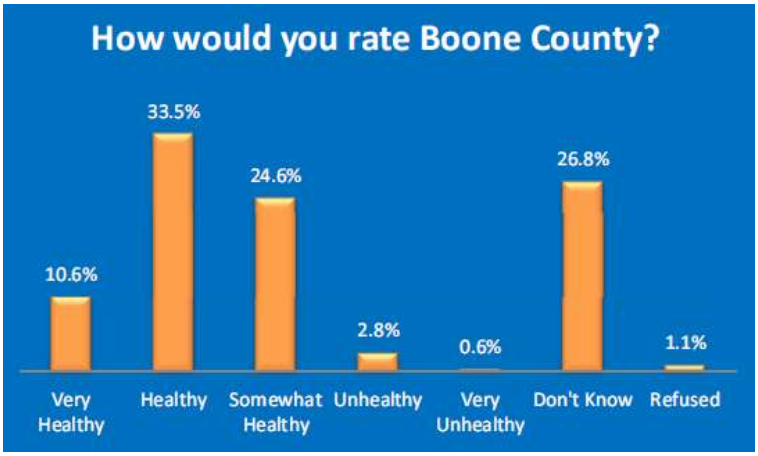
Table 9: Responses from Community Health Status Assessment - 2017

While these are not broken down specifically by male/female/family, it is reasonable to say that all of these things greatly affect families, health, and economic opportunity.

The Community Health Assessment survey asked questions about health and quality of life. Many of those questions are here along with charts and graphs showing response. The graph below *asks How would you rate the overall physical health of the people in Boone County?* Responses by Total Boone indicate almost equal division between somewhat healthy, healthy, unhealthy and not sure.



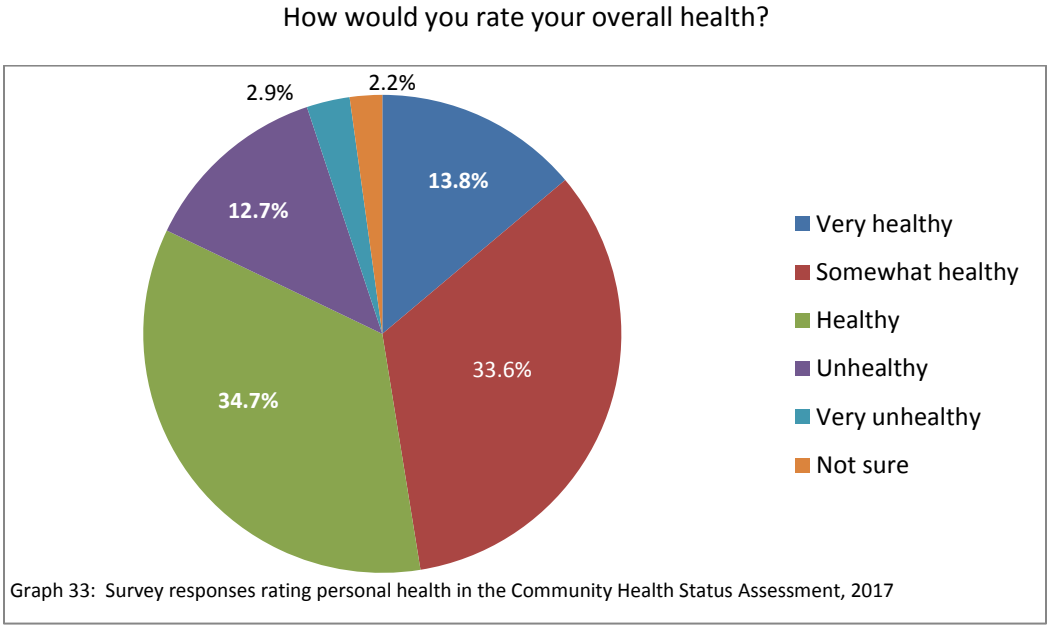
Graph 31: Rating overall health of Boone County in the Community Health Status Assessment, 2017



Graph 32: CASPER responses to overall health in Boone County – July

Survey Responses Regarding Physical Health

When asked to rate their *personal overall health*, responses from total Boone suggested that most believed themselves to be healthy or somewhat healthy.

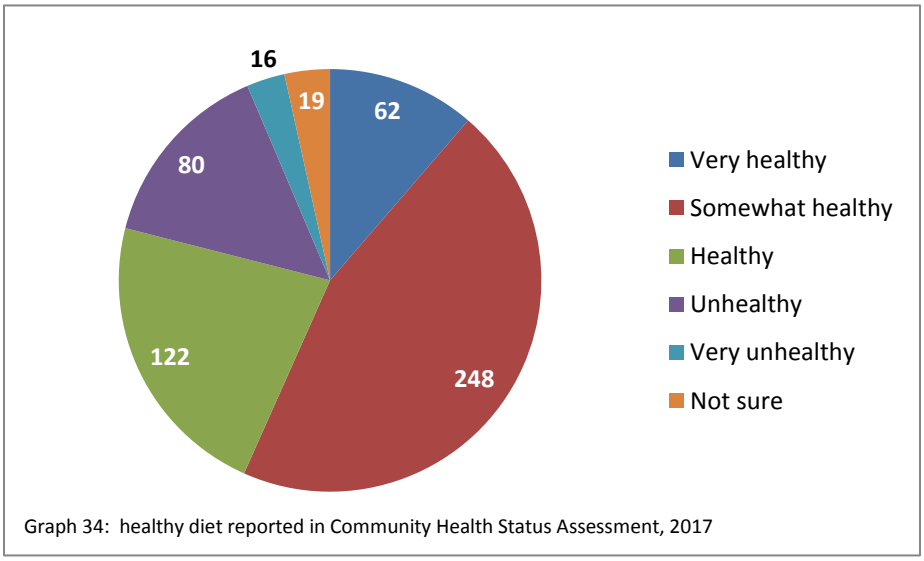


Graph 33: Survey responses rating personal health in the Community Health Status Assessment, 2017

Survey Responses Regarding Personal Behavior

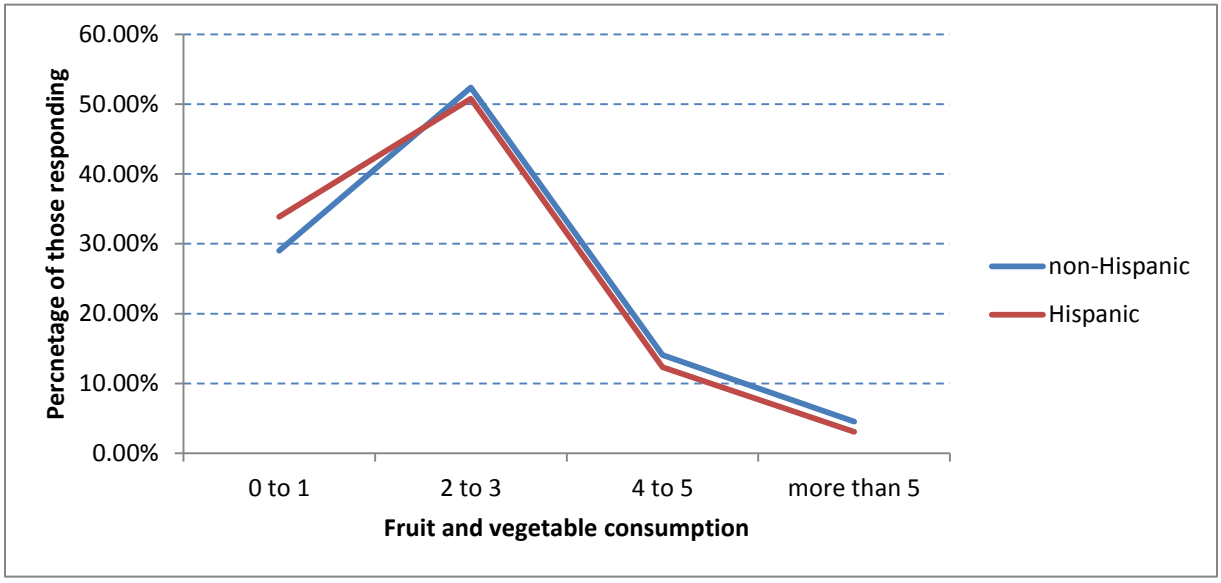
Roughly one-quarter of the survey respondents did not believe they consumed a healthy diet while nearly half believed their diet was somewhat healthy. The majority managed to consume two to three servings of fruits and vegetables per day. Consumption patterns appeared to be the same for Hispanic/ Latino and non-Hispanic community members.

Do you believe you eat a healthy diet? Number of respondents



Graph 34: healthy diet reported in Community Health Status Assessment, 2017

How many servings of fruits and vegetables do you eat each day? (by percentage of those responding)



Graph 35: Fruit and vegetable consumption reported in Community Health Status Assessment, 2017

Grocery Store Environment in Boone County

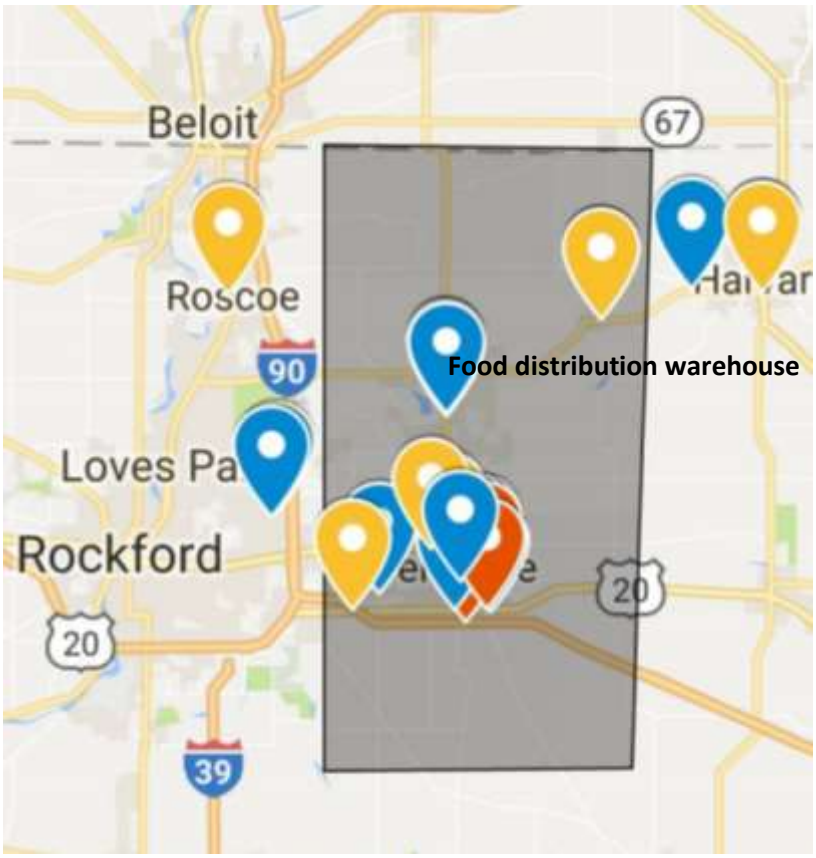


Figure 6: Boone County GIS

Most stores are clustered in and around Belvidere.
The indicators are blue for grocery stores ,
yellow for convenience stores , and orange for stores that also sell food items such as a Family Dollar.

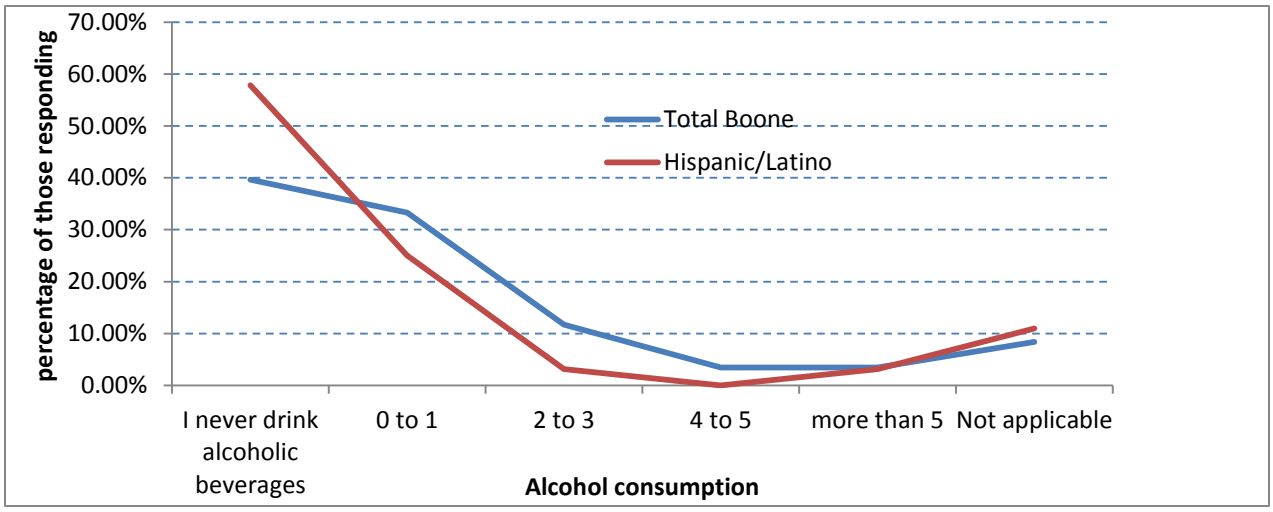
Also noted is one blue indicator that is actually not a store but a grocery warehouse.

The Community Commons Report Card offers the following statistics on grocery stores and fast food establishments in Boone County.

Fast food restaurants per 100,000	53.54
Grocery stores per 100,000	11

Personal Behaviors

How many alcoholic drinks do you drink per week (in percent of those responding)?



Graph 35: Alcohol consumption reported in Community Health Status Assessment, 2017

There were 46 accidents involving a driver who was alcohol impaired in 2015, resulting in injuries but no fatalities. The ten years of data in the chart below comes from the Illinois Department of Public Health (IDPH). There was no data available where the square is blank.

DUI											
Category	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
arrests where driver failed breathalyzer test	131	207	181	203	106	214	188	132	130	140	145
arrests where driver refused breathalyzer test	72	113	120	135	209	122	95	104	88	108	114
average BAC of arrested adult drivers	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.16	0.15	0.15	0.16
total arrests of adult drivers under the influence of alcohol	203	320	301	338	315	336	283	236	218	258	259
ER visit alcohol related					101	97	89	100	129	147	
motor vehicle accidents (requiring inpatient treatment)	136	164	284	316	400						
fatal crashes where driver had BAC of 0.08 or above	4	1	1		1	1					0

Table 10: DUI history 2005 through 2015. Source: IDPH IQuery

Smoking

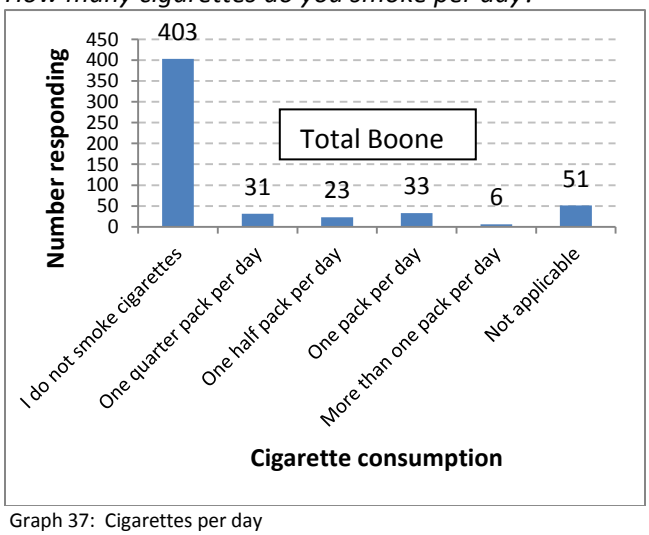


Among students in Boone County responding to the Illinois Youth Survey, only 3% of 8th graders admitted to using tobacco. That number goes up by 6% for 10th graders, and another 6% for high school seniors. Less than 5% said they used smokeless tobacco while as many as 18% claim to use e-cigarettes.

Figure 7: Source: CDC Infographics – Smoking and Tobacco use.-

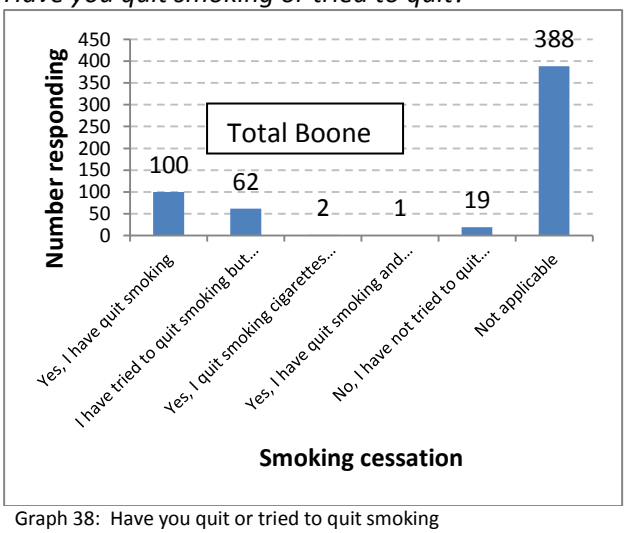
- Annual smoking-attributable economic costs in the United States estimated for the years 2009–2012 were more than $289 billion
- At least $133 billion for direct medical care of adults and more than $156 billion in lost productivity
- $5.5 billion in direct medical costs in Illinois;
- $5.3 billion in lost productivity
- $1.9 in Medicaid costs
- More than 20% of those living in Boone County are smokers (vs. 16% of Illinois)

How many cigarettes do you smoke per day?



Graph 37: Cigarettes per day

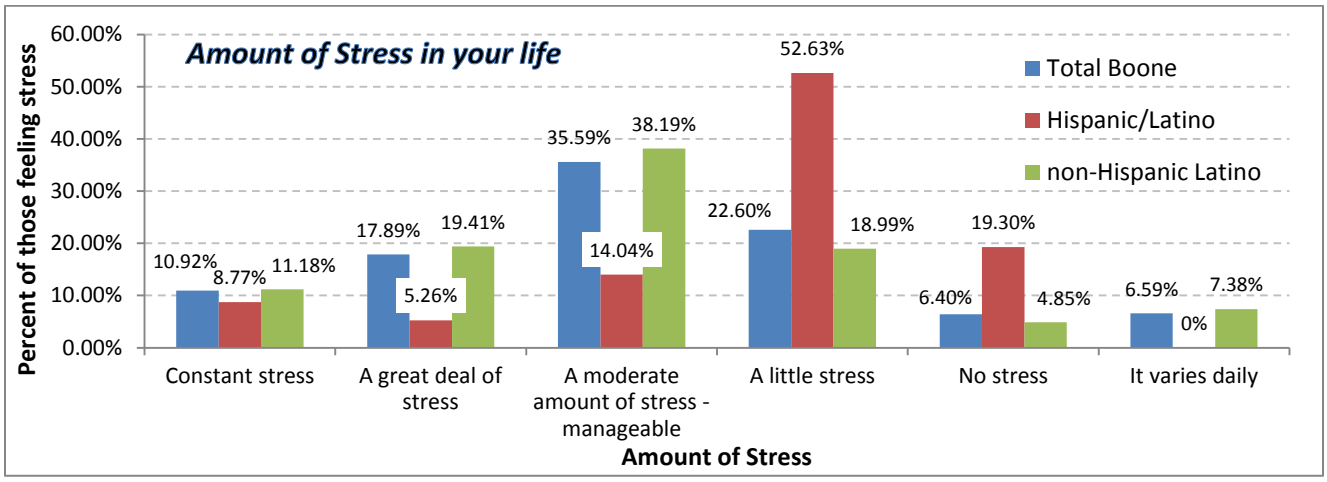
Have you quit smoking or tried to quit?



Graph 38: Have you quit or tried to quit smoking

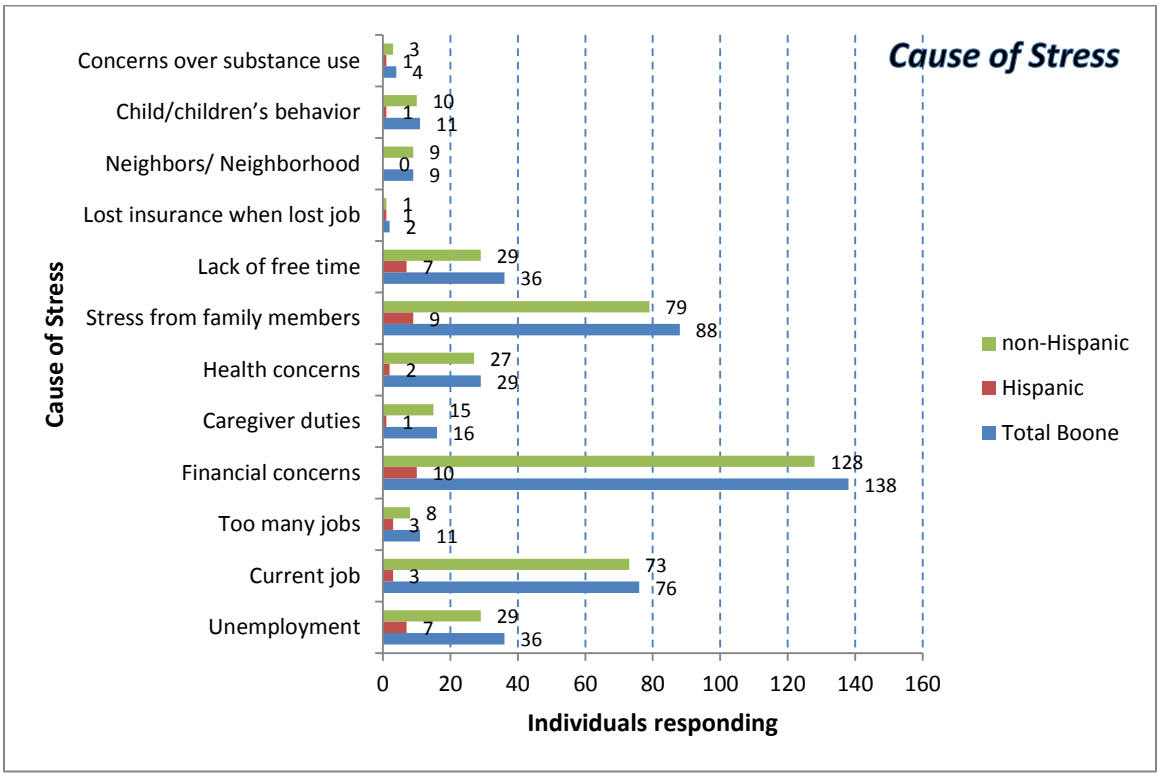
Mental Health care

Stress was of some concern to all in Boone County with the majority of the stress coming from family members and family obligations, financial concerns and jobs which included lack of job or the need to work too many jobs to make ends meet. Graph 9 answers the question regarding amount of stress while Graph 10 explored cause of stress and amount of stress by asking *What amount of stress would you say you have in your life? (by percentage)*



Graph 39: Responses from Boone County's Community Health Status Assessment regarding Stress experience, 2017

What would you say is the primary cause of your stress?



Graph 40: Respondents from Boone County's Community Health Status Assessment, 2017

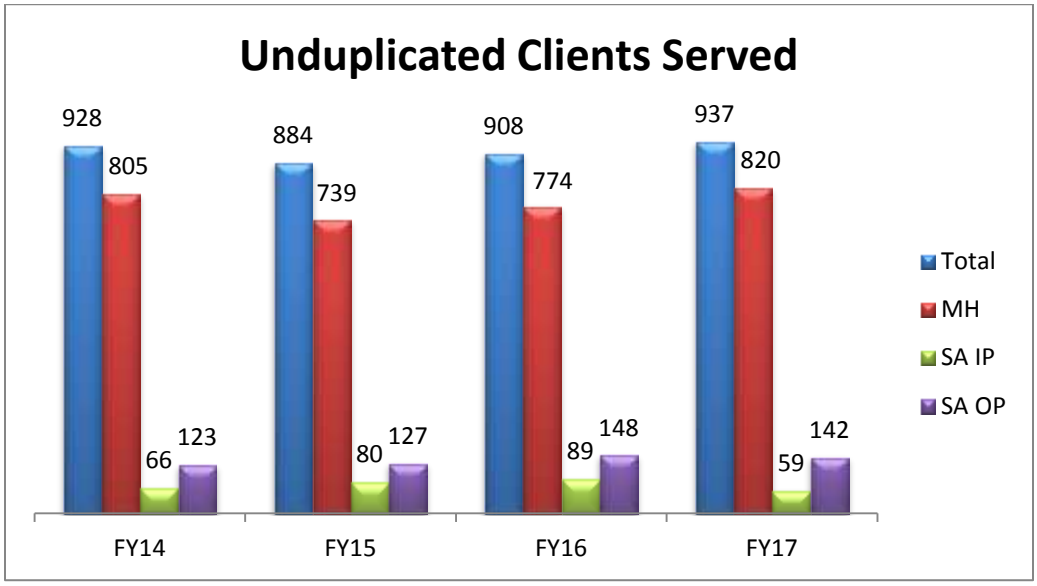
The graphs that follow indicate mental healthcare in Boone County. The legend is translated as follows:

Total – Total number of patients

MH – Those seeking help for a mental health issue

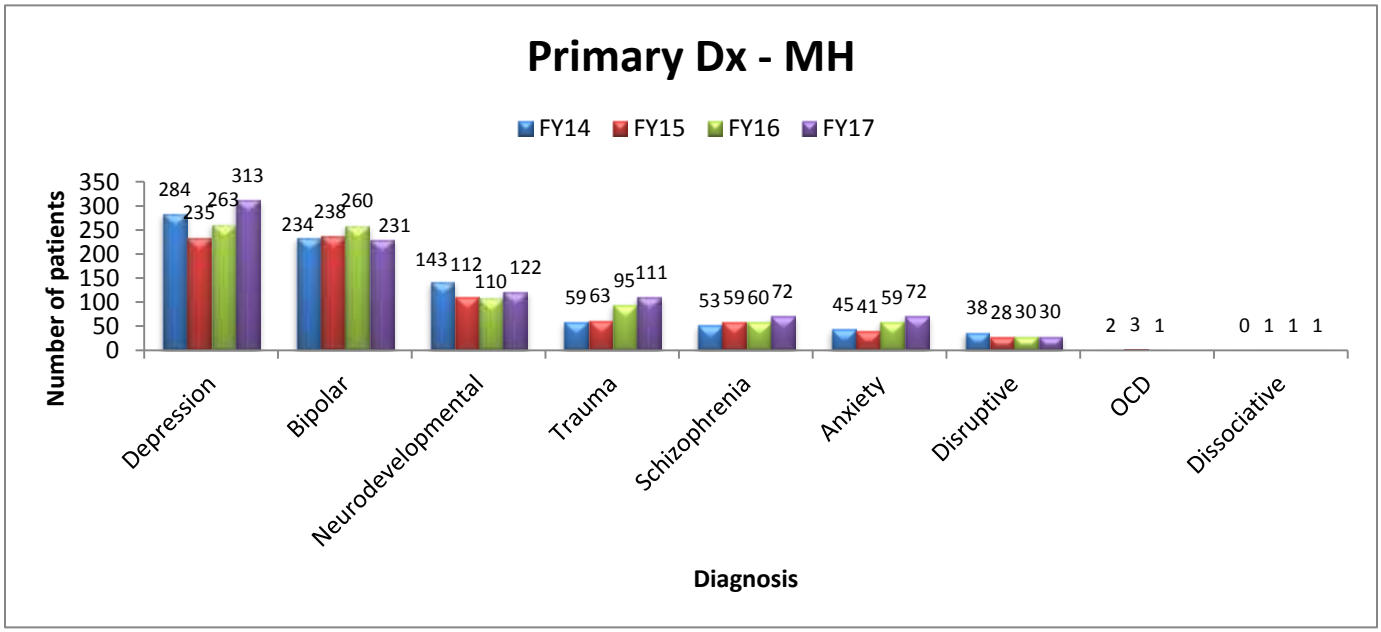
SA IP – Those being seen on an inpatient basis

SA OP – those being seen on an outpatient basis.

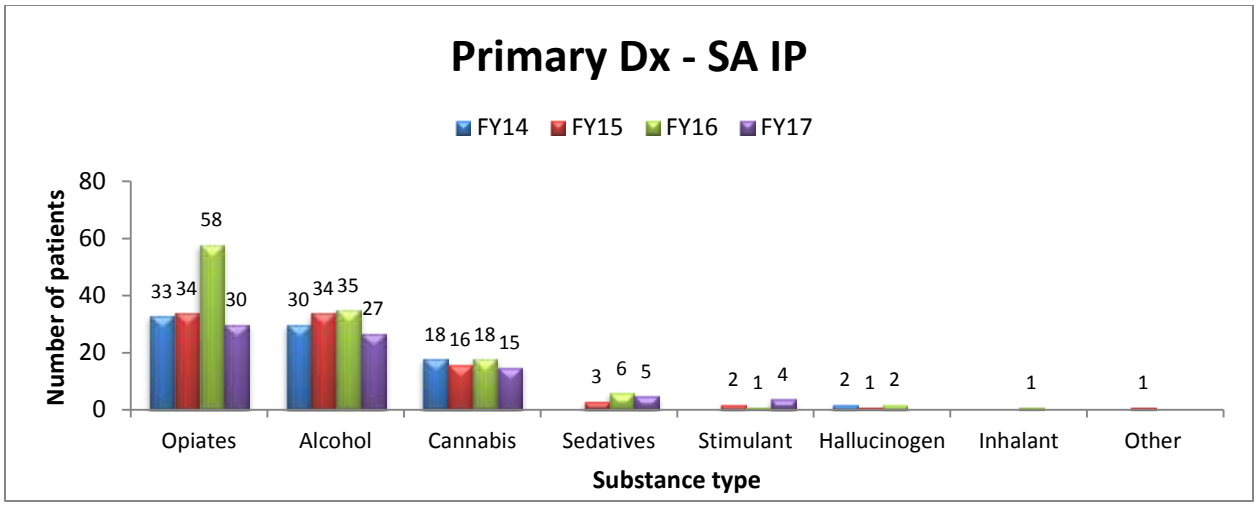


Graph 40: Source: Rosecrance Health Network

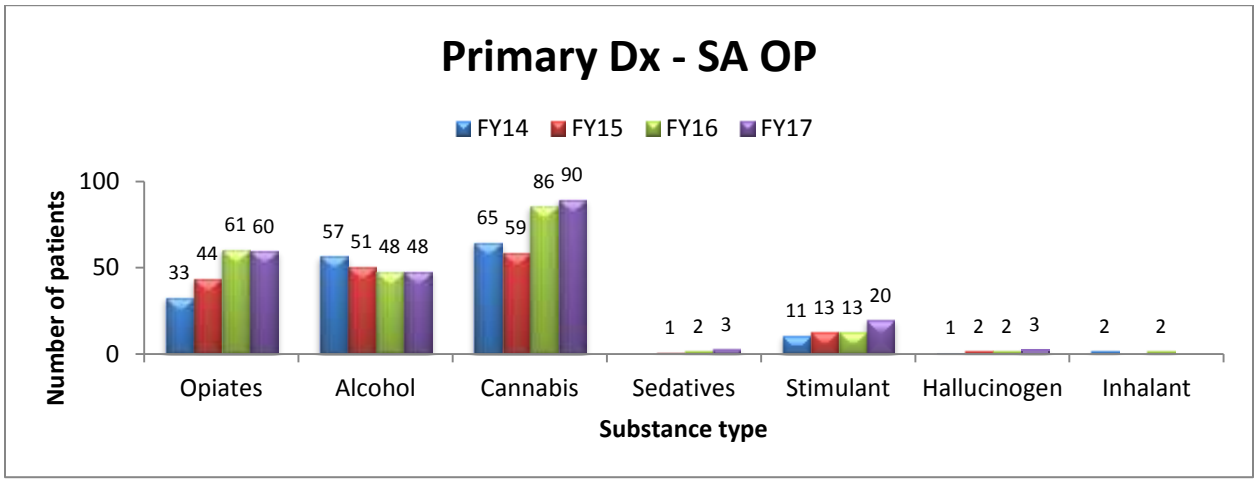
Most frequent complaints/diagnoses:



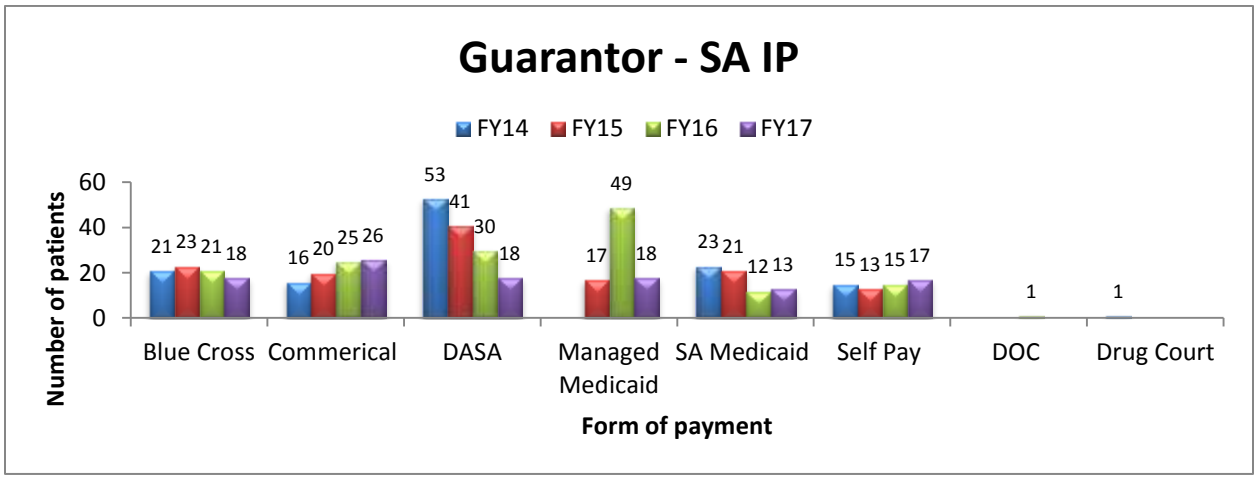
Graph 41: Source: Rosecrance Health Network



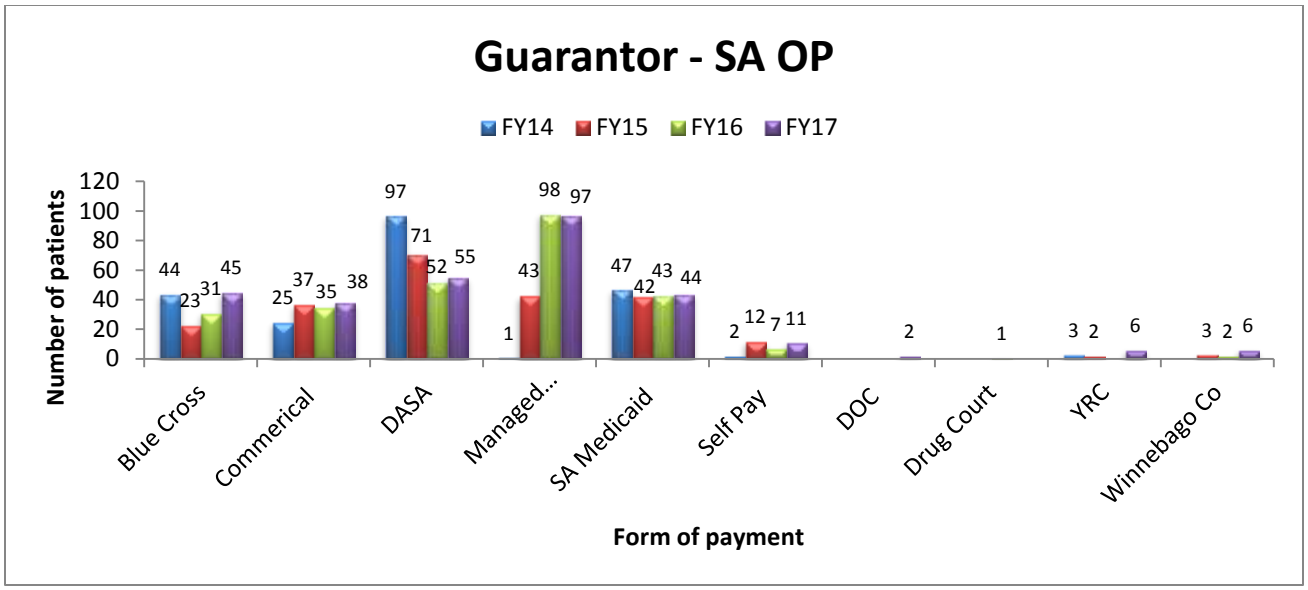
Graph 42: Source: Rosecrance Health Network



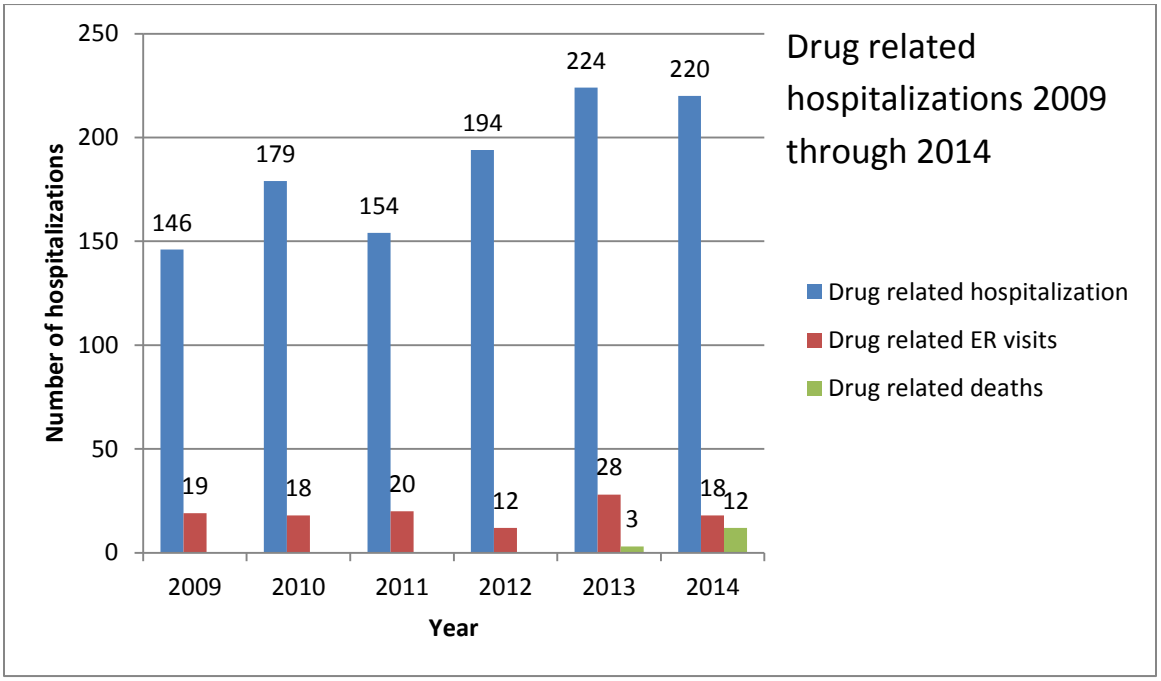
Graph 43: Source: Rosecrance Health Network



Graph 44: Source: Rosecrance Health Network



Graph 45: Source: Rosecrance Health Network



Graph 46. Source IDPH

Thirty people died in Boone County between 2013 and 2016 from drug overdose.

Boone County's gonorrhea numbers are less than half of the national median, but Boone County shows 3.7 cases of syphilis per 100,000 against a national median of 0. The prevalence of STIs/STDs has seen an overall increase since 2000 with numbers doubling and tripling over time.

Prevalence of Sexually Transmitted Infections/Diseases in Boone County

Category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Chlamydia	77	84	116	96	116	87	114	177	157	119	142	157	89
Gonorrhea	16	13	11	13	14	9	6	8	10	5	11	29	14
Hepatitis C	12	16	22	14	21	14	20	25	10	17	22	21	5
Syphilis										4	4	5	2

Table 11: STI/STD/Hep-C rates. Source: IDPH IQuery

Motor Vehicle Accidents and Death

In 2015, the State of Illinois experienced more than 313,000 automobile crashes, 914 fatal, on public roadways resulting in 998 deaths. Four of those deaths and over 900 of those crashes occurred in Boone County; 157 involved injuries. Additionally, there were 24 motor vehicle deaths due to an intoxicated driver so far in 2017. In previous years, the total has been 27, for 2016 and 25 for 2015.

The number of accidents in 2015 involving drivers 18 and under was 131 with no fatalities and only 35 injuries, 2 of which were considered severe. A comparable number (149) of accidents occurred involving individuals 65 and older with no fatalities and 40 injuries, 5 of which were considered severe.

In 2015, there were 5 pedestrians and 3 cyclists struck by motor vehicles resulting in injuries but only 1 pedestrian death. This individual is counted among the four total motor vehicle involved deaths in 2015.

Traffic accidents 2015 - http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Resources/Safety/Crash-Reports/crash-facts/2015%20Crash%20Facts%20with%20cover.pdf; http://apps.dot.illinois.gov/eplan/desenv/crash/County%20Summaries/Year%202015/Boone.pdf

Crime

The table below shows crime rates in Belvidere over a 12 year period. The table is provided by citydata.com. According to Citydata, Belvidere is also home to 54 registered sex offenders. In the chart below, all numbers are shown per 100,000 population.

Violent Crime Rate (2013)

	Violent Crime Rate per 100,000 Population
United States	368
Cook County	801
Boone County	**145**
Winnebago County	**926**

Table 12: FBI.gov

Table 13: Violent Crimes

	Total Population	Total Violent Crimes Report
Report Area	346,009	
Boone County, IL	53,940	
Winnebago County, IL	292,069	
Illinois	12,875,255	5
United States	313,914,040	1,214

Source: https://mercyhealthsystem.org/wp-content/uploads/2016/08/Community-Analysi

Rate of violent crime per 100,000



Figure 9 Source: https://mercyhealthsystem.org/wp-content/uploads/2016/08/Community-Analysis-Socioeconomic-

	8th	10th	12th
Very safe	64%	62%	66%
Sort of safe	31%	30%	25%
Sort of unsafe	3%	5%	5%
Very unsafe	2%	3%	4%
Total	100%	100%	100%

Table 14: Source: Boone County's Youth Survey

During the past 12 months did you ever:	8th		10th		12th	
	%	N	%	N	%	N
Seriously consider attempting suicide	N/A	N/A	15%	35	15%	23
Feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities	33%	184	39%	93	36%	57

Table 15: Source: Boone County's Youth Survey



Figure 10: Source: https://www.neighborhoodscout.com/il/belvidere/crime

DUI in Boone County											
Category	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Arrests where driver failed breathalyzer test	131	207	181	203	106	214	188	132	130	140	145
Arrests where driver refused breathalyzer test	72	113	120	135	209	122	95	104	88	108	114
Average BAC of arrested adult drivers	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.16	0.15	0.15	0.16
Total arrests of adult drivers under the influence of alcohol	203	320	301	338	315	336	283	236	218	258	259
ER visit alcohol related					101	97	89	100	129	147	
Motor vehicle accidents (requiring inpatient treatment)	136	164	284	316	400						
Fatal crashes where driver had BAC of 0.08 or above	4	1	1		1	1					0

Table 16: Source: DUI history 2005 through 2015. Source: IDPH IQuery

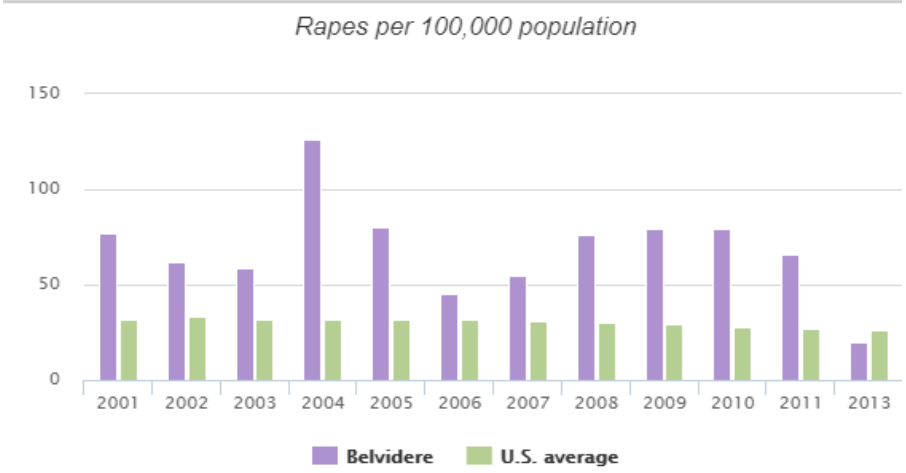
Crime Rates in Belvidere 2003-2011

	Violent crime rate	Property crime rate
2011	Belvidere: 126.6 U.S. Average: 214.1	Belvidere: 138.7 U.S. Average: 273.5
2010	Belvidere: 164.7 U.S. Average: 223.2	Belvidere: 146.8 U.S. Average: 276.4
2009	Belvidere: 143.6 U.S. Average: 238.0	Belvidere: 193.9 U.S. Average: 285.6
2008	Belvidere: 149.1 U.S. Average: 252.4	Belvidere: 171.1 U.S. Average: 302.2
2007	Belvidere: 116.8 U.S. Average: 259.7	Belvidere: 181.5 U.S. Average: 309.2
2006	Belvidere: 126.1 U.S. Average: 264.1	Belvidere: 212.9 U.S. Average: 317.3
2005	Belvidere: 134.5 U.S. Average: 258.9	Belvidere: 195.6 U.S. Average: 322.3
2004	Belvidere: 174.5 U.S. Average: 256.0	Belvidere: 202.2 U.S. Average: 327.4
2003	Belvidere: 121.7 U.S. Average: 262.6	Belvidere: 226.3 U.S. Average: 334.1

The table to the left shows that violent crime in Belvidere remained steady 2003 through 2011 while going down in the US on the average. Property crime was reduced in both the US and in Belvidere during the same period.

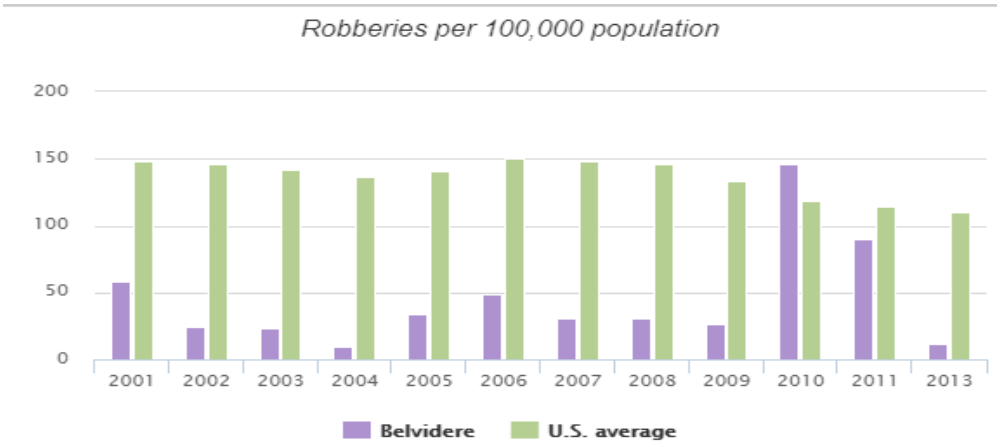
Table 17: Source www.city-data.com/crime/crime-Belvidere-Illinois.html.

Rape in Belvidere



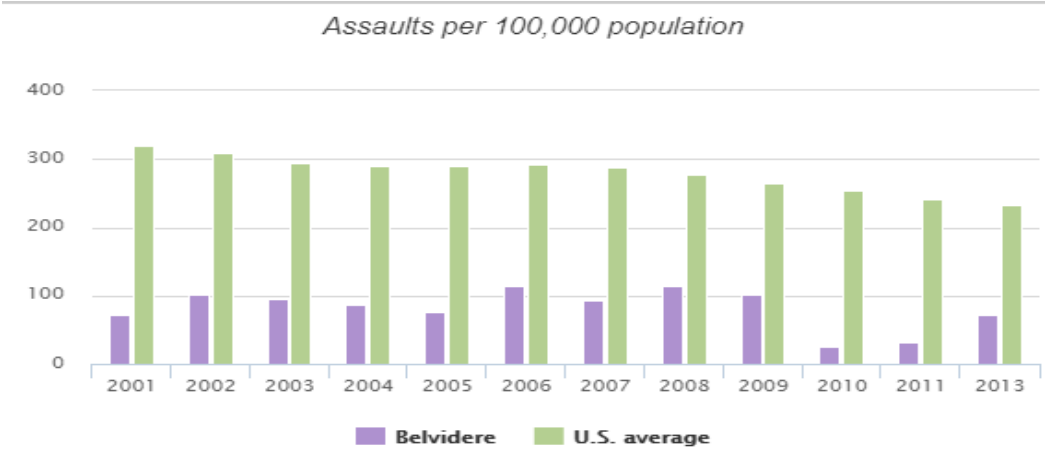
Rape in Belvidere has gone down substantially while it remains steady in the rest of the U.S.

Graph 47: Source www.city-data.com/crime/crime-Belvidere-Illinois.html.



Graph 48: Source www.city-data.com/crime/crime-Belvidere-Illinois.html

In both robbery and assault, Belvidere has a twelve year history that varies widely while assaults nationwide have seen a slow but steady decline



Graph 49: Source www.city-data.com/crime/crime-Belvidere-Illinois.html

IV. Healthcare delivery and access to care:

Access to Care

Many hospitals also use an index known as the Community Need Index (CNI) which indicates the level of barriers to healthcare. A CNI score of 1 represents less community need while a score of 5 indicates highest community need. The chart below from SwedishAmerican takes into account economic and structural barriers that affect access to care which includes income, culture or language, education, insurance and housing. Please note that transportation which is a considerable factor in access to care in Boone County is not included in the measurement.

Boone County Community Need Index, 2015

Zip Code	CNI Score	Population	City	County	State
61008	3.4	34000	Belvidere	Boone	Illinois
61011	1.6	3532	Caledonia	Boone	Illinois
61012	3	2525	Capron	Boone	Illinois
61038	2	1422	Garden Prairie	Boone	Illinois
61065	2.4	10600	Poplar Grove	Boone	Illinois

Table 18: Community Health Needs Assessment 2015, accessed at http://www.swedishamerican.org/pdfs/about/chna/SwedishAmerican%20Medical%20Center%20CHNA%20Report.pdf

Lack of access to care is more prevalent among socioeconomically disadvantaged groups that are often at high risk for disease and illness. Thus, a vicious cycle results where individuals who are at the highest risk for diseases are unable to receive screenings, thus perpetuating a cycle of disease. This is compounded by unhealthy lifestyles.

Although Boone County does have a bus service, it is deemed inconvenient to many in our community due to the fact that it requires a 24 notice for pickup, those answering the phone do not speak Spanish and there is no Spanish language option, and the phone is answered “Boone County Council on Aging” rather than Boone County Bus Line as there is no separate trunk line for the service and it is managed by the Council on Aging.

Healthcare Needs

In 2014, 87.7% of Boone County was covered by some type of health insurance and 80% had a primary care provider. Sixty percent had received an annual checkup and only 7.9% had been able to see a doctor or provider due to cost. In the years 2007 to 2009, 17.3% were unable to visit a doctor due to cost though number of insured was the same.

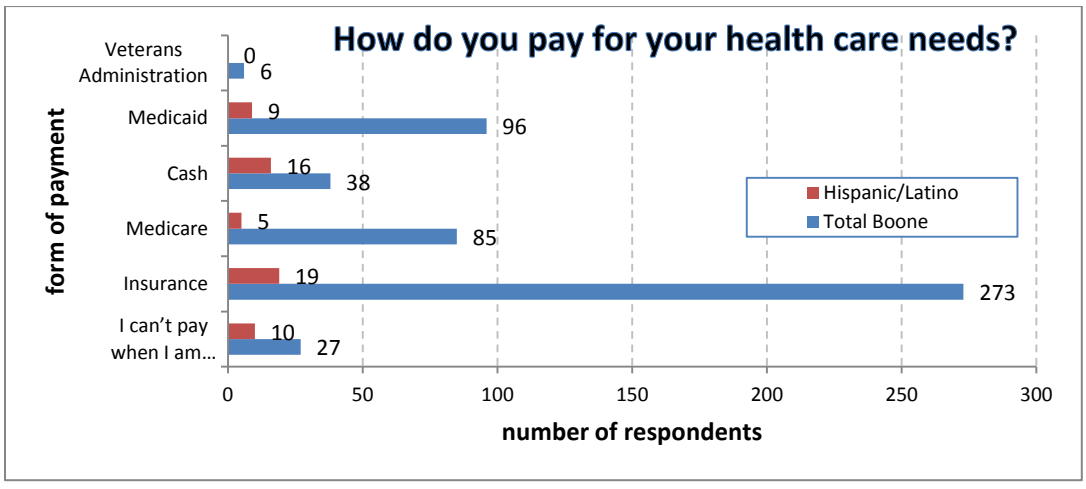
The 7.9% who were unable to see a doctor due to cost represent over 4,200 people, half of whom are between the ages of 45 and 64, 2/3 of them women (2,800), and almost all white not Hispanic nor Latino. More than half were employed while 20% were retired or disabled.

In 2009, the 17.3% who were unable to see a doctor due to cost represented over 6,500 individuals, 60% of whom were male. Eighty-six percent of the total identified as white, not Hispanic or Latino. Half were employed and about 15% were retired or disabled.

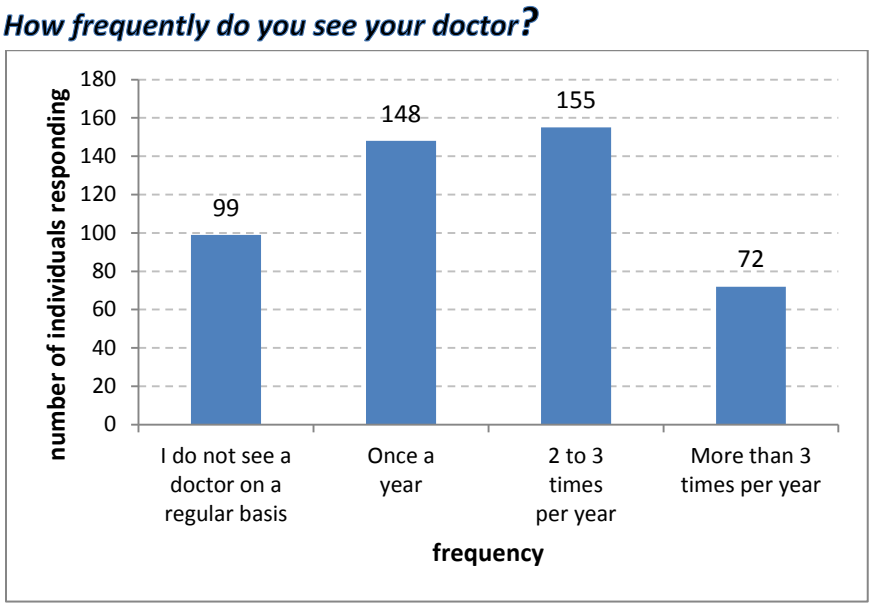
Ninety-five percent of Boone County's 65 and older population are on Medicare which has remained consistent over the past ten years.

In 2004, 12.3% of Boone County's population said they could not afford to see a dentist and in 2014, 21.3% claim to have never seen a dentist, reasons unknown.

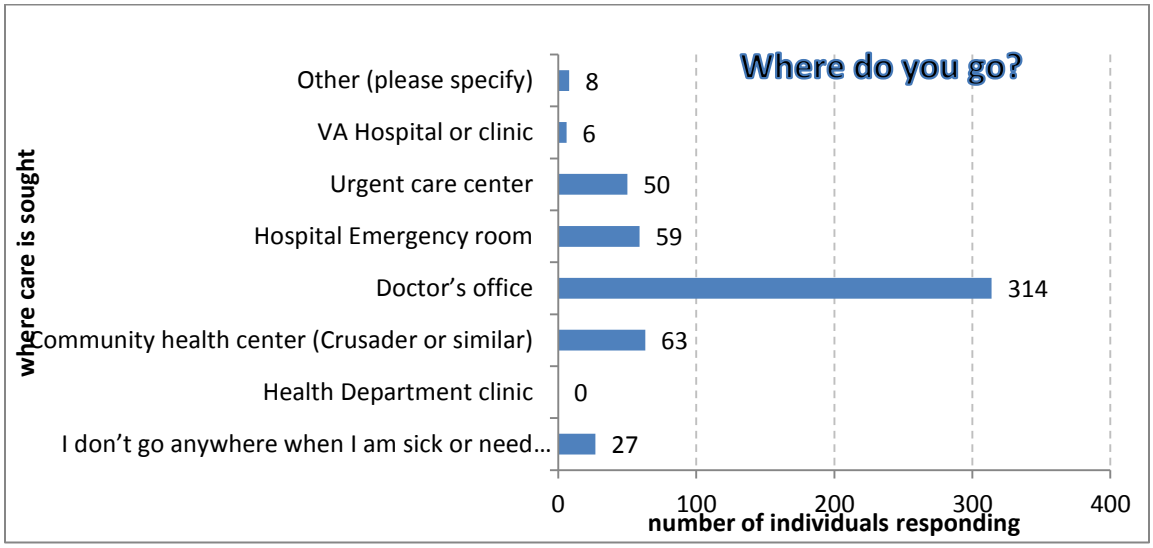
Source: Illinois Behavioral Risk Factor Surveillance System IDPH.



Graph 50: Responses to Boone County's Community Health Status Assessment - 2017



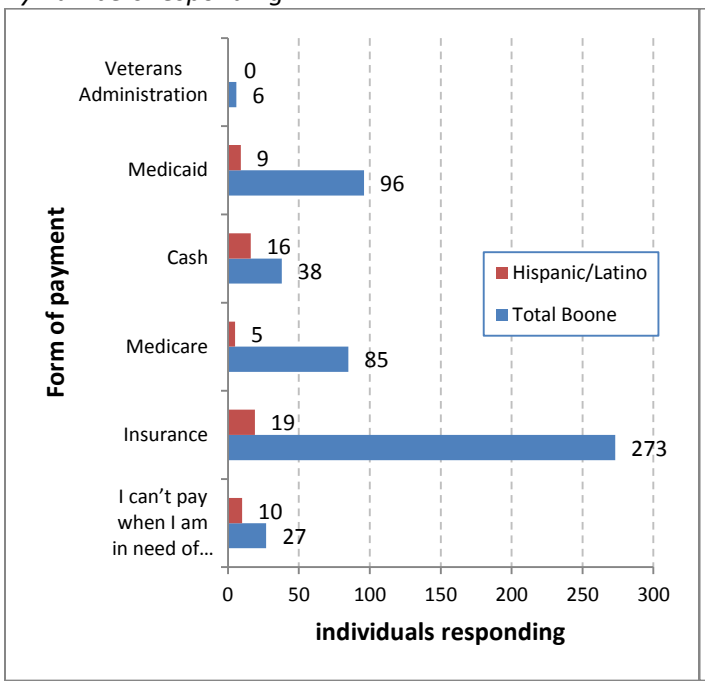
Graph 51: Responses from Boone County's Community Health Status Assessment - 2017



Graph 52: Responses from Boone County's Community Health Status Assessment, 2017

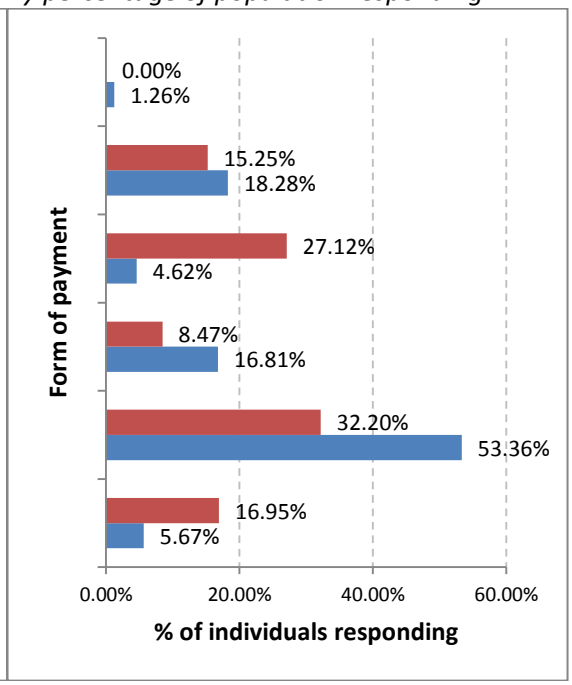
How do you pay for healthcare?

By numbers responding



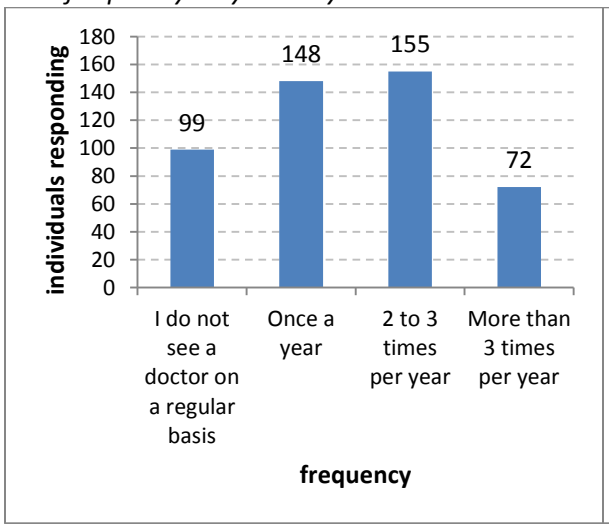
Graph 53: Responses from Boone County's Community Health Status Assessment, 2017

By percentage of population responding



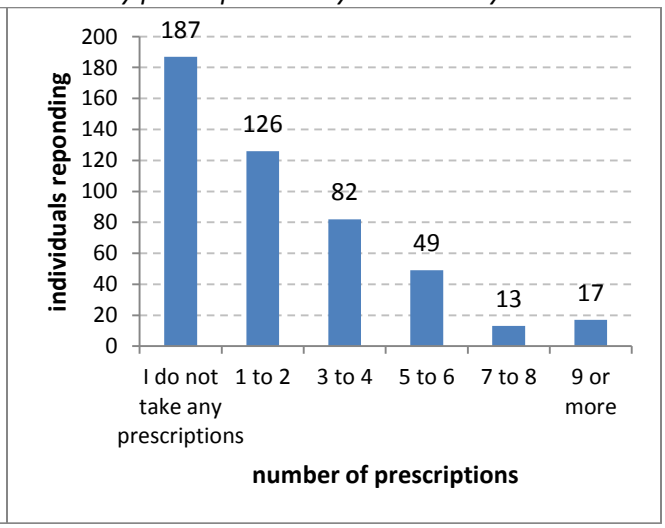
Graph 54: Responses from Boone County's Community Health Status Assessment, 2017

How frequently do you see your doctor?



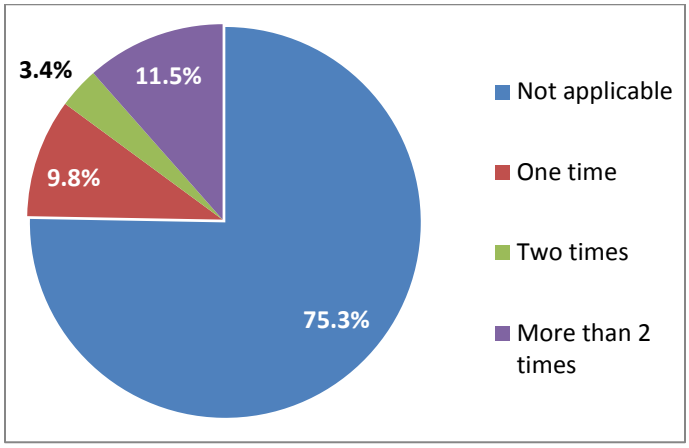
Graph 55: Responses from Boone County's Community Health Status Assessment, 2017

How many prescriptions do you take daily?



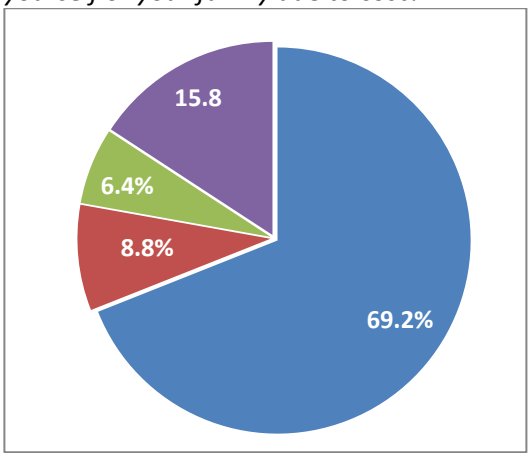
Graph 56: Responses from Boone County's Community Health Status Assessment, 2017

Over the past year, how often were you unable to get needed HEALTH care for yourself or your family due to cost?



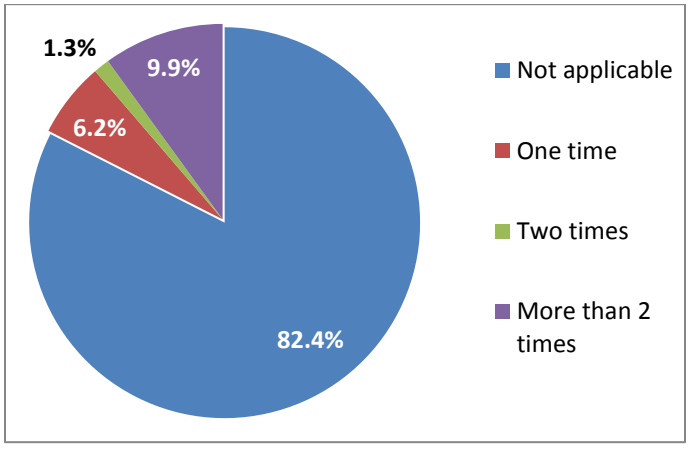
Graph 57: Responses from Boone County's Community Health Status Assessment, 2017

Over the past year, how often were you unable to get needed DENTAL care for yourself or your family due to cost?



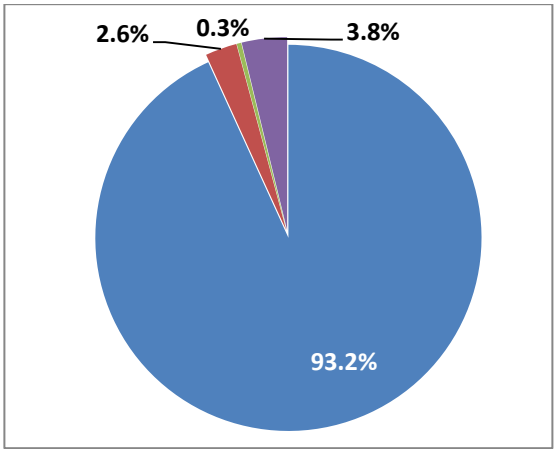
Graph 58: Responses from Boone County's Community Health Status Assessment, 2017

Over the past year, how often were you unable to get counseling for an emotional or mental health problem for yourself or your family due to cost?



Graph 59: Responses from Boone County's Community Health Status Assessment, 2017

Over the past year, how often were you unable to get counseling for an addiction or substance problem for yourself or your family due to cost?

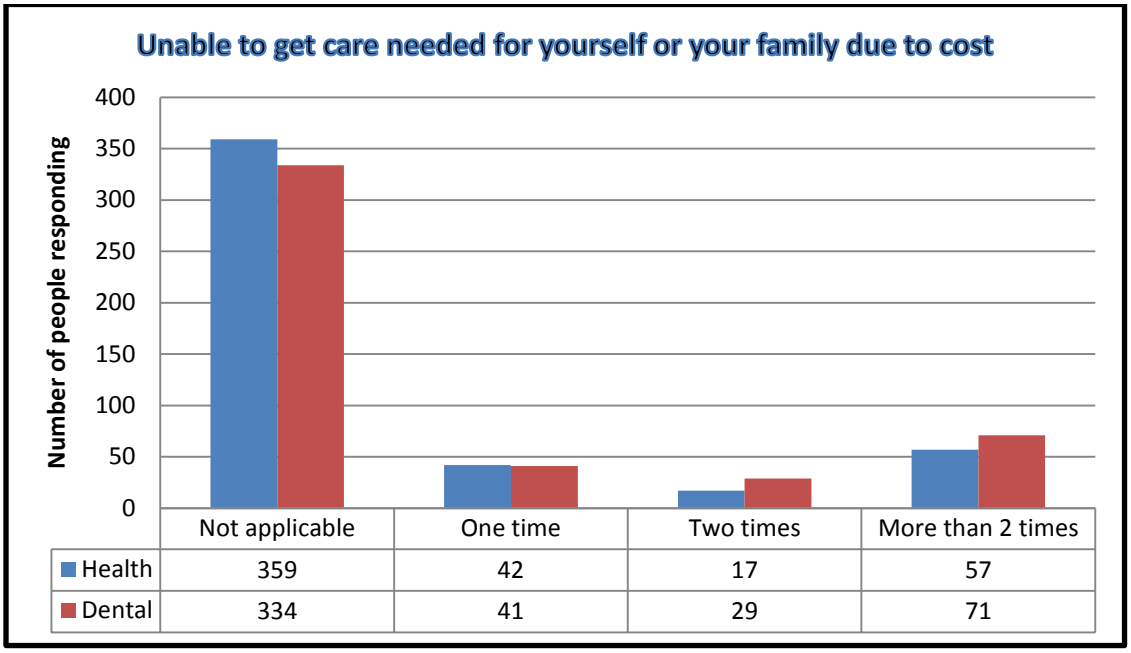


Graph 60: Responses from Boone County's Community Health Status Assessment, 2017

Health Insurance or Lack of Health Insurance is Considered a Key Driver of Health Status

Total population Boone County under the age of 19	With health insurance	On Medicaid	With no medical insurance
15,439	14,792	4,560	647

Table 19: Source: mercyhealthsystem.org/wp-content/uploads/2016/08/Community-Analysis-socioeconomicfactors.pdf



Graph 61: Responses from Boone County's Community Health Status Assessment, 2017

Hospital Admissions and Emergency Department Visits

Boone County: Unnecessary ER Visits

Report generated on 10/10/2017 3:03:45 PM using data calculated on 5/29/2013

Unnecessary ER visits are defined as the sum of NonEmergent, Emergent Primary Care Treatable, and Emergent Care Needed Preventable and Avoidable. With proper Primary Care in the community, these visits could have been avoided.

Legend



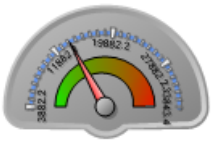
better worse

ER Visit Unnecessary

Emergency room visits identified as unnecessary due to non-emergent, treatable or avoidable conditions. More Information

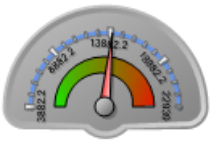
	Count	Rate	Crude Rate	AAR	LCI	UCI	CI
Boone	7562	49.2	14066.2				
Rural Counties	5137	0.0	18862.8				
Illinois	2093254	51.1	13410.6				

Peer County Comparison



Boone county compared to Rural Counties (crude rate)

State Comparison



Boone county compared to Illinois (crude rate)

Rate Type: Per 100 ER Visits All
Reporting Period: 2009

Contact: IDPH Division of Patient Safety and Quality --

Figure 10: Source: IDPH

V. Environmental Factors:

Recreation

Boone County boasts numerous conservation areas and nature trails throughout the county. The mission of the Boone County Conservation District is to preserve and manage natural areas and open spaces for ecological, educational and recreational benefits of present and future generations.

This aerial view of Boone County indicates trails and waterways within the various conservation areas in the county. The Conservation District boasts 2,945 acres of prairie, wildflowers, waterways, trails, picnic areas and interpretive centers set in a natural habitat. Many of these areas rest on the banks of the Kishwaukee River and host many species of flora and fauna typical of northern Illinois. Hikers and skiers can enjoy miles of woods and wetlands. Launch sites for kayaks and canoes are available in specified areas as are horse trails, snowmobile trails and toboggan runs.









Figure 11: http://www.bccdil.org/

Belvidere Park District

In addition to maintaining the city's parks, the Belvidere Park District hosts programs and activities year-round. Home to a pool, ice arena, sports park, rec center, and an association for special recreation.

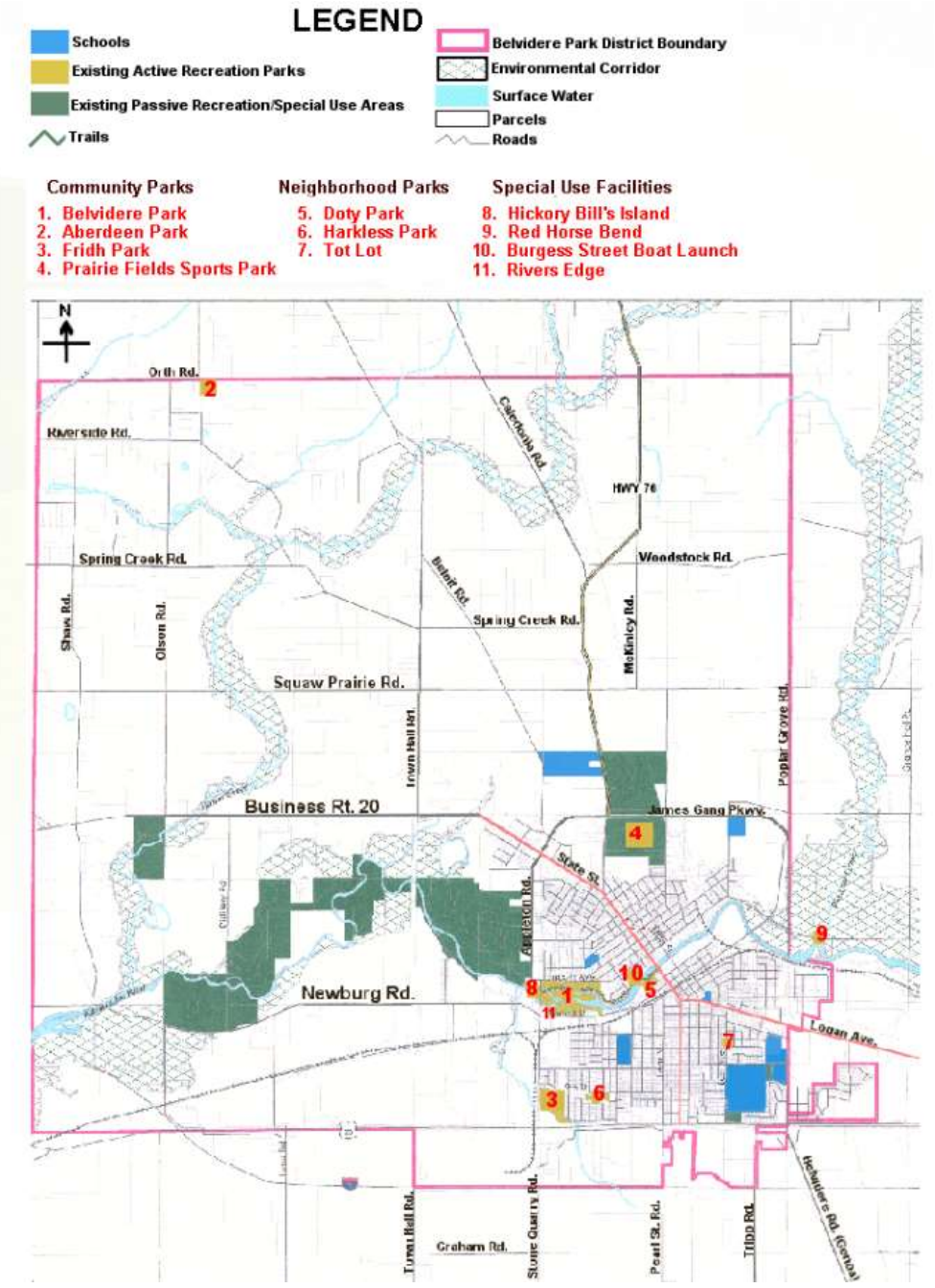


Figure 12: Belvidere park district

Bike Trails in Boone County

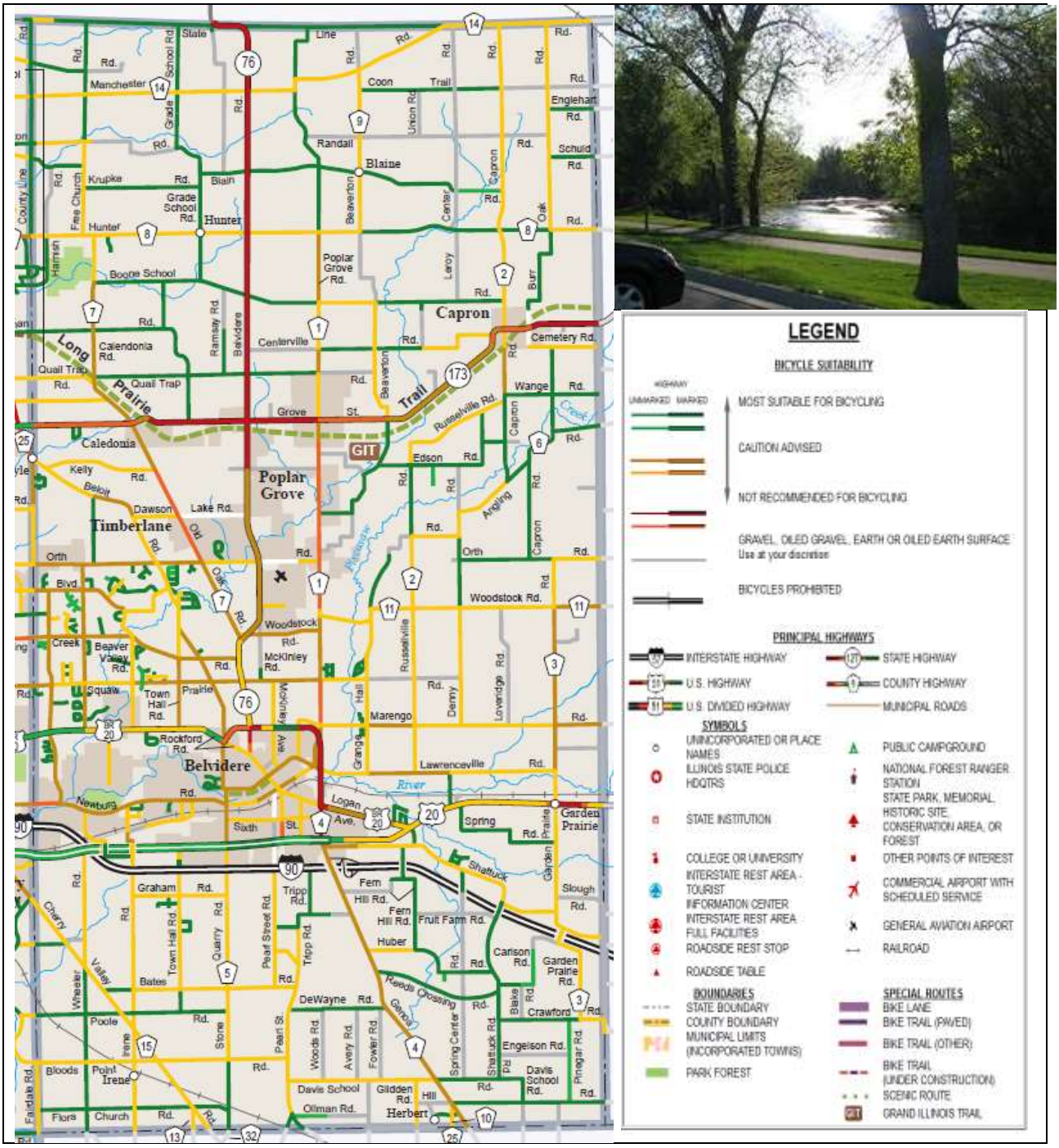


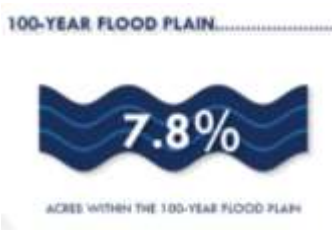
Figure 13: source -http: //www.idot.illinois.gov/travel-information/recreation/trails-paths-streets/index

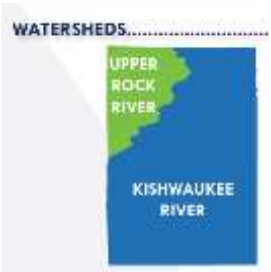
Environmental Quality

Water/Groundwater

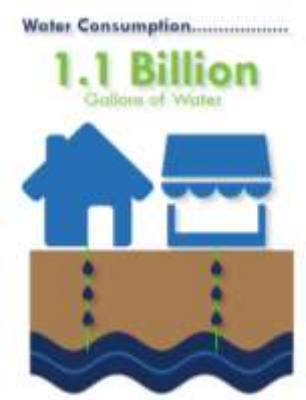








One of the most valuable natural resources in Boone County is the availability and access to water, located both above and below ground level. This has helped to shape the county's landscape, provide prime soils for agriculture, and allowed rainwater to collect in large underground aquifers. There are also several lakes, ponds, rivers, and creeks within the county, mostly flowing as tributaries into the Kishwaukee and eventually the Rock River near the Chicago Rockford International Airport. Urban and rural run-off is also affecting the water quality of the Kish.



In 2012, the City of Belvidere used approximately 1.1 billion gallons of water. The city is the largest user and municipal supplier of water in Boone County. A total of six municipalities/ associations in Boone County have off-site water services, the rest of the county uses on-site private well and septic systems.

It has been discovered that Boone County's water may be at risk from depletion as well as susceptible to contamination due to the overuse of water resources by residents in the suburbs west of Chicago.

Source: University of Illinois Water Use Map

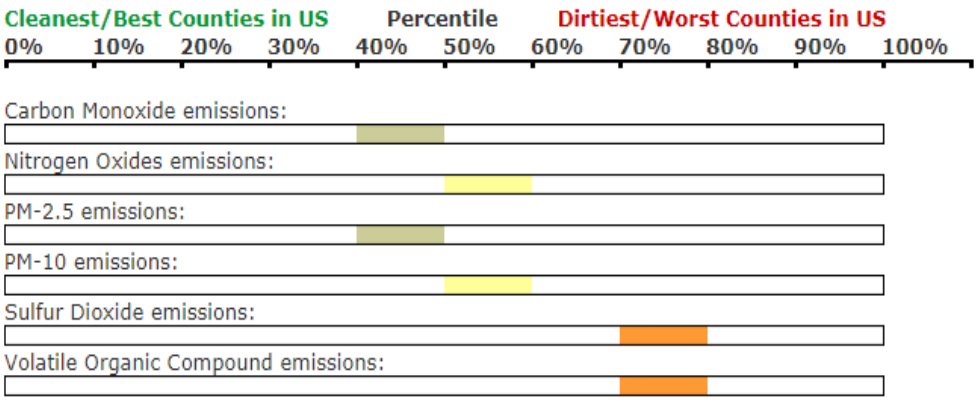
Air Quality



Graphics above courtesy of R-1 Planning and the County Comprehensive Plan Team

The American Lung Association utilizes data from the Environmental Protection Agency to rank communities according to their ozone levels and the amount of particle pollution that is found in the air. While 'Boone specific' data is incomplete or not collected, we do have a general picture of our area.

Air Quality – Boone County Area



Graph 62: Source: EPA.illinois.gov

The pollution in Boone County is credited to mobile sources defined as on-road vehicles (such as cars, trucks and buses) and off-road equipment (such as airplanes, agricultural and construction equipment). Mobile sources contribute significantly to air pollution. Driving a car is probably a person's single most polluting daily activity. The community rankings also indicate that 85% of individuals that drive to work drive alone which is 12% higher than the Illinois average; and 38% of those drivers commute long distances. Though emissions on the individual level are relatively small, collectively their emissions can be of concern.

In AARP's livability index, Boone County's water receives high marks for drinking water quality. The county water supply is essentially equally divided between city water and private wells. It is within the Health Department's jurisdiction to prevent the community from contracting waterborne diseases and to prevent disease transmission. BCHD has a program to assure provision of safe, potable supplies of water, culinary, and sanitary purposes. Additionally, the Department may inspect semi-private and private water systems for the purpose of determining compliance with provisions and regulations.

Energy Use





Awarded eco-friendly practices

Boone County businesses and homeowners alike have worked to improve their structure's energy consumption through employing alternative energy sources, new technologies, creating greater energy efficiency, carefully monitoring usage, and educating people on conservation practices. In fact, the private sector has embraced and pursued many of these ideas. The Chrysler Group LLC completed three natural gas-saving projects at the Belvidere Assembly Plant in early 2010, earning a total of $1.3 million in incentives from the Nicor Gas Energy Efficiency Program. The upgrades and improvements save nearly 2.5 million therms annually, equivalent to 1,000 homes' energy usage for one full year. Due to this effort and several others, in 2015 the plant was awarded a Leadership in Energy and Environmental Design (LEED) Gold Green Building System certification.

In the public sector, there are similar initiatives underway. Belvidere School District 100 is actively adopting eco-friendly practices throughout their facilities and have recently received the Schools of Illinois Public Cooperative Stewardship Award for their work.

Farm Land



Average price for farmland per acre:

Illinois ——— $7,492

Boone County ——— $7,899

Figure 14: www.acrevalue.com, YEAR

Recreation

28 miles of bike trails in Boone, 30 miles of path and trail network.





The Conservation District boasts 2,945 acres of prairie, wildflowers, waterways, trails, picnic areas and interpretive centers

Figure 15: Boone County Conservation District

At 77.25%, Boone County's parks and recreation area scored among the highest in satisfaction in our community survey in 2017 with overall environment following close behind at 70.0%.

The Kishwaukee River which is considered one of the highest-quality streams in Illinois due to its relatively clean, clear water, and its diversity of wildlife. Most of the Kishwaukee River corridor remains a natural setting, and subsequently is very popular for outdoor recreation. This is mainly due to the combined efforts of the Boone County Conservation District and the Forest Preserves of Winnebago County prioritizing property acquisition along the Kishwaukee River and their continued work towards creating an environmental corridor of high quality habitat to protect the river and its entire ecosystem. Being that most of the shoreline is protected in the form of parks and forest preserves there are many hiking trails and shared-use paths along the river as well as the river itself which is open to canoeing, kayaking and tubing. The river and other recreational water assets of the region are model examples of how impactful outdoor recreation can be to the local economy as tourism opportunities.





Figure 16: Boone County Conservation District

Environmental sustainability

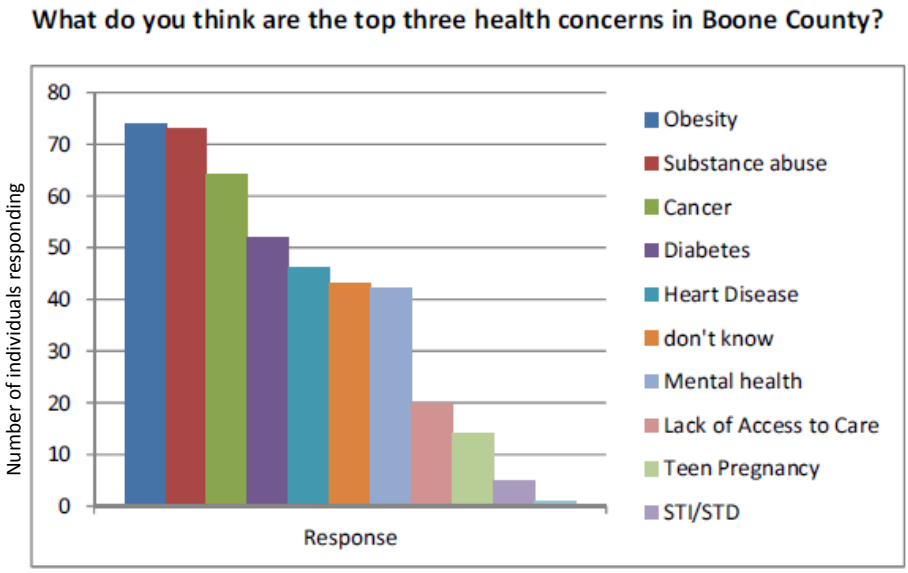
Sustainability has a triple bottom line of community benefits:

- Environmental. Example benefits might be less carbon emissions, increasing water quality, reducing product waste, or preparing for natural disasters and inclement weather events
- Economic. Example benefits might be local and regional job growth, reducing poverty, or increasing property values.
- Social. Example benefits might be increased recreational opportunities, better quality of life, improved health, or a more diverse culture.

VI. Sentinel Events:

Determining Health Priorities

In early-to-mid 2017, the Boone County Health Department performed a CASPER survey. CASPER, which stands for Community Assessment for Public Health Emergency Response, is a technique designed to provide quick and low-cost household based information about a community. The survey was created to assist health departments in identifying a community's readiness for response to a natural or manmade disaster. It was also distributed door to door through a very scientific sampling. The CASPER survey also provided an opportunity to gain a preliminary assessment of community attitudes and perceptions about health priorities and concerns. The charts below demonstrate a summary of responses to questions about health concerns.



Graph 63: CASPER response to priority health concerns – July, 2017

Notes from the Community Assessment survey concluded on December 31, 2017, the top 4 health concerns were:

(1) Illegal Drug Use,
(2) Alcohol abuse,
(3) Mental health care
(4) **Domestic Violence.**

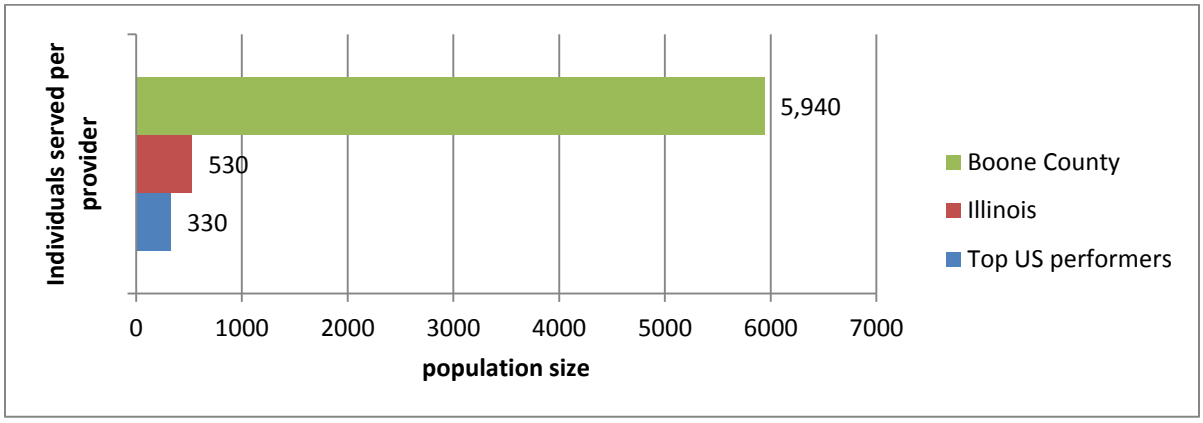
Substance Abuse

Mental healthcare providers

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute published their most recent *County Health Rankings* in February 2017. While Boone County gets favorable marks in many areas, the number of mental health care providers is not one of them.

The graph below indicates that in Boone County, there is one mental healthcare provider for every 5,940 members of the community vs. the state average of one provider for every 530 individuals. The location of the top US performer was not given.

Numbers of individuals served by one mental health provider in US, Illinois and Boone County.



Graph 64: 2017 County Health Rankings, RWJ Foundation and UW.

Domestic Violence



1. Economic Instability

Abusers commonly sabotage a victim's economic stability, making them more vulnerable to homelessness. Whether it's through damaging a victim's credit score or denying a victim access to their own income or savings, abusers often find ways to affect an individual's financial independence and stability to maintain their own power and control. This makes it difficult for victims who have made the decision to leave to be able to access new housing.

2. Limited Temporary Housing

Emergency shelters offer an incredible refuge and security to victims of domestic violence. They can be a space of healing and a place to determine next steps in the journey away from abuse. Emergency shelters, however, are not permanent. The **average stay is only 60 days** while the average time it takes to find housing is 6-10 months. For individuals or families without another place to seek temporary housing, homelessness is the only option.

3. Lack of Affordable Housing

According to the National Low Income Housing Coalition, f**or every 100 extremely low income (ELI) renter households, only 30 rental units are readily available and affordable**. The scarcity of accessible housing makes it incredibly difficult for domestic violence victims to find a place to live after they have fled an abusive relationship. This keeps many emergency shelters at capacity and causes many families or individuals in need of shelter to be turned away. When choosing between returning to an abuser and homelessness, many choose homelessness

Figure 17: source http://nnedv.org.

Resources and acknowledgements

The Boone County Health Department wishes to thank the committee responsible for the Boone County Comprehensive plan and R1 Regional Planning Council for their collaboration in this effort and their generous sharing of data. Together we will Build Our Best Boone.

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