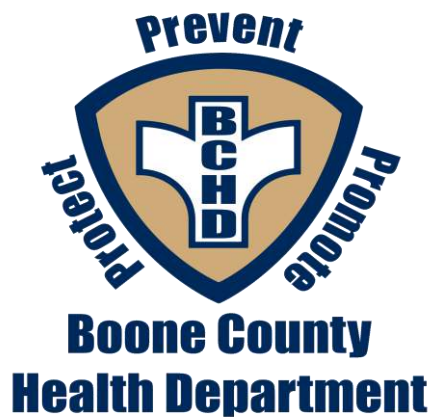


2018 Boone County Community Health Assessment



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PREFACE

Acknowledgements

Sincere appreciation is expressed to the following for their support and guidance in the development of this document.

- Alzheimer's Association
- American Health Network
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- Boone County Child Advocacy Center
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- Boone County Health Department
- Boone County Probation
- Boone County Prosecutor's Office
- Boone County Sheriff's Office
- Boone County WIC
- The Caring Center
- CICOA Aging and In-Home Solutions
- The City of Lebanon
- Community Foundation of Boone County
- Cummins Behavioral Health
- Drug Free Boone County
- Excel Home Healthcare, LLC
- Integrative Wellness, LLC
- Lebanon Area Boys and Girls Club
- Mental Health America of Boone County
- Ossip at Witham Hospital
- Parr Richey Law Firm
- Purdue Extension Boone County
- Riggs Health Boone County (formerly Boone County Community Clinic)
- The Arc of Greater Boone County
- Traders Point Christian Schools
- United Way of Central Indiana
- Witham Health Services
- Zionsville Community Schools

Indiana Map on the cover page from: <http://poegen.net/IN/PoeIndiana.htm>

Introduction

The Boone County Community Health Assessment (CHA) is the result of a compilation of fact-based data designed to pinpoint the health status, behaviors, and needs of Boone County residents. This assessment will inform decisions to guide efforts to improve community health and wellness.

Community health assessments use fact-based information to identify community issues of the greatest concern. Community stakeholder collaboration can lead to a positive health status in the community.

Executive Summary

We reviewed these data sources to identify areas of common concern.

- Witham Health Services 2015 Community Health Needs Assessment
- 2016-2018 County Health Rankings and Ratings
- The Indiana State Department of Health (ISDH)
- Boone County Fitness Gram Aggregated Results
- 2017 Purdue Extension Change Tool Assessment
- STATS Indiana
- 2018 Boone County Healthy Coalition Provider Survey
- Feeding America

Observed Areas in Need of Improvement in Boone County:

➤ Obesity & Nutrition

- Obesity Rates
- Food Deserts
- Food Insecurity

➤ Chronic conditions

- **Cancer related deaths**
 - Lung Cancer
 - Prostate Cancer
 - Female Breast Cancer
- Alzheimer's disease deaths

➤ Behavioral Health

- **Substance Use**
 - ER visits
 - Overdoses
 - Access to drug and alcohol treatment/recovery
 - Drug Induced Deaths
 - Rate of Hepatitis C
 - Excessive Alcohol Use
- **Tobacco/Nicotine Use**
 - Adult Nicotine Use
 - Youth Nicotine Use
 - Marketing Strategies
- **Mental Health**
 - Access to Services
 - Chronic Depression
 - Suicide Deaths

Methodology

Witham Health Services

The Community Health Needs Assessment applies quantitative and qualitative sources.

Professional Research Consultants (PRC) conducted a Community Health Needs Assessment. The sample size for the quantitative and qualitative assessment was 750 individuals age 18 and older in Boone County. The surveyed study area is defined by residential ZIP Codes – 46052, 46071, 46075, 46077, and 46147. This data was used to compile the Witham Health Services 2015 Community Health Needs Assessment.

Quantitative Data:

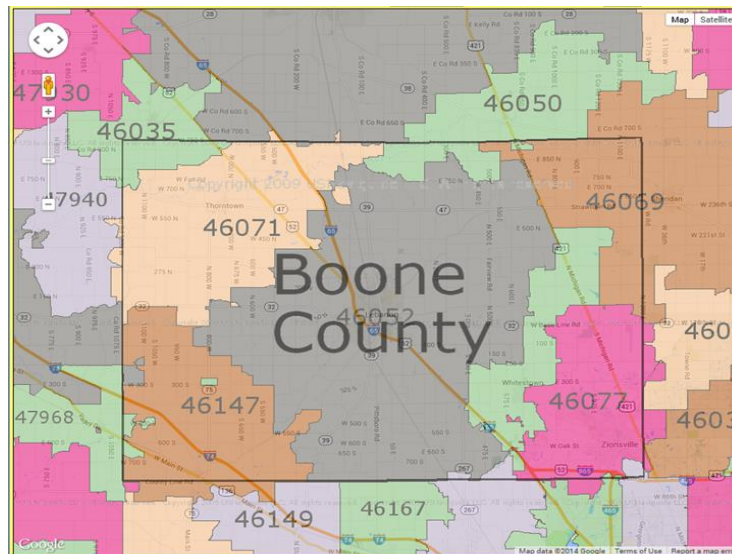
Primary research: The PRC Community Health Survey Community stakeholders (48) responded to the survey. These included 20 community/business leaders, 5 physicians, 13 health providers, 3 public health representatives, and 7 social service providers.

Secondary research (vital statistics and other existing health-related data): Comparisons were made between the collected and benchmark data at the state and national levels.

Qualitative Data:

The qualitative data input includes primary research gathered through a local online key informant survey.

The survey instrument used for this study is based on the Centers of Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by Witham Health Services and PRC, and is similar to the previous survey used in the region while allowing for data trending.



County Health Rankings

The County Health Rankings measure the health of nearly all counties in the nation and rank them within states. The Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights.

The Indiana State Department of Health (ISDH) website

The ISDH website provides fact-based data on the many health issues facing Hoosiers. Data to quantify and qualify the drug abuse epidemic prevalent throughout Indiana and in Boone County is of great interest in this document. This is new data compiled by ISDH.

Boone County Fitness Gram Aggregated Results

Witham Health Services implemented the FitnessGram Testing tool to gather local data to establish a benchmark, but also to see if programs implemented by community partners were having a positive impact on childhood obesity. FitnessGram is the gold standard in accessing good physical health and fitness developed by the Cooper Institute, NFL Play60 and the President's Council on Exercise. The team assesses almost 5,000 Boone County children each year. The assessment measures body composition, muscular strength, muscular endurance, flexibility and cardiovascular fitness of elementary age children.

Purdue Extension Change Tool Assessment

The Purdue Extension Nutrition Education Program (NEP) applies the Center for Disease Control Change Tool to assess nutrition and physical activity needs in the community. A local team interviewed representatives from five community sectors – community-at-large, community institutions and organizations, schools, healthcare, and work sites. The results highlight opportunities for improvement at a summary level for policy, system, and environment changes.

STATS Indiana:

STATS Indiana is the statistical data utility for the State of Indiana, developed and maintained since 1985 by the Indiana Business Research Center at Indiana University's Kelley School of Business. The data on STATS Indiana are provided by more than 100 federal and state agencies, along with commercial or private data sources.

2018 Boone County Healthy Coalition Provider Survey

Several local Healthcare Providers were surveyed early 2018 on a variety of topics including mental health, wellness, transportation, dental care, and substance use disorders. Their responses provided valuable input that assists with recognizing barriers, perception, awareness and a glimpse into their daily activities of providing healthcare in Boone County.

Feeding America Website

Feeding America is a United States-based nonprofit organization that is a nationwide network of more than 200 food banks that feed more than 46 million people through food pantries, soup kitchens, shelters, and other community-based agencies.

Demographics

Boone County is located in the metropolitan Indianapolis region of Indiana. It includes 12 civil townships as follows: Center, Clinton, Eagle, Harrison, Jackson, Jefferson, Marion, Perry, Sugar Creek, Union, Washington and Worth. Lebanon is the county seat.

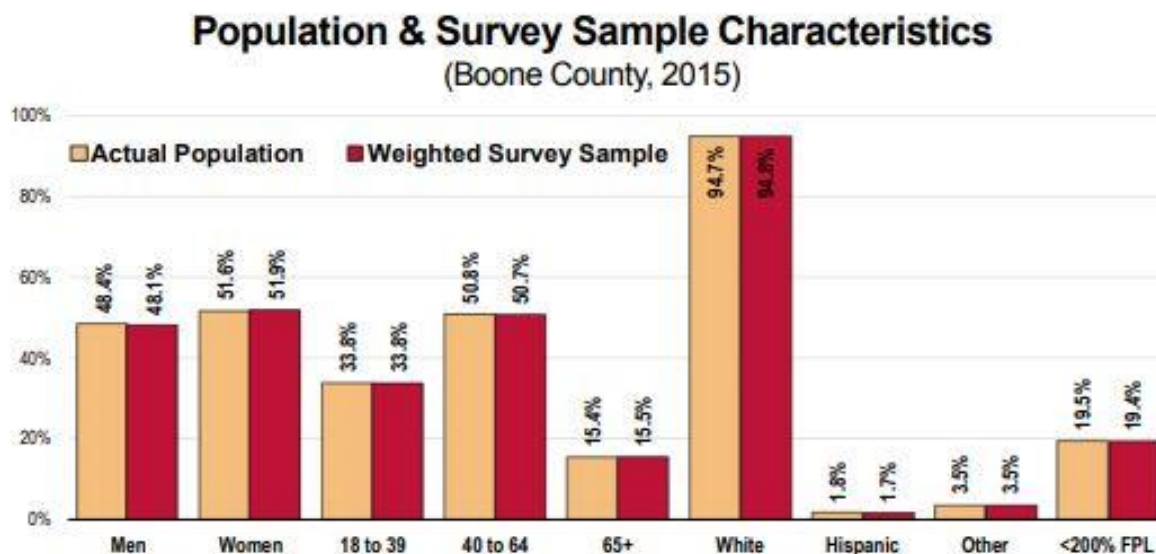
According to STATS Indiana, the 2017 population of Boone County was 65,875 residents. The median age is 38.9 years, with 20.5 percent of the population below 18 years and 12.7 percent over 65 years. Boone County has experienced a 16.3 percent growth in population since 2010.

The population is predominantly White (94.1 percent); Asian alone (2.4 percent); more than one race (1.8 percent); Black or African American alone (1.3 percent); and American Indian and Alaska Native alone (0.2 percent). The Hispanic or Latino population (of any race) is 2.6 percent.

The median household income in Boone County was \$80,634 in 2016, with poverty rate of 7.7 percent for children under 18 and 7.0 percent for families. The unemployment rate reported by the US Department of Labor in 2016 was 2.8 percent. In 2016/17, 93.2 percent of Boone County residents 25 years and older held a high school diploma or higher and 44.5 percent held a bachelor's degree or higher degrees.

There were 773 births and 527 deaths in 2015 in Boone County.

This chart highlights the population from census data compared with key demographic variables from Boone County. The poverty description used in the report by Witham Health Services uses thresholds determined by the US Department of Health & Human Services. Poverty status is determined by household income level, and the number of persons in the household.



Source: 2015 Witham Health Services Community Health Needs Assessment

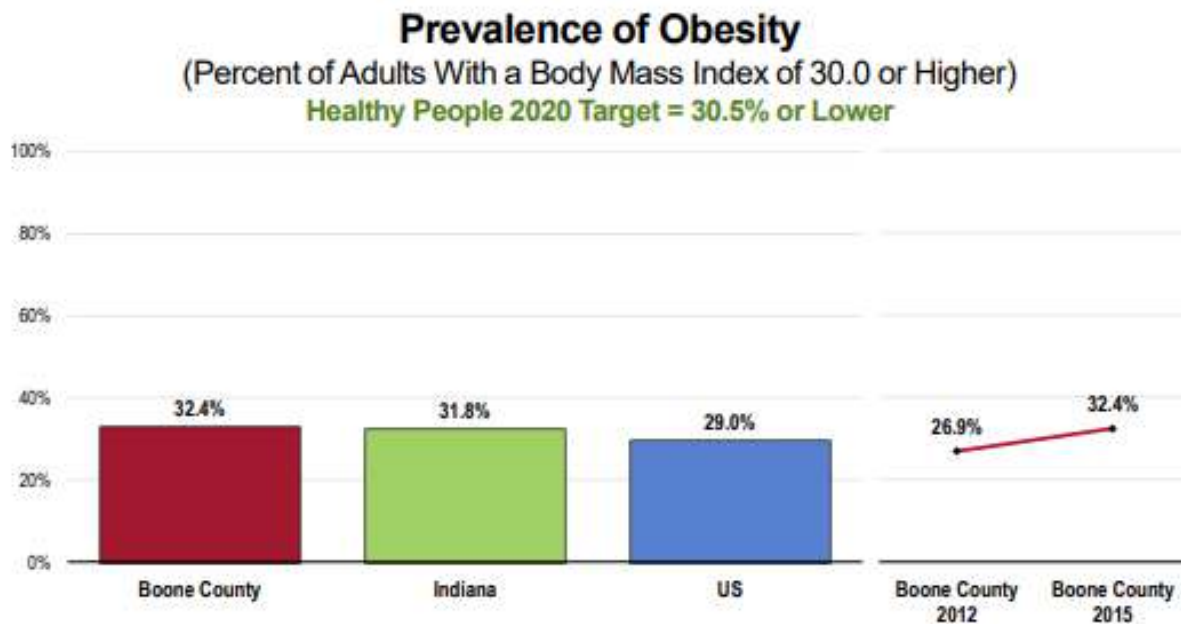
KEY FINDINGS

Obesity & Nutrition

Obesity

Indiana ranks 7th highest in the nation for obesity, with over 66 percent of adults and 33 percent of children overweight or obese.

According to the Witham Health Services 2015 Community Health Needs Assessment, 32.4 percent of service area adults are obese. This is similar to state and national findings, but misses the Healthy People 2020 target of 30.5 percent. There has been a statistically significant increase in obesity in Boone County since 2012.

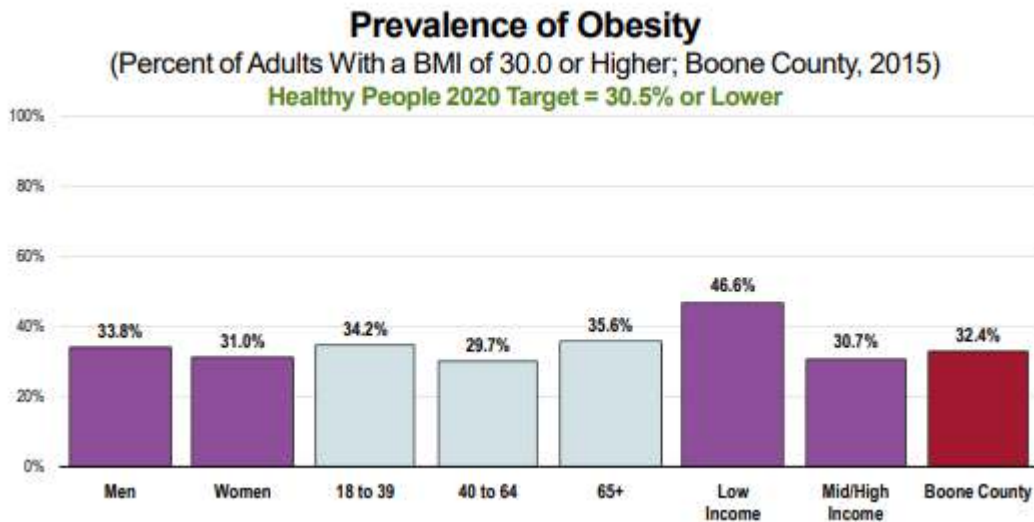


Source: Witham Health Services 2015 Community Health Needs Assessment

According to the County Health Rankings and Ratings, Boone County obesity rates held steady at 28 percent in 2016 and 2017, but increased by a percentage in 2018.

2016	2017	2018
28 percent	28 percent	29 percent

The Witham Health Services 2015 Community Health Needs Assessment indicates a large increase in obesity in the 18-39 range (nearly doubled) and obesity is notably more prevalent among the lower income population.

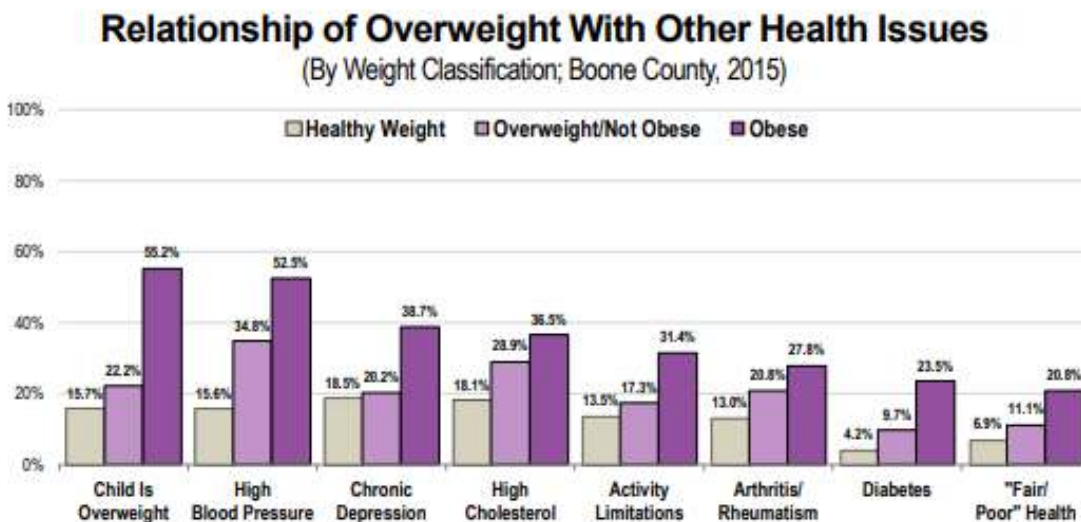


Source: Witham Health Services 2015 Community Health Needs Assessment

Relationship of Overweight with Other Health Issues

Overweight and obese adults are more likely to report a number of adverse health conditions. Among these are:

- Hypertension (high blood pressure)
- Chronic depression
- High cholesterol
- Activity limitations
- Arthritis/rheumatism
- Diabetes
- “Fair” or “poor” physical health

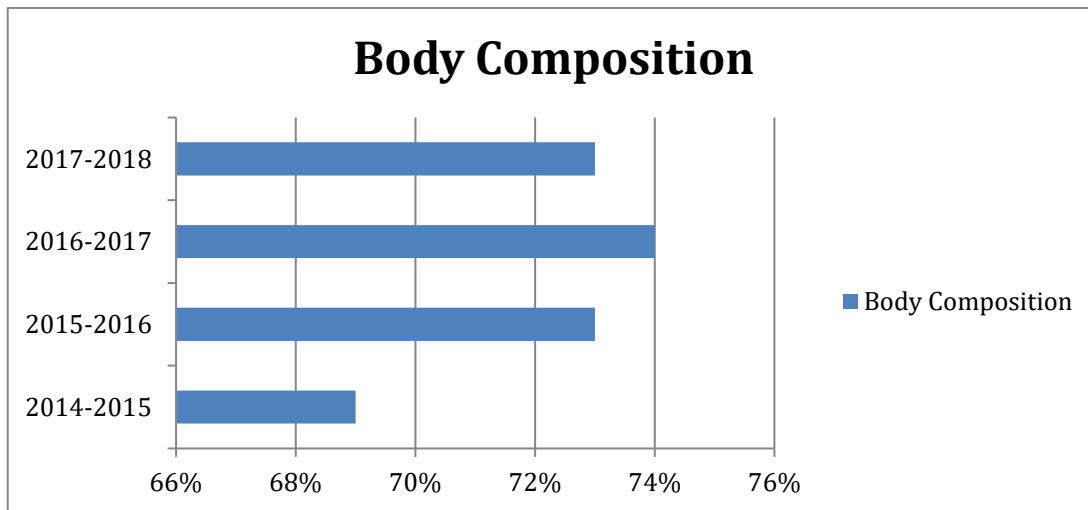


Source: Witham Health Services 2015 Community Health Needs Assessment

Childhood Obesity

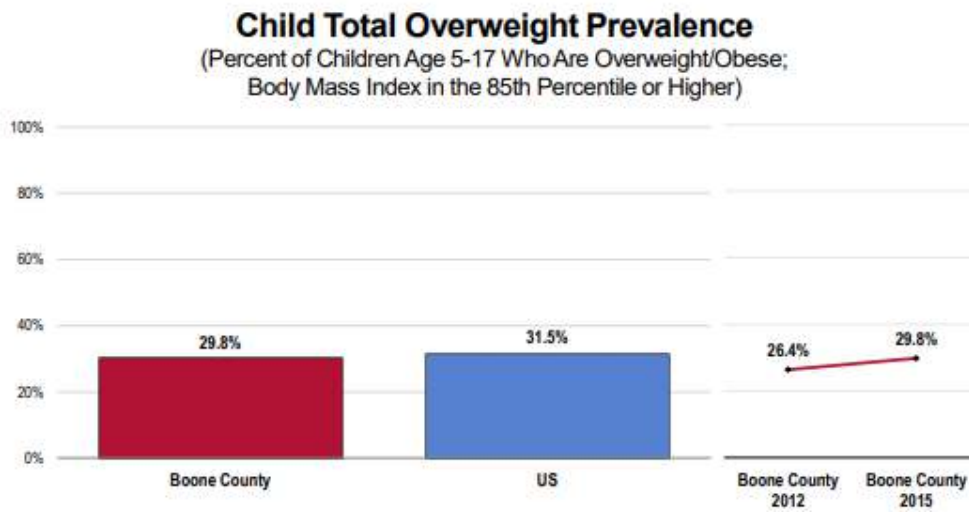
Witham Health Services implemented the FitnessGram tool in 2014 to gather local data. The assessment measures body composition, muscular strength, muscular endurance, flexibility and cardiovascular fitness of almost 5,000 elementary age children in our Boone County School Systems.

Body composition is the percentage of fat on the child. This is used as an indicator of obesity, more reliable than BMI because children develop at different rates. The following graph shows that 73 percent of children were in the Healthy Fitness Zone for body composition, meaning 27 percent of children are overweight or obese. The healthy fitness zone is an indicator of good health, but does not refer to athletic ability or fitness.



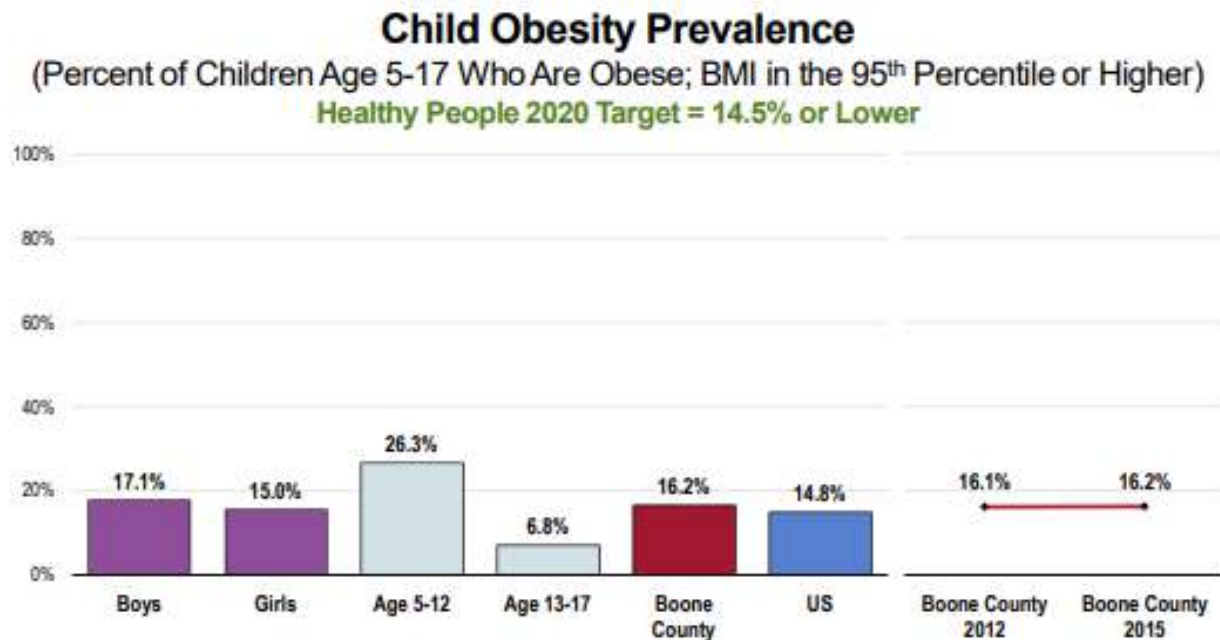
Source: Witham Health Services 2014 FitnessGram Tool

According to the Witham Health Services 2015 Community Health Needs Assessment, 29.8 percent of Boone County children age 5 to 17 are overweight or obese (≥ 85 th percentile). This is comparable to that found nationally and remains statistically unchanged since 2012.



Source: Witham Health Services 2015 Community Health Needs Assessment

Further, 16.2 percent of area children age 5 to 17 are obese (≥ 95 th percentile). This is similar to the national percentage and the Healthy People 2020 target (14.5 percent or lower for children age 2-19). This trend is Statistically unchanged since 2012. Obesity is much higher among younger children than among teens.



Source: Witham Health Services 2015 Community Health Needs Assessment

Nutrition

In 2015 the Surgeon General issued a call to action (CTA) to promote walking and walkable communities due to the obesity epidemic in the United States.

In Indiana one in ten adults eat the recommended amount of fruits and vegetables. Depending on age and sex federal guidelines recommend adults eat at least 1 ½ to 2 cups of fruit and 2 to 3 cups per day of vegetables as part of a healthy eating pattern. (Center for Disease Control, Nov. 16, 2017)

Indiana Grown estimates 90 percent of the food consumed in Indiana is locally sourced although we are the 10th largest farm state in the nation.

The demand for locally grown fruits and vegetables is at an all-time high with new farmers' markets popping up throughout the state. The 2017 Purdue Extension Change Tool Assessment identified a demand for more local fruits and vegetables, but also a need for nutrition education including food preparation. Boone County alone has re-launched or added three new farmers' markets in the past several years.

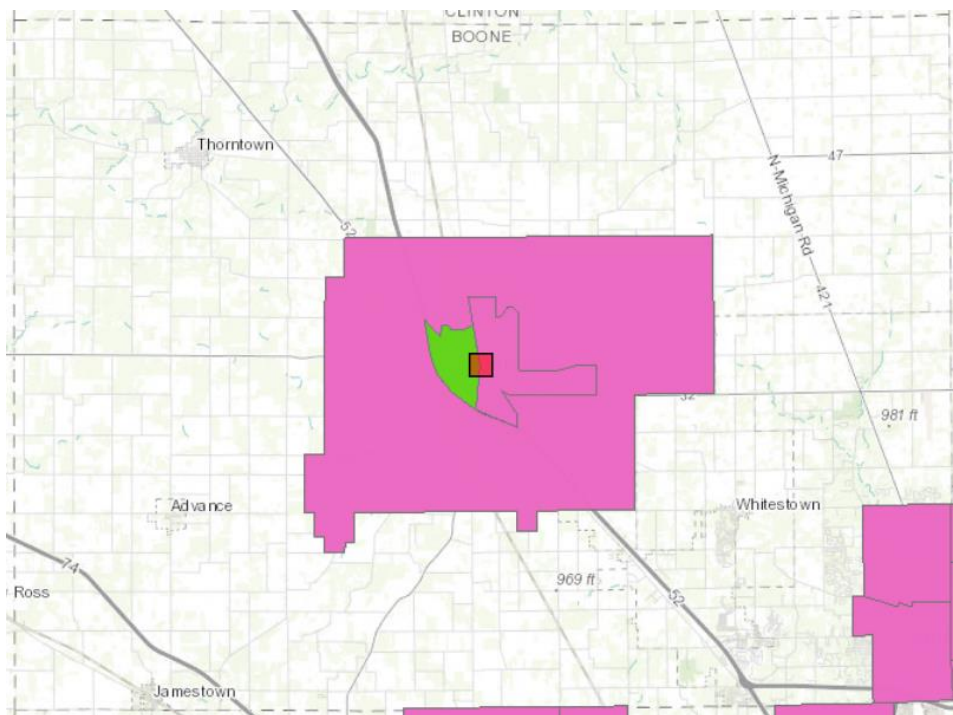
According to the United States Department of Agriculture (USDA) the proliferation of fast food restaurants in Boone County per 1,000 residents has increased 22.56 percent from 2009 to 2014. The percentage of sit-down restaurants per 1,000 residents has decreased by 1.09 percent in that same time period. A 2010 study concluded limited but consistent evidence suggests that increased geographic density of fast food restaurants is related to increased BMI.

Food Insecurity

Access to nutritious food is a key factor in healthy eating. Food insecurity exists in every county and congressional district in the country. Not everyone struggling with hunger qualifies for federal nutrition assistance. According to the USDA, A food desert is an urban or rural area where there is very little availability of affordable, healthy, fresh foods. Low access to a healthy food retail outlet is defined as living more than one mile from a supermarket or large grocery store in urban areas and as more than 10 miles in rural areas. Where you live can have an impact on your health and quality of life. In food deserts, residents often experience food insecurity, or limited availability of nutritionally adequate and safe foods.

In Indiana, 26 of 91 counties have food deserts and 33 percent of Hoosiers cite limited access to grocery stores as the reason for food insecurity.

This map depicts areas of Boone County with low food access (food desert), requiring a trip of greater than one mile (urban) or 10 miles (rural) to the nearest grocery story. The green overlay area is a low-income census tract.



There is a link between access to food and obesity. The USDA reports moderately strong evidence indicates the food environment is associated with dietary intake, especially less consumption of vegetables and fruits, and higher body weight. The presence of supermarkets in local neighborhoods and other sources of vegetables and fruits is associated with lower BMI, especially for low-income Americans, while the lack of supermarkets and long distances to supermarkets are associated with higher BMI.

In 2016, 5,860 people in Boone County were food insecure, accounting for a 9.5 percent food insecurity rate. This is lower than the state food insecurity rate of 13.7 percent.

2016 Overall County Food Insecurity in Indiana, Boone County

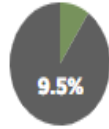


FOOD INSECURE PEOPLE IN BOONE COUNTY

5,860



FOOD INSECURITY RATE IN BOONE COUNTY



9.5%

ESTIMATED PROGRAM ELIGIBILITY AMONG FOOD INSECURE PEOPLE IN BOONE COUNTY



49%	Above Other Nutrition Program threshold of 185% poverty
13%	Between 130%-185% poverty
37%	Below SNAP threshold 130% poverty

AVERAGE MEAL COST

\$2.84

ANNUAL FOOD BUDGET SHORTFALL

\$2,847,000

2016 Overall County Food Insecurity in Indiana

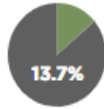


FOOD INSECURE PEOPLE IN INDIANA

910,870



FOOD INSECURITY RATE IN INDIANA



13.7%

ESTIMATED PROGRAM ELIGIBILITY AMONG FOOD INSECURE PEOPLE IN INDIANA



31%	Above Other Nutrition Program threshold of 185% poverty
15%	Between 130%-185% poverty
54%	Below SNAP threshold 130% poverty

AVERAGE MEAL COST

\$2.62

ANNUAL FOOD BUDGET SHORTFALL

\$408,203,000

Source: Feeding America

Physical Activity

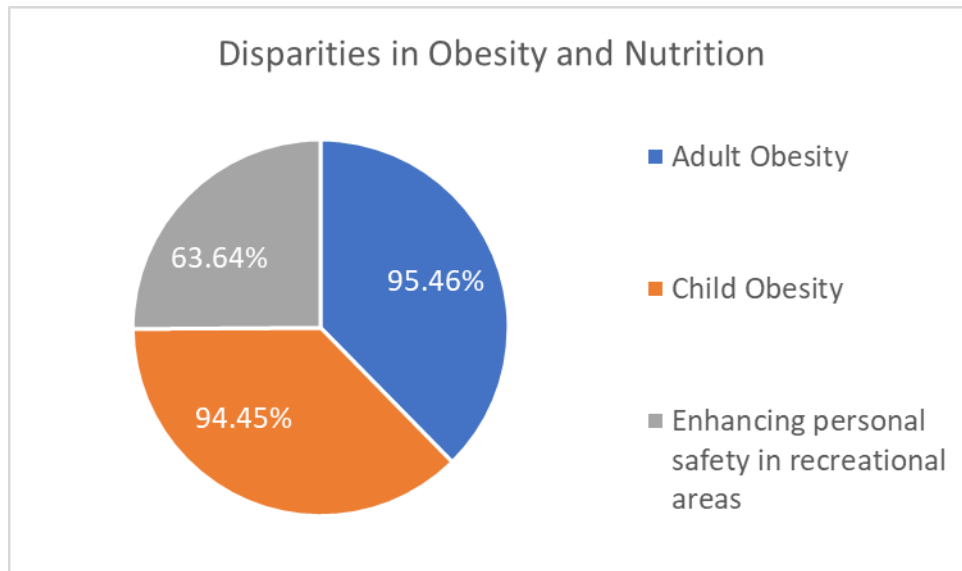
In Indiana less than 46 percent of adults and 24.2 percent of youth meet overall physical activity guidelines. (Center for Disease Control)

- For health benefits, adults should try to be active daily and do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity aerobic activity such as cycling or brisk walking every week, and strength exercises on two or more days a week (working all major muscle groups). Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.
- Children and adolescents should do 60 minutes (1 hour) or more of physical activity daily.

In Boone County 21 percent of adults reported they participate in no leisure time physical activity, down from 22 percent in 2017 as reported in the physical activity metric in the County Health Rankings and Ratings. This metric is nearing the 20 percent met by top U.S. performers.

2016	2017	2018
25 percent	22 percent	21 percent

The following graph represents the percentage of 2018 Boone County Healthy Coalition Provider Survey respondents who identified Obesity & Nutrition as significant health issues.



KEY FINDINGS

Chronic Conditions

Age-adjusted mortality rates in Boone County are worse than national rates for suicide, heart disease, stroke, cancer, chronic lower respiratory disease (CLRD), Alzheimer’s disease, and kidney disease and fail to satisfy the Healthy People 2020 goals for suicide, heart disease, stroke, cancer, unintentional injury, and drug-induced deaths.

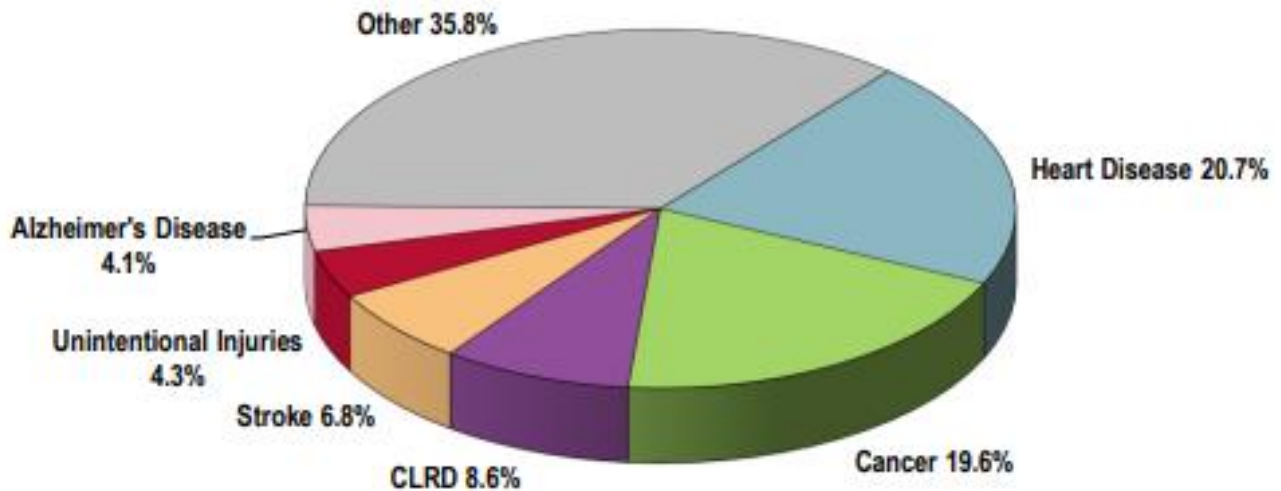
Age-Adjusted Death Rates for Selected Causes (2012-2014 Deaths per 100,000 Population)

	Boone County	Indiana	US	HP2020
Diseases of the Heart	186.2	185.8	169.1	156.9*
Malignant Neoplasms (Cancers)	173.9	181.2	163.6	161.4
Chronic Lower Respiratory Disease (CLRD)	61.5	56.0	41.4	n/a
Cerebrovascular Disease (Stroke)	53.3	41.7	36.5	34.8
Alzheimer’s Disease	43.6	28.6	24.2	n/a
Unintentional Injuries	40.8	42.8	39.7	36.4
Diabetes Mellitus	20.4	25.5	21.1	20.5*
Kidney Diseases (2010-2014)	16.9	19.0	13.6	n/a
Intentional Self-Harm (Suicide)	16.0	14.3	12.7	10.2
Drug-Induced (2010-2014)	14.4	16.8	14.2	11.3
Pneumonia/Influenza (2010-2014)	10.8	14.9	15.2	n/a
Motor Vehicle Deaths (2010-2014)	10.7	11.4	10.6	12.4
Firearm-Related (2010-2014)	9.0	11.6	10.3	9.3
Cirrhosis/Liver Disease (2004-2013)	4.8	8.7	9.5	8.2

Source: Witham Health Services 2015 Community Health Needs Assessment

Leading Causes of Death

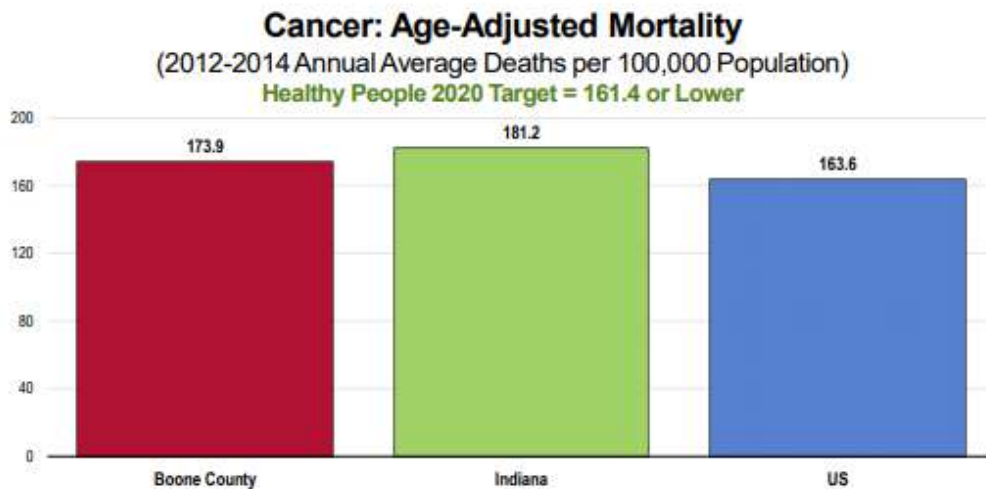
Leading Causes of Death (Boone County, 2014)



Source: Witham Health Services 2015 Community Health Needs Assessment

Cancer

Between 2012 and 2014, there was an annual average age-adjusted cancer mortality rate of 173.9 deaths per 100,000 people. This is similar to the statewide rate but worse than the national rate and fails to satisfy the Healthy People 2020 target of 161.4 or lower.

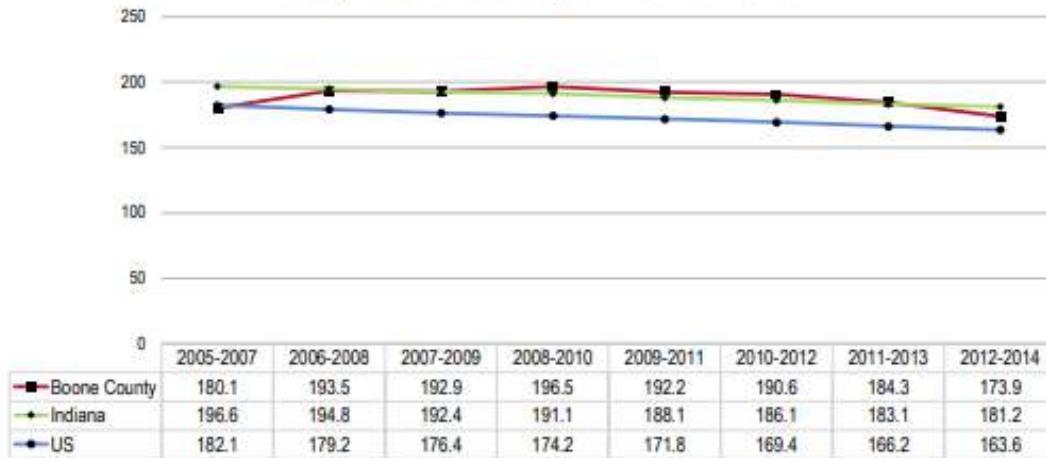


Source: Witham Health Services 2015 Community Health Needs Assessment

Cancer: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 161.4 or Lower



Source: Witham Health Services 2015 Community Health Needs Assessment

Each of the cancer death rates failed to satisfy the related Healthy People 2020 target, with the exception of colorectal cancer.

Age-Adjusted Cancer Death Rates by Site

(2012-2014 Annual Average Deaths per 100,000 Population)

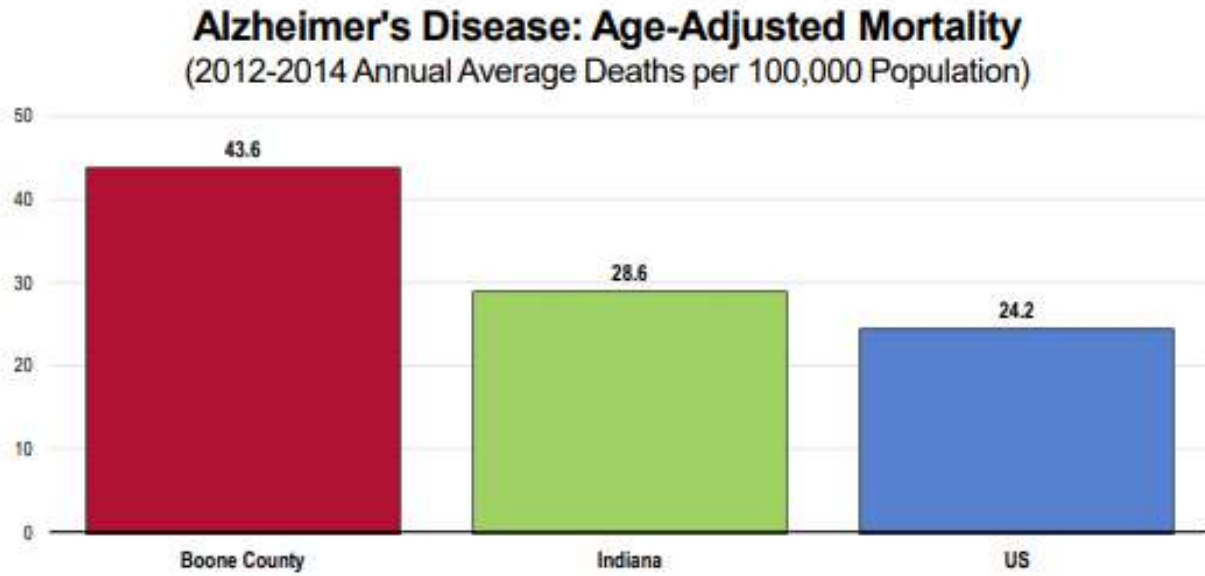
	Boone County	Indiana	US	HP2020
Lung Cancer	50.8	54.1	43.4	45.5
Prostate Cancer	29.1	20.4	19.2	21.8
Female Breast Cancer	22.4	21.5	20.9	20.7
Colorectal Cancer	11.6	16.0	14.6	14.5

Source: Witham Health Services 2015 Community Health Needs Assessment

Lung cancer is by far the leading cause of cancer deaths in Boone County. Other leading sites include prostate cancer among men, breast cancer among women, and colorectal cancer (both genders).

Alzheimer's disease

Between 2012 and 2014, there was an annual average age-adjusted Alzheimer's disease mortality rate of 43.6 deaths per 100,000 population in Boone County. This is well above both the state and national rates.



Source: Witham Health Services 2015 Community Health Needs Assessment

KEY FINDINGS

Behavioral Health

Substance Use

Excessive alcohol consumption considers both the amount of alcohol consumed and the frequency of drinking. Although moderate alcohol use is associated with health benefits such as reduced risk of heart disease and diabetes, excessive alcohol use causes 88,000 deaths in the US each year. While Boone County continues to battle excessive drinking, drug use has skyrocketed in the county, resulting in increased deaths, non-fatal ED visits due to opioid overdoses, and soft tissue infections associated with drug abuse. Prescription drug misuse includes taking a drug in a manner other than prescribed and taking drugs prescribed to another person. Drug overdose deaths were the leading cause of injury death in the US in 2013.

President Trump declared the Opioid Crisis as a national emergency in August 2017.

Drug Related Deaths

The Deaths from Drug Poisoning – Opioid data from the ISDH shows a 3.6 Boone County rate as compared to lower rates in surrounding counties. The following chart, provided by the Indiana State Department of Health, shows that the rate per 100,000 of drug overdose deaths in Boone County involving opioids and unspecified substances exceeds Indiana rates substantially. The rate for opioid involvement for Indiana is 7.99 percent as compared to Boone County at 9.47 percent. Likewise, the rate for unspecified substance involvement for Indiana is 12.13 percent compared to 15.79 percent for Boone.

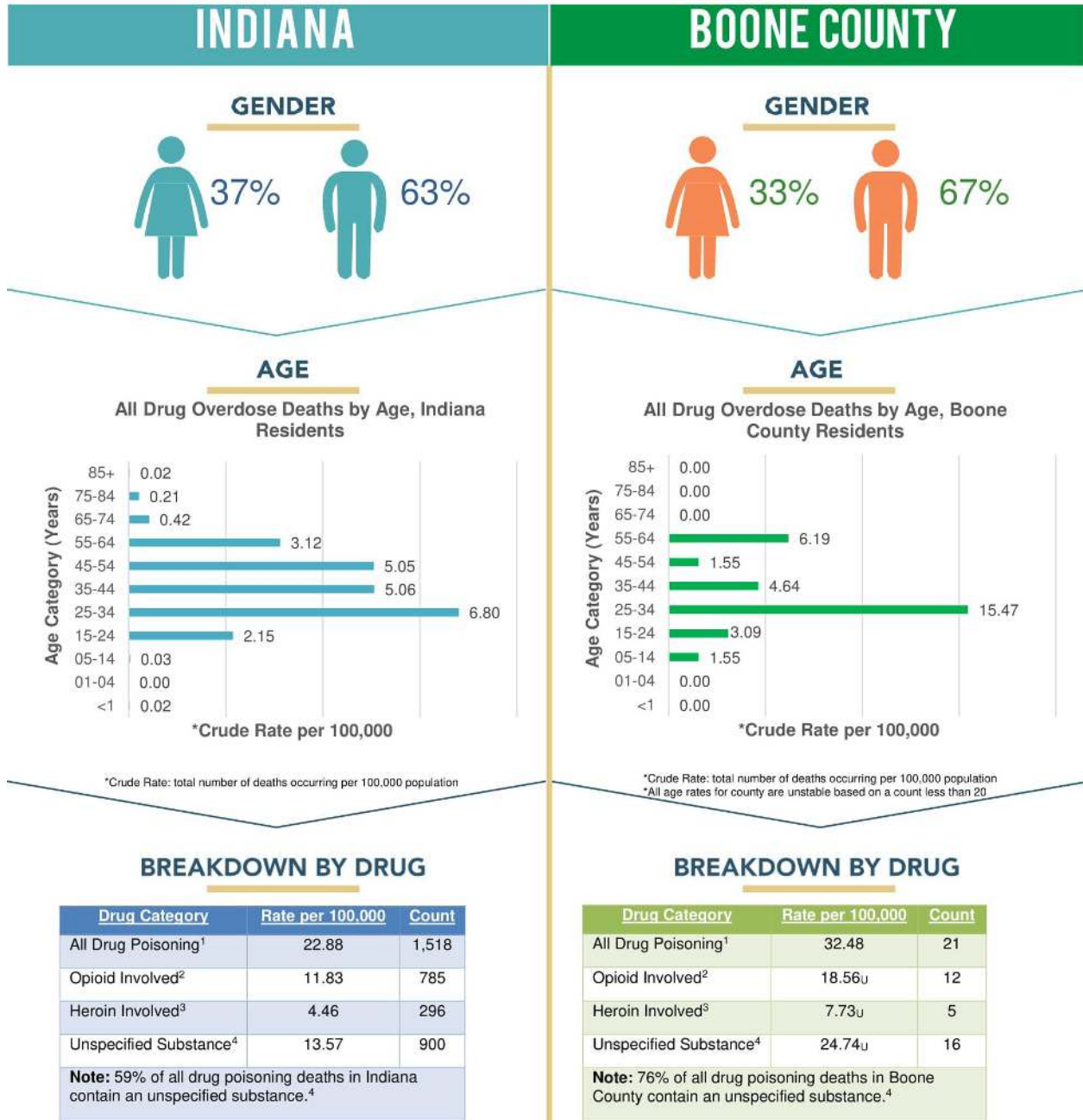
Tobacco/Nicotine Use

Tobacco use is the number one preventable cause of death in the United States and is responsible for 480,000 deaths each year. It is a leading cause of many different forms of cancer, heart disease, birth defects, and chronic lung diseases. Tobacco products include cigarettes, smokeless tobacco, cigar products, and electronic cigarettes (e-cigarettes). According to the Health Rankings, Boone County's adult smoking rate is 17 percent, which is slightly lower than Indiana's average of 21 percent. About 2,781 Boone County residents suffer from smoking-related illnesses. Smoking caused 93 deaths in 2017.

Mental Health

According to the National Alliance on Mental Illness, 1 in 5 adults experience a mental illness in a given year. Approximately 1 in 5 youth experience a severe mental illness at some point in their life. This data suggests that approximately 14,000 individuals in Boone County have a mental illness. Mental illness does not discriminate; it affects all demographics. Not only can mental health cause a challenge for the individual with a mental illness, but also their families. With many people affected by mental illness, it is imperative that our community understand mental health and how to access services and support.

2016 FATAL DRUG OVERDOSE DEMOGRAPHICS

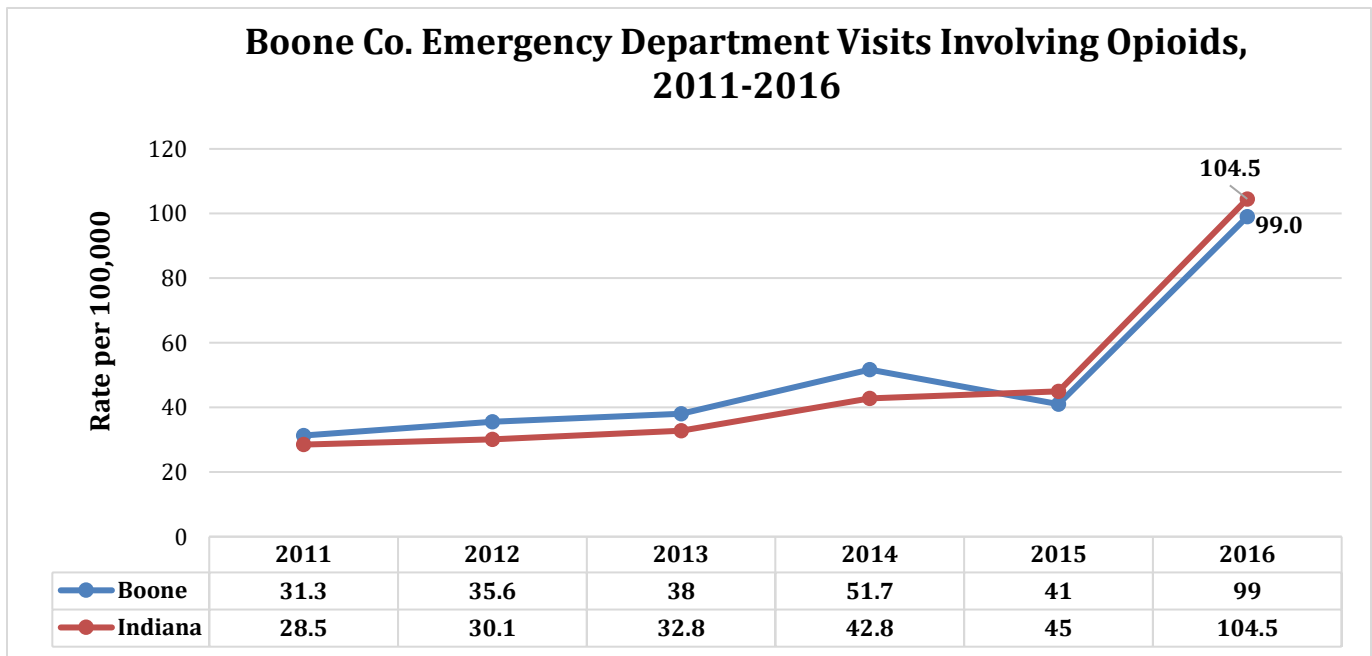


*Rates with a subscript U indicate an unstable rate based on a count less than 20. ICD-10 codes were used to identify drug overdoses. All Drug Poisoning¹: underlying cause of death X40-X44, X60-X64, X85, or Y10-Y14. Opioid involved²: underlying cause of death X40-X44, X60-X64, X85, or Y10-Y14 with contributing cause of death T40.0-T40.4, T40.6. Heroin involved³: underlying cause of death X40-X44, X60-X64, X85, or Y10-Y14 with contributing cause of death T40.1. Unspecified substance⁴: underlying cause of death X40-X44, X60-X64, X85, or Y10-Y14 with contributing cause of death T50.9. Note that death counts may be included in more than one category which can result in category counts that are higher than the total.

There has been an upward trend in emergency department visits involving opioids in Boone County since 2016.

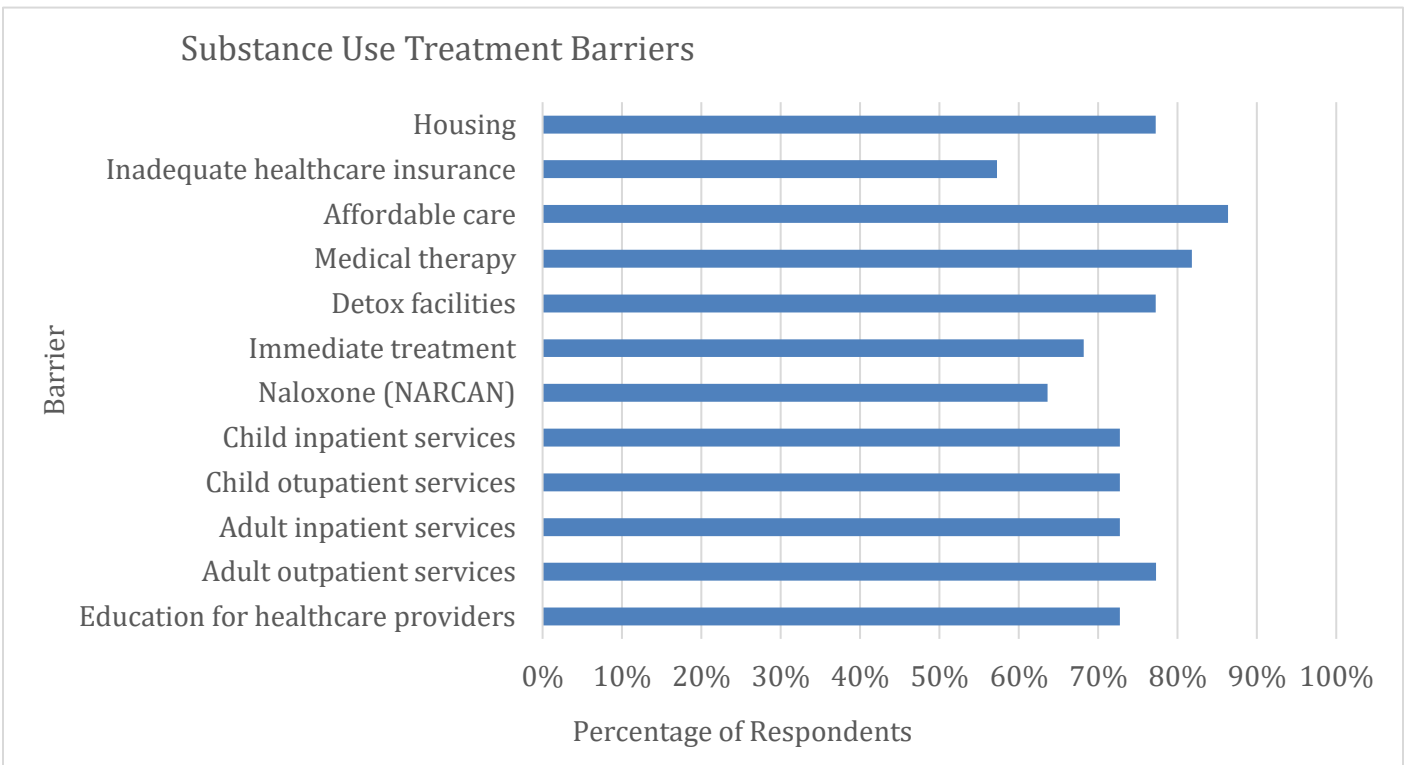
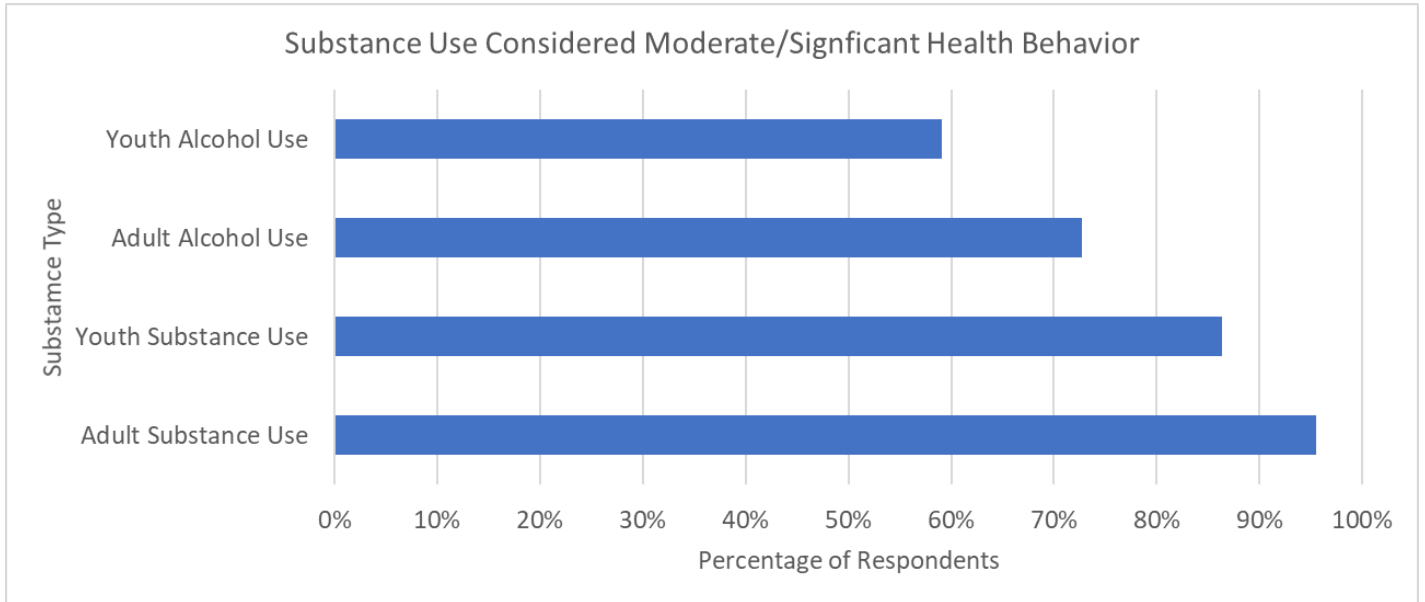
The U.S transitioned from ICD-9-CM to ICD-10-CM on Oct. 1, 2015. The red line indicates the switch from ICD-9-CM to ICD-10-CM. The reader should consider the change in coding systems when comparing results from analysis of ICD-10-CM coded data to those from ICD-9-CM coded data. Indiana residents discharged from a non-federal or acute care-affiliated facility having a diagnosis of acute drug poisoning involving any opioid. Data consists of patients who remain in a hospital less than 24 hours. Data reported by county of residence.

Codes used: ICD-10-CM Diagnostic Code: T40.0, T40.1 T40.2; T40.3; T40.4; T40.6. ICD-9-CM Diagnostic Code: 965.00-965.09.



Data Source: Indiana State Department of Health, Division of Trauma and Injury Prevention, Data Analysis Team, Indiana Hospital Association. Hospital Discharge Files.

Respondents to the 2018 Boone County Healthy Coalition Provider Survey cited the following concerns regarding Substance Use in Boone County:



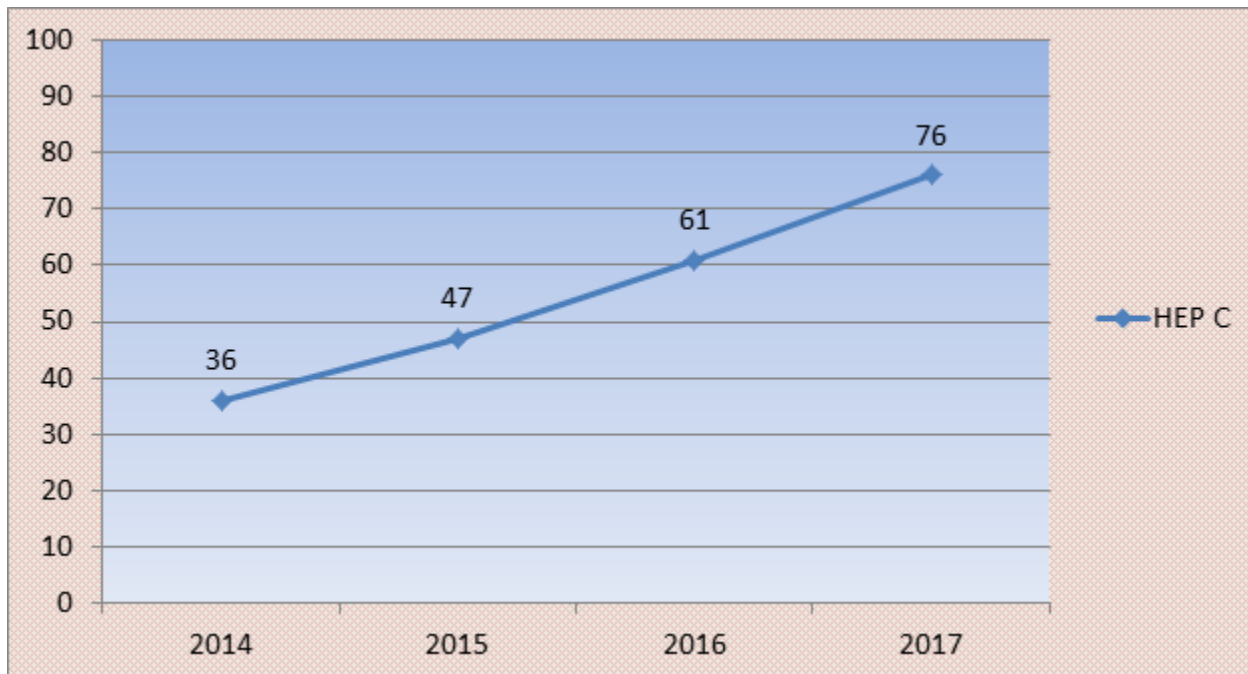
Hepatitis C

According to the CDC, Hepatitis C Virus (HCV) is a liver infection caused by the hepatitis C virus. Hepatitis C can range from a mild illness lasting a few weeks to a serious, lifelong illness. Hepatitis C is often described as “acute,” meaning a new infection or “chronic,” meaning lifelong infection. People who inject drugs (PWID), particularly those who share syringes and injection equipment, are the leading risk factor among both acute and chronic HCV cases in Indiana and increased since 2010. In 2015, among cases of HCV who provided risk factor information during the case investigation, 30 percent acknowledged injection drug use, an increase of 18 percent from 2010. In Indiana, 8.6 percent of people testing positive for HIV are co-infected with HCV. Among those coinfecting in Indiana, 34 percent report injection drug use, compared with the national average of 75 percent.

Boone County, IN

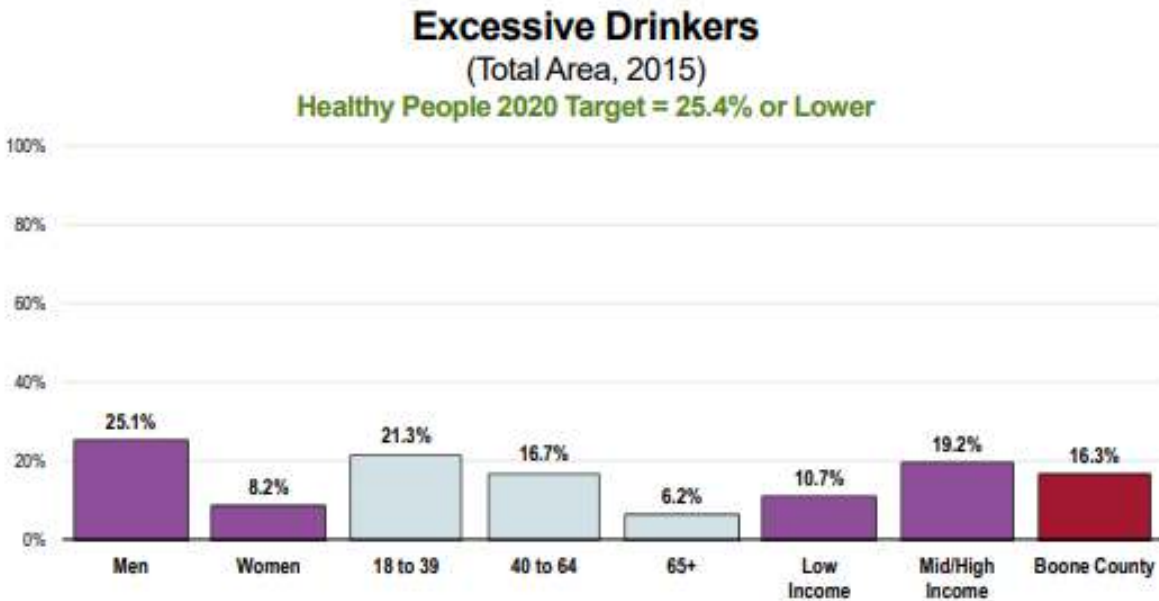
Chronic Hepatitis C cases 2014-2017

The number of Chronic Hepatitis C cases in Boone County increased by 111 percent between 2014 and 2017.



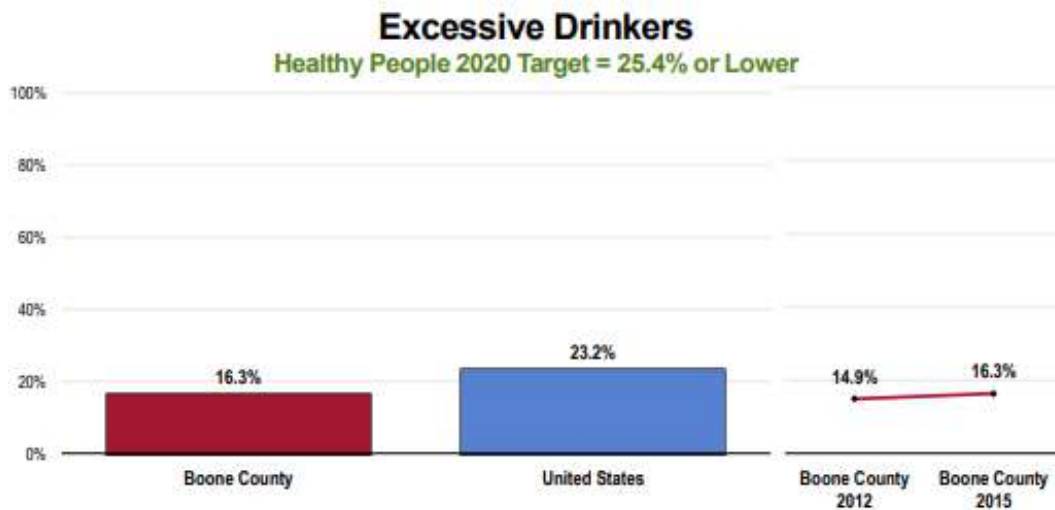
Excessive Drinking

2018 County Health Rankings and Ratings data show top performers achieving a 13 percent excessive drinking metric with the Indiana metric at 19 percent. Boone County ranks in the middle at 16.3 percent. Excessive drinking is more prevalent among men, younger adults (negative correlation with age), and upper-income residents,



Source: Witham Health Services 2015 Community Health Needs Assessment

A total of 16.3 percent of area adults are excessive drinkers (heavy and/or binge drinkers). This is a more favorable rate than the national proportion and satisfies the Healthy People 2020 target (25.4 percent or lower). This is statistically unchanged since 2012.

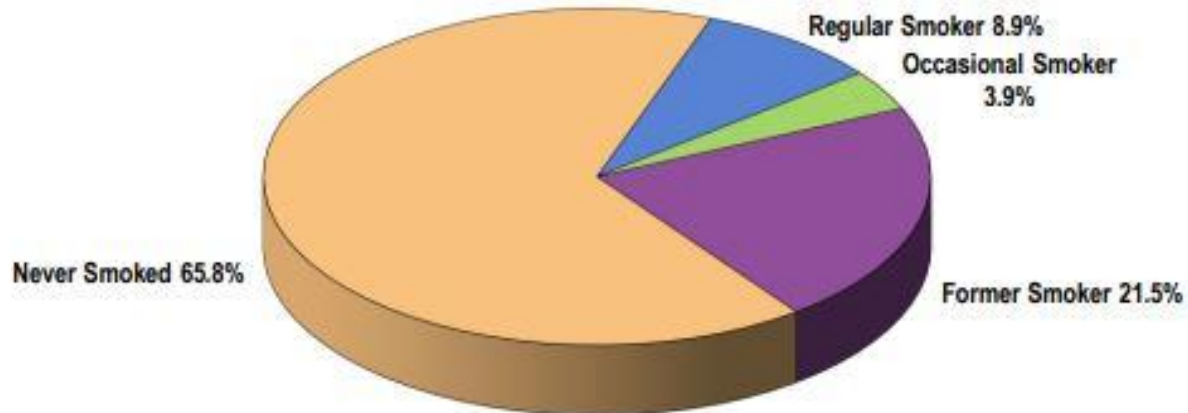


Source: Witham Health Services 2015 Community Health Needs Assessment

Tobacco Use

According to the Community Health Needs Assessment, a total of 12.8 percent of Boone County adults currently smoke cigarettes, either regularly (8.9 percent daily) or occasionally (3.9 percent on some days).

Cigarette Smoking Prevalence (Boone County, 2015)



Source: Witham Health Services 2015 Community Health Needs Assessment

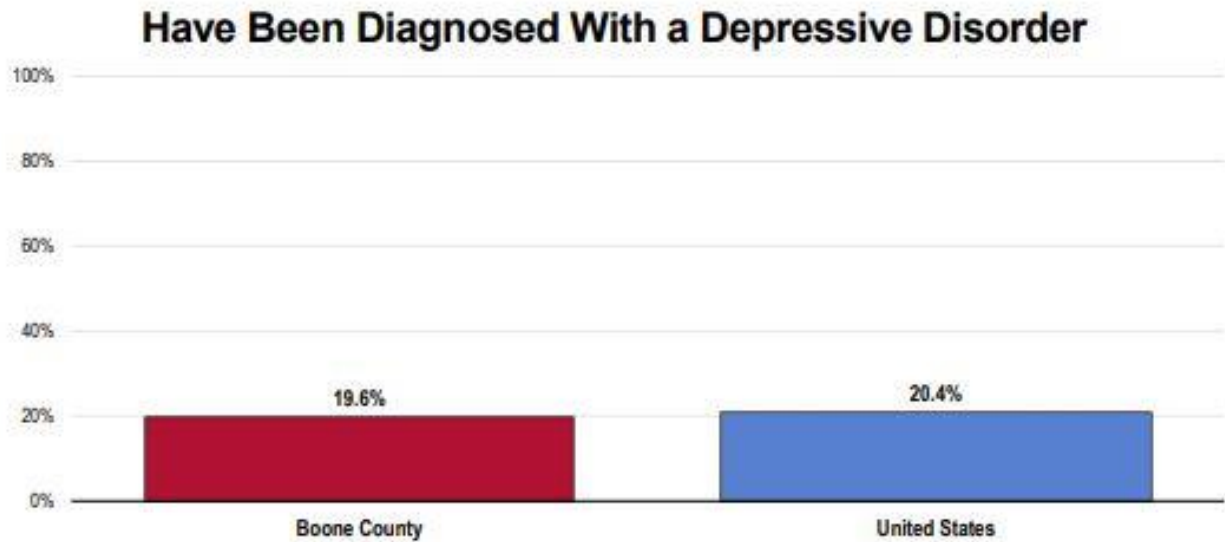
Tobacco Marketing Strategies

Research has shown that higher densities of tobacco retailers, increased advertising prevalence, and the presence of price promotions have been found to serve as a barrier to quitting tobacco, increase youth tobacco initiation, and increase product affordability to low-income populations. The survey also explored the prevalence of flavored tobacco product marketing and availability (including smokeless tobacco, cigar products, and e-cigarettes) in the community, which have been found to be a gateway to youth tobacco use.

- Boone County had higher rates of exterior advertising traditional cigarettes, menthol cigarettes, and electronic cigarettes (e-cigarettes) than other surveyed counties.
- Boone County retailers consistently sell more tobacco products (traditional and menthol cigarettes, little cigarillos/cigars, smokeless tobacco, e-cigarettes, and premium large cigars) than all other surveyed counties.
- 96 percent of tobacco retailers in Boone County sold flavored tobacco products, compared to 91 percent in other counties.
- Approximately 1 in 10 (12 percent) of tobacco retailers in Boone County are within 1,000 ft. of a school.

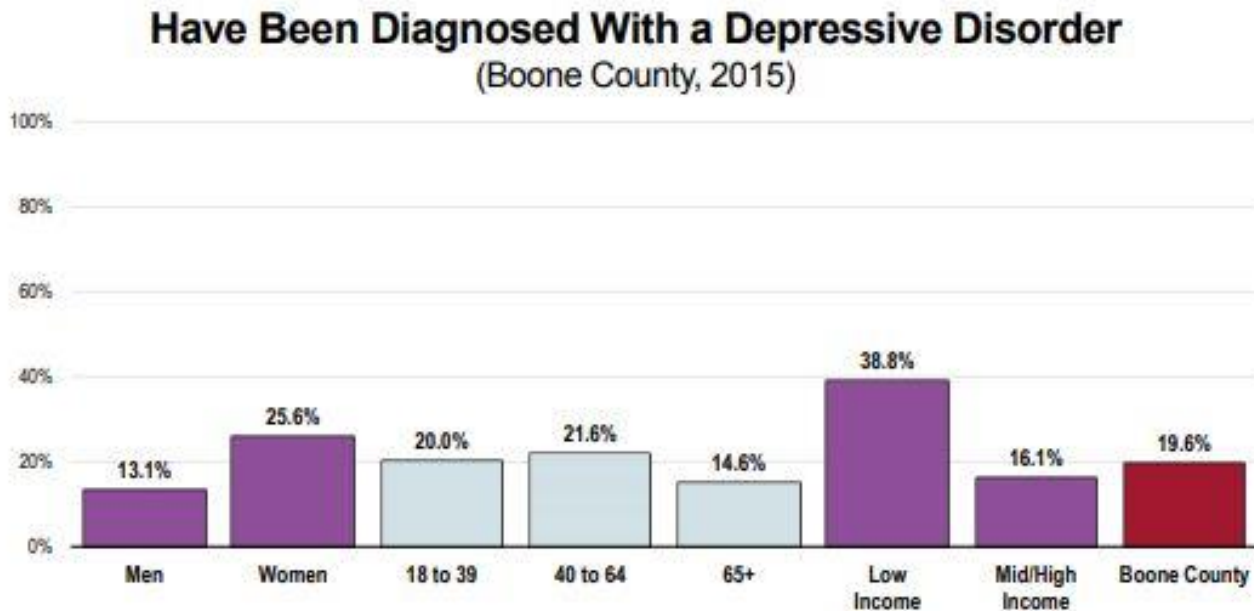
Depression

A total of 19.6 percent of adults have been diagnosed by a physician as having a depressive disorder (such as depression, major depression, dysthymia, or minor depression). This is similar to national findings.



Source: Witham Health Services 2015 Community Health Needs Assessment

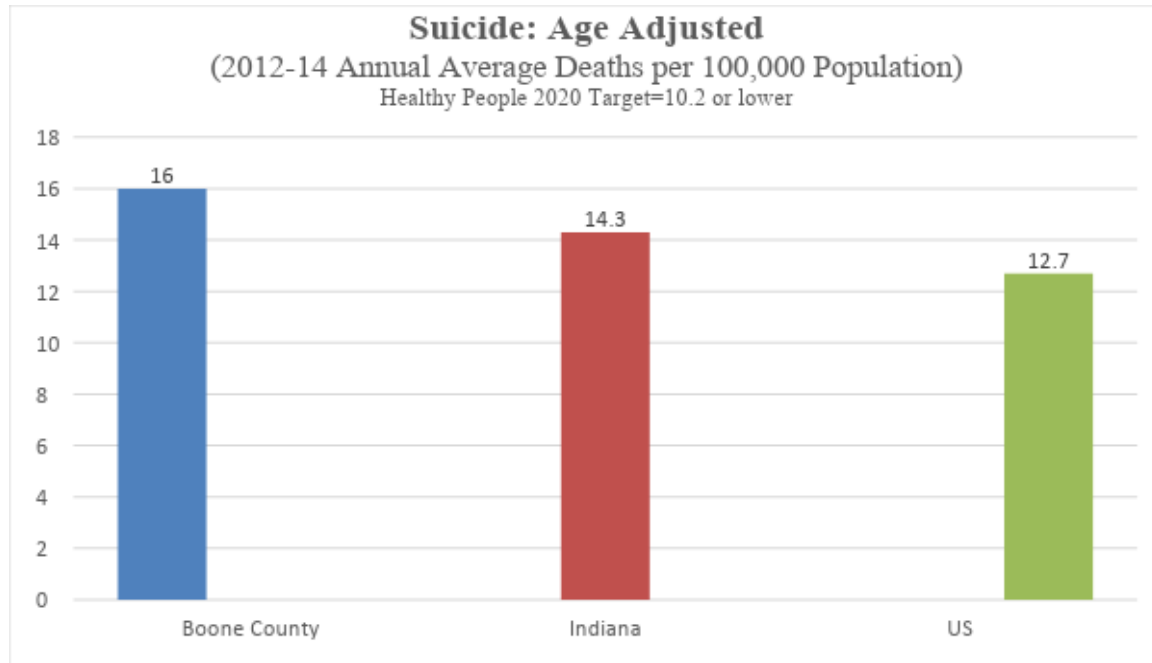
The prevalence of diagnosed depression is notably higher among women, adults under 65, and community members living at lower incomes.



Source: Witham Health Services 2015 Community Health Needs Assessment

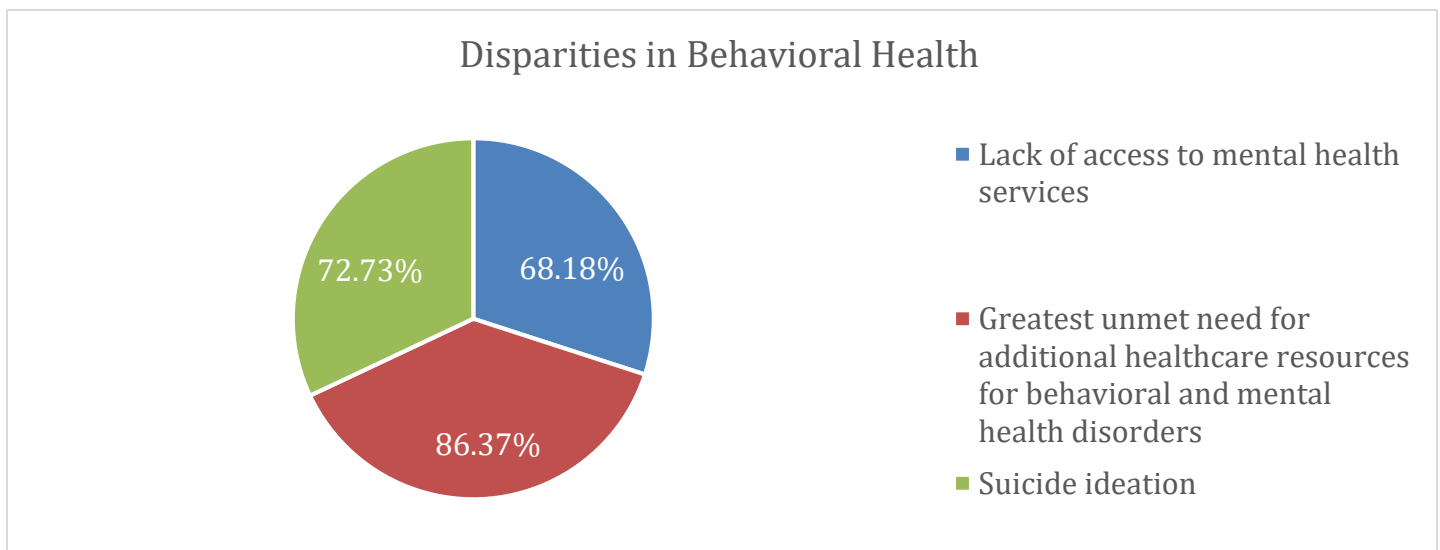
Suicide

Between 2012 and 2014, there was an annual average age-adjusted suicide rate of 16.0 deaths per 100,000 population in Boone County. This is higher than both state and national rates and fails to satisfy the Healthy People 2020 target of 10.2 or lower. The area suicide rate is trending upward.



Source: Witham Health Services 2015 Community Health Needs Assessment

The percentage of 2018 Boone County Healthy Coalition Provider Survey respondents who identified these disparities as significant health issues in the area of behavioral health.



SUMMARY

Limitations

It is important to note that the Witham Health Services 2015 Community Health Needs Assessment concluded in 2015. The data in this Community Health Assessment may change when a more recent survey is conducted. More recent county specific data is currently available.

APPENDIX

County Ranking Data 2018

Boone (BO)

	Boone County	Error Margin	Top U.S. Performers*	Indiana	Rank (of 92)
Health Outcomes					4
Length of Life					9
Premature death	5,900	5,300-6,600	5,300	7,800	
Quality of Life					3
Poor or fair health	12%	12-13%	12%	18%	
Poor physical health days	3.2	3.0-3.3	3.0	3.9	
Poor mental health days	3.6	3-3.8	3.1	4.3	
Low birthweight	7%	6-8%	6%	8%	
Health Factors					2
Health Behaviors					2
Adult smoking	17%	17-18%	14%	21%	
Adult obesity	29%	24-34%	26%	32%	
Food environment index	8.9		8.6	7.0	
Physical inactivity	21%	17-25%	20%	27%	
Access to exercise opportunities	84%		91%	77%	
Excessive drinking	19%	19-20%	13%	19%	
Alcohol-impaired driving deaths	9%	3-17%	13%	22%	
Sexually transmitted infections	252.0		145.1	437.9	
Teen births	14	12-16	15	30	
Clinical Care					2
Uninsured	7%	6-8%	6%	11%	
Primary care physicians	500:1		1,030:1	1,500:1	
Dentists	2,230:1		1,280:1	1,850:1	
Mental health providers	1,270:1		330:1	700:1	
Preventable hospital stays	48	41-54	35	57	
Diabetic screening	87%	80-94%	91%	85%	
Mammography screening	65%	58-72%	71%	62%	
Social & Economic Factors					3
High school graduation	97%		95%	87%	
Some college	77%	72-82%	72%	62%	
Unemployment	3.4%		3.2%	4.4%	
Children in poverty	8%	6-9%	12%	19%	
Inadequate social support	17%	12-24%	14%	20%	
Children in single-parent households	18%	15-22%	20%	34%	
Violent crime	52		62	356	
Injury deaths	63	55-72	55	70	
Physical Environment					57
Air pollution - particulate matter	11.5		6.7	11.1	
Drinking water violations	Yes				
Severe housing problems	11%	9-13%	9%	14%	
Driving alone to work	86%	84-87%	72%	83%	
Long commute - driving alone	40%	37-43%	15%	31%	