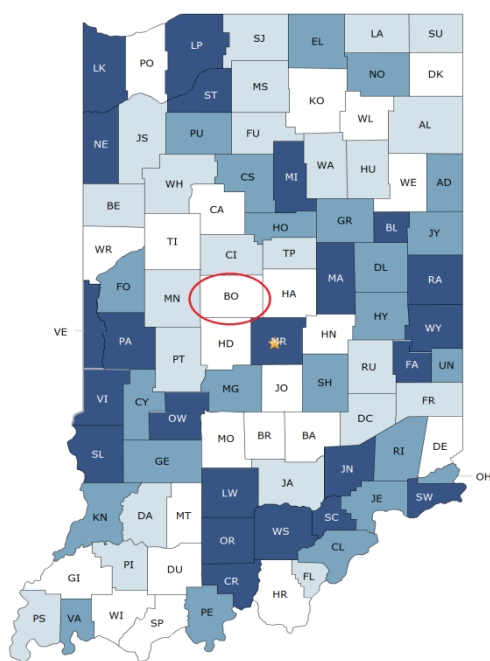




**BOONE
COUNTY,
INDIANA**

COMMUNITY HEALTH ASSESSMENT



**Boone County
Health Department**

Compiled by:
Oyine Ali-George,
Boone County Health Department
July 2014

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PREFACE

Acknowledgements

Acknowledgements for 2012 Community Health Needs Assessment Report – Boone County

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- Professional Research Consultants, Inc.

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- Boone-Clinton-Northwest Hendricks Joint Services
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- Boys and Girls Club of Lebanon
- Cummins Behavioral Health
- Excel Home Health Care
- Indy Reads
- Integrative Wellness, LLC.
- Lebanon Community Schools
- United Way of Central Indiana Boone County
- Zionsville Chamber of Commerce
- Zionsville Community Schools
- and the many community members

Indiana Map on the cover page was from <http://www.countyhealthrankings.org/indiana>

PREFACE

Introduction

“This Community Health Needs Assessment is a systematic, data-driven approach to determining the health status, behaviors and needs of residents in Boone County, Indiana. Subsequently, this information may be used to inform decisions and guide efforts to improve community health and wellness.

A Community Health Needs Assessment provides information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status (Assessment conducted on behalf of Witham Health Services by Professional Research Consultants, Inc. (PRC)).”

PREFACE

Executive Summary

This report contains data collected from the community health needs assessment sponsored by Witham Health Services, Boone County's Healthcare Provider Survey, and County Health Ranking website. The information gathered from all these sources was analyzed to see health concerns that were common in the 3 documents. The following were the observed areas of opportunities for health improvement:

- Substance abuse
 - Excessive drinking
- Chronic conditions
 - Cancer related deaths
 - Lung Cancer
 - Prostate Cancer
 - Female Breast Cancer
 - Alzheimer's disease death
- Obesity & Nutrition
- Mental health and mental disorders
- Tobacco use

PREFACE

Methodology

Witham Health Services

The community health needs assessment from Witham Health Services contained both quantitative and qualitative sources. The assessment was conducted on behalf of Witham Health Services by Professional Research Consultants, Inc. (PRC).

Quantitative Data:

This contained primary research (the PRC Community Health Survey) and secondary research (vital statistics and other existing health-related data). The data collected was compared with benchmark data at the state and national levels. In order to best represent the population in PRC's community health survey, they conducted a telephone interview using both landlines and cell phones.

Qualitative Data:

The qualitative data input included primary research gathered through a series of Key informant Focus Groups. Three focus groups were held on July 25-26, 2012. Focus group candidates were first contacted by letter to request their participation. Follow-up phone calls were then made to ascertain whether or not they would be able to attend. Confirmation calls were placed the day before the groups were scheduled to insure a reasonable turnout.

Boone County's Healthcare Provider Survey

The web-based survey solution, Survey Monkey, was used to collect information from the healthcare providers in Boone County.

County Health Ranking

"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."

PREFACE

Demographics

Boone County is located in the metropolitan Indianapolis region of Indiana. Boone County is divided into 12 Civil Townships as follows: Center, Clinton, Eagle, Harrison, Jackson, Jefferson, Marion, Perry, Sugar Creek, Union, Washington and Worth. Lebanon is the County seat. As of 2013, Boone County's population was estimated at 60,477 residents.¹ The median age is 38.7 years, with 27 percent of the population below 18 years and 12 percent over 65 years.² Boone County is the second fastest-growing county in Indiana with a 2.5 percent increase in 2013 which equals or surpasses the growth rate from the previous decade.³ Thirty four percent of the county is considered a rural community.⁴

The population is predominantly White (95.3 percent); followed by Hispanics or Latino (2.5 percent); Asian alone (1.9 percent); Two or More Races (1.4 percent); Black or African American alone (1.1 percent); and American Indian and Alaska Native alone (0.2 percent).¹ For the year 2011 vital records showed there were 701 births and 446 deaths in Boone County.²

The median household income in Boone County was \$69,919 in 2012, with poverty rate of 8.3 percent for children under 18 and 6.6 percent for families.^{2,4} Between 2008 and 2012, 7.6 percent of people were living below the poverty level. The unemployment rate from the 2014 county health ranking was 6.7 percent.⁴ In 2012, 93.4 percent of Boone County residents 25 years and older held a high school diploma or higher and 39.5 percent held a bachelor's degree or higher degrees.¹

In 2012 about 4.6 percent of individuals 5 years and older in Boone County spoke a language other than English at home.¹

¹ US Census Bureau <http://quickfacts.census.gov/qfd/states/18/18011.html>

² STATS-Indiana

http://www.stats.indiana.edu/profiles/profiles.asp?scope_choice=a&county_changer=18011&button1=Get+Profile&id=2&page_path=Area+Profiles&path_id=11&panel_number=1

³ Indiana Business Research Center at Indiana University's Kelley School of Business

<http://news.indiana.edu/releases/iu/2014/03/indiana-population-estimates.shtml>

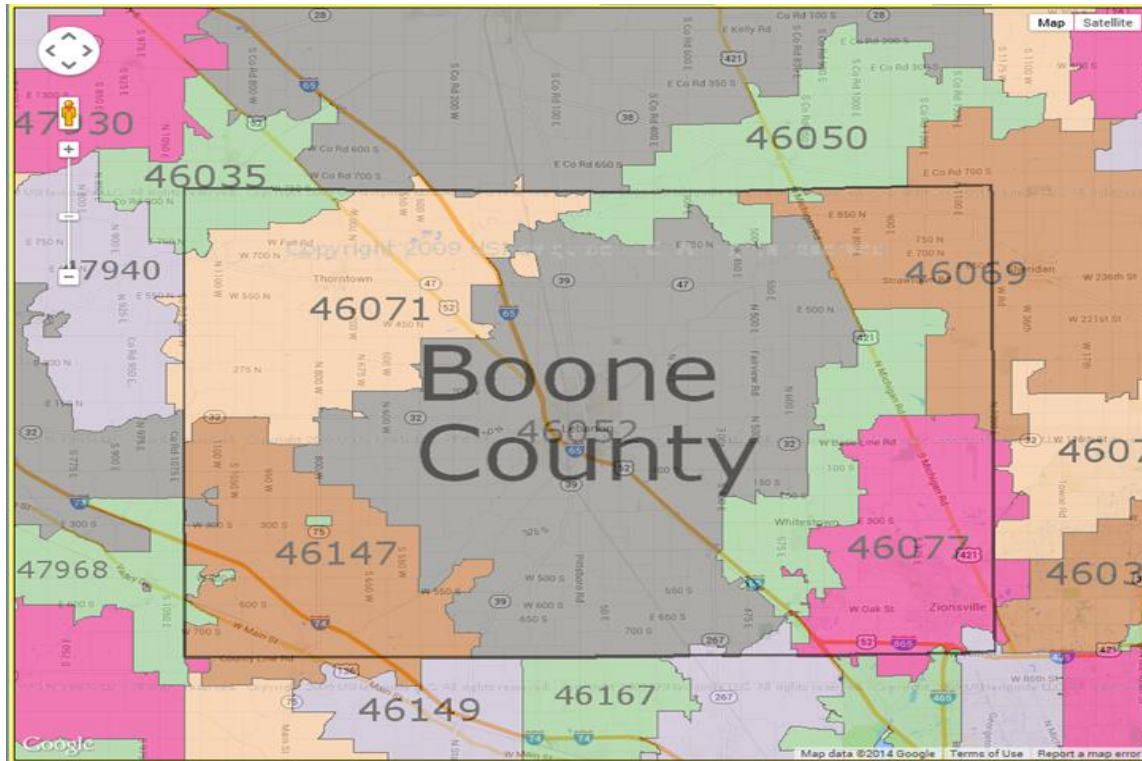
⁴ County Health Ranking

<http://www.countyhealthrankings.org/app/#/indiana/2014/rankings/boone/county/outcomes/overall/snapshot>

⁵ <http://www.boonecounty.in.gov/>

Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

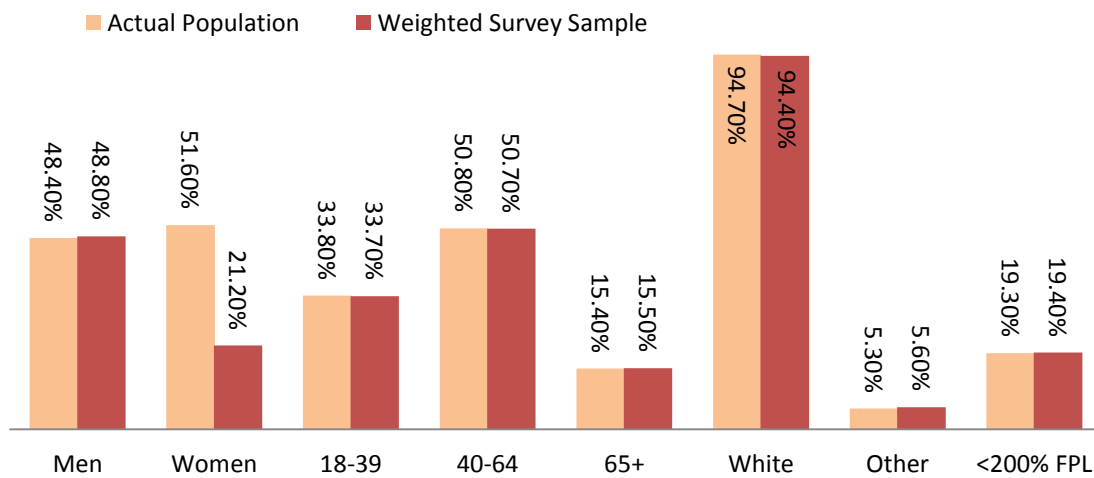
The sample size for the quantitative assessment was 750 individuals age 18 and older in Boone County. The study area surveyed was defined by residential ZIP Codes in the county: 46052, 46071, 46075, 46077, and 46147.



Below is a chart showing the actual population from the census data compared with key demographic variables from Boone County. The poverty description used in the report by PRC was based on administrative poverty thresholds determined by the US Department of Health & Human Services. The poverty status was defined by household income level and the number of persons in the household.

Population & Sample Characteristics

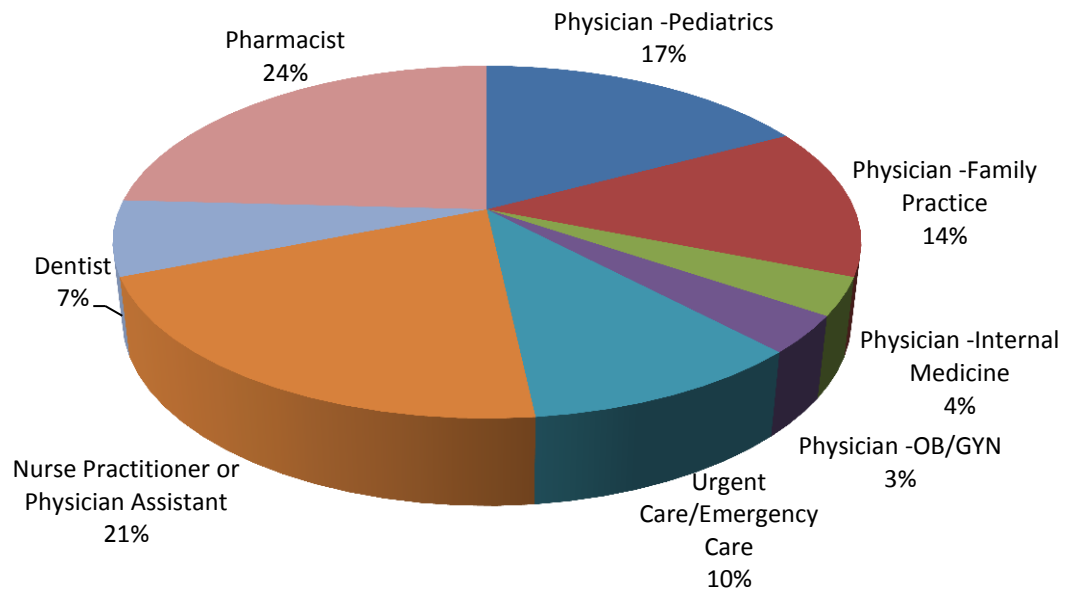
(Boone County, 2012)



Boone County's Healthcare Provider Survey

A total of 29 healthcare providers responded to the survey. The responds were from 11 Physicians, 3 Urgent Care/Emergency Care, 6 Nurse Practitioner or Physician Assistant, 2 Dentists, and 7 Pharmacists.

Boone County Healthcare Provider Survey



GENERAL HEALTH STATUS

Overall Health Status

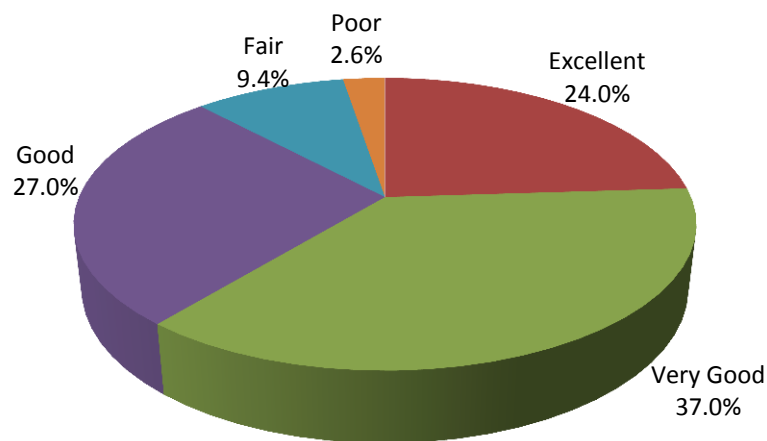
Self-Reported Health Status

The respondents to the PRC Community Health Survey were asked “Would you say that in general your health is excellent, Very good, good, fair or poor?”

Sixty-one percent of Boone County adults rated their overall health as “excellent” or “very good,” 27.0 % rated their overall health as “good,” and 12% rated their health as “fair” or “poor.”

Self-Reported Health Status

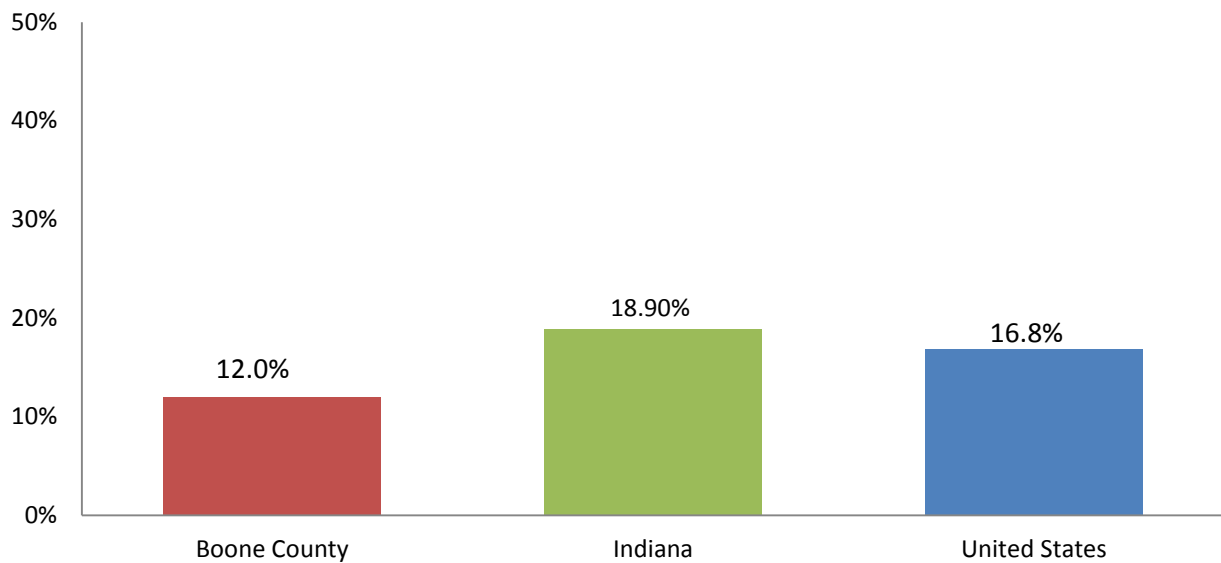
(Boone County, 2012)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Results of the survey showed the 12% of Boone County adults who believe their overall health is “fair” or “poor” is better than both state and national findings.

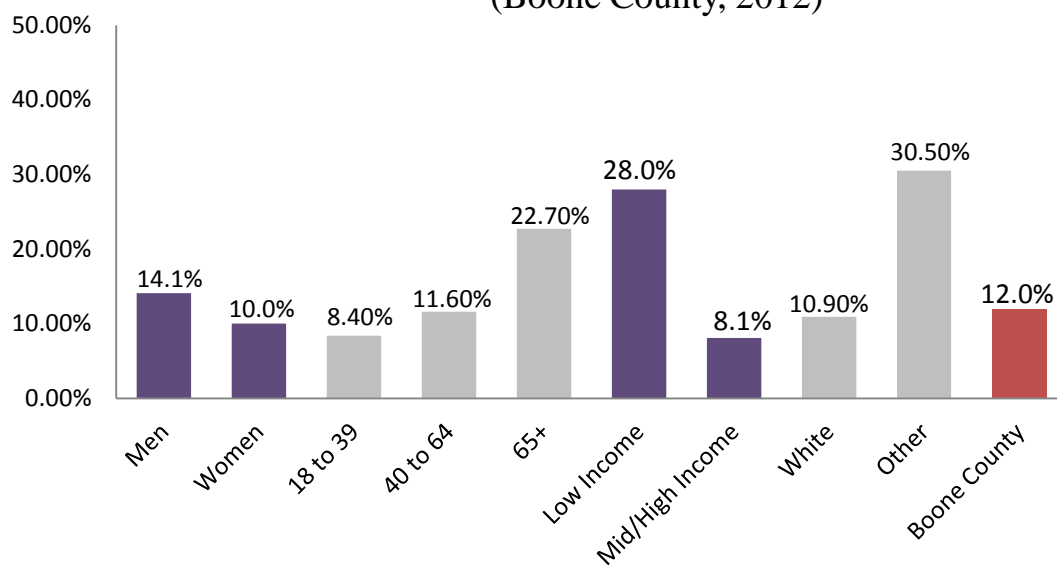
Experience "Fair" or "Poor" Overall Health



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Adults that were seniors (65+), residents living at lower incomes, and Non-Whites were more likely to report their overall health as “fair” or “poor.”

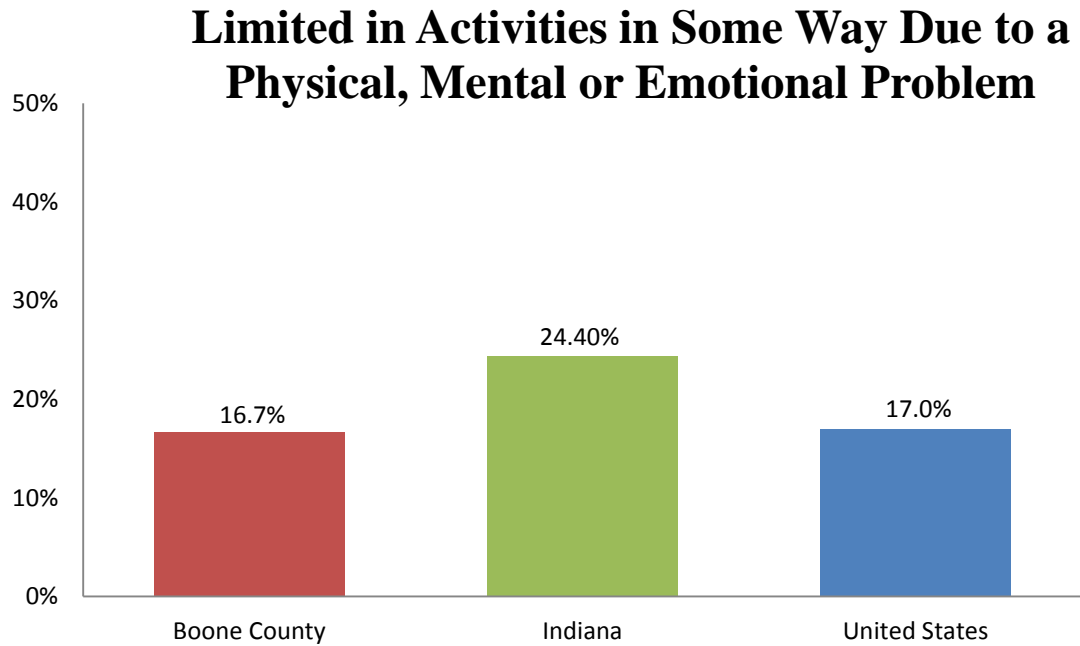
Experience "Fair" or "Poor" Overall Health (Boone County, 2012)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Activity Limitations

Results of the survey showed 16.7% of Boone County adults are limited in some way activities due to physical, mental, or emotional problems which is more favorable than statewide prevalence and similar to the national prevalence of this condition.

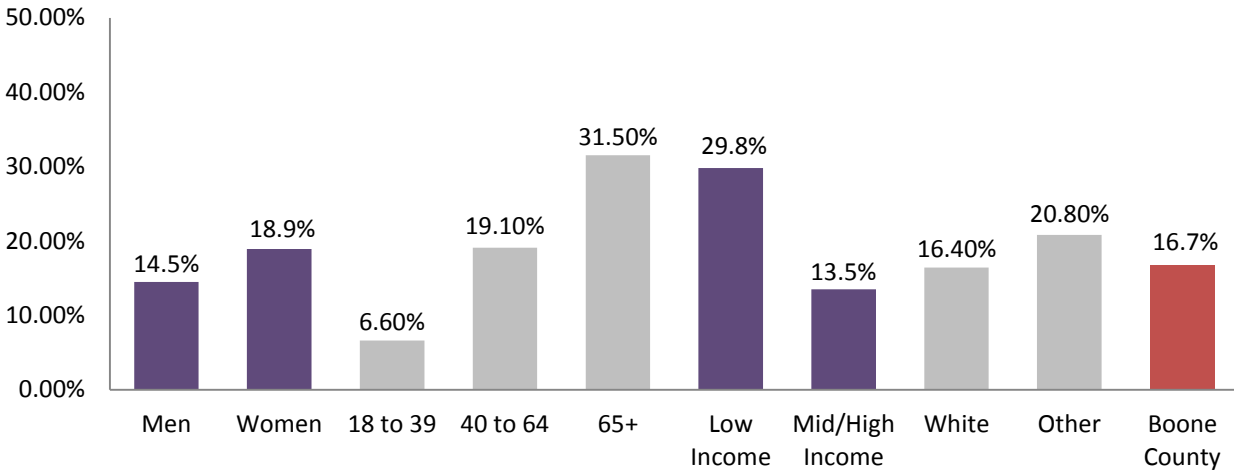


Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Adults age 40 and older and lower-income respondents are much more likely to report activities limitations.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem

(Boone County, 2012)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Although the results of the survey showed 61% of Boone County adults rated their overall health as “excellent” or “very good” and 16.7% of Boone County adults reported they were limited in some way activities due to physical, mental, or emotional problems, there is a significant health disparity in adults 65 and older as well as adults with low income.

Health Behaviors

The healthcare providers were asked to rate the significance of different health behaviors in Boone County. The health behaviors with the highest significant rates were adult obesity, smoking, and alcohol use.

Question	Significance	%
Adult Obesity	27	96%
Adult Smoking	26	93%
Adult Alcohol Use	26	93%

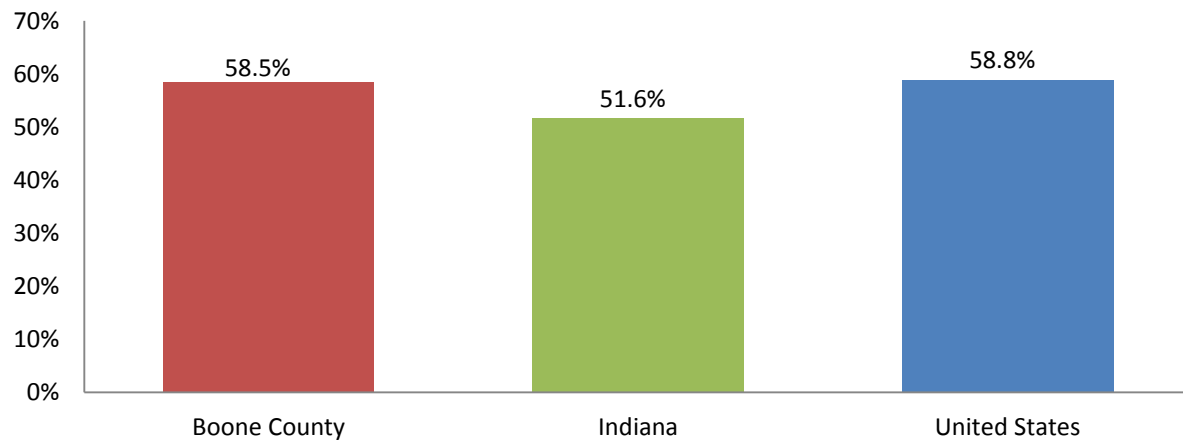
Source: Healthcare Providers Survey

KEY FINDINGS

Substance Abuse

According to the community health assessment, the number of current adult alcohol drinkers in Boone County is less favorable than the state average and almost identical with the national average.

Current Drinkers

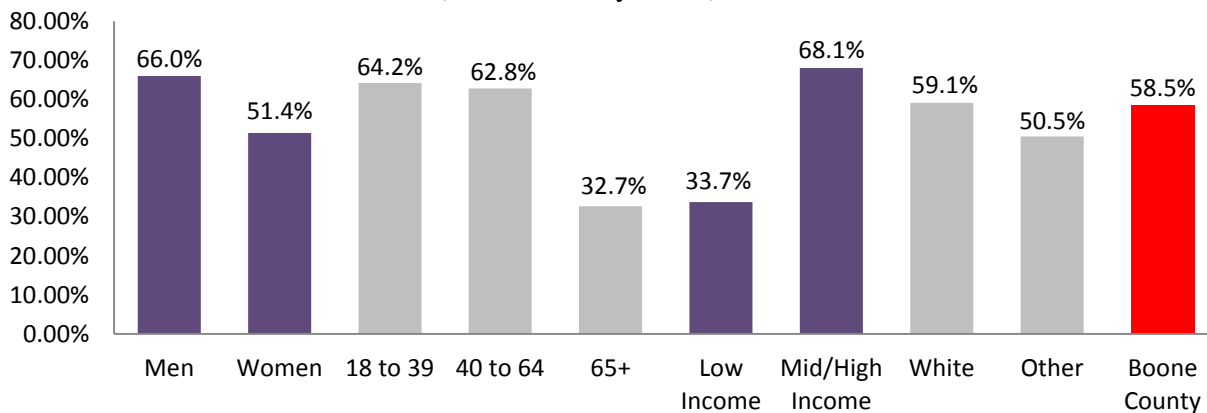


Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

The survey also showed more prevalence among men younger than 65 and middle/high income respondents.

Current Drinkers

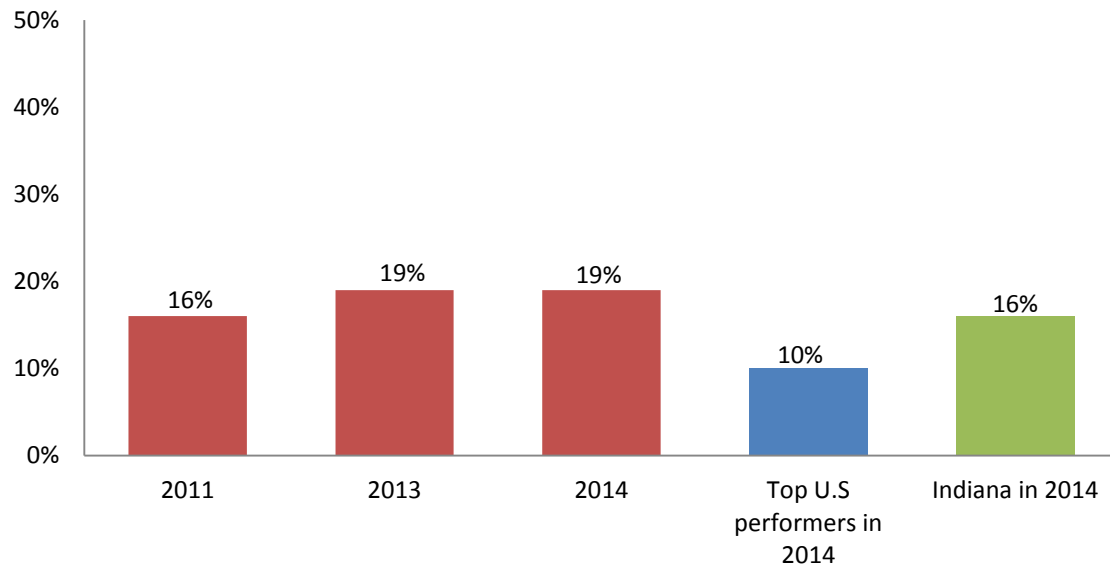
(Boone County, 2012)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

The county health ranking also showed a steady increase in the number of people drinking excessively, more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days or more than one (women) or 2 (men) drinks per day on average, in Boone County between 2011- 2014.

Excessive Drinking (Boone County, 2014)

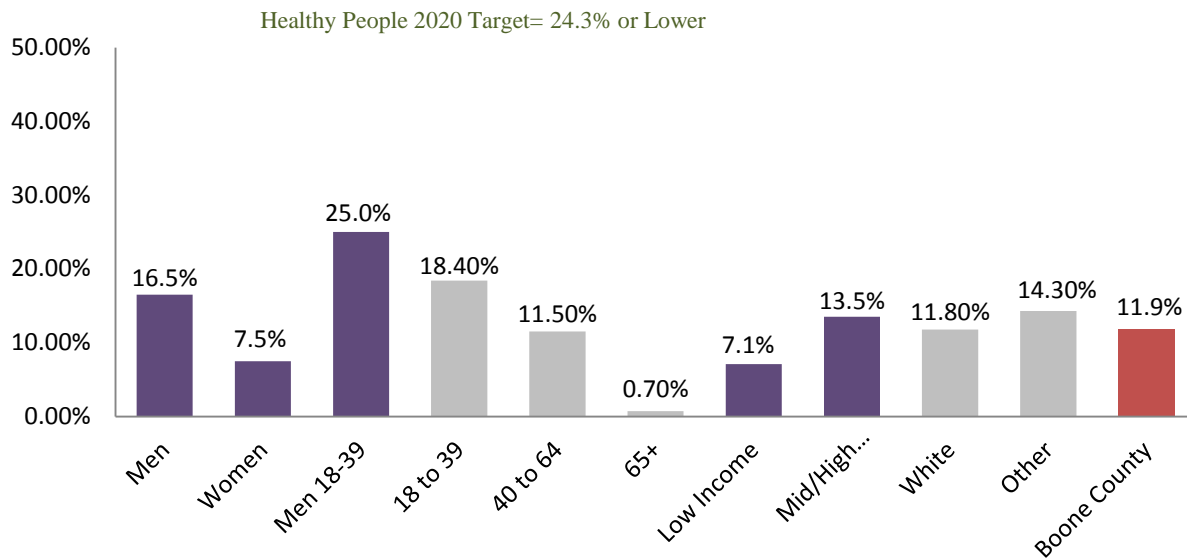


Source: County Health Ranking

Men (especially those under age 40), adults under 40, and individuals in the middle/ high income category were more likely to drink excessively or binge drink.

Binge Drinkers

(Boone County, 2012)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

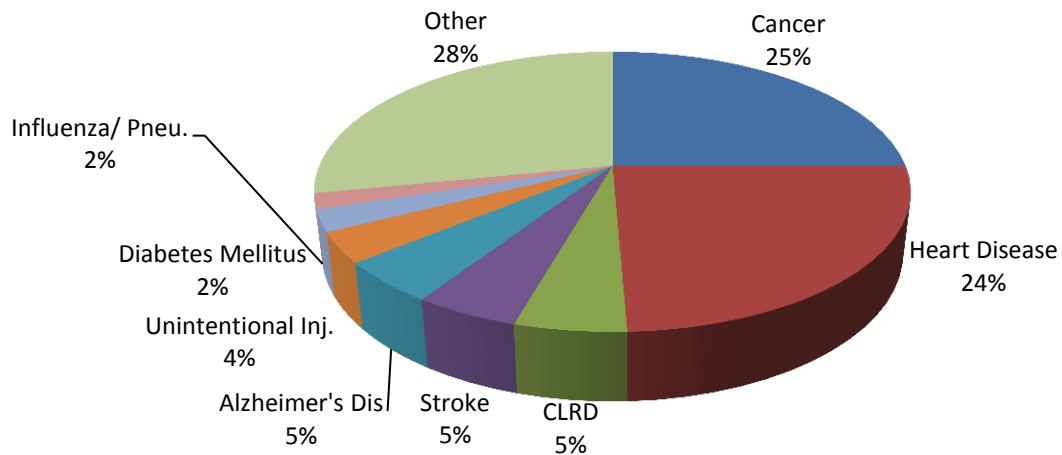
KEY FINDINGS

Chronic Conditions

The two most cited chronic conditions from the community health assessment were cancer related deaths and Alzheimer's disease death. Cancer and Alzheimer's accounted for about 30% of all deaths in Boone County between 2007-2009.

Leading Causes of Death

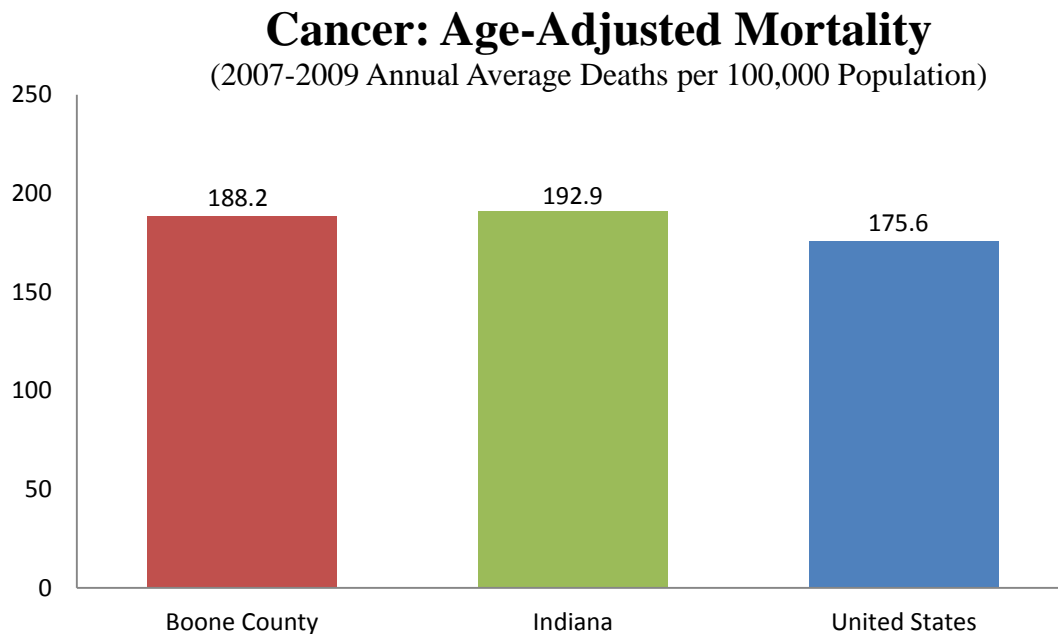
(Boone County, 2007-2009)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Cancer

The annual average age-adjusted cancer mortality rate of 188.2 deaths per 100,000 population was similar to the statewide rate but worse than the national rate and failed to satisfy the Healthy People 2020 target of 160.6 or lower.



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

The leading sites of cancer deaths were prostate cancer among men, breast cancer among women, and lung cancer as the top of this list. Lung cancer death was similar to the state rate but less favorable than the national rate. Prostate and Female breast cancer death were worse than both the state and national rates.

Age-Adjusted Cancer Death Rates by Site

(2007-2009 Annual Average Deaths per 100,000 Population)

	Boone County	Indiana	US	HP2020
Lung Cancer	63.4	60.9	49.5	45.5
Prostate Cancer	35.9	23.3	22.6	21.2
Female Breast Cancer	28.3	23.7	22.6	20.6
Colorectal Cancer	17.0	17.6	16.4	14.5

Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

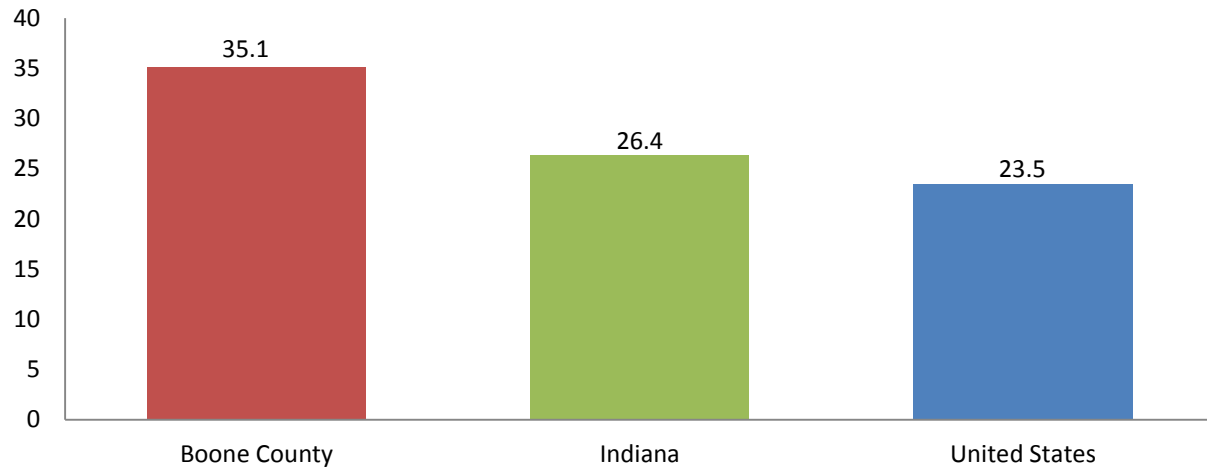
Each of the cancer death rates failed to satisfy the related Healthy People 2020 target.

Alzheimer's disease

The annual average age-adjusted Alzheimer's disease mortality rate of 35.1 deaths per 100,000 population was worse than both the state and national rates.

Alzheimer's Disease: Age-Adjusted Mortality

(2007-2009 Annual Average Death per 100,000 Population)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

KEY FINDINGS

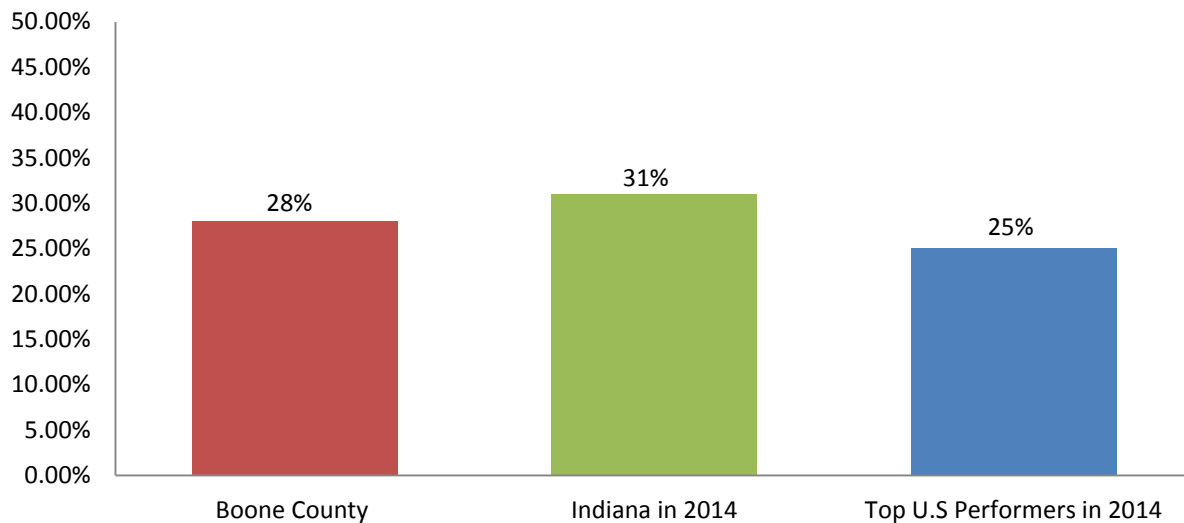
Obesity & Nutrition

Obesity

According to the 2014 County Health ranking, 28% of adult population (age 20 and older) had a body mass index (BMI) greater than or equal to 30 kg/m². This is better than statewide findings but worse than national findings. County health ranking identified this health behavior as an area to explore potential opportunities for improvement.

Adult Obesity

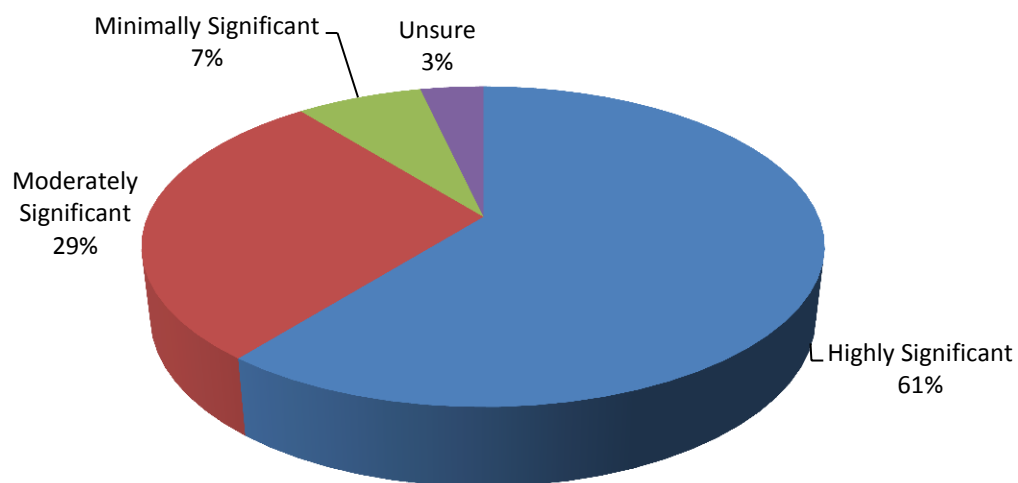
(Percent of Obese adults; Body Mass Index of 30.0 or Higher; Boone County, 2014)



Source: County Health Ranking

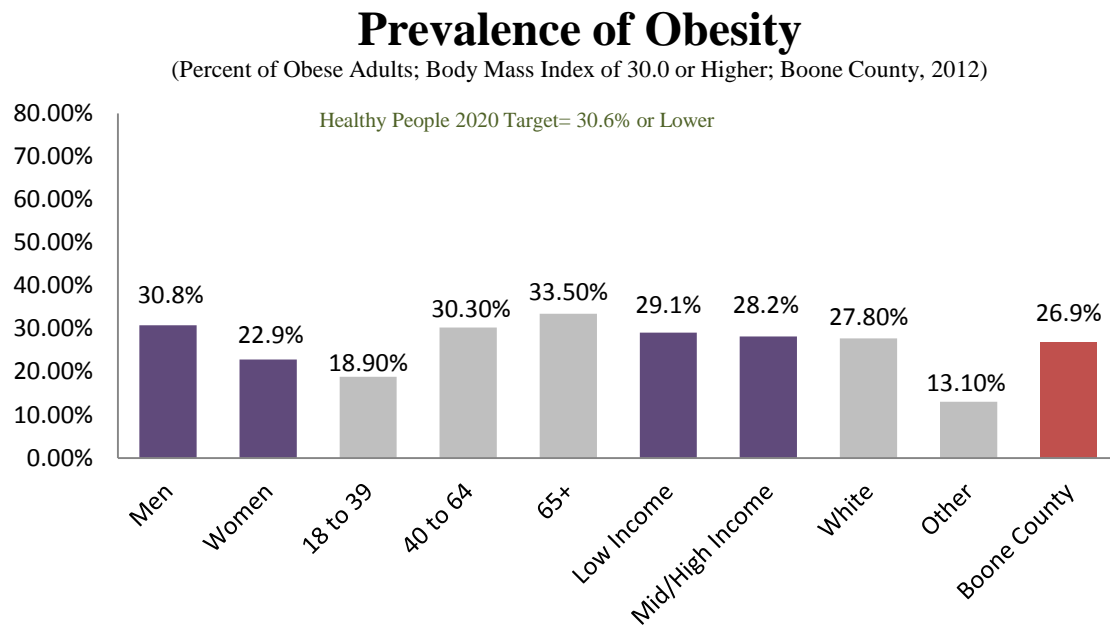
Sixty one percent of the healthcare providers responded to the question on adult obesity as a highly significant health behavior in Boone County.

Adult Obesity



Source: Healthcare Providers Survey

Men, respondents age 40 and above, and White adults have a higher prevalence of obesity.



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Nutrition

The main findings on nutrition from the attendees of the focus group in the community health assessment include:

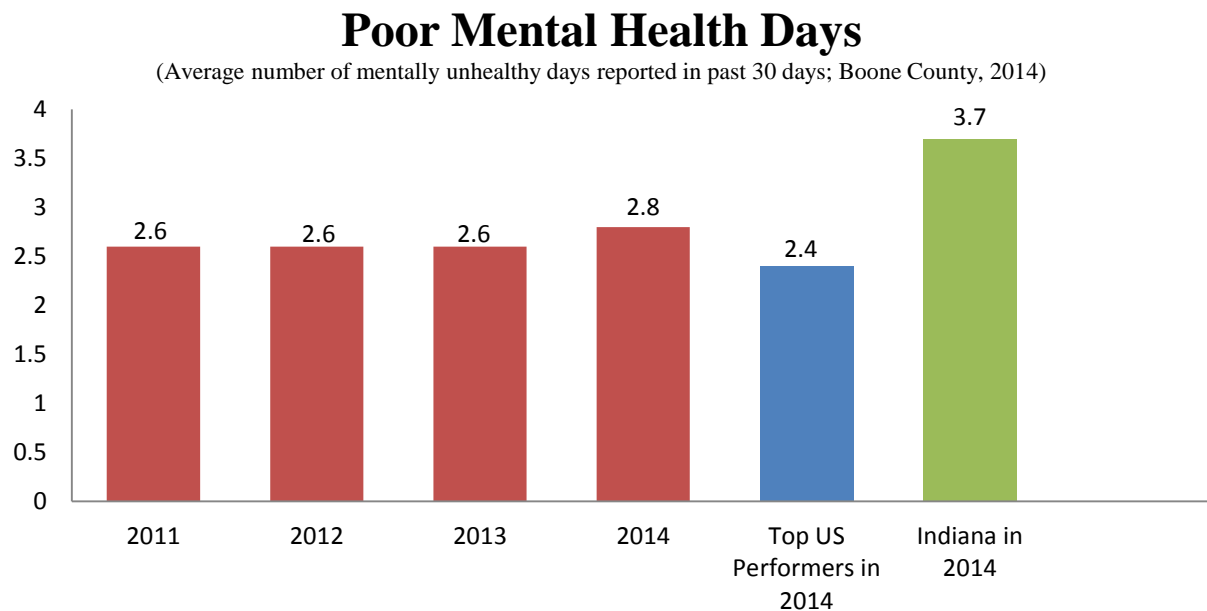
- Poor eating
- Fast food establishments
- Nutrition education
- Hunger
 - Local elementary schools
 - Boys and Girls Club
 - The Caring Center

Poor eating habits and obesity were the major concern of those in the focus group.

KEY FINDINGS

Mental Health and Mental Disorders

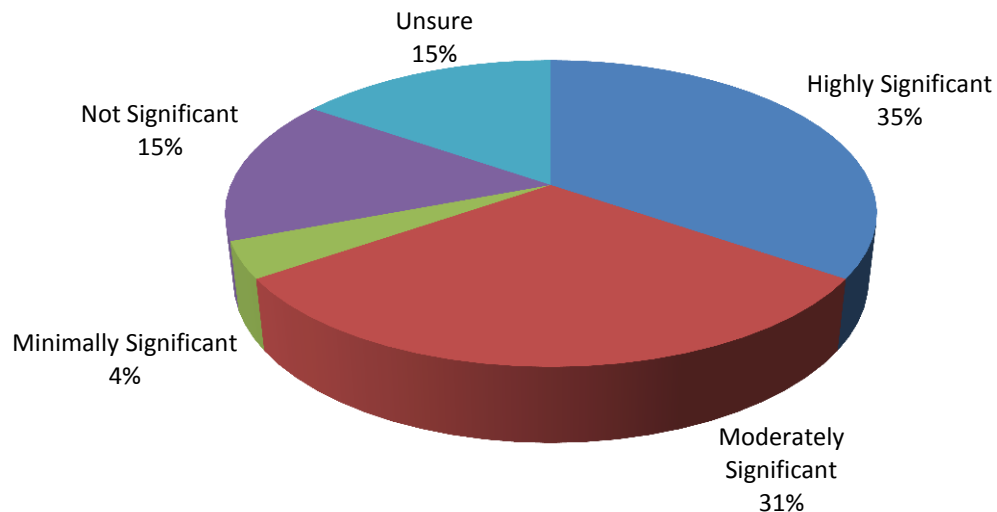
The County Health Ranking showed an increase from 2.6 to 2.8 in the average number of days an adult reported their mental health “as not good”. This is better than the state average and similar to the national top performers.



Source: County Health Ranking

Fifty seven percent of Boone County’s healthcare providers surveyed indicated mental health disorders as one of the top ranking unmet needs or need for additional healthcare resources in the County. Sixty six percent of the providers viewed the lack of access to mental health services as highly and moderately significant barriers.

Lack Access To Mental Health Services

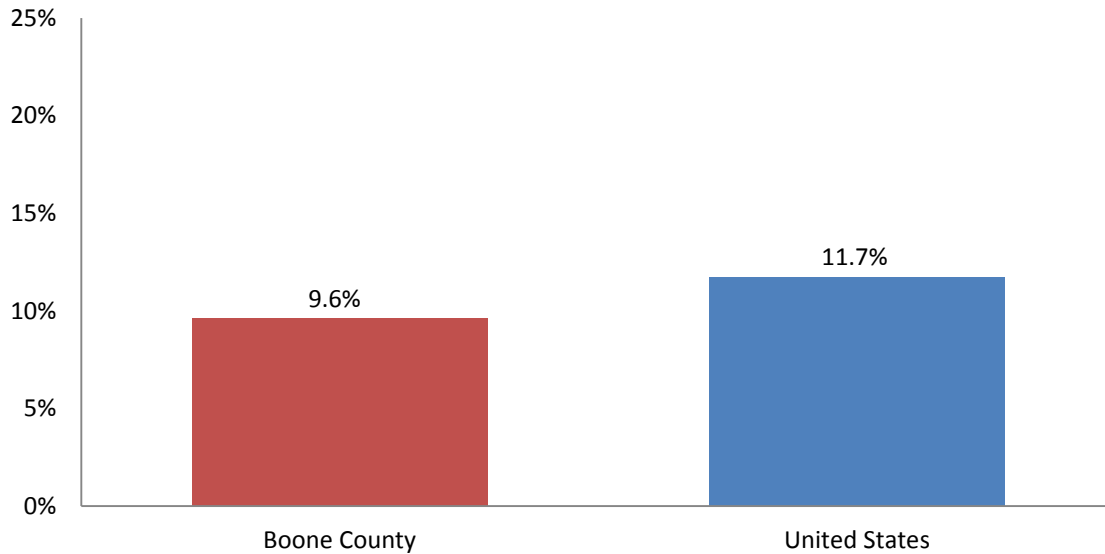


Source: Healthcare Providers Survey

Respondents to PRC Community Health Survey were asked to think and rate their mental health which included stress, depression, and problems with emotions as excellent, very good, good, fair, or poor.

The result of survey showed that 9.6% of Boone County adults believe their overall mental health is “fair” or “poor” which is similar to the national response.

Experience "Fair" or "Poor" Mental Health

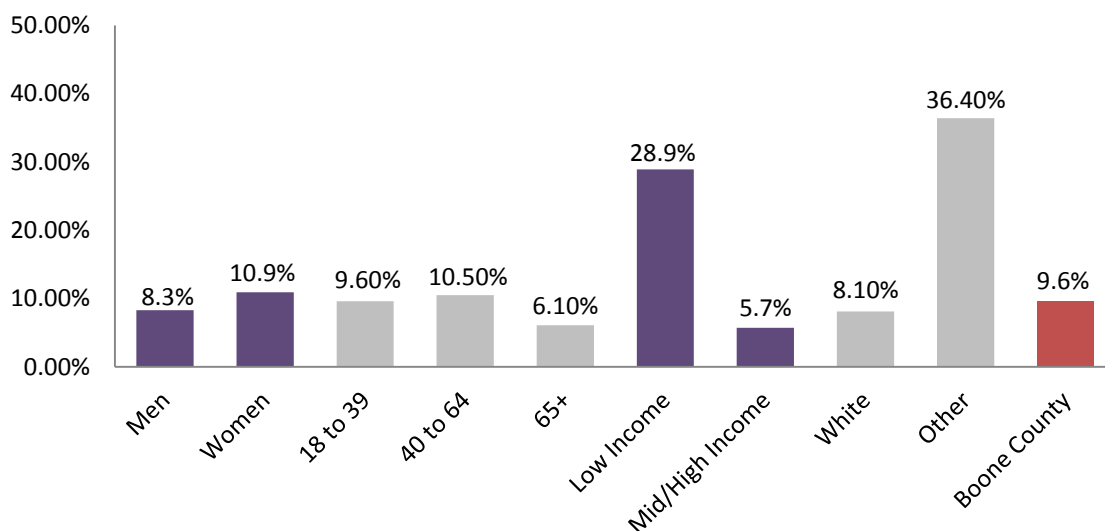


Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

There was a significantly high rate of adults with low income and Non-Whites reporting “fair” or “poor” mental health.

Experience "Fair" or "Poor" Mental Health

(Boone County, 2012)



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

The community health assessment from Witham indicated that during the focus group discussions, the participants believed the community suffered due to an inadequate number of psychiatrists and treatment facilities available to address residents' behavioral health needs.

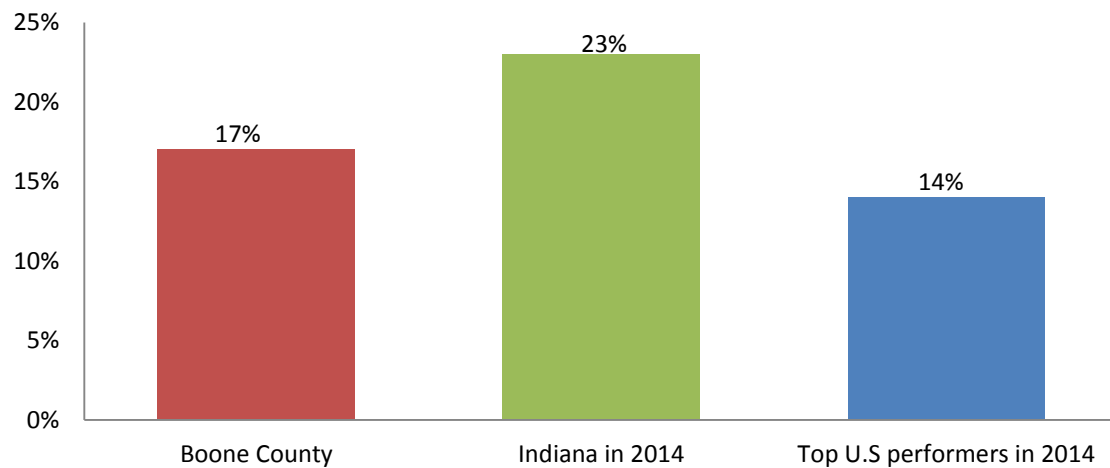
KEY FINDINGS

Tobacco Use

According to the 2014 County Health ranking, 17 percent of the adult population currently smokes every day or “most days” and has smoked at least 100 cigarettes in their lifetime. This number is better than statewide findings but worse than national findings and fails to satisfy the Healthy People 2020 target (12% or lower). County health ranking identified this health behavior as an area to explore potential opportunities for improvement.

Adult Smoking

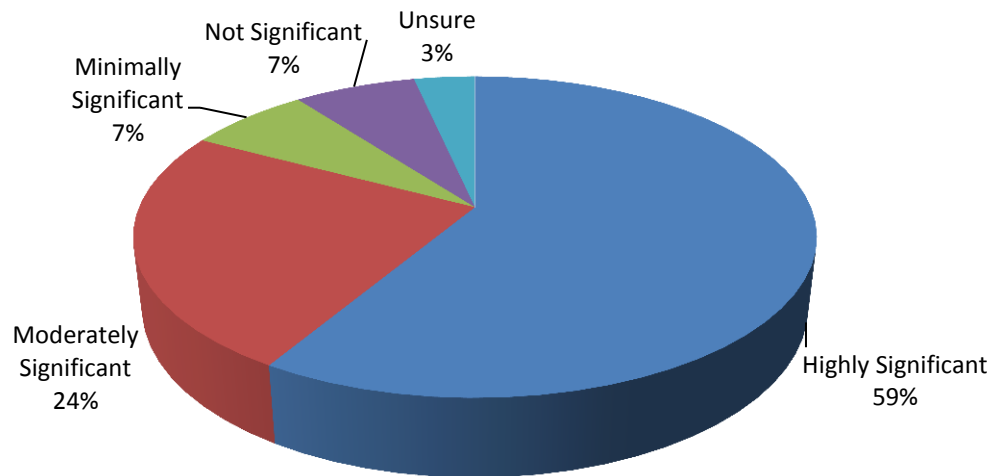
(Percent of adults smoking \geq 100 cigarettes and currently smoke; Boone County, 2014)



Source: County Health Ranking

Fifty nine percent of the healthcare providers responded to the question on adult smoking as a highly significant health behavior in Boone County. Twenty four percent thought it was moderately significant.

Adult Smoking

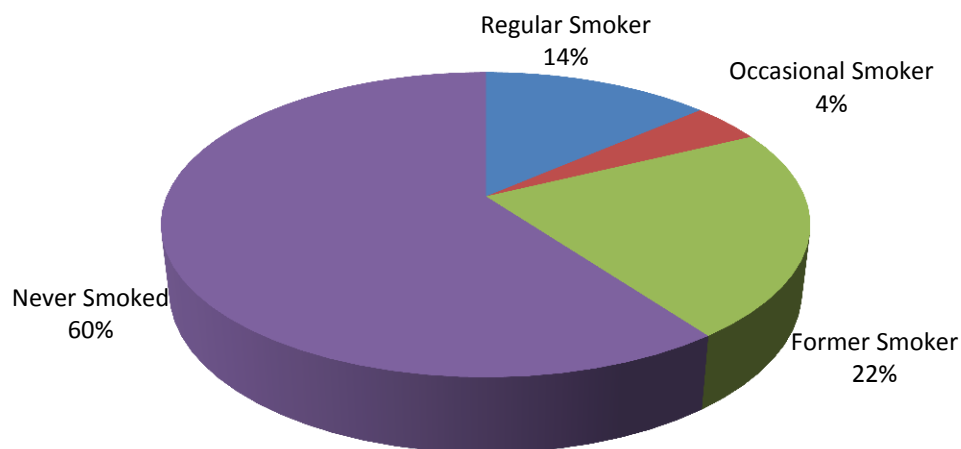


Source: Healthcare Provider Survey

According to the Community Health Needs Assessment, a total of 17.8% of Boone County adults currently smoke cigarettes, either regularly (13.6% everyday) or occasionally (4.2% on some days).

Cigarette Smoking Prevalence

(Boone County, 2012)



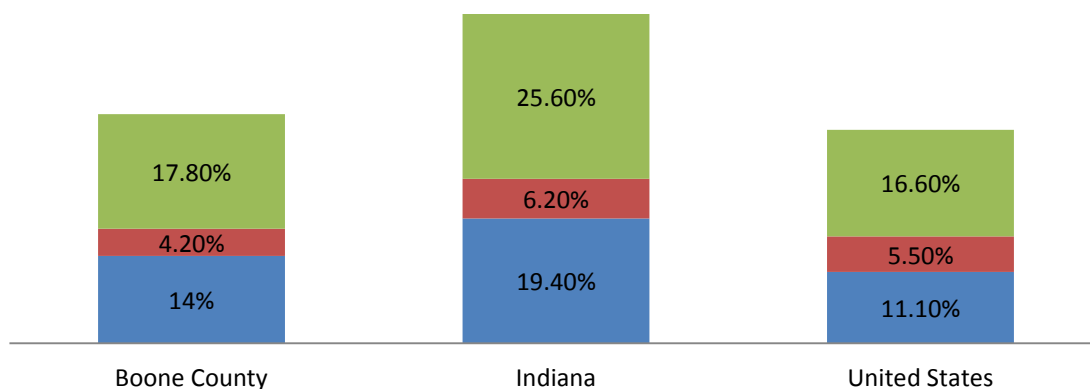
Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

This fails to satisfy the Healthy People 2020 target of 12% or lower but it's similar to the national findings and better than statewide findings.

Current Smokers

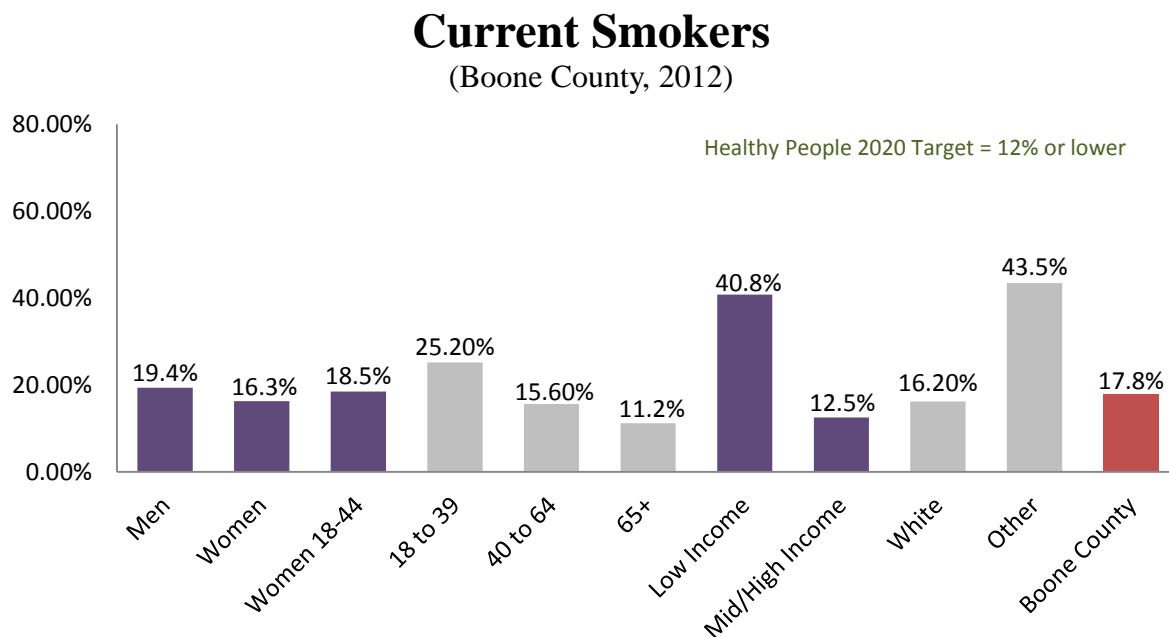
■ Every Day ■ Some Days ■ Current Smoker

Healthy People 2020 Target = 12% or lower



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

Adults under 40, Non-Whites, and lower income individuals had a higher smoking prevalence than other categories. There was also a high smoking prevalence (18%) in women of child bearing age (ages 18 – 44).



Source: Assessment Prepared for Witham Health Services by Professional Research Consultants, Inc.

The main issues on tobacco use in the community from the attendees of the focus group in the community health assessment included:

- Use among low income population and adolescents
- Severe health consequences
- Smoking cessation resources

SUMMARY

Limitations

The results of the surveys analyzed for this document was limited in the sample make-up. The response to the survey may or may not show the actual prevalence of the issues due to the fact that the survey asked the respondent's perception. It is also important to note that the survey was conducted a couple of years ago and the information might change if the survey is conducted in recent time.

Appendix

County Ranking

Boone (BO)

	Boone County	Error Margin	Top U.S. Performers*	Indiana	Rank (of 92)
Health Outcomes					3
Length of Life					5
Premature death	5,695	4,977-6,412	5,317	7,520	
Quality of Life					4
Poor or fair health	11%	8-15%	10%	16%	
Poor physical health days	2.6	1.8-3.4	2.5	3.6	
Poor mental health days	2.8	2.0-3.5	2.4	3.7	
Low birthweight	6.4%	5.7-7.1%	6.0%	8.3%	
Health Factors					2
Health Behaviors					3
Adult smoking	17%	12-23%	14%	23%	
Adult obesity	28%	23-34%	25%	31%	
Food environment index	8.9		8.7	7.5	
Physical inactivity	29%	23-35%	21%	28%	
Access to exercise opportunities	47%		85%	64%	
Excessive drinking	19%	13-26%	10%	16%	
Alcohol-impaired driving deaths	19%		14%	26%	
Sexually transmitted infections	174		123	427	
Teen births	22	20-25	20	40	
Clinical Care					2
Uninsured	10%	9-12%	11%	17%	
Primary care physicians	558:1		1,051:1	1,539:1	
Dentists	2,480:1		1,439:1	2,073:1	
Mental health providers	1,751:1		536:1	916:1	
Preventable hospital stays	67	60-74	46	76	
Diabetic screening	88%	81-96%	90%	84%	
Mammography screening	66%	59-74%	71%	61%	
Social & Economic Factors					2
High school graduation	96%			87%	
Some college	77%	72-82%	70%	60%	
Unemployment	6.7%		4.4%	8.4%	
Children in poverty	8%	6-10%	13%	22%	
Inadequate social support	17%	12-24%	14%	20%	
Children in single-parent households	17%	14-20%	20%	33%	
Violent crime	23		64	329	
Injury deaths	46	38-54	49	61	
Physical Environment					73
Air pollution - particulate matter	13.6		9.5	13.5	
Drinking water violations	9%		0%	2%	
Severe housing problems	11%	9-12%	9%	14%	
Driving alone to work	86%	84-87%	71%	83%	
Long commute - driving alone	40%	37-43%	15%	30%	

* 90th percentile, i.e., only 10% are better.
Note: Blank values reflect unreliable or missing data

2014

2014
* 90th percentile, i.e., only 10% are better.
Note: Blank values reflect unreliable or missing data