



2021 COMMUNITY HEALTH NEEDS ASSESSMENT

Boone County, Indiana

Sponsored by
Witham Health Services

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INTRODUCTION

PROJECT OVERVIEW

Project Goals

This Community Health Needs Assessment, a follow-up to similar studies conducted in 2012, 2015, and 2018, is a systematic, data-driven approach to determining the health status, behaviors, and needs of residents in the service area of Witham Health Services. 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. This Community Health Needs Assessment will serve as a tool toward reaching three basic goals:

- To improve residents' health status, increase their life spans, and elevate their overall quality of life. A healthy community is not only one where its residents suffer little from physical and mental illness, but also one where its residents enjoy a high quality of life.
- To reduce the health disparities among residents. By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at-risk for various diseases and injuries. Intervention plans aimed at targeting these individuals may then be developed to combat some of the socio-economic factors that historically have had a negative impact on residents' health.
- To increase accessibility to preventive services for all community residents. More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans, and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

This assessment was conducted on behalf of Witham Health Services by PRC, a nationally recognized health care consulting firm with extensive experience conducting Community Health Needs Assessments in hundreds of communities across the United States since 1994.

Methodology

This assessment incorporates data from multiple sources, including primary research (through the PRC Community Health Survey and PRC Online Key Informant Survey), as well as secondary research (vital statistics and other existing health-related data). It also allows for trending and comparison to benchmark data at the state and national levels.

PRC Community Health Survey

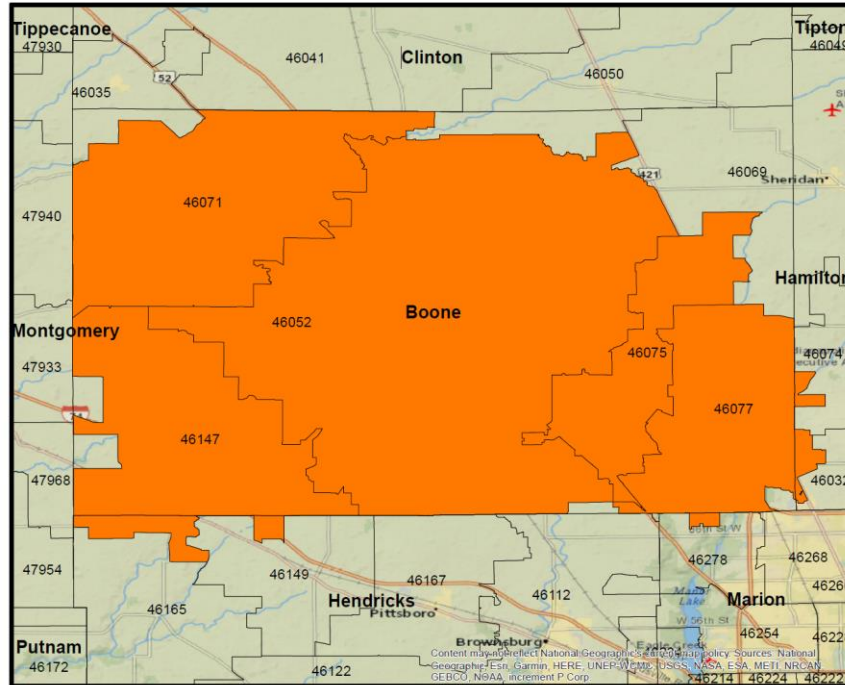
Survey Instrument

The survey instrument used for this study is based largely on the Centers for 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 surveys used in the region, allowing for data trending.



Community Defined for This Assessment

The study area for the survey effort (referred to as the “Boone County” in this report) is defined as each of the residential ZIP Codes principally associated with the county. This community definition, determined based on the ZIP Codes of residence of recent patients of Witham Health Services, is illustrated in the following map.



Sample Approach & Design

A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the PRC Community Health Survey. Thus, to ensure the best representation of the population surveyed a mixed-mode methodology was implemented. This included surveys conducted via telephone (landline and cell phone) or through online questionnaires, including a community outreach component promoted by Witham Health Services through social media posting and other communications.

RANDOM-SAMPLE SURVEYS (PRC) ► For the targeted administration, PRC administered 700 surveys throughout the region.

COMMUNITY OUTREACH SURVEYS (WITHAM HEALTH SERVICES) ► PRC also created a link to an online version of the survey, and Witham Health Services promoted this link throughout the various communities in order to drive additional participation and bolster overall samples, yielding an additional 33 surveys to the overall sample.

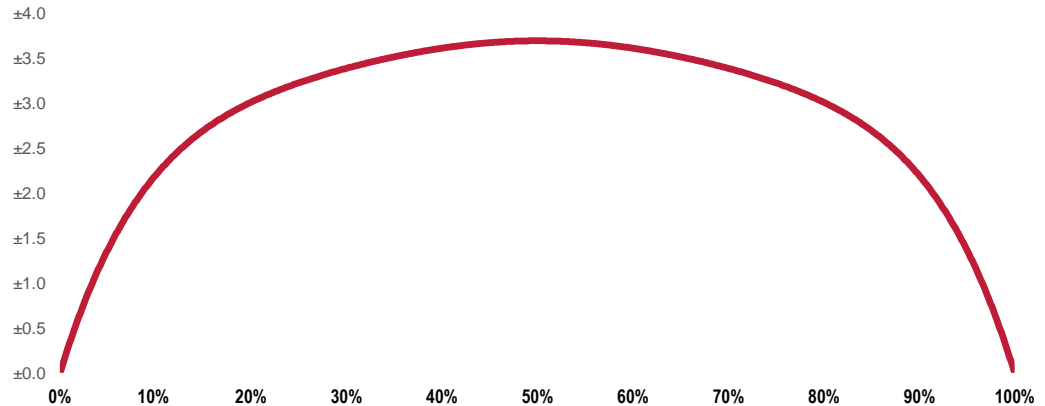
In all, 733 surveys were completed through these mechanisms.

Once the interviews were completed, these were weighted in proportion to the actual population distribution so as to appropriately represent Boone County as a whole. All administration of the surveys, data collection, and data analysis was conducted by PRC.

For statistical purposes, the maximum rate of error associated with a sample size of 733 respondents is $\pm 3.7\%$ at the 95 percent confidence level.



Expected Error Ranges for a Sample of 733 Respondents at the 95 Percent Level of Confidence



- Note:
- The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.
- Examples:
- If 10% of the sample of 733 respondents answered a certain question with a "yes," it can be asserted that between 7.8% and 12.2% (10% ± 2.2%) of the total population would offer this response.
 - If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 46.3% and 53.7% (50% ± 3.7%) of the total population would respond "yes" if asked this question.

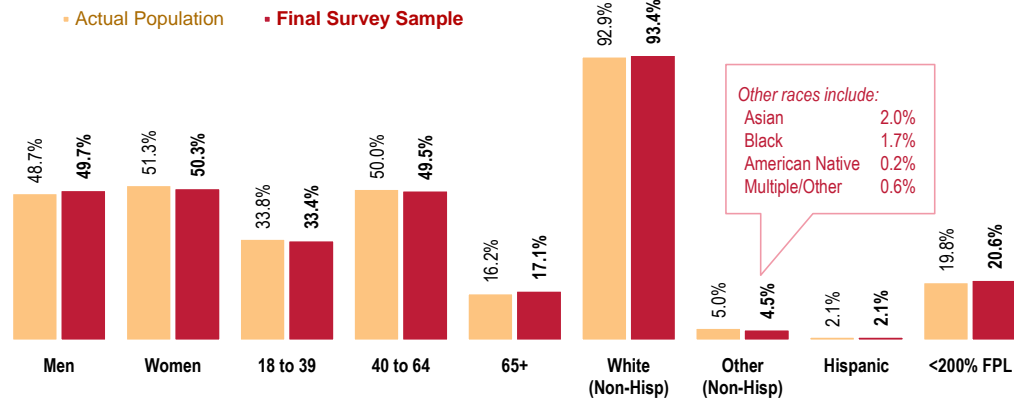
Sample Characteristics

To accurately represent the population studied, PRC strives to minimize bias through application of a proven telephone methodology and random-selection techniques. While this random sampling of the population produces a highly representative sample, it is a common and preferred practice to "weight" the raw data to improve this representativeness even further. This is accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (poststratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely sex, age, race, ethnicity, and poverty status), and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The following chart outlines the characteristics of the Boone County sample for key demographic variables, compared to actual population characteristics revealed in census data. [Note that the sample consisted solely of area residents age 18 and older; data on children were given by proxy by the person most responsible for that child's health care needs, and these children are not represented demographically in this chart.]



Population & Survey Sample Characteristics (Boone County, 2021)



Sources: • US Census Bureau, 2011-2015 American Community Survey.
 • 2021 PRC Community Health Survey, PRC, Inc.
 Notes: • FPL is federal poverty level, based on guidelines established by the US Department of Health & Human Services.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

INCOME & RACE/ETHNICITY

INCOME ► Poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household (e.g., the 2020 guidelines place the poverty threshold for a family of four at \$26,200 annual household income or lower). In sample segmentation: “low income” refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice (<200% of) the poverty threshold; “mid/high income” refers to those households living on incomes which are twice or more (≥200% of) the federal poverty level.

RACE & ETHNICITY ► While the survey data are representative of the racial and ethnic makeup of the population, the samples for Hispanic and non-White race groups were not of sufficient size for independent analysis.

Online Key Informant Survey

To solicit input from key informants, those individuals who have a broad interest in the health of the community, an Online Key Informant Survey also was implemented as part of this process. A list of recommended participants was provided by Witham Health Services; this list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the survey online; reminder emails were sent as needed to increase participation. In all, 73 community stakeholders took part in the Online Key Informant Survey, as outlined in the following table:



ONLINE KEY INFORMANT SURVEY PARTICIPATION

KEY INFORMANT TYPE	NUMBER PARTICIPATING
Physicians	14
Public Health Representatives	3
Other Health Providers	21
Social Services Providers	13
Other Community Leaders	22

Final participation included representatives of the organizations outlined below.

- Alzheimer Association of Indiana
- Arc of Greater Boone County
- Boone County Community Clinic
- Boone County Community Corrections
- Boone County Coroner
- Boone County Council
- Boone County Emergency Medical Services
- Boone County Health Department
- Boone County Mentoring Partnership
- Boone County Senior Services
- Boone County Sheriff's Office
- Boone Economic Development Corporation
- Boys & Girls Club of Z'Ville
- Caring Center
- Circuit Court Judge
- Community Corrections
- County Council District 4
- Creekside OB/GYN
- Cummins Behavioral Services
- Drug Free Boone County
- Excel Home Health Care
- Granville Wells Elementary
- Health Department Nursing & Vital Records
- InWell
- Joint Services
- Juvenile Probation
- Lebanon Christian School
- Lebanon High School
- Lebanon School Corporation
- Mental Health in Boone County
- Parkside Pharmacy
- Perry–Worth Elementary
- Shalom Community
- Solid Waste District
- Stokes Elementary
- Surveyor
- Traders Point Christian Schools (TPCS)
- Veteran Affairs
- Western Boone Jr-Sr School (WeBo)
- Western Boone Community Schools
- WIC
- Witham Family YMCA
- Witham Health Services
- Witham Health Services Emergency
- Witham Health Services of Jamestown
- Witham Health Services Pediatrics
- Witham Pediatrics
- Witham Wellness
- Zionsville Community High School
- Zionsville Community Schools
- Zionsville Eyecare
- Zionsville West Middle School



Through this process, input was gathered from several individuals whose organizations work with low-income, minority, or other medically underserved populations.

In the online survey, key informants were asked to rate the degree to which various health issues are a problem in their own community. Follow-up questions asked them to describe why they identify problem areas as such and how these might better be addressed. Results of their ratings, as well as their verbatim comments, are included throughout this report as they relate to the various other data presented.

NOTE: These findings represent qualitative rather than quantitative data. The Online Key Informant Survey was designed to gather input regarding participants' opinions and perceptions of the health needs of the residents in the area.

Public Health, Vital Statistics & Other Data

A variety of existing (secondary) data sources was consulted to complement the research quality of this Community Health Needs Assessment. Data for Boone County were obtained from the following sources (specific citations are included with the graphs throughout this report):

- [Center for Applied Research and Engagement Systems \(CARES\), University of Missouri Extension, SparkMap \(sparkmap.org\)](#)
- [Centers for Disease Control & Prevention, Office of Infectious Disease, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention](#)
- [Centers for Disease Control & Prevention, Office of Public Health Science Services, Center for Surveillance, Epidemiology and Laboratory Services, Division of Health Informatics and Surveillance \(DHIS\)](#)
- [Centers for Disease Control & Prevention, Office of Public Health Science Services, National Center for Health Statistics](#)
- [ESRI ArcGIS Map Gallery](#)
- [National Cancer Institute, State Cancer Profiles](#)
- [OpenStreetMap \(OSM\)](#)
- [US Census Bureau, American Community Survey](#)
- [US Census Bureau, County Business Patterns](#)
- [US Census Bureau, Decennial Census](#)
- [US Department of Agriculture, Economic Research Service](#)
- [US Department of Health & Human Services](#)
- [US Department of Health & Human Services, Health Resources and Services Administration \(HRSA\)](#)
- [US Department of Justice, Federal Bureau of Investigation](#)
- [US Department of Labor, Bureau of Labor Statistics](#)

Benchmark Data

Trending

Similar surveys were administered in Boone County in 2012, 2015, and 2018 by PRC on behalf of Witham Health Services. Trending data, as revealed by comparison to prior survey results, are provided throughout this report whenever available. Historical data for secondary data indicators are also included for the purposes of trending.



Indiana Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data represent the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trends Data* published online by the Centers for Disease Control and Prevention. State-level vital statistics are also provided for comparison of secondary data indicators.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts, are taken from the *2020 PRC National Health Survey*; the methodological approach for the national study is similar to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence. National-level vital statistics are also provided for comparison of secondary data indicators.

Healthy People 2030

Healthy People provides 10-year, measurable public health objectives — and tools to help track progress toward achieving them. Healthy People identifies public health priorities to help individuals, organizations, and communities across the United States improve health and well-being. Healthy People 2030, the initiative's fifth iteration, builds on knowledge gained over the first four decades.



Healthy People 2030's overarching goals are to:

- Attain healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death.
- Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all.
- Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all.
- Promote healthy development, healthy behaviors, and well-being across all life stages.
- Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.

The Healthy People 2030 framework was based on recommendations made by the Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030. After getting feedback from individuals and organizations and input from subject matter experts, the U.S. Department of Health and Human Services (HHS) approved the framework which helped guide the selection of Healthy People 2030 objectives.

Determining Significance

Differences noted in this report represent those determined to be significant. For survey-derived indicators (which are subject to sampling error), statistical significance is determined based on confidence intervals (at the 95 percent confidence level), using question-specific samples and response rates. For the purpose of this report, "significance" of secondary data indicators (which do not carry sampling error but might be subject to reporting error) is determined by a 15% variation from the comparative measure.

Information Gaps

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups — such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish — are not represented in the survey data. Other population groups — for example, pregnant women, lesbian/gay/bisexual/ transgender residents,



undocumented residents, and members of certain racial/ethnic or immigrant groups — might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly medical conditions that are not specifically addressed.

Public Comment

Witham Health Services made its prior Community Health Needs Assessment (CHNA) report publicly available through its website; through that mechanism, the hospital requested from the public written comments and feedback regarding the CHNA and implementation strategy. At the time of this writing, Witham Health Services had not received any written comments. However, through population surveys and key informant feedback for this assessment, input from the broader community was considered and taken into account when identifying and prioritizing the significant health needs of the community. Witham Health Services will continue to use its website as a tool to solicit public comments and ensure that these comments are considered in the development of future CHNAs.



IRS FORM 990, SCHEDULE H COMPLIANCE

For non-profit hospitals, a Community Health Needs Assessment (CHNA) also serves to satisfy certain requirements of tax reporting, pursuant to provisions of the Patient Protection & Affordable Care Act of 2010. To understand which elements of this report relate to those requested as part of hospitals' reporting on IRS Schedule H (Form 990), the following table cross-references related sections.

IRS FORM 990, SCHEDULE H (2019)	See Report Page
Part V Section B Line 3a A definition of the community served by the hospital facility	6
Part V Section B Line 3b Demographics of the community	33
Part V Section B Line 3c Existing health care facilities and resources within the community that are available to respond to the health needs of the community	167
Part V Section B Line 3d How data was obtained	6
Part V Section B Line 3e The significant health needs of the community	15
Part V Section B Line 3f Primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups	Addressed Throughout
Part V Section B Line 3g The process for identifying and prioritizing community health needs and services to meet the community health needs	16
Part V Section B Line 3h The process for consulting with persons representing the community's interests	9
Part V Section B Line 3i The impact of any actions taken to address the significant health needs identified in the hospital facility's prior CHNA(s)	172



SUMMARY OF FINDINGS

Significant Health Needs of the Community

The following “Areas of Opportunity” represent the significant health needs of the community, based on the information gathered through this Community Health Needs Assessment. From these data, opportunities for health improvement exist in the area with regard to the following health issues (see also the summary tables presented in the following section).

The Areas of Opportunity were determined after consideration of various criteria, including: standing in comparison with benchmark data (particularly national data); identified trends; the preponderance of significant findings within topic areas; the magnitude of the issue in terms of the number of persons affected; and the potential health impact of a given issue. These also take into account those issues of greatest concern to the community stakeholders (key informants) giving input to this process.

AREAS OF OPPORTUNITY IDENTIFIED THROUGH THIS ASSESSMENT	
ACCESS TO HEALTH CARE SERVICES	<ul style="list-style-type: none"> ▪ Barriers to Access <ul style="list-style-type: none"> – Appointment Availability – Difficulty Finding a Physician ▪ Specific Source of Ongoing Medical Care ▪ Emergency Room Utilization ▪ Participation in Health Promotion Activities
CANCER	<ul style="list-style-type: none"> ▪ Leading Cause of Death ▪ Female Breast Cancer Deaths
DIABETES	<ul style="list-style-type: none"> ▪ Prevalence of Borderline/Pre-Diabetes
HEART DISEASE & STROKE	<ul style="list-style-type: none"> ▪ Leading Cause of Death ▪ Action to Control High Blood Pressure
INJURY & VIOLENCE	<ul style="list-style-type: none"> ▪ Unintentional Injury Deaths
MENTAL HEALTH	<ul style="list-style-type: none"> ▪ Diagnosed Depression ▪ Symptoms of Chronic Depression ▪ Suicide Deaths ▪ Mental Health Provider Ratio ▪ Key Informants: Mental health ranked as a top concern.
NUTRITION, PHYSICAL ACTIVITY & WEIGHT	<ul style="list-style-type: none"> ▪ Overweight & Obesity [Adults] ▪ Fruit/Vegetable Consumption ▪ Public Indoor Spaces for Physical Activity ▪ Facilities and Programs for Youth ▪ Key Informants: Nutrition, physical activity, and weight ranked as a top concern.
ORAL HEALTH	<ul style="list-style-type: none"> ▪ Children’s Dental Care
POTENTIALLY DISABLING CONDITIONS	<ul style="list-style-type: none"> ▪ Alzheimer’s Disease Deaths

—continued on the following page—



AREAS OF OPPORTUNITY (continued)

RESPIRATORY DISEASE	<ul style="list-style-type: none">▪ Lung Disease Deaths
SUBSTANCE ABUSE	<ul style="list-style-type: none">▪ Unintentional Drug-Related Deaths▪ Illicit Drug Use▪ Key Informants: Substance abuse ranked as a top concern.

Community Feedback on Prioritization of Health Needs

Prioritization of the health needs identified in this assessment (“Areas of Opportunity” above) was determined based on a prioritization exercise conducted among community stakeholders (representing a cross-section of community-based agencies and organizations) in conjunction with the administration of the Online Key Informant Survey.

In this process, these key informants were asked to rate the severity of a variety of health issues in the community. Insofar as these health issues were identified through the data above and/or were identified as top concerns among key informants, their ranking of these issues informed the following priorities:

1. Mental Health
2. Substance Abuse
3. Nutrition, Physical Activity & Weight
4. Diabetes
5. Heart Disease & Stroke
6. Potentially Disabling Conditions
7. Cancer
8. Oral Health
9. Respiratory Diseases
10. Injury & Violence
11. Access to Healthcare Services

Prioritization Process

There are 17 health issues included in the community health needs assessment with 11 areas of opportunity determined.

Community stakeholders were asked to rate the degree to which these health issues are a problem in their community. (pg. 30)

The areas of opportunity included in the implementation strategy were determined by input and benchmark data provided by:

- 2021 Community Health Needs Assessment provided by Professional Research Consultants (PRC)
- Key Informant Rankings of the 17 health issues (2021 CHNA Report)
- Hospital Administration and Board of Trustees



2021 17 Health Issues (listed alphabetically) 11 Areas of Opportunity (Bold and have *)	2021 Area of Opportunity Ranking	2021 Online Key Informant Ranking	Addressing	Not Addressing
Access to Health Care Services *	11	17		Not addressing in the 2021-2024 Implementation Strategy Plan, #17 out of 17. Witham monitors this through patient satisfaction scores.
Cancer *	7	10		Not addressing in the 2021-2024 Implementation Strategy plan, #10 out of 17.
Coronavirus Disease/COVID-19	-	6		Not addressing in the 2021-2024 Implementation Strategy plan, #6 out of 17.
Dementia/Alzheimer's Disease * (Potentially Disabling Conditions)	6	9		Not addressing in the 2021-2024 Implementation Strategy plan, #9 out of 17.
Diabetes *	4	4	See Implementation Strategy	
Disability & Chronic Pain	-	8		Not addressing in the 2021-2024 Implementation Strategy plan, #8 out of 17.
Heart Disease and Stroke *	5	7	See Implementation Strategy	
Infant Health & Family Planning	-	13		Not addressing in the 2021-2024 Implementation Strategy plan, #13 out of 17.
Injury & Violence *	10	15		Not addressing in the 2021-2024 Implementation Strategy plan, #15 out of 17. Other Boone County agencies address this.
Kidney Disease	-	16		Not addressing in the 2021-2024 Implementation Strategy plan, #16 out of 17.
Mental Health *	1	1	See Implementation Strategy	
Nutrition, Physical Activity & Weight *	3	3	See Implementation Strategy	
Oral Health *	8	11		Not addressing in the 2021-2024 Implementation Strategy plan, #11 out of 17. Dentist in the community are more equipped to address this need.
Respiratory Diseases *	9	12		Not addressing in the 2021-2024 Implementation Strategy plan, #12 out of 17.
Sexual Health	-	14		Not addressing in the 2021-2024 Implementation Strategy plan, #14 out of 17.
Substance Abuse*	2	2	See Implementation Strategy	
Tobacco Use	-	5		Not addressing in the 2021-2024 Implementation Strategy plan, #5 out of 17. Other Boone County agencies address this.

Hospital Implementation Strategy

Witham Health Services will use the information from this Community Health Needs Assessment to develop an Implementation Strategy to address the significant health needs in the community. While the hospital will likely not implement strategies for all of the health issues listed above, the results of this prioritization exercise will be used to inform the development of the hospital's action plan to guide community health improvement efforts in the coming years.

Note: An evaluation of the hospital's past activities to address the needs identified in prior CHNAs can be found as an appendix to this report.



Summary Tables: Comparisons With Benchmark Data

Reading the Summary Tables

- In the following tables, Boone County results are shown in the larger, gray column.
- The columns to the right of the Boone County column provide trending, as well as comparisons between local data and any available state and national findings, and Healthy People 2030 objectives. Symbols indicate whether Boone County compares favorably (☀️), unfavorably (☹️), or comparably (⚖️) to these external data.

Note that blank table cells signify that data are not available or are not reliable for that area and/or for that indicator.

Tip: Indicator labels beginning with a “%” symbol are taken from the PRC Community Health Survey; the remaining indicators are taken from secondary data sources.

TREND SUMMARY

(Current vs. Baseline Data)















SURVEY DATA INDICATORS:

Trends for survey-derived indicators represent significant changes since 2012 (or the first year in which a question was asked).




OTHER (SECONDARY) DATA INDICATORS:

Trends for other indicators (e.g., public health data) represent point-to-point changes between the most current reporting period and the earliest presented in this report (typically representing the span of roughly a decade).











































SOCIAL DETERMINANTS	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
Linguistically Isolated Population (Percent)	1.2	 1.8	 4.3		
Population in Poverty (Percent)	6.0	 13.4	 13.4	 8.0	
Children in Poverty (Percent)	6.2	 18.5	 18.5	 8.0	
No High School Diploma (Age 25+, Percent)	6.4	 11.2	 12.0		
% Worry/Stress Over Rent/Mortgage in Past Year	13.6		 32.2		 17.8
% HH Adult Has Lost a Job Due to the Pandemic	10.9				
% HH Adult Has Lost Hours/Wages Due to the Pandemic	21.3				
% Food Insecure	8.7		 34.1		 14.9

 better
  similar
  worse























OVERALL HEALTH	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
% "Fair/Poor" Overall Health	13.0	 19.9	 12.6		 12.0



















 better
  similar
  worse




ACCESS TO HEALTH CARE	Boone County	BOONE COUNTY vs. BENCHMARKS			
		vs. IN	vs. US	vs. HP2030	TREND
% [Age 18-64] Lack Health Insurance	4.4	 13.4	 8.7	 7.9	 8.9
% HH Adult Has Lost Insurance Coverage Due to the Pandemic	3.7				
% Difficulty Accessing Health Care in Past Year (Composite)	31.5		 35.0		 30.0
% Cost Prevented Physician Visit in Past Year	4.5	 12.6	 12.9		 9.8
% Cost Prevented Getting Prescription in Past Year	6.5		 12.8		 11.6
% Difficulty Getting Appointment in Past Year	18.4		 14.5		 10.4
% Inconvenient Hrs Prevented Dr Visit in Past Year	11.9		 12.5		 11.1
% Difficulty Finding Physician in Past Year	8.0		 9.4		 4.9
% Transportation Hindered Dr Visit in Past Year	2.2		 8.9		 3.0
% Language/Culture Prevented Care in Past Year	0.2		 2.8		 0.3
% Skipped Prescription Doses to Save Costs	7.8		 12.7		 11.0
% Difficulty Getting Child's Health Care in Past Year	3.7		 8.0		 3.1
Primary Care Doctors per 100,000	211.9	 66.8	 75.8		
% Have a Specific Source of Ongoing Care	78.0		 74.2	 84.0	 92.0
% Have Had Routine Checkup in Past Year	70.1	 77.0	 70.5		 71.1
% Child Has Had Checkup in Past Year	92.9		 77.4		 95.0













ACCESS TO HEALTH CARE (continued)	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
% Two or More ER Visits in Past Year	8.4		 10.1		 5.3
% "Extremely/Very" Likely to Use Telemedicine	28.1				
% Aware of Local Palliative Care Services	27.2				 28.5
% Participated in a Health Promotion Activity	22.3				 27.4
% Rate Local Health Care "Fair/Poor"	5.0		 8.0		 6.1




 better
  similar
  worse

























CANCER	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
Cancer (Age-Adjusted Death Rate)	165.3	 166.4	 149.3	 122.7	 190.6
Lung Cancer (Age-Adjusted Death Rate)	38.7	 44.6	 34.9	 25.1	
Prostate Cancer (Age-Adjusted Death Rate)	20.7	 19.4	 18.6	 16.9	
Female Breast Cancer (Age-Adjusted Death Rate)	23.2	 20.4	 19.7	 15.3	
Colorectal Cancer (Age-Adjusted Death Rate)	15.3	 15.1	 13.4	 8.9	
Cancer Incidence Rate (All Sites)	454.6	 459.3	 448.7		
Female Breast Cancer Incidence Rate	130.2	 122.9	 125.9		
Prostate Cancer Incidence Rate	107.3	 94.2	 104.5		

CANCER (continued)	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
Lung Cancer Incidence Rate	56.8	 72.2	 58.3		
Colorectal Cancer Incidence Rate	36.8	 42.6	 38.4		
% Cancer	8.5	 11.9	 10.0		
% [Women 50-74] Mammogram in Past 2 Years	82.5	 76.6	 76.1	 77.1	 78.2
% [Women 21-65] Cervical Cancer Screening	86.2	 80.6	 73.8	 84.3	 82.3
% [Age 50-75] Colorectal Cancer Screening	74.5	 68.2	 77.4	 74.4	 71.3









 better
 similar
 worse

DIABETES	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
Diabetes (Age-Adjusted Death Rate)	17.8	 25.9	 21.5		 17.9
% Diabetes/High Blood Sugar	11.8	 12.4	 13.8		 9.2
% Borderline/Pre-Diabetes	11.4		 9.7		 7.5
% [Diabetics] Have Taken a Course in Diabetes Management	53.3				 62.3
% [Diabetics] Dr Visit for Diabetes 2+ Times/Past Year	60.3				 72.3
% [Non-Diabetics] Blood Sugar Tested in Past 3 Years	57.1		 43.3		 59.4




















 better
 similar
 worse

		BOONE COUNTY vs. BENCHMARKS			
HEART DISEASE & STROKE	Boone County	vs. IN	vs. US	vs. HP2030	TREND
Diseases of the Heart (Age-Adjusted Death Rate)	190.7	 180.9	 163.4	 127.4	 192.1
% Heart Disease (Heart Attack, Angina, Coronary Disease)	6.0	 7.4	 6.1		 6.5
Stroke (Age-Adjusted Death Rate)	37.7	 40.3	 37.2	 33.4	 57.2
% Stroke	3.3	 3.8	 4.3		 1.8
% Told Have High Blood Pressure	34.7	 34.8	 36.9	 27.7	 32.8
% [HBP] Taking Action to Control High Blood Pressure	92.4		 84.2		 96.2
% Told Have High Cholesterol	33.2		 32.7		 32.9
% 1+ Cardiovascular Risk Factor	80.6		 84.6		 80.9







 better
  similar
  worse

		BOONE COUNTY vs. BENCHMARKS			
INFANT HEALTH & FAMILY PLANNING	Boone County	vs. IN	vs. US	vs. HP2030	TREND
Low Birthweight Births (Percent)	6.8	 8.1	 8.2		
Infant Death Rate	4.3	 7.2	 5.9	 5.0	
Births to Adolescents Age 15 to 19 (Rate per 1,000)	11.9	 24.8	 20.9	 31.4	


















 better
  similar
  worse

		BOONE COUNTY vs. BENCHMARKS			
INJURY & VIOLENCE	Boone County	vs. IN	vs. US	vs. HP2030	TREND
Unintentional Injury (Age-Adjusted Death Rate)	50.4	 56.6	 48.9	 43.2	 34.1
Motor Vehicle Crashes (Age-Adjusted Death Rate)	8.8	 12.4	 11.3	 10.1	
[65+] Falls (Age-Adjusted Death Rate)	58.2	 44.5	 65.1	 63.4	
Firearm-Related Deaths (Age-Adjusted Death Rate)	13.1	 14.7	 11.9	 10.7	
Violent Crime Rate	184.0	 391.4	 416.0		
% Victim of Violent Crime in Past 5 Years	1.4		 6.2		 1.8
% Victim of Intimate Partner Violence	12.3		 13.7		 9.2

 better
  similar
  worse

		BOONE COUNTY vs. BENCHMARKS			
KIDNEY DISEASE	Boone County	vs. IN	vs. US	vs. HP2030	TREND
Kidney Disease (Age-Adjusted Death Rate)	13.0	 17.7	 12.9		 18.2
% Kidney Disease	3.6	 3.4	 5.0		 2.7



































 better
  similar
  worse

MENTAL HEALTH	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
% "Fair/Poor" Mental Health	12.6		 13.4		 9.6
% Diagnosed Depression	25.6	 21.0	 20.6		 19.6
% Symptoms of Chronic Depression (2+ Years)	28.5		 30.3		 20.0
Suicide (Age-Adjusted Death Rate)	18.3	 15.5	 14.0	 12.8	 15.8
Mental Health Providers per 100,000	113.5	 168.5	 261.6		
% Taking Rx/Receiving Mental Health Trtmt	19.5		 16.8		 21.0
% Unable to Get Mental Health Svcs in Past Yr	4.2		 7.8		 3.8
% Arguing With HH Members More Often Since Pandemic Began	16.0				
% Getting Good Sleep Less Often Since Pandemic Began	19.1				
% Mental Health Has Gotten Worse Since Pandemic Began	13.8				


better


similar












worse




NUTRITION, PHYSICAL ACTIVITY & WEIGHT	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
Population With Low Food Access (Percent)	17.9	 28.7	 22.2		
% "Very/Somewhat" Difficult to Buy Fresh Produce	8.7		 21.1		 6.1
% 5+ Servings of Fruits/Vegetables per Day	27.2		 32.7		 45.8
% No Leisure-Time Physical Activity	17.8	 30.9	 31.3	 21.2	 18.4
% Meeting Physical Activity Guidelines	23.7	 21.1	 21.4	 28.4	 23.8
% Child [Age 2-17] Physically Active 1+ Hours per Day	45.8		 33.0		 43.2
Recreation/Fitness Facilities per 100,000	21.2	 10.7	 12.2		
% Community Needs More Indoor Public Physical Activity Spaces	41.3				 35.6
% Community Provides Enough Facilities/Programs for Youth	64.8				 76.2
% Exercising Less Often Since Pandemic Began	19.5				
% Eating Unhealthy/Overeating More Often Since Pandemic Began	19.4				
% Overweight (BMI 25+)	66.4	 69.1	 61.0		 61.9
% Obese (BMI 30+)	31.3	 35.3	 31.3	 36.0	 26.9
% [Overweights] Counseled About Weight in Past Year	46.0		 24.7		 33.8
% Children [Age 5-17] Overweight (85th Percentile)	20.3		 32.3		 26.4
% Children [Age 5-17] Obese (95th Percentile)	8.7		 16.0	 15.5	 16.1














better





similar



















worse

ORAL HEALTH	Boone County	BOONE COUNTY vs. BENCHMARKS			
		vs. IN	vs. US	vs. HP2030	TREND
% Have Dental Insurance	82.2		 68.7	 59.8	 70.6
% [Age 18+] Dental Visit in Past Year	74.7	 64.4	 62.0	 45.0	 78.1
% Child [Age 2-17] Dental Visit in Past Year	88.4		 72.1	 45.0	 94.2







 better
  similar
  worse

POTENTIALLY DISABLING CONDITIONS	Boone County	BOONE COUNTY vs. BENCHMARKS			
		vs. IN	vs. US	vs. HP2030	TREND
% 3+ Chronic Conditions	28.6		 32.5		 35.9
% Activity Limitations	16.9		 24.0		 16.7
% With High-Impact Chronic Pain	13.9		 14.1	 7.0	
Alzheimer's Disease (Age-Adjusted Death Rate)	43.5	 33.4	 30.4		 33.8
% [Age 45+] Increasing Confusion/Memory Loss in Past Yr	11.6				 10.8
% Caregiver to a Friend/Family Member	25.6		 22.6		 28.8


















 better
  similar
  worse

		BOONE COUNTY vs. BENCHMARKS			
RESPIRATORY DISEASE	Boone County	vs. IN	vs. US	vs. HP2030	TREND
CLRD (Age-Adjusted Death Rate)	51.7	 56.2	 39.6		 49.4
Pneumonia/Influenza (Age-Adjusted Death Rate)	10.5	 13.1	 13.8		 10.9
% [Age 65+] Flu Vaccine in Past Year	70.0	 63.5	 71.0		 69.5
% Fully/Partially Vaccinated for COVID-19	80.5				
% [Adult] Ever Diagnosed With Asthma	10.9	 14.5	 17.3		 13.8
% [Child 0-17] Asthma	10.8		 7.8		 6.8
% COPD (Lung Disease)	5.7	 8.7	 6.4		 6.6
















 better
  similar
  worse





		BOONE COUNTY vs. BENCHMARKS			
SEXUAL HEALTH	Boone County	vs. IN	vs. US	vs. HP2030	TREND
HIV Prevalence Rate	82.8	 206.4	 372.8		
Chlamydia Incidence Rate	223.1	 523.9	 539.9		
Gonorrhea Incidence Rate	42.5	 182.9	 179.1		

 better
  similar
  worse

SUBSTANCE ABUSE	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
Cirrhosis/Liver Disease (Age-Adjusted Death Rate)	6.9	 10.8	 10.5	 10.9	
% Excessive Drinker	17.7	 16.5	 27.2		 14.9
% Using Alcohol More Often Since Pandemic Began	13.3				
Unintentional Drug-Related Deaths (Age-Adjusted Death Rate)	23.8	 24.4	 18.8		 15.2
% Illicit Drug Use in Past Month	3.2		 2.0	 12.0	 1.2
% Used a Prescription Opioid in Past Year	12.9		 12.9		
% Ever Sought Help for Alcohol or Drug Problem	3.9		 5.4		 2.0
% Personally Impacted by Substance Abuse	36.1		 35.8		 36.0

 better
  similar
  worse

TOBACCO USE	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
% Current Smoker	11.7	 19.2	 17.4	 5.0	 17.8
% Someone Smokes at Home	7.1		 14.6		 13.7
% [Household With Children] Someone Smokes in the Home	3.4		 17.4		 8.2
% [Smokers] Have Quit Smoking 1+ Days in Past Year	58.9	 52.9	 42.8	 65.7	 40.0
% [Smokers] Received Advice to Quit Smoking	80.6		 59.6	 66.6	 69.7

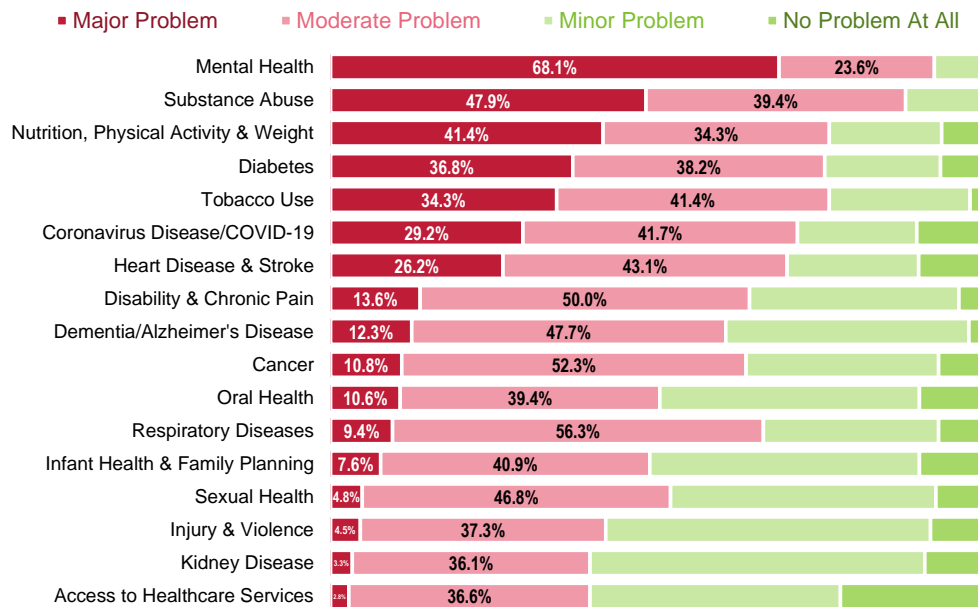
TOBACCO USE (continued)	Boone County	BOONE COUNTY vs. BENCHMARKS			TREND
		vs. IN	vs. US	vs. HP2030	
% Aware of the Indiana Tobacco Quit Line	49.1				 54.9
% Currently Use Vaping Products	4.9	 6.0	 8.9		 6.6
% Smoking/Vaping More Often Since Pandemic Began	12.9				

 better
  similar
  worse

Summary of Key Informant Perceptions

In the Online Key Informant Survey, community stakeholders were asked to rate the degree to which each of 17 health issues is a problem in their own community, using a scale of “major problem,” “moderate problem,” “minor problem,” or “no problem at all.” The following chart summarizes their responses; these findings also are outlined throughout this report, along with the qualitative input describing reasons for their concerns. (Note that these ratings alone do not establish priorities for this assessment; rather, they are one of several data inputs considered for the prioritization process described earlier.)

Key Informants: Relative Position of Health Topics as Problems in the Community





COMMUNITY DESCRIPTION

POPULATION CHARACTERISTICS

Total Population

Boone County, the focus of this Community Health Needs Assessment, encompasses 422.91 square miles and houses a total population of 65,544 residents, according to latest census estimates.

Total Population
(Estimated Population, 2015-2019)

	TOTAL POPULATION	TOTAL LAND AREA (square miles)	POPULATION DENSITY (per square mile)
Boone County	65,544	422.91	154.98
Indiana	6,665,703	35,826.63	186.05
United States	324,697,795	3,532,068.58	91.93

Sources: • US Census Bureau American Community Survey 5-year estimates.
• Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

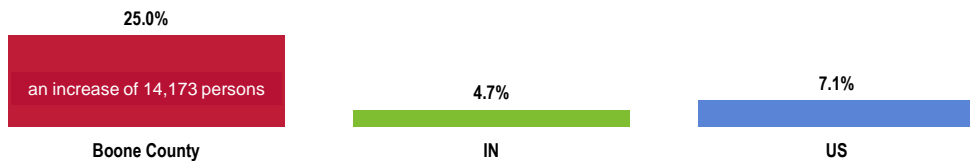
Population Change 2010-2020

A significant positive or negative shift in total population over time impacts health care providers and the utilization of community resources.

Between the 2010 and 2020 US Censuses, the population of Boone County increased by 14,173 persons, or 25.0%.

BENCHMARK ▶ A considerably higher percentage increase than reported statewide and nationally.

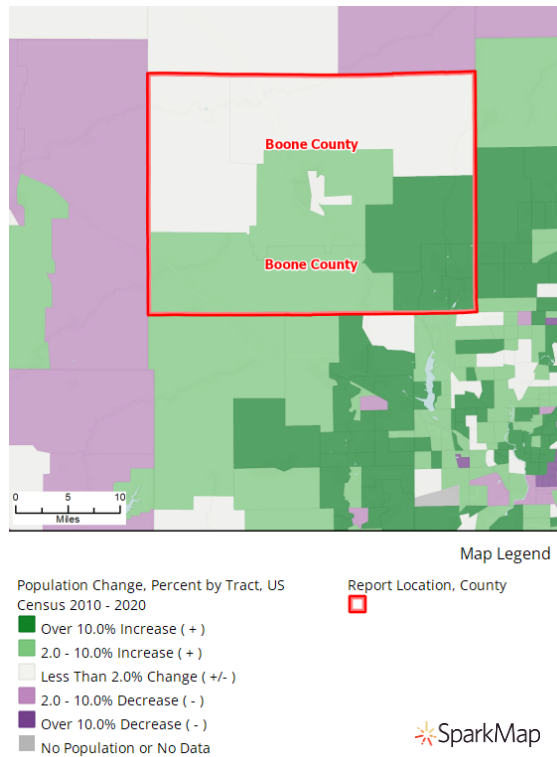
Change in Total Population
(Percentage Change Between 2010 and 2020)



Sources: • US Census Bureau Decennial Census (2010-2020).
• Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
Notes: • A significant positive or negative shift in total population over time impacts health care providers and the utilization of community resources.



This map shows the areas of greatest increase or decrease in population between 2010 and 2020.



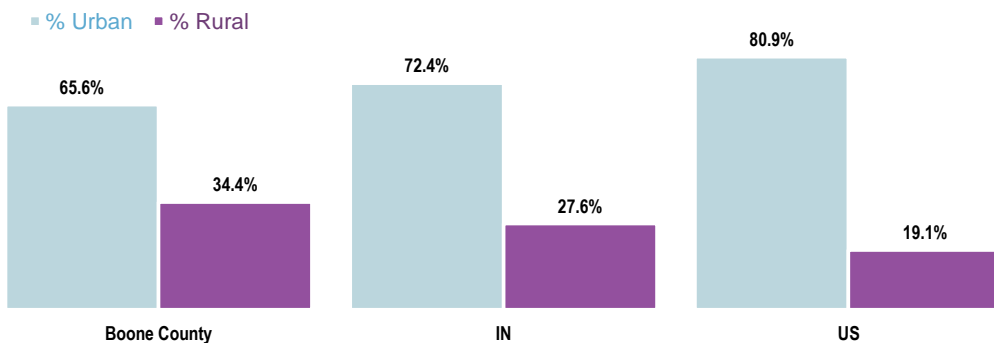
Urban/Rural Population

Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all remaining areas.

Boone County is predominantly urban, with 65.6% of the population living in areas designated as urban.

BENCHMARK ► A lower urban proportion than Indiana and especially the US overall.

Urban and Rural Population (2010)



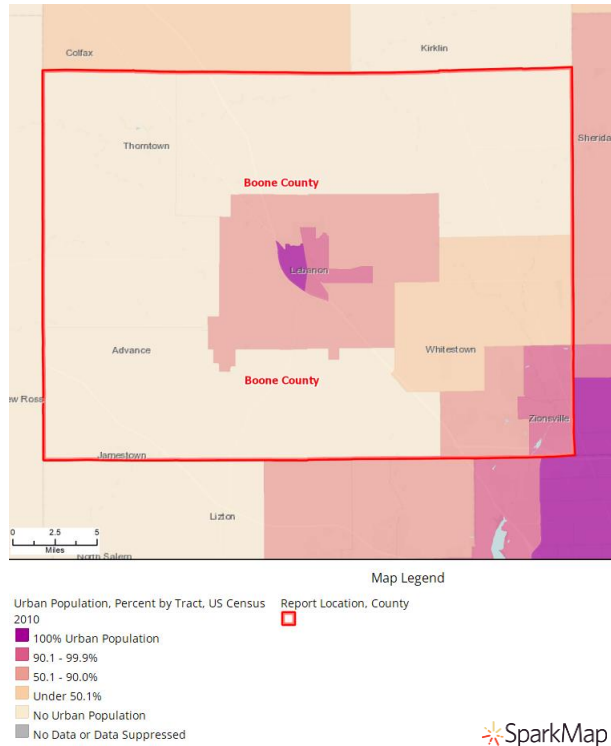
Sources:

- US Census Bureau Decennial Census.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

Notes:

- This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.





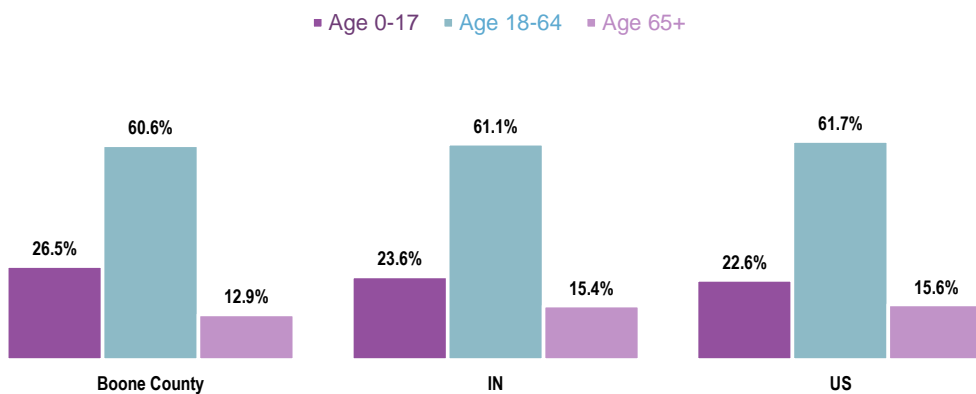
Age

It is important to understand the age distribution of the population, as different age groups have unique health needs that should be considered separately from others along the age spectrum.

In Boone County, 26.5% of the population are children age 0-17; another 60.6% are age 18 to 64, while 12.9% are age 65 and older.

BENCHMARK ► The county houses a larger proportion of children and a smaller proportion of seniors (age 65+) when compared with state and US benchmarks.

Total Population by Age Groups
(2015-2019)



Sources:

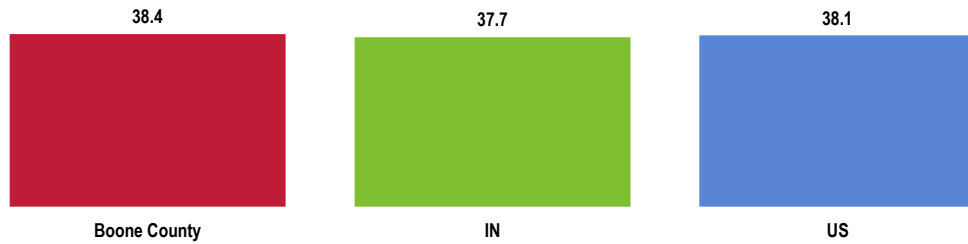
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).



Median Age

The county's median age is similar to those reported statewide and nationally.

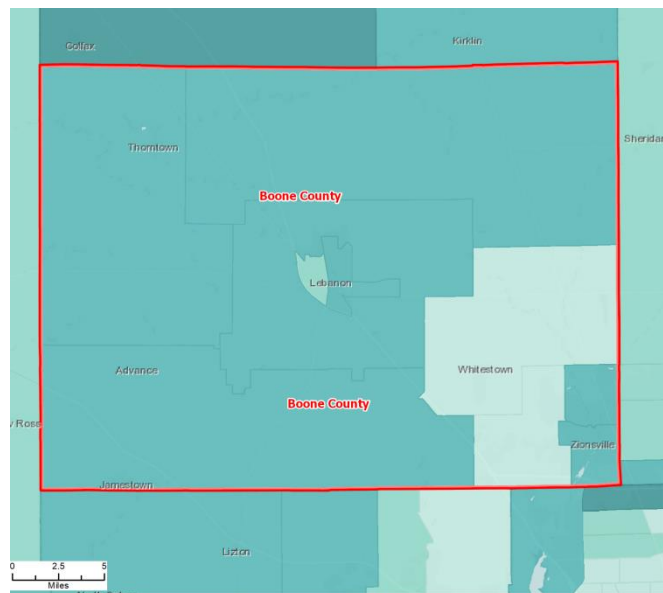
Median Age (2015-2019)



Sources:

- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

The following map provides an illustration of the median age in Boone County.



SparkMap



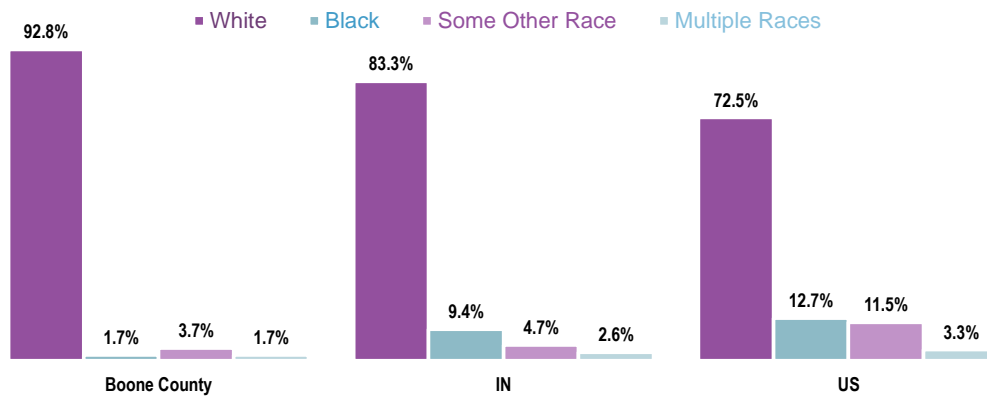
Race & Ethnicity

Race

In looking at race independent of ethnicity (Hispanic or Latino origin), 92.8% of residents of Boone County are White and 1.7% are Black.

BENCHMARK ▶ A less diverse population than Indiana and especially the nation as a whole.

Total Population by Race Alone
(2015-2019)



Sources:

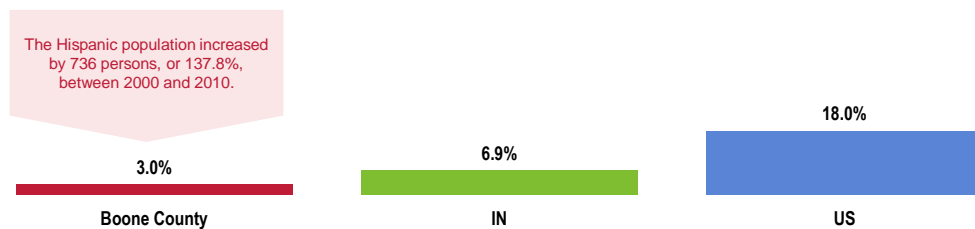
- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

Ethnicity

A total of 3.0% of Boone County residents are Hispanic or Latino.

BENCHMARK ▶ A smaller percentage when compared with Indiana and US (especially) figures.

Hispanic Population
(2015-2019)



Sources:

- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

 Notes:

- Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

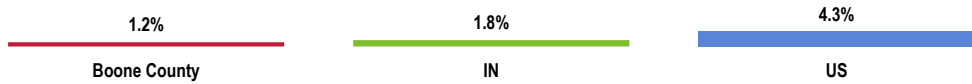


Linguistic Isolation

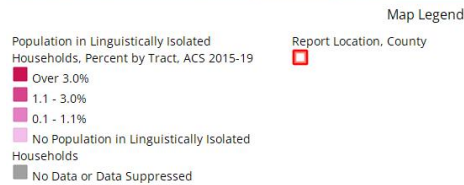
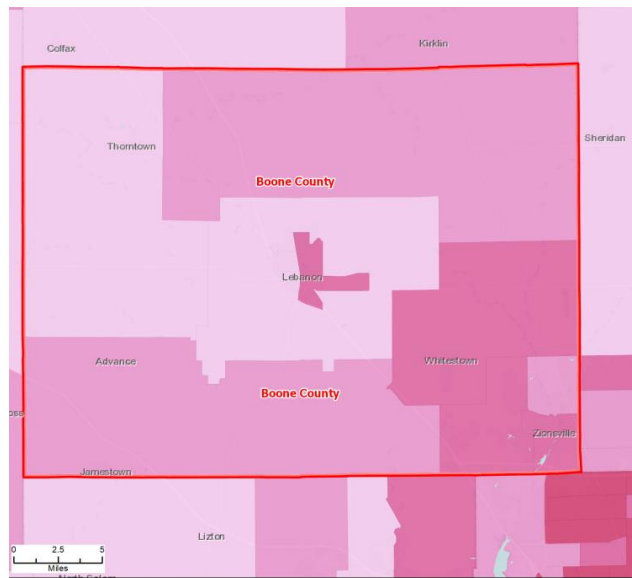
A total of 1.2% of Boone County population age 5 and older live in a home in which no person age 14 or older is proficient in English (speaking only English or speaking English “very well”).

BENCHMARK ▶ Lower than the state proportion and especially the national figure.

Linguistically Isolated Population (2015-2019)



- Sources:
- US Census Bureau American Community Survey 5-year estimates.
 - Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
- Notes:
- This indicator reports the percentage of the population age 5+ who live in a home in which no person age 14+ speaks only English, or in which no person age 14+ speak a non-English language and speak English "very well."



SOCIAL DETERMINANTS OF HEALTH

ABOUT SOCIAL DETERMINANTS OF HEALTH

Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Social determinants of health (SDOH) have a major impact on people's health, well-being, and quality of life. Examples of SDOH include:

- Safe housing, transportation, and neighborhoods
- Racism, discrimination, and violence
- Education, job opportunities, and income
- Access to nutritious foods and physical activity opportunities
- Polluted air and water
- Language and literacy skills

SDOH also contribute to wide health disparities and inequities. For example, people who don't have access to grocery stores with healthy foods are less likely to have good nutrition. That raises their risk of health conditions like heart disease, diabetes, and obesity — and even lowers life expectancy relative to people who do have access to healthy foods.

Just promoting healthy choices won't eliminate these and other health disparities. Instead, public health organizations and their partners in sectors like education, transportation, and housing need to take action to improve the conditions in people's environments.

- Healthy People 2030 (<https://health.gov/healthypeople>)

Poverty

The latest census estimate shows 6.0% of Boone County total population living below the federal poverty level.

BENCHMARK ► Well below the state and national percentages.

Among just children (ages 0 to 17), this percentage in Boone County is 6.2% (representing an estimated 1,054 children).

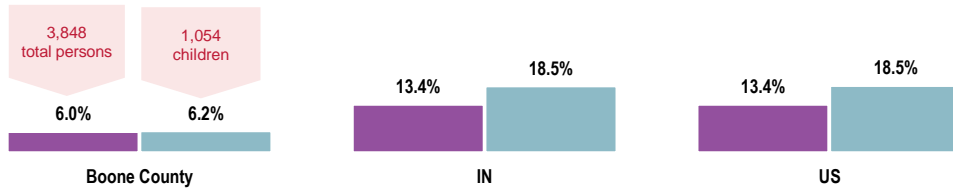
BENCHMARK ► Well below the state and national percentages.



Population in Poverty

(Populations Living Below the Poverty Level; 2015-2019)
Healthy People 2030 = 8.0% or Lower

■ Total Population ■ Children



Sources:

- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
- US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes:

- Poverty is considered a key driver of health status. This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

The following maps highlight concentrations of persons living below the federal poverty level.



Map Legend

Population Below the Poverty Level, Percent by Tract, ACS 2015-19

- Over 20.0%
- 15.1 - 20.0%
- 10.1 - 15.0%
- Under 10.1%
- No Data or Data Suppressed

Report Location, County



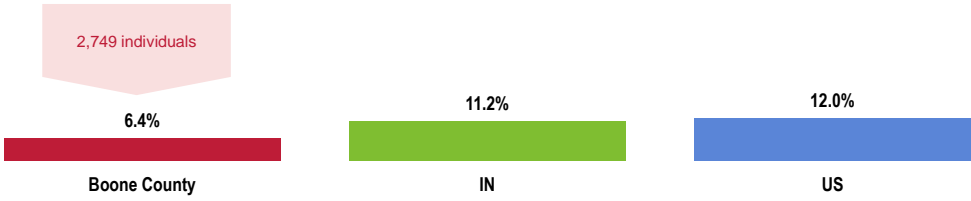


Education

Among the Boone County population age 25 and older, an estimated 6.4% (over 2,700 people) do not have a high school education.

BENCHMARK ▶ Below the Indiana and US percentages.

Population With No High School Diploma (Population Age 25+ Without a High School Diploma or Equivalent, 2015-2019)



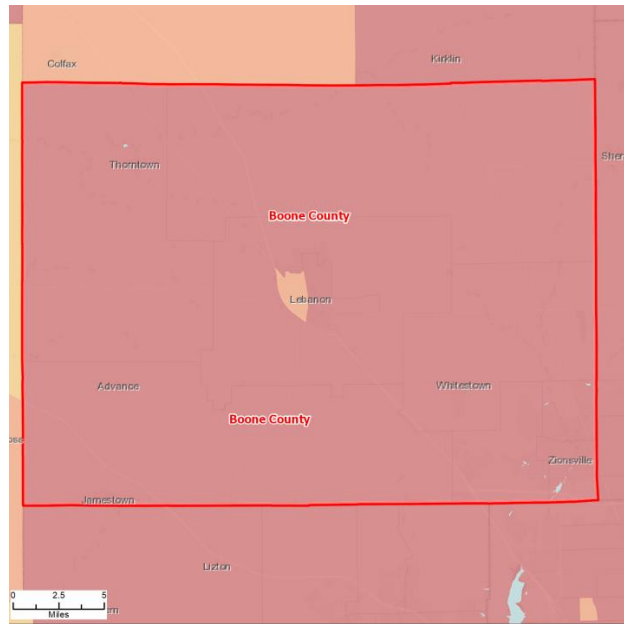
Sources:

- US Census Bureau American Community Survey 5-year estimates.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

 Notes:

- This indicator is relevant because educational attainment is linked to positive health outcomes.





Map Legend

Population with a Bachelor's Degree or Higher, Percent by Tract, ACS 2015-19

- Over 23.0%
- 18.1 - 23.0%
- 13.1 - 18.0%
- Under 13.1%
- No Data or Data Suppressed

Report Location, County

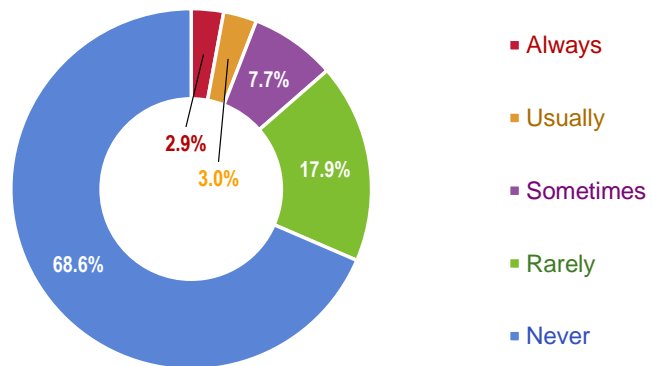


Housing

Housing Insecurity

Most surveyed adults rarely, if ever, worry about the cost of housing.

Frequency of Worry or Stress Over Paying Rent or Mortgage in the Past Year (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 66]
 Notes: • Asked of all respondents.



However, 13.6% report that they were “sometimes,” “usually,” or “always” worried or stressed about having enough money to pay their rent or mortgage in the past year.

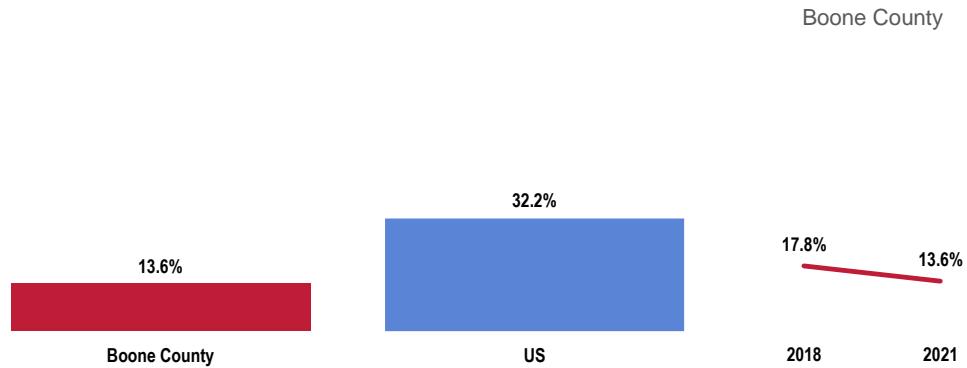
BENCHMARK ▶ Considerably lower than the national prevalence.

TREND ▶ Marks a statistically significant decrease (improvement) from 2018 survey findings.

DISPARITY ▶ The prevalence decreases with age and is especially high among respondents in low-income households and those who rent their home or apartment.

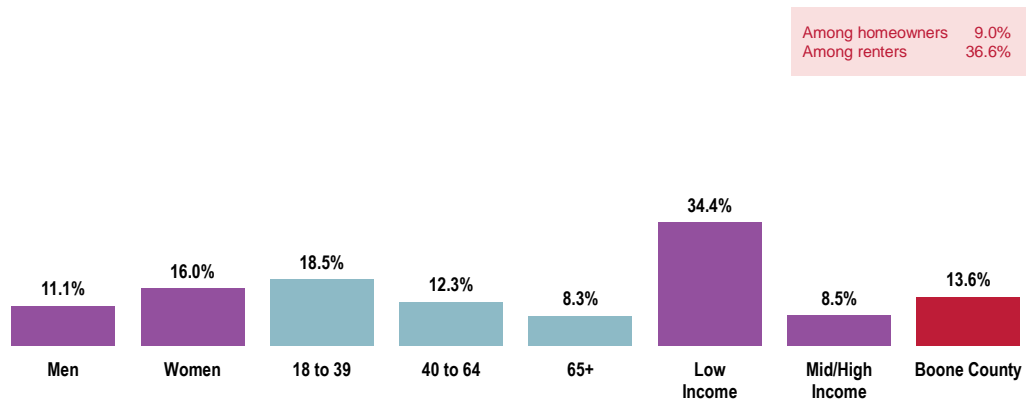
NOTE: For indicators derived from the population-based survey administered as part of this project, text describes significant differences determined through statistical testing. The reader can assume that differences (against or among local findings) that are not mentioned are ones that are not statistically significant.

“Always/Usually/Sometimes” Worried About Paying Rent/Mortgage in the Past Year



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 66]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

“Always/Usually/Sometimes” Worried About Paying Rent/Mortgage in the Past Year (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 66]
 Notes: • Asked of all respondents.

Charts throughout this report (such as that here) detail survey findings among key demographic groups – namely by sex, age groupings, and income (based on poverty status).

Here, “low income” refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice (<200% of) the poverty threshold; “mid/high income” refers to those households living on incomes which are twice or more (≥200% of) the federal poverty level.



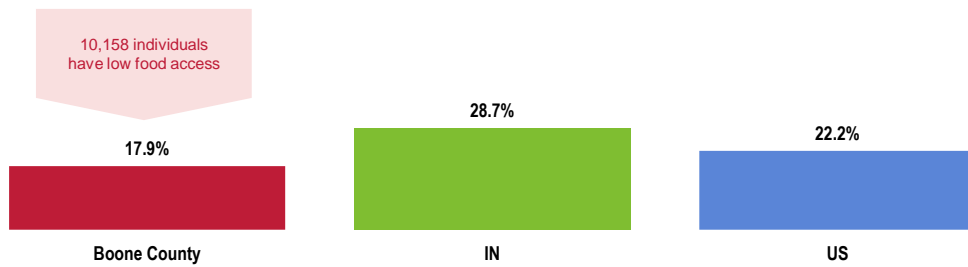
Food Access

Low Food Access

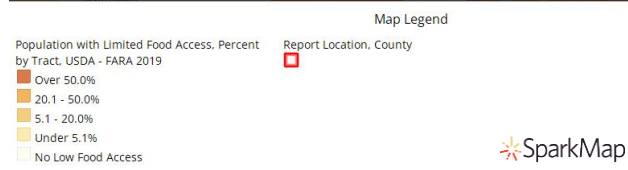
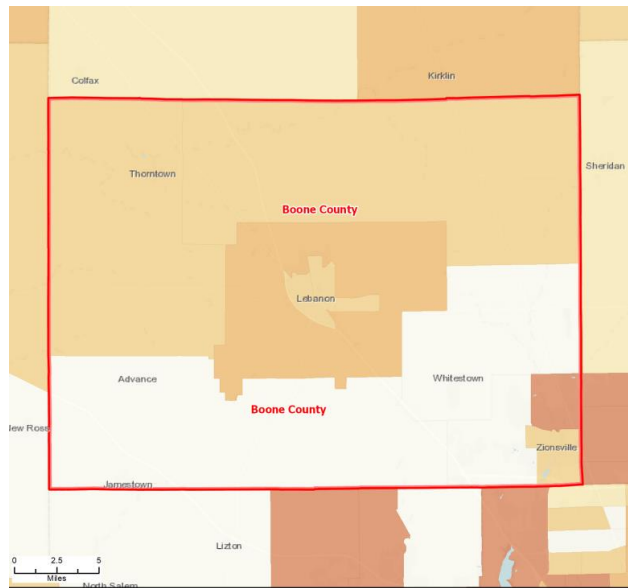
US Department of Agriculture data show that 17.9% of Boone County population (representing over 10,000 residents) have low food access, meaning that they do not live near a supermarket or large grocery store.

BENCHMARK ▶ Lower than the state and national figures.

Population With Low Food Access (Percent of Population That Is Far From a Supermarket or Large Grocery Store, 2019)



- Sources:
- US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas (FARA).
 - Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
- Notes:
- This indicator reports the percentage of the population with low food access. Low food access is defined as living more than 1/2 mile from the nearest supermarket, supercenter, or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity.



Low food access is defined as living more than 1/2 mile from the nearest supermarket, supercenter, or large grocery store.

RELATED ISSUE
See also *Nutrition, Physical Activity & Weight* in the **Modifiable Health Risks** section of this report.



Food Insecurity

Overall, **8.7%** of community residents are determined to be “food insecure,” having run out of food in the past year and/or been worried about running out of food.

BENCHMARK ▶ Well below the national prevalence.

TREND ▶ Decreasing significantly since 2018.

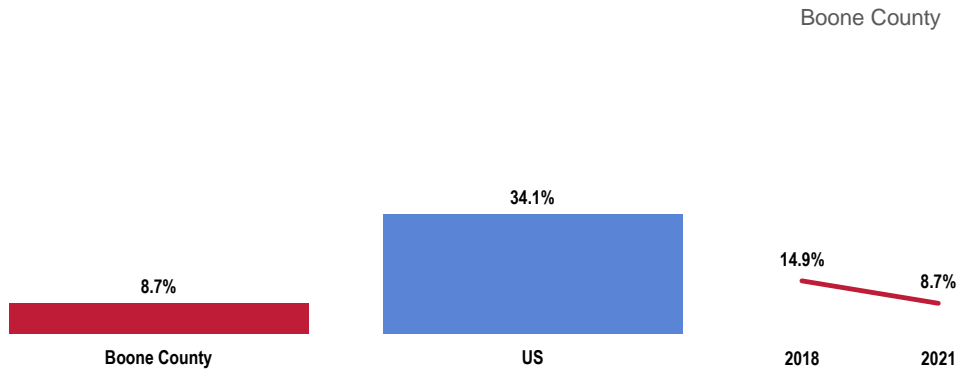
DISPARITY ▶ Reported more often among women, young adults, and especially low-income residents.

Surveyed adults were asked: “Now I am going to read two statements that people have made about their food situation. Please tell me whether each statement was “Often True,” “Sometimes True,” or “Never True” for you in the past 12 months:

- I worried about whether our food would run out before we got money to buy more.
- The food that we bought just did not last, and we did not have money to get more.”

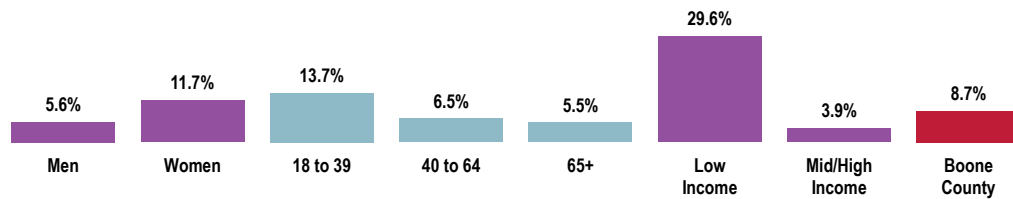
Those answering “Often” or “Sometimes True” for either statement are considered to be food insecure.

Food Insecurity



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 112]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.
 • Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.

Food Insecurity (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 112]
 Notes: • Asked of all respondents.
 • Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.





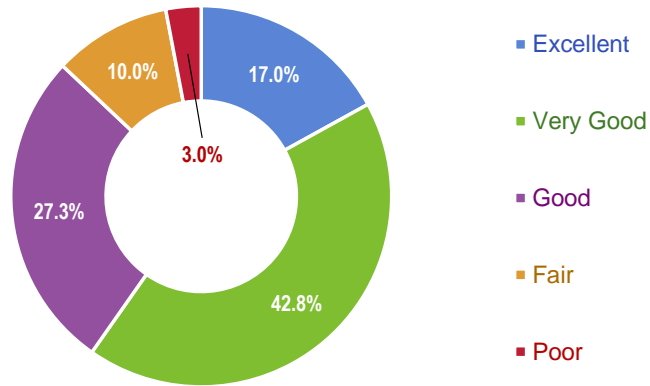
HEALTH STATUS

OVERALL HEALTH STATUS

The initial inquiry of the PRC Community Health Survey asked: "Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?"

Most Boone County residents rate their overall health favorably (responding "excellent," "very good," or "good").

Self-Reported Health Status
(Boone County, 2021)



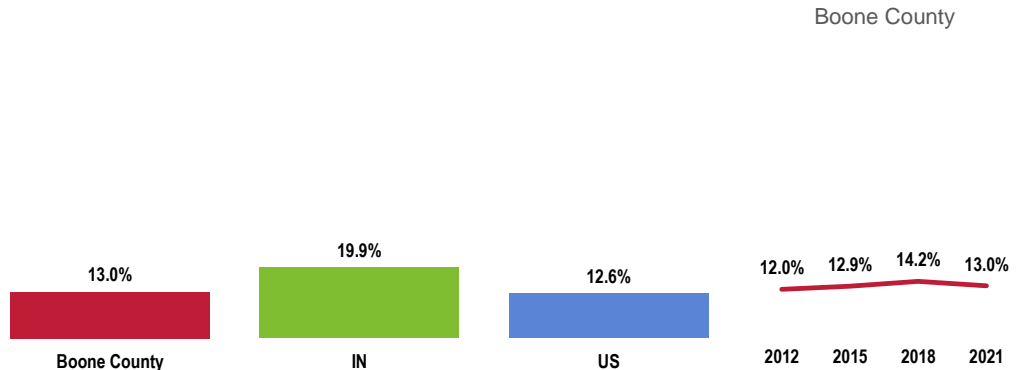
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 5]
Notes: • Asked of all respondents.

However, 13.0% of Boone County adults believe that their overall health is "fair" or "poor."

BENCHMARK ▶ Lower than the Indiana prevalence.

DISPARITY ▶ The prevalence increases with age among survey respondents and is especially high among adults in low-income households.

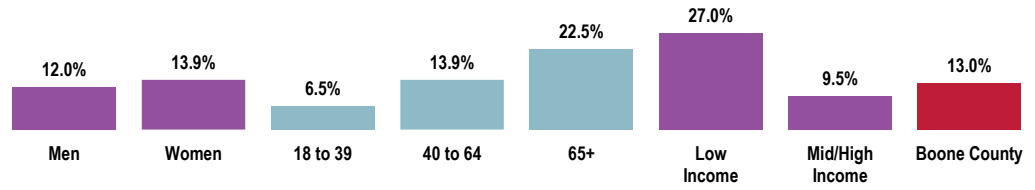
Experience "Fair" or "Poor" Overall Health



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 5]
• Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
• 2020 PRC National Health Survey, PRC, Inc.
Notes: • Asked of all respondents.



Experience “Fair” or “Poor” Overall Health (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 5]
Notes: • Asked of all respondents.



MENTAL HEALTH

ABOUT MENTAL HEALTH & MENTAL DISORDERS

About half of all people in the United States will be diagnosed with a mental disorder at some point in their lifetime. ...Mental disorders affect people of all age and racial/ethnic groups, but some populations are disproportionately affected. And estimates suggest that only half of all people with mental disorders get the treatment they need.

In addition, mental health and physical health are closely connected. Mental disorders like depression and anxiety can affect people's ability to take part in healthy behaviors. Similarly, physical health problems can make it harder for people to get treatment for mental disorders. Increasing screening for mental disorders can help people get the treatment they need.

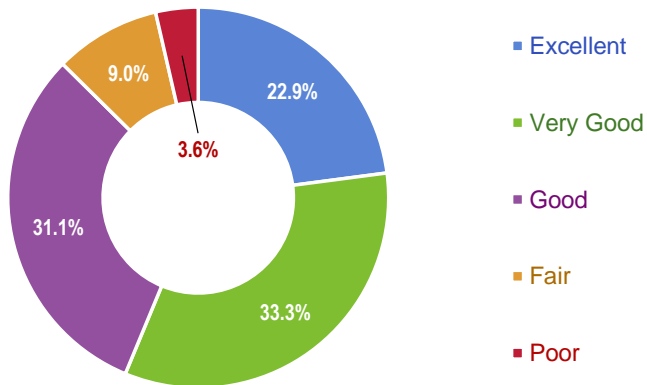
– Healthy People 2030 (<https://health.gov/healthypeople>)

Mental Health Status

Most Boone County adults rate their overall mental health favorably (“excellent,” “very good,” or “good”).

“Now thinking about your mental health, which includes stress, depression, and problems with emotions, would you say that, in general, your mental health is: Excellent, Very Good, Good, Fair, or Poor?”

Self-Reported Mental Health Status
(Boone County, 2021)



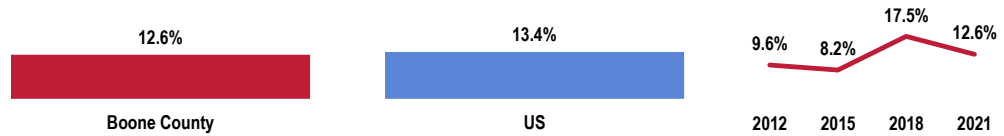
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 90]
Notes: • Asked of all respondents.



However, 12.6% believe that their overall mental health is “fair” or “poor.”

Experience “Fair” or “Poor” Mental Health

Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 90]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Depression

Diagnosed Depression

One in four (25.6%) Boone County adults has been diagnosed by a physician as having a depressive disorder (such as depression, major depression, dysthymia, or minor depression).

BENCHMARK ► Worse than state and national findings.

TREND ► Increasing significantly since 2015.

Have Been Diagnosed With a Depressive Disorder

Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 93]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.
 • Depressive disorders include depression, major depression, dysthymia, or minor depression.



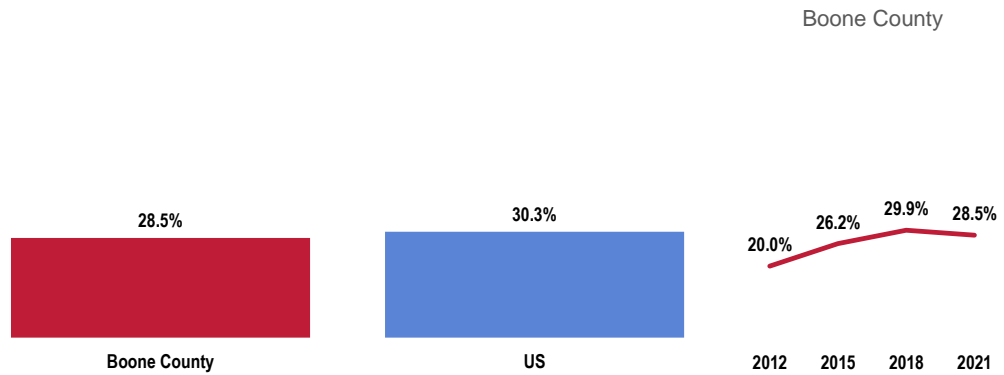
Symptoms of Chronic Depression

A total of **28.5%** of Boone County adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (symptoms of chronic depression).

TREND ► The county prevalence has increased significantly from baseline 2012 findings.

DISPARITY ► Reported among nearly half of low-income respondents; also relatively high among women and adults under 65.

Have Experienced Symptoms of Chronic Depression



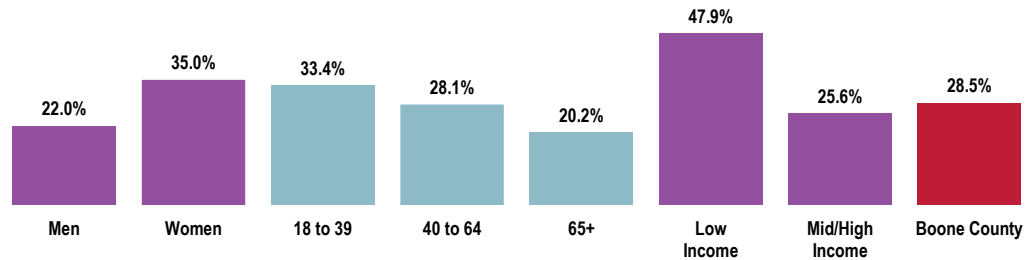
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 91]

• 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.

• Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.

Have Experienced Symptoms of Chronic Depression (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 91]

Notes: • Asked of all respondents.

• Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.

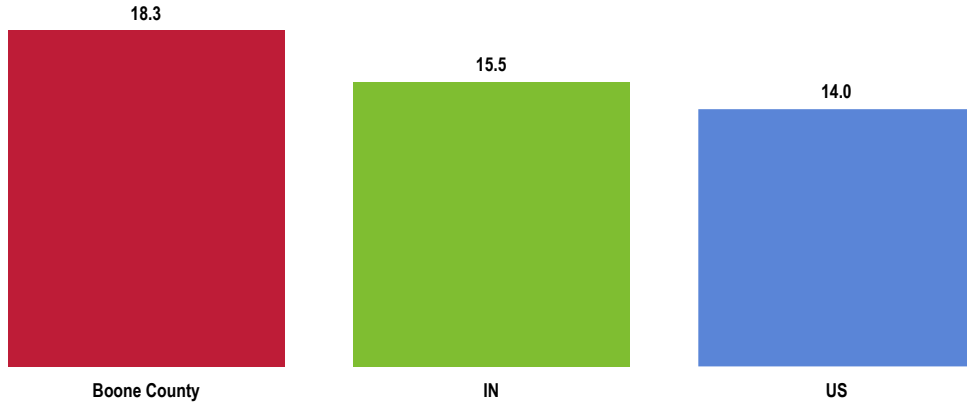


Suicide

In Boone County, there were 18.3 suicides per 100,000 population (2017-2019 annual average age-adjusted rate).

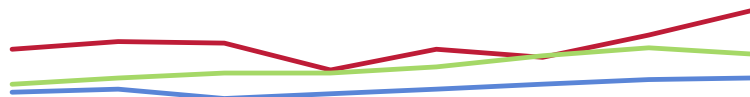
BENCHMARK ► Worse than Indiana and US rates. Fails to meet the Healthy People 2030 objective.

Suicide: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 12.8 or Lower



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Suicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 12.8 or Lower



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	15.8	16.3	16.2	14.5	15.8	15.3	16.7	18.3
IN	13.6	14.0	14.3	14.3	14.7	15.4	15.9	15.5
US	13.1	13.3	12.7	13.0	13.3	13.6	13.9	14.0

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>



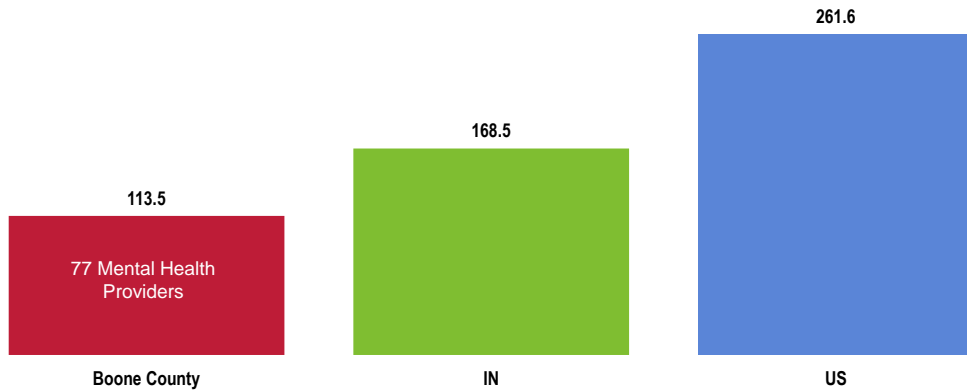
Mental Health Treatment

Mental Health Providers

In Boone County in 2020, there were 77 mental health providers for every 100,000 population.

BENCHMARK ▶ Much lower than the ratios reported for Indiana and the US as a whole.

Access to Mental Health Providers
(Number of Mental Health Providers per 100,000 Population, 2020)



Sources:

- University of Wisconsin Population Health Institute, County Health Rankings.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

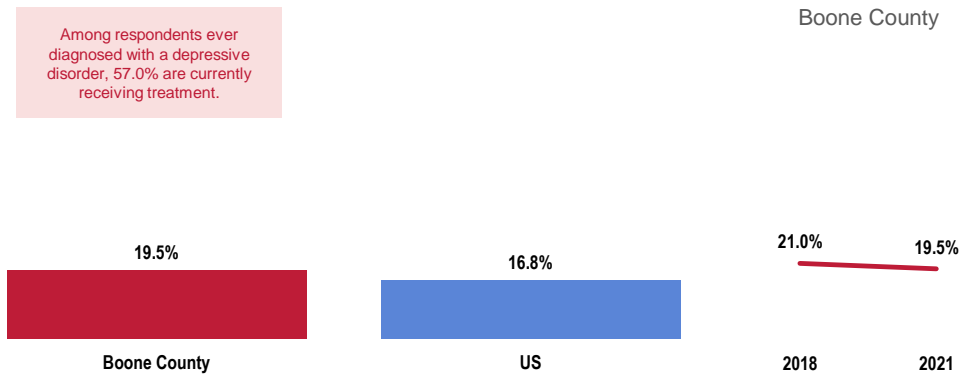
Notes:

- This indicator reports the rate of the county population to the number of mental health providers including psychiatrists, psychologists, clinical social workers, and counsellors that specialize in mental health care.

Currently Receiving Treatment

A total of 19.5% of county adults are currently taking medication or otherwise receiving treatment from a doctor or other health professional for some type of mental health condition or emotional problem.

Currently Receiving Mental Health Treatment



Sources:

- 2021 PRC Community Health Survey, PRC, Inc. [Item 94]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:

- Asked of all respondents.
- "Treatment" can include taking medications for mental health.



Difficulty Accessing Mental Health Services

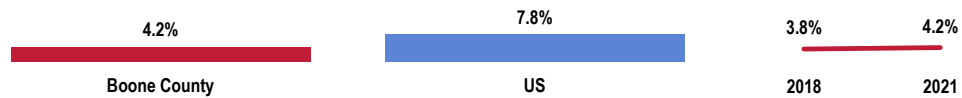
A total of 4.2% of Boone County adults report a time in the past year when they needed mental health services but were not able to get them.

BENCHMARK ▶ Lower than the national percentage.

DISPARITY ▶ Reported more often among women and young adults.

Unable to Get Mental Health Services When Needed in the Past Year

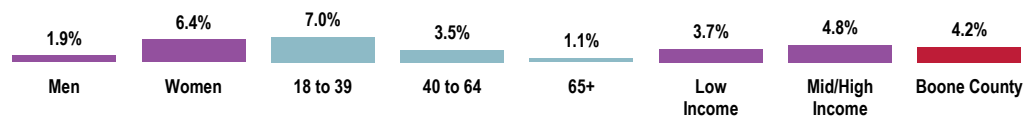
Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 95]
• 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.

Unable to Get Mental Health Services When Needed in the Past Year (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 95]
Notes: • Asked of all respondents.



Key Informant Input: Mental Health

Over two-thirds of key informants taking part in an online survey characterized *Mental Health* as a “major problem” in the community.

Perceptions of Mental Health as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Access to Care/Services

Access to mental health professionals, such as psychiatrists. Inpatient services are nonexistent for substance abuse. Detoxification and outpatient services are very limited. – Physician

Limited access and availability of health care professionals. – Other Health Provider

I work with youth in the school setting. When a mental health issue is identified there are immediate services available for only the most life-threatening cases. We see many students in crisis who must wait weeks/months for an initial appointment. This delay often leads families to make an appointment with the first available provider rather than a provider that specializes in the student’s specific need. – Community Leader

Very limited access, financial barriers, administrative barriers, lack of psychiatry specialty, lack of local stress center for inpatient care, lack of intensive outpatient therapy, overall, a significant deficit in community care. Mental health continues to be an underserved area of health care for residents of Boone and surrounding counties. – Physician

The biggest challenge is access to care. Patient report that they call places and therapists are not accepting new patients. I will place referrals for patients, and no one ever calls them to schedule an appointment. Then the patient does not follow up for one reason or another. Most do not think to call me if the referral office does not contact them. – Physician

Lack of mental health resources for children. Unreasonable wait times for both psychologists and psychiatrists. – Physician

Wait times to get an appointment. – Physician

Getting counseling services. – Physician

Inpatient care and placement. – Physician

Lack of community resources and access to inpatient psychiatric care 24-7; too many people are being brought to emergency rooms and being held for unacceptable amount of time waiting to be transferred to appropriate facilities, thus resulting in tying up an acute medical bed in emergency room, and staff who are not typically trained in the mental health field trying to provide services to these people in ED. – Social Services Provider

Availability of counseling services and insurance coverage for counseling services. – Other Health Provider

Timely access to therapy has gone from moderate to poor. Psychiatric services are extremely difficult to get in. Support groups are low to null. – Social Services Provider

Trying to get an appointment is a task for our clients. Then it might take 4–5 weeks to get in. We need more and quicker options in Boone County. – Social Services Provider

Access to care. Transportation to care. Extreme lack of inpatient beds throughout Indiana. – Other Health Provider



Inability to get patients into facilities when inpatient care is needed. Have to hold them in the ER for multiple hours into days, rare occasions weeks. Pediatric psych inpatient is a larger problem finding inpatient placement. Then once we get placement, we do not have available transportation especially at night to get patient to the facility. We have to rely on outside ambulance services, and they are in short supply, so this also adds to delays in care for the patient. – Other Health Provider

We have ample established practices and networks for mental health – where we struggle is access to these programs for all persons. We need programs that tie substance abuse issues into mental health programs to address root causes. For those with limited resources, mostly access is through court orders or part of sentence agreements. Substance abuse and mental health are closely tied together. – Other Health Provider

Access to care and cost. – Public Health Representative

Diagnosis. Access to appropriate care. – Community Leader

More quality therapists are needed. Affordability for families without mental health coverage. – Social Services Provider

There are not enough places to house them. A lot of times, some of these people end up in jail, where in some cases is the last place they should be, because they have nowhere else to go. – Community Leader

Access, especially for those that don't have insurance, and for parents of youth who are not willing to allow or advocate for counseling support for their child. – Community Leader

Contributing Factors

Availability of a sufficient number of caregivers, stigma, continued relative isolation of COVID-19. – Community Leader

Timely availability of psychiatrists and therapists to address mental health needs. This causes so many people to give up and slip through the cracks, not seeking mental health intervention. Also, the ability to navigate the system effectively and understand where to turn for help. The system can be overwhelming, with so many providers, figuring out whether they accept certain insurance, what type of needs the providers address, whether they can prescribe meds, etc. People need more help with navigating this system. Also, diminishing the stigma of mental illness is so important, as well as not making mental illness/mental health all about diagnoses. A person who hasn't been diagnosed may feel he or she doesn't "rise to the level" of having a mental illness and therefore may not seek treatment or intervention soon enough. So, we need to destigmatize and prioritize emotions and not just diagnosis buzz words. – Social Services Provider

Lack of low-cost facilities for treatment. Patient and family reluctance to seek treatment. Lack of family support. – Community Leader

Most patients either lack access to therapy services, due to cost or time resource, as well as stigma of mental health and continued drug and alcohol use. – Physician

Stigma, cost of services and transportation. – Social Services Provider

Stigma of mental health disorders. Accessing affordable mental health care. Transportation may be an issue for some. – Community Leader

Undiagnosed and untreated mental illness, access to care, even people with insurance only have so much mental health coverage and then have to pay out of pocket, stigma still exists. – Public Health Representative

Stress and mental impact from COVID, economy, virtual learning for students, lack of contact with others due to COVID, political climate. People seem worn out and stretched in their ability to cope and adjust. More students diagnosed on the autism spectrum. Parenting skills seem lacking in supporting children and families given all the stress and negative impact of the pandemic. Ability to access and afford counseling – Social Services Provider

The uncertain times we live in with COVID-19, political and social unrest, as well as substance abuse, has taken an enormous toll on our mental health. – Other Health Provider

Lots of mental health issues. Poverty, depression, anxiety and isolation issues. – Community Leader

Isolation, domestic violence, peer pressure and social media. – Social Services Provider

Awareness/Education

We have great services available. The biggest problem is knowing exactly who to contact and the wait to get help. – Community Leader

I believe there are some resources but needs to be more training and better mental health companies. – Other Health Provider

Lack of awareness and feeling comfortable in seeking proper care and resources. – Other Health Provider

I work within the judicial system and find that many people are not utilizing the resources available until they are sent by the Courts. Education for the community so that they realize what they are experiencing can be helped with treatment and/or medication (addiction, bipolar, etc.). – Community Leader



Affordable Care/Services

There are behavioral health services available through InWell and Aspire. The co-pays for these services are unaffordable to low-income patients. These are mostly the patients that need these services. – Social Services Provider

Denial/Stigma

There is still a huge stigma associated with mental illness. People cannot or think they cannot afford help. – Social Services Provider

Diagnosis/Treatment

Lack of good help and knowledge to handle people with mental health issues. – Other Health Provider

Lack of Providers

The three local mental health providers in the area are overwhelmed with the number of people needing services and there are not enough practitioners to fulfill the need. They are having trouble hiring therapists and keeping them. – Community Leader

Incidence/Prevalence

High degree of anxiety and depression. – Physician

Lack of Collaboration

I am aware of different organizations in Boone County that address mental health, but it does not appear to be cohesive amongst the groups. If we had an umbrella that brought together these efforts, it might be easier to combat this large problem that is everywhere in the world today. – Other Health Provider

Family Dynamics

Getting parents to get counseling and life skills help for their struggling children and for the family to commit to the family counseling sessions. – Other Health Provider





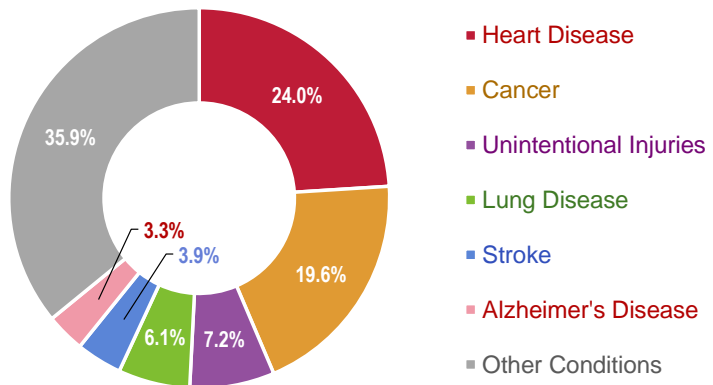
DEATH, DISEASE & CHRONIC CONDITIONS

LEADING CAUSES OF DEATH

Distribution of Deaths by Cause

Together, heart disease and cancers accounted for over 40% of deaths in Boone County in 2019.

Leading Causes of Death
(Boone County, 2019)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Notes: • Lung disease is CLRD, or chronic lower respiratory disease.

Age-Adjusted Death Rates for Selected Causes

AGE-ADJUSTED DEATH RATES

In order to compare mortality in the region with other localities (in this case, Indiana and the United States), it is necessary to look at rates of death — these are figures which represent the number of deaths in relation to the population size (such as deaths per 100,000 population, as is used here).

Furthermore, in order to compare localities without undue bias toward younger or older populations, the common convention is to adjust the data to some common baseline age distribution. Use of these “age-adjusted” rates provides the most valuable means of gauging mortality against benchmark data, as well as Healthy People 2030 objectives.

Note that deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.



The following chart outlines 2017-2019 annual average age-adjusted death rates per 100,000 population for selected causes of death in Boone County.

Each of these is discussed in greater detail in subsequent sections of this report.

For infant mortality data, see *Birth Outcomes & Risks* in the **Births** section of this report.

Age-Adjusted Death Rates for Selected Causes (2017-2019 Deaths per 100,000 Population)

	Boone County	Indiana	US	HP2030
Diseases of the Heart	190.7	180.9	163.4	127.4*
Malignant Neoplasms (Cancers)	165.3	166.4	149.3	122.7
Fall-Related Deaths (65+)	58.2	44.5	65.1	63.4
Chronic Lower Respiratory Disease (CLRD)	51.7	56.2	39.6	n/a
Unintentional Injuries	50.4	56.6	48.9	43.2
Alzheimer's Disease	43.5	33.4	30.4	n/a
Cerebrovascular Disease (Stroke)	37.7	40.3	37.2	33.4
Drug-Induced	23.8	24.4	18.8	n/a
Intentional Self-Harm (Suicide)	18.3	15.5	14.0	12.8
Diabetes Mellitus	17.8	25.9	21.5	n/a
Firearm-Related	13.1	14.7	11.9	10.7
Kidney Diseases	13.0	17.7	12.9	n/a
Pneumonia/Influenza	10.5	13.1	13.8	n/a
Motor Vehicle Deaths	8.8	12.4	11.3	10.1
Cirrhosis/Liver Disease	6.9	10.8	10.5	10.9

Sources:

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>.

Note:

- *The Healthy People 2030 Heart Disease target is adjusted to account for all diseases of the heart.



CARDIOVASCULAR DISEASE

ABOUT HEART DISEASE & STROKE

Heart disease is the leading cause of death in the United States, and stroke is the fifth leading cause. ...Heart disease and stroke can result in poor quality of life, disability, and death. Though both diseases are common, they can often be prevented by controlling risk factors like high blood pressure and high cholesterol through treatment.

In addition, making sure people who experience a cardiovascular emergency — like stroke, heart attack, or cardiac arrest — get timely recommended treatment can reduce their risk for long-term disability and death. Teaching people to recognize symptoms is key to helping more people get the treatment they need.

– Healthy People 2030 (<https://health.gov/healthypeople>)

Age-Adjusted Heart Disease & Stroke Deaths

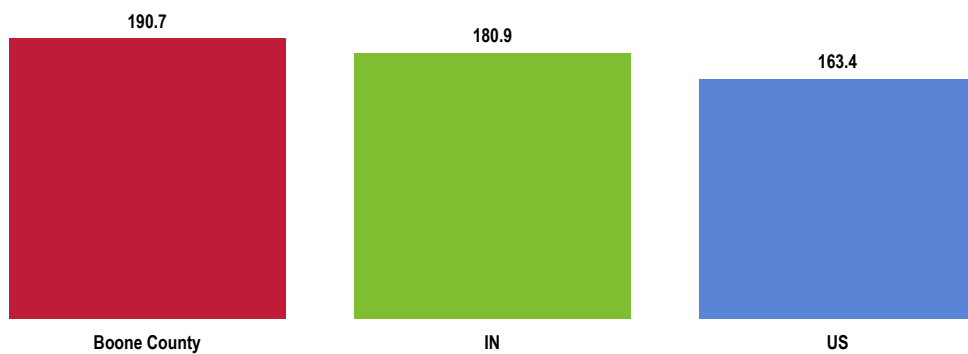
Heart Disease Deaths

Between 2017 and 2019, there was an annual average age-adjusted heart disease mortality rate of 190.7 deaths per 100,000 population in Boone County.

BENCHMARK ► Fails to meet the Healthy People 2030 objective.

The greatest share of cardiovascular deaths is attributed to heart disease.

Heart Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 127.4 or Lower (Adjusted)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • The Healthy People 2030 Heart Disease target is adjusted to account for all diseases of the heart.



Heart Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)

Healthy People 2030 = 127.4 or Lower (Adjusted)



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	192.1	189.6	186.2	183.4	182.8	188.1	195.3	190.7
IN	189.1	187.3	185.8	183.7	181.9	182.0	181.5	180.9
US	191.6	188.5	169.1	168.4	167.0	166.3	164.7	163.4

Sources:

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes:

- The Healthy People 2030 Heart Disease target is adjusted to account for all diseases of the heart.

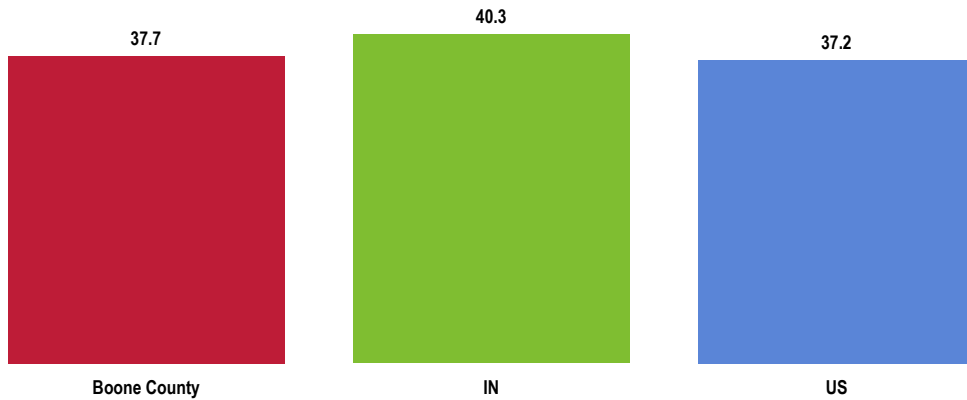
Stroke Deaths

Between 2017 and 2019, there was an annual average age-adjusted stroke mortality rate of 37.7 deaths per 100,000 population in Boone County.

TREND ▶ Note the decreasing trend over the past decade.

Stroke: Age-Adjusted Mortality (2017-2019 Annual Average Deaths per 100,000 Population)

Healthy People 2030 = 33.4 or Lower



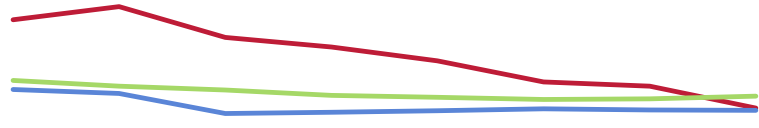
Sources:

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
- US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>



Stroke: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)

Healthy People 2030 = 33.4 or Lower



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	57.2	60.1	53.3	51.2	48.1	43.5	42.5	37.7
IN	43.8	42.5	41.7	40.5	40.1	39.6	39.7	40.3
US	41.8	40.9	36.5	36.8	37.1	37.5	37.3	37.2

Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
● US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Prevalence of Heart Disease & Stroke

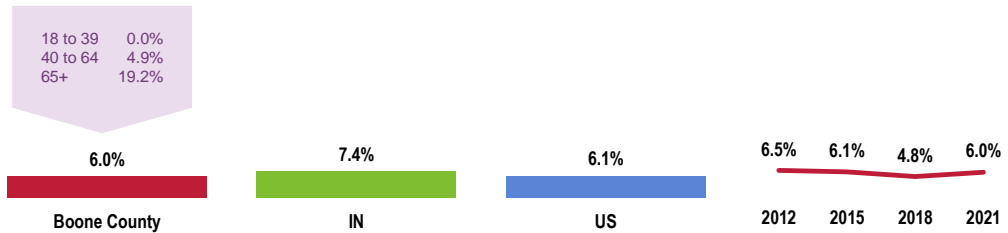
Prevalence of Heart Disease

A total of 6.0% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina, or heart attack.

DISPARITY ► Reported among 19.2% of county seniors (age 65+).

Prevalence of Heart Disease

Boone County



Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 114]
● Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
● 2020 PRC National Health Survey, PRC, Inc.

Notes: ● Asked of all respondents.
● Includes diagnoses of heart attack, angina, or coronary heart disease.



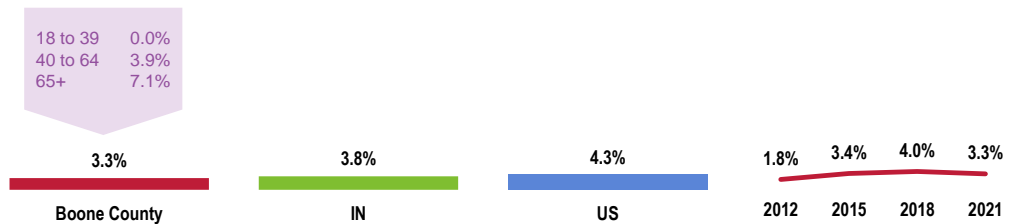
Prevalence of Stroke

A total of 3.3% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).

DISPARITY ► Strong correlation with age among survey respondents.

Prevalence of Stroke

Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 29]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.

Cardiovascular Risk Factors

Blood Pressure & Cholesterol

A total of 34.7% of Boone County adults have been told by a health professional at some point that their **blood pressure** was high.

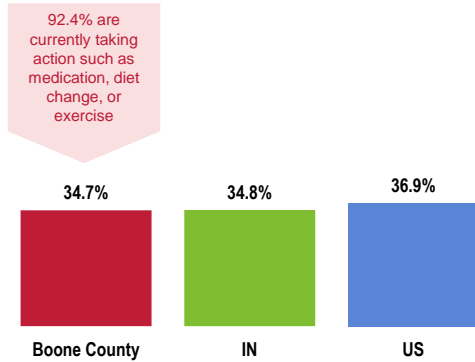
BENCHMARK ► Fails to satisfy the Healthy People 2030 objective.

A total of 33.2% of adults have been told by a health professional that their **cholesterol level** was high.



Prevalence of High Blood Pressure

Healthy People 2030 = 27.7% or Lower



Prevalence of High Blood Cholesterol

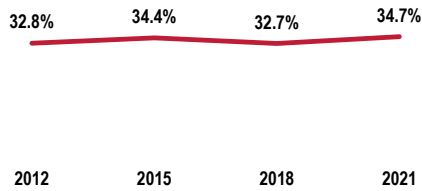


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 35-36, 305]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

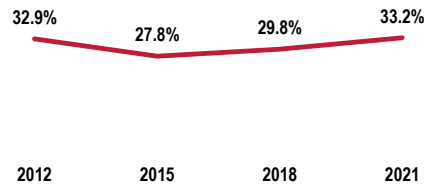
Notes: • Asked of all respondents.

Prevalence of High Blood Pressure (Boone County)

Healthy People 2030 = 27.4% or Lower



Prevalence of High Blood Cholesterol (Boone County)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 35-36]
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents.



Total Cardiovascular Risk

Total cardiovascular risk reflects the individual-level risk factors which put a person at increased risk for cardiovascular disease, including:

- High Blood Pressure
- High Blood Cholesterol
- Cigarette Smoking
- Physical Inactivity
- Overweight/Obesity

Modifying these behaviors and adhering to treatment for high blood pressure and cholesterol are critical both for preventing and for controlling cardiovascular disease.

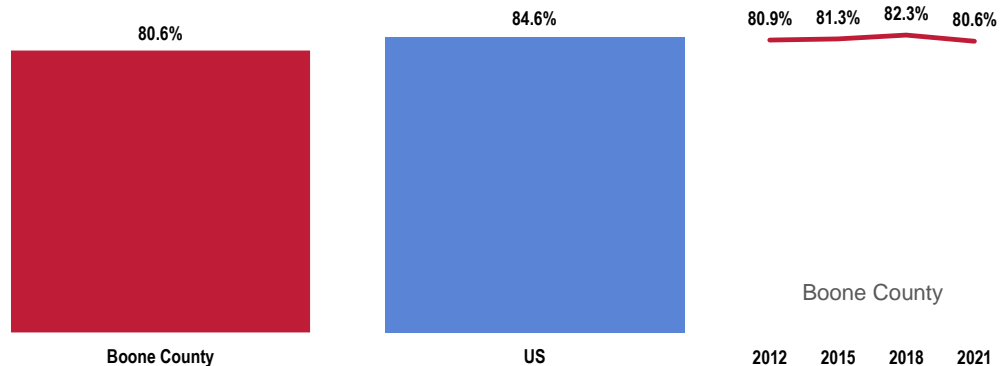
A total of 80.6% of Boone County adults report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

BENCHMARK ▶ Lower than the national prevalence.

DISPARITY ▶ The prevalence increases with age and is also high among low-income residents.

RELATED ISSUE
See also *Nutrition, Physical Activity & Weight* and *Tobacco Use* in the **Modifiable Health Risks** section of this report.

Present One or More Cardiovascular Risks or Behaviors

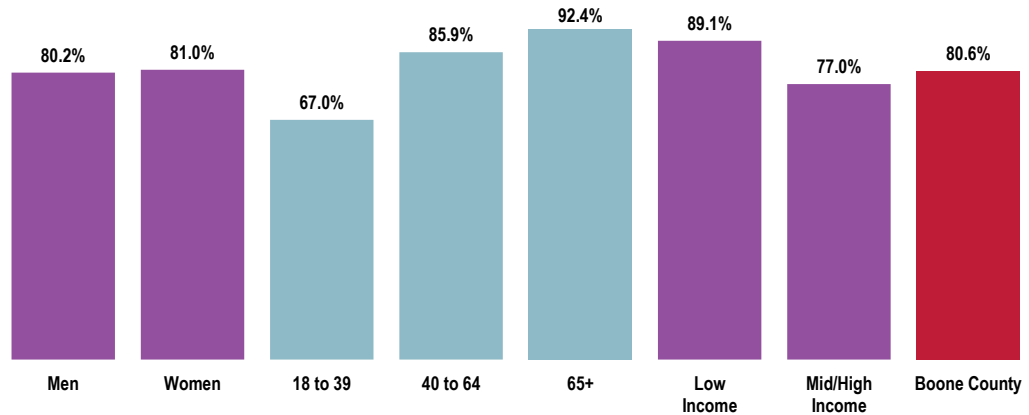


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 115]
• 2020 PRC National Health Survey, PRC, Inc.

Notes: • Reflects all respondents.
• Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) high blood pressure; 4) high blood cholesterol; and/or 5) being overweight/obese.



Present One or More Cardiovascular Risks or Behaviors (Boone County, 2021)

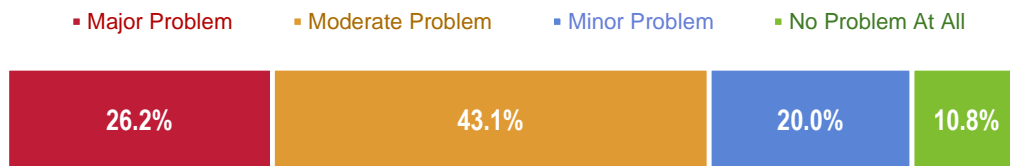


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 115]
 Notes: • Reflects all respondents.
 • Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) high blood pressure; 4) high blood cholesterol; and/or 5) being overweight/obese.

Key Informant Input: Heart Disease & Stroke

The greatest share of key informants taking part in an online survey characterized *Heart Disease & Stroke* as a “moderate problem” in the community.

Perceptions of Heart Disease and Stroke as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Lifestyle

- Population with high tobacco use and obesity. – Physician
- Community with a longstanding history of tobacco use and inactivity. – Physician
- Smoking prevalence, inactivity and dietary choices. – Community Leader
- Poor eating habits, too much smoking, lack of exercise. – Community Leader
- Generally, I feel health and wellness is not a priority for the majority of citizens in our community. This greatly contributes, in my opinion, to the incidence of heart disease and stroke, and the risk of the same. – Social Services Provider



Contributing Factors

Heart disease is the number one contributor to disability and death. Obesity, smoking rates, alcohol use rates, lifestyle factors, and genetics are contributing factors. – Public Health Representative

Poor education and physical activity lead to increased heart disease and stroke. – Physician

Lack of effective hypertension treatment and compliance. Smoking levels are still too high in Boone County. – Other Health Provider

Lack of physical activity, aging population. – Social Services Provider

Incidence/Prevalence

Coronary artery disease has been and continues to be a frequently identified diagnosis/undiagnosed finding on autopsies in our community. – Other Health Provider

Heart disease is a major problem in most places. – Other Health Provider

Disease Management

These are issues that are prevalent due to a lot of the chronic medical conditions that are not completely managed appropriately. These are outcomes that occur when patients are more willing to take medication verses making the lifestyle changes necessary to fully decrease their risk. – Physician

COVID-19

Covid-19 under care is in play and coupled with increasingly sedentary and isolated lifestyles since early 2020. – Community Leader

Denial/Stigma

A lot of people have issues that they really don't realize. – Community Leader

Obesity

High number of obese individuals in the community. – Community Leader



CANCER

ABOUT CANCER

Cancer is the second leading cause of death in the United States. ...The cancer death rate has declined in recent decades, but over 600,000 people still die from cancer each year in the United States. Death rates are higher for some cancers and in some racial/ethnic minority groups. These disparities are often linked to social determinants of health, including education, economic status, and access to health care.

Interventions to promote evidence-based cancer screenings — such as screenings for lung, breast, cervical, and colorectal cancer — can help reduce cancer deaths. Other effective prevention strategies include programs that increase HPV vaccine use, prevent tobacco use and promote quitting, and promote healthy eating and physical activity. In addition, effective targeted therapies and personalized treatment are key to helping people with cancer live longer.

– Healthy People 2030 (<https://health.gov/healthypeople>)

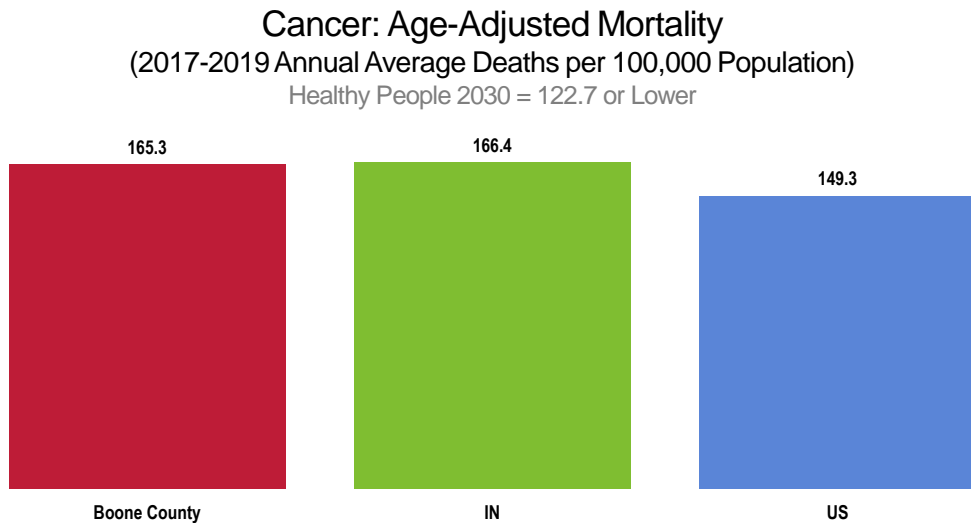
Age-Adjusted Cancer Deaths

All Cancer Deaths

Between 2017 and 2019, there was an annual average age-adjusted cancer mortality rate of 165.3 deaths per 100,000 population in Boone County.

BENCHMARK ▶ Far from satisfying the Healthy People 2030 objective.

TREND ▶ Note the decrease over time, in keeping with state and national trends.



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>



Cancer: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)

Healthy People 2030 = 122.7 or Lower



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	190.6	184.3	173.9	170.1	159.0	160.6	167.2	165.3
IN	186.1	183.1	181.2	178.5	176.2	172.9	169.4	166.4
US	174.8	171.6	163.6	161.0	158.5	155.6	152.5	149.3

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Cancer Deaths by Site

Lung cancer is by far the leading cause of cancer deaths in Boone County.

Other leading sites include prostate cancer, female breast cancer, and colorectal cancer (both sexes).

BENCHMARK

Lung Cancer ► Lower than the state rate. Fails to satisfy the Healthy People 2030 objective.

Female Breast Cancer ► Higher than the national rate. Fails to satisfy the Healthy People 2030 objective.

Prostate Cancer ► Fails to satisfy the Healthy People 2030 objective.

Colorectal Cancer ► Fails to satisfy the Healthy People 2030 objective.

Age-Adjusted Cancer Death Rates by Site (2017-2019 Annual Average Deaths per 100,000 Population)

	Boone County	Indiana	US	HP2030
ALL CANCERS	165.3	166.4	149.3	122.7
Lung Cancer	38.7	44.6	34.9	25.1
Female Breast Cancer	23.2	20.4	19.7	15.3
Prostate Cancer	20.7	19.4	18.6	16.9
Colorectal Cancer	15.3	15.1	13.4	8.9

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>



Cancer Incidence

“Incidence rate” or “case rate” is the number of newly diagnosed cases in a given population in a given year, regardless of outcome. These rates are also age-adjusted. It is usually expressed as cases per 100,000 population per year.

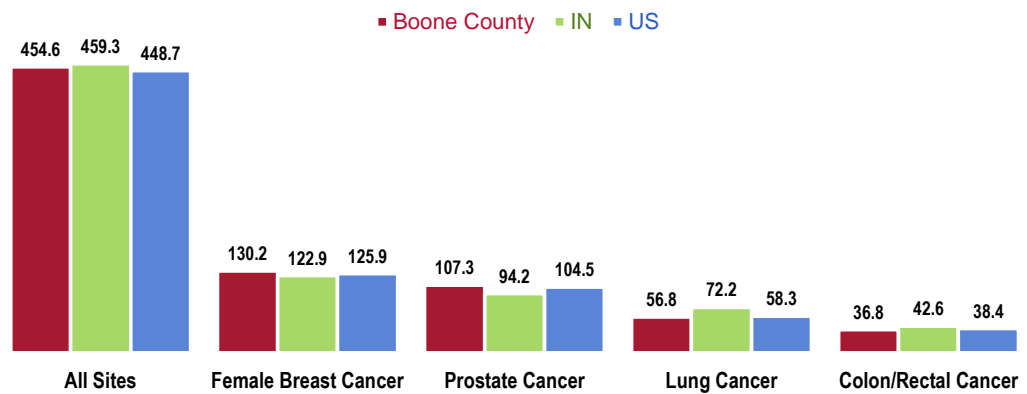
The highest cancer incidence rates are for female breast cancer and prostate cancer.

BENCHMARK

Lung Cancer ▶ Lower than the state rate.

Colorectal Cancer ▶ Lower than the state rate.

Cancer Incidence Rates by Site
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2014-2018)



- Sources:
- State Cancer Profiles.
 - Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
- Notes:
- This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.



Prevalence of Cancer

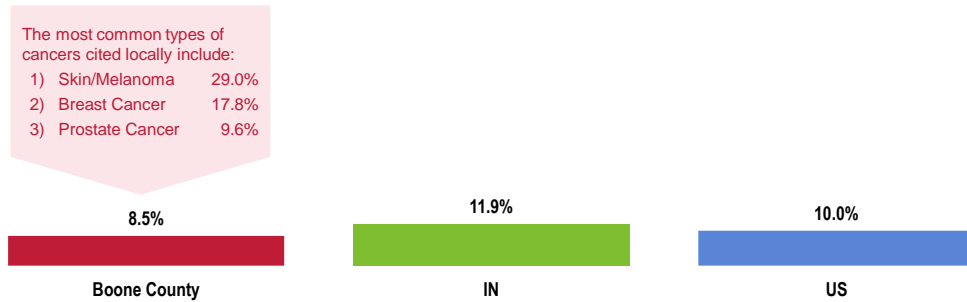
A total of 8.5% of surveyed Boone County adults report having ever been diagnosed with cancer.

BENCHMARK ▶ Lower than the Indiana percentage.

DISPARITY ▶ Note the strong correlation with age among survey respondents.

The most common types of cancer reported locally include skin cancer/melanoma, breast cancer, and prostate cancer.

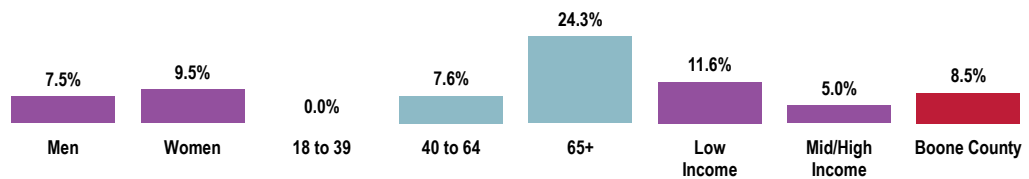
Prevalence of Cancer



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 25-26]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Reflects all respondents.

Prevalence of Cancer (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 25]
 Notes: • Reflects all respondents.



ABOUT CANCER RISK

Reducing the nation's cancer burden requires reducing the prevalence of behavioral and environmental factors that increase cancer risk.

- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
 - According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and physical activity factors, including obesity.
- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

RELATED ISSUE
See also *Nutrition, Physical Activity & Weight and Tobacco Use* in the **Modifiable Health Risks** section of this report.

Cancer Screenings

The American Cancer Society recommends that both men and women get a cancer-related checkup during a regular doctor's checkup. It should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Screening levels in the community were measured in the PRC Community Health Survey relative to three cancer sites: female breast cancer (mammography); cervical cancer (Pap smear/HPV testing); and colorectal cancer (colonoscopy/sigmoidoscopy and fecal occult blood testing).

FEMALE BREAST CANCER

The US Preventive Services Task Force (USPSTF) recommends biennial screening mammography for women aged 50 to 74 years.

CERVICAL CANCER

The US Preventive Services Task Force (USPSTF) recommends screening for cervical cancer every 3 years with cervical cytology alone in women aged 21 to 29 years. For women aged 30 to 65 years, the USPSTF recommends screening every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting). The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion (i.e., cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer.

COLORECTAL CANCER

The US Preventive Services Task Force (USPSTF) recommends screening for colorectal cancer starting at age 50 years and continuing until age 75 years.

- US Preventive Services Task Force, Agency for Healthcare Research and Quality, US Department of Health & Human Services

Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.



Among women age 50-74, 82.5% have had a mammogram within the past 2 years.

BENCHMARK ▶ Higher than the Indiana prevalence. Satisfies the Healthy People 2030 objective.

Among Boone County women age 21 to 65, 86.2% have had appropriate cervical cancer screening.

BENCHMARK ▶ Higher than the state and national figures.

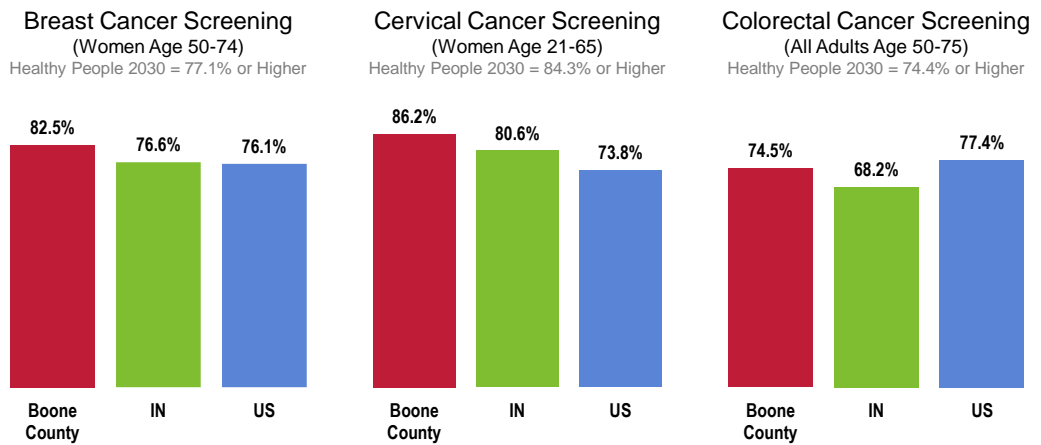
TREND ▶ Similar to baseline findings (increasing significantly since 2018).

Among all adults age 50-75, 74.5% have had appropriate colorectal cancer screening.

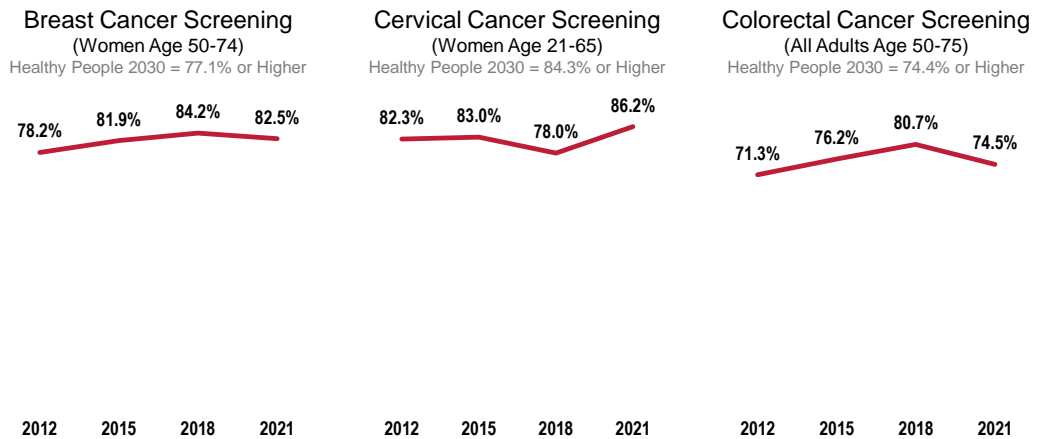
BENCHMARK ▶ Above the Indiana prevalence.

“Appropriate cervical cancer screening” includes Pap smear testing (cervical cytology) every three years in women age 21 to 29 and Pap smear testing and/or HPV testing every 5 years in women age 30 to 65. Women 21 to 65 with hysterectomy are excluded.

“Appropriate colorectal cancer screening” includes a fecal occult blood test within the past year and/or a lower endoscopy (sigmoidoscopy or colonoscopy) within the past 10 years.



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 116-118]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Each indicator is shown among the gender and/or age group specified.

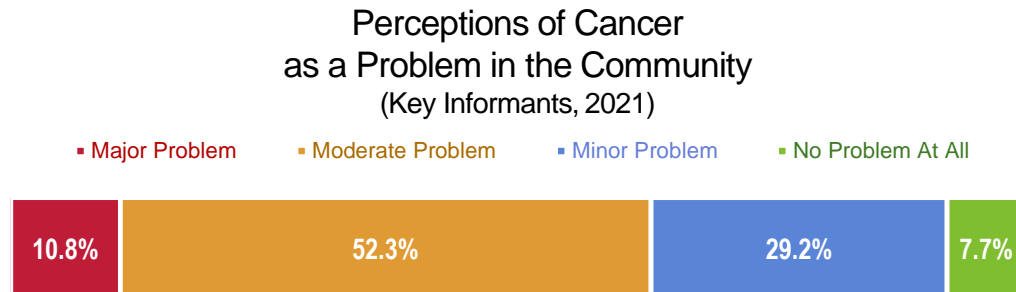


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 116-118]
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Each indicator is shown among the gender and/or age group specified.



Key Informant Input: Cancer

The greatest share of key informants taking part in an online survey characterized *Cancer* as a “moderate problem” in the community.



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Incidence/Prevalence

- Lots of it. – Other Health Provider
- Seemingly high number of cancer patients. – Community Leader

Diagnosis/Treatment

- Foregone diagnoses and screening during Covid-19. – Community Leader

Contributing Factors

- Cancer diagnoses are on the rise due to poor diets, lack of physical activity, poor lifestyle choices, exposure to environmental toxins, and extreme stress. – Other Health Provider



RESPIRATORY DISEASE

ABOUT RESPIRATORY DISEASE

Respiratory diseases affect millions of people in the United States. ...More than 25 million people in the United States have asthma. Strategies to reduce environmental triggers and make sure people get the right medications can help prevent hospital visits for asthma. In addition, more than 16 million people in the United States have COPD (chronic obstructive pulmonary disease), which is a major cause of death. Strategies to prevent the disease — like reducing air pollution and helping people quit smoking — are key to reducing deaths from COPD.

Interventions tailored to at-risk groups can also help prevent and treat other respiratory diseases — for example, pneumonia in older adults and pneumoconiosis in coal miners. And increasing lung cancer screening rates can help reduce deaths from lung cancer through early detection and treatment.

– Healthy People 2030 (<https://health.gov/healthypeople>)

Age-Adjusted Respiratory Disease Deaths

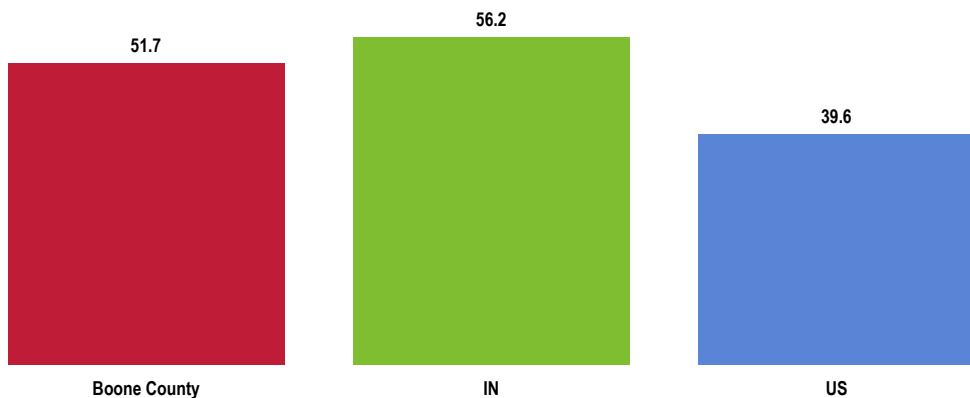
Chronic Lower Respiratory Disease Deaths (CLRD)

Between 2017 and 2019, there was an annual average age-adjusted CLRD mortality rate of 51.7 deaths per 100,000 population in Boone County.

BENCHMARK ► Worse than the national death rate.

Note: Chronic lower respiratory disease (CLRD) includes lung diseases such as emphysema, chronic bronchitis, and asthma.

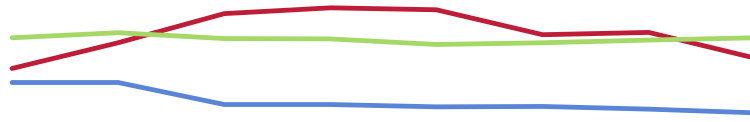
CLRD: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
Notes: • CLRD is chronic lower respiratory disease.



CLRD: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	49.4	55.1	61.5	62.8	62.4	56.9	57.4	51.7
IN	56.2	57.3	56.0	55.9	54.7	55.1	55.7	56.2
US	46.3	46.3	41.4	41.4	40.9	41.0	40.4	39.6

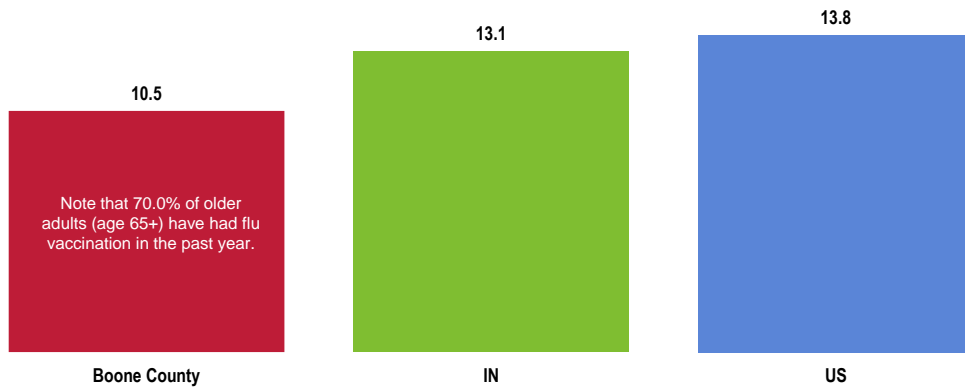
Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
Notes: • CLRD is chronic lower respiratory disease.

Pneumonia/Influenza Deaths

Between 2017 and 2019, Boone County reported an annual average age-adjusted pneumonia influenza mortality rate of 10.5 deaths per 100,000 population.

BENCHMARK ► Lower than the state and US figures.

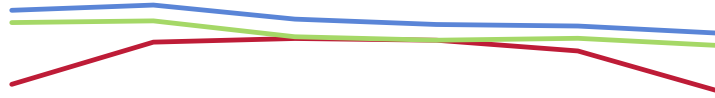
Pneumonia/Influenza: Age-Adjusted Mortality (2017-2019 Annual Average Deaths per 100,000 Population)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• 2021 PRC Community Health Survey, PRC, Inc. [Item 124]



Pneumonia/Influenza: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	10.9	13.3	13.5	13.4	12.8	10.5
IN	14.4	14.5	13.6	13.4	13.5	13.1
US	15.1	15.4	14.6	14.3	14.2	13.8

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Prevalence of Respiratory Disease

Asthma

Adults

A total of 10.9% of Boone County adults have ever been diagnosed with asthma.

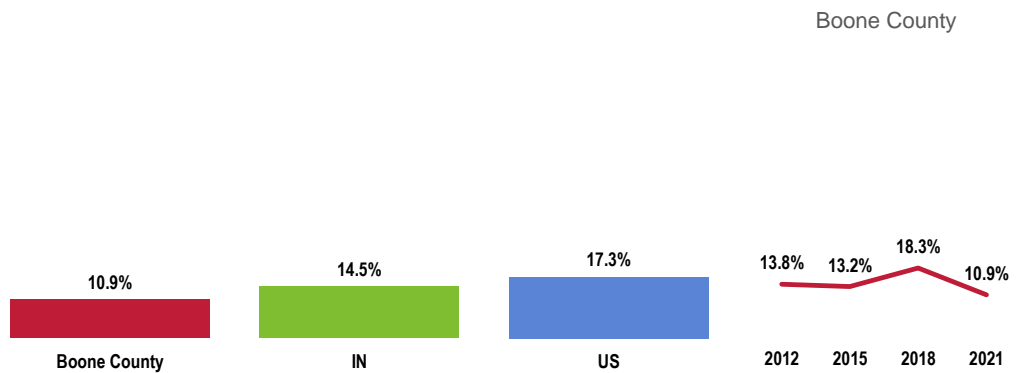
BENCHMARK ▶ Lower than the Indiana and US percentages.

TREND ▶ Similar to baseline survey findings but decreasing significantly since 2018.

DISPARITY ▶ Especially high among women in Boone County.

Survey respondents were asked to indicate whether they suffer from or have been diagnosed with various respiratory conditions, including asthma and COPD.

Ever Diagnosed With Asthma

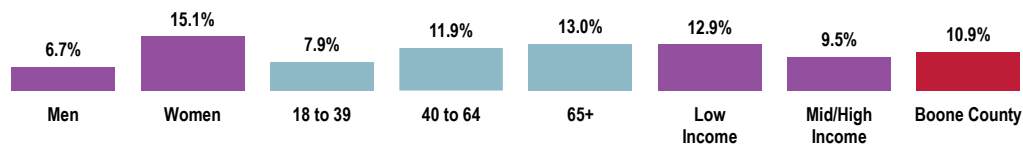


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 30]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.
 • Includes those who have ever been diagnosed with asthma and report that they still have asthma.



Ever Diagnosed With Asthma (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 30]
 Notes: • Asked of all respondents.
 • Includes those who have ever been diagnosed with asthma and report that they still have asthma.

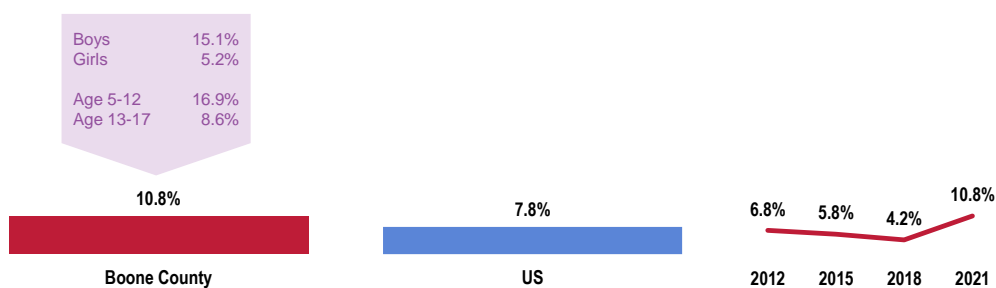
Children

Among Boone County children under age 18, 10.8% currently have asthma.

DISPARITY ► Significantly higher among boys than girls in Boone County.

Prevalence of Asthma in Children (Parents of Children Age 0-17)

Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 120]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents with children 0 to 17 in the household.
 • Includes children who have ever been diagnosed with asthma and are reported to still have asthma.



Chronic Obstructive Pulmonary Disease (COPD)

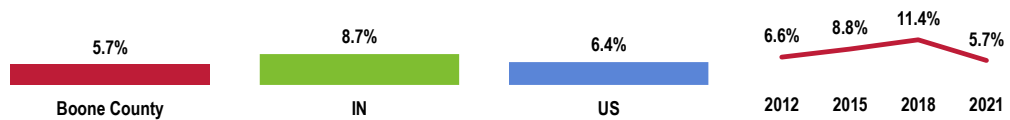
A total of 5.7% of Boone County adults suffer from chronic obstructive pulmonary disease (COPD, including emphysema and bronchitis).

BENCHMARK ▶ Lower than the Indiana figure.

Note: COPD includes lung diseases such as emphysema and chronic bronchitis.

Prevalence of Chronic Obstructive Pulmonary Disease (COPD)

Boone County



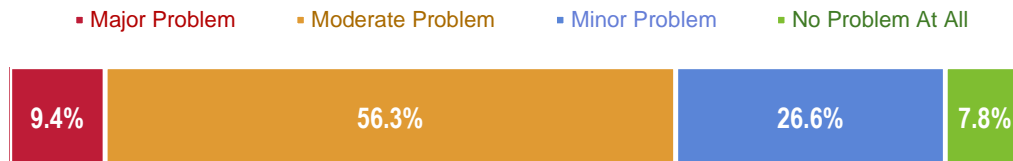
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 23]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.
 • Includes those having ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.

Key Informant Input: Respiratory Disease

Over half of key informants taking part in an online survey characterized *Respiratory Disease* as a “moderate problem” in the community.

Perceptions of Respiratory Diseases as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

Smoking, lack of physical activity. Aging population. Access to affordable care. Follow up on care. – Social Services Provider

Smoking, obesity, asthma and sedentary lifestyles. – Community Leader

Tobacco use. We have a lot of smokers that refuse to quit. Respiratory medications are expensive due to poor insurance coverage. – Other Health Provider

COPD and tobacco use. – Physician

Tobacco Use

Smokers. – Public Health Representative

Smoking. – Community Leader

Coronavirus Disease/COVID-19

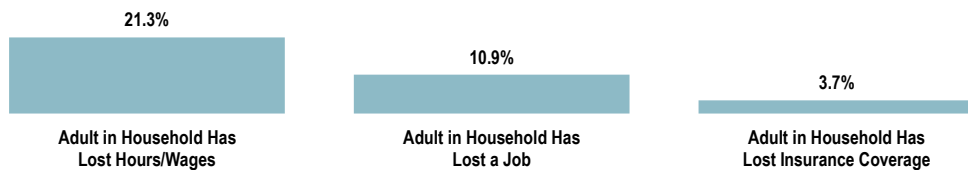
Financial Repercussions of the Pandemic

Over one in five survey respondents (21.3%) report that an adult in the household lost hours or wages from their job since the beginning of the COVID-19 pandemic.

Another 10.9% report that an adult in the household has lost a job since the beginning of the pandemic, and 3.7% lost insurance coverage.

Survey respondents were asked to indicate whether they or a member of their household has lost a job, lost hours/wages, and or lost insurance coverage as a result of the COVID-19 pandemic.

Financial Repercussions to Household from the COVID-19 Pandemic (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 310-312]
Notes: • Asked of all respondents with diabetes.

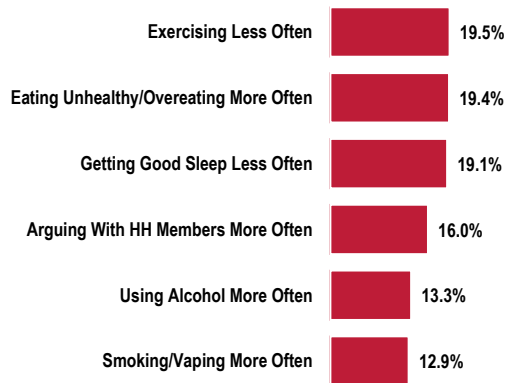


Health-Related Behavioral Change

Over 19% of survey respondents acknowledge exercising less often, overeating more often, and getting restful sleep less often since March 2020.

Another 16% have been arguing with household members more often, while fewer acknowledge using alcohol more often and smoking/vaping more often.

Adverse Changes in Health-Related Behaviors Since the Beginning of the Pandemic (Boone County, 2021)



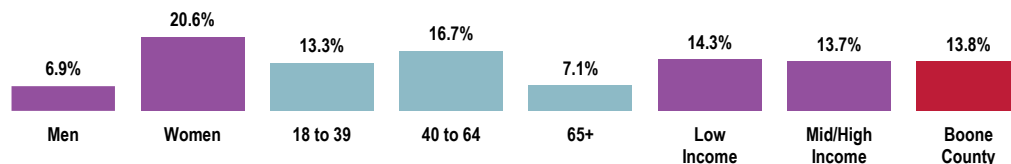
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 313-318]
 Notes: • Asked of all respondents.

Mental Health

A total of 13.8% of survey respondents report that their mental health has worsened since the beginning of the pandemic.

DISPARITY ► Significantly high among women and adults age 40 to 64.

Mental Health Has Gotten Worse Since the Beginning of the Pandemic (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 319]
 Notes: • Asked of all respondents.

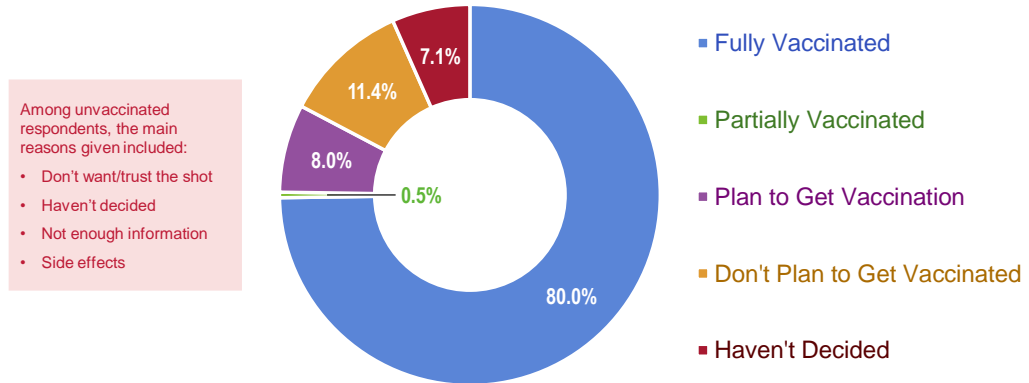


Vaccination Status

Most Boone County adults report being fully vaccinated (80.0%), while 0.5% are partially vaccinated and 8.0% have plans to be vaccinated.

- Note that 7.1% of survey respondents haven't decided whether they will be vaccinated or not, and 11.4% have no plans to be vaccinated.

Prevalence of COVID-19 Vaccination
(Boone County, 2021)

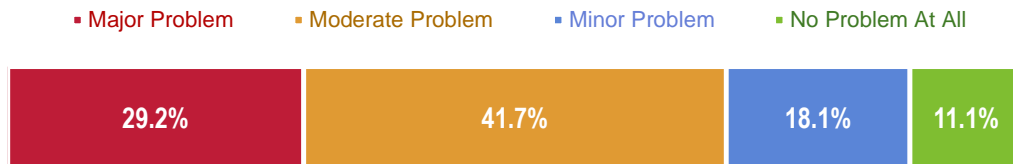


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 320–321]
Notes: • Asked of all respondents.

Key Informant Input: Coronavirus Disease/COVID-19

The greatest share of key informants taking part in an online survey characterized *Coronavirus Disease/COVID-19* as a “moderate problem” in the community.

Perceptions of Coronavirus Disease/COVID-19
as a Problem in the Community
(Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Vaccination Rate

- Patients are hesitant about the vaccine and some of the harsh rhetoric in the media and medical community further deepens this distrust. I think we need to find a different way to connect with these patients. – Physician
- Too many people in Lebanon and surrounding towns are not vaccinated. No one wears a mask. – Community Leader
- We are still experiencing a high number of cases in our community and the vaccination rate is low with respect to what is needed for herd immunity. – Community Leader
- There are way too many anti-vaccine people here. It has become political. – Community Leader
- Unvaccinated rate is high. Local hospital emergency room beds are full of COVID patients. – Other Health Provider
- Ignorance regarding the effectiveness of the COVID-19 vaccine and the genuine risk to unvaccinated people. – Community Leader
- Poor vaccination rates, poor mask usage. – Physician
- Vaccination rate is moderate. I think it is a problem globally. – Physician
- We still have large numbers of adults who are not vaccinated and refuse to wear a mask, and currently there is no vaccine available for under 12, which contributes to the risk of COVID spread in schools. – Public Health Representative
- Low vaccination rates and the young population not wanting to follow guidelines. – Public Health Representative
- Boone County is very split in the parts of the county that are vaccinated. Until we have a larger percentage of the entire county vaccinated, I feel this is a major issue. – Social Services Provider
- Failure to mask and failure to vaccinate. – Other Health Provider

Awareness/Education

- Not enough people taking it seriously. Too many skeptics regarding the seriousness of COVID-19. – Social Services Provider
- Segments of the community have ignored science in favor of politics. – Community Leader
- Misinformation. Our clients are not getting accurate information and some of our homebound do not have access and have wrong information for both vaccines and how COVID is transmitted. – Social Services Provider

Incidence/Prevalence

- Large number of cases in the community. – Public Health Representative
- Defined as a pandemic. – Community Leader

Impact on Quality of Life

- The pandemic has changed how we are living our lives in the community and at work, whether one has the illness or not. – Physician
- It is controlling everything we do and access to care for other health problems. – Community Leader

Contact Tracing

- Being an employee in the school system, I help manage the students and staff out due to symptoms, close contacts or positivity. The burden it places on the school to help mitigate and stop the spread of disease is a full-time job. One person in each building (with some ancillary help) manage calls to parents and guardians, attendance and keeping track of test results and who should be at school and who cannot be at school. It can be overwhelming trying to answer parent’s questions who don’t want their child out for 10 days due to symptoms that they swear are not COVID related. The staff at the school cannot decipher what is or isn’t COVID. – Other Health Provider

Contributing Factors

- Pandemic fatigue, less precautions taken, not taking it seriously. Testing sites being convenient, not always evaluated by a health care provider when negative, but still symptomatic. – Community Leader

Lack of Testing Sites

- There are still too many people unvaccinated. There are many people who have to quarantine or have to quarantine their children until they can provide a negative COVID test and it is difficult to get appointments for a rapid screening. – Community Leader



INJURY & VIOLENCE

ABOUT INJURY & VIOLENCE

INJURY ► In the United States, unintentional injuries are the leading cause of death in children, adolescents, and adults younger than 45 years. ...Many unintentional injuries are caused by motor vehicle crashes and falls, and many intentional injuries involve gun violence and physical assaults. Interventions to prevent different types of injuries are key to keeping people safe in their homes, workplaces, and communities.

Drug overdoses are now the leading cause of injury deaths in the United States, and most overdoses involve opioids. Interventions to change health care providers' prescribing behaviors, distribute naloxone to reverse overdoses, and provide medications for addiction treatment for people with opioid use disorder can help reduce overdose deaths involving opioids.

VIOLENCE ► Almost 20,000 people die from homicide every year in the United States, and many more people are injured by violence. ...Many people in the United States experience physical assaults, sexual violence, and gun-related injuries. Adolescents are especially at risk for experiencing violence. Interventions to reduce violence are needed to keep people safe in their homes, schools, workplaces, and communities.

Children who experience violence are at risk for long-term physical, behavioral, and mental health problems. Strategies to protect children from violence can help improve their health and well-being later in life.

– Healthy People 2030 (<https://health.gov/healthypeople>)

Unintentional Injury

Age-Adjusted Unintentional Injury Deaths

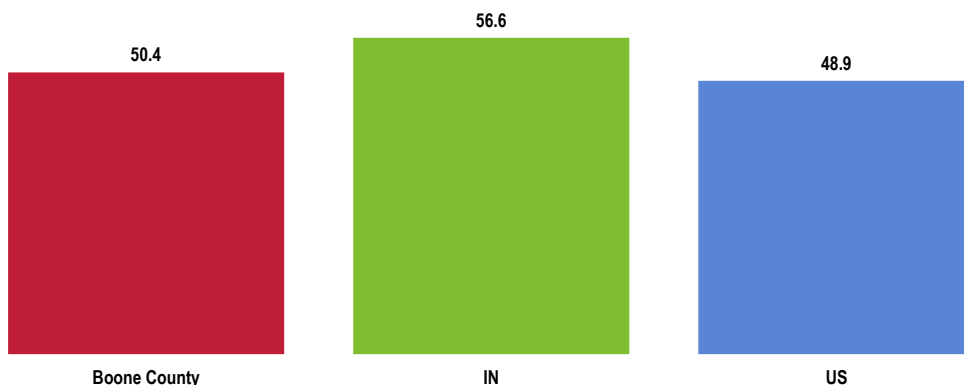
Between 2017 and 2019, there was an annual average age-adjusted unintentional injury mortality rate of 50.4 deaths per 100,000 population in Boone County.

TREND ► Increasing over the past decade, echoing the state and national trends.



Unintentional Injuries: Age-Adjusted Mortality (2017-2019 Annual Average Deaths per 100,000 Population)

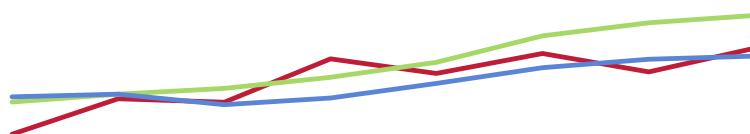
Healthy People 2030 = 43.2 or Lower



Sources:
 • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Unintentional Injuries: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)

Healthy People 2030 = 43.2 or Lower



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	34.1	40.8	40.2	48.4	45.6	49.4	45.9	50.4
IN	40.2	41.7	42.8	44.9	47.7	52.7	55.2	56.6
US	41.2	41.7	39.7	41.0	43.7	46.7	48.3	48.9

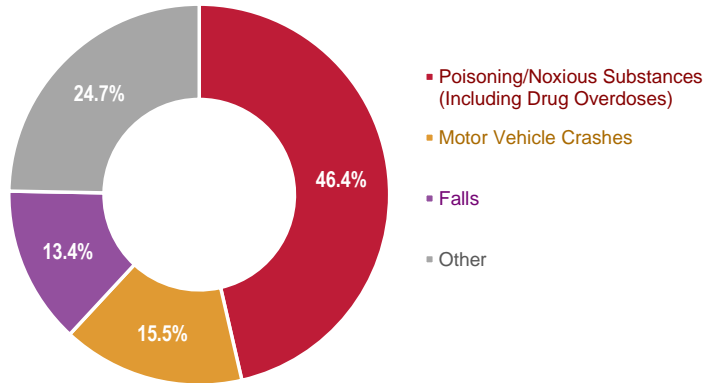
Sources:
 • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>



Leading Causes of Unintentional Injury Deaths

Poisoning (including unintentional drug overdoses), motor vehicle accidents, and falls accounted for most unintentional injury deaths in Boone County between 2017 and 2019.

Leading Causes of Unintentional Injury Deaths
(Boone County, 2017-2019)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Intentional Injury (Violence)

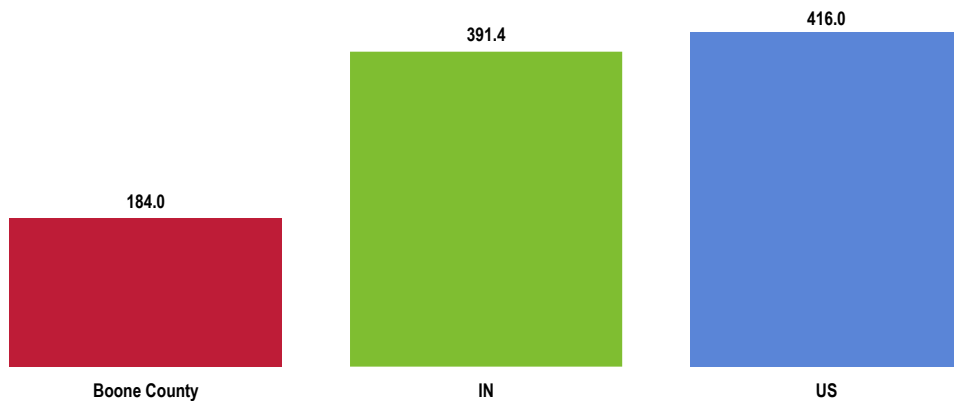
Violent Crime

Violent Crime Rates

The county reported 184.0 violent crimes per 100,000 population between 2014 and 2016.

BENCHMARK ► Well below the state and national crime rates.

Violent Crime
(Rate per 100,000 Population, 2014-2016)



Sources: • Federal Bureau of Investigation, FBI Uniform Crime Reports.
• Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
Notes: • This indicator reports the rate of violent crime offenses reported by the sheriff's office or county police department per 100,000 residents. Violent crime includes homicide, rape, robbery, and aggravated assault. This indicator is relevant because it assesses community safety.
• Participation by law enforcement agencies in the UCR program is voluntary. Sub-state data do not necessarily represent an exhaustive list of crimes due to gaps in reporting. Also, some institutions of higher education have their own police departments, which handle offenses occurring within campus grounds; these offenses are not included in the violent crime statistics but can be obtained from the Uniform Crime Reports Universities and Colleges data tables.

RELATED ISSUE
For more information about unintentional drug-related deaths, see also *Substance Abuse* in the **Modifiable Health Risks** section of this report.

Violent crime is composed of four offenses (FBI Index offenses): murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault.

Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.



Community Violence

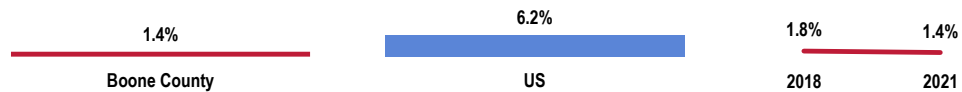
A total of 1.4% of surveyed Boone County adults acknowledge being the victim of a violent crime in the area in the past five years.

BENCHMARK ▶ Well below the national figure.

DISPARITY ▶ Reported more often among women than men.

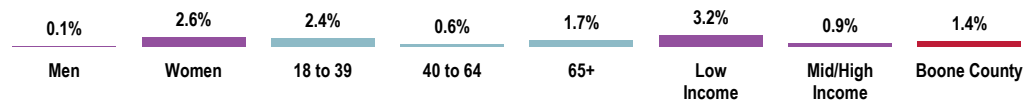
Victim of a Violent Crime in the Past Five Years

Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 38]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Victim of a Violent Crime in the Past Five Years (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 38]
 Notes: • Asked of all respondents.

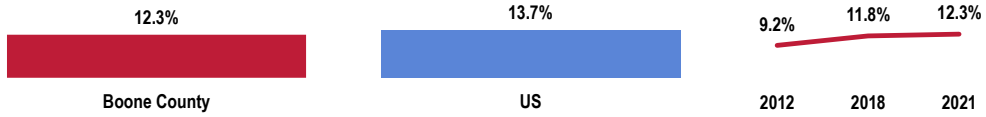


Family Violence

A total of 12.3% of Boone County adults acknowledge that they have ever been hit, slapped, pushed, kicked, or otherwise hurt by an intimate partner.

Have Ever Been Hit, Slapped, Pushed, Kicked, or Hurt in Any Way by an Intimate Partner

Boone County

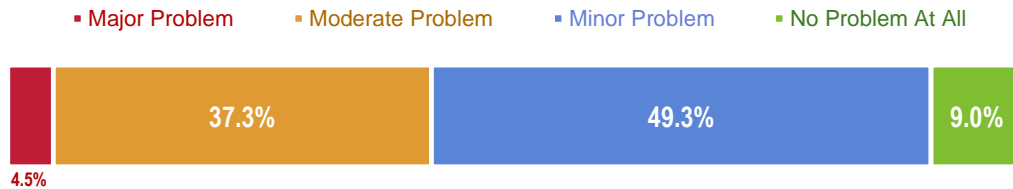


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 39]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Key Informant Input: Injury & Violence

The largest share of key informants taking part in an online survey characterized *Injury & Violence* as a “minor problem” in the community.

Perceptions of Injury and Violence as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Note the following reason by the respondent rating this issue as a “major problem.”

Follow-Up/Support

Domestic violence statistics are increasing and there are very little supportive resources, such as groups, shelters, and treatment facilities. – Other Health Provider



DIABETES

ABOUT DIABETES

More than 30 million people in the United States have diabetes, and it's the seventh leading cause of death. ...Some racial/ethnic minorities are more likely to have diabetes. And many people with diabetes don't know they have it.

Poorly controlled or untreated diabetes can lead to leg or foot amputations, vision loss, and kidney damage. But interventions to help people manage diabetes can help reduce the risk of complications. In addition, strategies to help people who don't have diabetes eat healthier, get physical activity, and lose weight can help prevent new cases.

– Healthy People 2030 (<https://health.gov/healthypeople>)

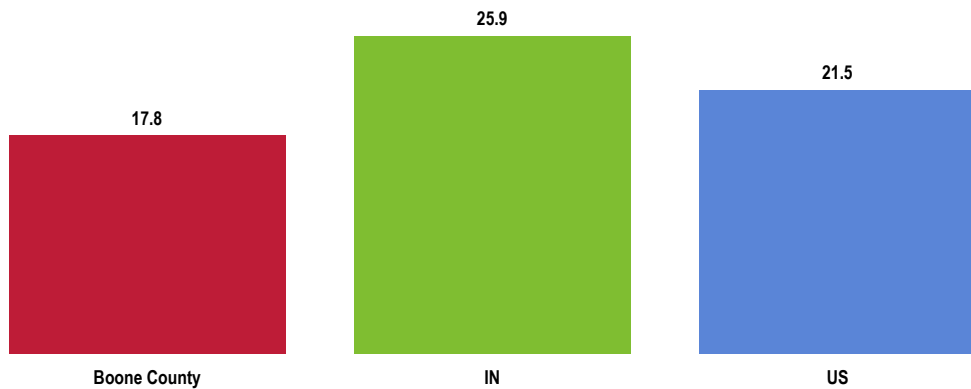
Age-Adjusted Diabetes Deaths

Between 2017 and 2019, there was an annual average age-adjusted diabetes mortality rate of 17.8 deaths per 100,000 population in Boone County.

BENCHMARK ▶ Well below the Indiana and US mortality rates.

TREND ▶ Despite an upward trend through the 2014-2016 reporting period, the rate has decreased back to baseline levels in recent years.

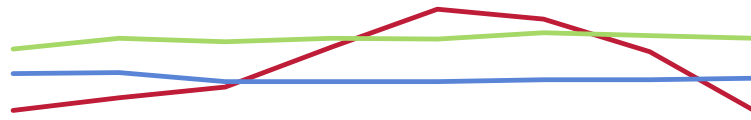
Diabetes: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.



Diabetes: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	17.9	19.3	20.5	24.9	29.1	28.0	24.4	17.8
IN	24.7	25.9	25.5	25.9	25.8	26.5	26.2	25.9
US	22.0	22.1	21.1	21.1	21.1	21.3	21.3	21.5

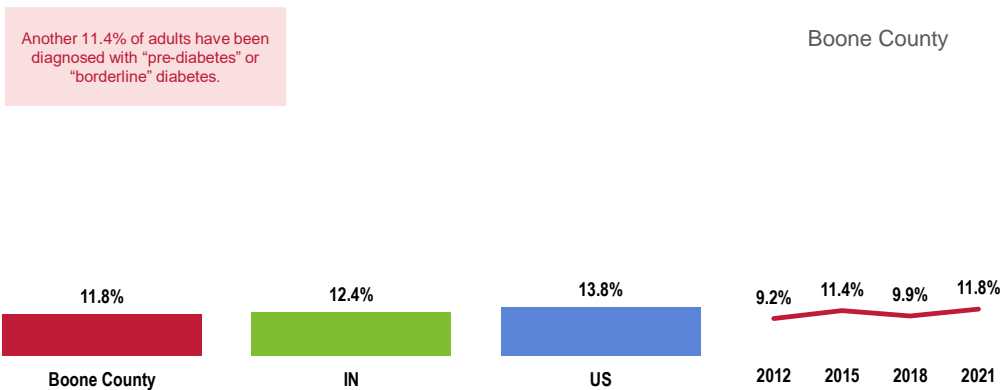
Sources: • CDC WONDER Online Query System, Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Prevalence of Diabetes

A total of 11.8% of Boone County adults report having been diagnosed with diabetes.

DISPARITY ► Strong correlation with age and is reported more often among low-income residents.

Prevalence of Diabetes



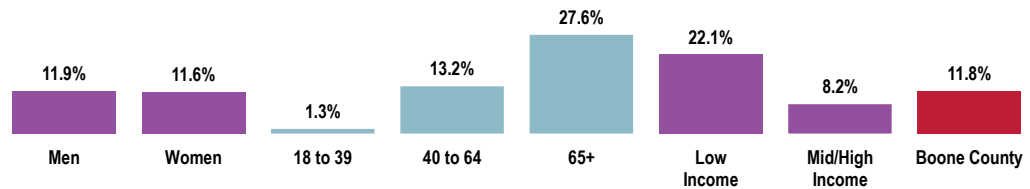
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 121]
 • Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia, United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.



Prevalence of Diabetes (Boone County, 2021)

Note that among adults who have not been diagnosed with diabetes, 57.1% report having had their blood sugar level tested within the past three years.



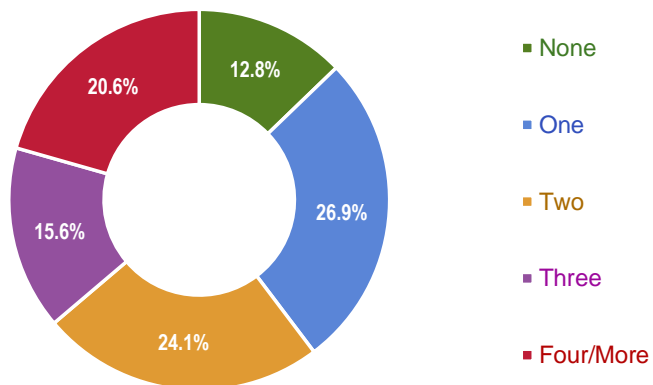
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 33, 121]
 Notes: • Asked of all respondents.
 • Excludes gestational diabetes (occurring only during pregnancy).

Diabetes Management

Among Boone County residents with diabetes, most (87.2%) have been to see a physician about their diabetes at least once in the past year, and 60.3% have made a diabetes-related visit to their doctor at least twice.

TREND ► The prevalence has not changed significantly over time (not shown).

Number of Diabetes-Related Visits to a Health Professional in the Past Year (Boone County Diabetics, 2021)



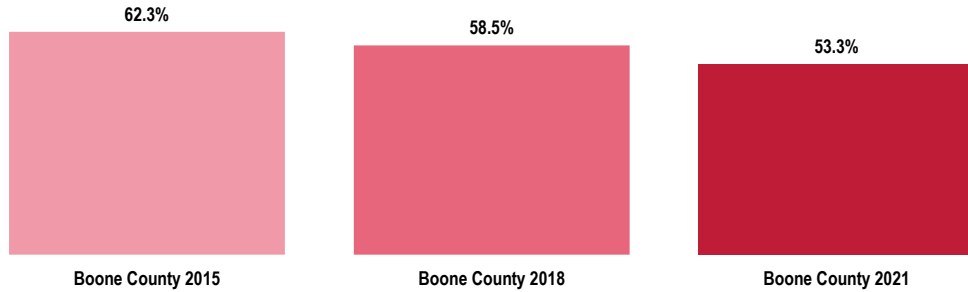
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 303]
 Notes: • Asked of all respondents with diabetes.



Over half of survey respondents with diabetes (53.3%) have taken a class on diabetes management.

TREND ► The decrease over time is not yet statistically significant.

Have Taken a Course in Diabetes Management (Boone County Diabetics, 2021)

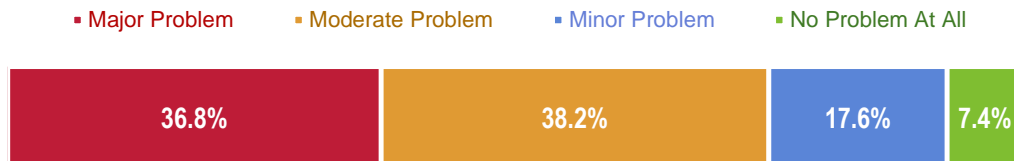


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 304]
Notes: • Asked of all respondents with diabetes.

Key Informant Input: Diabetes

Key informants taking part in an online survey were similarly likely to characterize *Diabetes* as a “major problem” and a “moderate problem” in the community.

Perceptions of Diabetes as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

Obesity is a major issue in Boone County. With obesity, comes diabetes, heart disease, cancer, stroke as well as several other chronic conditions. A well-managed diabetic can lead a healthy life. However, diabetes education classes and resources are lacking in our community. – Other Health Provider

Obesity is rampant in Indiana. Type 2 diabetes has to have been exacerbated by COVID-19 isolation. – Community Leader

Dealing with the obesity crisis and motivating patients to be compliant in their treatment plan. – Other Health Provider

Prevention of diabetes. People with type 2 diabetes following health guidelines to lessen the impact of the disease. Increased obesity contributing to the increase in diabetes. Cost of medicines. – Social Services Provider

Access to fast, healthy options. Education on simple, healthier choices. – Other Health Provider

Access to healthy food. It is too expensive. Also, medications for those who are uninsured. – Other Health Provider

Access to appropriate nutrition and medications. – Physician

Lack of physical activity. Finances do not support a healthy diet. Lack of motivation to make changes. Resources are not available in the area for physical activity and education. – Other Health Provider

Poor eating habits, inability to afford medications, failure to follow medical directives. – Community Leader

Understanding their insurance and health benefits and affording necessary medications and therapeutics and testing supplies. – Physician

Many overweight and out of shape folks that smoke in Boone County. – Community Leader

Awareness/Education

Availability of diabetes education classes. – Community Leader

Educational piece provided at a more global level. – Community Leader

Lack of local diabetes education resources for those under 18. Teens with diabetes, even if type 2 diabetes management, must go downtown for diabetes education, which is often a major barrier for families. – Physician

I feel that education and the ability to apply the knowledge is a major challenge for the community. The resources for education on how to appropriately manage diabetes is very limited, however, even if patients had access to this care, their desire to make the changes to their lifestyles is lacking. – Physician

Education about diet and exercise. We also see a huge issue in education of people that have the disease and do not have the proper education to make food choices. Examples would be they would choose a plate of noodles and bread. They do not have the food education to make good choices. – Social Services Provider

Disease Management

Medication adherence. – Community Leader

Compliance. – Other Health Provider

Medication compliance and lifestyle changes. – Physician

Managing their illness, updated technology, devices like the vein reader, particularly in nursing homes. – Public Health Representative

Obesity

Obesity. – Public Health Representative

Access to Affordable Healthy Food

Access to healthy and nutritious foods. – Public Health Representative

Prevention/Screenings

Prevention and compliance. – Community Leader

Affordable Medications/Supplies

Affording medications, day to day management. – Physician



KIDNEY DISEASE

ABOUT KIDNEY DISEASE

More than 1 in 7 adults in the United States may have chronic kidney disease (CKD), with higher rates in low-income and racial/ethnic minority groups. And most people with CKD don't know they have it. ...People with CKD are more likely to have heart disease and stroke — and to die early. Managing risk factors like diabetes and high blood pressure can help prevent or delay CKD. Strategies to make sure more people with CKD are diagnosed early can help people get the treatment they need.

Recommended tests can help identify people with CKD to make sure they get treatments and education that may help prevent or delay kidney failure and end-stage kidney disease (ESKD). In addition, strategies to make sure more people with ESKD get kidney transplants can increase survival rates and improve quality of life.

– Healthy People 2030 (<https://health.gov/healthypeople>)

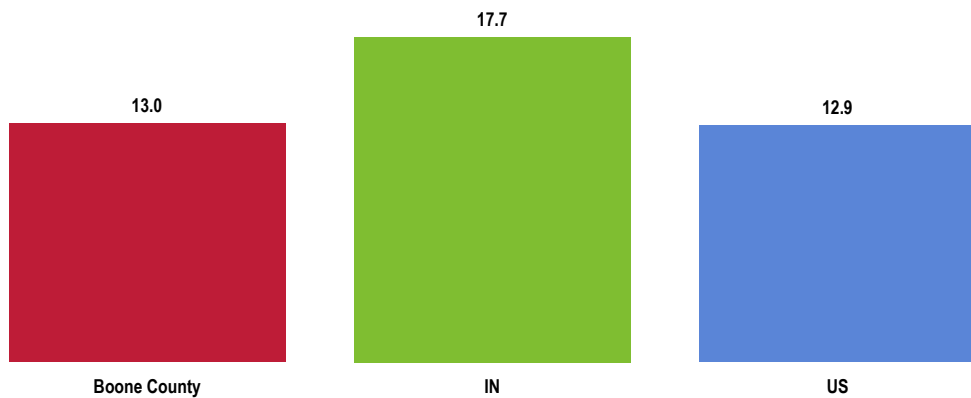
Age-Adjusted Kidney Disease Deaths

Between 2017 and 2019, there was an annual average age-adjusted kidney disease mortality rate of 13.0 deaths per 100,000 population in Boone County.

BENCHMARK ▶ Lower than the statewide mortality rate.

TREND ▶ Note the overall decreasing trend over the past decade.

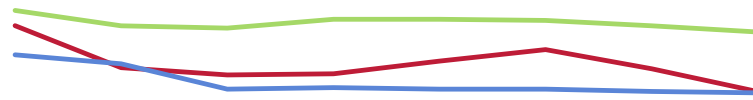
Kidney Disease: Age-Adjusted Mortality
(2017-2019 Annual Average Deaths per 100,000 Population)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.



Kidney Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	18.2	14.9	14.3	14.4	15.4	16.3	14.8	13.0
IN	19.4	18.2	18.0	18.7	18.7	18.6	18.2	17.7
US	15.9	15.2	13.2	13.3	13.2	13.2	13.0	12.9

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Prevalence of Kidney Disease

A total of 3.6% of Boone County adults report having been diagnosed with kidney disease.

DISPARITY ► Reported more often among seniors (age 65+) and low-income adults.

Prevalence of Kidney Disease

Boone County

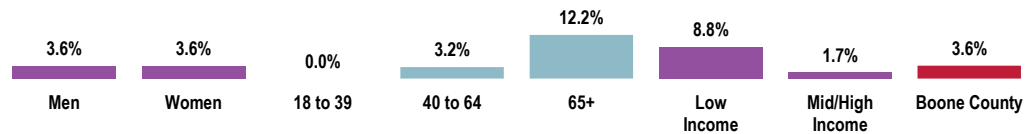


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 24]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.



Prevalence of Kidney Disease (Boone County, 2021)

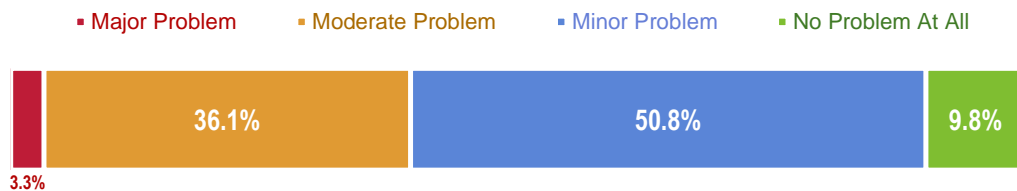


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 24]
 Notes: • Asked of all respondents.

Key Informant Input: Kidney Disease

Key informants taking part in an online survey generally characterized *Kidney Disease* as a “minor problem” in the community.

Perceptions of Kidney Disease as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Note the comment given by the key informant rating this issue as a “major problem.”

Co-Occurrences

Due to complications of diabetes. – Community Leader



POTENTIALLY DISABLING CONDITIONS

Multiple Chronic Conditions

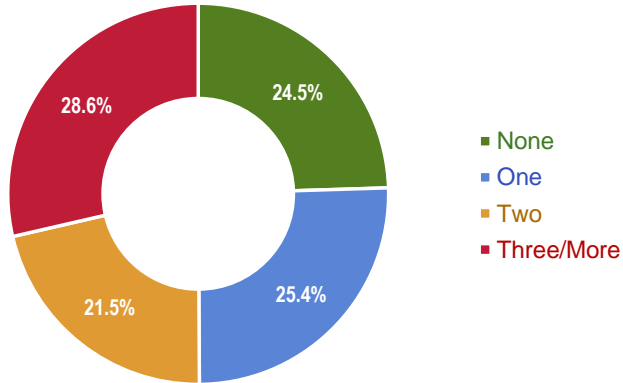
For the purposes of this assessment, chronic conditions include:

- Asthma
- Cancer
- Chronic pain
- Diabetes
- Diagnosed depression
- Heart attack/angina
- High blood cholesterol
- High blood pressure
- Kidney disease
- Lung disease
- Obesity
- Stroke

Multiple chronic conditions are concurrent conditions.

Among Boone County survey respondents, most report currently having at least one chronic health condition.

Number of Current Chronic Conditions
(Boone County, 2021)



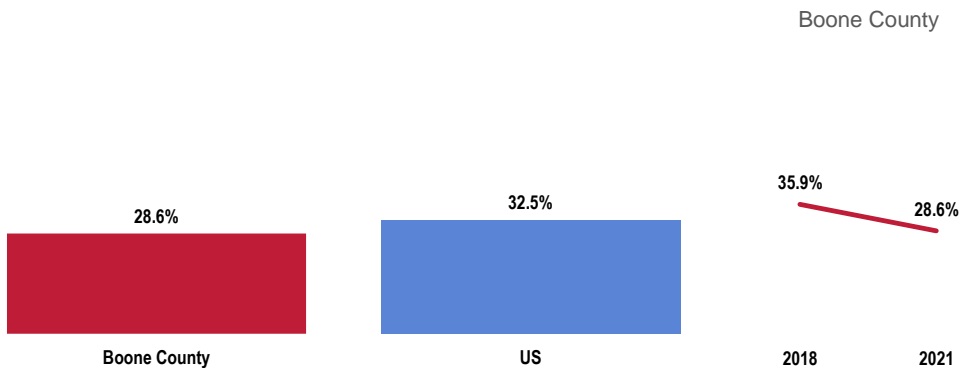
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 123]
 Notes: • Asked of all respondents.
 • In this case, chronic conditions include lung disease, cancer, kidney disease, heart attack/angina, stroke, asthma, high blood pressure, high blood cholesterol, diabetes, high-impact chronic pain, obesity, and/or diagnosed depression.

In fact, 28.6% of Boone County adults report having three or more chronic conditions.

TREND ▶ Marks a statistically significant decrease (improvement) from 2018 survey findings.

DISPARITY ▶ Primarily age-related. Also higher among women and those in low-income households.

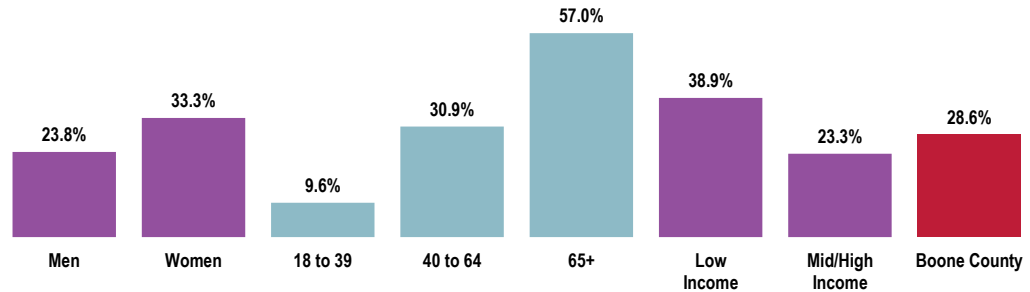
Currently Have Three or More Chronic Conditions



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 123]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.
 • In this case, chronic conditions include lung disease, cancer, kidney disease, heart attack/angina, stroke, asthma, high blood pressure, high blood cholesterol, diabetes, high-impact chronic pain, obesity, and/or diagnosed depression.



Currently Have Three or More Chronic Conditions (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 123]

Notes: • Asked of all respondents.

• In this case, chronic conditions include lung disease, cancer, kidney disease, heart attack/angina, stroke, asthma, high blood pressure, high blood cholesterol, diabetes, high-impact chronic pain, obesity, and/or diagnosed depression.

Activity Limitations

ABOUT DISABILITY & HEALTH

Studies have found that people with disabilities are less likely to get preventive health care services they need to stay healthy. Strategies to make health care more affordable for people with disabilities are key to improving their health.

In addition, people with disabilities may have trouble finding a job, going to school, or getting around outside their homes. And they may experience daily stress related to these challenges. Efforts to make homes, schools, workplaces, and public places easier to access can help improve quality of life and overall well-being for people with disabilities.

– Healthy People 2030 (<https://health.gov/healthypeople>)

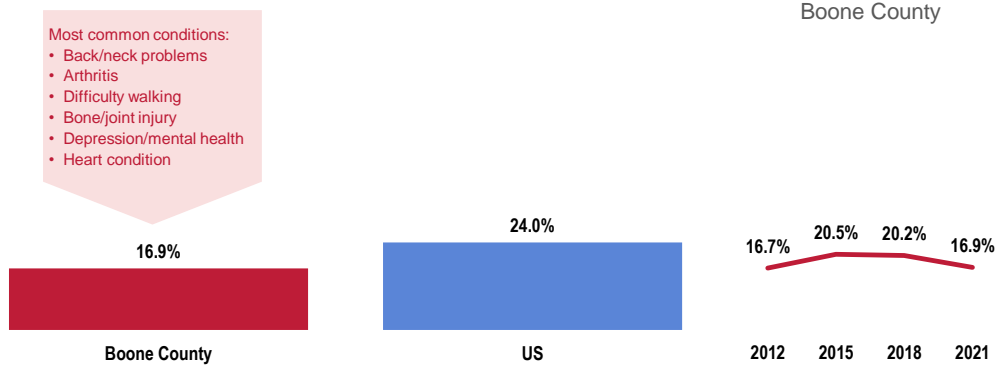
A total of 16.9% of Boone County adults are limited in some way in some activities due to a physical, mental, or emotional problem.

BENCHMARK ► Below the US figure.

DISPARITY ► Correlates with age and is reported more often among women and low-income residents.

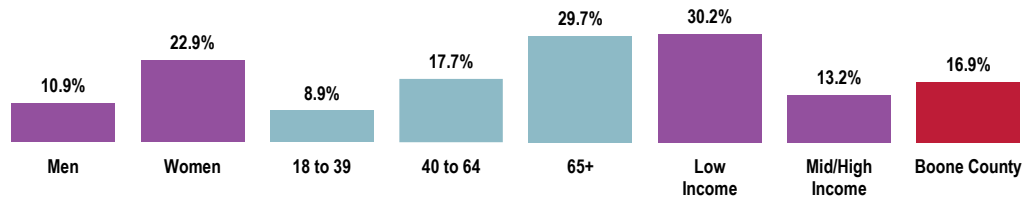


Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 96-97]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 96]
 Notes: • Asked of all respondents.

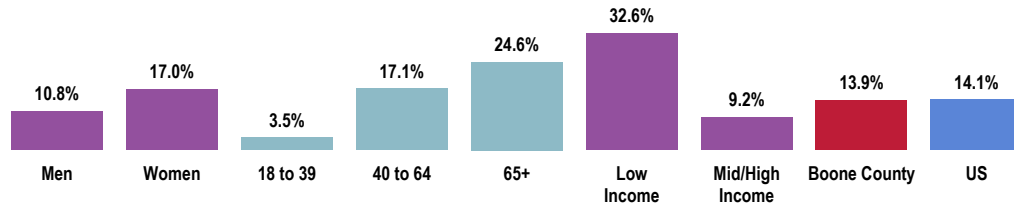


Chronic Pain

A total of 13.9% of Boone County adults experience high-impact chronic pain, meaning physical pain that has limited their life or work activities “every day” or “most days” during the past six months.

DISPARITY ► Higher among women, adults age 40+, and low-income respondents (especially).

Experience High-Impact Chronic Pain
(Boone County, 2021)
Healthy People 2030 = 7.0% or Lower

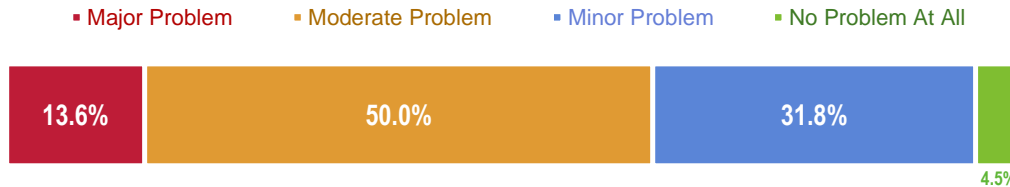


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 37]
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Asked of all respondents.
 • High-impact chronic pain includes physical pain that limits life or work activities on “most days” or “every day” of the past six months.

Key Informant Input: Disability & Chronic Pain

Half of key informants taking part in an online survey characterized *Disability & Chronic Pain* as a “moderate problem” in the community.

Perceptions of Disability & Chronic Pain
as a Problem in the Community
(Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

Many narcotic addicted patients and low physical activity, leading to these problems. – Physician

Obesity, lack of exercise. – Community Leader

There is a large population of patients with multiple co-morbidities that have chronic pain issues. Doctors are not providing alternatives to narcotics. – Social Services Provider

I feel that chronic pain is a major problem as these patients have a hard time wanting to work through and learn how to manage their pain. The patients that I have seen will either request narcotics or request to be written off work. They unfortunately end up going to the emergency room using up those resources when they are not able to get the pain control they desire. – Physician

Comorbidities

Chronic illness, mental health disease and obesity are highly co-morbid with chronic pain. – Physician

Impact on Quality of Life

People are dealing with chronic pain, prohibiting them from working. – Other Health Provider

Incidence/Prevalence

Very frequently patients are seen with these complaints. – Other Health Provider

Alzheimer’s Disease

ABOUT DEMENTIA

Alzheimer’s disease is the most common cause of dementia and the sixth leading cause of death in U.S. adults.¹ Nearly 6 million people in the United States have Alzheimer’s, and that number will increase as the population ages.

Dementia refers to a group of symptoms that cause problems with memory, thinking, and behavior. People with dementia are more likely to be hospitalized, and dementia is linked to high health care costs.

While there’s no cure for Alzheimer’s disease, early diagnosis and supportive care can improve quality of life. And efforts to make sure adults with symptoms of cognitive decline — including memory loss — are diagnosed early can help improve health outcomes in people with dementia. Interventions to address caregiving needs can also help improve health and well-being in people with dementia.

– Healthy People 2030 (<https://health.gov/healthypeople>)

Age-Adjusted Alzheimer’s Disease Deaths

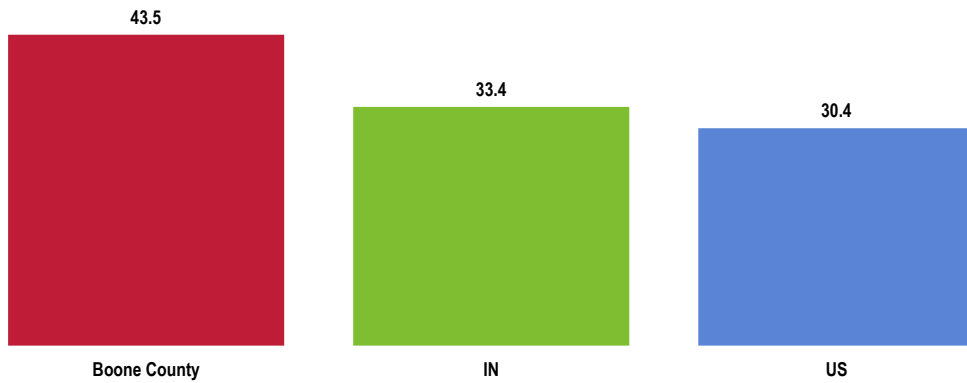
Between 2017 and 2019, there was an annual average age-adjusted Alzheimer’s disease mortality rate of 43.5 deaths per 100,000 population in Boone County.

BENCHMARK ► Well above the state and national mortality rates.

TREND ► Increasing over the past decade, echoing state and national trends.

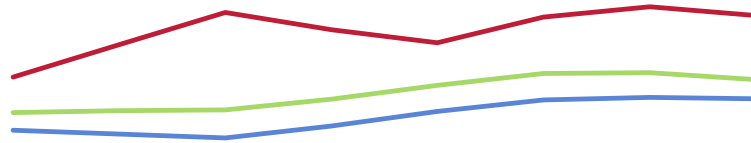


Alzheimer's Disease: Age-Adjusted Mortality (2017-2019 Annual Average Deaths per 100,000 Population)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Alzheimer's Disease: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	33.8	38.9	44.0	41.3	39.2	43.3	44.9	43.5
IN	28.2	28.5	28.6	30.3	32.5	34.4	34.5	33.4
US	25.4	24.8	24.2	26.1	28.4	30.2	30.6	30.4

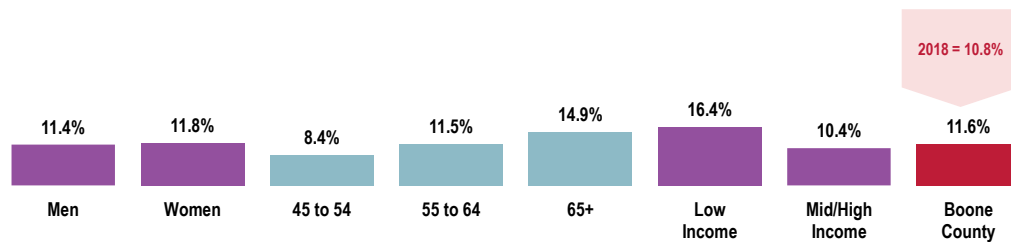
Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.



Progressive Confusion/Memory Loss

A total of 11.6% of adults age 45 and older report experiencing confusion or memory loss in the past year that is happening more often or getting worse.

Experienced Increasing Confusion/Memory Loss in Past Year (Adults Age 45 and Older; Boone County, 2021)

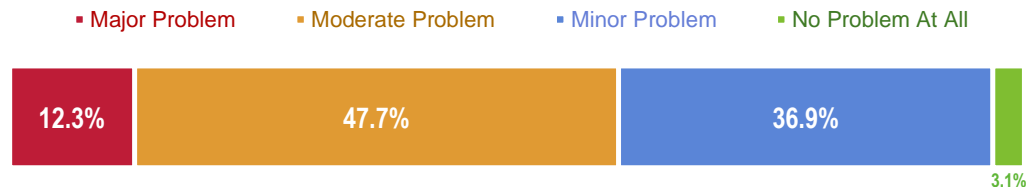


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 154]
Notes: • Asked of those respondents age 45 and older.

Key Informant Input: Dementia/Alzheimer's Disease

Key informants taking part in an online survey are most likely to consider *Dementia/Alzheimer's Disease* as a “moderate problem” in the community.

Perceptions of Dementia/Alzheimer's Disease as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

As our population ages, dementia and Alzheimer's seem to be increasing. Sugar has been deemed a known neurotoxin, yet little has been done to educate our community on ways to prevent age-related cognitive decline. Our Alzheimer's Association does not seem to be active in our community or surrounding communities. – Other Health Provider

It seems to affect a lot of families and can be devastating to the patient, but also the family, especially as the disease progresses. Families lack the resources to properly supervise the patient or pay for someone or a facility to provide that care. – Social Services Provider



Awareness/Education

Not a clear direction to receive services. Do you see a primary care provider or neurologist when first starting treatment? – Other Health Provider

Anecdotal knowledge of early onset cases in my peer group. This could easily be a skewed perception. I do not make this claim based upon data from local public health sources. – Community Leader

Incidence/Prevalence

Appears that more individuals are diagnosed with this disease each year. – Community Leader

Seeming increase in the number of patients with this condition. – Community Leader

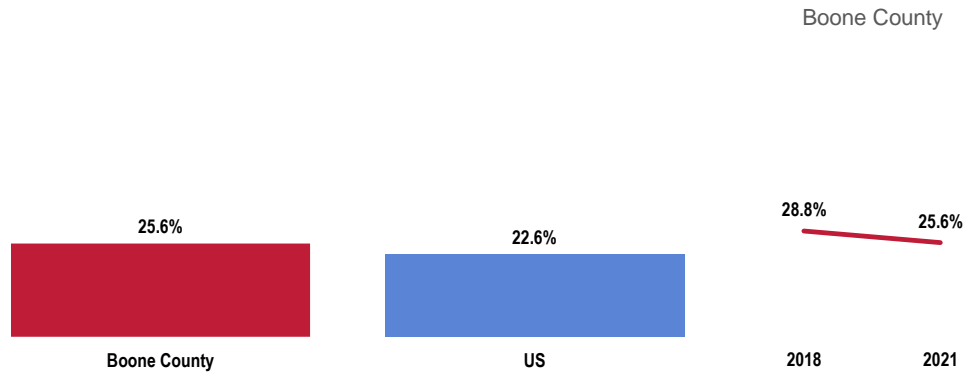
Caregiver Burnout

I believe there are not enough resources or help out there to give caregivers a break during the day. – Other Health Provider

Caregiving

A total of 25.6% of Boone County adults currently provide care or assistance to a friend or family member who has a health problem, long-term illness, or disability.

Act as Caregiver to a Friend or Relative with a Health Problem, Long-Term Illness, or Disability



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 98]
• 2020 PRC National Health Survey, PRC, Inc.
Notes: • Asked of all respondents.





BIRTHS

BIRTH OUTCOMES & RISKS

Low-Weight Births

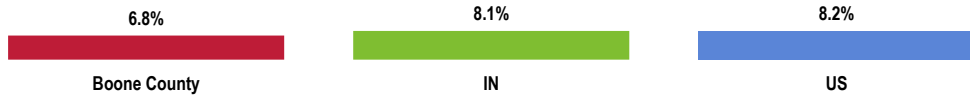
Low birthweight babies, those who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth, are much more prone to illness and neonatal death than are babies of normal birthweight.

Largely a result of receiving poor or inadequate prenatal care, many low-weight births and the consequent health problems are preventable.

A total of 6.8% of 2013-2019 Boone County births were low-weight.

BENCHMARK ▶ Lower than the state and national percentages.

Low-Weight Births
(Percent of Live Births, 2013-2019)



Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted September 2021.

Note: ● This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

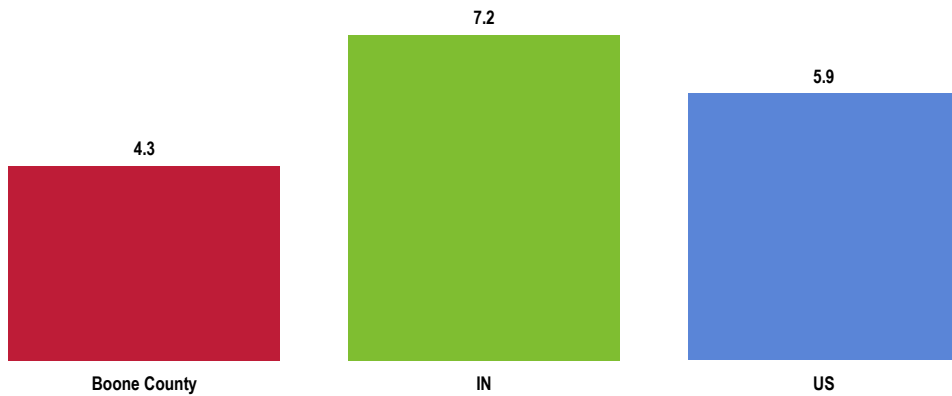
Infant Mortality

Infant mortality rates reflect deaths of children less than one year old per 1,000 live births.

Between 2010 and 2019, there was an annual average of 4.3 infant deaths per 1,000 live births.

BENCHMARK ▶ Below the Indiana and US death rates. Satisfies the Healthy People 2030 objective.

Infant Mortality Rate
(Annual Average Infant Deaths per 1,000 Live Births, 2010-2019)
Healthy People 2030 = 5.0 or Lower



Sources: ● CDC WONDER Online Query System. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics. Data extracted September 2021.

● US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: ● Infant deaths include deaths of children under 1 year old.

● This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.



FAMILY PLANNING

ABOUT FAMILY PLANNING

Nearly half of pregnancies in the United States are unintended, and unintended pregnancy is linked to many negative outcomes for both women and infants. ...Unintended pregnancy is linked to outcomes like preterm birth and postpartum depression. Interventions to increase use of birth control are critical for preventing unintended pregnancies. Birth control and family planning services can also help increase the length of time between pregnancies, which can improve health for women and their infants.

Adolescents are at especially high risk for unintended pregnancy. Although teen pregnancy and birth rates have gone down in recent years, close to 200,000 babies are born to teen mothers every year in the United States. Linking adolescents to youth-friendly health care services can help prevent pregnancy and sexually transmitted infections in this age group.

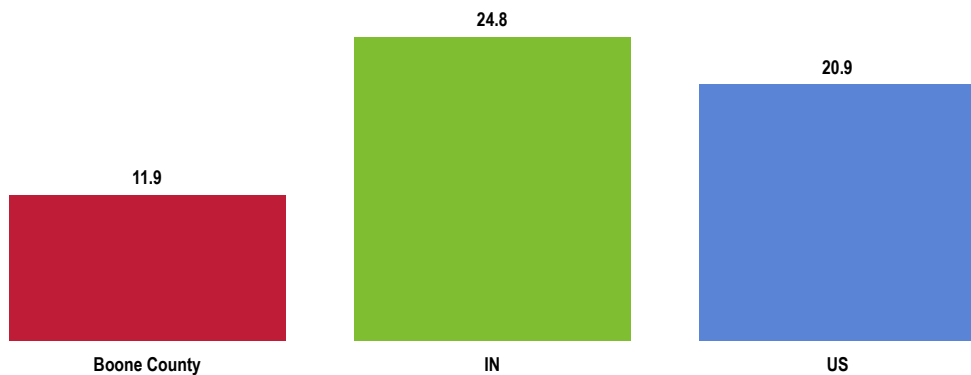
– Healthy People 2030 (<https://health.gov/healthypeople>)

Births to Adolescent Mothers

Between 2013 and 2019, there were 11.9 births to adolescents age 15 to 19 per 1,000 women age 15 to 19 in Boone County.

BENCHMARK ▶ Well below the Indiana and US teen birth rates. Satisfies the Healthy People 2030 objective.

Teen Birth Rate
(Births to Adolescents Age 15-19 per 1,000 Females Age 15-19, 2013-2019)
Healthy People 2030 = 31.4 or Lower



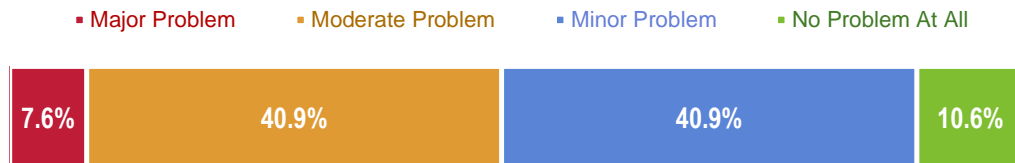
- Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System.
 - Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
 - US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
- Notes:
- This indicator reports the rate of total births to women under the age of 15–19 per 1,000 female population age 15–19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.



Key Informant Input: Infant Health & Family Planning

Key informants taking part in an online survey were equally likely to characterize *Infant Health & Family Planning* as a “moderate problem” and a “minor problem” in the community.

Perceptions of Infant Health and Family Planning as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Access to Care/Services

The discontinuation of some services in town, such as breastfeeding supports at our local hospital. Lack of people knowing about services and accessing WIC and other supports. – Social Services Provider

Alcohol/Drug Use

Drug abuse in pregnancy. – Physician

Parenting Classes

I don't think it is a direct health issue, but I feel that parenting classes would be helpful for so many in our community. If they had that resource, I think some of the issues with health-related problems might be helped. – Other Health Provider

Housing

Lack of appropriate low-income housing puts people at risk if they are constantly moving, exposing youth and children often to unhealthy environments, including drug use or excessive drinking. – Community Leader

Youth

Helping young individuals dealing with their sexual orientation and LGBT issues and struggles. – Other Health Provider

Single-Parent Families

There seems to be a high incidence of single motherhood. – Physician





MODIFIABLE HEALTH RISKS

NUTRITION

ABOUT NUTRITION & HEALTHY EATING

Many people in the United States don't eat a healthy diet. ...People who eat too many unhealthy foods — like foods high in saturated fat and added sugars — are at increased risk for obesity, heart disease, type 2 diabetes, and other health problems. Strategies and interventions to help people choose healthy foods can help reduce their risk of chronic diseases and improve their overall health.

Some people don't have the information they need to choose healthy foods. Other people don't have access to healthy foods or can't afford to buy enough food. Public health interventions that focus on helping everyone get healthy foods are key to reducing food insecurity and hunger and improving health.

– Healthy People 2030 (<https://health.gov/healthypeople>)

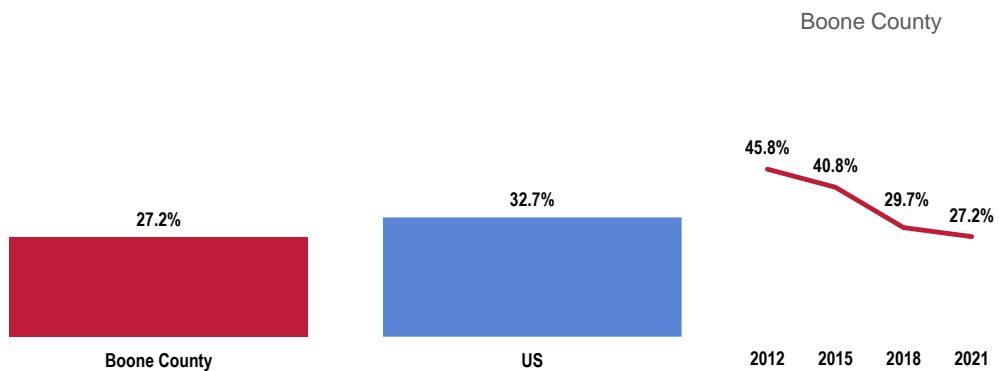
Daily Recommendation of Fruits/Vegetables

A total of 27.2% of Boone County adults report eating five or more servings of fruits and/or vegetables per day.

- BENCHMARK** ▶ Lower than the national figure.
- TREND** ▶ Decreasing significantly since 2012.
- DISPARITY** ▶ Correlates with age among survey respondents.

To measure fruit and vegetable consumption, survey respondents were asked multiple questions, specifically about the foods and drinks they consumed on the day prior to the interview.

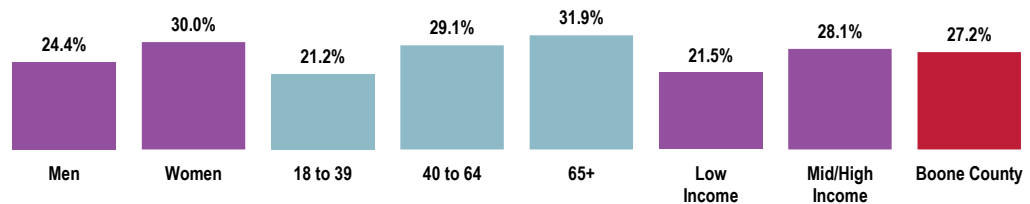
Consume Five or More Servings of Fruits/Vegetables Per Day



- Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 125]
 - 2020 PRC National Health Survey, PRC, Inc.
- Notes:
- Asked of all respondents.
 - For this issue, respondents were asked to recall their food intake on the previous day.



Consume Five or More Servings of Fruits/Vegetables Per Day (Boone County, 2021)

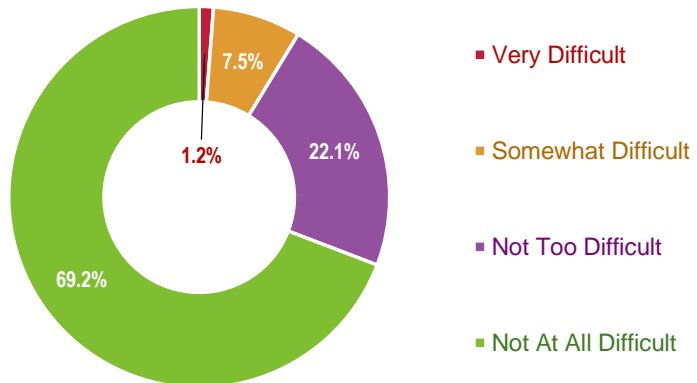


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 125]
 Notes: • Asked of all respondents.
 • For this issue, respondents were asked to recall their food intake on the previous day.

Difficulty Accessing Fresh Produce

Most Boone County adults report little or no difficulty buying fresh produce at a price they can afford.

Level of Difficulty Finding Fresh Produce at an Affordable Price (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 79]
 Notes: • Asked of all respondents.

Respondents were asked: "How difficult is it for you to buy fresh produce like fruits and vegetables at a price you can afford? Would you say: Very Difficult, Somewhat Difficult, Not Too Difficult, or Not At All Difficult?"

RELATED ISSUE
 See also *Food Access* in the **Social Determinants of Health** section of this report.



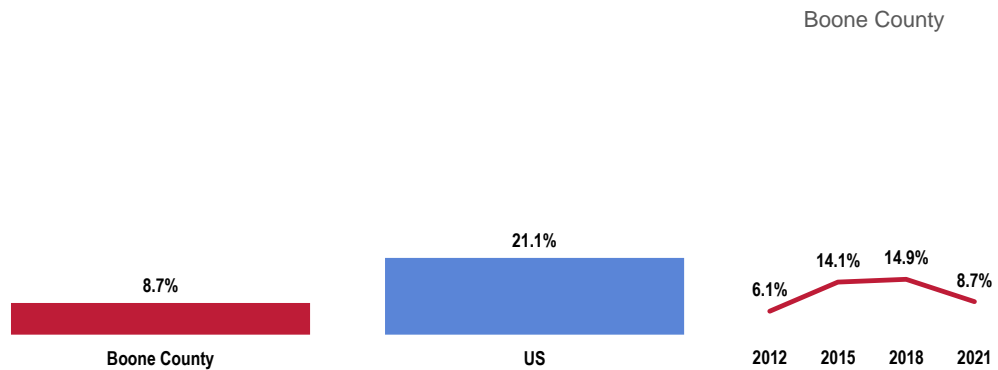
However, 8.7% of Boone County adults find it “very” or “somewhat” difficult to access affordable fresh fruits and vegetables.

BENCHMARK ▶ Well below the national prevalence.

TREND ▶ Though fluctuating over time, similar to baseline 2012 survey results.

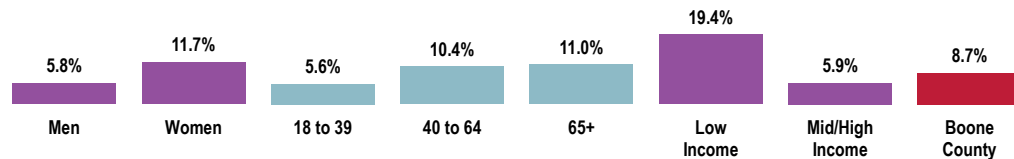
DISPARITY ▶ Reported more often among women and especially low-income respondents.

Find It “Very” or “Somewhat” Difficult to Buy Affordable Fresh Produce



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 79]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Find It “Very” or “Somewhat” Difficult to Buy Affordable Fresh Produce (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 79]
 Notes: • Asked of all respondents.



PHYSICAL ACTIVITY

ABOUT PHYSICAL ACTIVITY

Physical activity can help prevent disease, disability, injury, and premature death. The Physical Activity Guidelines for Americans lays out how much physical activity children, adolescents, and adults need to get health benefits. Although most people don't get the recommended amount of physical activity, it can be especially hard for older adults and people with chronic diseases or disabilities.

Strategies that make it safer and easier to get active — like providing access to community facilities and programs — can help people get more physical activity. Strategies to promote physical activity at home, at school, and at childcare centers can also increase activity in children and adolescents.

– Healthy People 2030 (<https://health.gov/healthypeople>)

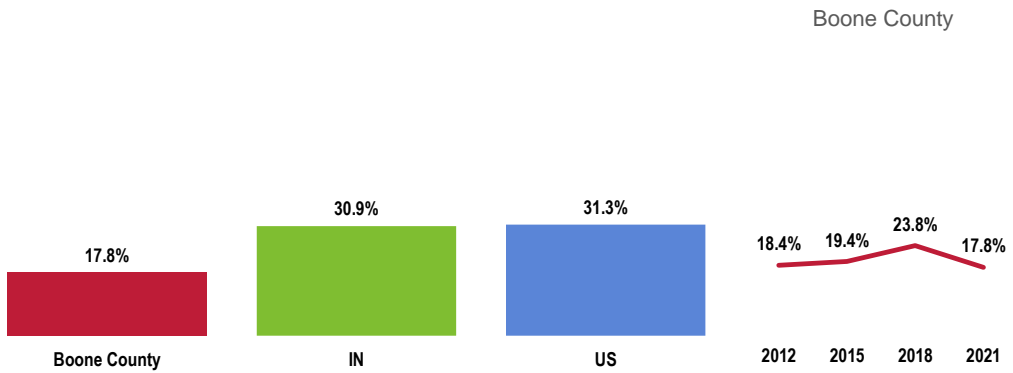
Leisure-Time Physical Activity

A total of 17.8% of Boone County adults report no leisure-time physical activity in the past month.

BENCHMARK ▶ Lower than the state and national figures and satisfying the Healthy People 2030 objective.

No Leisure-Time Physical Activity in the Past Month

Healthy People 2030 = 21.2% or Lower



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 82]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents.

Leisure-time physical activity includes any physical activities or exercises (such as running, calisthenics, golf, gardening, walking, etc.) which take place outside of one's line of work.



Activity Levels

Adults

ADULTS: RECOMMENDED LEVELS OF PHYSICAL ACTIVITY

Adults should do 2 hours and 30 minutes a week of moderate-intensity (such as walking), or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity **aerobic** physical activity (such as jogging), or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. The guidelines also recommend that adults do **muscle-strengthening** activities, such as push-ups, sit-ups, or activities using resistance bands or weights. These activities should involve all major muscle groups and be done on two or more days per week.

The report finds that nationwide nearly 50 percent of adults are getting the recommended amounts of aerobic activity and about 30 percent are engaging in the recommended muscle-strengthening activity.

- 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. www.cdc.gov/physicalactivity

A total of 23.7% of Boone County adults regularly participate in adequate levels of both aerobic and strengthening activities (meeting physical activity recommendations).

BENCHMARK ▶ Fails to satisfy the Healthy People 2030 objective.

DISPARITY ▶ Lowest among seniors and residents in low-income households.

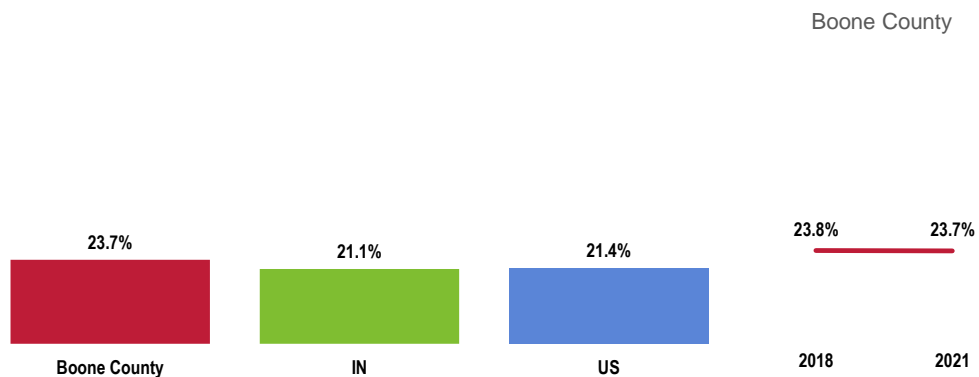
“Meeting physical activity recommendations” includes adequate levels of both aerobic and strengthening activities:

Aerobic activity is one of the following: at least 150 minutes per week of light to moderate activity, 75 minutes per week of vigorous activity, or an equivalent combination of both.

Strengthening activity is at least 2 sessions per week of exercise designed to strengthen muscles.

Meets Physical Activity Recommendations

Healthy People 2030 = 28.4% or Higher

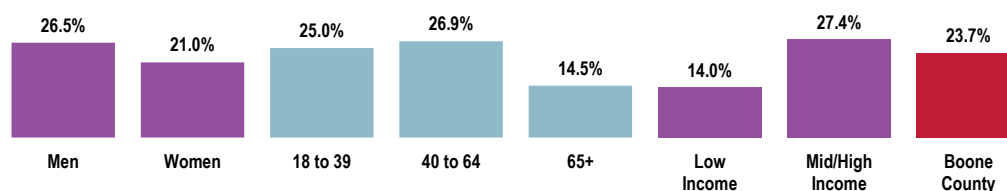


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 126]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC). 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Asked of all respondents.
 • Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice per week.



Meets Physical Activity Recommendations (Boone County, 2021)

Healthy People 2030 = 28.4% or Higher



- Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 126]
 - US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
- Notes:
- Asked of all respondents.
 - Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice per week.

Children

CHILDREN: RECOMMENDED LEVELS OF PHYSICAL ACTIVITY

Children and adolescents should do 60 minutes (1 hour) or more of physical activity each day.

- 2013 Physical Activity Guidelines for Americans, US Department of Health and Human Services. www.cdc.gov/physicalactivity

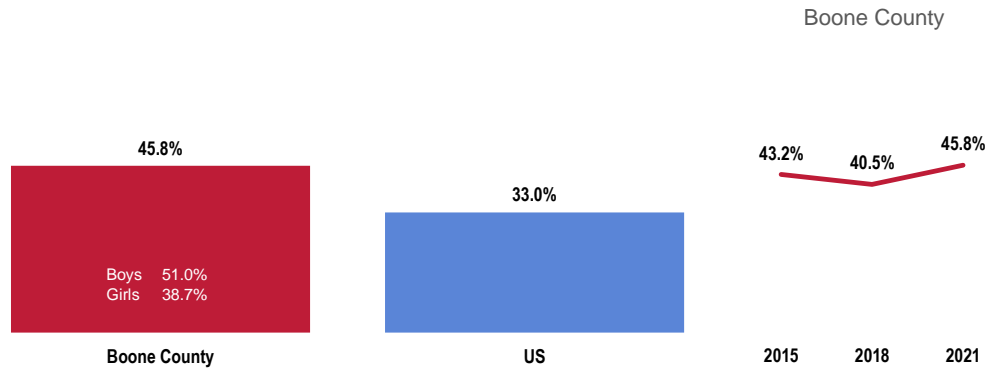
Among Boone County children age 2 to 17, 45.8% are reported to have had 60 minutes of physical activity on each of the seven days preceding the interview (1+ hours per day).

BENCHMARK ▶ Higher than the national prevalence.

DISPARITY ▶ Reported more often among parents of boys.



Child Is Physically Active for One or More Hours per Day (Parents of Children Age 2-17)



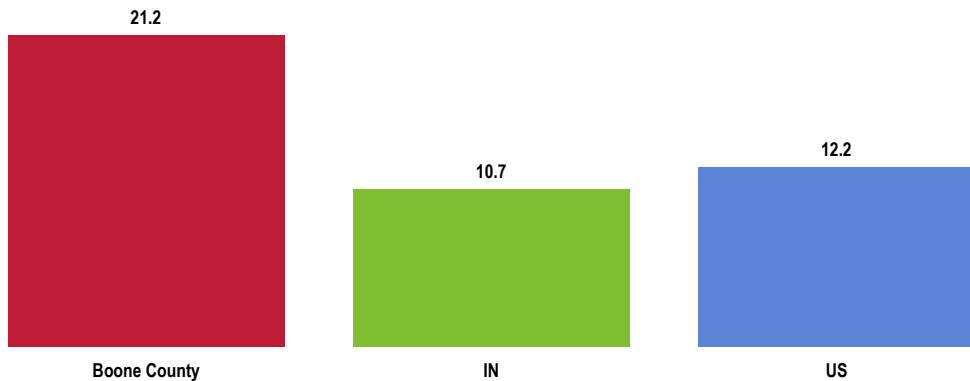
- Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 109]
 - 2020 PRC National Health Survey, PRC, Inc.
- Notes:
- Asked of all respondents with children age 2-17 at home.
 - Includes children reported to have one or more hours of physical activity on each of the seven days preceding the survey.

Access to Physical Activity

In 2019, there were 21.2 recreation/fitness facilities for every 100,000 population in Boone County.

BENCHMARK ► Well above the state and national proportions.

Population With Recreation & Fitness Facility Access (Number of Recreation & Fitness Facilities per 100,000 Population, 2019)



- Sources:
- US Census Bureau. County Business Patterns. Additional data analysis by CARES.
 - Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
- Notes:
- Recreation and fitness facilities are defined by North American Industry Classification System (NAICS) Code 713940, which include *Establishments engaged in operating facilities which offer "exercise and other active physical fitness conditioning or recreational sports activities." Examples include athletic clubs, gymnasiums, dance centers, tennis clubs, and swimming pools.* This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

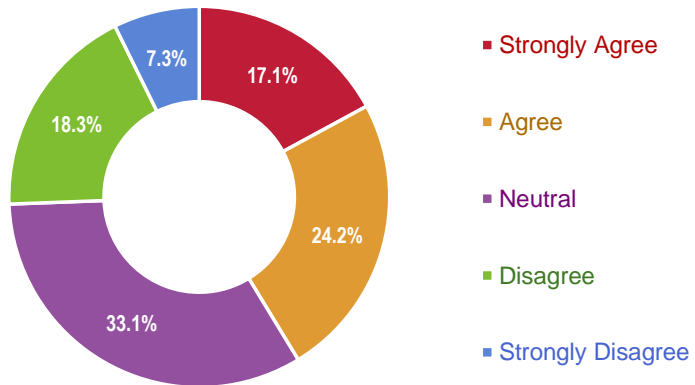


Recreational Opportunities

Indoor Public Physical Activity Spaces

Most community residents disagree or have no strong feelings that the community needs more indoor public physical activity spaces (such as gyms, recreational centers, or indoor pools).

Community Needs More Indoor Public Physical Activity Spaces
(Boone County, 2021)



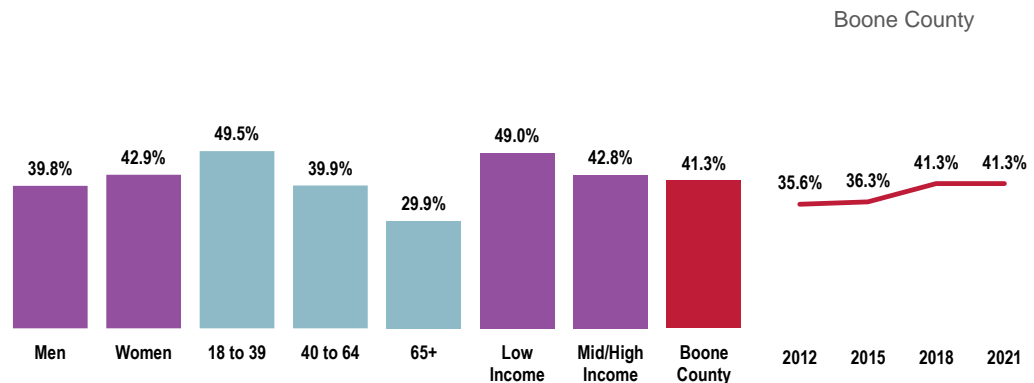
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 307]
Notes: • Asked of all respondents.

However, 41.3% of area adults do believe that the community needs more public indoor physical activity spaces (“agree/strongly agree”).

TREND ▶ Denotes a statistically significant increase in agreement from baseline survey results.

DISPARITY ▶ Correlates with age among survey respondents.

Agree That Community Needs
More Indoor Public Physical Activity Spaces
(Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 307]
Notes: • Asked of all respondents.



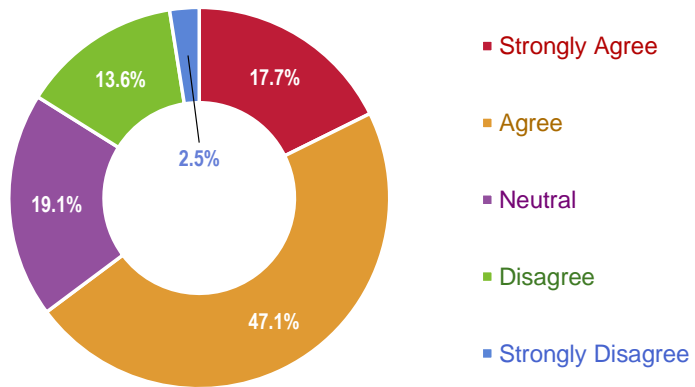
Available Facilities and Programs for Youth

Nearly two-thirds (64.8%) of Boone County adults “agree” or “strongly agree” that the community provides the facilities and programs needed for children and youth to be physically active year-round.

TREND ► Agreement has declined significantly since 2012.

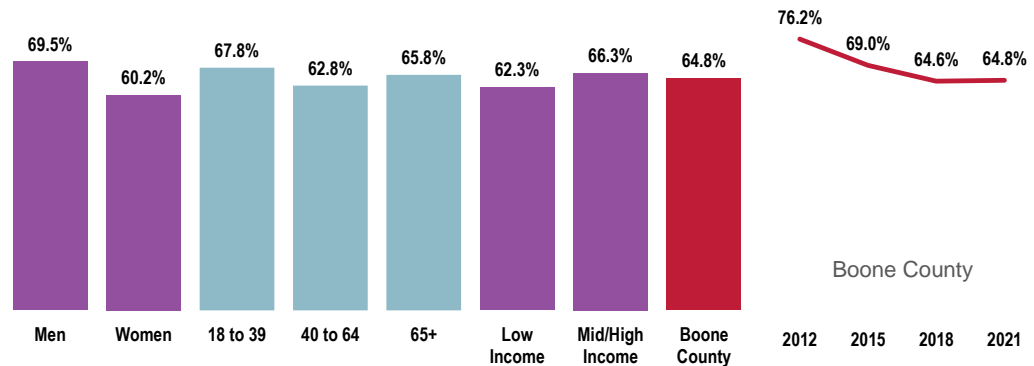
DISPARITY ► Reported least often among women in the county.

Community Provides Year-Round Facilities and Programs for Youth to be Physically Active (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 308]
Notes: • Asked of all respondents.

Agree That Community Provides Enough Year-Round Facilities and Programs for Youth to be Active (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 308]
Notes: • Asked of all respondents.



WEIGHT STATUS

ABOUT OVERWEIGHT & OBESITY

Obesity is linked to many serious health problems, including type 2 diabetes, heart disease, stroke, and some types of cancer. Some racial/ethnic groups are more likely to have obesity, which increases their risk of chronic diseases.

Culturally appropriate programs and policies that help people eat nutritious foods within their calorie needs can reduce overweight and obesity. Public health interventions that make it easier for people to be more physically active can also help them maintain a healthy weight.

- Healthy People 2030 (<https://health.gov/healthypeople>)

Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m^2). To estimate BMI using pounds and inches, use: [weight (pounds)/height squared (inches²)] x 703.

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m^2 and obesity as a BMI $\geq 30 kg/m^2$. The rationale behind these definitions is based on epidemiological data that show increases in mortality with BMIs above 25 kg/m^2 . The increase in mortality, however, tends to be modest until a BMI of 30 kg/m^2 is reached. For persons with a BMI $\geq 30 kg/m^2$, mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100 percent above that of persons with BMIs in the range of 20 to 25 kg/m^2 .

- Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.

Adult Weight Status

CLASSIFICATION OF OVERWEIGHT AND OBESITY BY BMI	BMI (kg/m^2)
Underweight	<18.5
Normal	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥ 30.0

Source: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report. National Institutes of Health. National Heart, Lung, and Blood Institute in Cooperation With The National Institute of Diabetes and Digestive and Kidney Diseases. September 1998.



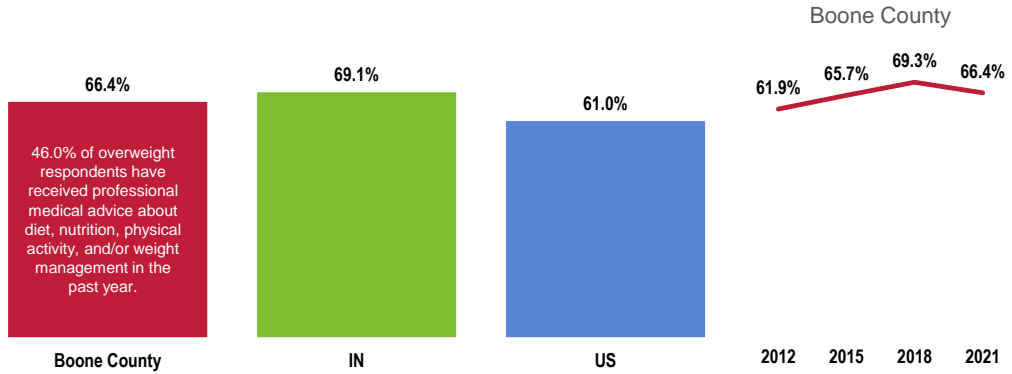
Overweight Status

Two in three Boone County adults (66.4%) are **overweight**.

BENCHMARK ▶ Worse than the national prevalence.

Here, "overweight" includes those respondents with a BMI value ≥ 25 .

Prevalence of Total Overweight (Overweight and Obese)



- Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Items 128, 302]
 - Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 - 2020 PRC National Health Survey, PRC, Inc.
- Notes:
- Based on reported heights and weights, asked of all respondents.
 - The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

The overweight prevalence above includes 31.3% of Boone County adults who are **obese**.

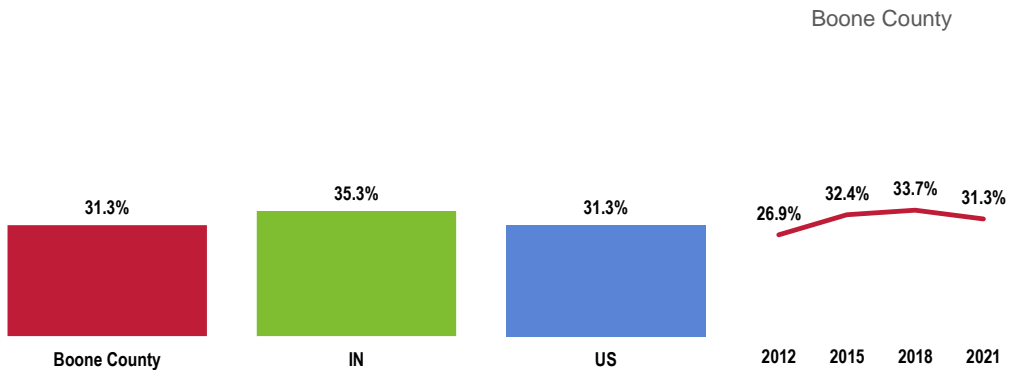
BENCHMARK ▶ Lower than the Indiana prevalence. Meets the Healthy People 2030 objective.

DISPARITY ▶ Reported more often among female respondents.

"Obese" (also included in overweight prevalence discussed previously) includes respondents with a BMI value ≥ 30 .

Prevalence of Obesity

Healthy People 2030 = 36.0% or Lower

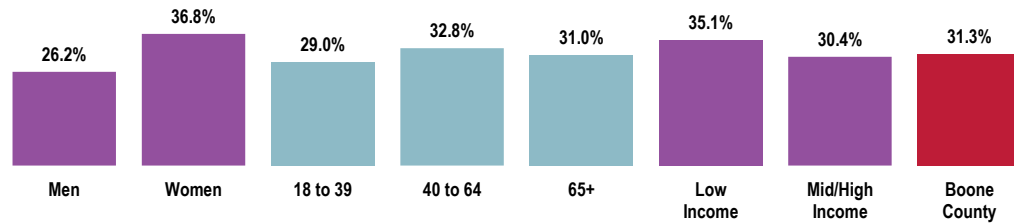


- Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 128]
 - Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 - 2020 PRC National Health Survey, PRC, Inc.
 - US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
- Notes:
- Based on reported heights and weights, asked of all respondents.
 - The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.



Prevalence of Obesity (Boone County, 2021)

Healthy People 2030 = 36.0% or Lower



Sources:

- 2021 PRC Community Health Survey, PRC, Inc. [Item 128]
- US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes:

- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

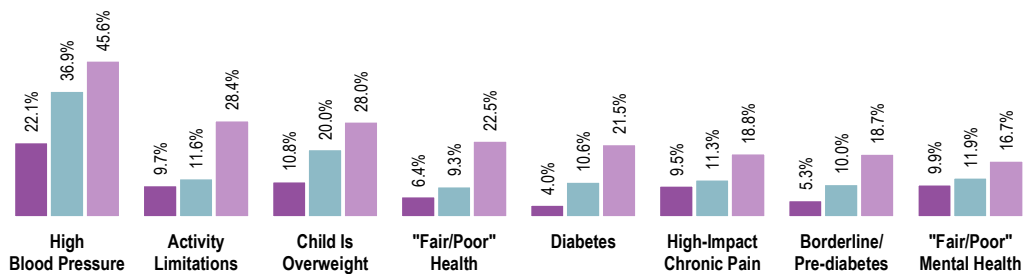
Relationship of Overweight With Other Health Issues

Overweight and obese adults are more likely to report a number of adverse health conditions, as outlined in the following chart.

The correlation between overweight and various health issues cannot be disputed.

Relationship of Overweight With Other Health Issues (Boone County, 2021)

■ Among Healthy Weight
 ■ Among Overweight/Not Obese
 ■ Among Obese



Sources:

- 2021 PRC Community Health Survey, PRC, Inc. [Item 128]

Notes:

- Based on reported heights and weights, asked of all respondents.



Children's Weight Status

ABOUT WEIGHT STATUS IN CHILDREN & TEENS

In children and teens, body mass index (BMI) is used to assess weight status – underweight, healthy weight, overweight, or obese. After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child's BMI number among children of the same sex and age.

BMI-for-age weight status categories and the corresponding percentiles are shown below:

- Underweight <5th percentile
- Healthy Weight ≥5th and <85th percentile
- Overweight ≥85th and <95th percentile
- Obese ≥95th percentile

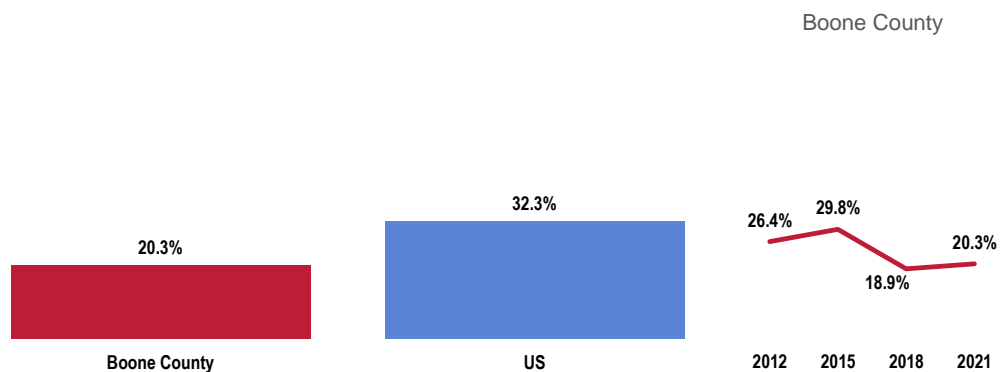
– Centers for Disease Control and Prevention

Based on the heights/weights reported by surveyed parents, 20.3% of Boone County children age 5 to 17 are overweight or obese (≥85th percentile).

BENCHMARK ► Below the national figure.

TREND ► Though fluctuating over time, statistically similar to baseline 2012 survey findings.

Prevalence of Overweight in Children (Parents of Children Age 5-17)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 131]
• 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents with children age 5-17 at home.
• Overweight among children is determined by children's Body Mass Index status at or above the 85th percentile of US growth charts by gender and age.



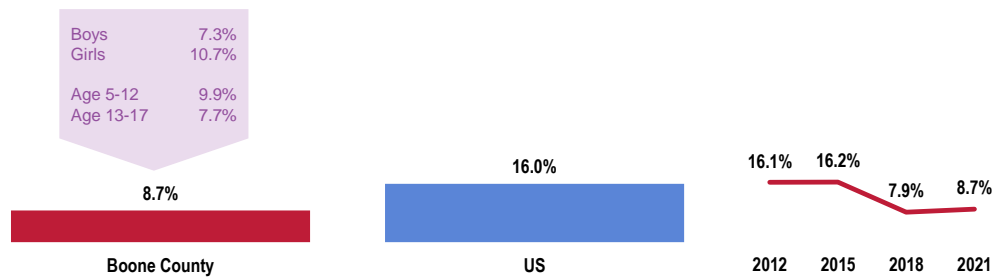
The childhood overweight prevalence above includes 8.7% of area children age 5 to 17 who are obese (≥95th percentile).

BENCHMARK ▶ Lower than the national prevalence. Satisfies the Healthy People 2030 objective.

TREND ▶ Marks a significant improvement from 2012 and 2015 survey findings.

Prevalence of Obesity in Children (Children Age 5-17 Who Are Obese; BMI in the 95th Percentile or Higher) Healthy People 2030 = 15.5% or Lower

Boone County

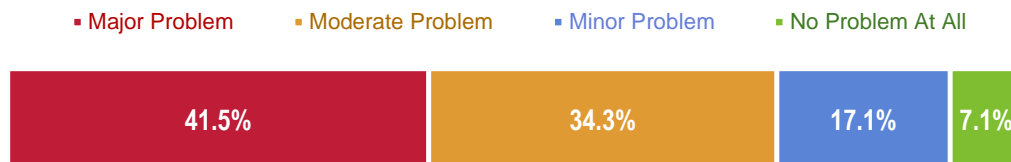


- Sources:
- 2021 PRC Community Health Survey, PRC, Inc. [Item 131]
 - 2020 PRC National Health Survey, PRC, Inc.
 - US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
- Notes:
- Asked of all respondents with children age 5-17 at home.
 - Obesity among children is determined by children's Body Mass Index status equal to or above the 95th percentile of US growth charts by gender and age.

Key Informant Input: Nutrition, Physical Activity & Weight

Key informants taking part in an online survey most often characterized *Nutrition, Physical Activity & Weight* as a “major problem” in the community.

Perceptions of Nutrition, Physical Activity, and Weight as a Problem in the Community (Key Informants, 2021)



- Sources:
- PRC Online Key Informant Survey, PRC, Inc.
- Notes:
- Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

Low income does not allow for healthy food choices. Many turn down Meals on Wheels because they don't like the meals. Physical activity isn't viewed as something that will improve health. – Social Services Provider

Lack of education, and poverty. – Public Health Representative

There are multiple challenges for these issues, and it is global. From a physician's point of view, I do not have time to appropriately counsel a patient on appropriate diet and exercise. This would be great for a nutritionist to do however, this is usually not a covered benefit. In the little time I have to discuss it, I try to give resources including Weight Watchers as options, but most patients do not want to pay for this. Next comes the patients desire to actually make changes to the lifestyle or even the idea that they can change. People blame their jobs (time of shifts, stress), people blame financial issues (healthy food is too expensive, having to pay for a gym membership), and some are able to site their own lack of motivation to change (this is rare). – Physician

Education and money to purchase healthy foods. – Community Leader

Education level and access to healthy, nutritious food. – Physician

Lack of physical activity, obesity, lack of access and affordability of fresh produce. – Other Health Provider

Lack of exercise, lack of motivation, cost of healthy foods increase the grocery bill, which many people cannot afford. No access to indoor facilities to exercise. – Other Health Provider

Lack of physical activities. Lack of activities for young people under 21. Food insecurity. Unemployment or low wages. Poor nutrition. Eating healthier usually costs more. – Social Services Provider

Financial issues, access to good nutrition, learning how to exercise. – Community Leader

There is certainly a correlation between poverty, nutrition, physical activity, and weight issues in our community as well as across the country. Ensuring our youth have education early in the school that focuses on healthy eating habits and the importance of daily exercise would be paramount. – Other Health Provider

Cost and motivation. – Public Health Representative

Compliance, not taking advantage of healthy options or physical activity opportunities. No sidewalks in some areas, and traffic. – Community Leader

The number of families living not in poverty, but still have trouble affording healthy meals is high. – Community Leader

Lack of education, food insecurity, and a general lack of options for exercise. – Social Services Provider

Education is a big factor. Access to information as well as healthy food and how to prepare it. Finances. – Social Services Provider

Abundance of fast-food restaurants. Lack of knowledge and understanding of basic nutrition, healthy shopping, meal prep and cooking. Food deserts in Thorntown, Jamestown, Advance, and the south side of Lebanon.

Access to exercise facilities. – Community Leader

Nutrition and Physical Activity

Poor eating habits, not enough healthy eating establishments, lack of exercise. – Community Leader

Access to nutritious whole foods, areas for inside physical activity. – Physician

Access to local and healthy food, restaurants and grocery stores. Lack of physical activity options such as bike parks, safe walking trails and organized sports for adults. Too many fast-food restaurants and lack of farm to table restaurants. – Other Health Provider

I talk to a lot of children on a daily basis. Most of the kids say that they don't play outside and prefer being on their tablet or play video games for fun. Most don't ride a bike or just play outside. As for nutrition, many of the children at my school used the fresh fruit and veggie bar as a supplement to their lunch. We have not had that option now for 2 years due to COVID. Many families eat a lot of fried food and not well-balanced meals. – Other Health Provider

Obesity

Obesity is very predominant. – Physician

We are a fat community with too many sedentary adults. – Community Leader

High level of obese individuals in the community. – Community Leader

Childhood Obesity

Childhood obesity is a major issue for our youth. Look at our local schools and the BMI of our children. There is no denying the crisis. – Other Health Provider

Obesity. Our community, especially our youth, need help and education on how to avoid being obese. – Social Services Provider



Access to Affordable Healthy Food

- Lack of access to affordable healthy foods. – Community Leader
- Access and cost for healthy food choices. – Physician

Diagnosis/Treatment

- Our nutritionists do not seem to have any kind of a plan to help people deal with their obesity. There are no programs that follow patients and work with them on weight loss, group fitness for obese patients or longitudinal follow up. – Physician

Affordability

- Cost of food and gyms. – Other Health Provider



SUBSTANCE ABUSE

ABOUT DRUG & ALCOHOL USE

More than 20 million adults and adolescents in the United States have had a substance use disorder in the past year. ...Substance use disorders can involve illicit drugs, prescription drugs, or alcohol. Opioid use disorders have become especially problematic in recent years. Substance use disorders are linked to many health problems, and overdoses can lead to emergency department visits and deaths.

Effective treatments for substance use disorders are available, but very few people get the treatment they need. Strategies to prevent substance use — especially in adolescents — and help people get treatment can reduce drug and alcohol misuse, related health problems, and deaths.

– Healthy People 2030 (<https://health.gov/healthypeople>)

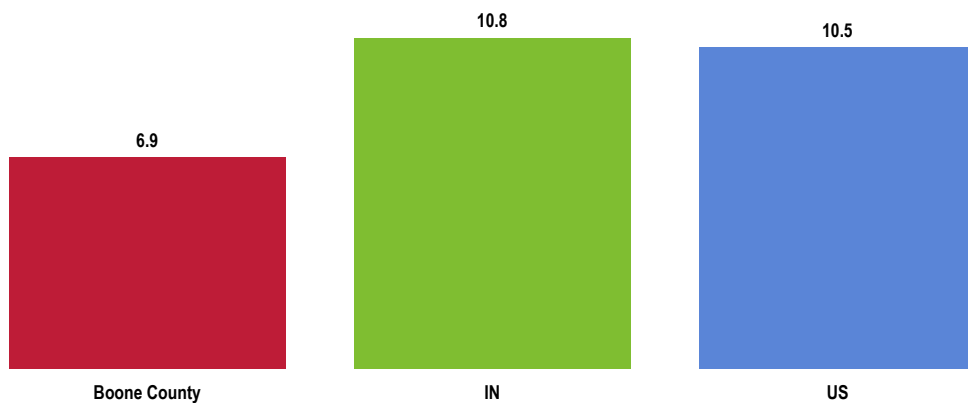
Age-Adjusted Cirrhosis/Liver Disease Deaths

Between 2010 and 2019, Boone County reported an annual average age-adjusted cirrhosis/liver disease mortality rate of 6.9 deaths per 100,000 population.

BENCHMARK ▶ Lower than the state and national rates and satisfies the Healthy People 2030 objective.

Cirrhosis/Liver Disease: Age-Adjusted Mortality (2010-2019 Annual Average Deaths per 100,000 Population)

Healthy People 2030 = 10.9 or Lower



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>



Alcohol Use

Excessive Drinking

Excessive drinking includes heavy and/or binge drinkers:

- HEAVY DRINKERS ► men reporting 2+ alcoholic drinks per day or women reporting 1+ alcoholic drink per day in the month preceding the interview.
- BINGE DRINKERS ► men reporting 5+ alcoholic drinks or women reporting 4+ alcoholic drinks on any single occasion during the past month.

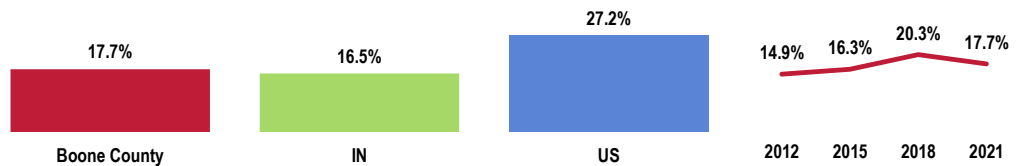
A total of 17.7% of area adults are excessive drinkers (heavy and/or binge drinkers).

BENCHMARK ► Well below the national figure.

DISPARITY ► Acknowledged more often among men, young adults, and those in the mid- to high-income category.

Excessive Drinkers

Boone County



Sources:

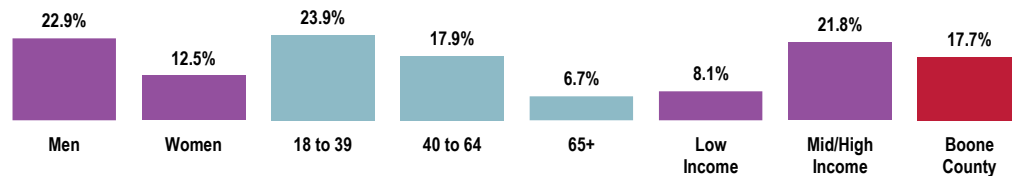
- 2021 PRC Community Health Survey, PRC, Inc. [Item 136]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
- 2020 PRC National Health Survey, PRC, Inc.

Notes:

- Asked of all respondents.
- Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.



Excessive Drinkers (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 136]

Notes: • Asked of all respondents.

• Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

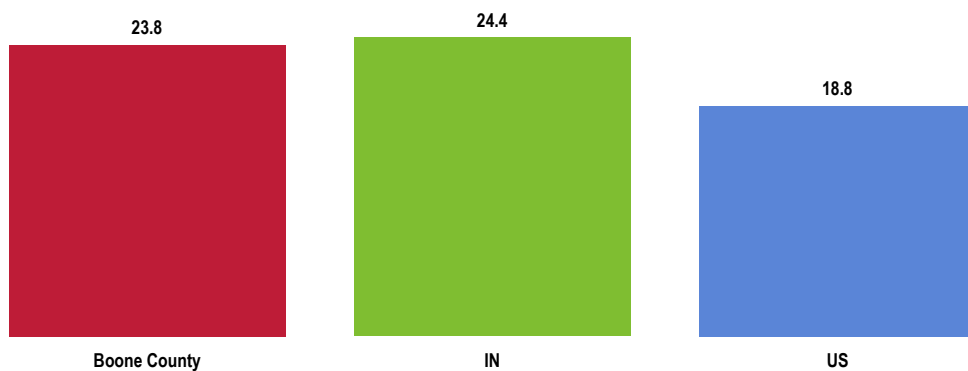
Age-Adjusted Unintentional Drug-Related Deaths

Between 2017 and 2019, there was an annual average age-adjusted unintentional drug-related mortality rate of 23.8 deaths per 100,000 population in Boone County.

BENCHMARK ► Worse than the national mortality rate.

TREND ► Increasing considerably from baseline 2011-2013 reports, echoing the state and national trends.

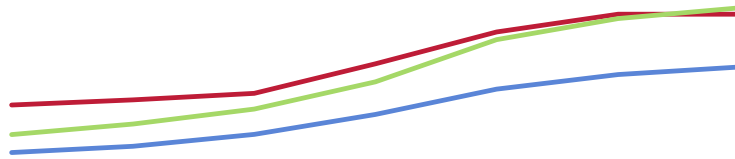
Unintentional Drug-Related Deaths: Age-Adjusted Mortality (2017-2019 Annual Average Deaths per 100,000 Population)



Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.



Unintentional Drug-Related Deaths: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population)



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Boone County	15.2	15.7	16.3	19.1	22.1	23.8	23.8
IN	12.4	13.4	14.8	17.4	21.4	23.4	24.4
US	10.7	11.3	12.4	14.3	16.7	18.1	18.8

Sources: • CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted September 2021.

Illicit Drug Use

A total of 3.2% of Boone County adults acknowledge using an illicit drug in the past month.

BENCHMARK ▶ Satisfies the Healthy People 2030 objective.

TREND ▶ Marks a statistically significant increase from 2012 survey results.

DISPARITY ▶ Strong correlation with age among survey respondents, and especially prevalent among respondents in the higher income category.

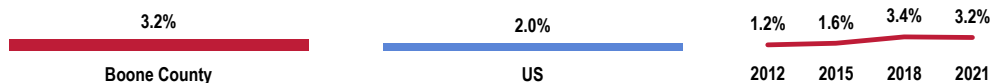
For the purposes of this survey, "illicit drug use" includes use of illegal substances or of prescription drugs taken without a physician's order.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that actual illicit drug use in the community is likely higher.

Illicit Drug Use in the Past Month

Healthy People 2030 = 12.0% or Lower

Boone County

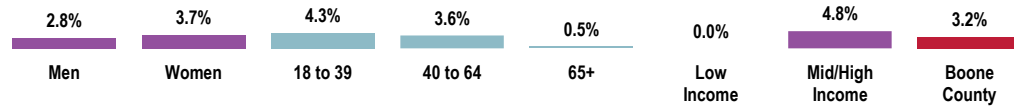


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 49]
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Asked of all respondents.



Illicit Drug Use in the Past Month (Boone County, 2021)

Healthy People 2030 = 12.0% or Lower



Sources:

- 2021 PRC Community Health Survey, PRC, Inc. [Item 49]
- US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes:

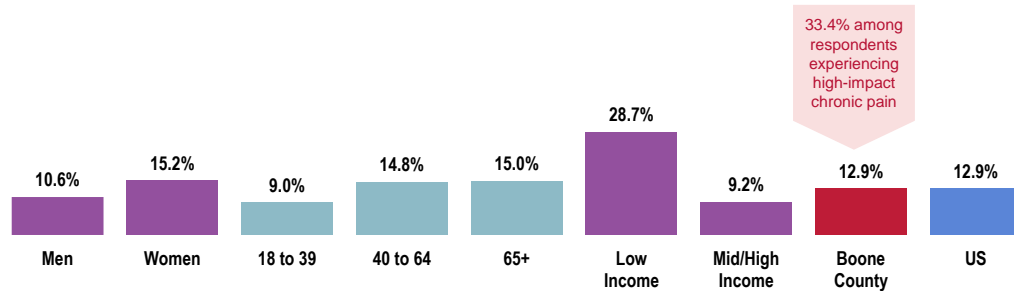
- Asked of all respondents.

Use of Prescription Opioids

A total of 12.9% of Boone County report using a prescription opioid drug in the past year.

DISPARITY ► Especially high in the county's low-income population. Especially high in those respondents reporting high-impact chronic pain.

Used a Prescription Opioid in the Past Year (Boone County, 2021)



Sources:

- 2021 PRC Community Health Survey, PRC, Inc. [Item 50]
- 2020 PRC National Health Survey, PRC, Inc.

Notes:

- Asked of all respondents.



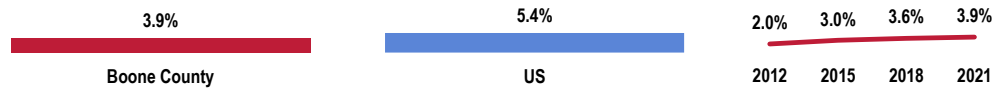
Alcohol & Drug Treatment

A total of 3.9% of Boone County adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

TREND ► Increasing since 2012.

Have Ever Sought Professional Help for an Alcohol/Drug-Related Problem

Boone County



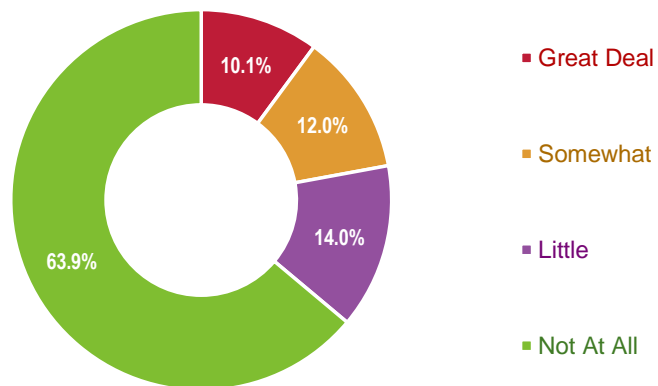
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 51]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Personal Impact From Substance Abuse

Most Boone County residents' lives have not been negatively affected by substance abuse (either their own or someone else's).

Area adults were also asked to what degree their lives have been impacted by substance abuse (whether their own abuse or that of another).

Degree to Which Life Has Been Negatively Affected by Substance Abuse (Self or Other's) (Boone County, 2021)



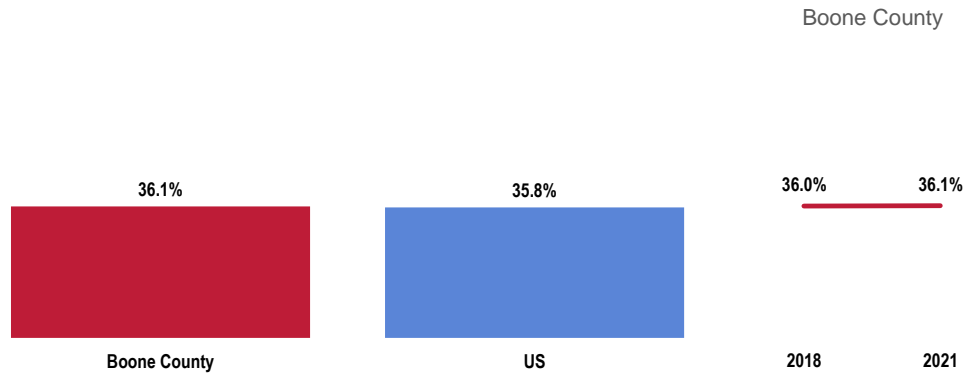
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 52]
 Notes: • Asked of all respondents.



However, 36.1% have felt a personal impact to some degree (“a little,” “somewhat,” or “a great deal”).

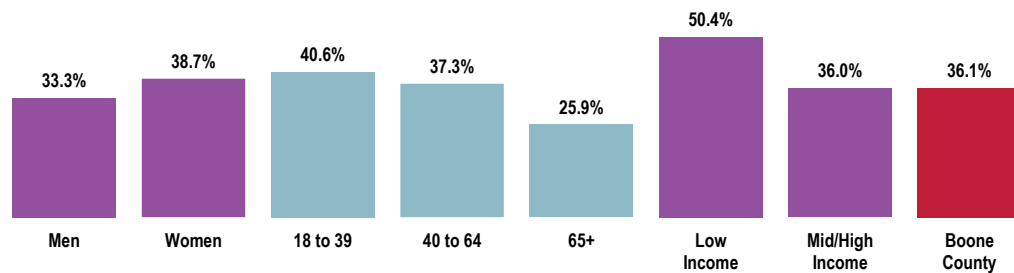
DISPARITY ► Decreases with age and reported among half of low-income respondents.

Life Has Been Negatively Affected by Substance Abuse (by Self or Someone Else)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 52]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.
 • Includes response of “a great deal,” “somewhat,” and “a little.”

Life Has Been Negatively Affected by Substance Abuse (by Self or Someone Else) (Boone County, 2021)



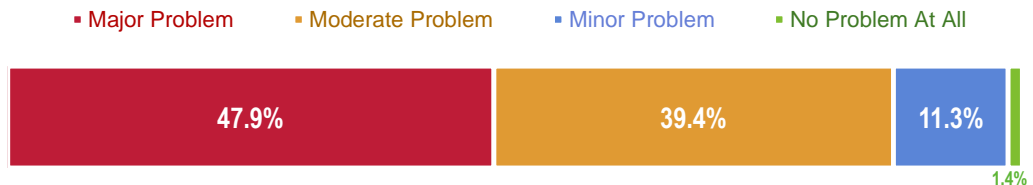
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 52]
 Notes: • Asked of all respondents.
 • Includes response of “a great deal,” “somewhat,” and “a little.”



Key Informant Input: Substance Abuse

The greatest share of key informants taking part in an online survey characterized *Substance Abuse* as a “major problem” in the community.

Perceptions of Substance Abuse as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

Quality programs, referrals, affordability, and follow-up support. For youth, parents not recognizing the signs of abuse or using themselves. – Community Leader

No inpatient facility and there's no strong coalition with churches and youth organizations. – Other Health Provider

Lack of inpatient treatment options, stigma, often a co-occurring disorder which may be difficult to treat. Lack of transitional support services, such as housing and transportation. Generational use. – Public Health Representative

Inpatient detox facilities – w/ lack of specialized facilities many are being treated in acute medical beds with staff who are not trained specifically and then the lack of the continuum to link them quickly to a program for ongoing treatment once they are detoxed. If there is a lag between the time they are detoxed and the time they can get into some program etc., the risk of relapse is great. – Social Services Provider

Lack of inpatient substance abuse treatment in Boone County. Limited outpatient treatment options. Affordability of substance abuse treatment. Transportation may be an issue for some. – Community Leader

Treatment is expensive. Easy access to drugs and pills. Lack of family support. – Community Leader

Access to affordable treatment and care. Lack of willingness to address issues. Lack of support system. – Social Services Provider

Lack of information. No inpatient treatment nearby. Cost. – Community Leader

I do not know. Substance abuse is such a multi-faceted disease. It is all over the community. I do think educating children is our best resource to moving the curve. I do see that socioeconomic status does seem to increase the potential for abuse. – Social Services Provider

Location, refusal of accepting there is a substance abuse problem. – Other Health Provider

Social stigmas pose a great barrier to those on the fence of seeking substance abuse treatment. Although we do have a wide range of AA and NA classes, they aren't well advertised. Also, we have limited to non-existent community based acute care for those seeking inpatient treatment. For those persons with limited resources, these are barriers to seeing care. In our county, your best chance at overcoming this in the acute setting is incarceration. – Other Health Provider

A halfway house, we have good treatment providers, but if a client can't live in a sober environment, it's unlikely they'll succeed. Lack of peer support. – Social Services Provider

Transparency. Access to care as needed in a timely manner. Acceptance and support. – Other Health Provider

Access to Care/Services

No programs readily available. Patient resistance. – Physician

Access to residential treatment and cost. – Other Health Provider

Inpatient treatment options are scarce. – Physician



- Providers are few and long waits to be seen. Insurance doesn't allow inpatient treatments for a long period of time. There are no inpatient treatment centers in Boone County. – Social Services Provider
- Availability of inpatient treatment and recovery housing. People who may feel inclined to seek treatment may be discouraged because they would have to go outside of their home community for treatment and housing. – Social Services Provider
- Lack of inpatient programs and residential transition programs in the area. – Social Services Provider

Denial/Stigma

- The desire to change. – Community Leader
- The biggest barrier is likely the individual with the substance problem being willing to seek treatment or know how and where to get help. – Other Health Provider
- Getting people to ask for help. – Community Leader

Affordable Care/Services

- Cost. – Public Health Representative
- We do not have access to affordable treatment and detox. – Community Leader

Diagnosis/Treatment

- Long-term care. The habitual nature of substance abuse is a huge problem. – Other Health Provider
- No one has answers on how to properly treat this. – Other Health Provider

Awareness/Education

- Knowledge of where to refer people in need. – Community Leader

Lack of Providers

- Not enough providers. – Other Health Provider

Incidence/Prevalence

- Substance abuse is out of control. – Community Leader

Policy

- I simply don't think it is enforced when someone is arrested for drug-related activities. – Other Health Provider

Most Problematic Substances

Key informants (who rated this as a “major problem”) clearly identified **heroin/other opioids** as causing the most problems in the community, followed by **alcohol** and **methamphetamine/other amphetamines**.

SUBSTANCES VIEWED AS MOST PROBLEMATIC IN THE COMMUNITY (Among Key Informants Rating Substance Abuse as a “Major Problem”)	
Heroin or Other Opioids	40.6%
Alcohol	28.1%
Methamphetamines or Other Amphetamines	15.6%
Prescription Medications	6.3%
Marijuana	6.3%
Club Drugs (e.g. MDMA, GHB, Ecstasy, Molly)	3.1%



TOBACCO USE

ABOUT TOBACCO USE

More than 16 million adults in the United States have a disease caused by smoking cigarettes, and smoking-related illnesses lead to half a million deaths each year.

Most deaths and diseases from tobacco use in the United States are caused by cigarettes. Smoking harms nearly every organ in the body and increases the risk of heart disease, stroke, lung diseases, and many types of cancer. Although smoking is widespread, it's more common in certain groups, including men, American Indians/Alaska Natives, people with behavioral health conditions, LGBT people, and people with lower incomes and education levels.

Several evidence-based strategies can help prevent and reduce tobacco use and exposure to secondhand smoke. These include smoke-free policies, price increases, and health education campaigns that target large audiences. Methods like counseling and medication can also help people stop using tobacco.

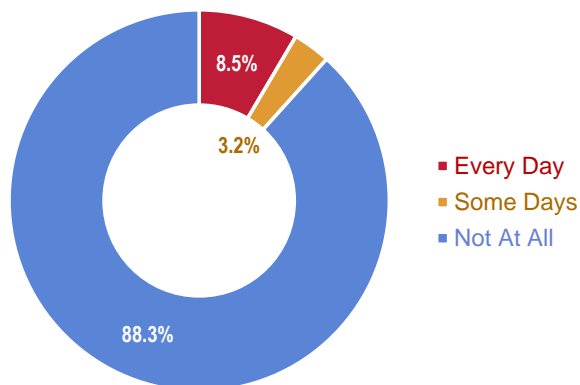
– Healthy People 2030 (<https://health.gov/healthypeople>)

Cigarette Smoking

Cigarette Smoking Prevalence

A total of 11.7% of Boone County adults currently smoke cigarettes, either regularly (every day) or occasionally (on some days).

Cigarette Smoking Prevalence
(Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 40]
Notes: • Asked of all respondents.



Note the following findings related to cigarette smoking prevalence in Boone County.

BENCHMARK ▶ Lower than the Indiana and US percentages but more than twice the Healthy People 2030 objective.

TREND ▶ Decreasing significantly from 2012 survey findings.

DISPARITY ▶ Especially high among low-income respondents.

Current Smokers

Healthy People 2030 = 5.0% or Lower

Boone County

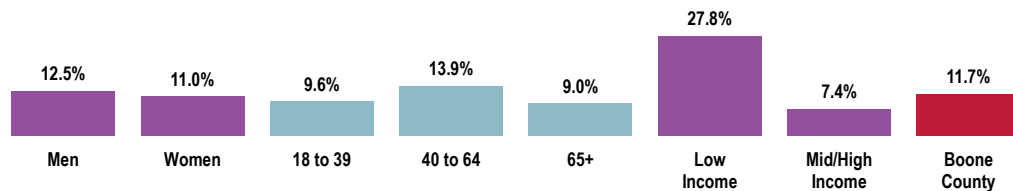


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 40]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents.
 • Includes regular and occasional smokers (those who smoke cigarettes every day or on some days).

Current Smokers (Boone County, 2021)

Healthy People 2030 = 5.0% or Lower



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 40]
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents.
 • Includes regular and occasion smokers (every day and some days).



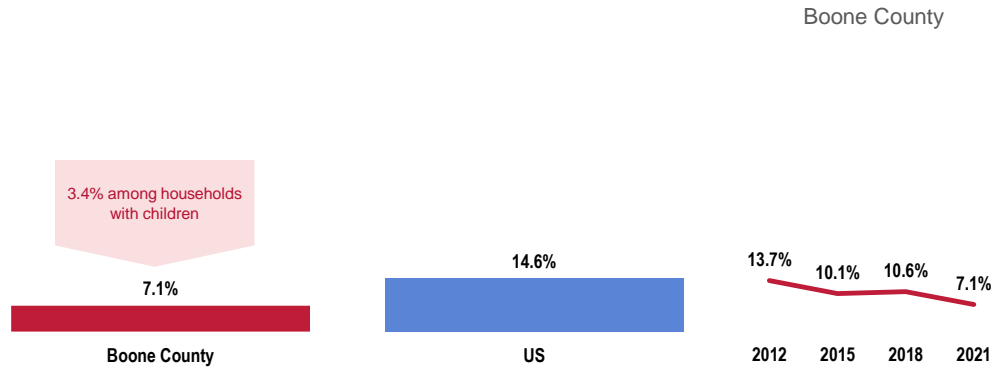
Environmental Tobacco Smoke

Among all surveyed households in Boone County, 7.1% report that someone has smoked cigarettes in their home on an average of four or more times per week over the past month.

BENCHMARK ▶ Well below the national prevalence.

TREND ▶ Marks a statistically significant decrease in the county since 2012.

Member of Household Smokes at Home



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 43, 134]
• 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.
• "Smokes at home" refers to someone smoking cigarettes, cigars, or a pipe in the home an average of four or more times per week in the past month.

Smoking Cessation

Over half of regular smokers (58.9%) went without smoking for one day or longer in the past year because they were trying to quit smoking.

BENCHMARK ▶ Better than the US figure.

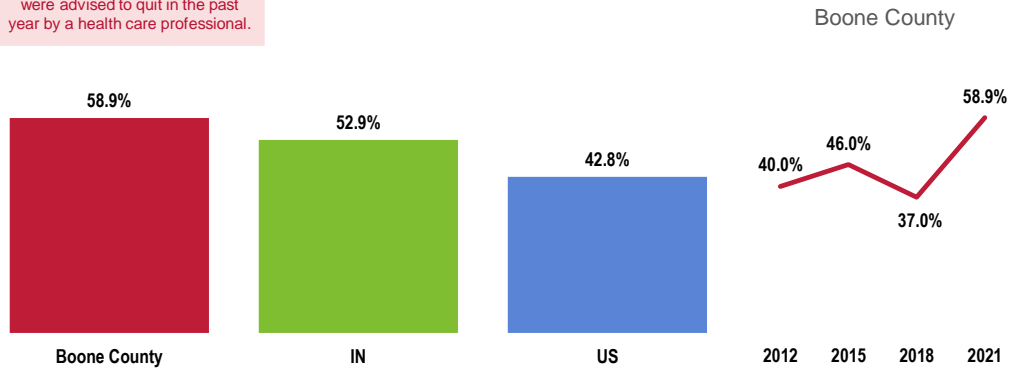
TREND ▶ Marks a statistically significant increase from earlier survey findings.



Have Stopped Smoking for One Day or Longer in the Past Year (Everyday Smokers)

Healthy People 2030 = 65.7% or Higher

Most current smokers (80.6%) were advised to quit in the past year by a health care professional.



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 41-42]
 • 2020 PRC National Health Survey, PRC, Inc.
 • Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia, United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of respondents who smoke cigarettes every day.

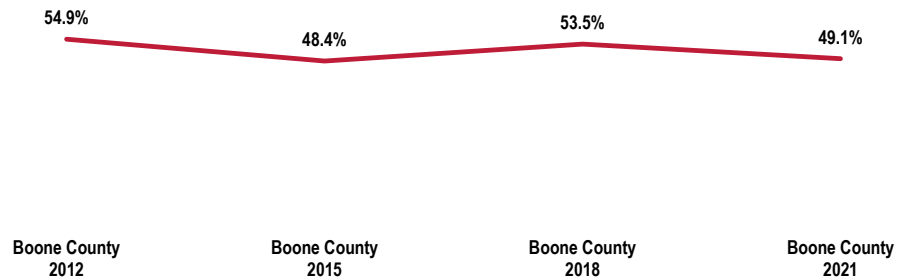
Awareness of the Indiana Quit Line

Just less than half of survey respondents (49.1%) are aware of the Indiana Tobacco Quit Line (1-800-QUIT-NOW).

TREND ► Awareness has decreased significantly since 2012.

DISPARITY ► Reported less often among men and adults in the higher income category.

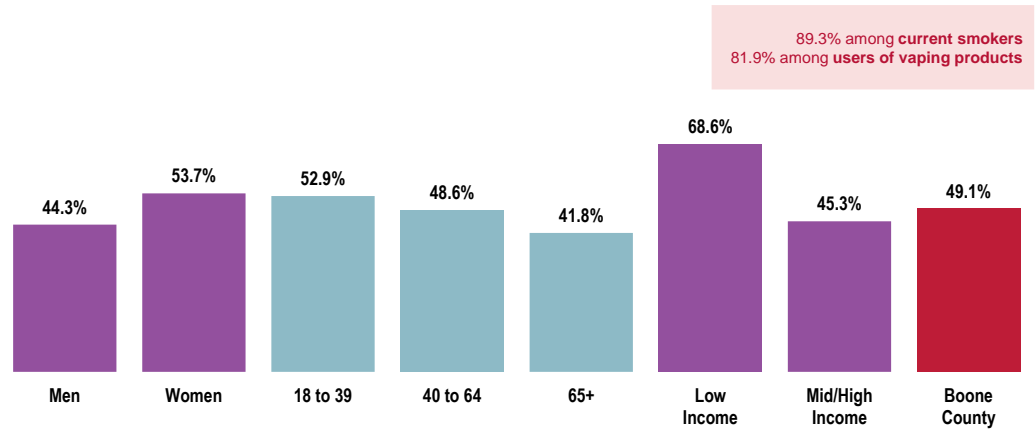
Aware of the Indiana Tobacco Quit Line: 1-800-QUIT-NOW



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 306]
 Notes: • Asked of all respondents.



Aware of the Indiana Tobacco Quit Line: 1-800-QUIT-NOW (Boone County, 2021)



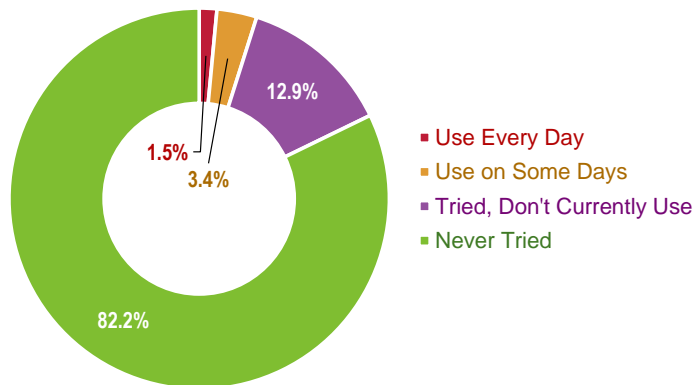
Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 306]
Notes: • Asked of all respondents.

Other Tobacco Use

Use of Vaping Products

Most Boone County adults have never tried electronic cigarettes (e-cigarettes) or other electronic vaping products.

Use of Vaping Products (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 135]
Notes: • Asked of all respondents.



However, 4.9% currently use vaping products either regularly (every day) or occasionally (on some days).

BENCHMARK ▶ Lower than the national percentage.

DISPARITY ▶ Reported most often among young adults and those in low-income households.

Currently Use Vaping Products (Every Day or on Some Days)

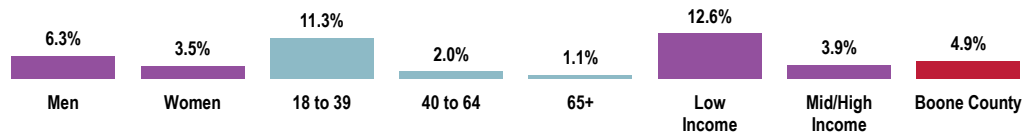
Boone County



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 135]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.
 • Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).

Currently Use Vaping Products (Boone County, 2021)

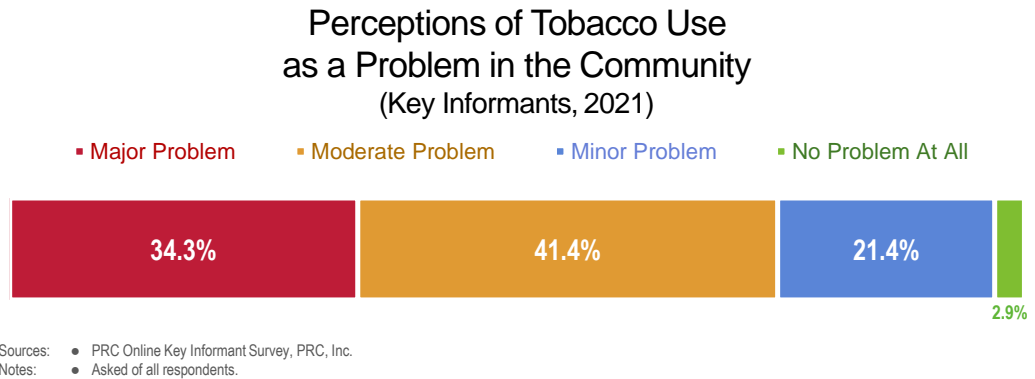


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 135]
 Notes: • Asked of all respondents.
 • Includes regular and occasional users (those who smoke e-cigarettes every day or on some days).



Key Informant Input: Tobacco Use

The greatest share of key informants taking part in an online survey characterized *Tobacco Use* as a “moderate problem” in the community.



Among those rating this issue as a “major problem,” reasons related to the following:

Incidence/Prevalence

- There are numerous tobacco abusers that refuse to quit. Most have been exposed to smoking within the family their entire lives and it is a normal activity. – Other Health Provider
- I see that a lot of people around our community smoke. – Community Leader
- I believe tobacco use in Boone County is higher than the national average. – Community Leader
- Very prevalent. – Other Health Provider
- Indiana smoking rate is very high. – Community Leader
- About half of my patients smoke. – Physician
- Smoking rates in Indiana and Boone County are higher than the national average. Youth smoking and vaping. – Public Health Representative
- High rate of smokers for stress. – Public Health Representative
- We have a lot of chronic lung disease and heart disease in this community. – Public Health Representative
- High percentage of adults smoke. Vaping has increased significantly in youth. Associated illnesses from smoking create a burden on the health system. – Social Services Provider
- We see a lot of tobacco abuse. – Social Services Provider

E-Cigarettes and Youth

- Large population of teens vaping. – Physician
- Our youth is starting at an early age with e-cigarettes. They are too accessible to our children, especially those places that sell it near schools. – Other Health Provider
- Still a high number of people who smoke. Vaping/e-cigarettes are readily available, young people are vaping. – Community Leader
- Tobacco use continues to be a commonly utilized substance across the county, and in the youth. The introduction of vape products has made access in our very young, elementary school populations. – Other Health Provider
- Vaping, tobacco and substance abuse target teenagers and young adults. The vaping manufacturers focus advertising on this demographic. The northern and western parts of the county are more impacted by tobacco, due to the education gap. – Social Services Provider
- Teens and vaping are the biggest issue. If we don't do something to prevent the next generation of smokers, we will continue to see healthcare spiral out of control. – Other Health Provider

Contributing Factors

- I participate in litter cleanups throughout the community. With all of the education that is available, you would believe that few people would be interested in smoking. But clearly by the amount of cigarette butt litter that are on our streets, it continues to be a large issue. – Other Health Provider



Accessibility, gateway choice, vaping. Minimal stigma. Respiratory illness, asthma and sleep apnea have all increased. – Other Health Provider

Easy access and very addicting products. – Other Health Provider

Vaping is a huge issue with our youth. A large portion of our older clients smoke or smoked during their lifetime.
– Social Services Provider

Stress Reliever

I think it is a stress reliever for those who do it. – Other Health Provider



SEXUAL HEALTH

ABOUT HIV & SEXUALLY TRANSMITTED INFECTIONS

Although many sexually transmitted infections (STIs) are preventable, there are more than 20 million estimated new cases in the United States each year — and rates are increasing. In addition, more than 1.2 million people in the United States are living with HIV (human immunodeficiency virus).

Adolescents, young adults, and men who have sex with men are at higher risk of getting STIs. And people who have an STI may be at higher risk of getting HIV. Promoting behaviors like condom use can help prevent STIs.

Strategies to increase screening and testing for STIs can assess people's risk of getting an STI and help people with STIs get treatment, improving their health and making it less likely that STIs will spread to others. Getting treated for an STI other than HIV can help prevent complications from the STI but doesn't prevent HIV from spreading.

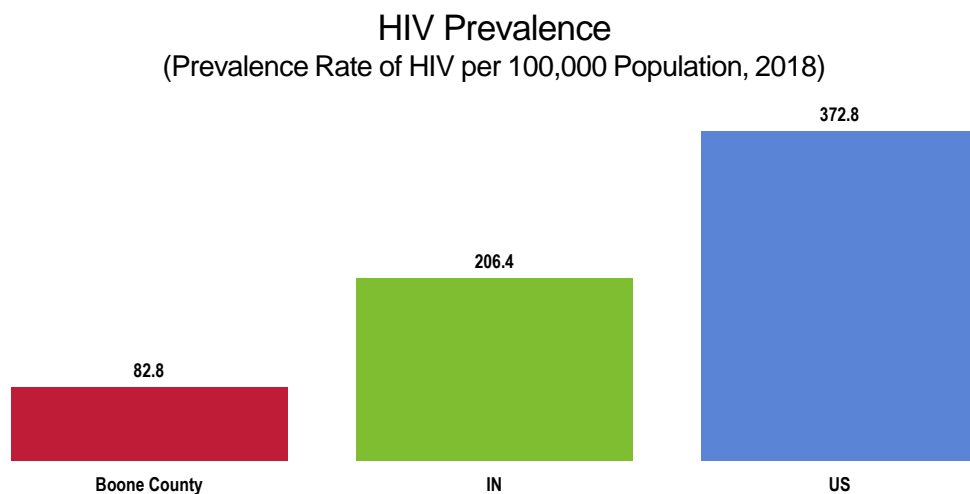
– Healthy People 2030 (<https://health.gov/healthypeople>)

HIV

HIV Prevalence

In 2018, there was a prevalence of 82.8 HIV cases per 100,000 population in Boone County.

BENCHMARK ▶ Well below the Indiana and US prevalence rates.



- Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
 - Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
- Notes:
- This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.



Sexually Transmitted Infections (STIs)

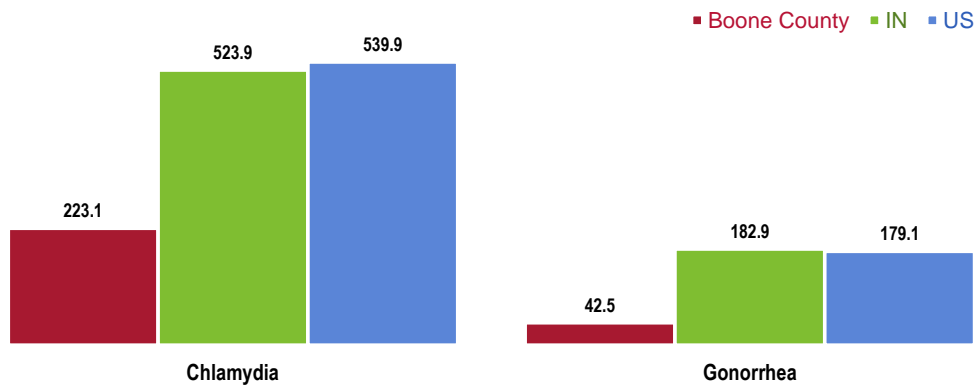
Chlamydia & Gonorrhea

In 2018, the chlamydia incidence rate in the county was 223.1 cases per 100,000 population.

The Boone County gonorrhea incidence rate in 2018 was 42.5 cases per 100,000 population.

BENCHMARK ▶ Both incidence rates are well below the correlating state and national rates.

Chlamydia & Gonorrhea Incidence
(Incidence Rate per 100,000 Population, 2018)

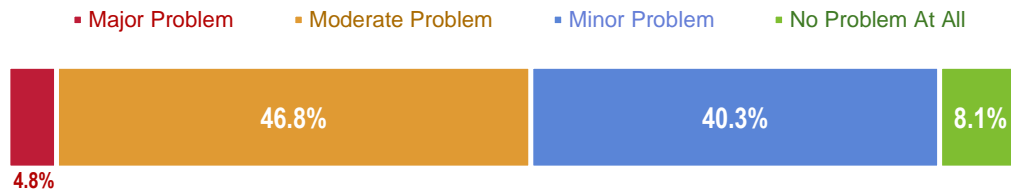


Sources: • Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
• Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).
Notes: • This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

Key Informant Input: Sexual Health

A plurality of key informants taking part in an online survey characterized *Sexual Health* as a “moderate problem” in the community.

Perceptions of Sexual Health
as a Problem in the Community
(Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
Notes: • Asked of all respondents.

Among those rating this issue as a “major problem,” reasons related to the following:

Contributing Factors

- Teenage pregnancy, STDs. – Community Leader
- Large amount of positive STDs, lack of proper education. – Other Health Provider

Incidence/Prevalence

- High rate of HIV. Many unplanned pregnancies. – Community Leader





ACCESS TO HEALTH CARE

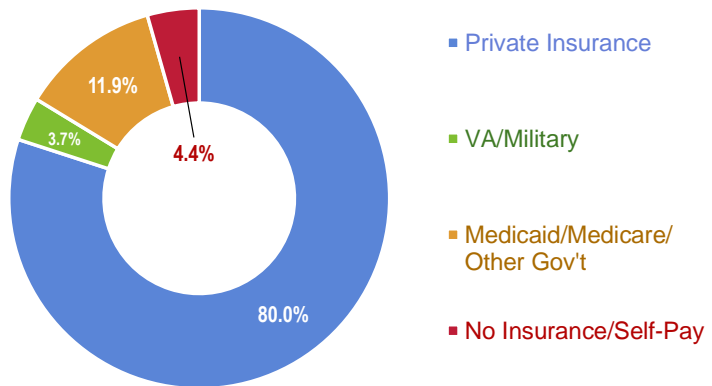
HEALTH INSURANCE COVERAGE

Type of Health Care Coverage

Survey respondents were asked a series of questions to determine their health care insurance coverage, if any, from either private or government-sponsored sources.

A total of 80.0% of Boone County adults age 18 to 64 report having health care coverage through private insurance. Another 15.6% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

Health Care Insurance Coverage
(Adults Age 18-64; Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 137]
Notes: • Reflects respondents age 18 to 64.

Lack of Health Insurance Coverage

Here, lack of health insurance coverage reflects respondents age 18 to 64 (thus, excluding the Medicare population) who have no type of insurance coverage for health care services – neither private insurance nor government-sponsored plans (e.g., Medicaid).

Among adults age 18 to 64, 4.4% report having no insurance coverage for health care expenses.

BENCHMARK ▶ More favorable than the Indiana and US percentages. Satisfies the Healthy People 2030 objective.

TREND ▶ Improving significantly from 2012 survey findings.

DISPARITY ▶ Uninsured prevalence remains particularly high in low-income households.



Lack of Health Care Insurance Coverage (Adults Age 18-64)

Healthy People 2030 = 7.9% or Lower

Boone County

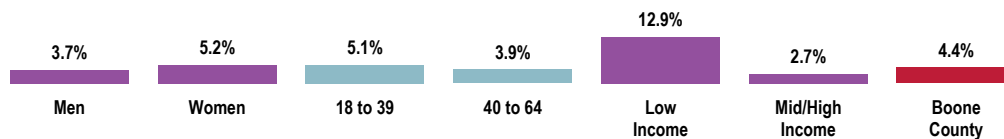


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 137]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents under the age of 65.

Lack of Health Care Insurance Coverage (Adults Age 18-64; Boone County, 2021)

Healthy People 2030 = 7.9% or Lower



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 137]
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents under the age of 65.



DIFFICULTIES ACCESSING HEALTH CARE

ABOUT HEALTH CARE ACCESS

Many people in the United States don't get the health care services they need. ...About 1 in 10 people in the United States don't have health insurance. People without insurance are less likely to have a primary care provider, and they may not be able to afford the health care services and medications they need. Strategies to increase insurance coverage rates are critical for making sure more people get important health care services, like preventive care and treatment for chronic illnesses.

Sometimes people don't get recommended health care services, like cancer screenings, because they don't have a primary care provider. Other times, it's because they live too far away from health care providers who offer them. Interventions to increase access to health care professionals and improve communication — in person or remotely — can help more people get the care they need.

– Healthy People 2030 (<https://health.gov/healthypeople>)

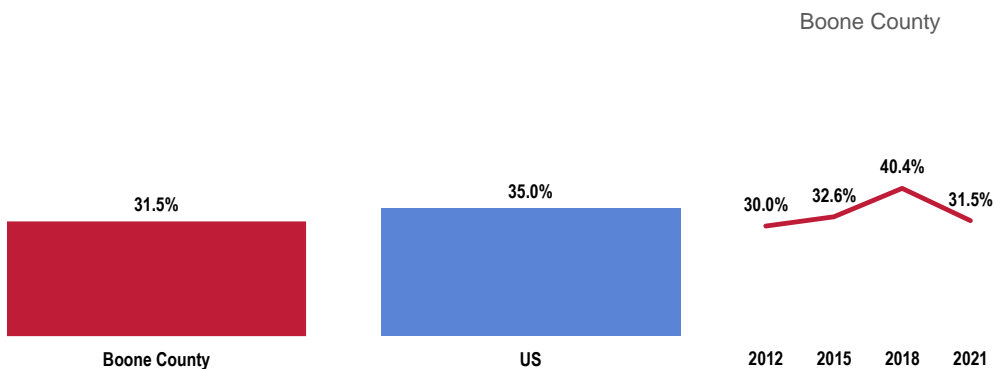
Difficulties Accessing Services

A total of 31.5% of Boone County adults report some type of difficulty or delay in obtaining health care services in the past year.

TREND ▶ Similar to baseline 2012 survey results (decreasing significant since 2018).

DISPARITY ▶ Reported more often among female respondents.

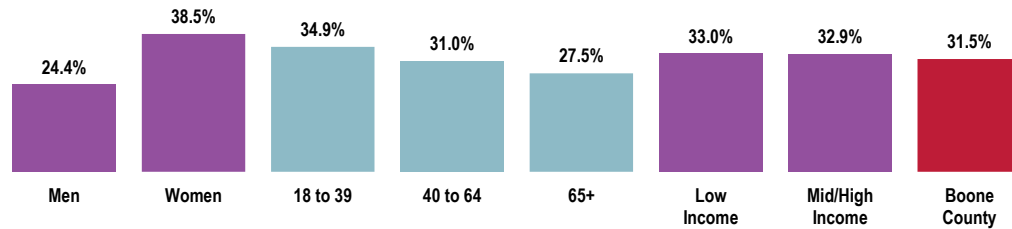
Experienced Difficulties or Delays of Some Kind in Receiving Needed Health Care in the Past Year



Sources: ● 2021 PRC Community Health Survey, PRC, Inc. [Item 140]
● 2020 PRC National Health Survey, PRC, Inc.
Notes: ● Asked of all respondents.
● Percentage represents the proportion of respondents experiencing one or more barriers to accessing health care in the past 12 months.



Experienced Difficulties or Delays of Some Kind in Receiving Needed Health Care in the Past Year (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 140]
 Notes: • Asked of all respondents.
 • Percentage represents the proportion of respondents experiencing one or more barriers to accessing health care in the past 12 months.

Barriers to Health Care Access

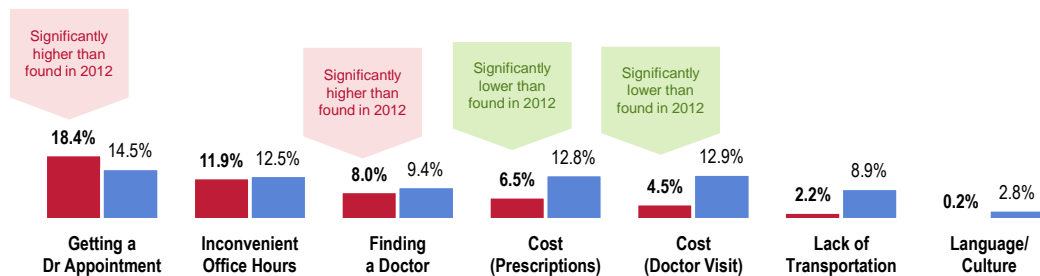
Of the tested barriers, appointment availability impacted the greatest share of Boone County adults.

BENCHMARK ▶ Local residents are more likely to experience difficulty obtaining an **appointment** than are adults nationwide. In contrast, county respondents fare **better** than the US as a whole in terms of the following barriers: cost (physician visits and prescriptions), transportation, and language/culture.

TREND ▶ Since 2012, the impact of barriers related to **appointment availability** and ability to **find a doctor** have **worsened**, whereas cost-related barriers have improved.

Barriers to Access Have Prevented Medical Care in the Past Year

■ Boone County ■ US



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Items 7-14]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

To better understand health care access barriers, survey participants were asked whether any of seven types of barriers to access prevented them from seeing a physician or obtaining a needed prescription in the past year.

Again, these percentages reflect the total population, regardless of whether medical care was needed or sought.



Accessing Health Care for Children

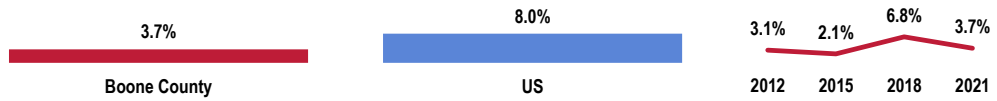
Surveyed parents were also asked if, within the past year, they experienced any trouble receiving medical care for a randomly selected child in their household.

A total of 3.7% of parents say there was a time in the past year when they needed medical care for their child but were unable to get it.

BENCHMARK ▶ Less than half the national prevalence.

Had Trouble Obtaining Medical Care for Child in the Past Year (Parents of Children 0-17)

Boone County

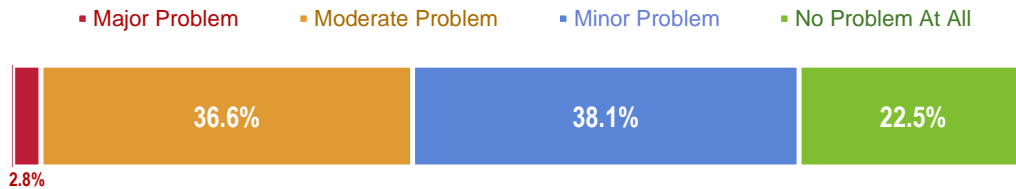


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 104]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents with children 0 to 17 in the household.

Key Informant Input: Access to Health Care Services

Key informants taking part in an online survey most often characterized *Access to Health Care Services* as a “minor problem” in the community, followed closely by “moderate problem” ratings.

Perceptions of Access to Health Care Services as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Insurance Issues

Patients have significant barriers to receiving the benefits provided to them by insurance companies or government payers. Our patients are often unable to untangle the web of the health care industry to maximize their access to appropriate medications, testing, ancillary services (therapy, etc.). As providers we essentially have no way of knowing what services or therapies these payers offer and no place to refer them too. Over years, these issues mount and lead to chronic, complex, high resource problems. – Physician

Vulnerable Populations

Lack of services for persons with disabilities, especially those on Medicaid. There are limited providers who offer these services. – Social Services Provider

Job-Related

Job-related health insurance is hard for many people. We need to give everyone access to quality health care. Finances are a big issue for many people. – Community Leader



PRIMARY CARE SERVICES

ABOUT PREVENTIVE CARE

Getting preventive care reduces the risk for diseases, disabilities, and death — yet millions of people in the United States don't get recommended preventive health care services.

Children need regular well-child and dental visits to track their development and find health problems early, when they're usually easier to treat. Services like screenings, dental check-ups, and vaccinations are key to keeping people of all ages healthy. But for a variety of reasons, many people don't get the preventive care they need. Barriers include cost, not having a primary care provider, living too far from providers, and lack of awareness about recommended preventive services.

Teaching people about the importance of preventive care is key to making sure more people get recommended services. Law and policy changes can also help more people access these critical services.

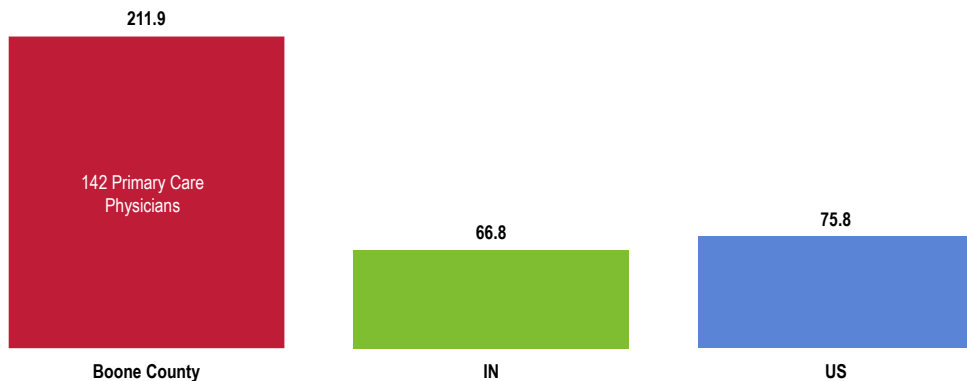
– Healthy People 2030 (<https://health.gov/healthypeople>)

Access to Primary Care

In 2017, there were 142 primary care physicians in Boone County, translating to a rate of 211.9 primary care physicians per 100,000 population.

BENCHMARK ▶ Well above the state and national ratios.

Access to Primary Care
(Number of Primary Care Physicians per 100,000 Population, 2017)



Sources:

- US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File.
- Center for Applied Research and Engagement Systems (CARES), University of Missouri Extension. Retrieved September 2021 via SparkMap (sparkmap.org).

Notes:

- Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs, and General Pediatrics MDs. Physicians age 75 and over and physicians practicing sub-specialties within the listed specialties are excluded. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.



Specific Source of Ongoing Care

A total of 78.0% of Boone County adults were determined to have a specific source of ongoing medical care.

BENCHMARK ▶ Fails to satisfy the Healthy People 2030 objective.

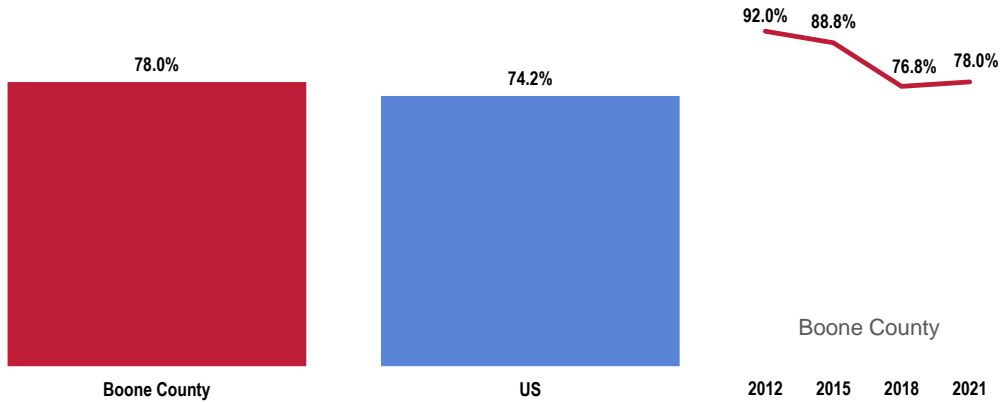
TREND ▶ Decreasing significantly from early (2012 and 2015) survey administrations.

Having a specific source of ongoing care includes having a doctor's office, clinic, urgent care center, walk-in clinic, health center facility, hospital outpatient clinic, HMO or prepaid group, military/VA clinic, or some other kind of place to go if one is sick or needs advice about his or her health. This resource is crucial to the concept of "patient-centered medical homes" (PCMH).

A hospital emergency room is not considered a specific source of ongoing care in this instance.

Have a Specific Source of Ongoing Medical Care

Healthy People 2030 = 84.0% or Higher



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 139]
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Asked of all respondents.

Utilization of Primary Care Services

Adults

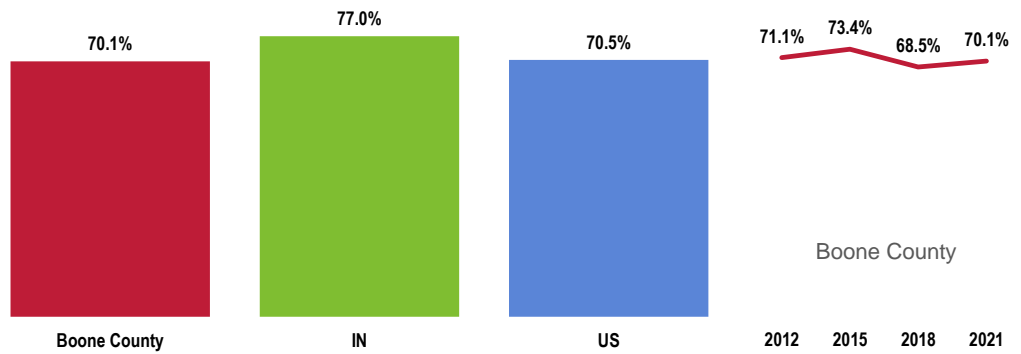
A majority of adults (70.1%) visited a physician for a routine checkup in the past year.

BENCHMARK ▶ Lower than the Indiana percentage.

DISPARITY ▶ Reported less often among men, young adults, and respondents in the higher income category.



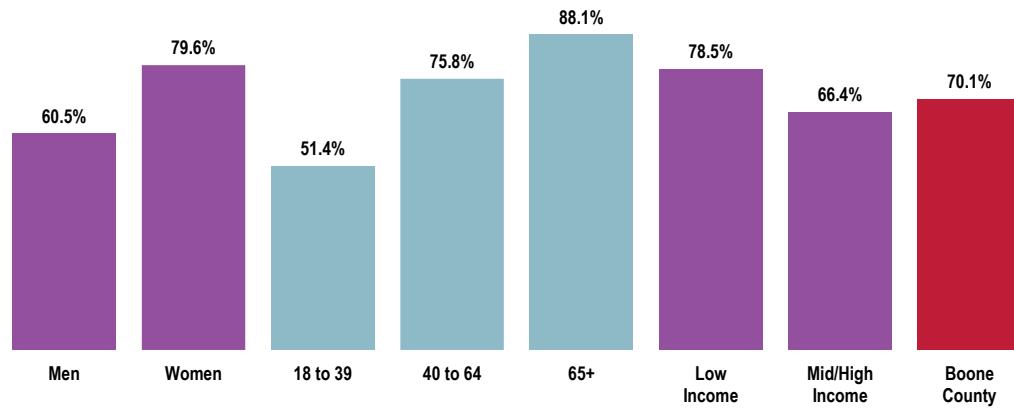
Have Visited a Physician for a Checkup in the Past Year



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 18]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.

Notes: • Asked of all respondents.

Have Visited a Physician for a Checkup in the Past Year (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 18]
 Notes: • Asked of all respondents.



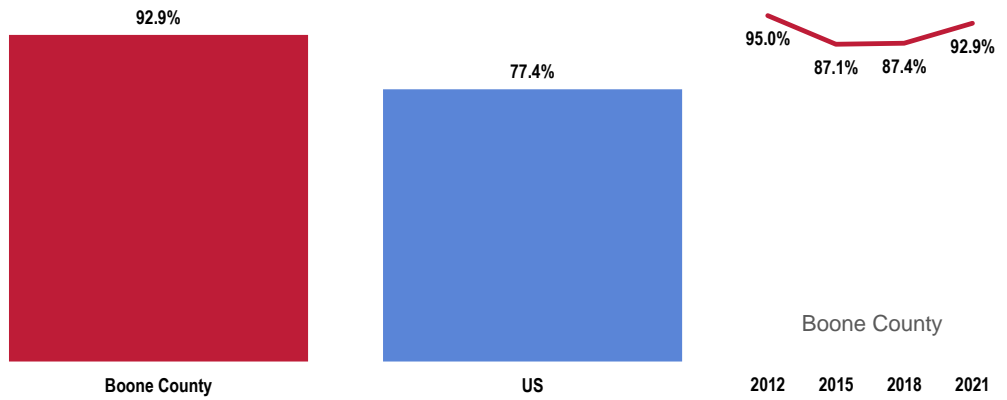
Children

Among surveyed parents, 92.9% report that their child has had a routine checkup in the past year.

BENCHMARK ▶ Well above the national prevalence.

TREND ▶ Fluctuating over time but similar to baseline 2012 survey findings.

Child Has Visited a Physician for a Routine Checkup in the Past Year (Parents of Children 0-17)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 105]
• 2020 PRC National Health Survey, PRC, Inc.
Notes: • Asked of all respondents with children 0 to 17 in the household.



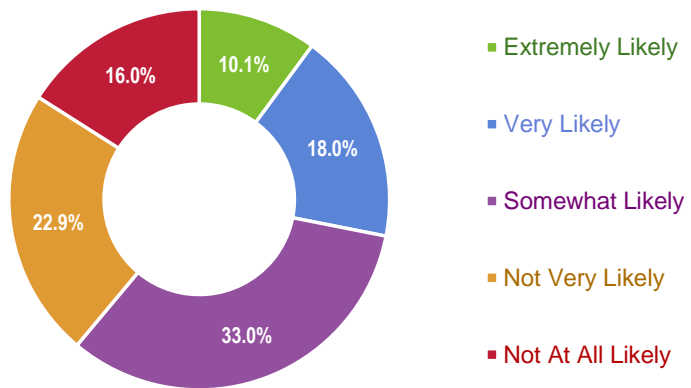
Telemedicine

When asked about using telemedicine for future routine medical care, 38.9% of respondents remain unlikely to be open to the idea.

However, most expressed some degree of likelihood, including 28.1% of respondents who are “extremely” or “very” likely to use telemedicine for future routine medical care.

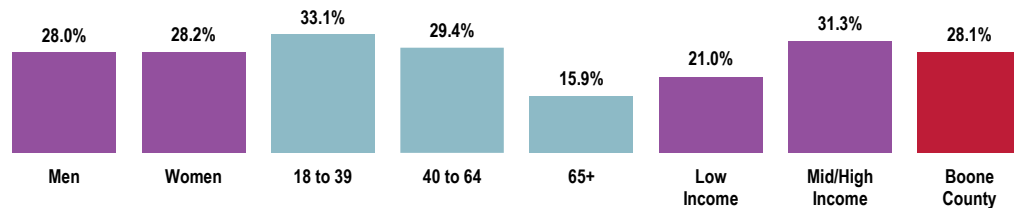
DISPARITY ▶ Seniors and low-income respondents appear less likely to use telemedicine for their future medical care.

Likelihood of Using Telemedicine for Routine Medical Care in the Future (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 301]
 Notes: • Asked of all respondents.

Likely to Use Telemedicine for Routine Care in the Future (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 301]
 Notes: • Asked of all respondents.
 • Includes “extremely likely” and “very likely” responses.



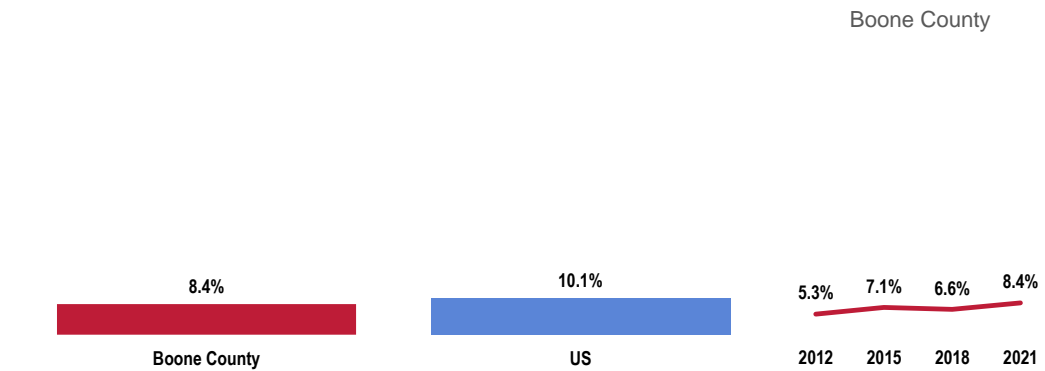
EMERGENCY ROOM UTILIZATION

A total of 8.4% of Boone County adults have gone to a hospital emergency room more than once in the past year about their own health.

TREND ▶ Marks a statistically significant increase since 2012.

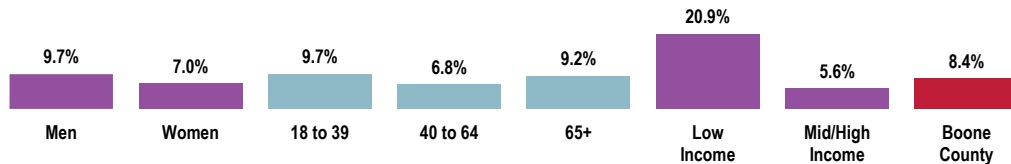
DISPARITY ▶ Especially high in the low-income population.

Have Used a Hospital Emergency Room More Than Once in the Past Year



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 22]
 • 2020 PRC National Health Survey, PRC, Inc.
 Notes: • Asked of all respondents.

Have Used a Hospital Emergency Room More Than Once in the Past Year (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 22]
 Notes: • Asked of all respondents.



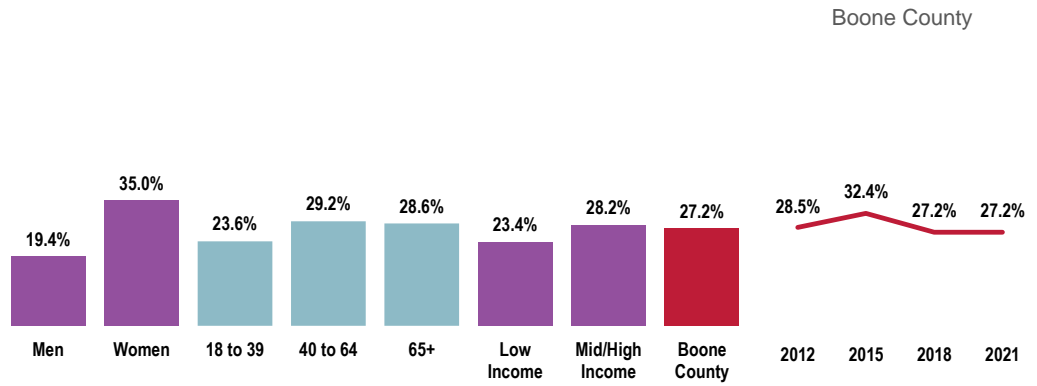
PALLIATIVE CARE

Palliative care is an area of health care that focuses on relieving and preventing the suffering of patients with a terminal or chronic disease.

A total of 27.2% of survey respondents are aware of local programs that offer palliative care.

DISPARITY ▶ Awareness is much lower among men than women in Boone County.

Aware of Local Programs Providing Palliative Care (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 322]
 Notes: • Asked of all respondents.



ORAL HEALTH

ABOUT ORAL HEALTH

Tooth decay is the most common chronic disease in children and adults in the United States. ...Regular preventive dental care can catch problems early, when they're usually easier to treat. But many people don't get the care they need, often because they can't afford it. Untreated oral health problems can cause pain and disability and are linked to other diseases.

Strategies to help people access dental services can help prevent problems like tooth decay, gum disease, and tooth loss. Individual-level interventions like topical fluorides and community-level interventions like community water fluoridation can also help improve oral health. In addition, teaching people how to take care of their teeth and gums can help prevent oral health problems.

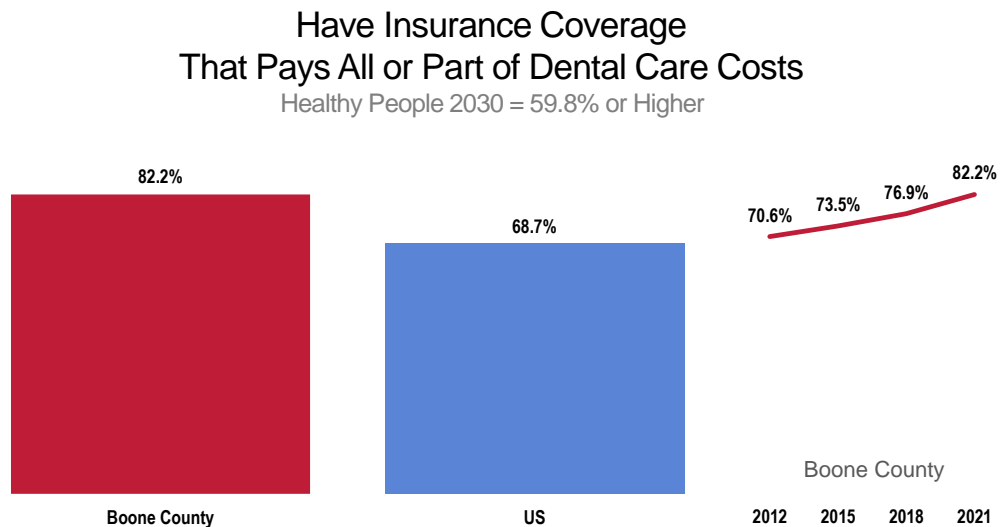
– Healthy People 2030 (<https://health.gov/healthypeople>)

Dental Insurance

Most Boone County adults (82.2%) have dental insurance that covers all or part of their dental care costs.

BENCHMARK ▶ Well above the US prevalence. Easily satisfies the Healthy People 2030 objective.

TREND ▶ Increasing significantly since 2012.



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 21]
• 2020 PRC National Health Survey, PRC, Inc.
• US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
Notes: • Asked of all respondents.



Dental Care

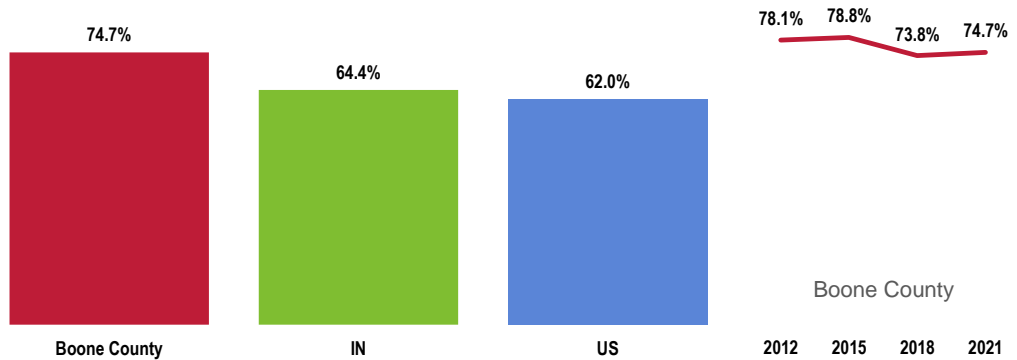
Adults

Three in four Boone County adults (74.7%) have visited a dentist or dental clinic (for any reason) in the past year.

BENCHMARK ▶ Much higher than the Indiana and US percentages. Easily satisfies the Healthy People 2030 objective.

DISPARITY ▶ Reported less often among low-income respondents and those without dental coverage.

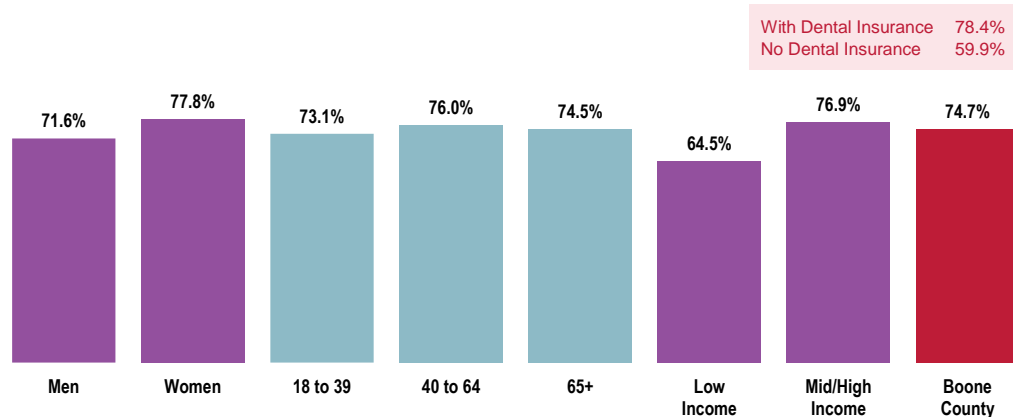
Have Visited a Dentist or Dental Clinic Within the Past Year
Healthy People 2030 = 45.0% or Higher



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 20]
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2019 Indiana data.
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents.

Have Visited a Dentist or Dental Clinic Within the Past Year
(Boone County, 2021)
Healthy People 2030 = 45.0% or Higher



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 20]
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>

Notes: • Asked of all respondents.



Children

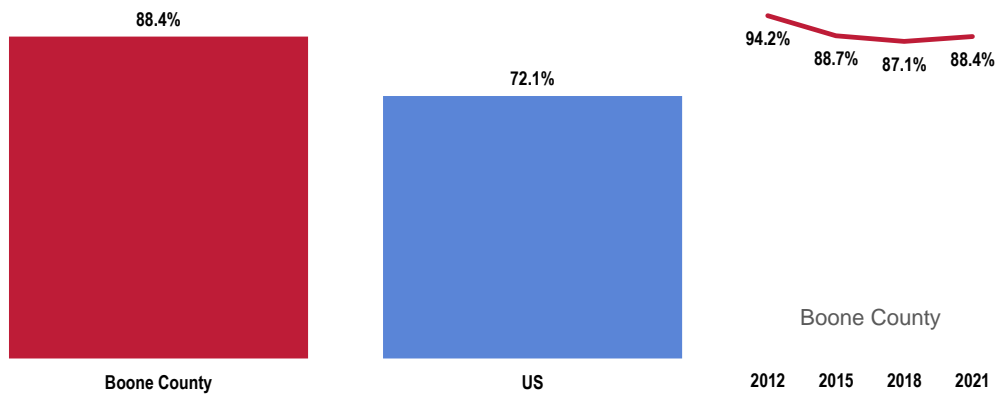
A total of 88.4% of parents report that their child (age 2 to 17) has been to a dentist or dental clinic within the past year.

BENCHMARK ▶ Well above the US prevalence and easily satisfies the Healthy People 2030 objective.

TREND ▶ Decreasing from 2012 survey results.

Child Has Visited a Dentist or Dental Clinic Within the Past Year (Parents of Children Age 2-17)

Healthy People 2030 = 45.0% or Higher

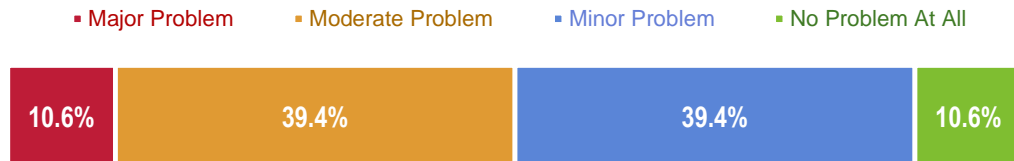


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 108]
 • 2020 PRC National Health Survey, PRC, Inc.
 • US Department of Health and Human Services. Healthy People 2030. August 2020. <http://www.healthypeople.gov>
 Notes: • Asked of all respondents with children age 2 through 17.

Key Informant Input: Oral Health

Key informants taking part in an online survey were equally likely to characterize *Oral Health* as a “moderate problem” and a “minor problem” in the community.

Perceptions of Oral Health as a Problem in the Community (Key Informants, 2021)



Sources: • PRC Online Key Informant Survey, PRC, Inc.
 Notes: • Asked of all respondents.



Among those rating this issue as a “major problem,” reasons related to the following:

Access to Care for Uninsured

People do not have dental insurance and dental work is so expensive. – Social Services Provider

I work with many adults who have painful dental problems, but don't have insurance or can't afford proper dental treatment. – Community Leader

There are no low-cost local dentists. Many residents don't have dental insurance and their only option is no care at all. – Social Services Provider

Affordable Care/Services

Cost is too high. – Other Health Provider

Access for Medicaid Patients

Lack of dental for Medicaid. – Public Health Representative

Access to dental services that accept Medicaid patients. – Other Health Provider

Contributing Factors

I see too many people with severe dental problems that impacts other areas of their lives and can cause other health problems. Many dentists do not take the types of insurance many of the lower income residents have. – Community Leader

Prevention

Many kids do not brush their teeth at all. I don't think parents teach them and don't monitor them to see that it is done. – Other Health Provider



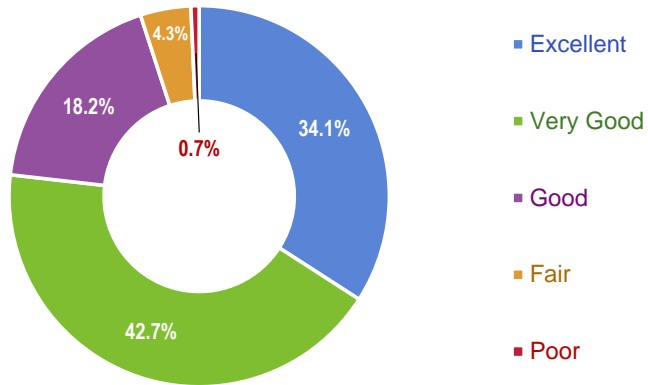


LOCAL RESOURCES

PERCEPTIONS OF LOCAL HEALTH CARE SERVICES

Most Boone County adults rate the overall health care services available in their community as “excellent” or “very good.”

Rating of Overall Health Care Services Available in the Community (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 6]
Notes: • Asked of all respondents.

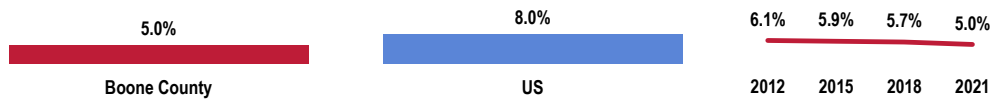
However, 5.0% of residents characterize local health care services as “fair” or “poor.”

BENCHMARK ▶ Lower than the national percentage.

DISPARITY ▶ Recorded almost exclusively among survey respondents with recent access difficulties.

Perceive Local Health Care Services as “Fair/Poor”

Boone County

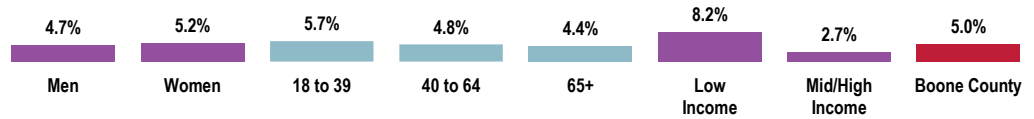


Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 6]
• 2020 PRC National Health Survey, PRC, Inc.
Notes: • Asked of all respondents.



Perceive Local Health Care Services as “Fair/Poor” (Boone County, 2021)

With Access Difficulty 14.5%
No Access Difficulty 0.5%



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 6]
Notes: • Asked of all respondents.



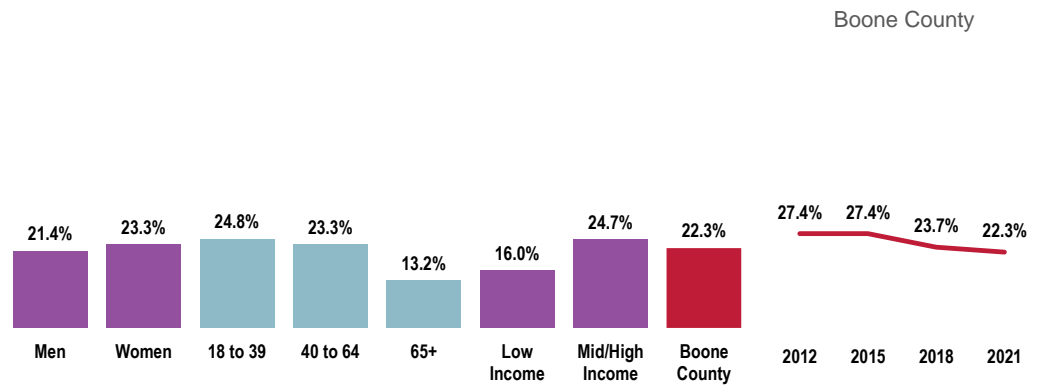
HEALTH PROMOTION ACTIVITIES

A total of 22.3% of survey respondents participated in some type of organized health promotion activity in the past year, such as health fairs, health screenings, or seminars.

TREND ► Decreasing significantly from 2012 and 2015 survey findings.

DISPARITY ► Participation is reported less often among seniors and low-income respondents.

Participated in an Organized Health Promotion Activity in the Past 3 Years (Boone County, 2021)



Sources: • 2021 PRC Community Health Survey, PRC, Inc. [Item 323]
Notes: • Asked of all respondents.



Resources Available to Address the Significant Health Needs

The following represent potential measures and resources (such as programs, organizations, and facilities in the community) identified by key informants as available to address the significant health needs identified in this report. This list only reflects input from participants in the Online Key Informant Survey and should not be considered to be exhaustive nor an all-inclusive list of available resources.

Access to Health Care Services

- Diabetic Counselor
- Witham Health Services

Cancer

- Boone County Cancer Society
- Boone County Health Department
- Riggs
- Witham Health Services
- Witham Hospital

Coronavirus

- Ascension
- Boone County Health Department
- CDC
- Community Immunization Locations
- Cowan Drugs
- CVS
- Doctor's Offices
- Educational Resources
- Fairgrounds
- Food Pantries
- Health Department
- Indiana State Health Department
- Minute Clinics
- Pharmacies
- Walgreens
- Witham Health Services
- Witham Hospital
- YMCA

Dementia/Alzheimer's Disease

- Alzheimer's Association
- Boone County Health Center
- Boone County Senior Services
- Project Lifesaver of Boone County
- Witham Health Services
- Witham Hospital

Diabetes

- American Diabetes Association
- Ascension Medical Group
- Boone County Food Pantry Coalition
- Boone County Health Department
- Diabetic Counselor
- Doctor's Offices
- Educational Resources
- Food Pantries
- Hospitals
- In-Home Assistance Programs
- Love Inc
- Parks and Recreation
- Pharmacies
- Rick's Community Health Center
- Riggs
- Shalom House
- Social Services
- Witham Health Services
- Witham Hospital
- YMCA

Disabilities

- Doctor's Offices
- Educational Resources
- Excel
- Fitness Centers/Gyms
- InWell
- Pain Management Clinic
- Parks and Recreation
- Physical Therapy
- Witham Health Services
- Witham Hospital
- YMCA

Infant Health and Family Planning

- WIC
- Witham Health Services



Heart Disease

- American Heart Association
- Ascension St. Vincent's Hospital
- Boone County Cardiology
- Boone County Health Department
- Cardiac Rehab
- Doctor's Offices
- Parks and Recreation
- Riggs
- Witham Health Services
- Witham Hospital
- YMCA

Injury and Violence

- Helping Hands Shelter
- Mental Health America

Mental Health

- Adams Counseling
- Ascension
- Ascension St. Vincent's Hospital
- Aspire Behavioral Health
- Behavioral Clinics
- Boone County Jail and Associated County Offices
- Boone County Mental Health
- Boone County Probation/Community Corrections
- Churches
- Cummins Behavioral Health
- Doctor's Offices
- Evergreen
- Health Department
- Hospitals
- Inspire America
- Integrative Wellness
- InWell
- Love Inc
- Mental Health America
- Mental Health Association
- Mental Health Services
- Mental Health Support Groups
- Online Drug and Alcohol Support Groups
- Riggs
- School System
- Social Services
- Suicide Hotline
- The Cabin
- ThrivePoint
- Witham Health Services

Nutrition, Physical Activity, and Weight

- Adult Fitness
- Aldi
- Anytime Fitness
- Boone County Food Pantry Coalition
- Boys and Girls Club
- Caring Center
- CrossFit180
- Doctor's Offices
- Dollar Tree
- Farmer's Market
- Fitness Centers/Gyms
- Food Pantries
- Grocery Stores
- Healthy Foods
- Lebanon Memorial Park
- Lebanon Schools
- Noom
- Nutrition Services
- Parks and Recreation
- Rick's Community Health Center
- School System
- Senior Services
- Shalom House
- SNAP
- Weight Watchers
- WIC
- Witham Health Services
- Witham Hospital
- YMCA

Oral Health

- Birchwood Dentistry
- Dentist's Offices
- Doctor's Offices
- Medicaid
- School System
- Tosh Dental

Respiratory Diseases

- Ascension St. Vincent's Hospital
- Doctor's Offices
- Hospitals
- Tobacco Free Boone County
- Witham Health Services

Sexual Health

- Boone County Health Department
- Health Department
- Sex Education
- Witham Health Services



Substance Abuse

AA/NA
Ascension St. Vincent's Hospital
Aspire
Aspire Mental Health Center
Bloomington
Boone County Health Department
Boone County Jail and Associated County Offices
Boone County Mental Health
Boone County Probation/Community Corrections
Churches
Cummins Behavioral Health
Department of Child Services Boone County
Doctor's Offices
Greenwood
House of Grace and Live for Life
Indiana Drug Rehab Services
InWell
Mental Health America
Mental Health Services
New Life Recovery
Riggs
School System
Sheriff's Department
Suboxone Clinics
The Cabin
Witham Health Services
Witham Hospital

Tobacco Use

1-800-Quit-Now
American Health Network
Boone County Cancer Society
Boone County Health Department
DARE Program
Doctor's Offices
Drug Store
Health Department
Indiana State Health Department
Juvenile Probation
Nursing Tobacco Free Boone County
Riggs
School System
Smoking Cessation Products
Tobacco Free Boone County
Tobacco Free Indiana
Tobacco Free Kids
Witham Health Services
Witham Hospital
www.quitnowindiana.com





APPENDIX

EVALUATION OF PAST ACTIVITIES

2018-2021 Actions

Actions taken from the 2018 CHNA include the following:

Access to Health Services: Appointment Availability, Ongoing Source of Medical Care, Routine Medical Care (Children)

- i. Witham physician practices offer an appointment on patient's first call
 - Acute patients same day
 - Non-acute patients within 3 days
- ii. Refer to Witham Convenient Care when needed appointment type not available within the needed time frame
- iii. Expanded appointment availability by increasing the number of primary care providers
- iv. Expanded Specialty appointment availability in Clinton County
- v. Expanded women's health services by adding new breast surgeon
- vi. Expanded urology availability by adding in-house urologist
- vii. Expanded spine services with added appointment and treatment options

Cancer Deaths: Lung Cancer, Prostate Cancer, Female Breast Cancer

- i. Provided cancer support education, classes and support groups to the community
- ii. Availability of screening options was impacted by Covid-19 pandemic
- iii. Supported Boone County Cancer Society and American Cancer Society community programs
- iv. Increased awareness of importance of screening mammograms which are covered at no additional charge to insured patients
 - i. Provided \$49 screening mammograms
 - v. Sent reminders (electronic or regular mail) for routine mammograms & colonoscopies
 - vi. Promoted the Indiana QUIT line

Dementia Including Alzheimer's Disease

- i. Provided/promoted education to the community and caregivers regarding Alzheimer's management and available resources
- ii. Provided Alzheimer Support Group classes to the community

Diabetes: Prevalence of Borderline/Pre-Diabetes

- i. Offered community diabetic education classes
- ii. Educated community on the diabetic services offered at Witham Health Services
- iii. MD's referred pre-diabetic pts for education regarding prediabetes management and prevention
- iv. Provided Rapid A1-C Screenings in office
- v. Added additional diabetes provider

Heart Disease Deaths and Stroke Deaths

- i. Provided state of the art medical intervention to save lives of acute cardiac distress
- ii. Provided \$49 Heart Scans
- iii. Provided Cath lab services
- iv. Added an Interventional Witham Cardiologist
- v. Added an additional Witham Cardiologist Nurse Practitioner
- vi. Continued to receive Cardiology Services through St. Vincent Medical Group
- vii. Provided Blood Pressure screenings at community outreach programs
- viii. Provided Educational materials



Mental Health – Symptoms of Chronic Depression and Suicide Deaths

- i. Provided Depression Screenings at Senior Expo - *limited due to Covid-19 pandemic*
- ii. Provided follow-up to those reporting depression symptoms on Health Risk Assessment
- iii. Hired an additional Witham Psychiatrist
- iv. Continued partnership with Integrative Wellness (mental health in the ED program, pediatric therapist)
- v. Partnered with community mental health organizations to improve identification and treatment of mental health issues that lead to suicide
- vi. Provided the required depression screening PHQ9 for any patient on pain medication (Do No Harm Law)
- vii. Provided depression management & education to community residents
- viii. Community interactions - *limited due to Covid-19 pandemic*

Nutrition, Physical Activity and Weight

Obesity Adults

- i. Provided education regarding obesity
- ii. Promoted active lifestyles by offering Silver Sneakers, Rock Steady Boxing and Tai Chi for Health to community
- iii. Provided community health and wellness programs such as Cooking for Wellness

Childhood Obesity: Meeting Physical Activity Guidelines, Year-Round Recreational Opportunities for Youth, and Children’s Screen Time

- i. Physicians have parents and child complete physical activity questionnaire
- ii. Provided Fitness Grams to area schools with results and recommendations to families, composite results to schools, education provided regularly to schools about good nutrition and fitness – *limited due to Covid-19 pandemic*
- iii. Educated the community at events throughout the year about childhood obesity, Play 60, and limiting screen time – *limited due to Covid-19 pandemic*
- iv. Promoted physical activities with sponsorships and promotional items given: Jump ropes, chalk, playing cards, balls, Frisbees – *limited due to Covid-19 pandemic*
- v. Promoted 5K and relays in the community to encourage physical activity – *limited due to Covid-19 pandemic*
- vi. Partnered with YMCA to promote activities
- vii. Supported Healthy Coalition programs

Difficulty Accessing Fresh Produce

- i. Promoted Farmer’s Markets located in our community
- ii. Promoted “Farm to Table” opportunities for purchasing fresh produce, vegetables and meats

Substance Abuse: Drug Induced Deaths, Seeking Help for Alcohol/Drug issues, Illicit Drug Use in Past Month

- i. Shared availability of local resources to the public at community events
- ii. Expanded counseling services to improve access to needed services
- iii. Expanded psychiatry services
- iv. Partnered with local mental health agencies
- v. Cooperated with law enforcement in provision of NARCAN for overdose persons.
- vi. Continued to educate physicians, staff and community on the “Do no harm” law
- vii. Provided Pain Clinics- Addiction Therapy, Interventional Pain management
- viii. Provided Sub Oxone clinic
- ix. Supported Boone County Substance Abuse Task Force
- x. Continued medical management for substance abuse to include physician champion and other providers
- xi. Continued to support collaborative approach with local agencies in regarding opioid rehab clinic(s).
- xii. Supported education programs – *limited due to Covid-19 pandemic*



Tobacco Use; Current Smoker, Awareness of Indiana Quit Line

- i. Educated the community on dangers of smoking
- ii. Educated the community on Quit Line
- iii. At Doctor visits:
 - Patient smoking status noted in medical chart
 - Patient is educated about harm of smoking
 - Referral made to Indiana Quit Line with patient consent
- iv. Physicians questioned parents about smokers in the house and initiated referrals
- v. Educated physicians on vaping and in turn they educated patients
- vi. “Baby and Me” Tobacco Free program - none in Boone County at this time but in surrounding counties

