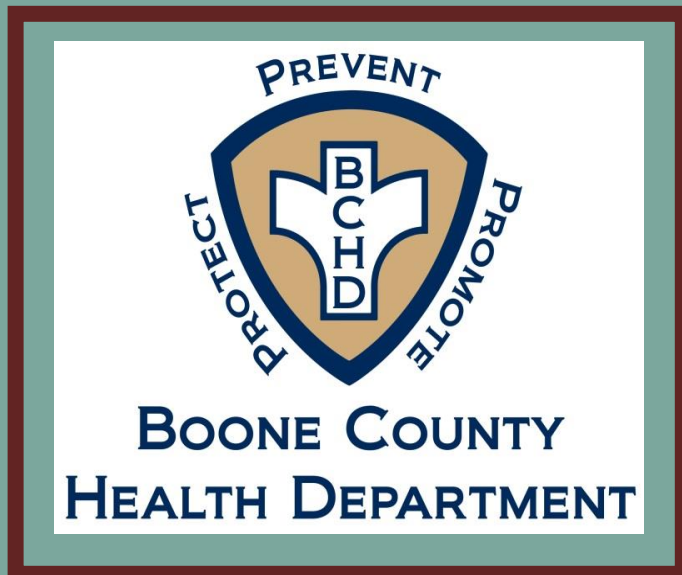


2025-2027

BOONE COUNTY COMMUNITY HEALTH IMPROVEMENT PLAN (CHIP)



"Mobilize community partners to provide collaborative services through a coordinated public health system and to promote healthy lifestyles"



WITHAM
HEALTH
SERVICES

Boone County, Indiana

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- Alzheimer's Association
Greater Indiana Chapter
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- Boone County Council
- Boone County Cancer Society
- Boone County Food Pantry
Coalition
- Boone County Health Board
- Boone County Health
Department
- Boone County Residents
- Boone County Senior Services,
Inc.
- Boone County Sheriff's Office
- City of Lebanon
- Community Foundation of
Boone County
- Cummins Behavioral Health
Systems, Inc.
- Drug Free Boone County
- Indiana State Department of
Health
- Integrative Wellness, LLC
- Lebanon Community Schools
- Mental Health America of
Boone County
- Purdue Extension Boone
County
- Tobacco Free Boone County
- Witham Family YMCA
- Witham Health Services

EXECUTIVE SUMMARY

The Community Health Improvement Plan (CHIP) is the result of a collaborative effort among various community partners to prioritize opportunities for health improvement identified in the Community Health Assessment (CHA). Community partners were surveyed to assist in prioritizing focus areas for the CHIP and identify key stakeholders. These key stakeholders and the Boone County Health Department collaborated to develop goals, objectives, and strategies for each priority area.

Five priority areas were identified from the CHA: mental health, nutrition, physical activity and weight, diabetes, heart disease and stroke, and cancer.

Mental health was identified as the leading health issue in Boone County. The 2024 Community Health Needs Assessment and Implementation Strategy (CHNAIS) stated that just under 1 in 3 (29.8%) adults reported having physician-diagnosed depression. The Boone County rate of depression diagnosis is higher than Indiana's (22.8%) but lower than the United States' rate of 30.8%.

Nutrition, physical activity, and weight are the next leading health issues. 17.3% of CHA respondents reported finding it “somewhat” or “very” difficult to buy affordable fresh produce, which has nearly doubled since 2021. In Indiana, 21.1% of adults reported meeting physical activity recommendations each week, whereas 29.2% of Boone County adults did so. 94.2% of respondents believe nutrition, physical activity, and weight are moderate to major problems in our community. 68.3% of our county residents are still considered overweight or obese (Witham Hospital, 2024).

Diabetes is the third leading health issue in Boone County and is most prevalent among adults 65 and older (25.2%) and very low-income individuals (26.6%). The rate of adults in Boone County with diabetes has increased slightly from 11.4% in 2021 to 11.6% in 2024 (Witham Hospital, 2024).

Heart disease and stroke are the fourth leading health issues in Boone County. Residents are at a medium risk of death from heart disease. In Boone County, heart disease death rates were 181.1 per 100,000 (Witham, 2024).

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Lastly, cancer is the fifth leading health issue in the community. Cancer is the second leading cause of death in the United States. Boone County’s cancer mortality rate for some of the most common forms of cancer is higher than the United States’.

The table below shows the goals for each priority area in this plan.

Priority Areas	Targeted Health Improvement Goal 2025-2027
Mental Health	Respondents will report decreased depression symptoms, decreased suicide deaths in Boone County, and an increase in the number of mental health providers for Boone County
Nutrition, Physical Activity, & Weight	Reduce the percentage of overweight adults in Boone County and increase the number of whole foods consumed, educate on Dietary Guidelines and Physical Activity Guidelines, increase available year-round youth recreation to meet physical activity guidelines
Diabetes	Reduce diagnoses of diabetes and borderline prediabetes
Heart Disease and Stroke	Decrease the death rate and diagnosis of heart disease in Boone County
Cancer	Increase the number of individuals who undergo cancer screenings

PLAN OVERVIEW

The Boone County Community Health Improvement Plan (CHIP) was developed by community partners who will assist in the implementation of activities for each priority area.

The Plan contains goals, outcome objectives, strategies, and activities to involve responsible partners and resources and accomplish the goals and timelines.

The Plan is intended to serve as a road map to improve the overall health and well-being of county residents and improve our quality of life.

Healthy People 2030 and County Health Rankings were used as standards to indicate where we are now and where we plan to be over the course of the Plan cycle (2025-2027).

These standards were utilized to either identify or address social determinants of health and causes of poor health outcomes.

The action plan for this document involves community partners who will assist with the implementation and evaluation of activities.

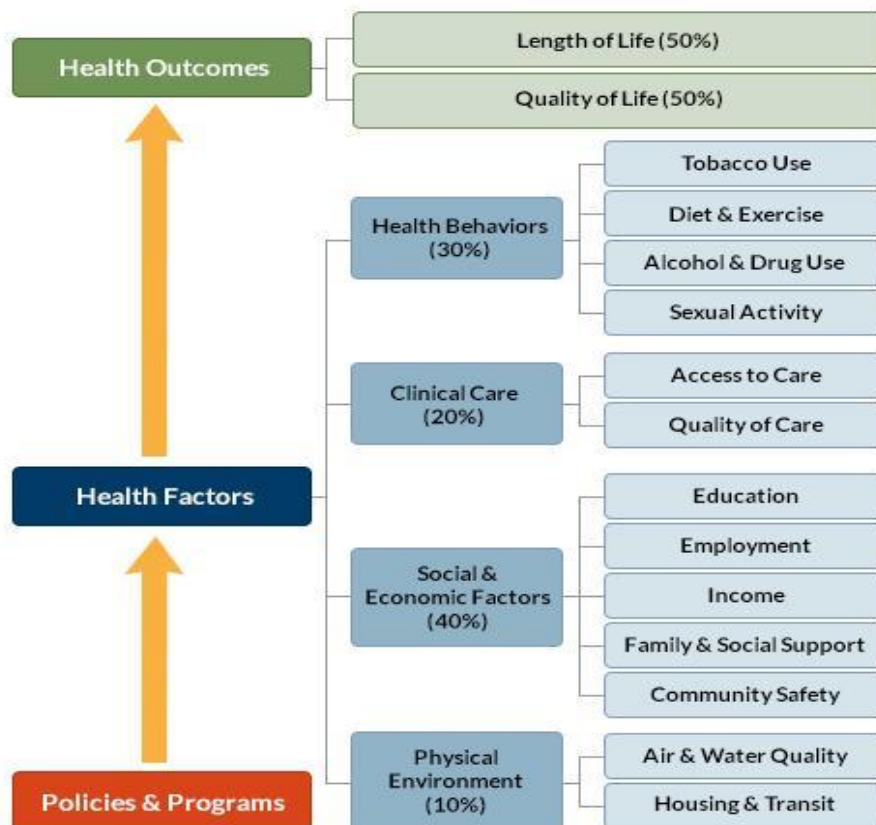
The Plan will be evaluated annually and updated as goals and objectives are achieved for each priority area.

NATIONAL STANDARDS

COUNTY HEALTH RANKING MODEL

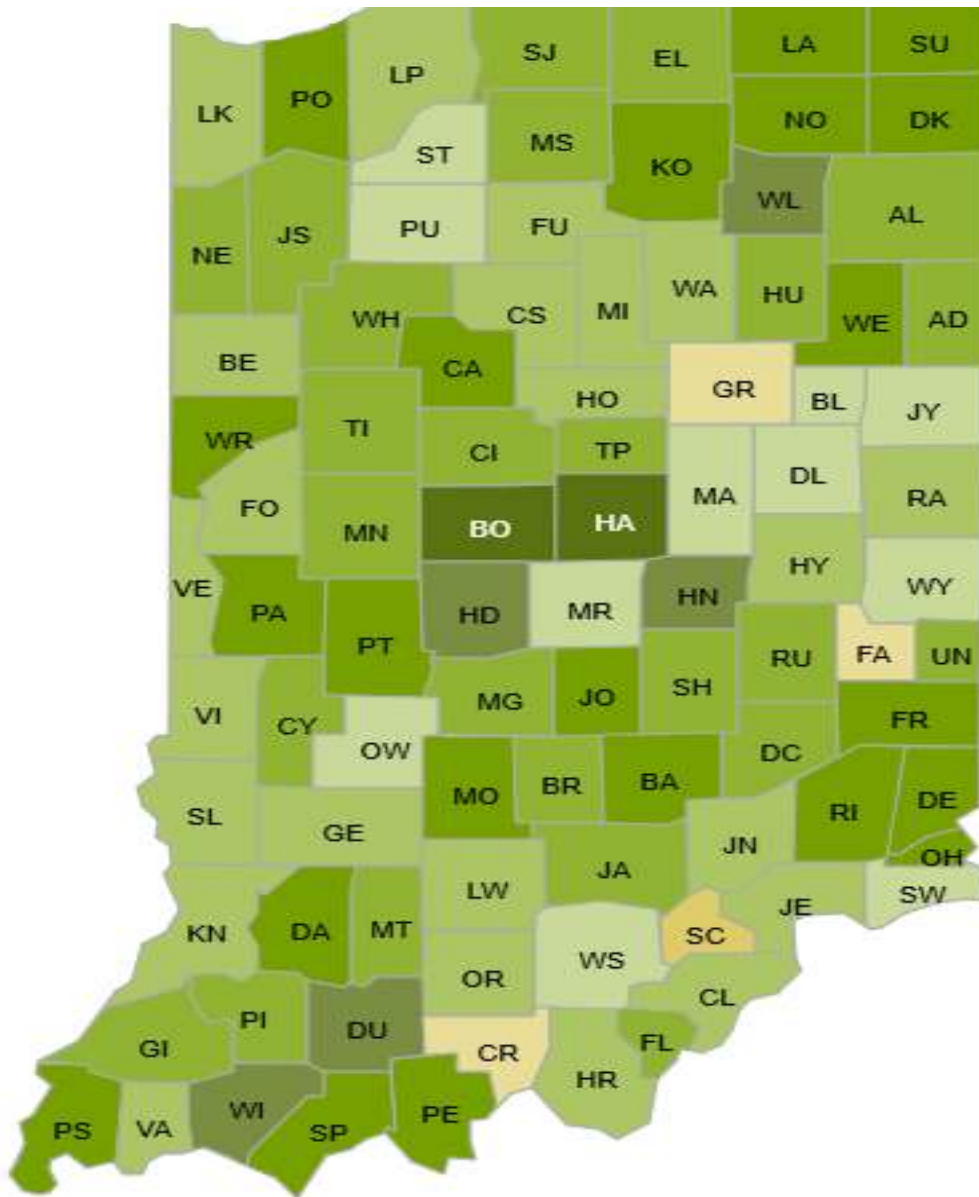
County Health Rankings measure the health of nearly all counties in the nation and rank them within their respective states. The Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights. They are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work, and play.

The County Health Rankings are based on summary composite scores calculated from the individual measures below.



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2024 Health Factors – Indiana



COMMUNITY DESCRIPTION

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

According to the United States Census Bureau, Boone County's population was 78,773 in 2024. The county has experienced an 11.2% growth since 2020.

In 2024, STATS Indiana reported the median age for county residents was 38.6 years old. In the same year, 15.5% of our residents were 65 years or older and nearly 25% were younger than 18.

The population demographics are as follows: White (88.7%); Asian Alone (4.6%); Hispanic or Latino of Any Race (4.8%), Black Alone (4.2%); Two or More Race Groups (2.1%); and American Indian and Alaska Native Alone (0.3%) (STATS Indiana, 2024).

The median household income in Boone County was \$108,013 in 2024. In the same year, 5.6% of Boone County minors were in poverty and 0.9% of adults were unemployed (STATS Indiana, 2024).

In 2024, 94.9% of residents 25 years and older held a high school diploma or higher. 51.7% held a bachelor's degree or higher (STATS Indiana, 2024). The Boone County Health Department reported 271 births and 515 deaths in 2025.

HEALTHY PEOPLE 2030 MODEL

Healthy People 2030 provides a national framework of data-driven, 10-year objectives designed to improve health and well-being across the United States. The initiative emphasizes the importance of addressing the social determinants of health—the conditions in which people are born, live, learn, work, play, worship, and age—as a strategy to reduce health disparities and advance health equity (ODPHP). Healthy People 2030 establishes measurable objectives and tracks progress over time to support public health improvement efforts. These objectives help communities:

- Strengthen collaboration across sectors and community partners
- Support individuals and populations in making informed health decisions
- Guide prevention strategies and evidence-based interventions
- Measure progress toward improved health outcomes and reduced disparities

Social Determinants of Health



MENTAL HEALTH

MENTAL ILLNESS

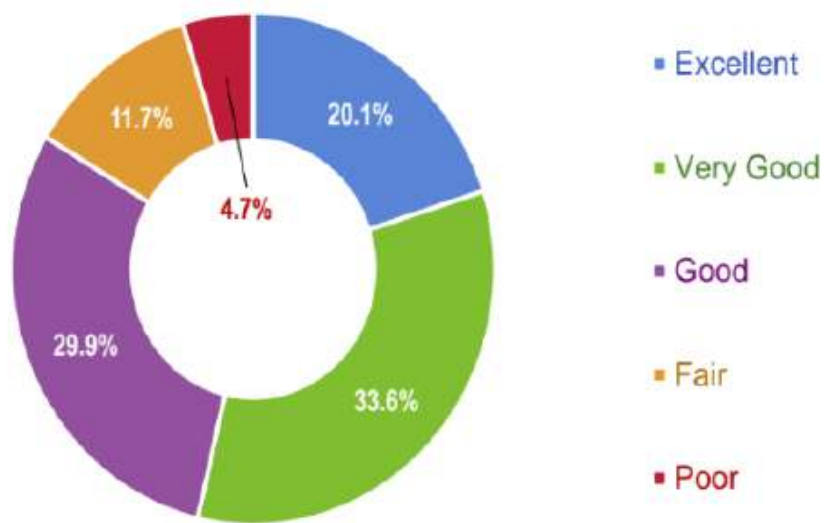
This plan is supported by data from the 2024 Witham Health Services Community Health Needs Assessment (CHNA), the 2021 Witham Health Services Community Health Needs Assessment, the 2025 Indiana Mental Health Roundtable, the National Institute on Minority Health and Health Disparities, and the National Alliance on Mental Illness, highlighting the critical need to focus on behavioral health outcomes.

Boone County is consistently ranked highly for overall health and is the third healthiest of all Indiana counties. This structural strength (income, environment, access) contrasts sharply with persistent and high mental health concerns.

MENTAL HEALTH STATUS

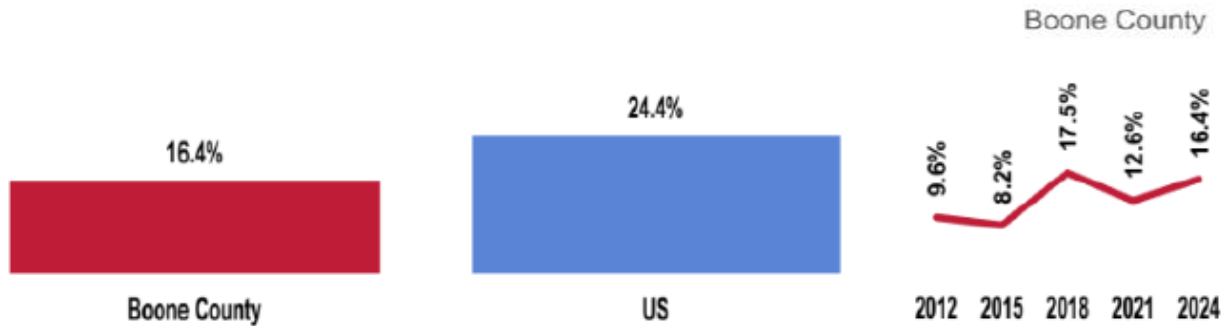
In Boone County, 4.7% of respondents reported their mental health status as poor; a 1.1% increase from the 2021 Community Health Needs Assessment (CHNA). Despite this rise, the local rate remains below the national average of 7% for U.S. adults who rate their mental health as poor, according to the National Alliance on Mental Illness (NAMI).

Self-Reported Mental Health Status
(Boone County, 2024)



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Experience "Fair" or "Poor" Mental Health

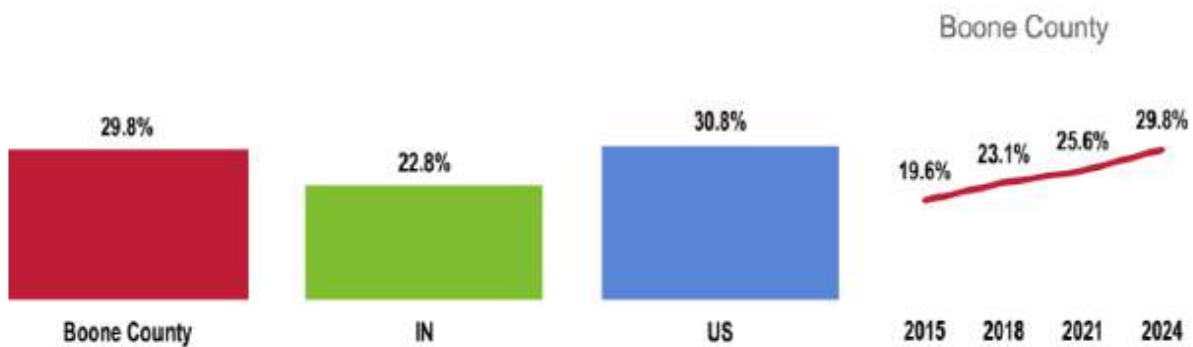


In the 2024 Community Health Needs Assessment (CHNA) for Boone County, 16.4% of respondents indicated having experienced "fair" or "poor" mental health. This represents a consistent upward trend, as the corresponding figure was only 8.2% in 2015.

CHRONIC DEPRESSION

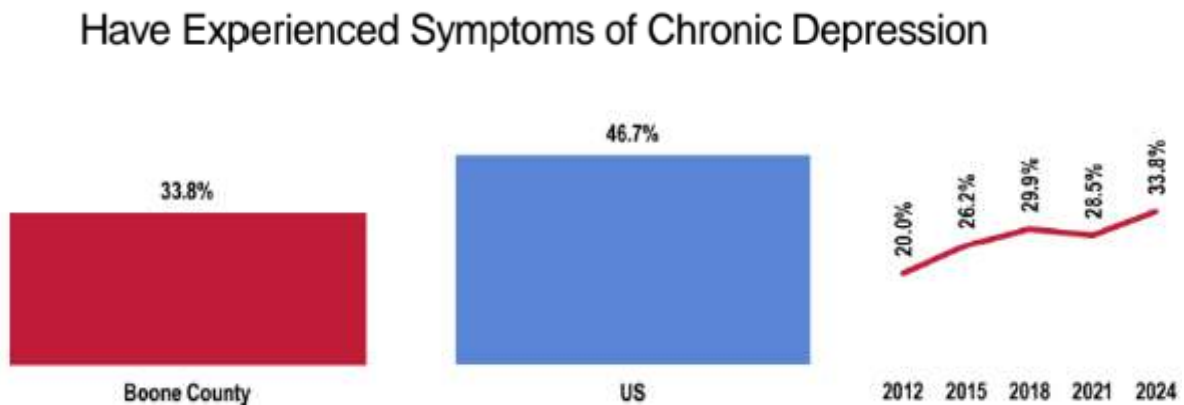
Boone County has experienced a consistent rise in individuals diagnosed with a depressive disorder, climbing from 19.6% in 2015 to a current rate of 29.8%. This figure is slightly lower than the national average of 30.8% but exceeds the current state average.

Have Been Diagnosed With a Depressive Disorder



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Symptoms of chronic depression have been rising in Boone County, according to the 2024 Community Health Needs Assessment (CHNA). While the current rate of 33.8% is a significant increase from 20% in 2012, it remains considerably below the national average of 46.7%.



The evidence suggests a disproportionate burden of chronic depression symptoms among individuals with lower incomes. Therefore, it is critical to develop targeted mental health initiatives that specifically address the needs of those from lower socioeconomic backgrounds.

SUICIDE

As of 2023, the age-adjusted mortality rate for suicide in Boone County was 15.2, slightly lower than the state rate of 16.2. Suicide is the second leading cause of death among people ages 10-24 (National Alliance on Mental Illness, National Institute on Minority Health and Health Disparities).

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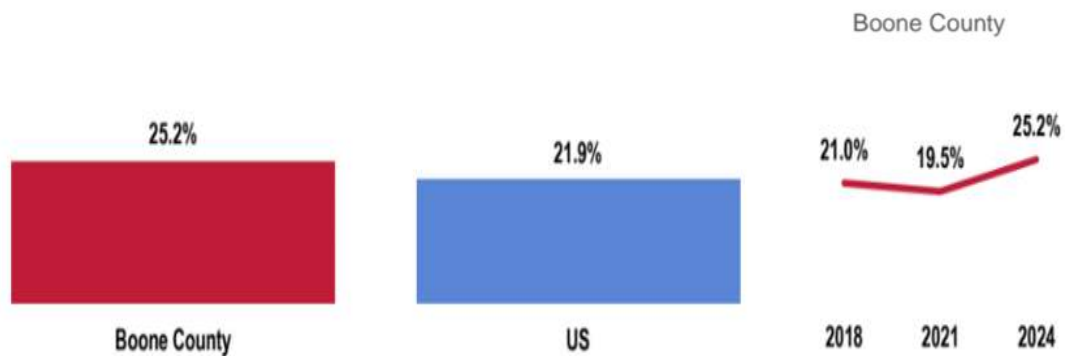
Suicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 12.8 or Lower



MENTAL HEALTH TREATMENT

The following graphic illustrates a mixed picture for mental health services in Boone County. While the ratio of mental health providers to the population remains low, the percentage of respondents receiving needed mental health treatment is increasing. Only 4.7% of Boone County respondents reported being unable to get mental health services when needed. However, it is a crucial concern that individuals with lower incomes are more likely to report an inability to receive necessary mental health services.

Currently Receiving Mental Health Treatment



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**Number of Mental Health Providers per 100,000 Population
(October 2024)**



**Unable to Get Mental Health Services When Needed in the Past Year
(Boone County, 2024)**



Boone County has demonstrated improvement in mental health system capacity and positioning relative to other Indiana counties; however, a significant mental health burden remains (adult depression 25.6%; youth symptomology approximately 47%). This CHIP prioritizes measurable system performance improvements to ensure residents are identified early, connected to care efficiently, and supported through effective treatment pathways.

MENTAL HEALTH

GOAL

- Respondents will report decreased depression symptoms, decreased suicide deaths in Boone County, and an increase in the number of mental health providers for Boone County

OBJECTIVES

- By the end of 2027, reduce the percentage of the population diagnosed with depressive disorders by 2%
- By the end of 2027, the percentage of people who have experienced symptoms of chronic depression will decrease from 33.8% (2024 rate) to 31.8%
- Increase mental health resources from 131.3 mental health providers per 100,000 population to 150 mental health providers per 100,000 population by 2027
- Reduce the suicide rate in Boone County from 15.2 in 2023 to 12.5 or lower by 2027 through the implementation and promotion of evidence-based programs
- By 2027, develop and implement a data collection plan to be used in an annual review to track progress

STRATEGIES

- Administer depression screenings to all patients at Witham Health Services primary care, pediatric, and specialty care appointments at least once per year, and make appropriate referrals
- Encourage other health systems to conduct annual mental health/depression screenings once per year and make appropriate referrals to mental health providers



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- Provide depression management and education to Boone County residents through a variety of means and partnering organizations
- Partner with mental health organizations to improve the identification and treatment of mental health issues such as depression and anxiety
- Health systems will partner with mental health providers for increased collaboration
- Support QPR training (Question, Persuade, and Refer) education programs
- Continue suicide prevention programming in Boone County schools
- Continue implementing the “This Is Not About Drugs” program throughout Boone County schools
- Implement the “Handle with Care” program in all Boone County Schools
- Continue to implement and expand mind-body medicine throughout Boone County
- Continue to implement and expand the Parenting Solutions program throughout Boone County
- Evaluate the demand for more health care navigators within Boone County. Investigate avenues to secure additional health care navigation support (if needed). Inform the community about existing health care navigation resources

NUTRITION, PHYSICAL ACTIVITY, & WEIGHT

NUTRITION



Healthy People 2030 is focused on getting people to consume the recommended amount of healthy food to reduce their risk for chronic diseases and improve their overall health (USDA, USDHHS, 2020).

The 2025-2030 Dietary Guidelines for Americans prioritizes diets built on whole, nutrient-dense foods in the protein, dairy, vegetables, fruits, healthy fats, and whole grains food groups. It also encourages Americans to significantly reduce their consumption of highly processed foods with refined carbohydrates, added sugars, excess sodium, unhealthy fats, and chemical additives. Some of the priorities in the new dietary guidelines include:

- Eating 1.2 to 1.6 grams of protein per kilogram of body weight
- Eating a wide variety of whole, colorful, nutrient-dense vegetables and fruits in their original form
- Eating 3 servings of vegetables per day

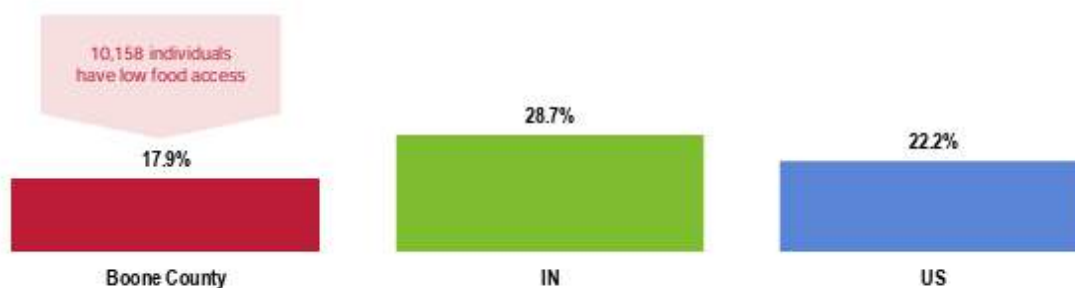
**BOONE COUNTY COMMUNITY HEALTH IMPROVEMENT PLAN
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- Eat 2 servings of fruit
- Eat 2-4 servings of fiber-rich whole grains
- Significantly reduce the consumption of highly processed, refined carbohydrates

Serving sizes should align with the recommendations in the Dietary Guidelines for Americans, 2025–2030; therefore, a variety of foods should be selected from each food group. Smaller portions may be appropriate for individuals with lower calorie needs, such as young children or some older adults. The calories a person needs depend on age, sex, height, weight, and level of physical activity (USDA 2026).

The US Department of Agriculture reports 17.9% of Boone County residents have low food access. While this rate is lower than that of Indiana and the U.S., it still indicates that approximately 10,158 Boone County residents do not have convenient access to food. Public health interventions that increase access to healthy food are key to reducing food insecurity and hunger and improving health.

Population With Low Food Access
(2019)



Approximately 17.3% of respondents to the 2024 Community Health Needs Assessment reported it was “somewhat” to “very” difficult to afford fresh produce. This percentage has nearly doubled since 2021.

PHYSICAL ACTIVITY

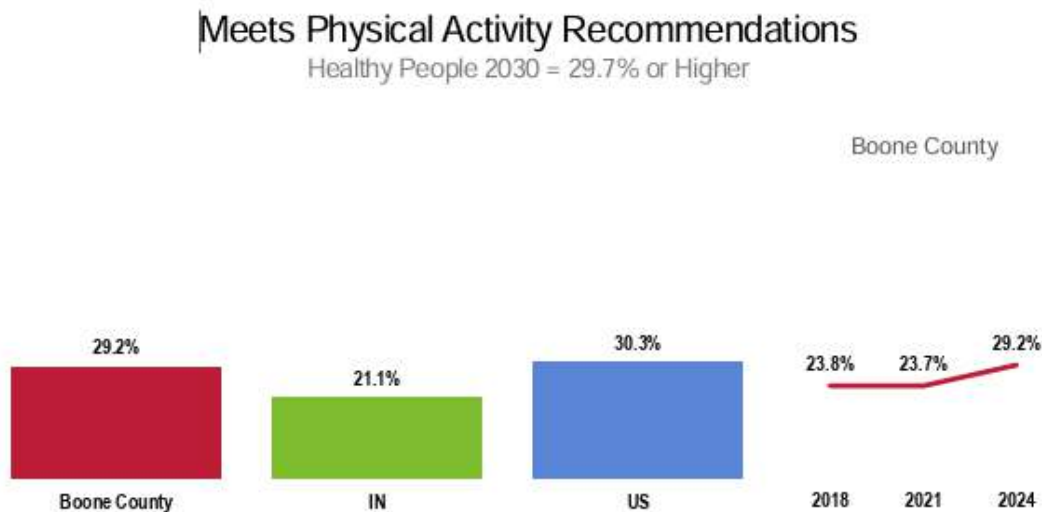
The World Health Organization (WHO) guidelines on physical activity recommend the following for different age groups:

Children and adolescents 5-17 years: At least 60 minutes of moderate to vigorous-intensity physical activity daily, including activities that strengthen muscle and bone at least 3 times per week.

Adults 18-64 years: 150-300 minutes of moderate-intensity or 75-150 minutes of vigorous-intensity physical activity per week, or a combination of both. 2 days of muscle-strengthening activity each week.

Older adults 65 years and older: Follow the adult guidelines, focusing on activities that enhance balance and prevent falls.

Only 1 in 3 respondents (29.2%) to the 2024 CHNA reported meeting physical activity recommendations. Boone County is close to meeting the Healthy People 2030 goal for physical activity recommendations, but it trails behind the rest of the U.S.

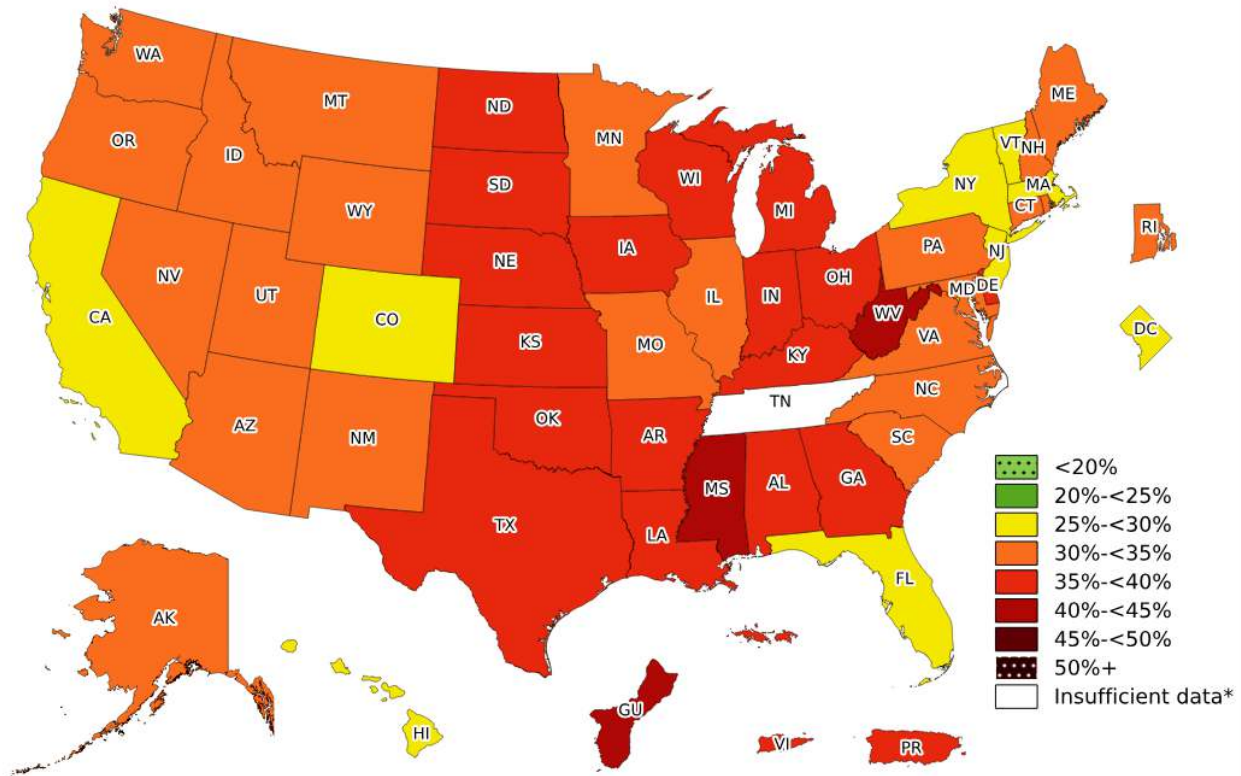


WEIGHT

According to the CDC, roughly 40.3% of U.S. adults are obese and 9.4% have severe obesity. Obesity affects over 100 million U.S. adults, with prevalence significantly higher among women (41.4%) than men (39.3%). Just over 21% of

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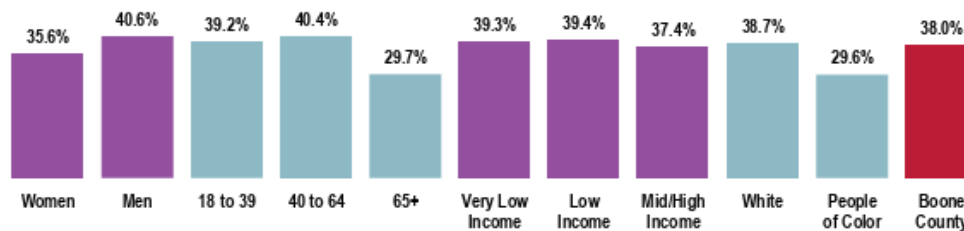
U.S. children and adolescents (ages 2-19) have obesity. Rates have tripled since the mid-1970's. (CDC)



Approximately 68.3% of Boone County residents are overweight or obese. The following graphic illustrates how obesity affects Boone County residents of various demographics:

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**Prevalence of Obesity
(Boone County, 2024)**
Healthy People 2030 = 36.0% or Lower



Obesity, poor nutrition, and lack of movement increase the risk of many serious chronic diseases like type 2 diabetes, cardiovascular disease, and cancer. However, these conditions can also affect other aspects of health, including:

- **Mental Health:** Sedentary behavior and obesity are strongly linked to increased rates of depression and anxiety (Jiang L., 2020)
- **Cognitive Decline:** Lack of regular physical activity is associated with a higher risk of dementia and Alzheimer’s disease later in life (De a Rosa A, 2020)
- **Sleep Apnea:** Excess fat around the neck can block airways, leading to interrupted breathing during sleep and increased heart stress (Slowik, Sankari, & Collen., 2025)
- **Joint and Bone Damage:** Excess weight puts extreme pressure on weight-bearing joints, leading to osteoarthritis and chronic pain (PubMedCentral.gov)

Obesity prevalence has increased from 30.5% in 1999 to over 40% currently. Future projections indicate trends to continue; over 75% of Americans could be overweight or obese by 2030 (Zachary J. Ward, 2019).

NUTRITION, PHYSICAL ACTIVITY, & WEIGHT

GOALS

- Reduce the percentage of overweight adults in Boone County and increase the number of whole foods consumed
- Educate the population on dietary guidelines and physical activity guidelines
- Increase available year-round youth recreation to meet physical activity guidelines

OBJECTIVE

- Continue to keep Boone County's obesity rate below the state and national average
- Increase the percentage of Boone County residents reporting having met or exceeded the HP 2030 physical activity benchmark of 29.7% by 2027
- By the end of 2027, provide at least three additional physical fitness programs/classes offered to citizens at a discounted rate or free
- By the end of 2027, provide at least three additional free or discounted nutrition education programs/classes
- Increase the proportion of children aged 2 to 5 years with total screen time of no more than 1 hour a day (44.8% in 2022-2023 to 49.3 by 2027)

STRATEGIES

- Educate the public on the harm of obesity
- Promote healthy lifestyles through outreach opportunities
- Promote active lifestyles by offering Silver Sneakers, Rock Steady Boxing, Tai Chi, yoga, and Pilates to the community
- Offer healthy cooking classes to the community
- Encourage neighborhood walking programs

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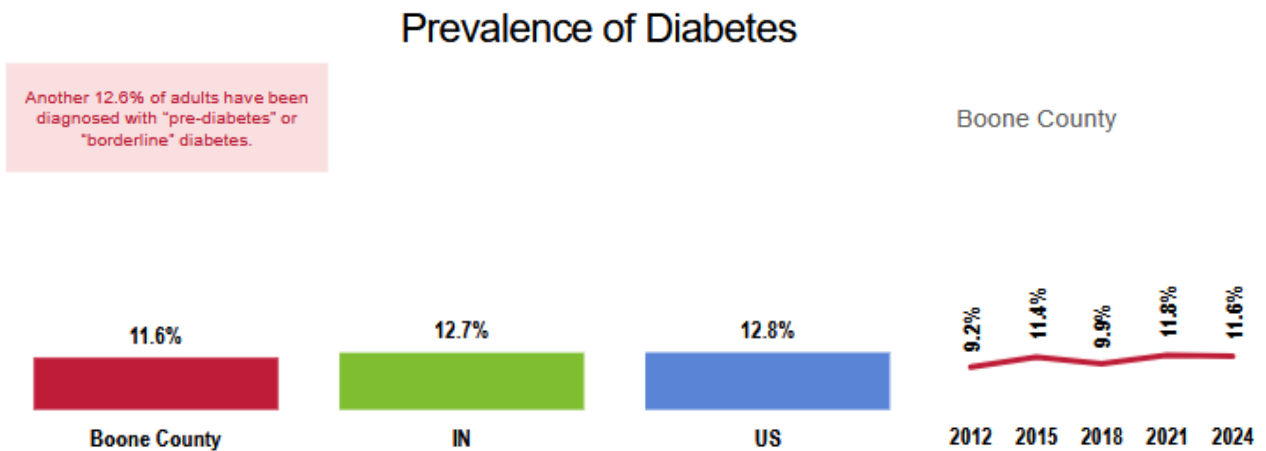
- Partner with local schools to encourage healthy nutrition and physical activity programs
- Use Lebanon School Corporation as a model for the success of Mind Body Medicine Skills Groups
- Utilize and promote the senior mobile food pantry/coalition meetings through The Caring Center and Gleaners Food Bank
- Increase the number of local schools that participate in Girls on the Run programs
- Continue to increase opportunities for community 5k runs
- Encourage physicians to have parents complete a physical activity questionnaire for themselves and their children
- Educate the community at events throughout the year on the importance of being active and limiting screen time
- Promote physical activities with sponsorships and promotional items given (jump ropes, chalk, playing cards, balls, frisbees)
- Support and promote Boone County Healthy Coalition programs
- Offer free group exercise classes
- Provide a safe, free, accessible walking trail around the pond at Witham Hospital
- Support organizations in Boone County that promote nutrition and education programs
- Support and promote local farmers' markets that offer fresh produce
- Support and help promote “farm to table” opportunities for purchasing fresh fruits and vegetables
- Educate families on choosing fresh fruit and vegetables instead of processed foods (allocation of food dollars) and available food resources
- Partner with Purdue Extension for education programs
- Offer healthy options in the Witham Café and Pavilion Perk

DIABETES

DIABETES

Diabetes is the seventh leading cause of death in the United States and about a quarter of adults with diabetes are unaware they have it. It is a chronic disease that, if not managed, can lead to heart disease, vision loss, and kidney disease (Diabetes Basics, 2026). It's estimated that diabetes affects 1 out of every 10 adults in our country (National Diabetes Statistics Report, 2026).

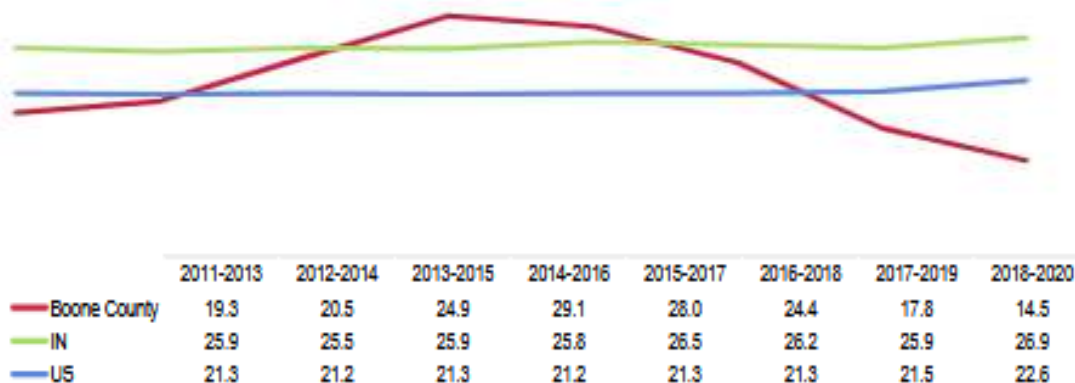
Nearly 700,000 adults in Indiana have been diagnosed with some form of this disease (American Diabetes Association, 2025). Diabetes has three main forms: type 1, type 2, and gestational (during pregnancy). All forms occur when the body fails to produce or use insulin properly to regulate blood sugar (Diabetes Basics, 2026). The following graphic compares Boone County's diabetes rates to state and nationwide rates:



The following chart shows that the mortality rate among individuals with diabetes in Boone County (14.5%) is lower than both the state rate (26.9%) and the national rate (22.6%) (2024 Community Health Needs Assessment, 2025).

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

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The majority of respondents to the 2024 Community Health Needs Assessment (CHNA) believe diabetes is a moderate to major problem in Boone County.

**Perceptions of Diabetes as a Problem in the Community
(Among Key Informants; Boone County, 2024)**

• Major Problem
 • Moderate Problem
 • Minor Problem
 • No Problem At All



Respondents believe diabetes is a challenge in our community because of the following:

- Awareness/Education
- Disease Management
- Obesity
- Access to Affordable Healthy Foods
- Prevention/Screenings
- Affordable Medications/Supplies

IDENTIFYING PREDIABETES AND DIABETES

One of the most effective ways to diagnose prediabetes and diabetes is through routine hemoglobin A1C, or A1C testing. A1C testing determines a person’s average blood glucose, or blood sugar, level over the last 2 to 3 months. A high A1C level may indicate a person has prediabetes or diabetes. Adults over the age of 45, those who are overweight, and anyone with risk factors for prediabetes

should have their A1C level checked (A1C Test for Diabetes and Prediabetes, 2024).

PREDIABETES

Prediabetes occurs when a person's blood sugar levels are higher than normal but not high enough to be classified as type 2 diabetes (Prediabetes). In the United States, more than 1 in 3 American adults has prediabetes, yet most are unaware. This increases their risk of type 2 diabetes, heart disease, and stroke (Prediabetes – Your Chance to Prevent Type 2 Diabetes, 2024). The CDC created the National Diabetes Prevention Program, which serves as an educational resource for those affected by diabetes. The program outlines lifestyle changes that can help reverse or delay the onset of any form of diabetes, including prediabetes (About Prediabetes and Type 2 Diabetes, 2024).

TYPES OF DIABETES

There are three types of diabetes: type 1, type 2, and gestational. Type 1 diabetes occurs when the pancreas produces very little or no insulin. Insulin allows blood sugar to enter the body's cells to be used as energy. Without insulin, blood sugar can't enter cells, leading to a buildup in the bloodstream. This type of diabetes is most prevalent in younger populations (children, teens, and young adults) (Diabetes Basics, 2024).

Type 2 diabetes occurs when cells stop responding normally to insulin, a condition known as insulin resistance. The pancreas produces more insulin to get the cells to respond, resulting in high blood sugar. Symptoms of type 2 diabetes can be overlooked and difficult to identify. Blood tests can determine if a person has diabetes. Type 2 diabetes is more prevalent in people over 45 (Type 2 Diabetes, 2024).

The CDC advises it is important to schedule regular checkups with healthcare providers such as your primary care doctor, foot doctor, dentist, eye doctor, registered dietitian nutritionist, diabetes educator, and pharmacist (CDC, 2022). Regularly checking your blood, staying physically active, and controlling blood pressure and cholesterol are also important to prevent any form of diabetes (CDC, 2022). Staying on top of your health and in contact with healthcare providers is the best way to help prevent diabetes.

DIABETES

GOAL

- Reduce diagnoses of diabetes and borderline prediabetes

OBJECTIVES

- By the end of 2028, reduce the percentage of individuals with diabetes in Boone County from 14.5% to 11%
- Increase education on strategies to prevent and manage diabetes by adding diabetes education to community health events
- Decrease the percentage of patients diagnosed with borderline prediabetes
- Increase access to mental health, fresh produce, and transportation resources to diabetic and prediabetic residents

STRATEGIES

- Increase the public's awareness of diabetes education programs
- Refer prediabetic patients to education/programs for prediabetes management and prevention
- Continue rapid A1C screenings in physicians' offices and begin to offer A1C screenings at health-related community events
- Increase the number of A1C screenings performed in primary care offices by 25%
- Utilize and promote diabetes classes offered by the Witham Family YMCA
- Utilize and promote healthy cooking classes offered by the Boone County Cancer Society, the Caring Center, and Purdue Extension



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- Create and promote a container produce gardening program for patients with diabetes and prediabetes
- Increase awareness of the Boone County community gardens to increase access to free, fresh produce
- Remove barriers to healthcare appointments by referring to Boone Area Transit System
- Increase physical activity by promoting and spreading awareness of Boone County parks and free/low-cost fitness classes offered by Witham, Boone County Senior Services, county parks and recreation offices, and online tutorials

HEART DISEASE & STROKE

HEART DISEASE & STROKE

According to the American Heart Association’s (AHA) 2026 Heart Disease and Stroke Statistics Update, heart disease remains the leading cause of death in the United States, while stroke ranked fourth.

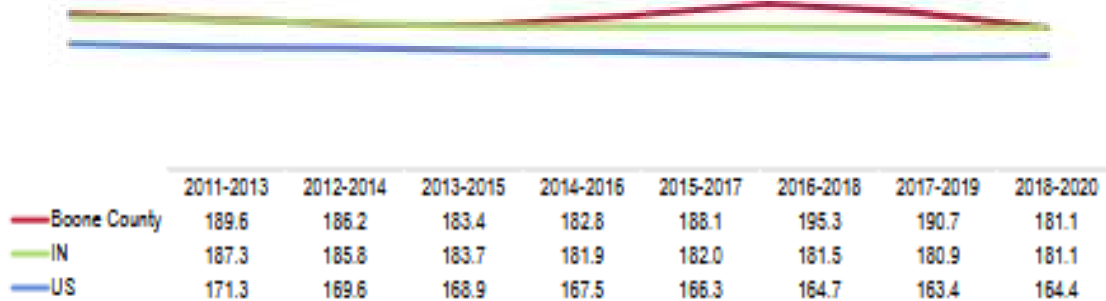
Cardiovascular disease (CVD), which includes heart disease and stroke, remains the leading cause of death in the United States, accounting for 915,973 deaths in 2023 (nearly 3 in 10 fatalities). Although total CVD deaths declined from 2022, heart disease and stroke combined still kill more people annually than the next leading causes, cancer and accidents, combined (What the latest heart disease and stroke numbers mean for your health, 2026).

2026 HEART DISEASE AND STROKE STATISTICS UPDATE HEART DISEASE & STROKE MORTALITY

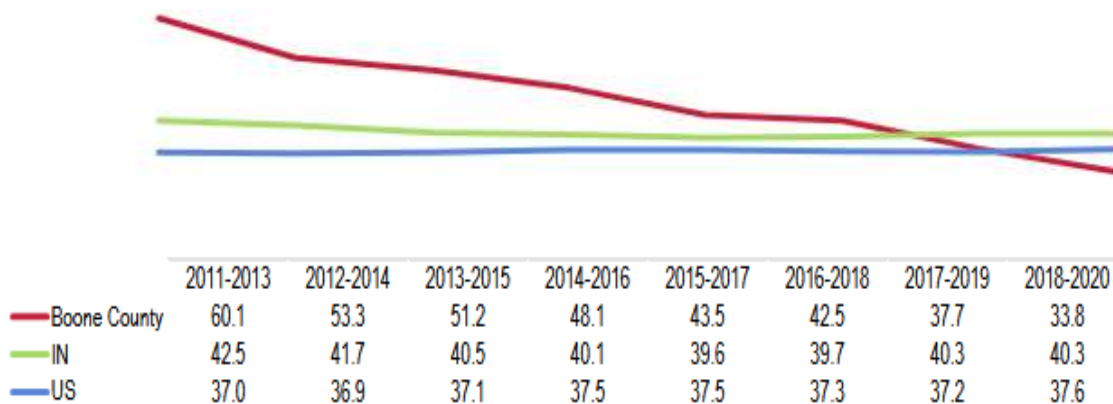
In 2023, heart disease and stroke accounted for more than 25% of all deaths in the U.S. Someone in the U.S. dies from cardiovascular disease every 34 seconds.

Approximately 680,000 deaths from heart disease occurred in 2023. A heart attack occurs every 40 seconds in the U.S. Stroke caused about 1 in every 19 deaths (162,639 total) in the same year. Despite the slight decline, it remains the 4th-leading cause of death. The following graphs describe age-adjusted mortality rates for Boone County, Indiana, and the U.S.:

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



Stroke: Age-Adjusted Mortality Trends (Annual Average Deaths per 100,000 Population) Healthy People 2030 = 33.4 or Lower



RISK FACTORS & PREVENTABILITY

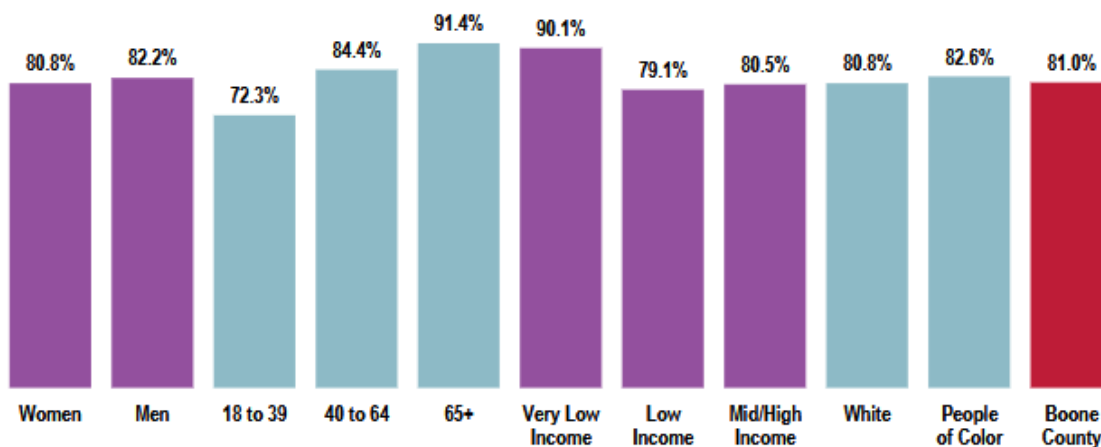
Approximately 80% cases of cardiovascular disease are preventable. It has many risk factors, including obesity, high blood pressure, diabetes, poor physical activity, and smoking (Stroke). However, only half of the people with coronary heart disease (CHD) receive optimal medical therapy. Minority populations face

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significant disparities in care. The risks associated with these are expanded on in this document.

38.1% of respondents to the 2024 Health Needs Assessment reported having high blood pressure compared with 34.5% in Indiana. The same study reported that 35.3% of adults in Boone County had high cholesterol compared with 32.4% in Indiana. It also found that most of the Boone County population has one or more cardiovascular risk factors or behaviors.

**Exhibit One or More Cardiovascular Risks or Behaviors
(Boone County, 2024)**



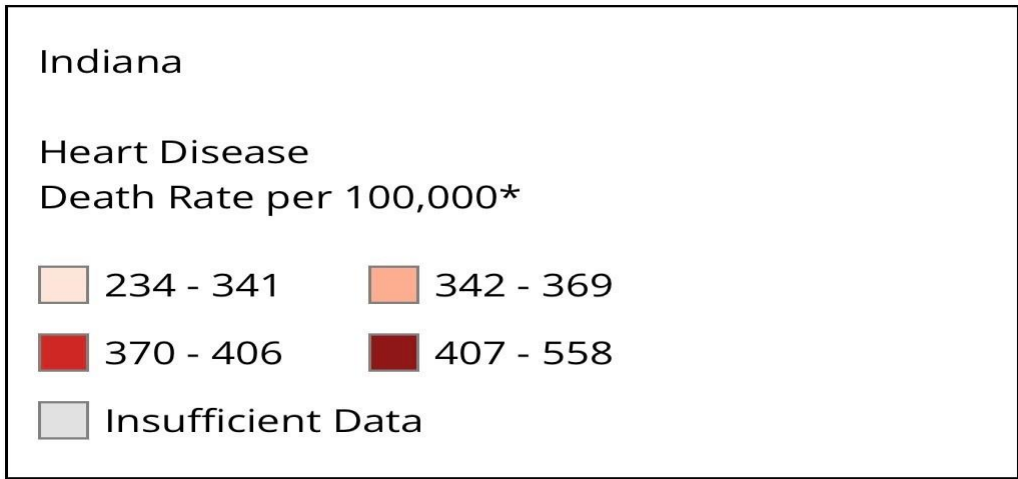
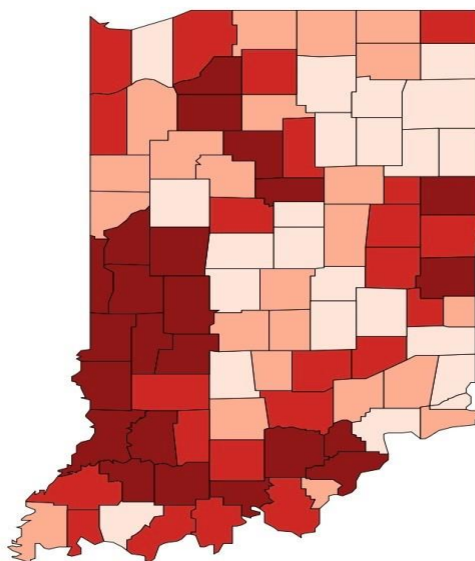
The 2026 Heart Disease and Stroke Statistics Update emphasizes that although acute treatment has improved, rising obesity and hypertension threaten to increase the disease burden over the next 25-30 years. While overall deaths are down, there is a concerning rise in stroke death rates among the youngest (25-34) and the oldest (85+) populations. More than 62 million women in the U.S. are living with some form of cardiovascular disease. The prevalence is highest among American Indian/Alaska Native, Black, Hispanic, and multiracial women.

KEY STATISTICS FROM THE INDIANA DEPARTMENT OF HEALTH

The Indiana Department of Health reports heart disease and stroke are two leading causes of death for Hoosiers (Heart Disease). In 2023, heart disease mortality

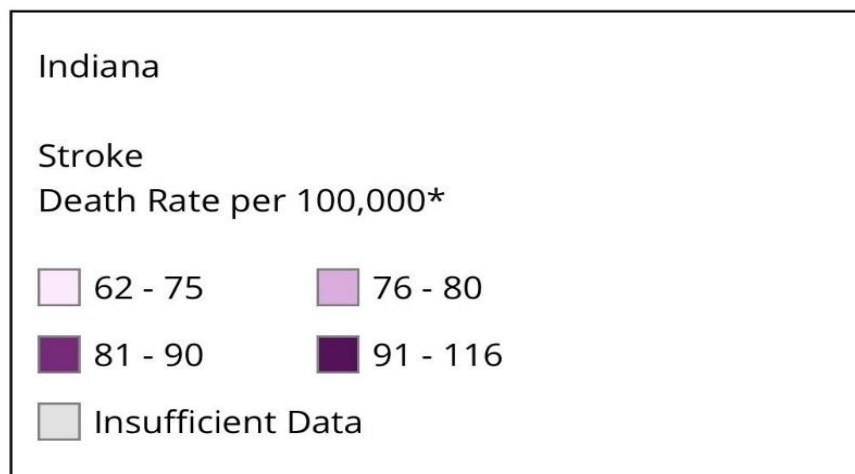
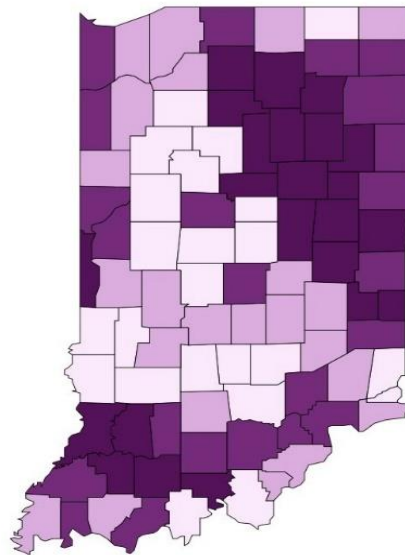
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totaled about 15,161 deaths, yielding an age-adjusted rate of 183 per 100,000 total population (Heart Disease Mortality, 2025). Stroke accounted for nearly 3% of Boone County hospitalizations in 2023 (Stroke). Despite national trends showing a decline in mortality rates, high rates of heart disease risk factors persist, including high blood pressure, high cholesterol, diabetes, physical inactivity, poor nutrition, obesity, smoking, and excessive alcohol intake.



Stroke death rates in Boone County were 71 per 100,00 adults ages 35 and older (CDC). However, a report from the National Institute of Health shows that Boone County’s death rate is falling by approximately 1.3%, based on an average of 2019-2023 death rates (HDPulse, 2026).

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Cardiovascular diseases remain a top health concern in Indiana, with roughly 10.9% of adults reporting a history of heart disease, heart attack, or stroke in 2024. The national average is 9.2%. While recent regional data highlights Boone County as one of the healthier counties in Indiana, our county is at a medium risk level for heart disease mortality. Overall, Indiana ranks 38th among all states (Cardiovascular Diseases in Indiana).

HEART DISEASE AND STROKE

GOAL

- Decrease the death rate and diagnosis of heart disease in Boone County

OBJECTIVES

- Reduce the heart disease death rate from 181.1 to 176.1 (per 100,000, age adjusted) by the end of 2028
- Decrease the percentage of people who have been told they have high blood pressure (HBP) from 38.1% to 33.1% by the end of 2028
- By the end of 2028, increase the percentage of people who have taken action to control high blood pressure from 92.4% to 95%
- Decrease the stroke death rate from 33.8 to 28.5 (per 100,000, age adjusted) by the end of 2028

STRATEGIES

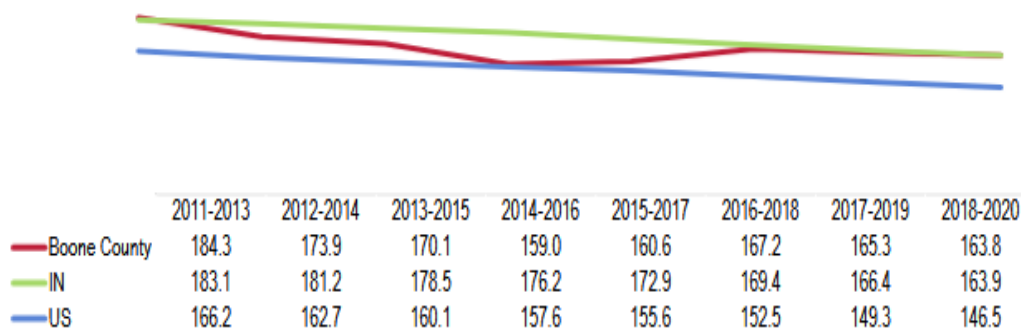
- Provide state-of-the-art medical intervention to save lives in acute cardiac distress
- Provide \$49 Heart Scans
- Provide cardiac catheterization lab (cath lab) services
- Increase access to quick follow-up appointments in the cardiology office for ER patients
- Provide blood pressure screenings at community outreach programs
- Provide educational materials at community events
- Provide adult fitness programs in the cardiac rehabilitation department
- Increase the number of residents with primary care physicians by distributing informational fliers throughout the county listing doctors who are currently accepting new patients
- Utilize and promote Cooking for Wellness classes
- Utilize and promote Boone County Senior Services for transportation to medical appointments for individuals of all ages

CANCER

According to the American Cancer Society, there will be approximately 5,790 new cancer cases diagnosed and 1,720 cancer-related deaths every day in 2026. It’s also estimated that Indiana will see about 44,950 new cases and about 14,230 deaths in 2026 (*Cancer Statistics Center, 2025*). Cancer is the second leading cause of death in the United States.

The following chart from the 2024 Community Health Needs Assessment illustrates age-adjusted cancer mortality of all types:

Cancer: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2030 = 122.7 or Lower



The most common cancers diagnosed in Hoosiers are cancers of the breast, prostate, lung and bronchus, uterine corpus (including cervical), and colorectum. The most fatal cancers for Hoosiers are lung and bronchus, prostate, breast, colorectal, and pancreatic cancers (*Cancer Statistics Center, 2025*). The following graphic illustrates local death rates by cancer site:

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Age-Adjusted Cancer Death Rates by Site
(2018-2020 Annual Average Deaths per 100,000 Population)

	Boone County	Indiana	US	Healthy People 2030
ALL CANCERS	163.8	163.9	146.5	122.7
Lung Cancer	34.0	42.7	33.4	25.1
Prostate Cancer	27.2	19.8	18.5	16.9
Female Breast Cancer	19.7	20.2	19.4	15.3
Colorectal Cancer	16.8	14.6	13.1	8.9

CANCER INTERVENTIONS: SCREENING

Evidence-based cancer screenings can help reduce cancer deaths. Screening recommendations from the American Cancer Society for some of the most common forms of cancer are as follows:

Age 25–39 Screening recommendations

- **Cervical cancer screening** recommended for people with a cervix beginning at age 25.

Age 40–49 Screening recommendations

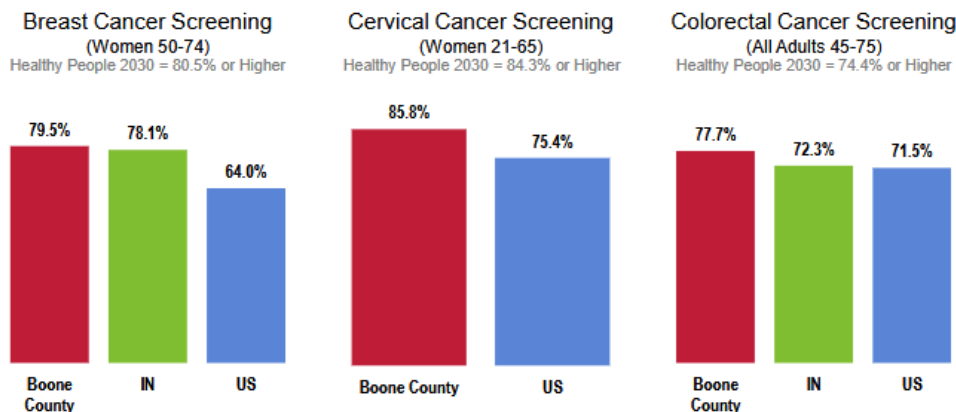
- **Breast cancer screening** recommended beginning at age 45, with the option to begin at age 40.
- **Cervical cancer screening** recommended for people with a cervix.
- **Colorectal cancer screening** recommended for everyone beginning at age 45.
- At age 45, African Americans should discuss **prostate cancer screening** with a doctor.

Age 50+ Screening recommendations

- **Breast cancer screening** recommended.
- **Cervical cancer screening** recommended.
- **Colorectal cancer screening** recommended.
- People who currently smoke or formerly smoked should discuss **lung cancer screening** with a doctor.
- Discussing **prostate cancer screening** with a doctor recommended.

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The following chart indicates the percentage of women in Boone County, Indiana, and the United States who are eligible for different types of cancer screening and have received it.



Boone County women consistently outrank other women in Indiana and the U.S. in cancer screenings. Boone County surpasses the Healthy People 2030 goal for cervical and colorectal cancer screenings.

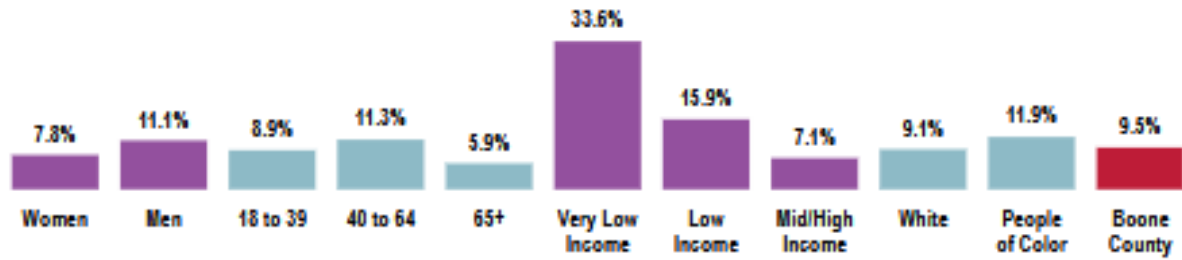
CANCER INTERVENTIONS: TOBACCO CESSATION

Lung cancer is the leading cause of cancer deaths (2024 Community Health Needs Assessment, 2025). The American Cancer Society calls smoking the cause of 80% of all lung cancer deaths (Lung Cancer Risk Factors, 2024).

Tobacco products include cigarettes, cigars, chewing tobacco, nicotine pouches, and e-cigarettes/vapes. Tobacco use causes widespread harm to the body and increases the risk of heart disease, stroke, lung disease, and other forms of cancer (2024 Community Health Needs Assessment, 2025). The Indiana Tobacco Prevention and Cessation Commission estimates our county’s smoking rate is approximately 12.6%, which is slightly lower than Indiana’s at 14.5% (Indiana TPC County Data Dashboard, 2025). This graph from the 2024 Needs Assessment indicates that smoking disproportionately affects low and very low-income local respondents and people of color.

Currently Smoke Cigarettes (Boone County, 2024)

Healthy People 2030 = 6.1% or Lower



Quitting tobacco use has many health benefits, regardless of age or how long a person has been using tobacco products. In particular, quitting smoking has been found to reduce the risk of 12 different cancers, including lung, cervical, colorectal, pancreatic, and stomach cancer (Benefits of Quitting Smoking, 2024).

CANCER INTERVENTIONS: HPV VACCINE

Cervical cancer occurs when cancer cells grow in the lining of the lower part of the uterus (the cervix). The human papillomavirus (or HPV) is the greatest risk factor for cervical cancer and causes 91% of all cervical cancer cases (HPV-Associated Cancer Diagnosis by Age, 2025). HPV can also cause cancer of the vagina, vulva, penis, anus, mouth, throat, head, and neck (Staff, 2026).

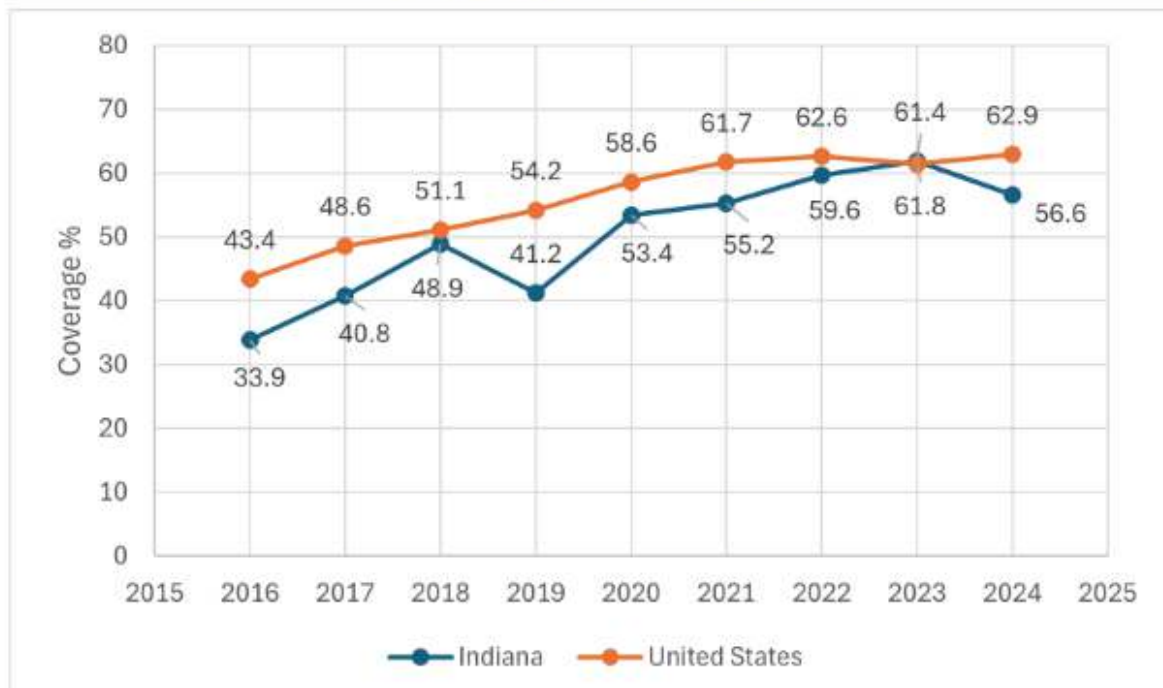
Cervical cancer is nearly 100% preventable through regular screening (like Pap smears and HPV tests), avoiding risk factors, and receiving vaccinations against HPV (Cervical Cancer, 2026).

The HPV vaccine is a series of 2-3 vaccinations that are effective at preventing most of the strains responsible for causing cervical cancer. Anyone between the ages of 11 and 45 is eligible to receive the HPV vaccine (Staff, 2026). However, as of the end of 2024, just over half of all Indiana teens were considered up to date on

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the HPV vaccine. While HPV immunizations are increasing, Indiana still falls behind the rest of the country (Cervical Cancer, 2026).

**Up-to-Date HPV Vaccinations among Adolescents
Age 13-17, Years 2016-2024**



CANCER

GOAL

- Continue reducing cancer-related deaths by focusing on early detection and providing timely screenings

OBJECTIVES

- Increase the number of individuals who undergo cancer screenings by making information about the appropriate timing for these screenings clearer and more accessible
- Improve access to healthcare services, particularly for individuals living in rural areas, ensuring that everyone has the opportunity to benefit from early detection and preventive care

STRATEGIES

- Encourage healthy eating habits and regular physical activity to reduce cancer risk and promote overall well-being
- Offer monthly Cooking for Wellness classes at BCCS and promote the Fight Smart Program at the YMCA
- Sponsor the “Not in My Room” trailer at local school football games as a means of raising awareness about cancer prevention among attendees
- Take proactive steps to prevent tobacco use and support individuals who want to quit, recognizing the significant link between tobacco and cancer
- Work collaboratively with the Health Department to provide educational sessions in local high schools, ensuring that young people are informed about cancer risks and prevention
- Facilitate a monthly support group at the Boone County Cancer Society for individuals affected by cancer, offering a space for connection and shared experiences
- Integrate cancer education and awareness into all fundraising events, using these opportunities to reach wider audiences and reinforce key messages
- Enhance prevention efforts by organizing and participating in awareness and educational events throughout the community



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- Emphasize the importance of mental health during the cancer journey by introducing and promoting the new “Resilience and Renewal Program”

NEXT STEPS

Each priority area will undergo ongoing review and evaluation conducted by community partners involved in implementation.

Additionally, the Boone County Healthy Coalition Advisory Committee will meet annually to evaluate work plans by tracking progress toward achieving listed goals and objectives. During the evaluation process, all ineffective strategies will be revised, and the CHIP will be updated.

If you are interested in more information on how to get involved with the CHIP or the Boone County Healthy Coalition, please contact:

Boone County Health Department
Nursing & Vital Records Division
116 W. Washington St.
B 202
Lebanon, IN 46052
(765) 482-3942

<http://www.boonecounty.in.gov/health>

CITATIONS

A1C Test for Diabetes and Prediabetes. (2024, May 15). Retrieved from CDC:
<https://www.cdc.gov/diabetes/diabetes-testing/prediabetes-a1c-test.html>

About Stroke. (n.d.). Retrieved from American Stroke Association:
<https://www.stroke.org/en/about-stroke>

About Stroke. (n.d.). Retrieved from American Stroke Association:
<https://www.stroke.org/en/about-stroke>

American Diabetes Association. *Prediabetes.* Retrieved from
<https://diabetes.org/about-diabetes/prediabetes>

American Heart Association. (2022). *About Stroke.* Retrieved from
<https://www.stroke.org/en/about-stroke>

Cancer screening is a form of self-love. (n.d.). Retrieved from American Cancer Society: <https://www.cancer.org/cancer/screening/get-screened.html>

Cancer Statistics Center. (2025). Retrieved from American Cancer Society:
https://cancerstatisticscenter.cancer.org/?_gl=1*_zjlblm*_gcl_au*MTAxODU3NzI1OC4xNzc3NDkxMjEx*_ga*MTQyMjQ0NTUwMC4xNzc3NDkxMjEy*_ga_12CJLLFFQT*cze3Nzc0OTEyMTEkbzEkZzEkdDE3Nzc0OTEyMTEkajYwJGwwJGgw#!/

Cardiovascular Diseases in Indiana. (n.d.). Retrieved from America's Health Rankings:
<https://www.americashealthrankings.org/explore/measures/CVD/IN>

CDC. (2024, May 15). *Benefits of Quitting Smoking.* Retrieved from Smoking and Tobacco Use: https://www.cdc.gov/tobacco/about/benefits-of-quitting.html#cdc_generic_section_5-cancer-related-health-benefits-of-quitting-smoking

Centers for Disease Control and Prevention. (2024, May 15). Type 2 Diabetes Retrieved from <https://www.cdc.gov/diabetes/basics/what-is-type-1-diabetes.html>

- Centers for Disease Control and Prevention. (2024, May 15). *What Is Type 1 Diabetes?* Retrieved from <https://www.cdc.gov/diabetes/basics/what-is-type-1-diabetes.html>
- Centers for Disease Control and Prevention. (2026, January 26). *Diabetes Basics*. Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/diabetes/about/index.html>
- Centers for Disease Control and Prevention. (2024, December 24). *Prediabetes – Your Chance to Prevent Type 2 Diabetes*. Retrieved from <https://www.cdc.gov/diabetes/basics/prediabetes.html>
- Centers for Disease Control and Prevention. (2026) National Diabetes Statistics Report, 11 Mar 2026. Available at <https://gis.cdc.gov/grasp/diabetes/diabetesatlas-statsreport.html>.
- Cervical Cancer*. (n.d.). Retrieved from Indiana Cancer Consortium: <https://indianacancer.org/resources/cervical-cancer/>
- Cervical Cancer*. (2026). Retrieved from Indiana Department of Health: <https://www.in.gov/health/cdpc/files/Cervical-Cancer-Fact-Sheet-2026.pdf>
- De la Rosa A, O.-G. G.-C.-P.-L.-L.-D.-C. (2020, February). Physical exercise in the prevention and treatment of Alzheimer's disease. *J Sport Health Sci*. Retrieved from <https://pmc.ncbi.nlm.nih.gov/articles/PMC7498620/>
- Heart Disease*. (n.d.). Retrieved from Indiana Department of Health: <https://www.in.gov/health/cdpc/cardiovascular-health/heart-disease/>
- Heart Disease Mortality*. (2025, August 20). Retrieved from CDC: <https://www.cdc.gov/nchs/state-stats/deaths/heart-disease.html>
- HPV-Associated Cancer Diagnosis by Age*. (2025, December 2). Retrieved from CDC: <https://www.cdc.gov/cancer/hpv/diagnosis-by-age.html>
- Indiana Tobacco Prevention and Cessation County Data Dashboard*. (2025, May 20). Retrieved from Indiana Department of Health : <https://www.in.gov/health/home/tpc-dashboard/>
- Jiang L, C. Y. (2020, December 11). Association of Sedentary Behavior With Anxiety, Depression, and Suicide Ideation in College Students. *Frontiers in*

Psychiatry. Retrieved from
<https://pmc.ncbi.nlm.nih.gov/articles/PMC7793895/>

Lung Cancer Risk Factors. (2024, January 29). Retrieved from American Cancer Society: <https://www.cancer.org/cancer/types/lung-cancer/causes-risks-prevention/risk-factors.html>

Palaniappan LP, Allen NB, Almarzooq ZI, Anderson CAM, Arora P, Avery CL, Baker-Smith CM, Bansal N, Currie ME, Earlie RS, Fan W, Fetterman JL, Barone Gibbs B, Heard DG, Hiremath S, Hong H, Hyacinth HI, Ibeh C, Jiang T, Johansen MC, Kazi DS, Ko D, Kwan TW, Leppert MH, Li Y, Magnani JW, Martin KA, Martin SS, Michos ED, Mussolino ME, Ogungbe O, Parikh NI, Perez MV, Perman SM, Sarraju A, Shah NS, Springer MV, St-Onge M-P, Thacker EL, Tierney S, Urbut SM, Van Spall HGC, Voeks JH, Whelton SP, Wong SS, Zhao J, Khan SS; on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Committee. 2026 Heart disease and stroke statistics: a report of US and global data from the American Heart Association. *Circulation*. 2026;153:e275–e906. doi: 10.1161/CIR.0000000000001412

Slowik, J. M., Sankari, A., & Collen., J. F. (2025). Obstructive Sleep Apnea. *StatPearls*. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK459252/>

Staff, M. C. (2026, March 16). *HPV vaccine: Who needs it, how it works*. Retrieved from Mayo Clinic: <https://www.mayoclinic.org/diseases-conditions/hpv-infection/in-depth/hpv-vaccine/art-20047292>

Stroke. (n.d.). Retrieved from Indiana Department of Health: <https://www.in.gov/health/cdpc/cardiovascular-health/stroke/>

Stroke. Retrieved from Indiana Department of Health: https://www.in.gov/health/cdpc/cardiovascular-health/stroke/#Stroke_risk_factors

The Burden of Diabetes in Indiana. (2025, August). Retrieved from American Diabetes Association: <https://diabetes.org/sites/default/files/2025-08/indiana-diabetes-08-26-25.pdf>

U.S. Census Bureau. (2024, July). *U.S. Census Bureau QuickFacts: Boone County, Indiana*. Retrieved from <https://www.census.gov/quickfacts/fact/table/boonecountyindiana/PST045224>

U.S. Department of Agriculture, U.S. Department of Health and Human Services. (2026, January). *Dietary Guidelines for Americans, 2025-2030*. Retrieved from <https://cdn.realfood.gov/DGA.pdf>

What the latest heart disease and stroke numbers mean for your health. (2026, January 21). Retrieved from American Heart Association: <https://www.heart.org/en/news/2026/01/21/what-the-latest-heart-disease-and-stroke-numbers-mean-for-your-health>

Witham Hospital. (2025, April). *Witham Health Services 2024 Community Health Needs Assessment and Implementation Strategy*. Retrieved from <https://www.witham.org/sites/default/files/CHNA/FINAL-Signed-2024-CHNA-Implementation-Strategy.pdf>

Witham Hospital. (2025, January). *Community Health Needs Assessment*. Retrieved from <https://www.witham.org/sites/default/files/CHNA/2024-Final-CHNA-Report-Witham.pdf>

Zachary J. Ward, S. N. (2019). Projected U.S. State-Level Prevalence of Adult Obesity and Severe Obesity. *The New England Journal of Medicine*. Retrieved from https://www.nejm.org/doi/full/10.1056/NEJMsa1909301?query=featured_home