HEALTH EQUITY 2018 THE STATE OF HEALTH IN MARION COUNTY





Prevent. Promote. Protect.



November 2018

Dear Partner in Health,

I'm delighted to share the Marion County Public Health Department 2018 Health Equity Report. The MCPHD Health Equity Report was developed for Indianapolis residents, policymakers, public health employees, and public health partners who are interested in advancing progress in health equity in Indianapolis. This report provides a description of our health data and, hopefully, a springboard to develop policies and practices that will contribute to making Marion County a more equitable community in which to live. I hope that it will add to the body of knowledge to analyze policy proposals for their impacts on health equity.

It will take everyone from all sectors in our community--education, business, planning, housing, transportation and community members-- and from all levels to improve the underlying conditions of inequality. Analysis of population-based data will support a focus on solutions to reduce health inequities and reduce the burden on our children in the future.

On behalf of the staff of the Marion County Public Health Department and its Department of Epidemiology which developed this report, we look forward to each of you becoming involved in making Indianapolis a healthy, thriving, and equitable community.

Yours in health,

Virginia A. Caine, M.D.

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Key Findings

This report illustrates that in Marion County, Indiana, health outcomes are impacted by race/ethnicity, income level, gender, age, and place of residence.

- Black, Non-Hispanic residents appear to be burdened by the highest level of health inequity when compared to other racial/ethnic groups. On the majority of topic areas considered in this report (maternal and child health, chronic disease, infectious disease, injury and violence, and mortality), Black, Non-Hispanic residents fared worse than their White, Non-Hispanic and Hispanic counterparts.
- White, Non-Hispanic residents had worse mental health and substance use outcomes than Black, Non-Hispanic and Hispanic residents.
- People living in high-poverty census tracts are more likely to have environmental hazards nearby. Those living in poverty are also faced with more chronic disease inequities.
- Men and women have different top ca uses of death. Men are far more likely to die by homicide, particularly by firearm, than women.
- Where you live affects your life expectancy. In different Marion County ZIP Codes, life expectancy ranges from a low of 70 years to a high of 86 years, which is a difference of 16 years.

Key Findings

The table below outlines trends on selected indicators from this report comparing Marion County as a whole to Indiana and the United States. Rates are reported for 2016, unless indicated.

Indicator	Marion County	Indiana 🎵	U.S. 🦙
Labor Force Participation Rate	67.7%	64%	63.5%
Unemployment	4.5%	4.4%	4.9%
Population Below Federal Poverty Guideline	21%	15%	15%
Population with Less than a High School Diploma	14%	12%	13%
Incarceration Rate (2015)	311 per 100,000	376 per 100,000	327 per 100,000
Percent of households that spend more than 35% of income on rent	44%	40%	42%
Low Birth Weight	10%	8.2%	8.2%
Prenatal Care in First Trimester	63%	69%	77%
Preterm Births	12%	9.9%	10%
Infant Mortality Rate	10 per 1,000	7.3 per 1,000	5.9 per 1,000
Adult Smoking Prevalence	21%	21%	16%
Adult Hypertension Prevalence (2015)	28%	32%	31%
Adults who had a Dental Visit in Past Year	41%	62%	63%
Adults without Health Care Coverage	15%	11%	10%
AIDS Diagnosis Rate	10-15 per 100,000	4.2 per 100,000	6.7 per 100,000
Syphilis Diagnosis Rate	15 per 100,000	4.9 per 100,000	8.7 per 100,000
Chlamydia Diagnosis Rate	1085 per 100,000	466 per 100,000	497 per 100,000
Gonorrhea Diagnosis Rate	445 per 100,000	143 per 100,000	146 per 100,000
Overdose Rate	29.2 per 100,000	22.9 per 100,000	19.7 per 100,000
Homicide Rate	17 per 100,000	7.2 per 100,000	6.0 per 100,000
Firearm Death Rate	22 per 100,000	15 per 100,000	12 per 100,000
Life Expectancy	77.1 years	77.6 years	78.6 years

Glossary

Acute Infection – Acute infections are infections that occur relatively suddenly. They may require medical treatment or may resolve on their own.

Age-adjusted Rates – Age-adjusted rates adjust for differences in the distribution of age in a population.

BRFSS (BRFSS) – The Behavioral Risk Factor Surveillance System is a national survey that collects state and city level data about health and risk factors.

Body Mass Index (BMI) – Body Mass Index is a calculation used for estimating the amount of body fat in an individual. BMI is calculated using height and weight to classify people as underweight, normal weight, overweight, or obese. BMI can be influenced by muscle mass, age, and sex, which may lead to an inaccurate classification at the individual level. However, BMI is an accepted indicator for determining body fat among the overall population.

Census Tract – A census tract is a unit used by the Census Bureau that is smaller than a zip code. The census tract maps in this report use 2010 census tract boundaries.

Chronic Diseases – Chronic diseases are conditions that last for three months or more and are not typically spread person-to-person.

Confidence Interval – When estimating statistics such as rates, a range in which the true value is likely to fall is also calculated. This range is called a confidence interval. The probability that the confidence interval includes the true value is the confidence level; this report uses a 95% confidence level. If the width of the confidence interval is too wide, the statistic or rate is considered to be unstable. Unstable rates are not good to use as predictors of what could happen in the future. Rates may become unstable in several ways. For example, if there are only a few events in a population or if the population size is small, then the addition or subtraction of a few more events can drastically change the value of the rate.

Count: A count (or frequency) is the number of times an event happened.

Crude Rates – Crude rates are calculated using only the number of persons affected by a health outcome and the total number of people who could be affected. This rate does not adjust for differences in the distribution of sex, race/ethnicity, and/or age in a population.

Ethnicity – Ethnicity is a social classification based on shared cultures, languages, and ancestries. In this report, ethnicity refers to whether someone identifies themselves as being Latino.

Foreign-born – Residents who were born outside of the country in which they currently live are considered foreign-born.

Federal Poverty Guideline (FPG) – The Federal Poverty Guideline is an income level determined by the Department of Health and Human Services and is used as a poverty threshold. The 2016 FPG was \$11,880 for a one-person household and \$24,300 for a four-person household. FPG is often referred to as the Federal Poverty Level (FPL).

Health Equity – Equity is the "freedom from bias or favoritism."¹ When this term is applied to a person's state of wellbeing, health equity is considered to be the equal opportunity for all people to attain the highest level of health. Health equity is achieved when each person is valued equally, avoidable inequalities and health disparities (or health inequities) are identified, and barriers to health, such as poverty and discrimination, are addressed or eliminated.^{2,3,4}

Healthy People 2020 – Healthy People 2020 is an initiative developed by federal agencies, including the Centers for Disease Control and Prevention, National Institute for Health, and the Office of Health and Human Services, which sets 10-year goals for health and risk factors.

International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) – ICD-10 is a clinical cataloging system created and published by the World Health Organization (WHO) to classify causes of death, diseases, signs and symptoms, complaints, and other underlying causes of disease.

Mortality – Mortality is another term for death and is usually used when referring to populations.

Poverty – In the U.S., poverty refers to individuals and families whose income is below the Federal Poverty Guideline.

Prevalence – Prevalence is the proportion of a population with a disease or health condition.

Race – Race is a social classification based on ancestry, skin color, and other physical features. In most of the data used in this report, a person's race is self-reported.

Rate – Rates are calculated by dividing the count of events by the size of the population in which they occur. Rates are often used to describe statistics instead of counts because counts alone do not allow us to compare populations. A high count in one group of people does not guarantee a high rate. If the population size is small, a small number of events can result in a high rate. To effectively compare two different groups of people, rates are used in place of counts.

Rate per 100,000 population – Rates are multiplied by a large number — most often 100,000 – to simplify comparisons. A rate per 100,000 will describe the number of events or illnesses that occurred in a population for every 100,000 people.

Risk Factors – A risk factor is a characteristic that increases the risk for developing a disease or health condition. For example, risk factors for some diseases include smoking, poor diet, and alcohol consumption.

Methodology

Demographics:

Demographics refer to characteristics of a given population. Examples of demographics are age, gender, and race. Much of the demographic data included in this report came from the 2012-2016 American Community Survey from the U.S. Census Bureau. Additional sources were used for other demographic information. Specific sources are listed beneath each statistic.

Infographics:

Infographics in the report were created with the online tool Piktochart.

Maps:

Maps in this report were created by the Geographic Information System section of the Health and Hospital Corporation's Corporate Information Services Department. Census tract maps use 2010 census tract boundaries. Most overlay data is from the 2012-2016 American Community Survey from the U.S. Census Bureau. Additional sources were used as needed. Specific sources are listed beneath each map.

Data:

Much of the data included in this report came from the 2016 Behavioral Risk Factor Surveillance Survey and Marion County birth and death records. Additional sources were used for some health outcomes. The data source is listed below each graph. Statistical analyses were performed and graphs were created using SAS and R software, versions 9.4 and 3.4.1, respectively.

Rates listed are crude rates and are not age-adjusted. Each graph has a line that is labeled "All Marion Co." to indicate the overall rate for Marion County.

Data used for national and Indiana rates were primarily collected from the Centers for Disease Control and Prevention's National Center for Health Statistics. Included statistics are crude rates for the year 2016, unless otherwise specified. Sources are listed below each statistic.

Confidence Interval Graphs:

Some of the graphs in this report show confidence intervals in addition to, or in place of, rates. These graphs are used when one or more of the rates are unstable. Rates can become unstable when the number of events is small or the population size is small. When either of those conditions occurs, a very small increase or reduction in the number of events can cause the rate to change drastically. Due to that lack of stability, the rate may be considered unstable. In line graphs that show confidence intervals, the line represents the point estimate of the rate. The bands around the line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or due to a small population size. In bar graphs, the bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

Marion County ZIP Codes and Census Tracts

46077 46256 46236 46220 46216 46254 462HH 46226 46205 46208 46214 46229 46219 46234 46204 46231 46203 46225 46107 46221 46227 46217 46237 46259 46113

MARION COUNTY ZIP CODES

Zip Code Boundaries

Source: ESRI, ARC GIS Software

MARION COUNTY 2010 CENSUS TRACTS







Source: Census Bureau, 2010 Census

These maps show the ZIP Code and 2010 census tract boundaries for Marion County. Throughout this report, maps will be shown either by ZIP Code or by census tract.

SECTION 1 HEALTH EQUITY & OUR COMMUNITY



What is Health Equity?

Equity is the "freedom from bias or favoritism."¹ When this term is applied to a person's state of wellbeing, health equity is considered to be the equal opportunity for all people to attain the highest level of health. Health equity is achieved when each person is valued equally, avoidable inequalities and health disparities (or health inequities) are identified, and barriers to health, such as poverty and discrimination, are addressed or eliminated.^{2,3,4} Health equity differs from health equality in that those with worse health outcomes and fewer resources require more, not equal, support in achieving the highest level of health.³ Health People 2020 defines a health disparity as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage."² Certain groups of people are more likely to experience health inequities based on race and ethnicity, socioeconomic status, gender, age, disability, sexual orientation or gender identity, mental health status, geographic location, or other qualities historically linked to discrimination.² This report will show how health indicators (for example, asthma prevalence) differ between groups of people in Marion County, Indiana. In addition to health outcomes, this report will also look at factors that influence health, such as education level, access to food, and unemployment. The topics in this report were chosen to highlight existing inequities in Marion County and to present opportunities for improvement.

Local Solutions to Reduce Health Inequities

Achieving health equity in Marion County is not an easy task. Many reasons for the existence of health inequities are rooted in the history of our county, state, and nation. Groups of people who have historically faced discrimination often are confronted with worse health outcomes today. In Marion County, Black, Non-Hispanic residents and those living in poverty appear to be burdened by the highest levels of health inequities when compared to other demographic groups.

However, there are steps that can lead to solutions at the local level. To reduce the burden of disease at the community level, attention must be focused on addressing the greatest inequities. This means focusing local policies where the biggest impact can be made. Local businesses and groups can ensure that consideration is given to health inequities during the creation of all policies. Lawmakers have the opportunity to reduce health inequities and create a healthier community by passing legislation that assures equitable access to opportunities and resources.

When groups of people and agencies create community partnerships and coalitions in order to work together to achieve a shared goal, the impact can be much greater than each group working separately. A shared vision for equity in Marion County can join different groups together to create a closer community. Every Marion County resident has the opportunity to learn about bias in our community and what can be done to help overcome barriers to achieving health equity. Individuals can join or support community groups and coalitions that focus on equity and can urge local policy makers and legislators to consider working toward an equitable Marion County.

A Brief History

The past informs the present. Without knowing what came before, it is hard to understand how we got to where we are now. The following pages show an incomplete timeline for Marion County and Indianapolis. It is filled with events that caused change, good or bad, for those that live or once lived here. Several of the events described in this timeline influenced many current health inequities detailed in this report.

- Pre-1820. Before being chosen as the site of the future state capital, the marshy land where Indianapolis stands was in the tribal lands of the Lenape Delaware. Under the Treaty of St. Mary's, the Lenape left the area by 1818. Because of the mosquito-infested marshy ground, early settlers suffered from frequent malarial outbreaks.⁵
- 1820s. Indianapolis was founded in 1821 and was designated the seat of Marion County. The state legislature chose Indianapolis as the state capital, which was relocated from Corydon in 1825. The city was designed after Washington D.C. by Alexander Ralston and Elias P. Fordham. The White River was found unnavigable for powered water transport, hampering the early growth and economic development of the city.⁶
- **1830-39**. The National Road (now I-40) was constructed through the city, increasing population and industrial growth.⁶
- 1850s. Rail lines that connected Indianapolis, the Great Lakes, and the Ohio River led to more growth.⁷
 Due to smallpox epidemics in 1848 and 1855, construction was started on the Indianapolis City
 Hospital. The first Board of Health was founded in 1859.⁵
- 1860s. Indiana was the first western state to mobilize in support of the Union in 1861. As a growing industrial, political, and transportation bastion of the Union war effort, the city's population doubled to 45,000 during the war years. Many of the new residents were African-Americans fleeing the war-torn South. Indianapolis developed a large, vibrant, African-American community, which for many decades was the largest of any northern city. During the Civil War, over 210,000 Hoosiers (15% of the state population) served in the Union Army or Navy.⁸ The state fairgrounds became a training camp and later a prison camp called Camp Morton, and Indianapolis City Hospital became a military hospital. After the Civil War, the hospital returned to public control.⁹
- **1876**. Notable Indiana Civil War veteran and pharmaceutical chemist Colonel Eli Lilly established Eli Lilly and Company.
- **1888**. The nation's first nationally circulated illustrated Black newspaper, *The Indianapolis Freeman,* started publication.
- **1890s**. The Flanner Guild was formed as a social welfare organization to assist African-Americans; it was renamed Flanner House in 1912.
- **1900**. The population of Indianapolis reached over 169,000 from an 1850 population of 8,000.¹⁰

- 1908. Construction on the Indianapolis Motor Speedway and the Town of Speedway began. The first Indianapolis 500 ran in May of 1911.¹¹
- **1910**. Madam C.J. Walker, one of the first self-made female millionaires, established her manufacturing company and laboratory in Indianapolis. She was a national advocate for civil rights and women's economic independence.¹²
- **1917**. During WWI, the "Great Migration" began as African-Americans migrated north to Indiana to take advantage of rapid wartime industrial growth. Facing discrimination, most migrants had to move into traditional Black neighborhoods. Indianapolis' German citizens also faced discrimination during this time, and many German words and names were replaced.¹³
- **1920s**. During the national resurgence of the Ku Klux Klan (KKK) in the 1920s, Indiana KKK leader D.C. Stephenson had major state political power because 250,000 KKK members resided in Indiana alone. The KKK had a notable presence in Indiana state and local governments. Many restrictive housing and segregationist ordinances were passed in Indianapolis, drawing strong lines around minority neighborhoods. Although the National Association for the Advancement of Colored People was successful in a legal challenge against one notorious housing ordinance in 1926, Indianapolis in the 1920s was more segregated than ever before.^{14,15}
- **1925**. Following the murder conviction of D.C. Stephenson for the rape and murder of local Indianapolis resident Madge Oberholtzer, KKK power began to wane in Indiana and nationally.¹⁵
- **1927**. Prior to 1927, Indianapolis high schools were not segregated; this changed during the KKK era. The first segregated high school for African-American students, Crispus Attucks High School, opened despite opposition from Black civic organizations.¹⁶
- 1930s. The 1933 Home Owners Loan Act was passed and introduced standardized appraisals through the Home Owners Loan Corporation (HOLC). The racial component of the surveys reinforced the undervaluing of minority communities. The resulting redlining caused shortages of housing for African-Americans, leading to the development of Indianapolis' first public housing complex, Lockefield Gardens, in 1935.¹⁵
- **1946**. Flanner House asked the Indianapolis Redevelopment Commission for land and materials north of Crispus Attucks High School on which African-American clients could build their own homes; over 300 houses were built. Only four of the homeowners lost their homes due to foreclosure, and the project was deemed a success.¹⁵
- **1947**. Indianapolis City Hospital was renamed Indianapolis General Hospital. Under the leadership of Superintendent Charles W. Myers, M.D., the hospital added African-American medical staff.⁹
- 1948. School racial segregation was banned in Indiana.
- **1950s**. Expanding post-war ownership of automobiles allowed predominately white residents to relocate to the growing ring suburbs in so-called "White Flight." Black residents were left in the older city neighborhoods, causing racial segregation to grow in Marion County.¹⁵
- **1951**. The Health and Hospital Corporation of Marion County was founded to govern the public health and hospital system and to protect it from political influence.⁹

- 1960s. National large scale construction of the interstate system extended to Indianapolis. The highway system passed through into the downtown area, often cutting through historic and minority neighborhoods. The severing of neighborhood surface street interconnections that had once held together communities, and the environmental impact of construction, contributed to urban blight in the central city.¹⁵
- **1968**. Following the assassination of Reverend Martin Luther King, Jr., Robert Kennedy delivered an improvised speech while campaigning for the Democratic nomination for U.S. President to a largely African-American crowd at what is now called the Dr. Martin Luther King Jr. Park, in which he announced Dr. King's death and first spoke in public regarding his brother's assassination. His speech encouraged community over division. Indianapolis was one of the only major cities to not experience riots in the wake of the assassination of Dr. King.¹⁷
- **1970s**. The mayor of Indianapolis, Richard G. Lugar, proposed a solution to declining tax revenues in Indianapolis arising from "White Flight" to the suburbs. The plan, called Unigov, combined Indianapolis with ten Marion County towns to form one city government. Public school systems remained independent; Indianapolis Public Schools (IPS) were predominantly African-American and township schools were predominantly White. IPS and township schools were not merged together. In 1971, U.S. District Judge S. Hugh Dillin ruled the schools were unlawfully segregated and in 1973, students of IPS were ordered to be bused to township schools.¹⁸
- 1975. Indianapolis General Hospital was renamed Wishard Memorial Hospital.⁹
- **1980 '90s**. In 1984, the Baltimore Colts relocated to Indianapolis, igniting interest in downtown redevelopment. In 1987, the 10th Annual Pan American Games were held in Indianapolis.¹⁰
- **1990**. Indiana teenager Ryan White, the national icon for HIV awareness and acceptance, passed away on April 14th. Soon after, Congress passed the Ryan White CARE Act, the largest HIV treatment program in the United States.
- **2008**. The new Indianapolis International Airport, the largest building project in the city's history, was completed.
- **2012**. Gains in walkability and mixed street use were accomplished through the passage of Complete Streets and the construction of the Heritage Trail walking system. A state indoor smoking ban was passed, and Indianapolis passed a more comprehensive ban on public smoking. Most excluded municipalities in Marion County have since implemented public smoking restrictions.
- **2013**. Sydney & Lois Eskenazi Hospital opened, replacing the aging Wishard Memorial Hospital. Serving over 1,000,000 patients a year at its main campus and 10 other service sites in the city, Eskenazi is the largest public health system in Indiana.⁹

Marion County: Community Facts



Source: Census Bureau, 2010 Census

Source: Census Bureau, 2010 Census

13% of Marion County residents speak a language other than English at home. 9% of Marion County residents speak

Spanish at home.

Source: Census Bureau, 2012-2016 American Community Survey

In 2014, **86%** of refugees arriving in Indiana were resettled in Marion County. **83%** of refugees to Indianapolis from Burma were of Chin ethnicity.

Source: Indiana State Department of Health Refugee Report, December 2014

54% of occupied housing units in Marion County are owner-occupied.

Source: Census Bureau, 2012-2016 American Community Survey



of Marion County

residents were born outside of the United States.

Source: Census Bureau, 2012-2016 American Community Survey

Top countries of birth for foreign-born Marion County residents:

- 1. Mexico
- 2. India
- 3. Burma
- 4. Honduras
- 5. Nigeria
- 6. El Salvador
- 7. Guatemala
- 8. China
- 9. Philippines
- 10. Korea

Source: Statistical Atlas, Marion County

Of foreign-born Marion County

residents,



are naturalized U.S. citizens.

Source: Census Bureau, 2012-2016 American Community Survey

12%

of Marion County children 3 to 17 years old^{*} are **not** enrolled in school.

*based on children in households

Source: Census Bureau, 2012-2016 American Community Survey

For the population of Marion County aged 25 years and over:

- The poverty rate for those with less than a high school diploma is 34%.
- The poverty rate for those who are high school graduates is 14%.
- The poverty rate for those with a bachelor's degree or higher is 5%.

Source: Census Bureau, 2012-2016 American Community Survey

8.6 per 1,000

Marion County couples are same-sex couples.

Source: The Williams Institute, 2017

14%

of Marion County residents have less than a high school diploma.

Source: Census Bureau, 2012-2016 American Community Survey

Of Marion County self-reported race/ethnic groups,

11% of Hispanic or Latino residents have a bachelor's degree or higher.

17% of Black residents have a bachelor's degree or higher.

35% of White, Non-Hispanic residents have a bachelor's degree or higher.

51% of Asian residents have a bachelor's degree or higher.

Source: Census Bureau, 2012-2016 American Community Survey

In Indiana, 96.5% of residents identify themselves as **Straight**, 1.2% as **Lesbian or Gay**, 2.1% as **Bisexual**, and 0.2% as **Other.**

Source: Indiana BRFSS, 2015

16% of Marion County residents receive Food Stamps/SNAP benefits.

80% of families receiving Food Stamps/SNAP had at least 1 worker in the household in the past 12 months.

31%

of Marion County children live below the poverty level.

Source: Census Bureau, 2012-2016 American Community Survey

For the graph to the right, singleparent households may include unmarried couples who live together. Single-parent households do not include those in which children live with married stepparents.

Racial/ethnic groups represented in this graph are not always mutually exclusive. Black parents include those who identify ethnically as Hispanic or Non-Hispanic. Those included in the Hispanic category include parents who identify ethnically as Hispanic and do not identify as being White.

13% of Marion County residents are disabled. Source: Census Bureau, 2012-2016 American Community Survey Marion County Residents by Federal Poverty Status, 2016

79%

Source: Census Bureau, 2016 American Community Survey

Marion County Single-Parent Households by Race/ Ethnicity and Gender, 2017



Source: Census Bureau, 2017 American Community Survey

Below FPG

Above FPG

The 2017 adult recidivism rate for the Indiana Department of Corrections was

34%.

Recidivism is the return to incarceration within three years of an offender's date of release.

Source: IDOC Adult Recidivism Summary, 2017

Recidivism occurs at a higher rate in men. According to the Indiana Department of Corrections (IDOC), in 2017:

- Adult males had a recidivism rate of 35%.
- Adult females had a recidivism rate of 26%.

Source: IDOC Adult Recidivism Summary, 2017

In 2017, IDOC offenders who participated in work release were **38% less likely** to return to prison.

Source: IDOC Adult Recidivism Summary, 2017

The Marion County, IN, incarceration rate in 2015 was **311 per 100,000.**

Source: Vera Incarceration Trends, 2015

In Marion County, IN, the 2015 incarceration rate was:

661 per 100,000 for Black residents

249 per 100,000 for White residents

118 per 100,000 for Latino residents

Source: Vera Incarceration Trends, 2015

Black men are **20%** more likely to be sentenced to federal prison than white men.

Sophia Kerby, The Top 10 Most Startling Facts About People of Color and Criminal Justice in the United States, Center for Am. Progress (Mar. 13, 2012), https://www.americanprogress.org/ issues/race/news/2012/03/13/11351/the-top-10-moststartling-facts-about-people-of-colorand-criminal-justice-inthe-united-states/

In 2016, the unemployment rate for Marion County was

4.5%.

Source: Bureau of Labor Statistics, 2016

Employment alone is not a guarantee that an individual or family will be able to afford everything they need. Why does this happen? Federal and Indiana minimum wage is \$7.25/hour. A living wage, according to the Miriam-Webster dictionary, is the amount an individual would find sufficient to provide the necessities and comforts essential for an acceptable standard of living. A living wage for the state of Indiana would be \$11.00 for a single adult living alone, which is a difference of \$3.75/hour from the current minimum wage.

Source: Living Wage Calculator, Massachusetts Institute of Technology (MIT)

Image: marked and the second and th

LABOR FORCE PARTICIPATION RATE BY CENSUS TRACT

Source: Census Bureau, 2012-2016 American Community Survey, DR3428

The map above shows the labor force participation rate by census tract. The average rate for Marion County is 67.7%. The labor participation rate is the proportion of residents aged 16 and over in the labor force. The dark blue color on the map shows the census tracts with the lowest labor force participation rates. The 2016 U.S. labor participation rate was 63.5%.

These maps show the percentage of the population that lives below the 100% and 200% federal poverty guidelines (FPG). FPG is often referred to as the Federal Poverty Level (FPL). Persons living below the 100% **FPG** are considered impoverished. The 100% FPG for 2016 was \$11.880 for a one-person household and \$24,300 for a fourperson household. The 200% FPG for 2016 was \$23,760 for a one-person household and \$48,600 for a fourperson household. Areas in the central and eastern parts of the county have the highest percentages of the population living below 100% and 200% of the FPG for 2016. Current FPG rates can be found at the U.S. Department of Health and Human Services website.

PERCENT OF THE POPULATION BELOW 100% OF THE FEDERAL POVERTY GUIDELINE



Source: Census Bureau, 2012-2016 American Community Survey, DR3428

PERCENT OF THE POPULATION BELOW 200% OF THE FEDERAL POVERTY GUIDELINE



Source: Census Bureau, 2012-2016 American Community Survey, DR3428

These maps show the percentages of the population with a bachelor's degree or higher and a high school diploma or less by census tract. The tracts with the highest percentages of the population with at least a bachelor's degree are located in the northern part of the county and near downtown **Indianapolis.** The census tracts with the highest percentage of the population with a high school diploma or less are located in the central part of the county. Note the similarity between the map of high school diploma or less and the map for the percentage of population living below 200% FPG found on the previous page.

Image: Control of the control of th

PERCENT OF THE POPULATION WITH A BACHELOR'S DEGREE OR HIGHER BY CENSUS TRACT

Source: Census Bureau, 2012-2016 American Community Survey, DR3428

PERCENT OF THE POPULATION WITH A HIGH SCHOOL DIPLOMA OR LESS BY CENSUS TRACT



Source: Census Bureau, 2012-2016 American Community Survey, DR3428

The top map shows the percentage of the **Marion County** population that self-identifies as any racial or ethnic minority by census tract. Census tracts with the highest percentages of minorities are located in the central eastern, central western and northwestern areas of the county. The bottom map shows the percent of the Marion County population that self-identifies as **Hispanic/Latino** by census tract. The census tracts with the greatest percentage that identify as **Hispanic/Latino** are located in the western portion of the county.

MINORITY POPULATIONS IN MARION COUNTY:

PERCENT OF THE POPULATION THAT IDENTIFIES AS A RACIAL OR ETHNIC MINORITY



Source: Census Bureau, 2012-2016 American Community Survey, DR3428

PERCENT OF THE POPULATION THAT IDENTIFIES AS HISPANIC/LATINO



Source: Census Bureau, 2012-2016 American Community Survey, DR3428

The top map shows the percent of the Marion County population that self-identifies as Black, Non-**Hispanic by** census tract. Few census tracts in the southern half of the county have a percentage more than 20% of Black, Non-**Hispanic** residents. The bottom map shows the percentage of the **Marion County** population that self-identifies as White, Non-**Hispanic by** census tract. **Census tracts with** the highest percentages of White, Non-Hispanic residents are in the southern and northern parts of the county.

PERCENT OF THE POPULATION THAT IDENTIFIES AS BLACK, NON-HISPANIC



PERCENT OF THE POPULATION THAT IDENTIFIES AS WHITE, NON-HISPANIC



Source: Census Bureau, 2012-2016 American Community Survey, DR3428

SECTION 2 THE ENVIRONMENT & HEALTH



The environment can have a big impact on health. Environment can refer to the land and nature around us, the quality of the air we breathe, or the level of contaminants in the water we drink. It can also refer to the built environment, which includes where sidewalks are located, how many bus stops are in an area, or how accessible healthy food is for people living in a given zip code. This section explores multiple aspects of environment – the natural world, human impact on nature, and how what we build may affect our overall health.



Housing

Source: Census Bureau, 2012-2016 American Community Survey, DR3694

The graph above shows rental housing costs. Specifically, the graph shows how much of total household income is spent on rent for renter-occupied housing in all of the United States (shown in gray), in all of Indiana (shown in navy blue), and in Marion County (shown in green). Renter-occupied housing is differentiated from owner-occupied housing in that the unit (home or apartment) is rented instead of occupied by the property owner. While Marion County largely follows national and state trends, it does have a higher percent of households who spend 35 percent or more of household income on rent (44% in Marion County compared to 40% in Indiana and 42% in the United States).¹⁹

Households that spend 30% or more of household income on rent are considered "rent burdened." Residents in these households are more likely to be evicted, more likely to use social safety net programs, and have less financial stability.²⁰ The demand for rental housing is on the rise—10% more of the US population rented in 2015 than in 2001.²⁰ With high demand and high costs for rental housing, it is likely that the quality of housing available to residents will include properties that are in poor condition.

The quality of housing available to a person or family can have an impact on their health. A lack of affordable housing may lead some individuals to rent or own subpar and/or unsafe housing. Poor housing conditions can lead to a variety of negative health effects. Water leaks, poor ventilation, and pest infestation can lead to increased asthma problems in children.²¹ Temperature extremes in housing have been associated with increased mortality, especially in elderly populations.²²

Lead



MARION COUNTY LEAD RISK INDEX BY CENSUS TRACT



Lead is a naturally occurring material that, when introduced inside the human body, has the potential to cause harmful health effects, such as behavioral issues and decreased cognitive ability. The risk is particularly high for young children. Children are tested for lead poisoning through a blood test. There is no safe level of lead in children.²³ Once a child has been exposed to lead, there is no cure; any damage is permanent. Lead poisoning is often a lifelong issue: decreased cognitive ability may result in poorer educational attainment, which in turn may lead to a lower-paying career, which may contribute to an increased risk of poverty.

How do children come into contact with lead? Some occupations use lead or lead compounds. People employed in those occupations may unintentionally bring lead dust home on their clothes or shoes, increasing a child's exposure to lead.²⁴ Lead paint was used in homes and other buildings, both externally and internally, until 1978.²⁵ This lead paint can crack and flake, becoming lead dust. Children may accidentally ingest this dust from the floors, window sills, or in the soil around buildings. Lead can also come from industry or other environmental contamination. Prior to 1970, leaded gasoline was used in cars. As the gasoline was consumed, lead was released into the air, and lead particles traveled to the soil around roads.²⁶ Lead may also be found in some foods, drugs, toys, and cosmetics.²⁷

The map above shows five levels of risk for lead exposure. Areas of the county were ranked to show where the potential is greatest for a child to be exposed to lead. This was calculated by considering the percent of the population under the age of 5—those at greatest risk if exposed to lead—as well as those employed in industries with lead exposure risk, the percent of housing built before 1980, the number of children found to be lead poisoned in the past 5 years, and the percent of families living in poverty.

Cleanups/Brownfields

ENVIRONMENTAL CLEANUPS BY PERCENT MINORITY POPULATION



Source: Census Bureau, 2012-2016 American Community Survey, DR3428 and Environmental Protection Agency, 2018 Cleanups in My Community Resource, DR3428

The maps on this page and the next show the locations of several different kinds of cleanup or hazardous waste sites in Marion County geocoded to a precise location. These cleanups and hazardous waste sites may be corrected, active, or proposed. Exposures to chemicals from these four types of cleanup sites can affect health. The health effects depend on the duration and type of chemical exposure.²⁸ The four types of sites in the maps are defined below.

- Emergency cleanups releases or spills to which the Environmental Protection Agency (EPA) responded and are unlikely to occur on a regular basis, such as a large-scale industrial chemical release.
- RCRA Corrective Action sites (referred to as RCRA in the map legend) sites that fall under the rule of the Resource Conservation and Recovery Act and are currently or previously undergoing corrective action, sites for which a remedy has been selected, sites for which construction has been completed, and sites where the corrective action cleanup is complete.²⁹
- Brownfields properties, such as old industrial facilities, in which redevelopment or expansion may be complicated by the presence (potential or actual) of a hazardous substance, contaminant, or pollutant.³⁰
- Superfund sites sites where hazardous waste has been improperly disposed of or managed. Examples may include landfills, mining sites, and manufacturing facilities.³¹

This map shows cleanups in relation to where minority populations live. Of all geocoded cleanups, 64% are found in census tracts with 30% or greater minority populations. Of geocoded brownfields, 76% are located in census tracts with 30% or greater minority populations.

Cleanups/Brownfields

ENVIRONMENTAL CLEANUPS BY PERCENT OF THE POPULATION BELOW 100% OF THE FEDERAL POVERTY GUIDELINE



Source: Census Bureau, 2012-2016 American Community Survey, DR3428 and Environmental Protection Agency, 2018 Cleanups in My Community Resource, DR3428

This map shows that census tracts with higher levels of poverty are impacted more by brownfields and cleanups than higher income areas. Of all geocoded environmental cleanup sites, 74% are found in census tracts where at least 20% of the population lives at or below the federal poverty guideline. By type of environmental cleanup, 70% of brownfields, 78% of RCRA locations, 80% of emergency cleanups, and 100% of superfund sites were located in census tracts where at least 20% of the population lives at or below the federal 20% of the population lives at or below the federal poverty guideline.

The risk to human health posed by any of these sites depends on what contaminants have entered the environment, as well as their likelihood of making contact with individuals. Hazardous waste contamination sites in cities and highly populated counties like Marion County can be problematic due to their likelihood of being near where people work, live, and play. These maps highlight the potential impact of human activity, particularly industry, on health. The data on the point locations of the cleanups comes from the EPA's Cleanups in my Community resource.²⁹ This resource allows an interested individual to look up where hazardous waste has been produced or spilled within an area.

Food Access



FOOD DESERTS BY CENSUS TRACT

Source: USDA, Food Access Research Atlas, 2015, DR 3576

Limited access to healthy and affordable food makes it more difficult to have a nutritious diet. A household's ability to access healthy foods is affected by multiple factors, including: distance to the nearest grocery store, number of grocery stores in a given area, poverty status, access to a vehicle, and availability of public transportation.³² In 2011, it was estimated that 30% of census tracts in the U.S. did not have at least one healthier food retailer (supermarkets, large grocery stores, supercenters and warehouse clubs, and fruit and vegetable specialty stores) within the tract or within half a mile of the tract boundaries.³³ This map does not consider locations such as food pantries and farmer's markets. Such geographic areas with low access to healthy foods are often referred to as "food deserts."³² This map uses 2015 data from the United States Department of Agriculture and 2010 census data to describe food deserts in Marion County.³⁴ Low-income areas are defined as census tracts in which any of the following are true: The tract's poverty rate is 20% or greater, the tract's median family income is less than or equal to 80% of the statewide median family income, or the tract is in a metropolitan area and has a median family income less than or equal to 80% of the metropolitan area's median family income. Each area labeled a food desert is a low-income census tract in which a significant number (at least 500 people) or percentage (at least 33%) of the population is greater than 1 mile from the nearest supermarket, supercenter, or large grocery store for an urban area, or greater than 10 miles for a rural area (only three census tracts in Marion County are designated rural).³² Alternatively, a "food swamp" is an area with a high density of retailers selling high-calorie food, relative to healthier food options.³⁵ This map shows that about 21% of Marion County residents live in a food desert.

Retail Food Establishments

RETAIL FOOD ESTABLISHMENTS BY PERCENT MINORITY POPULATION



Source: Census Bureau, 2012-2016 American Community Survey, DR3428 and MCPHD, 2017 Food and Consumer Safety & Chronic Disease, DR3576

The maps on this page and the next show the location of full-service grocery stores, small grocery stores, and convenience stores by census tract. For purposes of this report, the definition of a full-service grocery store in this case is an establishment that offers a full range of foods from all food groups, has one or more food prep kitchens, requires a certified food handler, and is greater than 3000 square feet. For the purposes of this report, some establishments may not meet the 3000 square feet requirement. A small grocery store is one in which you can find fresh options but the selection is very small and/or specialized. A convenience store is an establishment that primarily sells processed food items which tend to be high in sodium, sugar, or saturated fat, such as gas station convenience stores, dollar stores, pharmacies, and small corner stores. This type of establishment typically offers limited or no fresh food products. The map on this page shows that 54% of convenience stores are located in census tracts with 30% or greater minority populations.

HOSPITAL

Retail Food Establishments

RETAIL FOOD ESTABLISHMENTS BY PERCENT OF THE POPULATION BELOW 100% OF THE FEDERAL POVERTY GUIDELINE



Source: Census Bureau, 2012-2016 American Community Survey, DR3428 and MCPHD, 2017 Food and Consumer Safety & Chronic Disease, DR3576

The map on this page shows that the majority of full-service grocery stores are located in higher income census tracts. This map also shows that 60% of convenience stores are located in census tracts in which at least 20% of the population lives at or below the federal poverty guideline.

Food insecure households spend 45% more on medical care in a year (\$6,072) compared to food-secure households (\$4,208).

Source: Berkowitz SA, Basu S, Meigs JB, Seligman HK. Food Insecurity and Health Care Expenditures in the United States, 2011-2013. Health Serv Res. 2018 Jun;53(3):1600-1620. Available from: <u>https://www.ncbi.nlm.nih.gov/pubmed/28608473</u>

Pedestrian Crashes



Pedestrian crashes are those incidents in which a motorized vehicle makes contact with a person who is not operating a vehicle. The frequency of pedestrian crashes typically relates to the built environment. Accessible sidewalks and marked crosswalks for crossing the street are vital to reducing the number of pedestrian crashes that occur.³⁶ This graph includes pedestrian crashes from 2012-2016 in which an ambulance was called and shows that in Marion County, pedestrian crashes in which an ambulance is called occur more commonly among Black, Non-Hispanic pedestrians.

Pedestrian crash rates have consistently been highest for Black, Non-Hispanic residents between 2012 and 2016. During the period 2014-2016, pedestrian crash rates for Black, Non-Hispanic residents were two times the rates of White, Non-Hispanic residents.

Ranges for race-specific ranges are below.

- 7-8.5 per 10,000 for Black, Non-Hispanic residents
- 4-5 per 10,000 for White, Non-Hispanic residents

IndyGo Bus Stops

INDYGO BUS STOPS BY PERCENT OF THE POPULATION Below 100% of the Federal Poverty Guideline



Source: Census Bureau, 2012-2016 American Community Survey, DR342 and IndyGo, 2018, DR 3652

Adequate public transportation has the potential to increase the overall health of a community by providing access to healthier food retailers, health care providers, and more employment opportunities.³⁷ The maps on this page and the next show the current (as of 2017 data) location of IndyGo bus stops. IndyGo is the largest public transportation provider in Indiana; the company operates 31 bus routes in Marion County.³⁸ About 54% of Marion County residents live within half a mile of an IndyGo bus stop. However, only 34% of Marion County roads have a sidewalk on at least one side.³⁹ The cost of public transportation and bus stops that are not easily accessed due to proximity or safety issues in the built environment present barriers that more often affect low income and minority populations.^{37,39} The map on this page shows that in Marion County, 70% of IndyGo bus stops are located in census tracts where at least 20% of the population lives at or below the Federal Poverty Guideline.
The Environment and Health

IndyGo Bus Stops

INDYGO BUS STOPS BY PERCENT MINORITY POPULATION



Source: Census Bureau, 2012-2016 American Community Survey, DR3428 and IndyGo, 2018, DR 3652

This map shows that in Marion County, 64% of IndyGo bus stops are located in census tracts with 30% or greater minority populations.

A 2010 statewide survey found that 49% of bus riders in Indiana had an average household income below \$15,000. In the U.S., 2.1 million households do not own a vehicle despite living more than one mile from the closest grocery store. Sources: Center for Business and Economic Research, Ball State University. Muncie, Indiana: 2013 Jan. Available from: https://www.indianatransportationassociation.com/uploads/8/3/9/2/8392851/ita - ridership profiles - final -______010713.pdf; The Food Trust. Access to Health Food and Why it Matters: A Review of the Research. PolicyLink: 2013. Available from: http://thefoodtrust.org/uploads/media_items/access-to-healthy-food.original.pdf

SECTION 3 MATERNAL & CHILD HEALTH



The health of child-bearing women before, during, and after pregnancy has a major impact on health outcomes for mother and baby. This section looks at maternal and child health indicators and behaviors before, during, and after pregnancy, including breastfeeding, birth weight, maternal smoking, preterm births, and prenatal care. Maternal and child health inequities that exist among racial/ethnic groups have the potential to negatively or positively alter the health of both mother and baby.

Mothers who Breastfeed



Disease Control and Prevention

Breastfeeding has many health benefits for mothers and infants. The benefits for mothers include lowering the risk of breast and ovarian cancer, type 2 diabetes, and heart disease. Benefits for infants include lowering the risk of type 2 diabetes, asthma, obesity, Sudden Infant Death Syndrome (SIDS), and ear and respiratory infections.⁴⁰

This graph shows the percentage of mothers who breastfed their infants upon being released from the hospital from 2007-2017. Overall, rates of breastfeeding initiation increased in recent years among all race/ethnicity categories. Healthy People 2020 set the goal for breastfeeding initiation at 81.9%. As of 2017, the overall percentage of breastfeeding for Marion County was below that goal at 80.7%.

Hispanic women have the highest rates of breastfeeding initiation, exceeding 80% since 2009. They are the only race/ethnicity category to meet the Healthy People 2020 goal for breastfeeding. White, Non-Hispanic women have higher initiation rates than overall Marion County and exceed 70%, but have started to plateau. Black, Non-Hispanic women are the least likely to breastfeed their infants, with an initiation rate in the mid-60s. However, this rate increased to over 75% in 2017. The larger graph above is magnified to show the inequities between races/ethnicities more clearly; the smaller graph shows the data starting at zero to better show the true scale of breastfeeding.

Low Birth Weight



A low birth weight birth occurs when an infant is born weighing less than 2,500 grams (5.5 lbs.). Low birth weight can be caused by a number of risk factors, including maternal stress, lack of prenatal care, maternal smoking and alcohol consumption during pregnancy, age of mother, and exposure to air pollution and lead-contaminated water.⁴¹ Rates have remained constant over the last 10 years, hovering between 9 and 11 percent. Healthy People 2020 set the goal for low birth weight at 7.8%.

Black, Non-Hispanic infants are born low birth weight almost twice as often as their White, Non-Hispanic and Hispanic counterparts, with rates staying between 12%-15% over the last 10 years.

Hispanic women have the lowest rates of low birth weight, never exceeding 8% during the ten-year period.

White, Non-Hispanic women have higher rates of low birth weight than Hispanic women, but lower rates than Black, Non-Hispanic women and overall Marion County rates.

The 2016 national and Indiana percent of low birth weight infants was 8.2%, and the 2016 Marion County percent was 10%.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics

Prenatal Care

In the U.S., 77% of women initiated prenatal care in the first trimester in 2016. The Marion **County rates** for all races/ ethnicities were lower than the national rates. However, Marion **County and** the U.S. share the same trends in which White, **Non-Hispanic** women have the highest rates, followed by **Hispanic** women and Black, Non-**Hispanic** women.

Source: Centers for Disease Control and Prevention, Vital Statistics Surveillance Report



al Care Initiation in the First Trimester by Race/Ethnicity, 2007-201

Prenatal care initiation in the first trimester means that care was sought within the first three months of pregnancy. Prenatal care reduces the risk of both pregnancy complications and Sudden Infant Death Syndrome (SIDS) and improves outcomes for bot h the mother and infant.⁴² Until 2015, there had been a slight uptick in the rates of first trimester initiation, but rates for all women, regardless of race/ethnicity, dropped in 2016. Overall, Marion County rates for prenatal care initiation have been between and 60% and 70% over the last 10 years. The Healthy People 2020 goal for prenatal care initiation in the first trimester is 77.9%.

White, Non-Hispanic women have the highest rates of prenatal care initiation in the first trimester, often exceeding 70%. Black, Non-Hispanic and Hispanic women have the lowest rates, often below 60%. The larger graph above is magnified to show the inequities between races/ethnicities more clearly; the smaller graph shows the data starting at zero to better show the true scale of prenatal care.



Preterm births are those in which the infant is born at less than 37 weeks gestation. Infants born premature can experience developmental delays, vision problems, hearing problems, breathing problems, and even death.⁴³ Marion County rates have stayed between 10% and 13% since 2007. Healthy People 2020 set the goal for preterm delivery at 11.4%.

Black, Non-Hispanic women have the highest rates of preterm birth in Marion County. Hispanic women historically have had the lowest rates of preterm birth in the county and have consistently met Healthy People 2020 goals. However, in 2013, rates for Hispanic women began to increase to match the rates of White, Non-Hispanic women. The larger graph above is magnified to show the inequities between races/ethnicities more clearly; the smaller graph shows the data starting at zero to better show the true scale of preterm births.

The 2016 national and Indiana preterm birth rates were 10% and 9.9%, respectively. Black, Non-Hispanic women had the highest rates of preterm births both nationally and in Marion County in 2016.

Source: Centers for Disease Control and Prevention, National Vital Statistics Report

Maternal Smoking





Maternal smoking refers to women who smoked at any time during their pregnancy. Maternal smoking is associated with many negative health outcomes. Smoking while pregnant damages lung and brain tissue in fetuses and can increase the risk of preterm delivery. Maternal smoking decreases the amount of oxygen a fetus receives, which increases the risk for miscarriage.⁴⁴

Overall, maternal smoking has been decreasing since 2007. Marion County rates fell to just above 10% in 2016 and went up slightly in 2017. The Healthy People 2020 goal is that 98.6% of women abstain from smoking while pregnant.

White, Non-Hispanic women have the highest rates of maternal smoking in the county. The rate reached a high of 25% in 2008, but was below 18% in 2017. Hispanic women have the lowest rates of maternal smoking, staying steady at or below 3%. Black, Non-Hispanic women are about half as likely as White, Non-Hispanic women to smoke during pregnancy, but still smoke more often than Hispanic women.

Note: This graph displays confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size.

In the U.S. in 2016, 1 in every 5 births to women who smoked during pregnancy were low birth weight.

Source: Centers for Disease Control and Prevention, Tobacco and Smoking



Infant mortality is the death of an infant under one year old. Infant mortality can be caused by many things, including: birth defects, preterm birth, Sudden Infant Death Syndrome (SIDS), maternal pregnancy complications, and injuries such as suffocation.⁴⁵

The infant mortality rate is defined as the total number of infant deaths per 1,000 live births. Marion County infant mortality rates continue to be higher than the Healthy People 2020 goal of 6.0 per 1,000 live births. In 2017, the Marion County infant mortality rate was 8.3 per 1,000.

Black, Non-Hispanic women have higher rates of infant mortality that are often double the rates of their White, Non-Hispanic and Hispanic counterparts.

Marion County infant mortality has been consistently higher than the national and state averages. In 2016, the infant mortality rate for Indiana was 7.5 per 1,000 live births and the U.S. rate was 5.9 per 1,000 live births.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics

Maternal Mortality



Maternal Mortality by Race/Ethnicity, 2012-2017: Estimates with 95% Confidence Intervals

Maternal mortality is the death of a woman while pregnant or up to one year after the end of a pregnancy, regardless of the outcome, duration or site of the pregnancy, "from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes."^{46,47} Maternal deaths are categorized as either direct obstetric deaths (obstetric complications of pregnancy or pregnancy interventions) or indirect obstetric deaths (disease made worse by pregnancy or that developed during pregnancy and was not due to obstetric causes).⁴⁶

Because the annual number of maternal deaths is low, this graph shows the maternal mortality rate in Marion County by race/ethnicity for the years 2012-2017 combined. When separated by race/ethnicity, the number of maternal deaths over the six-year period is low, so the individual rates are unstable.

Note: These graphs display confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

Based on the pregnancy-related mortality ratio, or the number of maternal deaths per 100,000, maternal deaths in the U.S. have increased over the past two decades.

Source: Centers for Disease Control and Prevention

Data Source: Marion County birth and death certificates, DR3870

Adolescent Pregnancy



For the purposes of this report, adolescent pregnancy refers to all known pregnancies (births and fetal deaths) per 1,000 females aged 15-19. Socioeconomic conditions that contribute to higher adolescent pregnancy rates may include low educational attainment, low-income levels of a teen's family, neighborhood racial segregation, neighborhood-level inequality, and fewer opportunities for positive youth involvement. Teenage females in the child welfare system (e.g., foster care) are most at risk for adolescent pregnancy.⁴⁸

This graph shows that in Marion County, the adolescent pregnancy rate has decreased from 2012 to 2017. Hispanic teens have the highest rates, followed by Black, Non-Hispanic female teens. From 2016 to 2017, the adolescent pregnancy rate decreased for all races, but increased for Hispanic adolescents. Cultural and socioeconomic factors may contribute to the higher rate of adolescent pregnancy among Hispanics. Such factors may include a high desire for pregnancy, family beliefs, barriers to sex education, and limited access to healthcare.⁴⁹ Adolescents who become pregnant are more likely to drop out of school, become unemployed, live in poverty, and be single mothers.⁴⁸

Healthy People 2020 set two goals to address adolescent pregnancy: reduce pregnancies among adolescent females 15-17 (the goal is 36.2 per 1,000) and reduce pregnancies among adolescent females 18-19 (the goal is 104.6 per 1,000).

In 2016, the U.S. teen birth rate was 20 per 1,000, the Indiana teen birth rate was 24 per 1,000, and the Marion County teen birth rate was 27 per 1,000.

SECTION 4 CHRONIC DISEASE & CARE



Chronic diseases are the most common and preventable leading causes of death in the United States. Chronic diseases are conditions that last for three months or more and are not typically spread person-to-person. Common chronic diseases include asthma, diabetes, hypertension, and cancer. Access to health care is vital to identify and treat chronic (and acute) disease. This section explores chronic disease and care prevalence inequities that exist by gender, race/ethnicity, and income.

Note: This section uses survey data for most of the topics. Due to a small number of surveys being collected, many of the estimates in this section are not very stable.

Chronic Disease and Care **Asthma**

According to the Behavioral Risk Factor Surveillance Survey (BRFSS), the overall county prevalence of individuals 18 years or older being told they have ever had asthma was 14% in 2016 in Marion County. Income plays a big role in asthma prevalence in Marion County. As the graph shows, those with incomes less than \$15,000 had the highest asthma prevalence at 20%, nearly double the prevalence for those earning an income over \$50,000 (11%). Women had a higher asthma prevalence than men in Marion County, at 17% versus 12%. Black, Non-Hispanic adults had the highest overall asthma prevalence in Marion County in 2016, with Hispanic adults having the lowest asthma prevalence. Below is a comparison of Indiana and Marion County asthma prevalence rates from 2016.

Note: These graphs display confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

	Indiana Asthma Prevalence (2016)	Marion County Asthma Prevalence (2016)				
Total	10%	14%				
Women	14%	17%				
Men	6.7%	12%				
White, Non- Hispanic Adults	9.8%	14%				
Black, Non- Hispanic Adults	16%	16%				
Hispanic Adults	6.3%	11%				
Source: Centers for Disease Control and Prevention, BRFSS						





Income Level of Marion Co. Adults ever told they have Asthma Data Source: 2016 BRFSS, DR3427

Asthma Prevalence by Sex, 2016: Estimates with 95% Confidence Intervals



Asthma Prevalence by Race, 2016: Estimates with 95% Confidence Intervals

Data Source: 2016 BRFSS, DR3427



Race of Marion Co. Adults ever told they have Asthm Data Source: 2016 BRFSS, DR3427

Overweight and Obesity



Body mass index (BMI) is a measure of body fat that is based on a person's height and weight. BMI classifications are: underweight (BMI under 18.5), normal weight (BMI of 18.5-24.9), overweight (BMI of 25-29.9), and obese (BMI of 30 or more). A higher BMI is associated with a higher risk of negative health outcomes such as heart disease, stroke and diabetes.⁵⁰ In Marion County in 2016, the prevalence of adults in the overweight or obese category (BMI of 25 or more) was 62%.

In Marion County in 2016, 69% of adult men had a BMI over 25, while 55% of adult women had a BMI over 25.

Black, Non-Hispanic adults had the highest overall prevalence of a BMI over 25 in Marion County in 2016 at 74%, compared to the adult White, Non-Hispanic and Hispanic prevalence rates of 58% and 57%, respectfully.

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

In 2016, over 65% of U.S. residents were classified as overweight or obese. Over 67% of Indiana residents were classified as overweight or obese in 2016.

Source: Centers for Disease Control and Prevention, BRFSS, 2016

Smoking

Research has shown that tobacco-related health inequities exist between population groups based on factors like age, income, race, education, sexual orientation, and sex.⁵¹ Tobacco use continues to be the leading cause of preventable death and disease in the United States.⁵¹ The inequity in cigarette smoking prevalence is of particular importance because the negative impacts of tobacco use are not limited to the user.^{51,52} In Marion County in 2016, the smoking prevalence in adults was 21%.

In Marion County in 2016, the smoking prevalence in adults decreased as income level increased. Those making under \$15,000 annually had a crude smoking prevalence of 36%, while those making over \$75,000 had a smoking prevalence of 11%. Adult males had a higher smoking prevalence at 24%, compared to only 18% among adult females. White, Non-Hispanic and Black, Non-Hispanic adults had a higher smoking prevalence at 21% and 22%, respectively, compared to only 12% among Hispanic adults.

A comparison of national, Indiana, and Marion County smoking prevalence rates is listed below.

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

	U.S. Smoking Prevalence (2016)	Indiana Smoking Prevalence (2016)	Marion County Smoking Prevalence (2016)						
Total	16%	21%	21%						
Women	14%	19%	18%						
Men	18%	24%	24 %						
Black, Non- Hispanic	17%	23%	22%						
White, Non- Hispanic	17%	21%	21%						
Hispanic	11%	18%	12%						
Source: Centers for Disease Control and Prevention, National									
Center for Health Statistics									





Smoking Prevalence by Sex, 2016: Estimates with 95% Confidence Intervals





Smoking Prevalence by Race, 2016: Estimates with 95% Confidence Intervals

Diabetes

In 2016, diabetes was more prevalent in Marion County (13%) than either Indiana or the U.S. The crude prevalence rate for Indiana was 12% and the rate for the U.S. was 11%.

Source: Centers for Disease Control and Prevention, BRFSS, 2016

Diabetes Prevalence by Sex, 2016: Estimates with 95% Confidence Intervals



Diabetes Prevalence by Income Level, 2016: Estimates with 95% Confidence Intervals



Data Source: 2016 BRFSS, DR3535





Diabetes is a chronic disease that can cause serious health issues, such as heart disease, kidney disease, and vision loss.⁵³ In the U.S., racial and ethnic minority populations are unduly affected by diabetes and also have a higher rate of diabetes complications than the White, Non-Hispanic population.⁵⁴ In Marion County in 2016, there was an overall diabetes prevalence in adults of 13%. In the U.S., during the same timeframe, the diabetes prevalence in adults was 11%.

In Marion County in 2016, there was a general trend of a higher diabetes prevalence in adults with lower income. Females had a higher diabetes prevalence than males.

There was a difference in diabetes prevalence between Black, Non-Hispanic and White, Non-Hispanic adults, at 16% and 13%, respectively. Hispanic adults had the lowest diabetes prevalence at 9.1%.

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

Hypertension

In 2015, Black, Non-Hispanic adults had hypertension rates almost 10% higher than White, Non-Hispanic adults in Marion County. This trend is even more profound in national statistics; Black, Non-Hispanic adults had a prevalence of 40% compared to only 28% among White, Non-Hispanic adults.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics

Hypertension, or high blood pressure, puts excess strain on the heart and can increase the risk of heart attack, kidney problems, stroke, and death.⁵⁵ In the U.S., there are inequities in the prevalence of hypertension based on factors like race, income, and education status.⁵⁶ In 2015, the hypertension prevalence in adults in Marion County was 28% and in the U.S. was 31%. This data comes from a national survey on which participants are asked about high blood pressure every other year. The most current data is from 2015.

There was a relationship between hypertension and income in Marion County adults in 2015 in which hypertension prevalence decreased with increasing income. Adults with an annual income under \$15,000 had a hypertension prevalence of 39%, whereas adults with an annual income over \$75,000 had a hypertension prevalence of only 18%. In Marion County in 2015, adult men had a hypertension prevalence of 31%, compared to a prevalence of 26% in adult women. Black, Non-Hispanic adults in Marion County in 2015 had the highest hypertension prevalence at 36%, compared to 27% among White, Non-Hispanic adults and 19% among Hispanic adults.

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.





Hypertension Prevalence by Sex, 2015: Estimates with 95% Confidence Intervals







Oral Health

In 2016, the U.S. prevalence of adults who had a dental visit in the past year was higher (63%) than either Indiana or Marion County. The crude prevalence rate for Indiana was 62% and the rate for Marion County was 41%.

Source: Centers for Disease Control and Prevention, BRFSS, 2016

Adults Who Have Had a Dental Visit in the Past Year by Sex, 2016: Estimates with 95% Confidence Intervals



Adults Who Have Had a Dental Visit in the Past Year by Income Level, 2016: Estimates with 95% Confidence Intervals







Oral health inequities exist by racial/ethnic group, socioeconomic status, and education level, as well as other demographic indicators. In the U.S., Black, Non-Hispanic and Hispanic residents are among those with the poorest oral health by race/ethnicity (for example, these groups typically have more untreated tooth decay and periodontal disease). Those with less than a high school diploma have worse oral health outcomes than those with some college education.⁵⁷

The graphs above show the prevalence of Marion County adults who have had a dental visit in the past year. The prevalence of adults who had a dental visit in the past year decreases by increasing income level and is higher for males than females, both of which are the opposite of national and state trends. Hispanic adults, followed by Black, Non-Hispanic adults, had the highest 2016 prevalence of past-year dental visits among racial/ethnic groups, which again does not follow state or national trends. This difference may be, in part, due to extensive dental outreach services by the Marion County Public Health Department and other agencies.

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

Health Coverage

Adults Who Have Any Kind of Health Care Coverage by Income, 2016: Estimates with 95% Confidence Intervals



Adults Who Needed to See a Doctor but Could Not Due to Cost in the Past 12 Months by Income, 2016: Estimates with 95% Confidence Intervals



Having access to health care services is essential to identifying and managing chronic and acute health ailments. Inequities exist in access to care based on race/ethnicity, income, age, disability status, and sexual orientation, among other demographic characteristics. A main barrier to having access to health care services is the lack of health insurance or other health care coverage. Those without health insurance are often unable to get needed health care, and are unable to pay for the health care they do receive. The uninsured are more likely to have poor health, be diagnosed later, and die prematurely.⁵⁸ Even with health care coverage, cost can remain a barrier to accessing health care. People who are *under*insured have high insurance deductibles and/or high out-of-pocket medical costs relative to their income.⁵⁹

As seen in the left graph above, in Marion County, health care coverage increases as income increases. The right graph above shows that there is also a trend in which as income decreases, it is more likely that a resident who needed medical care in the past year could not receive that care due to cost. The uninsured prevalence in Marion County is higher, at 15%, than the state (11%) and national (10%) prevalence rates. Of note, Marion County has the same prevalence rate for both those who cannot afford needed medical care and those without health care coverage (15%).

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

In the U.S. in 2016, people with lower income had lower overall health insurance coverage rates than people with higher income: Over 86% of people with an annual household income less than \$25,000 and over 92% percent of people with an income of \$75,000 to \$99,999 had health insurance coverage.

Source: U.S. Census Bureau, 2016

Health Coverage



Adults Who Needed to See a Doctor but Could Not Due to Cost in the Past 12 Months by Race, 2016: Estimates with 95% Confidence Intervals



Minority populations are more likely to be uninsured and face more barriers in accessing health care than White, Non-Hispanic residents.⁶⁰ This trend holds true in Marion County: In 2016, almost half of Hispanic adults reported having no health care coverage and about 30% were not able to seek needed medical care due to cost within the last year. Although about the same percentage of White, Non-Hispanic and Black, Non-Hispanic adult residents reported having health care coverage of some kind, Black, Non-Hispanic adults were more likely to report not being able to seek needed medical care due to cost in the last year.

Within the *Chronic Disease and Care* section of this report, many of the indicators are based on a survey that asks if the participant has been diagnosed by a medical professional with a specific chronic disease. The prevalence rates for the Hispanic population in particular were lower than other reported racial/ethnic groups for asthma, diabetes, and hypertension. This may be a true representation of disease among the Hispanic population, or it may be that chronic disease is underreported among the Marion County Hispanic adult population because of barriers to accessing health care.

Note: This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

In the U.S. in 2016, White, Non-Hispanic residents had the lowest uninsured rate among racial/ethnic groups at 6.3 percent. The uninsured rate for Black, Non-Hispanic residents was 10.5 percent, and Hispanic residents had the highest uninsured rate at 16.0 percent.

Source: U.S. Census Bureau, 2016

Cancer

Top 10 Cancers Resulting in Death for all Marion Co. (% of Total Cancer Deaths), 2016

1. Trachea, Bronchus, and Lung (29%)

2. Lymphoid, Hematopoietic and Related Tissue (9.5%)

3. Colon, Rectum, and Anus (7.5%)

4. Breast (7.2%)

5. Pancreas (7.2%)

6. Liver and Intrahepatic Bile Ducts (5.5%)

7. Prostate (5.2%)

8. Esophagus (2.5%)

9. Bladder (2.4%)

10. Meninges, Brain, and other parts of the central nervous system (2.3%)

Male

Cancer inequities, both in the rates of cancer and in the outcomes of those diagnosed with cancer, are seen in low-income populations and among certain racial/ethnic groups. Cancer rate inequities may be a result of genetic, environmental, and social factors. Access to care is one element that contributes to inequities in the outcomes of those diagnosed with cancer (for example, cancer survival rates).

Source: National Cancer Institute, 2017

The American Cancer Society estimates the top 6 cancers resulting in death for the U.S. in 2018 will be:

- 1. Lung and Bronchus
- 2. Colorectal
- 3. Pancreas
- 4. Breast
- 5. Liver and Intrahepatic Bile Duct
- 6. Prostate

Source: American Cancer Society, 2018







Data Source: 2016 Marion County birth and death certificates, DR3517

Race/Ethnicity:	White, Non-Hispanic	Black, Non-Hispanic					
	Trachea, Bronchus, & Lung (32%)	Trachea, Bronchus, & Lung (25%)					
Top 5 Cancers Resulting in	Lymphoid, Hematopoietic and Related Tissue (8.9%)	Colon, Rectum, and Anus (11%)					
Death (% of Cancer Deaths by Race), 2016	Pancreas (6.8%)	Lymphoid, Hematopoietic and Related Tissue (9.6%)					
	Breast (6.5%)	Breast (8.9%)					
	Colon, Rectum, and Anus (6.2%)	Pancreas (8.9%)					
Data Source: Marion County birth and death certificates, DR3517							

SECTION 5 INFECTIOUS DISEASES



Infectious diseases can include acute and chronic infections caused by viruses, bacteria, fungi, and other organisms; these infections can have a huge impact on a person's life. Some examples of infectious disease include HIV, influenza, and sexually transmitted infections (STIs). This section explores inequities in infectious diseases by race/ethnicity, risk factors, and gender.

HIV



Human Immunodeficiency Virus (HIV) is a virus that attacks the immune system. HIV infection can be managed using antiretroviral medications; however, it cannot be cured. Untreated HIV infection can ultimately lead to Acquired Immunodeficiency Syndrome (AIDS), which is characterized by opportunistic infections or cancers that take advantage of a very weak immune system.⁶¹

Rates of new HIV diagnoses among Black, Non-Hispanic residents in Marion County decreased during the years 2012 to 2016. The rate for all Marion County residents was consistently around 20 cases per 100,000, and the rate for White, Non-Hispanic residents in Marion County was consistently lower than for other groups.

Males in Marion County consistently had higher rates of new HIV diagnoses compared to females.

Note: This graph displays confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size.

Black, Non-Hispanic residents in Marion County have a diagnosis rate of HIV about twice as high as the average rate for all Marion County overall and White, Non-Hispanic residents. The national diagnosis rate for HIV in 2016 was 15 per 100,000.

Source: Centers for Disease Control and Prevention, AtlasPlus, 2016

AIDS



Acquired Immunodeficiency Syndrome (AIDS) is the most severe stage of HIV disease progression. People infected with HIV may not progress to AIDS if they are consistently treated using antiretroviral medications. Untreated HIV infection will ultimately lead to AIDS, which is characterized by opportunistic infections or cancers that take advantage of a very weak immune system.⁶¹

Black, Non-Hispanic Marion County residents have consistently higher rates of new AIDS diagnosis compared to other groups. However, rates among Black, Non-Hispanic residents decreased between 2012 and 2016. The rate for all Marion County has been consistently around 10-15 cases per 100,000 residents, and the rate for White, Non-Hispanic residents has consistently been lower than all other racial/ethnic groups.

Males in Marion County consistently had higher rates of new AIDS diagnoses compared to females.

Note: This graph displays confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size.

The national diagnosis rate for AIDS in 2016 was 6.7 per 100,000 and the Marion County rate was around 10-15 per 100,000. The 2016 Indiana diagnosis rate of AIDS was 4.2 per 100,000.

Source: Centers for Disease Control and Prevention, AtlasPlus 2016



Syphilis can develop into a chronic infection that leads to severe health issues. However, it is infectious only around the first year during the primary and secondary stages of infection, which is the focus of this section. In Marion County, rates of primary and secondary syphilis rose slightly from 13 to 15 per 100,000 from 2012-2016. Marion County rates were almost double the national rate of 8.7 cases per 100,000 in 2016.⁶² Rates of Syphilis in Black, Non-Hispanic residents of Marion County were consistently two to three times higher than White, Non-Hispanic residents between 2012 and 2016.

About 90% of primary and secondary syphilis cases in Marion County were in men. Rates of primary and secondary syphilis for men who have sex with men (MSM) have remained much higher than for men who have sex with women only (MSW). In 2012, the estimated rate for MSM was about 78 times higher than for MSW and about 80 times higher in 2016. This disproportionate impact for MSM is more pronounced in Marion County than the U.S. as a whole. CDC estimates that about 58% of U.S. cases are in the MSM population; in Marion County, MSM account for about 75% of all cases.⁶²

Note: This graph displays confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size. 59

Chlamydia by Race/Ethnicity, 2012-2016 Chlamydia 2000 1500 Race Ethnicity Rate per 100,000 All Marion Co In 2016, rates of Black 🕶 Hispanic Chlamydia in Marion 1000 White **County were** significantly higher 500 than in Indiana and the U.S. 2014 2015 2016 2016 Rate per Year of Diagnosis Data Source: ISDH SWIMSS, DR3530 100,000 Chlamydia by Gender, 2012-2016 Marion County: 1085 Indiana: 466 US: 497 1000 Rate per 100,000 Gender All Marion Co Source: Centers for Disease - Female Control and Prevention, 2016 🖛 Male Sexually Transmitted Diseases 500 Surveillance 2012 2013 2014 2015 2016 Year of Diagnosis

Data Source: ISDH SWIMSS, DR3530

Chlamydia is the most commonly reported infection in Marion County and the U.S. In Marion County, chlamydia rates remained steady at more than 1,000 cases per 100,000 from 2012-2016. Rates remained consistently higher for Black, Non-Hispanic residents than for White, Non-Hispanic and Hispanic residents. Black, Non-Hispanic residents suffer at more than four times the rate of White, Non-Hispanic residents in Marion County, which is slightly better than in the U.S. as a whole. Nationally, Black, Non-Hispanic residents had chlamydia rates that were 5.6 times higher than White, Non-Hispanic residents in 2016.⁶³ It is probable that barriers to accessing quality health care contribute to this inequity.

Women consistently have chlamydia rates about two times the rates of men in Marion County and the U.S. Since most infected people do not have symptoms, it is likely that many infected men are not being diagnosed and treated. Chlamydia, if left untreated, can lead to pelvic inflammatory disease (PID) and infertility in women.⁶³

Gonorrhea



Gonorrhea is the second most commonly reported infection in Marion County and the U.S. In Marion County, gonorrhea rates rose from about 350 to 445 per 100,000 between 2012 and 2016. Rates were consistently higher for Black, Non-Hispanic residents than for White, Non-Hispanic and Hispanic residents. Black, Non-Hispanic residents suffer at more than five times the rate of White, Non-Hispanic residents in Marion County. This is slightly better than in the U.S. as a whole; nationally, Black, Non-Hispanic residents had gonorrhea rates that were 8.6 times higher than White, Non-Hispanic residents in 2016.⁶⁴ It is probable that barriers to accessing quality health care contribute to this inequity.

Marion County Disease Intervention Specialists (DIS) investigate outbreaks and new STIs and contact previous partners. DIS interview many of those diagnosed with gonorrhea. By way of these interviews, it has been determined that men who have sex with men (MSM) suffer greater rates of gonorrhea than those who are not MSM. While rates of gonorrhea rose among all men from 2012 to 2016, from about 300 to about 500 cases per 100,000, there were consistently higher rates for MSM. In Marion County, the estimated rate for MSM is about 50 times higher than for men who have sex with women only (MSW). The CDC estimates that in 2016, 45% of U.S. cases were among MSM.⁶⁴

Marion County rates of gonorrhea were significantly higher than the Indiana and national rates in 2016. The Marion County rate was 445 per 100,000, the Indiana rate was 143 per 100,000, and the U.S. rate was 146 per 100,000.

Source: Centers for Disease Control and Prevention, 2016 Sexually Transmitted Diseases Surveillance

SECTION 6 MENTAL HEALTH & SUBSTANCE ABUSE



Mental health and substance use can have a major impact on health and wellbeing. Mental illness and substance use have a social stigma that can prevent individuals from seeking medical help and treatment. Untreated mental illness and substance abuse can lead to destructive behavior and even death. This section explores inequities between mental health and substance use and gender, race/ethnicity, income, and age.

Overdose Deaths



Overdose deaths in this graph represent all drug overdoses leading to death. There has been an increase in overdose mortality rates among all Marion County residents including White, Non-Hispanic residents, Black, Non-Hispanic residents, and Hispanic residents. White, Non-Hispanic residents consistently had the highest rates of overdose mortality compared to all other racial/ethnic groups. The opioid epidemic has played a major role in the increase of overdose deaths for Marion County.

Males consistently had higher rates of fatal drug overdoses than females.

Note: This graph displays confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size.

Indiana's overall overdose rate increased over 23% from 2015 to 2016. The U.S. overdose rate increased 21% during the same time period. In the U.S., about 66% of 2016 overdose deaths involved an opioid.

Source: Centers for Disease Control and Prevention Vital Statistics System

Suicide

Suicide Rates per 100,000 by Year										
Suicides	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Female	4	6	6	7	6	5	6	7	5	6
Male	21	23	20	18	21	22	25	21	23	22
Overall	12	14	13	12	13	13	15	14	13	14
Data Source: Marion Co. Death Certificates, DB3503										

In the U.S., **men** have suicide rates that are **3.5** times higher than women.

Source: Centers for Disease Control and Prevention, National Suicide Statistics

In Marion County over the past 10 years there have been higher numbers of **White, Non-Hispanic** residents committing suicide than any other race.

Data Source: Marion Co. Death Certificates, DR3503

In the U.S., White, Non-Hispanic residents have 2.5 times higher suicide rates than Black, Non-Hispanic residents.

Source: Centers for Disease Control and Prevention, National Suicide Statistics

In Marion County over the past 10 years, **men** have consistently had higher numbers of suicides than women.

Data Source: Marion Co. Death Certificates, DR3503

Suicide Rates per 100,000 by Year										
Suicides	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
White, Non-Hispanic	16	18	17	16	17	17	20	19	18	18
Black, Non-Hispanic	6	6	5	6	6	7	8	4	8	9
Latino	5	9	6	6	8	7	3	8	3	0
Overall	12	14	13	12	13	13	15	14	13	14
Data Source: Marion Co. Death Certificates, DR3503										

18%

of U.S. adults had any mental illness in the past year.

Source: National Institute of Mental Health, 2016

14%

of U.S. adults received mental

health services in the past year.

Source: National Institute of Mental Health, 2016

20%

of Indiana adults had any mental illness in the past year.

Source: Substance Abuse and Mental Health Services Administration, 2016

15%

of Indiana adults received mental health services in the past year.

Source: Substance Abuse and Mental Health Services Administration, 2016

20%

of state and local prisoners in the U.S. have a recent history of a mental illness.

Source: National Alliance of Mental Illness, 2016

LGBTO individuals are twice as likely to have a mental health condition.

Source: National Alliance of Mental Illness, 2016

20%

of children aged 13-18 in the U.S. have been or will be diagnosed with a serious mental illness.

Source: National Alliance of Mental Illness, 2016



of youth in juvenile detention centers in the U.S. have a mental health condition.

Source: National Alliance of Mental Illness, 2016

Depression



At some point in their lives, 15% of Marion County adults have been diagnosed with a depressive disorder.

Among Marion County adults in 2016, there was a general upward trend in depression prevalence as income decreases. The highest depression prevalence was 20% in residents who earned less than \$15,000 per year, and the lowest prevalence was 8.5% in residents who earned more than \$75,000 per year. Residents with yearly income less than \$50,000 had depression prevalence higher than the overall Marion County rate of 15%.

Women in Marion County have higher rates of depression compared to men. In 2016, Marion County women had a depression prevalence of 19% and men had a prevalence of 10%. The prevalence among women was higher than the overall Marion County prevalence of 15%.

Note: This section uses survey data. Due to a small number of surveys being collected, many of the estimates in this section are not very stable. These graphs display confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

Between 2013 and 2016, more than 8% of U.S. adults 20 years or older had depression in a given two-week period.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics

Depression



Depression was more common among White, Non-Hispanic Marion County adults compared to Black, Non-Hispanic and Hispanic Marion County adults. White, Non-Hispanic adults had a depression prevalence of 16% while Black, Non-Hispanic adults had a prevalence of 14%, which is close to the overall Marion County prevalence (15%). Hispanic adults had the lowest depression prevalence (7.3%).

The age groups of 45-54 and 55-64 had the highest depression prevalence rates at 19% and 17%, respectively. The lowest prevalence rates by age were in those 25-34 and 65 and over at 7.5% and 13%, respectively.

These inequities have been exacerbated by a lack of linguistically and culturally appropriate mental health services, underrepresentation of various classes among health sector workers, and mental illness-related stigma that is especially prevalent among specific subgroups.⁶⁵

Note: This section uses survey. Due to a small number of surveys being collected, many of the estimates in this section are not very stable. This graph displays confidence intervals. The bars represent the point estimate of the true prevalence. The error bars around the blue bars show the range in which we are 95% confident that the true value lies.

In the U.S., 1 in 5 adults suffers from some form of mental illness. Major depression is the most common form and affects at least 6.7% of American adults every year.

Source: 2016, National Alliance on Mental Health, Mental Health America





Injury and violence have a major impact on the health of a community. Injury and violence can include deaths and injuries that are caused intentionally and unintentionally. This section focuses on intentional deaths (homicides) and firearm deaths and inequities by gender, race/ethnicity, and zip code.

Injury and Violence

Homicide



Violence is a significant public health problem that impacts the entire population. Homicides and firearm-related mortality are often indicators of the safety of a community and have social and economic impacts for the residents of the community. Violence has an impact on the community's physical and mental wellbeing and reduces the quality of life for the survivors of violence.⁶⁶

This graph shows the homicide rate of Marion County residents based on death certificates. Between 2012 and 2016, the homicide rate increased from 12 to 17 per 100,000. The Healthy People 2020 target is 5.5 homicides per 100,000.⁶⁷

The 2016 homicide rate for Marion County was 17 per 100,000. This is more than twice the Indiana homicide rate of 7.2 and the U.S. homicide rate of 6.0.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics

Injury and Violence

Homicide



Homicide Rate by Race/Ethnicity 2012-2016:Estimates with 95% Confidence Intervals



In 2016, the homicide rate for Black, Non-Hispanic residents was 43 per 100,000, which is almost seven times the rate for White, Non-Hispanic residents at 6.1 per 100,000, and 2.5 times the overall Marion County rate at 17 per 100,000. Of the homicide victims in 2016, 72% were Black, Non-Hispanic men and women and 67% were Black, Non-Hispanic men.

Note: These graphs display confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size.

Injury and Violence

Firearm Deaths



This graph shows the rate of firearm-related deaths of Marion County residents. Between 2012 and 2016, the firearm death rate increased from 17 to 22 per 100,000. The Healthy People 2020 target is 9.3 firearm deaths per 100,000.⁶⁷

The 2016 firearm death rate for Marion County was 22 per 100,000; this is higher than the Indiana rate of 15 and the U.S. rate of 12 per 100,000.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics
Injury and Violence

Firearm Deaths

The high rates of firearm deaths among Black, **Non-Hispanic** residents remain consistent throughout Indiana. However, the 2016 U.S. firearm death rate for Black, **Non-Hispanic** residents was 22 per 100,000, which is almost half the rate for **both Marion County and** Indiana.

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control



Firearm Death Rate by Race/Ethnicity 2012-2016:Estimates with 95% Confidence Intervals

The 2016 firearm-related death rate for Black, Non-Hispanic residents in Marion County was 47 per 100,000, which was greater than 3.5 times the rate of White, Non-Hispanic residents of 13 per 100,000, and more than twice the Marion County rate of 20 per 100,000. Of the 2016 firearm-related death victims in Marion County, 61% were Black, Non-Hispanic men and women.

In 2016, the firearm death rate for men in Marion County was 40 per 100,000. This is more than four times the Healthy People 2020 target of 9.3 and about double the overall county rate.⁶⁷

Note: These graphs display confidence intervals because one or more rates were unstable. The line represents the point estimate of what the true rate is. The bands around a line show the range in which we are 95% confident that the true value lies. Bands without lines do not include a point estimate because the rate is unstable due to a small number of events or a small population size.

Injury and Violence



HOMICIDE RATE BY RESIDENT ZIP CODE, 2016 Rates per 100,000 Population





Data Source: Marion Co. death certificates, DR3413

FIREARM DEATH RATE BY RESIDENT ZIP CODE, 2016 RATES PER 100,000 POPULATION







Data Source: Marion Co. death certificates, DR3413

These maps show the homicide and firearm mortality rates per 100,000 by **ZIP Code for** 2016 based on cause of death and the address of the deceased. The **ZIP Codes with** the highest firearm death and homicide rates were 46218 and 46205.

Data Source: Marion Co. death certificates, DR3413





Mortality, or death, does not occur equitably. This section focuses on the leading causes of death, Years of Potential Life Lost, and life expectancy in Marion County. It explores mortality differences by age, race/ethnicity, and gender.

Leading Causes of Death

Top 10 Causes of Death for all Marion County Residents (% of Total Deaths), 2016

The top causes of death for the year 2016 come from Marion County vital records information, specifically death certificate data. They represent clusters of ICD-10 diagnostic codes grouped together to form categories. For example, all types of cancer are grouped together into one category. Cancer was the leading cause of death for Marion County residents in 2016.



Data Source: Marion Co. death certificates, DR3563

The top ten causes of death in Marion County were slightly different than in Indiana and the U.S. in 2016. Cancer was the leading cause of death in Marion County, compared to heart disease in both Indiana and the U.S. Assault (homicide) and chronic liver disease and cirrhosis were leading causes of death in Marion County but not in Indiana or the U.S. The top causes of death in Indiana and the U.S. were similar. The top seven causes of death were the same: heart disease, cancer, chronic lower respiratory disease, accidents, stroke, Alzheimer's disease, and diabetes. In Indiana, kidney disease, septicemia, and suicide completed the top ten causes of death. In the U.S., influenza and pneumonia, kidney disease, and suicide were the leading eighth to tenth causes of death.

2016 Marion County mortality rates per 100,000:

• Overall: 794

- Black, Non-Hispanic residents: 784
- White, Non-Hispanic residents: 942
- Latino residents: 134

Data Source: Marion Co. death certificates, DR3563

Leading Causes of Death

Top 5 Causes of Death by Race over Five Years: 2012-2016

Race/Ethnicity:	White, Non-Hispanic	Black, Non-Hispanic	Latino
	Cancer (23%)	Cancer (22%)	Cancer (18%)
Top 5 Causes of Death (% of Total Deaths by Race), 2012-2016	Heart Disease (21%)	Heart Disease (21%)	Accidents (16%)
	Chronic Lower Respiratory Diseases (8.5%)	Cerebrovascular Diseases (5.2%)	Heart Disease (13%)
	Accidents (6.1%)	Accidents 5.1%)	Certain conditions originating in the perinatal period (8.0%)
	Cerebrovascular Diseases (4.3%)	Assault (Homicide) (5.1%)	Assault (Homicide) (5.6%)

Accidents were the leading cause of death for 25-34 and 35-44 year olds in 2016.

Data Source: Marion Co. death certificates, DR3563

In 2016, Assault (Homicide) was the leading cause of death for 15-24 year olds and the second leading cause of death for 25-34 year olds in Marion County. Data Source: Marion Co. death

Data Source: Marion Co. aeat certificates, DR3563 Top 8 Causes of Death by Gender

Data Source: Marion Co. death certificates, DR3563



Data Source: 2016 Marion Co. death certificates, DR3563

In 2016, for residents aged 45 and over, the leading cause of death was **Cancer**, and the second leading cause of death was **Heart Disease**.

Data Source: Marion Co. death certificates, DR3563

Years of Potential Life Lost (YPLL)



Data Source: Marion Co. death certificates, DR3563

Years of Potential Life Lost (YPLL) is an estimate of the number of years a person would have lived had they not died prematurely. In this report, a death that occurs before 75 years of age is considered premature. YPLL helps understand the societal burden of disease, especially in deaths of younger people. For example, a person who dies at the age of 20 contributes 55 years of life lost to the overall YPLL, whereas a person who dies at the age of 70 contributes only 5 years. One weakness of YPLL is that it does not account for deaths that occur after the age cutoff (75 years in this report), potentially not capturing the full burden of chronic disease.⁶⁹

In 2016, Black, Non-Hispanic residents of Marion County had a YPLL percentage for assault (homicide) that was more than six times higher than the YPLL percentage for White, Non-Hispanic residents (16% versus 2.5%), and a YPLL percentage for certain conditions originating in the perinatal period that was more than four times higher (8.6% versus 2.0%). White, Non-Hispanic residents had notably higher YPLL percentages for accidents (21%) and cancer (19%), and about double the YPLL percentages for suicide (5.8%) and chronic lower respiratory diseases (5.4%) compared to Black, Non-Hispanic residents (14%, 13%, 2.7%, and <2.2%, respectively).

Compared to males, females had markedly higher YPLL percentages for cancer (21% versus 13%) and chronic lower respiratory diseases (5.1% versus 3.0%). Men had a YPLL percentage for assault (homicide) more than four times that of women (11% versus 2.6%) and double the YPLL percentage for suicide (5.4% versus 2.7%).

Life Expectancy



LIFE EXPECTANCY BY ZIP CODE, 2016

Data Source: Marion Co. death certificates, DR3589

Life expectancy shows the expected number of years of life remaining at a given age.⁷⁰ In this report, life expectancy was calculated at birth. In other words, the total number of years someone born today could expect to live was calculated. Life expectancy in this report was calculated using 2016 death certificate data from Marion County. Life expectancy is a good way to show health inequity, as all of the differing causes of health inequities contribute to varying life expectancies for individuals. The average life expectancy for a resident of Marion County in 2016 was 77.1 years of age. For the entire U.S. population in 2016, life expectancy was 78.6 years of age.⁶⁸ The 2010 life expectancy in Indiana was 77.6 years of age.⁷¹ However, in Marion County, life expectancy for White, Non-Hispanic residents was 78.1 years of age, while for Black, Non-Hispanic residents, life expectancy was only 73.5 years of age. Compared to Black, Non-Hispanic residents, White, Non-Hispanic residents of Marion County had a higher life expectancy in 2016 by 4.6 years.

Place, or where a person lives, matters when looking at life expectancy. The ZIP Code with the lowest life expectancy in 2016 was **46201**, which is located east of downtown Indianapolis. This ZIP Code had an average life expectancy of only **70 years** of age. The ZIP Code with the highest life expectancy in 2016 was **46250**, which is located in the northeast corner of Marion County, around Castleton. The ZIP Code 46250 had an average life expectancy of **86 years**. There is a life expectancy difference of **16 years** between these two Marion County ZIP Codes.

Closing Remarks

This report is intended to provide an overview of health equity and how it impacts a subset of health indicators and demographic groups in Marion County, Indiana. This is not an exhaustive record of all health inequities in Marion County. This report will be electronically available for access by residents, community organizations, coalitions, and policy makers of Marion County, as well as all other interested parties. Some groups are already working towards a more equitable Marion County.

In addition to local solutions to health equity listed on page 12 of this report, some specific actions communities can take to reduce the burden of health equity on our community are: invest in education at all levels to improve employment opportunities; ensure adequate, affordable, culturally competent healthcare coverage for all; promote social connections within the community and encourage civically engaged youth; and advocate for a living wage and endorse asset development for low-income persons.⁷²

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