



2021 Miami County Community Health Assessment

Miami County – Leading You To Better Health



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Acknowledgements

Miami County Public Health partnered with Wright State University's Master of Public Health Program to conduct the county health assessment.

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Non-profit, local, state, and federal agencies referenced in this report

Non-profit Agencies

- RWJ – Robert Wood Johnson Foundation
 - CHR – County Health Rankings
- Kettering Health
- Premier Health

Local Agencies and Departments

- MCPH – Miami County Public Health
- WSU – Wright State University
 - Department of Population and Public Health Sciences
- Miami County Auditor
- Miami County Park District

State of Ohio Agencies and Departments

- ODE – Ohio Department of Education
- ODH – Ohio Department of Health
 - BVS – Bureau of Vital Statistics
- ODM – Ohio Department of Medicaid
 - OMAS – Ohio Medicaid Assessment Survey

Federal Agencies and Departments

- DOC – Department of Commerce
 - Census – U.S. Census Bureau
 - ACS – American Community Survey
- HHS – U.S. Department of Health & Human Services
 - Office of Disease Prevention and Health Promotion
 - HP 2020 – Healthy People 2020
 - HP 2030 – Healthy People 2030
 - U.S. Public Health Service
 - CDC – Centers for Disease Control and Prevention
 - NCHS – National Center for Health Statistics
 - FDA – Food and Drug Administration
 - NIH – National Institutes of Health
 - NCI – National Cancer Institute
 - NIDA – National Institute on Drug Abuse
 - NIMH – National Institute of Mental Health
- EPA – U.S. Environmental Protection Agency
- USDA – U.S. Department of Agriculture
- DOT – Department of Transportation
 - NHTSA – National Highway Traffic Safety Administration

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Executive Summary

Maternal and Child Health

The number of pre-term births in Miami County is consistently lower than in Ohio and has seen rates as low as 3.2 deaths per 1,000 live births in 2016. Despite low infant mortality rates in the county, the percent of mothers receiving first trimester prenatal care has continued to steadily decline and has fallen below the Healthy People 2030 target. Increasing reproductive health and family planning education continue as top priorities for reducing infant mortality in Miami County.

Chronic Disease and Adult Mortality

The average lifespan in Miami County is 77.8 years and ranks in the top 25% of longevity across the nation. The leading cause of mortality for adults remains cardiovascular disease, exacerbated by smoking and obesity, which affect 22% and 36% of Miami County adult residents, respectively. All forms of cancer combine for the second leading cause with lung cancers as the most common subtype. The prevention and management of chronic diseases, motor vehicle accidents, drug overdose, and suicide remain important actionable items for reducing adult mortality in Miami County.

Addiction and Mental Health

Within Miami County, the ratio of mental health providers to residents is 840:1. Between 2015 and 2019, the county lost 77 residents to suicide. Nearly 16% of the adults residing in Miami County reported frequent mental distress with adults averaging at least 5 poor mental health days in the last 30 days. In 2019, Fentanyl continued to be an issue and was responsible for over 76% of overdose deaths in Ohio. While overdose deaths decreased over the last three years, excessive consumption of alcohol remains a concern; over 28% of motor vehicle crashes in Miami County cited alcohol involvement.

Access to Healthcare

Hospital access for the citizens of Miami County has continued to increase with the expansions of two large facilities that partner with regional healthcare networks, Premier Health Partners and Kettering Health Network. Both facilities have seen expansions in their emergency departments, inpatient, outpatient, and specialty services. Despite this expansion, the ratio of Primary Care Physicians continues to impact healthcare utilization and population perception. Increasing the number of healthcare providers, geographical hospital access, and healthcare insurance coverage continue to be actionable items for Miami County.

COVID-19 Pandemic

In January 2020, Miami County reported one of the earliest cases of COVID-19 seen within Ohio and its first peak of 127 positive cases was in March 2020. Despite 60% of Covid-19 related hospitalizations and 92% of COVID-19 related deaths occurring in patients who were 60 years or older, 41% of Miami County Covid-19 cases were patients 40 years of age or younger. As of June 2021, Miami County reported 226 total deaths due to COVID-19 with most of those deaths occurring between December 2020 and January 2021. Over 36% of Miami County residents have been fully vaccinated as of June 30, 2021.

Introduction

Purpose

The Community Health Assessment (CHA) describes the health of Miami County residents by presenting a broad analysis of factors which impact health status, as well as the context for the health status. The CHA also captures the social determinants of health that contribute to health status, including housing costs, access to healthy food, availability of recreational space, and physical activity. The goal is to inform community decision-making, prioritize health problems, improve collaborative efforts, and assist in the development and implementation of planning, policy, and actions to improve the health status of all Miami County residents.

Report Structure

This report illustrates the key health issues faced by Miami County residents along with relevant health disparities affecting community health. The intended audiences include community organizations, civic leaders, public health professionals, healthcare providers, and community members. Data in this report are organized into topical areas, which can be located by referring to the table of contents. The structure of this report includes: the executive summary; the introduction and description of the process; a demographic discussion of the population; an analysis based on the Healthy People 2030 approach to the Social Determinants of Health (SDOH); a summary of population health issues and challenges; and windshield surveys of several communities within Miami County. This report compiles primary and secondary data in order to paint a detailed picture of Miami County and also compares the area's status to state and national data where possible, drawing out areas of concern. If Miami County data was not available, Ohio data was used. Narratives and graphics are used to highlight key findings.

This research effort includes primary data collection involving a windshield survey of seven areas of Miami County and secondary data from many sources including the Ohio Department of Health, the Center for Disease Control and Prevention, the Bureau of the Census, American Community Survey, the Robert Wood Johnson Foundation, and others. The study addresses secondary data for maternal and infant health data, clinical and preventive services, diseases, and leading causes of death.

Vision Statement

Vision Statement

A community that provides the foundation for people to be self-sufficient, and resourceful to minimize disease and substance abuse while increasing emotional health to attain lifelong wellness.

Tagline

Miami County - Leading You To Better Health

Definition of the Community Served

Miami County, located in the southwestern part of Ohio, is home to 106,987 residents¹. Miami County is bordered by Montgomery, Shelby, Darke, Champaign, and Clark counties.

Located along the Great Miami River, Miami County is primarily agricultural². More specifically, a breakdown of the county's land use includes: 71% of cultivated crops, 5.2% pastureland, 10% of developed land, 2-3% of highly developed land, 0.4% wetlands, 0.6% grasslands, 0.15% barren land, and 0.7% open water.



Historically, Miami County has been considered politically conservative. In the 2020 election 71.2% of Miami County voters self-identified as Republicans, while 27.0% self-identified as Democrats. Only 1.8% of the Miami County voters were listed as Independent in November 2020³. In July of 2021, all of Miami County elected officials, including county judges, were registered Republicans⁴.

Miami County's population is distributed across multiple communities, both urban and rural. The county has three most populous cities — Troy (population: 26,281)⁵, Piqua (population: 21,332)⁶, and Tipp City (population: 10,115)⁷ — that are home to over half of the residents in Miami County⁸. Each of these sits along U.S. Interstate 75 which travels through the center of the county. The most populated of the three, Troy, is the county seat.

Additionally, Huber Heights and Union City are situated partially in Miami County and have populations of 38,154 and 6,628, respectively. Per Miami County's County Profile Report, 5,575 residents resided in Concord Township, 5,079 resided in Bethel Township, 4,826 resided in West Milton, 4,464 resided in Union Township, 2,907 resided in Newberry, 2,708 resided in Covington Township, and 152 resided in Monroe Township⁹.

Troy has a geographic area of 11.7 square miles and a population density of 2,137 residents per square mile. The demographic breakdown is as follows: 87.8% White, 4.0% African American, 3.2% Asian, 2.7% multi-racial, 2.3% Hispanic, 0.3% Native American, and 0.1% identified as other. Among Troy's residents, 7.5% are veterans of U.S. military service. Additionally, 9.9% of residents self-identify as living with a disability and 96.1% of residents have health insurance. Troy's median average income is \$54,161 and the

¹ (U.S. Census Bureau, 2019)

² (Ohio County Profiles – Miami County, 2020)

³ (BestPlaces.net Miami County, Ohio)

⁴ (Miami County Board of Elections, 2021)

⁵ (U.S. Census Bureau, 2019 Data for Troy City, Ohio)

⁶ (U.S. Census Bureau, 2019 Data for Piqua City, Ohio)

⁷ (U.S. Census Bureau, 2019 Data for Tipp City, Ohio)

⁸ (U.S. Census Bureau, 2019 Data for Miami County, Ohio)

⁹ (Ohio County Profiles – Miami County, 2020)

average per capita earnings are \$29,692. The poverty rate in Troy is 12.4%. In Troy, owner occupancy rate is 59.3% and median home value in Troy is \$139,200¹⁰.

Piqua has a geographic area of 11.6 square miles and a population density of 1,766 residents per square mile. The demographic breakdown of Piqua is as follows: 90.5% white, 2.4% African American, 1.0% Asian, 5.3% multi-racial, and 0.8% Hispanic. Among Piqua residents, 6.4% are veterans of U.S. military service. Additionally, 13.4% self-report living with a disability and 92.2% of residents have health insurance. Piqua's median household income is \$37,699 and the average per capita earnings are \$23,215. The poverty rate is 13.7%. In Piqua, the owner occupancy rate is 58.9% and median home value is \$87,100¹¹.

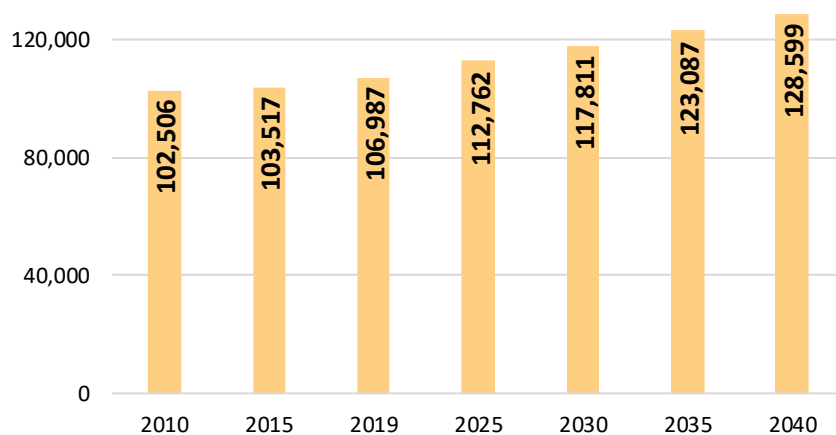
Tipp City has a geographic area of 7.5 square miles and a population density of 1,287 residents per square mile. The demographic breakdown is as follows: 93.8% white, 0.7% African American, 1.2% Asian, 1.2% Hispanic, and 0.2% identified as other. Among Tipp City residents, 6.4% are veterans of U.S. military service. Additionally, 6.6% self-report living with a disability and 95.7% of residents have health insurance. Tipp City's median household income is \$69,881 and the average per capita earnings are \$41,631. The poverty rate is 4.6%. In Tipp City, the owner occupancy rate is 69% and median home value is \$170,000¹².

Demographics of the Population and Social Determinants of Health

Demographic Determinants of Health

The population of Miami County has increased by nearly 5,000 residents since 2010 and is projected to continue to grow throughout 2040¹³. Figure 1 projects Miami County's future population growth.

Figure 1: Population Trends, Past, Present, and Future for Miami County, 2010 – 2040



* Assumes 0.88% annual population growth

Source: U.S. Census Bureau

¹⁰ (U.S. Census Bureau, 2019 Data for Troy, Ohio)

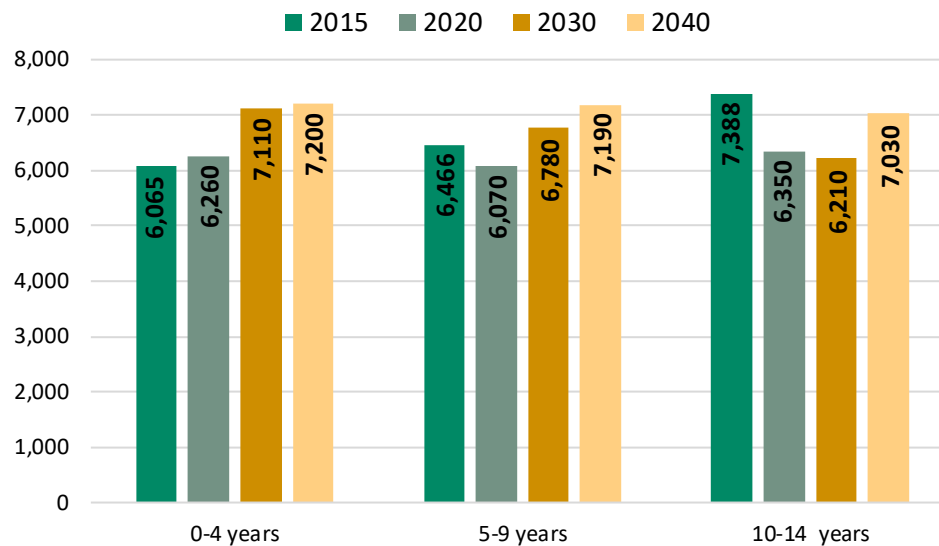
¹¹ (U.S. Census Bureau, 2019 Data for Piqua, Ohio)

¹² (U.S. Census Bureau, 2019 Data for Tipp City, Ohio)

¹³ (U.S. Census Bureau)

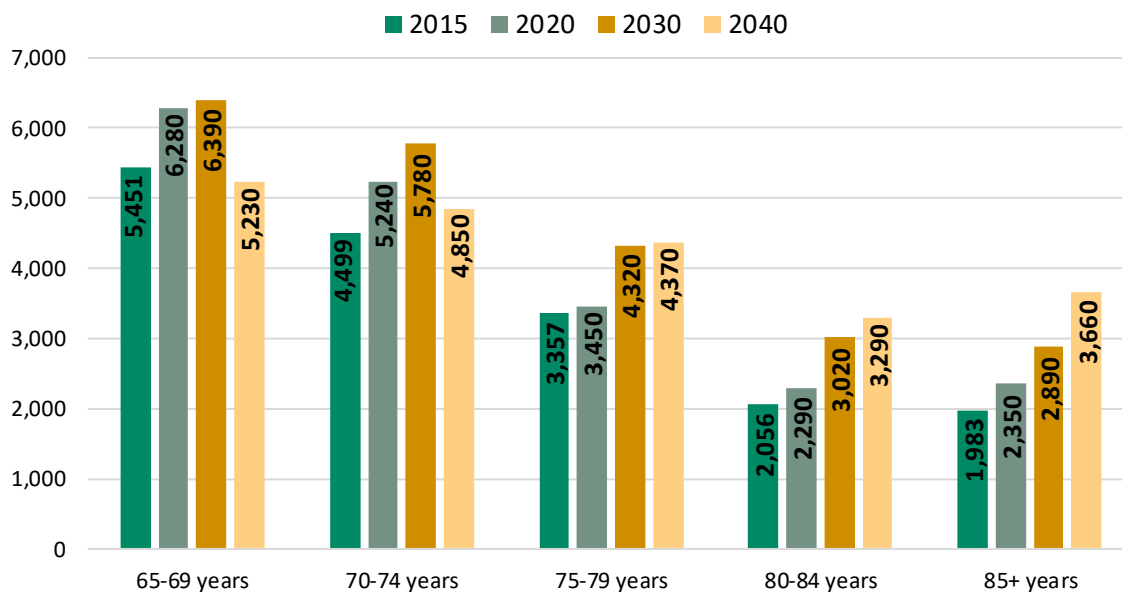
Population trends also influence the number of children and elderly citizens within the county. Based on the population trends experienced in Miami County from 2016-2019, future projections for the Miami County child and elderly population are provided in Figure 2 and Figure 3. Both populations are expected to continue growing through 2040¹⁴.

Figure 2: Child Population Trends, Past, Present, and Future for Miami County, 2015-2040



Source: U.S. Census Bureau

Figure 3: Senior Population Trends, Past, Present, and Future for Miami County, 2015-2040

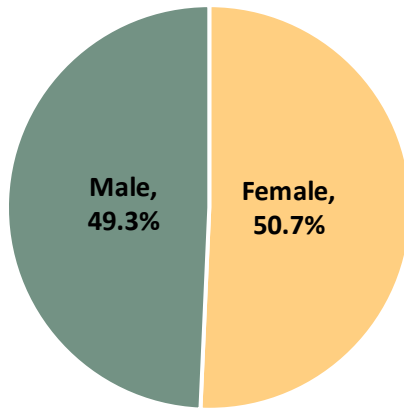


Source: U.S. Census Bureau

¹⁴ (U.S. Census Bureau)

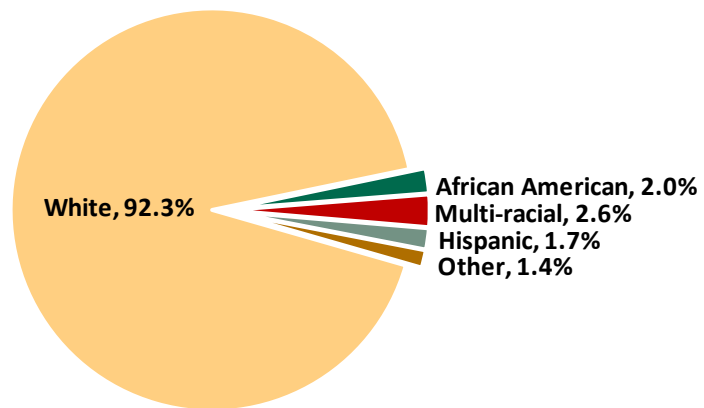
Figure 4 has the distribution of Miami County by sex, Figure 5 describes Miami County's population by race, and Figure 6 shows the distribution of population by age.

Figure 4: Miami County Population by Sex, 2019



Source: U.S. Census Bureau

Figure 5: Race and Ethnicity Composition for Miami County, 2019

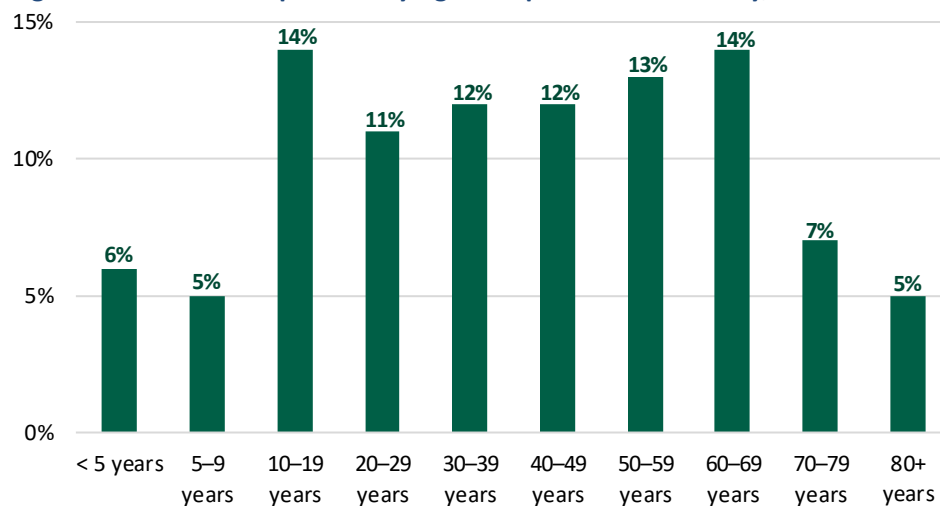


*Hispanic includes respondents of any race, all other categories are non-Hispanic

Source: U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates

With 92% of its residents identifying as White non-Hispanic, Miami County has lower racial diversity than Ohio and the U.S.¹⁵ The county's racial and ethnic minorities (8%) consist of African American, multi-racial, Hispanic, and Other (Native American and Asian)¹⁶.

Figure 6: Percent of Population by Age Groups for Miami County, 2019



Source: U.S. Census Bureau

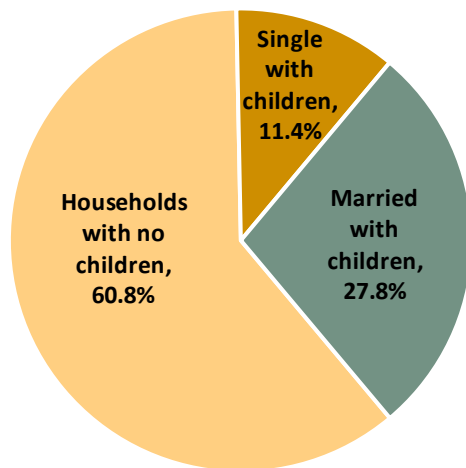
¹⁵ (U.S. Census Bureau, 2019)

¹⁶ (U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates)

Marital Status and Household Type

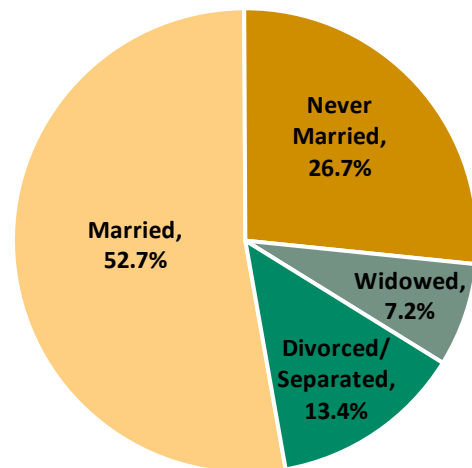
Approximately 61% of households in Miami County are without children. According to the most recent American Community Survey, married couples with children account for 28% of households and single parents with children accounted for 11%. Single-family households are distributed throughout the county. Figure 7 and Figure 8 offer additional detail about households in Miami County¹⁷.

Figure 7: Household Type, Miami County, 2020



*Children refers to own children only
Source: Ohio County Profiles – Miami County

Figure 8: Marital Status, Miami County, 2019



Source: U.S. Census Bureau, 2019 American Community Survey (ACS)

Military Service

As of 2019, 10% of residents in Miami County were veterans of the U.S. military, 93% were male and 7% were female. Troy has the highest resident veteran concentration with nearly 8%¹⁸.

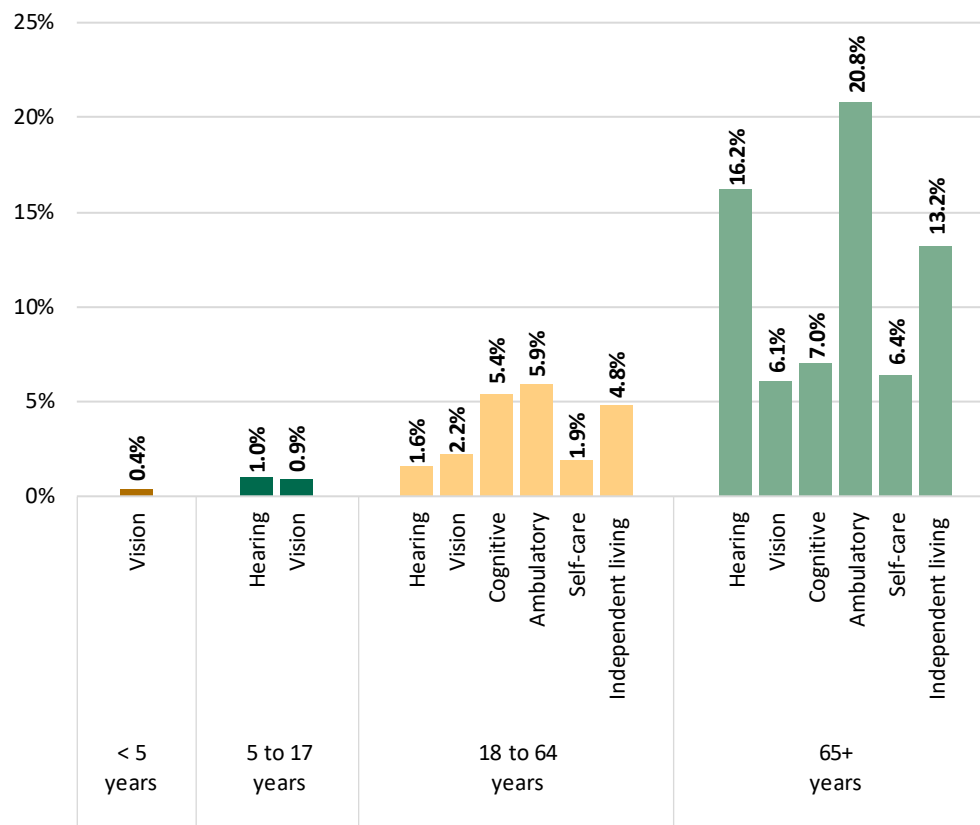
Disability

In 2019, the rate of residents living with disabilities in Miami County was 14%; this rate is similar to Ohio at 13%¹⁹. The U.S. Census categorizes disabilities into six overlapping categories: hearing, vision, cognitive, ambulatory, self-care, or independent living difficulty. Figure 9 shows the percent of residents living with disabilities by age group.

¹⁷ (Ohio County Profiles – Miami County, 2020; U.S. Census Bureau, 2019 American Community Survey (ACS))

¹⁸ (U.S. Census Bureau, 2019 Data for Miami County, Ohio)

¹⁹ (U.S. Census Bureau, 2019: ACS 5-Year Estimates)

Figure 9: Percent of Population with Disability by Age Group, Miami County, 2019

Source: U.S. Census Bureau, 2019: ACS 5-Year Estimates

As age increases, the number of individuals living with a disability increases. Less than 1% of the population under the age of 5 has a disability while 35% of the population over the age of 65 report one or more disabilities.²⁰

Social Determinants of Health

The following section discusses social determinants of health. Defined by Healthy People 2030, social determinants are “the conditions and environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks²¹.” Social determinants of health are often discussed in terms of their effect on health equity, which is defined by the U.S. Department of Health and Human Services as “the absence of disparities or avoidable differences among populations”²². These determinants are often grouped into five distinct but overlapping categories: Economic Stability, Education, Health Care Access and Quality, Neighborhood and Built Environment, and Social Community and Context.

²⁰ (U.S. Census Bureau, 2019 Data for Miami County, Ohio)

²¹ (U.S. Department of Health and Human Services, 2020)

²² (U.S. Department of Health and Human Services, 2021)

Figure 10: Healthy People 2030 Foundations of Social Determinants of Health



Economic Stability

“Our health is also determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships”²³.

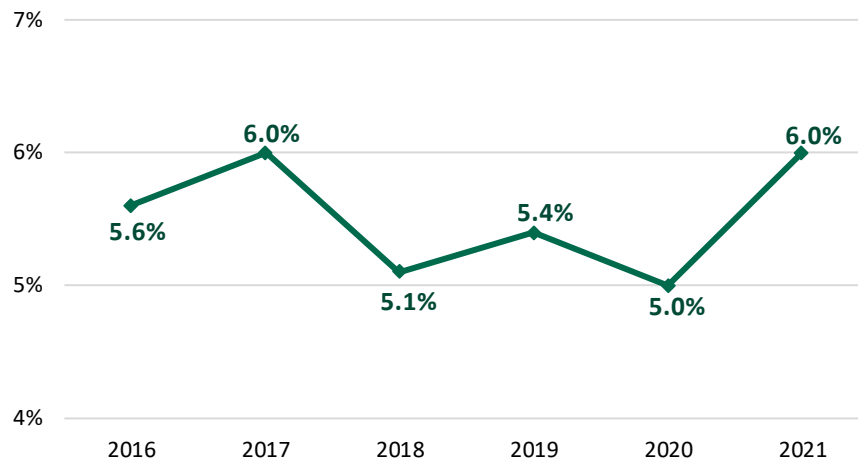
Employment and Sustainable Wages

“Education, employment, and health are linked. Without a good education, prospects for a stable and rewarding job with good earnings decrease. Education is associated with living longer, experiencing better health, and practicing health-promoting behaviors such as exercising regularly, and obtaining timely health checkups and screenings”²⁴. Over the last 5 years, Miami County has had both lower yearly unemployment rates and higher median household incomes than Ohio²⁵.

²³ (Healthy People, 2020)

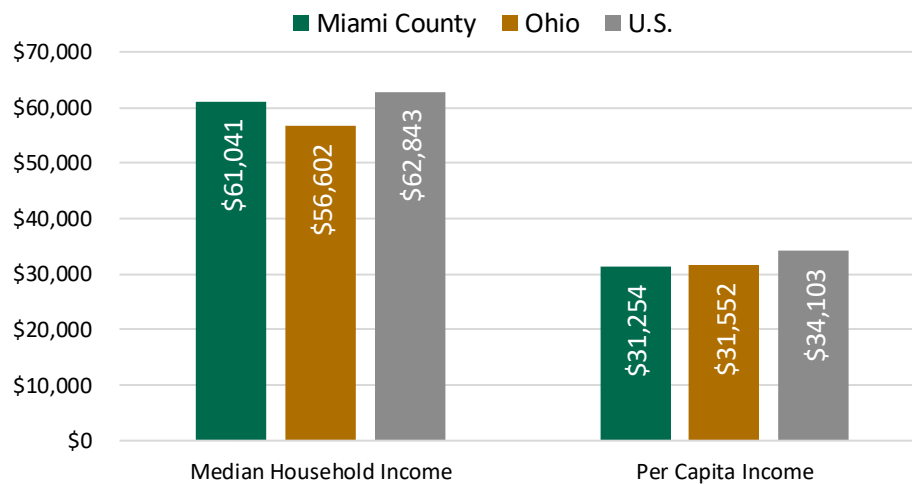
²⁴ (National Prevention Council, 2011)

²⁵ (U.S. Census Bureau, 2020)

Figure 11: Percent Unemployment in Miami County, 2016-2021

*Percent from January of each year

Source: Reno Gazette Journal, 2021

Figure 12: Median Household Income in Miami County, Ohio, and the U.S., 2016-2019

*In U.S. dollars, 2019 inflation-adjusted

Source: U.S. Census Bureau, 2019: ACS 5-Year Estimates

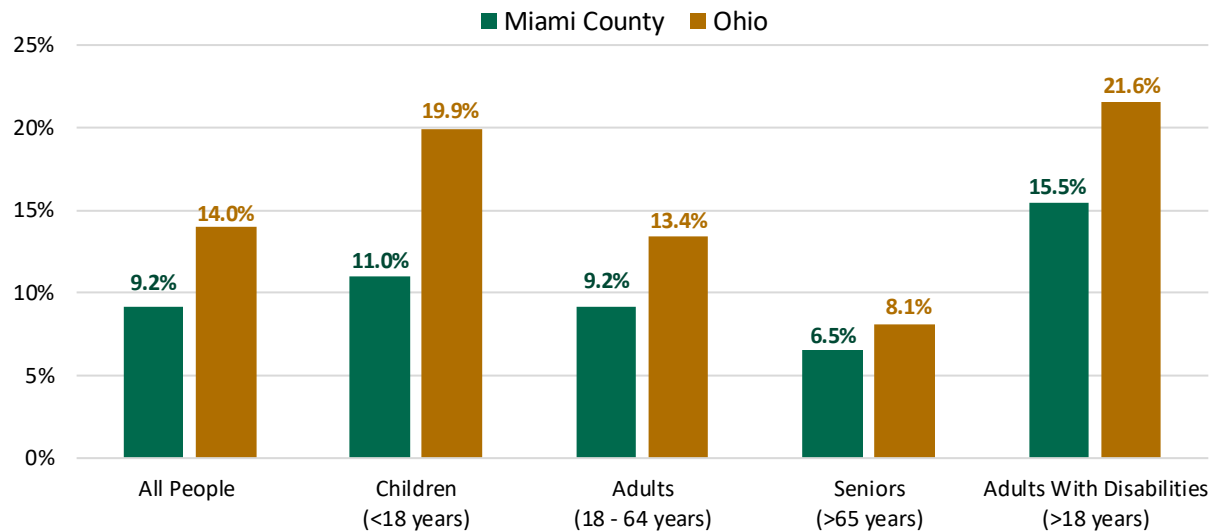
The unemployment rate in Miami County has dropped from 13% in 2019 to 4% in May of 2021 ²⁶. The median household income in Miami County was \$57,500 in 2018 compared to the Ohio median household income of \$54,500.

²⁶ (U.S. Census Bureau, 2020)

Poverty

Researchers agree that there is a clear and established relationship between poverty, socioeconomic status, and health outcomes, including increased risk for disease and premature death ²⁷. In Miami County, 9% of the population (9,521 people) are living in poverty²⁸.

Figure 13: Percent of Population Below the Poverty Level in Miami County and Ohio, 2019



*Poverty defined as incomes at or below 185% of the Federal Poverty Level.

Source: Poverty USA

Miami County continues to have a lower poverty rate across age populations compared to Ohio. Since 2015, Miami County has seen a decrease in overall poverty of 4% while Ohio has seen a decrease of only 2%²⁹.

Food Insecurity

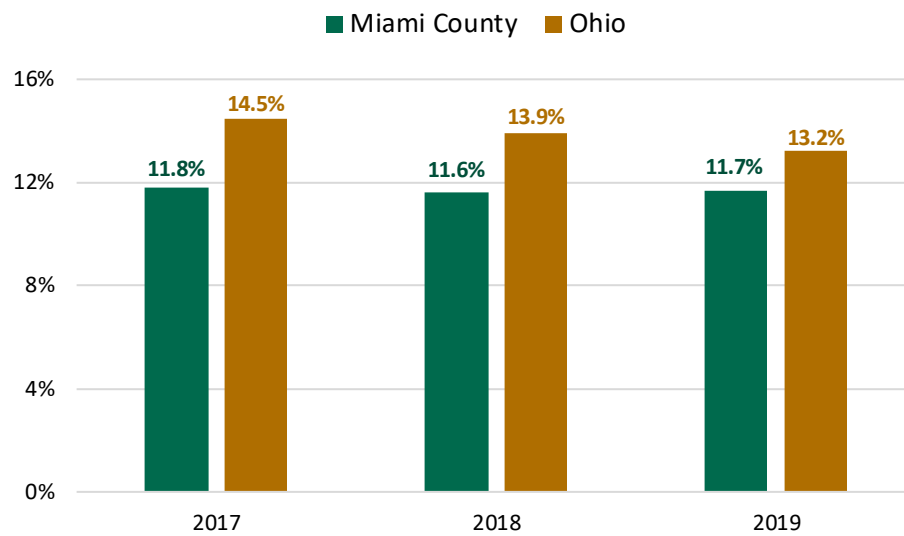
According to the United States Department of Agriculture (U.S.D.A.) and data provided by Feeding America, 12,340 (12%) of people and 3,280 (13%) of children are food insecure in Miami County. Food insecurity is defined as adults and children living in households without consistent access to adequate and healthy food. Additionally, two out of every five (40%) people and one out of every four (25%) children lived in households that did not qualify for federal nutrition assistance programs (income is at or above 185% poverty threshold). Refer to Figure 14 for food insecurity trends within Miami County ³⁰.

²⁷ (Healthy People, 2020)

²⁸ (U.S. Census Bureau, 2020)

²⁹ (U.S. Census Bureau, 2020)

³⁰ (Feeding America, 2020)

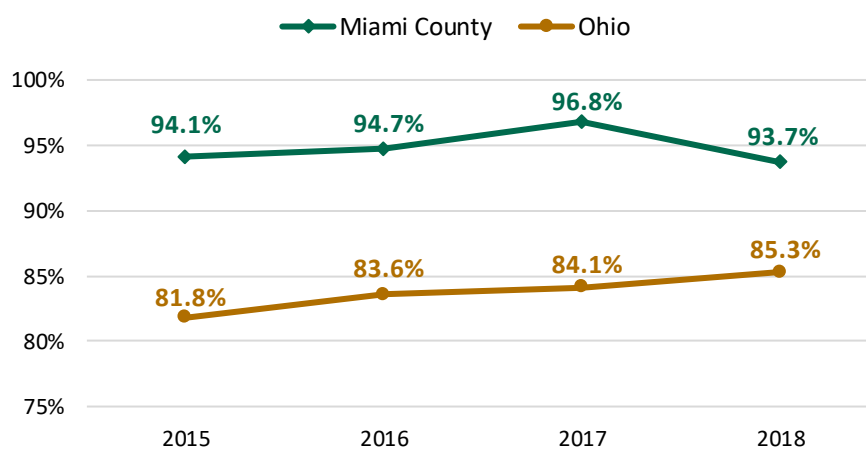
Figure 14: Percent of Population with Food Insecurity in Miami County and Ohio, 2017-2019

Source: Feeding America, 2017

Education

Miami County's four-year high school graduation rate was stable for 2015 -2018 and remained consistently above Ohio averages. While 53% of Miami County kindergarteners were not prepared for school at the start of the 2019 school year, only 17.6% requires intensive intervention and instruction. Refer to Figure 15 for graduation rates in Miami County and Ohio.

Table 1 for graduation rate by school district³¹.

Figure 15: 4-Year High School Graduation Rates in Miami County and Ohio, 2015-2018

³¹ (Ohio Department of Education, 2021)

Source: Ohio Department of Education

Table 1: Miami County 4-Year High School Graduation Rates by School District, 2019

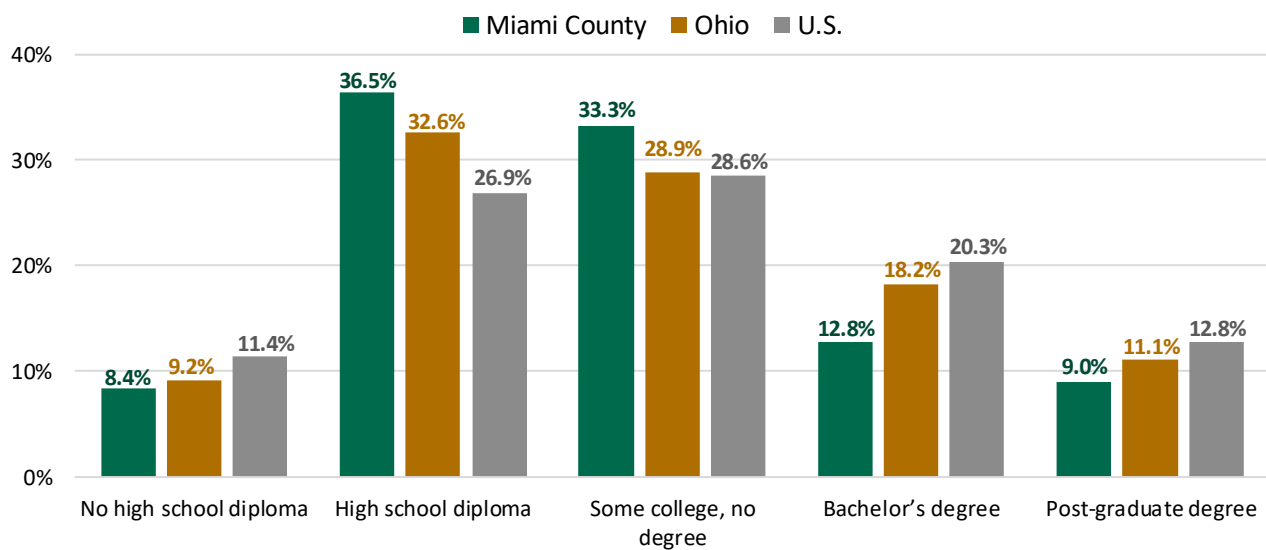
	Graduation Rate
Ohio	85.9%
Miami County	92.7%
Bethel Local	95.9%
Bradford Exempted Village	97%
Covington Exempted Village	94.2%
Miami East Local	96.9%
Milton-Union Exempted Village	93.5%
Newton Local	100%
Piqua City	90.6%
Tipp City Exempted Village	95.9%
Troy City	96.8%

Source: Ohio Department of Education

Educational Attainment

Around 1 out of 12 (8%) of Miami County's population 25 years of age or older has no high school diploma. This rate is lower than Ohio and the U.S. Lower educational attainment levels are directly associated with unemployment and lower pay³².

Figure 16: Percent of Population by Educational Attainment in Miami County, Ohio, and the U.S., 2019



*Population is adults 25 years and older

Source: U.S. Census Bureau, 2019 American Community Survey (ASC)

³² (U.S. Bureau of Labor Statistics, 2017)

The largest educational attainment level in Miami County is a high school diploma. Twenty two percent of Miami County's population holds a bachelor's degree or higher, which is 8% lower than Ohio and 11% lower than the U.S.

Child Care

Child care in Miami County provides a much needed service to our community by supporting our economy and educating our children, which is addressed in Appendix B on page 83.

Healthcare Access and Quality

Access to quality healthcare and preventative services are an essential part of overall health³³. There are several barriers related to healthcare access that may influence population health including insurance coverage, healthcare utilization, and location of healthcare facilities³⁴. Appendix A on page 77 provides a more detailed look at access to healthcare and barriers to care in Miami County.

Insurance Coverage

Nearly 8% of Miami County residents are uninsured, which influences both healthcare utilization and where residents seek care³⁵. Individuals without health insurance are less likely to establish regular care with a primary care physician and more likely to skip routine or preventative care³⁶. In 2020, 93% of people, aged 64 years or under, in Miami County had insurance coverage³⁷. Figure 17 outlines uninsured rates in Miami County versus Ohio and the U.S. and Figure 18 shows the same comparison categorized by age.

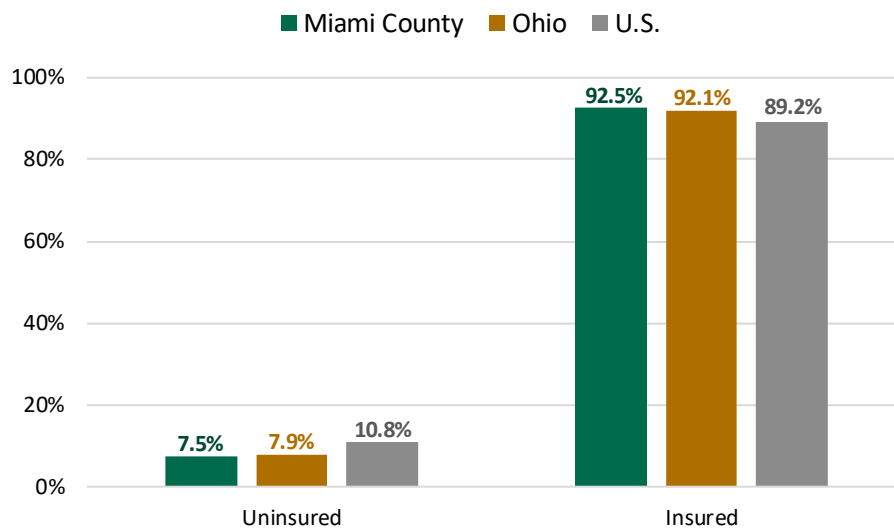
³³ (Healthy People, 2030)

³⁴ (Healthy People, 2030)

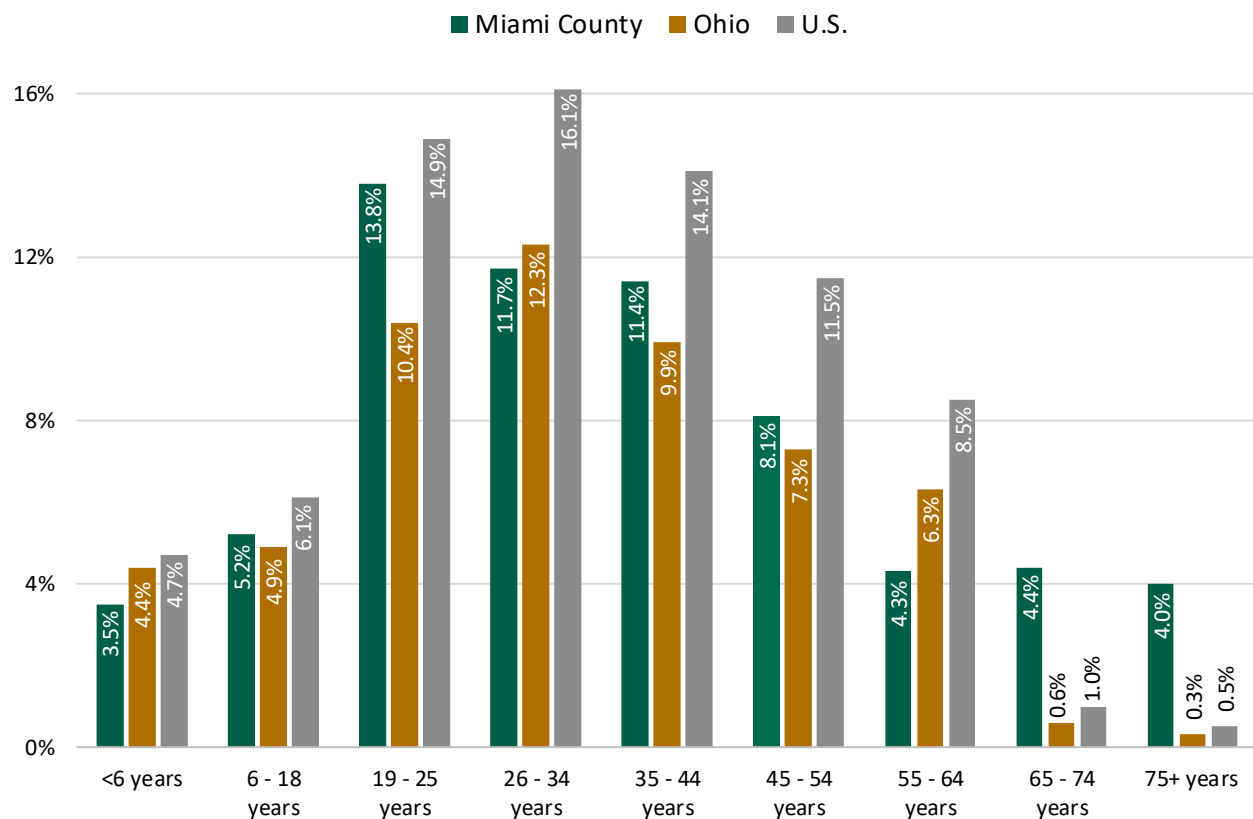
³⁵ (U.S. Census, 2019)

³⁶ (Healthy People, 2030)

³⁷ (Ohio Department of Health, 2021)

Figure 17: Percent of Uninsured Versus Insured Populations in Miami County, Ohio, and the U.S., 2019

Source: U.S. Census, 2019

Figure 18: Percent of Population Uninsured in Miami County, Ohio, and the U.S. by age, 2019

Source: U.S. Census, 2019

Healthcare Utilization

Primary Care Physicians play critical roles in a population's overall health by developing long-term relationships, managing serious disease, and providing coordinated care across healthcare systems³⁸.

Table 2 lists the ratio of residents to providers in Miami County and Ohio.

Table 2: Residents to Providers Ratios, Miami County, 2019

	Miami County	Ohio
Primary Care Physicians	2,040:1	1,300:1
Mental Health Providers	840:1	380:1

Source: County Health Rankings, 2019

Healthcare Infrastructure

Miami County's healthcare infrastructure is comprised of three hospitals and four urgent care facilities³⁹. Additionally, Miami County has 14 long-term care facilities which provide skilled nursing, rehabilitation, and hospice services⁴⁰. These services are centered around Miami County's most populous cities, which may cause access issues for those residents in the rural parts of the county.

Language

Communication with health care professionals can impact the quality of care one receives. This is not a major concern in Miami County with 97% of adults and 98% of children speaking only English at home⁴¹.

Neighborhood and Built Environment

Reducing harmful environmental exposures can improve population health and may contribute to decreases in health disparities⁴². Economically disadvantaged communities are disproportionately affected by environmental conditions including pollution, lack of recreational opportunities, and transportation⁴³.

³⁸ (Healthy People, 2030)

³⁹ (Kettering Health, 2020; Premier Health, 2021)

⁴⁰ (Ohio Department of Health, 2021)

⁴¹ (U.S. Census Bureau, 2020)

⁴² (Healthy People, 2030)

⁴³ (Healthy People, 2030)

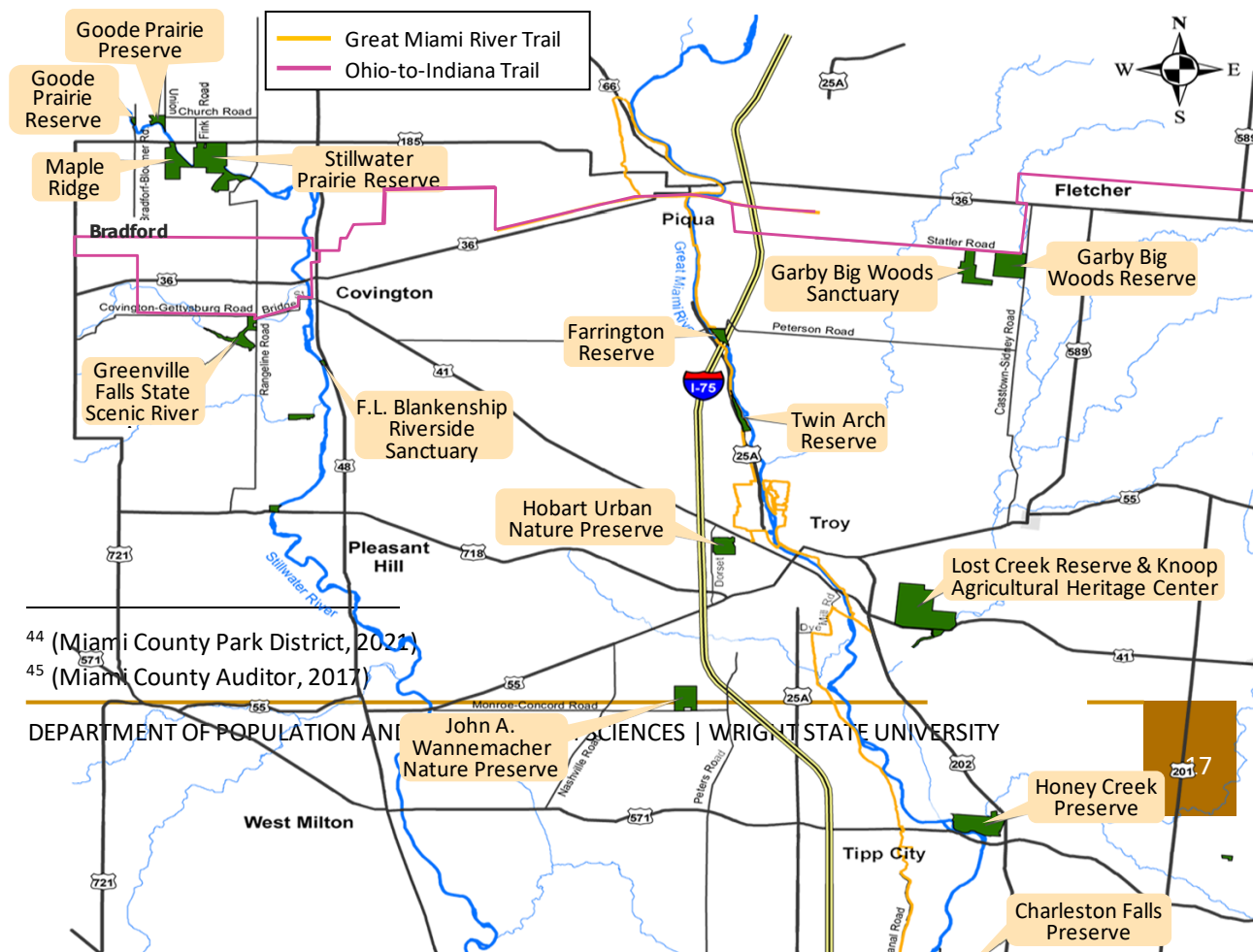
Land Use and Access to Green Space

Healthy open spaces and native habitats improve both water and air quality; Miami County Park District hosts 15 nature parks that connect several miles of paved bikeways for residents to explore⁴⁴. Although residents may not have direct access to the 2,200 acres of parkland and public recreational trails, each trail runs through the county's population centers and parking is available at several trail heads⁴⁵.



Source: Jennel Chumney

Figure 19: Map of Nature Parks and Recreational Trails, Miami County, 2021



Outdoor Air Quality

According to the Healthy People 2030, poor air quality is linked to premature death, cancer, and long-term damage to respiratory and cardiovascular systems⁴⁶. Air pollution can harm us when it accumulates in the air in high enough concentrations. People exposed to high enough levels of certain air pollutants may experience:

- Irritation of the eyes, nose, and throat
- Wheezing, coughing, chest tightness, and breathing difficulties
- Worsening of existing lung and heart problems, such as asthma
- Increased risk of heart attack

The U.S. Environmental Protection Agency (EPA) has established national air quality standards that are designed to protect public health and calculated as the Air Quality Index (AQI)⁴⁷. Ground-level ozone and airborne particles are the two pollutants that pose the greatest threat to human health in this country.

The six levels of health concern and what they mean are:

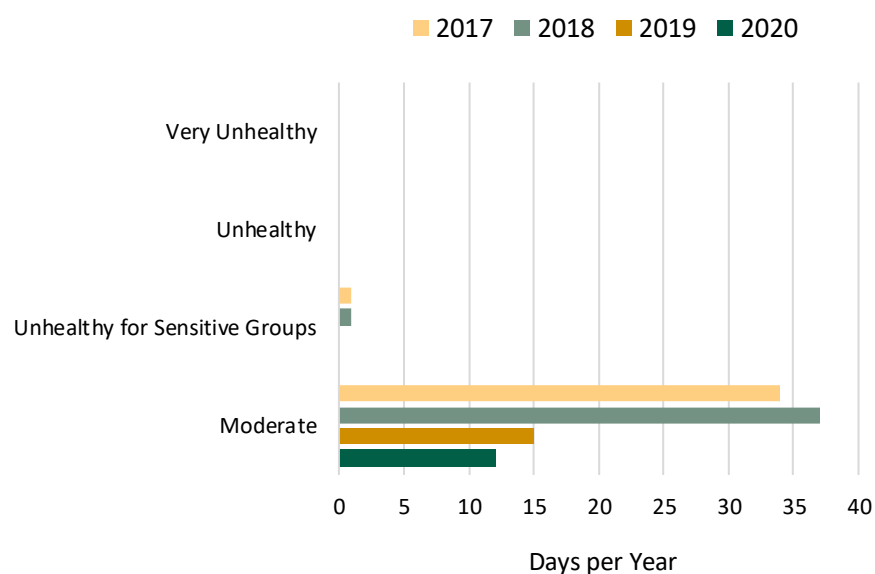
1. "Good" AQI is 0 to 50. Air quality is considered satisfactory, and air pollution poses little or no risk.

⁴⁶ (Healthy People, 2030)

⁴⁷ (U.S. Environmental Protection Agency (EPA), 2020)

2. "Moderate" AQI is 51 to 100. Air quality is acceptable; however, for some pollutants there may be a moderate health concern for an exceedingly small number of people. For example, people who are unusually sensitive to ozone may experience respiratory symptoms.
3. "Unhealthy for Sensitive Groups" AQI is 101 to 150. Although the public is not likely to be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults and children are at greater risk from the presence of particles in the air.
4. "Unhealthy" AQI is 151 to 200. Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects.
5. "Very Unhealthy" AQI is 201 to 300. This would trigger a health alert signifying that everyone may experience more serious health effects.
6. "Hazardous" AQI greater than 300. This would trigger health warnings of emergency conditions. The entire population is more likely to be affected⁴⁸.

Figure 20: Number of Air Quality Index (AQI) Days in Miami County, 2017-2020



Source: U.S. Environmental Protection Agency, 2020

Access to Public Transportation

As stated in the 2017 Miami County Community Health Assessment, public transportation needs are met through the Miami County Ohio Transit Service. This system is open to the public in Miami County and allows pre-scheduled transportation services to any point within the county and several designated places in Montgomery County. There are some limitations to accessing this transit system including cost, limited-service hours, and the advanced reservation requirement. To help reduce cost as a barrier to access, Miami County Transit offers a fare assistance program⁴⁹. The Miami County Continuum of Care Committee

⁴⁸ (U.S. Environmental Protection Agency (EPA), 2020)

⁴⁹ (Miami County, 2021)

also provides a Rides to Work program that temporarily assists those in need of a ride to employment until they have the means to provide themselves.

Population Health Issues

The following section will address adult health, child health, and health challenges faced by Miami County residents. This will include sections about physical health, mental health, and mortality.

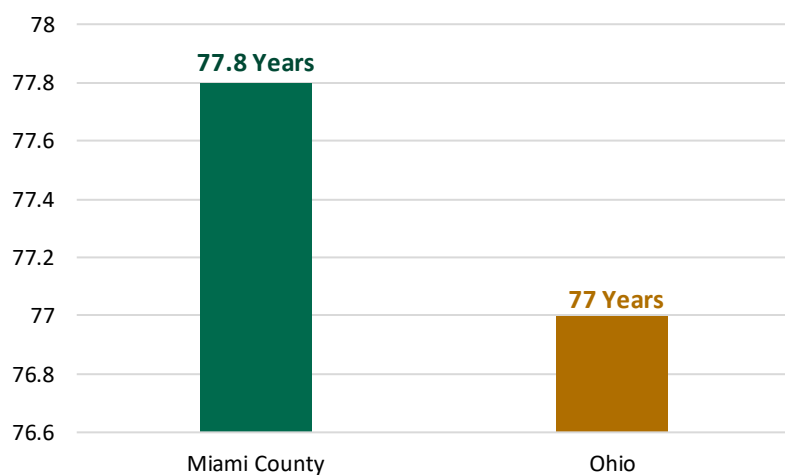
Maternal and Child Health

The Healthy People 2030 (HP 2030) objective is to prevent pregnancy complications, maternal deaths and improve women's health before, during, and after pregnancy⁵⁰. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality pre-conception (before pregnancy), pre-natal (during pregnancy), and inter-conception (between pregnancies) care⁵¹.

Healthy pregnancy and childbirth can be affected by many social determinants of health including age, race, poverty, and the mental health of the parents and/or caregivers. Racial and ethnic differences in maternal and infant health exist across all socioeconomic statuses, the U.S. as a whole and even within Miami County⁵². Additionally, environmental factors can affect both mother and baby's health through their ability to engage in healthy lifestyle behaviors such as exercising, eating healthy foods, and engaging in community events.

Figure 21 presents the average life expectancy at birth for Miami County and Ohio.

Figure 21: Average Life Expectancy at Birth in Miami County and Ohio, from 2017-2019



Source: County Health Rankings

⁵⁰ (Healthy People, 2030)

⁵¹ (U.S. Department of Health and Human Services, 2017)

⁵² (County Healthy Rankings, 2020)

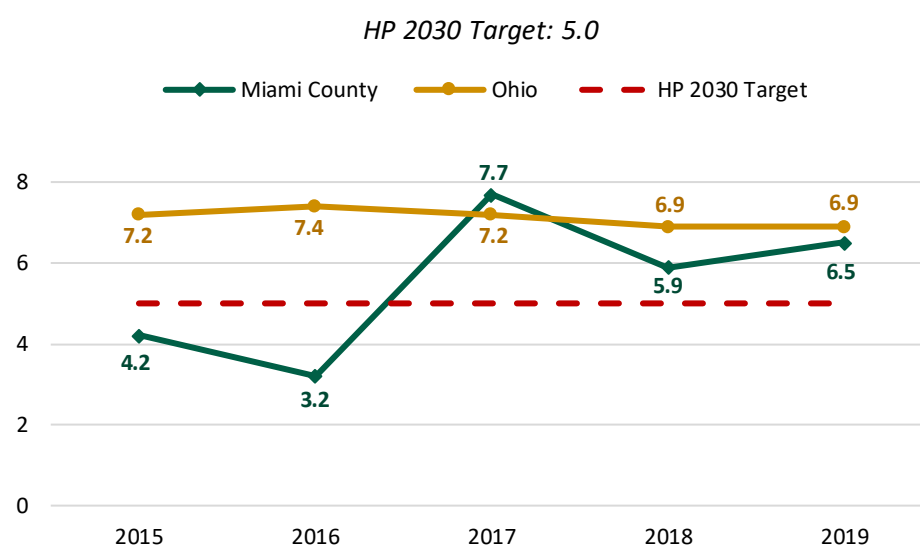
Life expectancy is slightly higher in Miami County than in Ohio from 2017-2019.

Infant Mortality

Infant mortality refers to the rate of infant, younger than 1 year old, deaths per 1,000 live births. Infant mortality is an important health quality measure to determine the overall health of a population and is used across the world. As previously stated, there are significant racial differences in infant mortality and the rate of African American infant mortality is over 2x that of White infants⁵³.

Figure 22 presents the trend of infant mortality in Miami County and Ohio.

Figure 22: Infant Mortality Rate, 2015-2019



*Rates per 1,000 live births

**The number of infant deaths in any given year for Miami County is below the threshold for reporting (<20 reported cases); therefore, rates are considered unstable and should be interpreted with caution.

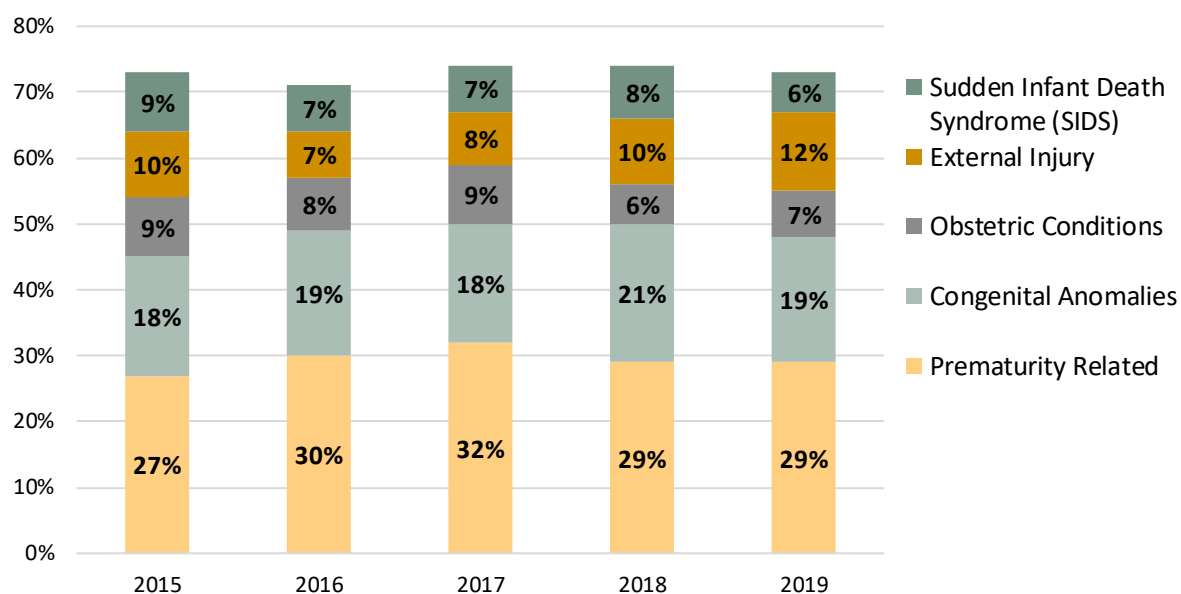
Source: Ohio Department of Health, Ohio Resident Live Births

Miami County in general has a lower infant mortality rate than Ohio. Miami County reached the HP 2030 target for infant mortality target in 2015 and 2016.

In Ohio and the U.S., the top five causes of infant death are prematurity, congenital, external injuries, obstetrics (OB) conditions and, sleep disorders (i.e., sudden infant death syndrome (SIDS))⁵⁴. See Figure 23 for infant deaths by cause in Ohio.

⁵³ (Healthy People, 2030)

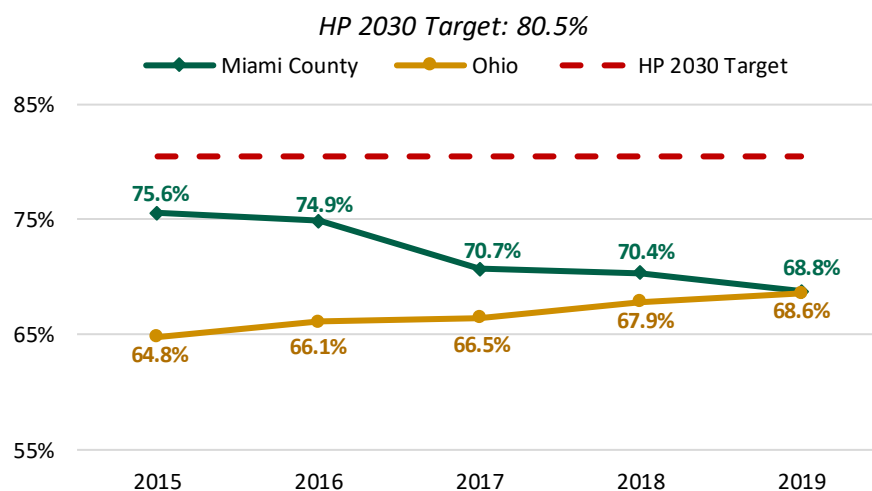
⁵⁴ (Ohio Department of Health, 2019 Infant Mortality Report; Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, 2019)

Figure 23: Percent of Infant Deaths by Cause, 5-Year Average in Ohio, 2015-2019

Source: Ohio Department of Health, Bureau of Vital Statistics

First Trimester Prenatal Care

Common barriers to a healthy pregnancy and birth include lack of access to appropriate health care before and during pregnancy⁵⁵. Obtaining first trimester care correlates with lower rates of premature and low-birth weight infants, which is a leading cause of infant mortality. Figure 24 presents the percent of mothers in Miami County who received first trimester prenatal care compared to Ohio and the HP 2030 target.

Figure 24: Percent of Pregnant Women Receiving Prenatal Care in First Trimester in Miami County and Ohio, 2015-2019

Source: Ohio Department of Health, Ohio Resident Live Births

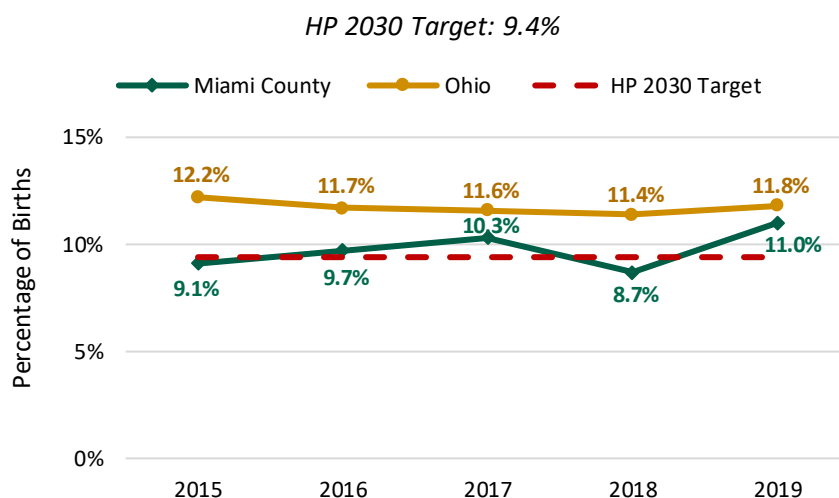
⁵⁵ (U.S. Department of Health and Human Services, 2017)

In 2015-2018, more women received first trimester care in Miami County than in Ohio. However, the percent of mothers receiving first trimester prenatal care has been steadily declining in Miami County.

Preterm Birth

Preterm birth describes when a baby is born too early – before the 37th complete week of pregnancy. Preterm birth weight accounts for approximately 17% of all infant deaths⁵⁶ and is also the leading cause of long-term disabilities in children. According to the Centers for Control and Prevention (CDC), preterm birth affected about 1 of every 10 infants born in the United States in 2019. The CDC also reports that the rate of preterm birth among African- American women (14%) was about 50 percent higher than the rate of preterm birth among White women (9%). The Healthy People 2030 target for reduction is 9% annually. Figure 25 shows the rate of preterm birth in Miami County and Ohio from 2015-2019 compared to the HP 2030 target.

Figure 25: Percent of Preterm Births in Miami County and Ohio, 2015-2019



*Percent of live births born before 37 weeks gestation

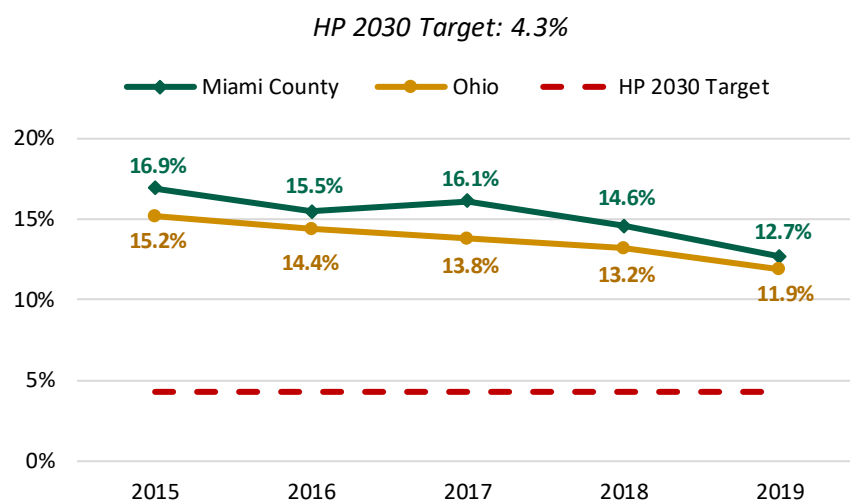
Source: Ohio Department of Health, Ohio Resident Live Births

Although Miami County did not meet this target in 3 out of 5 of the years presented, Miami County had a lower preterm birth rate than Ohio from 2015 to 2019.

Births to Mothers Who Smoke

Smoking during pregnancy can increase the risk that the infant is born prematurely and/or born with low birth weight. Both premature birth and low birthweight are correlated with infant mortality and other health issues. The rate for mothers who smoke in Miami County is higher than Ohio and the U.S and does not meet the HP 2030 target; this is shown in Figure 26 below.

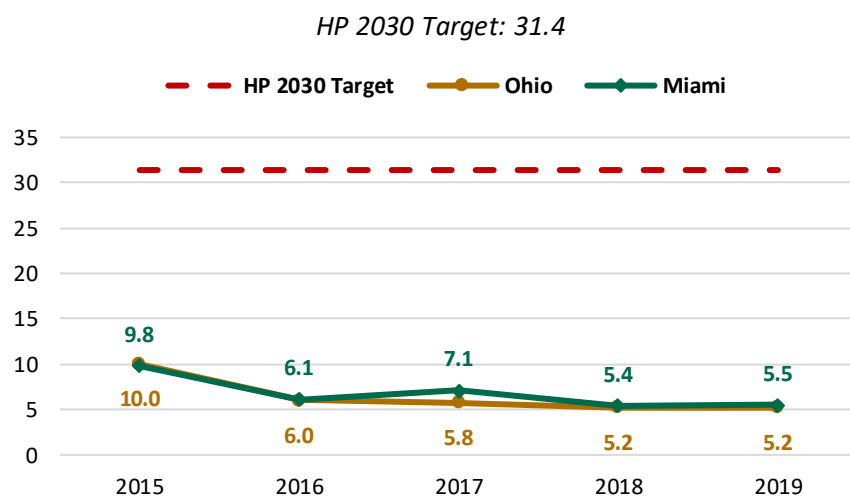
⁵⁶ (Centers for Disease Control and Prevention (CDC), 2020)

Figure 26: Percent of Births to Mothers Who Smoked in Miami County and Ohio, 2015-2019

Source: Ohio Department of Health, Ohio Resident Live Births

Teen Birth Rates

Teen pregnancies can have immediate and long-term negative effects for teen parents and their children, as well as create substantial social and economic costs to our society. Pregnancy and birth are significant contributors to high school dropout rates among girls and their children are also more likely to have lower school achievement and drop out of high school⁵⁷. Figure 27 presents the five -year trend in teenage birth rates in Miami County and Ohio from 2015-2019.

Figure 27: Teenage Birth Rates in Miami County and Ohio, 2015-2019

*Rates per 1,000 females aged 15-19 years old

Source: Ohio Department of Health, Ohio Resident Live Births

⁵⁷ (Centers for Disease Control and Prevention, Reproductive Health: Teen Pregnancy, 2021)

The birth rate to teenage mothers is much lower than the Healthy People 2030 target of 31.4 per 1,000 and has been decreasing for both Miami County and Ohio.

Childhood Asthma

Asthma remains one of the most prevalent chronic health problems facing American youth today. In 2019, 7% of children in the U.S. (under the age of 18) had a current asthma diagnosis⁵⁸. Children between the ages of 12 and 14 were the age group with the highest prevalence (11%). Similar to infant mortality, racial disparities exist within the number of children diagnosed with asthma; African American non-Hispanic youth had the highest prevalence of asthma at 14%.

Impacts of childhood asthma include: negative psychological well-being, academic performance, and missed school days. Beyond physical pollutants, social “pollutants” such as childhood poverty, neighborhood violence, and familial stress, independently contribute to childhood asthma outcomes.

Maternal and Child Health Data Highlights

Ohio, U.S., and Healthy People 2030 Comparison

- The percent of women in Miami County receiving 1st trimester prenatal care (69%) is lower than the HP 2030 target of 81%.
- Additionally, in Miami County the percent of women who receive 1st trimester prenatal care is steadily decreasing.
- The percent of preterm births in Miami County (11%) is lower than Ohio (12%)

Disparities

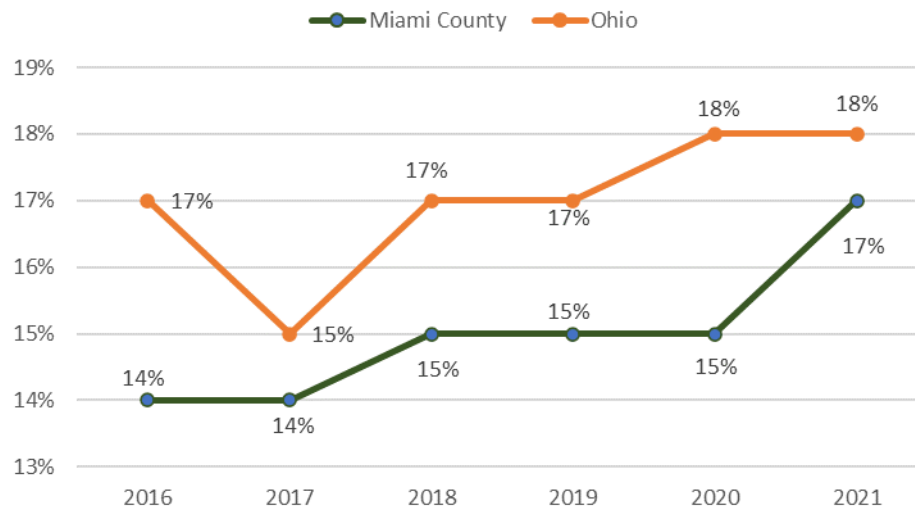
- The percent of women in Miami County between the ages of 15 and 24 receiving 1st trimester prenatal care is lower than women 25 years of age and older.
- The percent of women in Miami County between the ages of 15 and 24 receiving 1st trimester prenatal care is lower than the HP 2030 target of 80.5%.

Adult Health

General Health

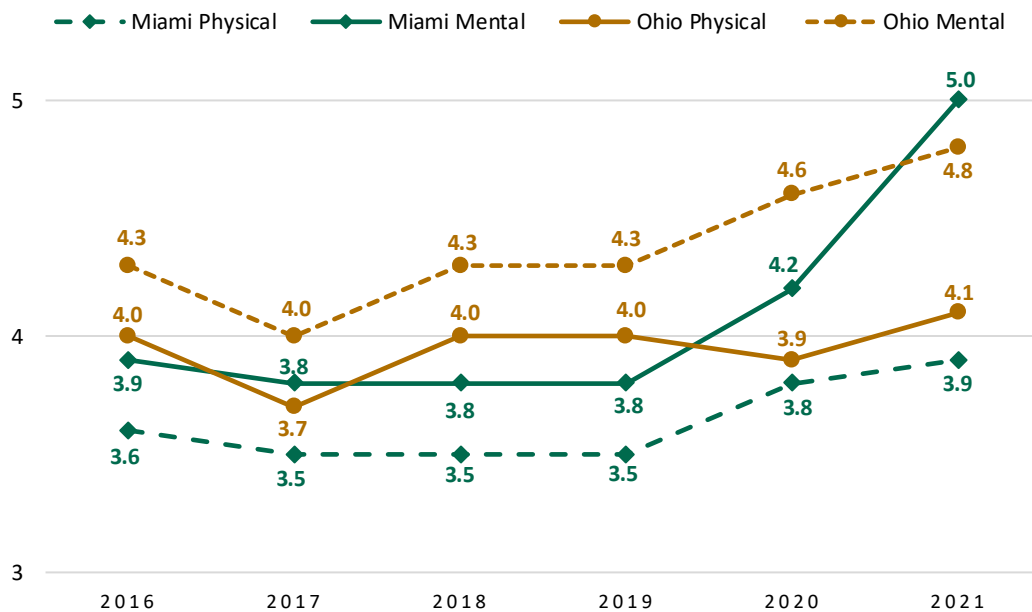
General health status is a self-reported measure regarding an individual’s overall health condition. Figure 28 represents the percent of people who self-reported their health to be in fair or poor health in Miami County and Ohio.

⁵⁸ (Centers for Disease Control and Prevention (CDC) Asthma, 2019)

Figure 28: Percent of Adults Reporting Fair or Poor Health in Miami County and Ohio, 2016-2021

Source: County Health Rankings and Roadmaps

For Miami County, the percent of adults reporting their health as fair or poor condition remained at 14-15% from 2013-2018. In 2021, the percent of Miami County adults who report their health in fair or poor condition increased to 17%, which may be related to the COVID-19 pandemic. Miami County reported a lower percent of adults who report their health to be in fair or poor condition when compared to Ohio.

Figure 29: Number of Poor Health Days Reported by Adults in the Past 30 Days, Physical and Mental Health Comparison for Miami County and Ohio, 2016-2021

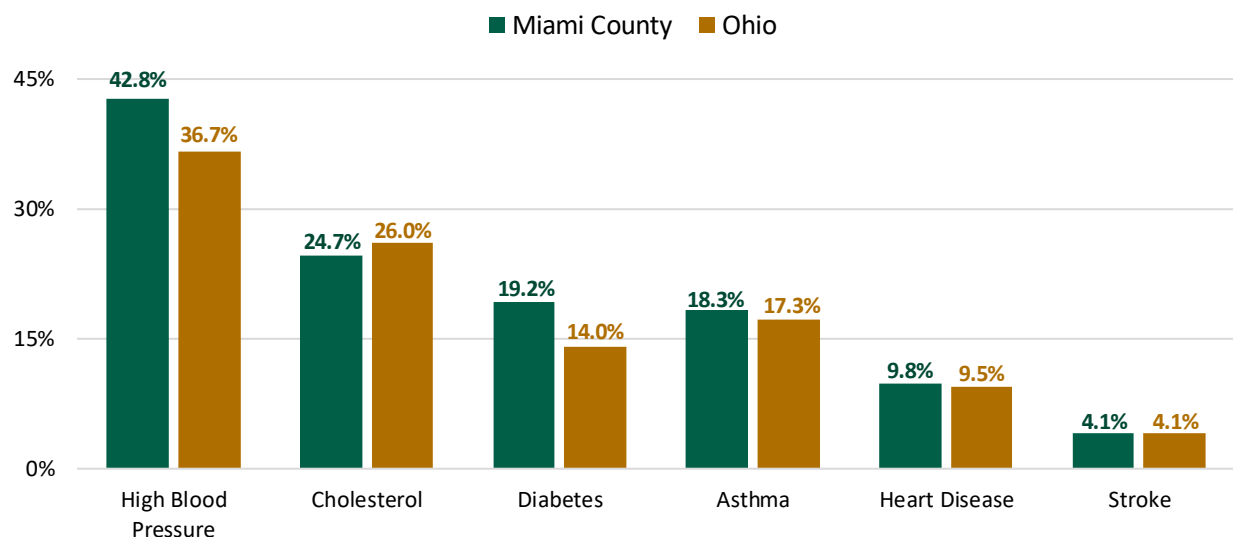
Source: County Health Rankings and Roadmaps

Figure 29 provides data from 2016-2021 on the average number of days adults experienced poor physical or mental health. The average number of fair or poor mental health days has increased from 4 days in 2016 to 5 days in 2021.

Chronic Health Conditions

According to the Centers for Disease Control and Prevention (CDC), approximately six out of ten adults had one or more chronic health conditions and four out of ten adults had two or more chronic health conditions. Two of the top ten causes of death are the chronic diseases – cancer and heart disease – which account for almost half of the deaths in the United States⁵⁹. This section discusses the prevalence of chronic health conditions in Miami County including cardiovascular diseases, respiratory conditions, and diabetes. This section also provides information on the attitudes, behaviors, and preventions regarding these diseases.

Figure 30: Prevalence of Chronic Health Conditions in Adults in Miami County and Ohio, 2019



*Prevalence here refers to the percent of the adult population aged 19 and older with the health condition.

Source: Ohio Medicaid Assessment Survey (OMAS)

Figure 30 outlines the prevalence of chronic disease in Miami County and Ohio. The three most common chronic conditions in Miami County are high blood pressure (43%), high blood cholesterol (25%), and diabetes (19%).

Cardiovascular Conditions

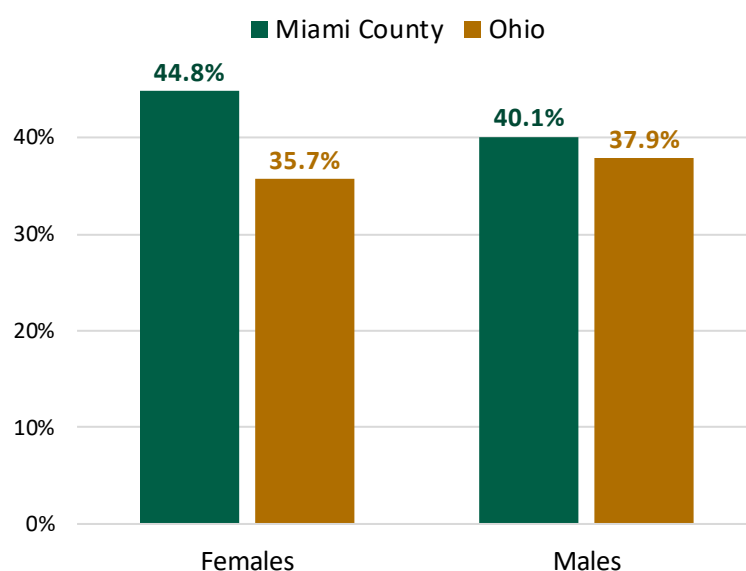
High Blood Pressure

⁵⁹ (Centers for Disease Control and Prevention (CDC) – About Chronic Diseases, 2021)

Uncontrolled high blood pressure can lead to stroke, heart attack, heart failure, or kidney failure. There are no symptoms, and according to the Centers for Disease Control and Prevention (CDC), nearly half of U.S. adults (45%) have been diagnosed with high blood pressure, and about one in five adults (24%) are unaware they have high blood pressure⁶⁰.

In the 2019 Ohio Medicaid Assessment Survey, respondents were asked if a doctor, nurse, or other health care professional had ever told them that they have high blood pressure. Overall, 43% of Miami County residents have been told they have high blood pressure. Figure 31 shows the percent of people with high blood pressure in Miami County and Ohio.

Figure 31: Percent of Adult Population with High Blood Pressure in Miami County and Ohio, by Sex 2019



*Adults aged 19 and older

Source: Ohio Medicaid Assessment Survey (OMAS)

In Miami County, the percent of females (45%) who have been told they have high blood pressure is higher than that of males (38%). Additionally, according to the Ohio Medicaid Assessment Survey, as age increases so does the likelihood of a patient being told they have high blood pressure.

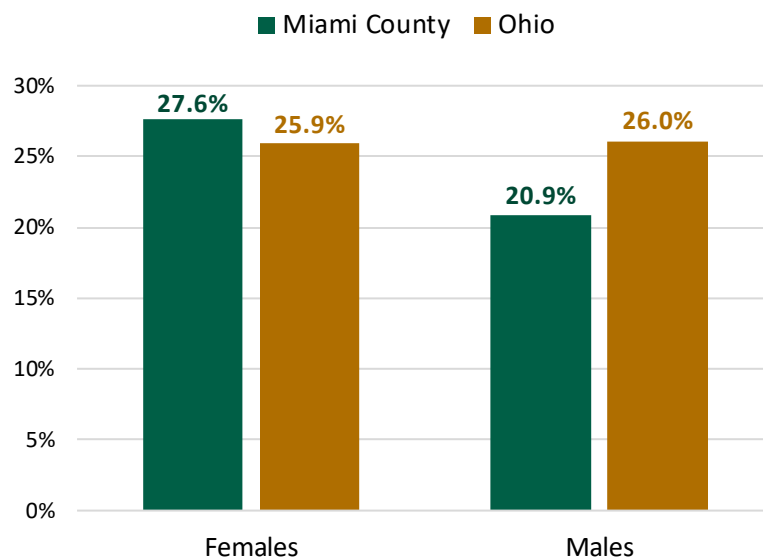
High Cholesterol

Cholesterol is a fat-like molecule that is essential for body functions, including the production of hormones. However, too much cholesterol in the blood can be a serious problem. Too much cholesterol in the blood may cause a plaque to build up in arteries over time. If these plaques rupture, they form blood clots which can lead to a heart attack or stroke. People with high blood cholesterol have an increased risk of heart attack.

⁶⁰ (Centers for Disease Control and Prevention (CDC), 2021)

In the 2019 Ohio Medicaid Assessment Survey, respondents were asked if a doctor, nurse, or other health care professional had ever told them that they have high blood cholesterol. Overall, 25% of Miami County residents have been told they have high blood cholesterol, which is slightly lower than the percent for Ohio (26%). Figure 32 shows the percent of people with high blood cholesterol in Miami County and Ohio.

Figure 32: Percent of Adult Population with High Cholesterol in Miami County and Ohio, by Sex 2019



*Adults aged 19 and older

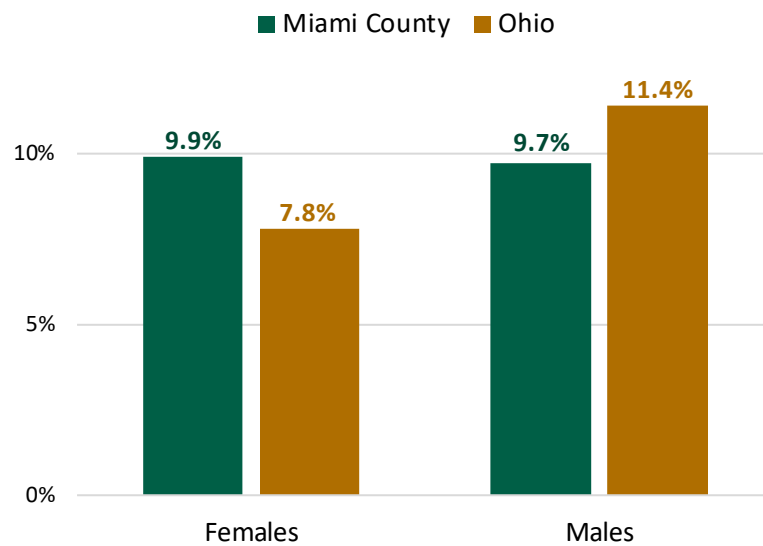
Source: Ohio Medicaid Assessment Survey (OMAS)

In Miami County, the percent of females who have been told they have high blood cholesterol is nearly 7% higher than males. For Ohio, the percent of the male and female population with high cholesterol is the roughly the same, at almost 26%.

Heart Disease, Heart Attack, and Stroke

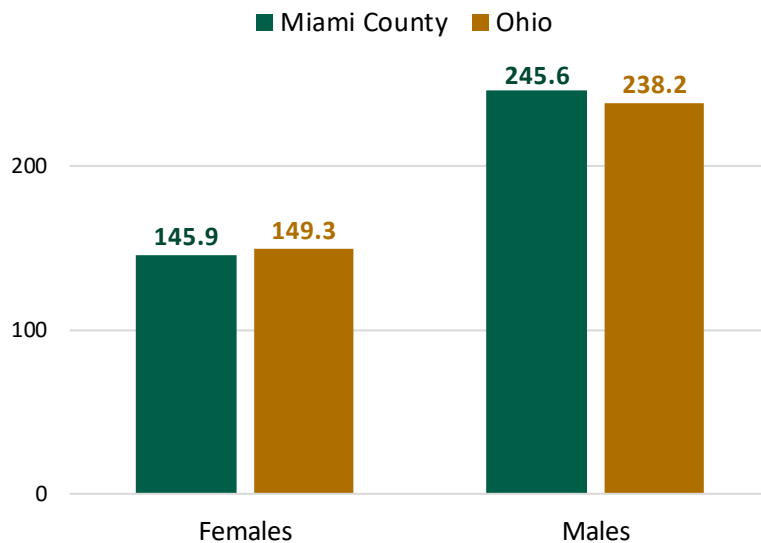
Heart disease is the number one cause of death in the U.S. and includes several conditions that affect the heart (e.g., arrhythmias, atherosclerosis, cardiomyopathy, heart failure). The most common type of heart disease is coronary artery disease (CAD). CAD is caused by a hardening and narrowing of arterial walls, which affects the blood flow to the heart and can result in a heart attack.

In the 2019 Ohio Medicaid Assessment Survey, respondents were asked about conditions that indicate heart disease. Just under 10% of Miami County and Ohio residents reported having a heart disease. Figure 33 shows the percent of people with heart disease in Miami County and Ohio and Figure 34 shows the death rates.

Figure 33: Percent of Adult Population with Heart Disease in Miami County and Ohio, by Sex 2019

*Adults aged 19 and older

Source: Ohio Medicaid Assessment Survey (OMAS)

Figure 34: Heart Disease Death Rate in Miami County and Ohio, by Sex 2017-2019

*Age-standardized rate per 100,000 population for adults aged 18 and older

Source: Centers for Disease Control and Prevention (CDC) Interactive Atlas of Heart Disease and Stroke

The heart disease death rate for males in Miami County is 68% higher than that of females while the percent of the males and females affected by heart disease is nearly the same (10%).

Respiratory Conditions

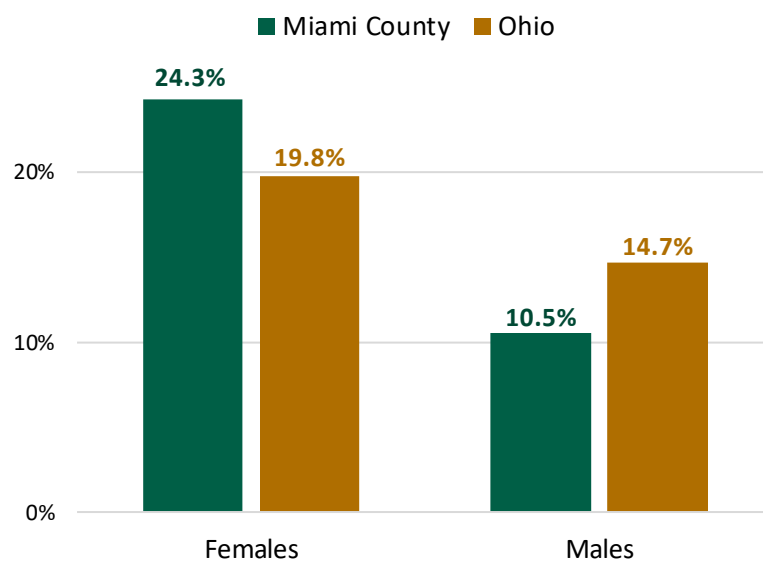
Asthma

The CDC reports that about 1 in 12 Americans (around 25 million) have asthma – 7% of children and 8% of adults. Asthma is a chronic respiratory disease in which the airways of the lungs become temporarily blocked due to inflammation. Symptoms associated with asthma include labored breathing, chest constriction, and coughing.

Asthma self-management education is essential to reducing asthma-related effects and can improve the quality of life for asthma sufferers by reducing urgent care visits, emergency department visits, hospitalizations, and healthcare costs. However, less than half of people with asthma reported being taught asthma self-management and how to avoid triggers⁶¹.

In the 2019 Ohio Medicaid Assessment Survey, respondents were asked if a doctor, nurse, or other health care professional had ever told them that they have asthma. In Miami County, 18% of adults indicated they have been told they have asthma which is higher than in Ohio (17%). Figure 35 shows the percent of people with asthma in Miami County and Ohio.

Figure 35: Percent of Adult Population with Asthma in Miami County and Ohio, by Sex 2019



*Adults aged 19 and older

Source: Ohio Medicaid Assessment Survey (OMAS)

Diabetes

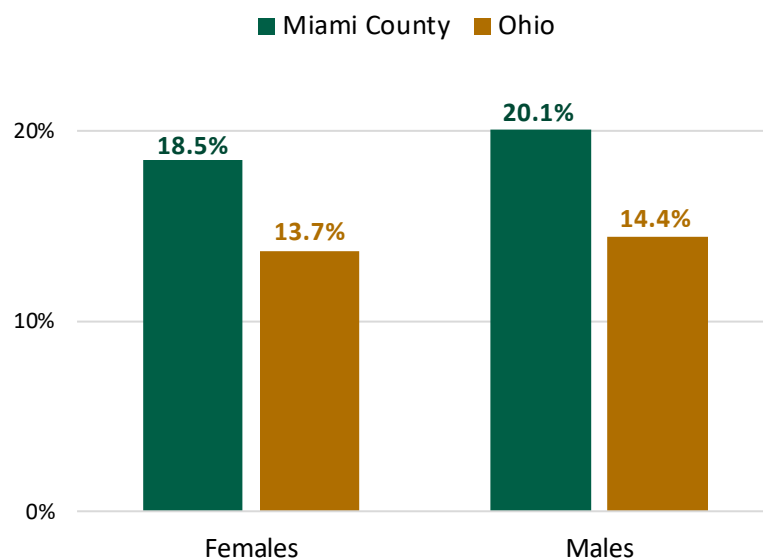
Diabetes is a disease in which the pancreas is unable to produce insulin or cannot properly use the insulin that it does produce. According to the American Diabetes Association, an estimated 34.2 million people in

⁶¹ (Centers for Disease Control and Prevention (CDC) Asthma in the U.S., 2011)

the United States have diabetes, and one in five of them are unaware they have the disease. Similar to other health indicators, there are racial disparities in diabetes prevalence; a higher prevalence is witnessed among African Americans (16%), Asian Americans (15%) and Hispanics (15%) compared Whites (12%)⁶².

In the 2019 Ohio Medicaid Assessment Survey, respondents were asked if a doctor, nurse, or other health care professional had ever told them that they have diabetes. Overall, 18% of Miami County residents have been told they have diabetes, which is slightly higher than the percent for Ohio (14%). Figure 36 shows the percent of people with diabetes in Miami County and Ohio.

Figure 36: Percent of Adult Population with Diabetes in Miami County and Ohio, by Sex 2019



*Adults aged 19 and older

Source: Ohio Medicaid Assessment Survey (OMAS)

Chronic Diseases Data Highlights

Disparities

- The prevalence of high blood pressure in Miami County is higher for females (45%) than males (40%).
- The prevalence of high cholesterol in Miami County is higher for females (28%) than males (21%).
- Miami County males and females have the same prevalence of heart disease (10%), but males have a higher heart disease mortality rate.
- The prevalence of asthma in Miami County females (24%) is more than double the prevalence of males (11%).
- The prevalence of diabetes in Miami County (18%) is higher than in Ohio (14%).

⁶² (Centers for Disease Control and Prevention (CDC) – National Diabetes Statistics Report, 2021)

⁶³ (Centers for Disease Control and Prevention (CDC) – Prevalence of Diagnosed Diabetes, 2021)

Cancer

Cancer is the second most common cause of death in the United States, after heart disease⁶⁴. For an individual, the chance of developing invasive cancer at some point during their lifetime is about 1 in 3 (36% for males and 34% for females)⁶⁵. Multiple social determinants correlate with a cancer diagnosis including: age, sex, family history, lifestyle choices, and environmental exposures. Table 3 contains an overview of new cases (incidence) and deaths (mortality) from cancer in Miami County, Ohio, and the U.S.

Table 3: Average Annual Number and Age-adjusted Rates of Invasive Cancer Cases and Cancer Deaths by Sex and Race in Miami County, Ohio, and the U.S., 2014-2018

Demographics		Incidence				Mortality			
		Miami County ¹		Ohio ¹	U.S. ²	Miami County ¹		Ohio ¹	U.S. ²
		Cases	Rate	Rate	Rate	Deaths	Rate	Rate	Rate
Total		617	452.0	467.5	450.5	237	173.1	172.3	155.5
Sex	Male	305	475.8	505.2	489.2	121	200.8	207.2	185.5
	Female	312	440.1	443.7	425.6	116	155.4	147.3	133.5
Race	White	587	444.2	465.6	460.9	237	173.1	171.2	156.3
	African American	10	371.1	450.9	445.2	-	-	192.4	177.5

*Mortality rates are not calculated for deaths less than 20 due to unstable/unreliable rates.

**Rates are age-adjusted per 100,000 population

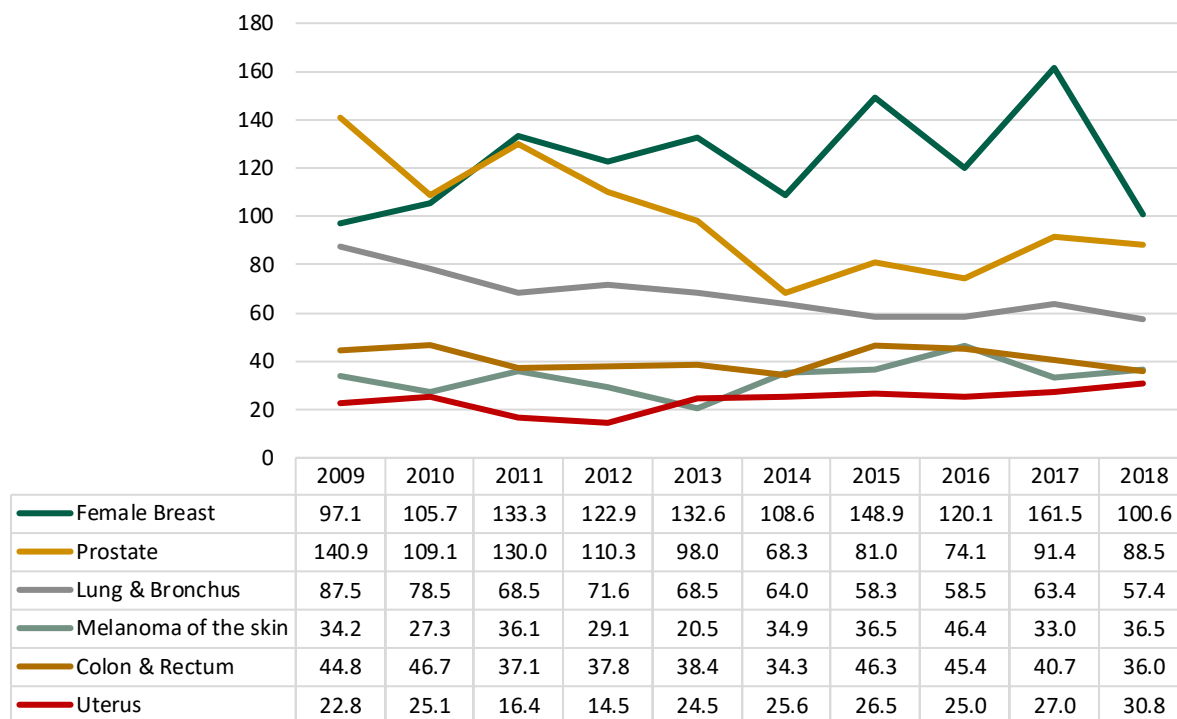
¹Ohio Cancer Incidence Surveillance System and the Bureau of Vital Statistics, Ohio Department of Health, 2021

²Surveillance, Epidemiology and End Results Program, National Cancer Institute, and the National Center for Health Statistics

An average of 617 new invasive cancer cases and 237 deaths occurred each year among Miami County residents from 2014-2018. In 2014-2018, the cancer incidence rate for all sites/types combined in Miami County was 452 per 100,000. This is similar to the U.S. rate (451 per 100,000), but lower than the Ohio rate (468 per 100,000). The cancer mortality (death) rate for Miami County is similar to the Ohio rate but higher than the U.S. rate. Cancer incidence and mortality rates among males were higher than females. Whites had a higher cancer incidence than African Americans in Miami County, Ohio, and the U.S. African Americans had a higher cancer associated mortality rate than whites in Ohio and the U.S.

⁶⁴ (National Center for Health Statistics – Health, United States, 2019)

⁶⁵ (National Cancer Institute, Surveillance, Epidemiology, and End Results, Cancer Query System, 2015-2017)

Figure 37: Rates of the Top Six Invasive Cancers in Miami County, 2009-2018

*Rates are age-adjusted incidence rates per 100,000 population

**Rates for prostate cancer calculated for males only; rates for breast and uterine cancer calculated for females only; rates for melanoma of the skin excludes basal and squamous cell carcinomas of the skin

Source: Ohio Department of Health, Cancer Incidence Data

As shown in Figure 37, breast cancer has fluctuated yearly but remains the most common cancer in Miami County. The rate of prostate cancer declined from 2009-2018 by 37%. Lung cancer has decreased 34% since 2009.

Screening for cancer is important since not all cancers are preventable. Screenings can detect precancerous lesions, which may be removed before they develop into cancer⁶⁶. If cancer has already developed, regular screenings can help find tumors at early stages when treatment is more likely to be successful.

Table 4 shows the percent of cases by stage at diagnosis for the top six cancers in Miami County and Ohio. Cancer stage at diagnosis is the extent or spread of a tumor from the site where it originated. The stages in order of increasing spread: *in situ*, localized, regional, and distant. Early-stage cancers are diagnosed at the *in situ* or localized stage, and late-stage cancers are diagnosed at the regional or distant stage.

⁶⁶ (American Cancer Society)

Table 4: Percent of Cases by Stage at Diagnosis for Select Cancer Sites/Types in Miami County and Ohio, 2016-2020

Cancer Site/Type	Miami County		Ohio	
	Early Stage	Late Stage	Early Stage	Late Stage
Breast (Female)	73.1	25.1	72.0	26.7
Prostate	67.5	27.8	68.7	22.3
Lung & Bronchus	24.9	69.6	26.9	67.6
Melanoma of the skin	88.2	7.2	84.0	8.7
Colon & Rectum	36.8	56.1	34.0	58.2
Uterus	73.7	23.3	73.1	23.9

*Early and late-stage values do not add up to 100% because unstaged/missing stage cancers are not included. The percent of unstaged/missing stage cases varies by cancer site/type and region; therefore, comparisons between Miami County and Ohio should be interpreted with caution.

Source: Ohio Department of Health, Cancer Incidence Data

Among the cancers selected, those with the highest proportions of late-stage tumors in Miami County were lung & bronchus cancer (70%), followed by colon and rectal cancer (56%). Cancer types with a higher percent of late-stage tumors in Miami County compared to Ohio include prostate and lung & bronchus.

Communicable Disease

A communicable disease is described as either a virus or bacteria that people can easily spread to one another through contact with contaminated surfaces, bodily fluids, blood products, insect bites or the air⁶⁷. Common communicable diseases include HIV, measles, salmonella which can spread in many ways including: unprotected sex, sharing injecting equipment, coming into contact with blood and droplets of an infected person and ingesting contaminated food. Some communicable diseases are required to be reported to health departments or government agencies in the jurisdiction of the outbreak. Table 5 shows the reported communicable diseases in Miami County from 2014 to 2020.

Table 5: Number of Reportable Communicable Disease Cases by Disease in Miami County, 2014-2020

Reportable Diseases	2014	2015	2016	2017	2018	2019	2020
Campylobacteriosis	21	12	13	20	13	10	7
Chlamydia	388	278	263	246	242	343	222
COVID-19	0	0	0	0	0	0	7,841
CP-CRE	0	0	0	0	5	2	1
Coccidioidomycosis	0	0	0	1	0	2	0
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	1
Cryptosporidiosis	0	1	20	2	2	3	5
Cyclosporiasis	0	0	0	0	0	0	4

⁶⁷ (Edemekong & Huang., 2020)

E. chaffeensis	0	0	0	0	1	0	0
E. coli 0157	3	3	2	1	2	5	1
Giardiasis	2	1	5	4	10	2	5
Gonococcal infections	74	36	39	53	59	92	87
Haemophilus influenzae	0	0	0	0	0	1	1
Hepatitis A	0	0	0	0	26	33	1
Hepatitis B, acute	7	6	3	3	0	4	1
Hepatitis B, chronic	6	18	11	29	22	27	19
Hepatitis B, perinatal	0	0	0	1	3	2	0
Hepatitis C, acute	8	1	1	2	5	3	1
Hepatitis C, chronic	87	100	127	130	123	77	66
Hepatitis C - Perinatal Infection	0	0	0	0	0	2	0
HiB	1	4	0	0	1	0	0
Influenza Assoc Hospitalization	38	38	15	82	86	75	78
LaCrosse virus	0	0	0	0	1	0	0
Legionellosis	8	4	1	3	3	1	6
Lyme Disease	0	1	6	6	3	10	3
Measles	0	0	0	0	0	0	0
Meningitis, Bacterial	2	2	1	10	12	5	1
Meningitis, Viral	5	5	4	0	3	2	1
Mumps	1	0	3	1	3	1	1
Mycobacterium, non-TB	3	4	3	0	0	0	0
Mycobacterium, TB	0	0	0	0	0	0	0
Pertussis	12	5	19	15	9	14	3
Rubella	0	0	0	0	0	0	0
Salmonellosis	13	10	14	40	4	11	8
Shigellosis	0	0	0	2	1	1	1
Spotted Fever Rickettsiosis	0	0	0	0	1	2	0
Strep A, Invasive	2	1	5	8	5	10	6
Streptococcal-Group B newborn	0	0	0	0	0	2	0
Strep, Pneumo, Invasive	7	10	7	17	16	8	7
Toxic Shock Syndrome	0	0	0	0	1	1	0
Varicella	3	8	13	17	5	2	5
Vibriosis (not cholera)	0	0	0	0	0	0	1
West Nile Virus	0	0	0	0	0	0	0
Yersiniosis	0	1	0	1	0	1	0

Total per Year	696	551	577	709	679	753	8,384
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Source: Miami County Public Health, 2020 Communicable Disease Report

Table 6: Number of Reportable Disease Outbreaks in Miami County, 2020

Class A Reportable Disease Outbreak		Class B Reportable Disease Outbreak	
COVID-19 Pandemic	1	Cyclosporiasis	1

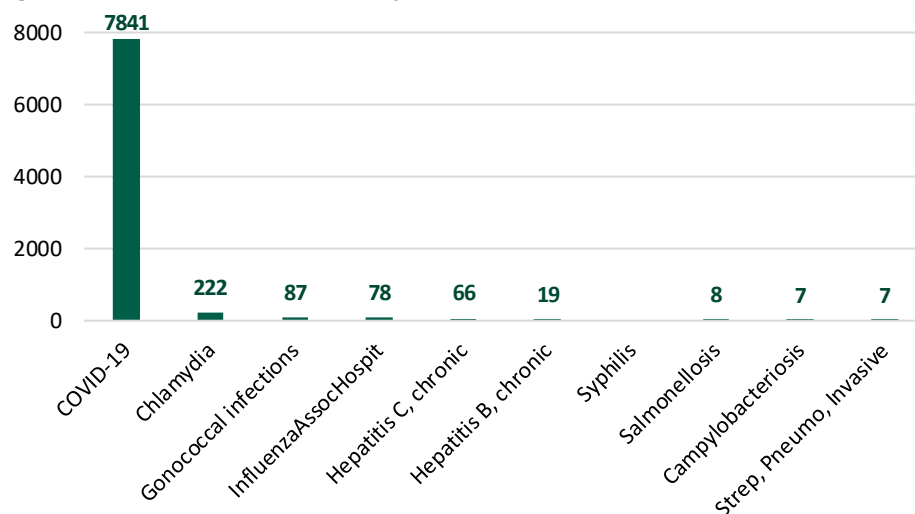
Source: Miami County Public Health, 2020 Communicable Disease Report

The total number of reportable diseases in Miami County was higher in 2020 due to the COVID-19 pandemic (Table 5). There were two reportable disease outbreaks in the year 2020 for Miami County (Table 6).

- Miami County reported 8,384 cases for reportable communicable diseases out of which 7,841 were COVID-19 cases.
- There was a small increase in Legionellosis in 2020 however, other than the novel coronavirus cases, overall reportable communicable diseases have declined since 2014.

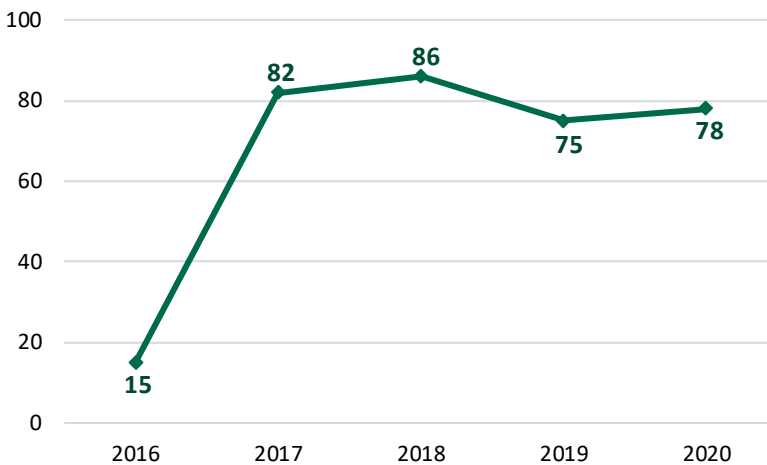
Figure 38 shows the top ten communicable diseases in 2020.

Figure 38: Number of Cases for Top Ten Communicable Diseases in Miami County, 2020



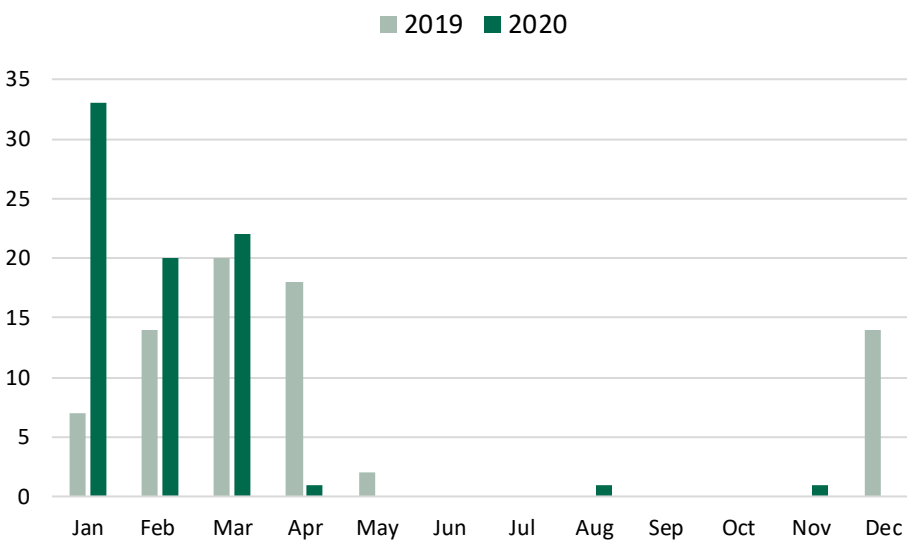
Source: Miami County Public Health, 2020 Communicable Disease Report

Influenza is an infectious respiratory disease caused by influenza viruses. It can be mild to severe and severe cases might result hospitalization and death. Figure 39 shows influenza associated hospitalizations in Miami County from 2016 to 2020.

Figure 39: Number of Influenza Associated Hospitalizations in Miami County, 2016-2020

Source: Miami County Public Health, 2020 Communicable Disease Report; Centers for Disease Control and Prevention (CDC)

Influenza associated hospitalizations in Miami County greatly increased from 2016 to 2017 and have remained high since.

Figure 40: Number of Influenza Associated Hospitalizations by Month in Miami County, 2019 and 2020

Source: Miami County Public Health, 2020 Communicable Disease Report

Influenza can occur year-round but, in the U.S., it is most common in the fall and winter – October through May – referred to as flu season. Miami County only had one influenza hospitalization in the fall of 2020. The West Central Ohio area experienced a significant decrease of influenza during the pandemic⁶⁸.

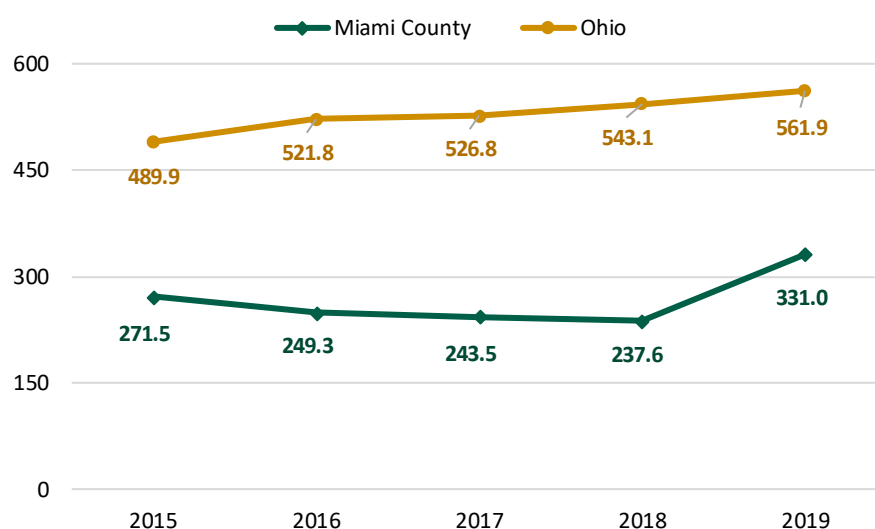
⁶⁸ (Miami County Public Health Communicable Disease Report, 2020)

Sexually Transmitted Infections

Sexually Transmitted Infections (STIs) are common and impose a substantial burden in terms of cost and complications. According to the Center for Disease Control and Prevention (CDC), 1 in 5 people in 2018 in the United States had a STI and nearly half of all new STIs occur in people aged 15-24. More than 9 million women in the United States are diagnosed with an STI each year⁶⁹. According to the CDC, many social determinants affect STIs including age, race, socioeconomic status, community, and access to healthcare.

As many STI cases go undiagnosed and unreported, the cases of STIs, such as chlamydia, gonorrhea, and syphilis, represent only a fraction of the true burden of STIs in the United States⁷⁰. It is important to track and control the spread of STIs because of the serious long-term health consequences when untreated, especially for adolescent girls and women. The CDC estimates that at least 24,000 women in the United States become infertile each year due to undiagnosed and untreated STIs⁷¹. Untreated syphilis in pregnant women results in infant death up to 40% of the time⁷². Other than infertility, untreated STIs in women can also cause pelvic inflammatory disease, fetal and perinatal health problems, ectopic pregnancy, and cancer.

Figure 41: Number of Chlamydia Cases in Miami County and Ohio, 2015-2019



*Cases per 100,000 people

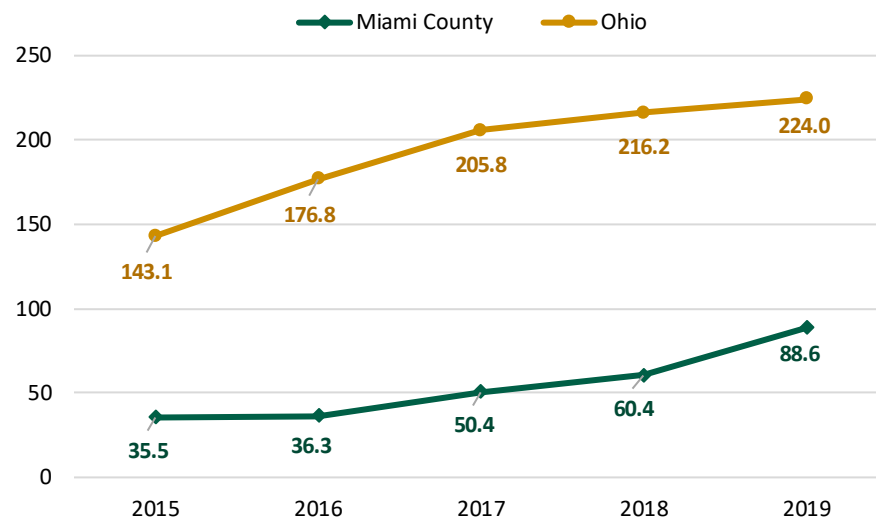
Source: Ohio Department of Health, STD Surveillance Program

⁶⁹ (Centers for Disease Control and Prevention (CDC) Incidence, Prevalence and Cost of STIs in the U.S., 2013)

⁷⁰ (Healthy People 2030)

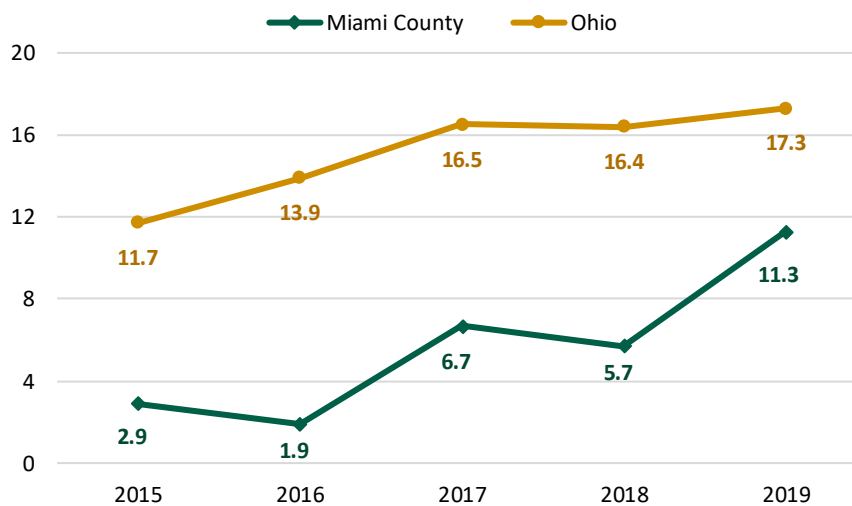
⁷¹ (U.S. Department of Health and Human Services, 2017)

⁷² (Centers for Disease Control and Prevention (CDC) – Syphilis Fact Sheet)

Figure 42: Number of Gonorrhea Cases in Miami County and Ohio, 2015-2019

*Cases per 100,000 people

Source: Ohio Department of Health, STD Surveillance Program

Figure 43: Number of Syphilis Cases in Miami County and Ohio, 2015-2019

*Cases per 100,000 people

Source: Ohio Department of Health, STD Surveillance Program

Within the last five years, rate of STIs in Miami County has continued rising but remains lower than the rate seen in Ohio.

HIV/AIDS

Human immunodeficiency virus, or HIV, is a virus that attacks the body's immune system. If HIV is not treated, it can progress to acquired immunodeficiency syndrome (AIDS). While there is currently no cure for HIV, early diagnosis and getting started on an effective treatment plan can slow or prevent disease progression. New advances in medicine allow people diagnosed with HIV to still live long, healthy lives and protect their partners. HIV transmission can be prevented by eliminating risky behaviors, like having unprotected sex with a partner who is infected or whose status is unknown, having contact with infected blood, and sharing needles. But it cannot be eliminated if individuals do not know their HIV status. Table 7 below shows number of new cases and incidence of HIV in Miami County and Ohio.



Source: How to Help Prevent HIV

Table 7: HIV Data for Miami County, Ohio, and the U.S., 2018-2019

	Miami County		Ohio		U.S.	
	Number of New Cases	Incidence per 100,000	Number of New Cases	Incidence per 100,000	Number of New Cases	Incidence per 100,000
2019	6	5.6	973	8.3	36,740	13.2
2018	n/a	n/a	983	8.4	37,968	11.5

n/a Not calculated for case counts <5 due to unstable rates

Source: Centers for Disease Control and Prevention (CDC) HIV National Profile, 2019; Centers for Disease Control and Prevention (CDC) HIV Surveillance Report, 2018

The rate of new cases seen in Miami County, 5.6 per 100,000 residents was lower than the rate seen in Ohio, 8 per 100,000 residents.

COVID-19

In December 2019, SARS-CoV-2 (or COVID-19) was first identified in Wuhan, China. COVID-19, an infectious disease caused by a novel coronavirus, soon became a global pandemic. An extensive list of symptoms ranged from respiratory to gastrointestinal, the most of severe of which include high fever, myalgia, cough, shortness of breath, and loss of taste or smell. Although most people with COVID-19 had mild symptoms, older and immunocompromised people are more likely to develop severe illness that could result in death.

Across the U.S., emergency public health measures such as quarantining, physical distancing and mask wearing were put in place to attempt to limit the spread of COVID-19. Due to the highly contagious nature of the virus, cases multiplied around the world including within Miami County. While vaccinations have slowed down COVID-10 rates, vaccine hesitancy in the U.S., limited vaccine availability across many countries, and virus mutations make COVID-19 cases an ongoing issue of great global concern.

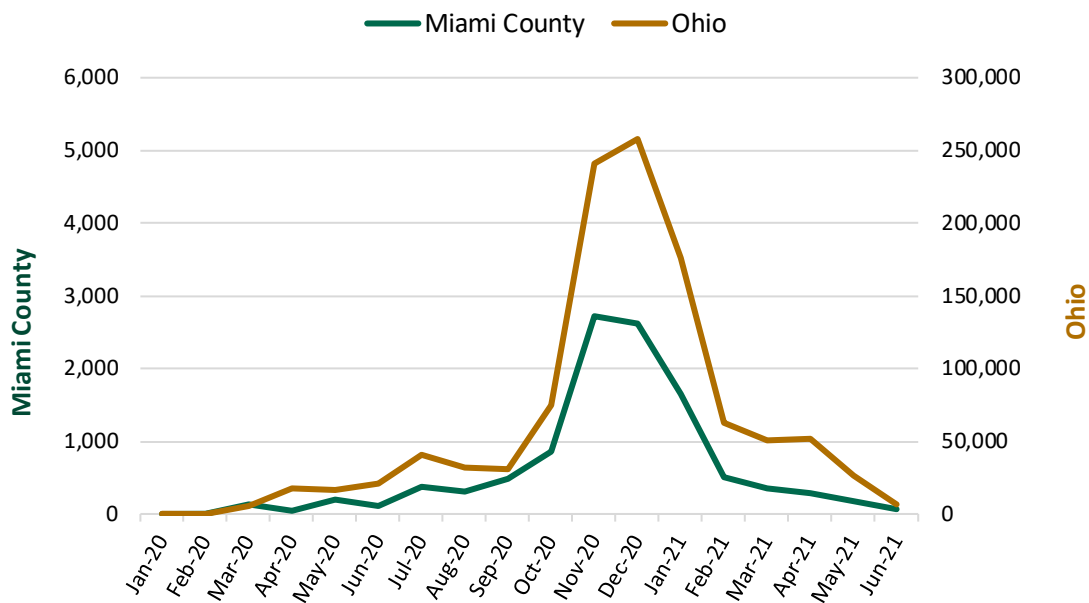


Source: Ohio Department of Health

History of COVID-19 in Ohio

Ohio and Miami County began seeing cases as early as January 2020. However, Ohio did not receive functional testing kits until March 5, 2020. Also in March, COVID-19 made its way into the first long-term care facility (LTCF) in Ohio which was in Miami County. These facilities proved to have exceptionally high transmission rates and Miami County Public Health (MCPH) began working closely with all LTCFs in the county on infection control to reduce transmission of the virus⁷³.

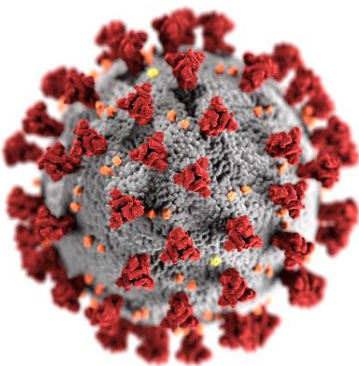
⁷³ (Miami County Public Health Communicable Disease Report, 2020)

Figure 44: Trends of COVID-19 Cases in Miami County and Ohio, January 2020 - June 2021

*Reported as of June 30, 2021

**Total number of cases includes Confirmed and CDC Expanded Case Definition of probable cases.

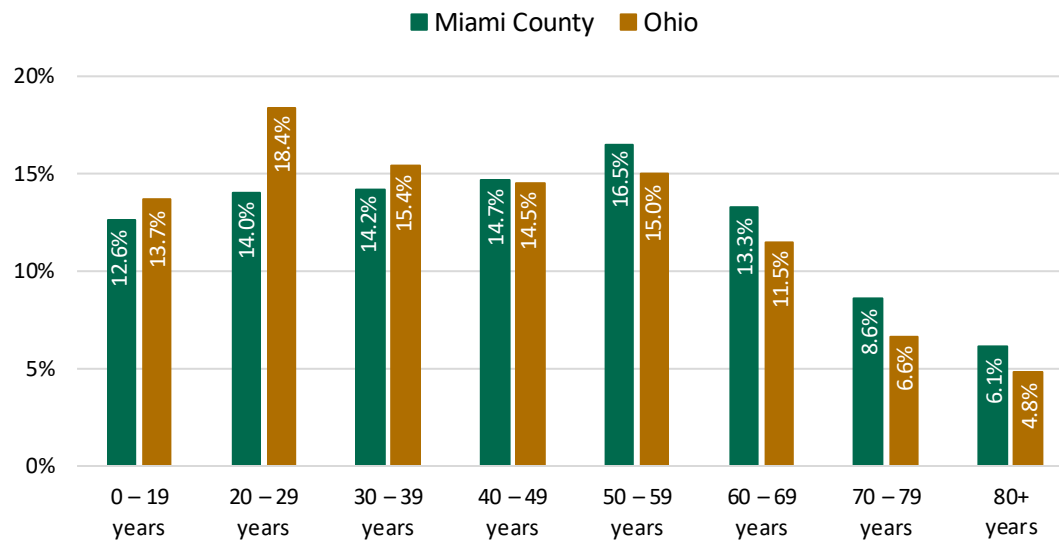
Source: Ohio Department of Health, COVID-19 Dashboard



Miami County's first peak was later identified as March 2020 with 127 cases. Miami County had its highest number of cases in November 2020 at 2,720 cases while Ohio experienced its highest case number in December 2020 at 257,848 cases. The number of COVID-19 cases started to decline after the introduction of COVID-19 vaccines in December 2020. Figure 45 shows the number of COVID-19 cases by age in Miami County and Ohio.

Source: Centers for Disease Control and Prevention

Figure 45: Percent of Cumulative COVID-19 Cases by Age Group, Miami County and Ohio, January 2020-June 2021



*Reported as of June 30, 2021

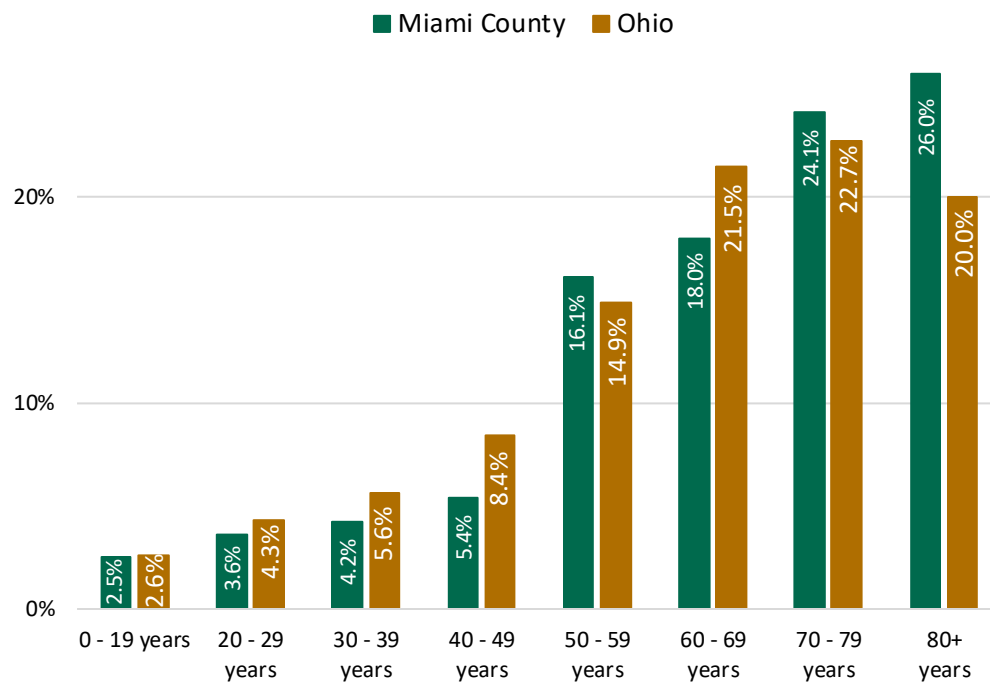
Source: Ohio Department of Health

In Miami County, 59% of COVID-19 cases were among those aged 40 and older compared to 52% for Ohio. Adolescents, those 19 years and younger, only accounted for 13% of cases in Miami County which is similar to 14% in Ohio.

COVID-19 Hospitalizations

Overall, 5% of cases in Miami County were hospitalized and this is the same for Ohio as of June 30, 2021, and hospitalizations in both Miami County and Ohio reached their peak during the month of December 2020. Figure 46 shows COVID-19 related hospitalizations by age.

Figure 46: Percent of Total COVID-19 Hospitalizations by Age Group, Miami County and Ohio, January 2020-June 2021



* Reported as of June 30, 2021

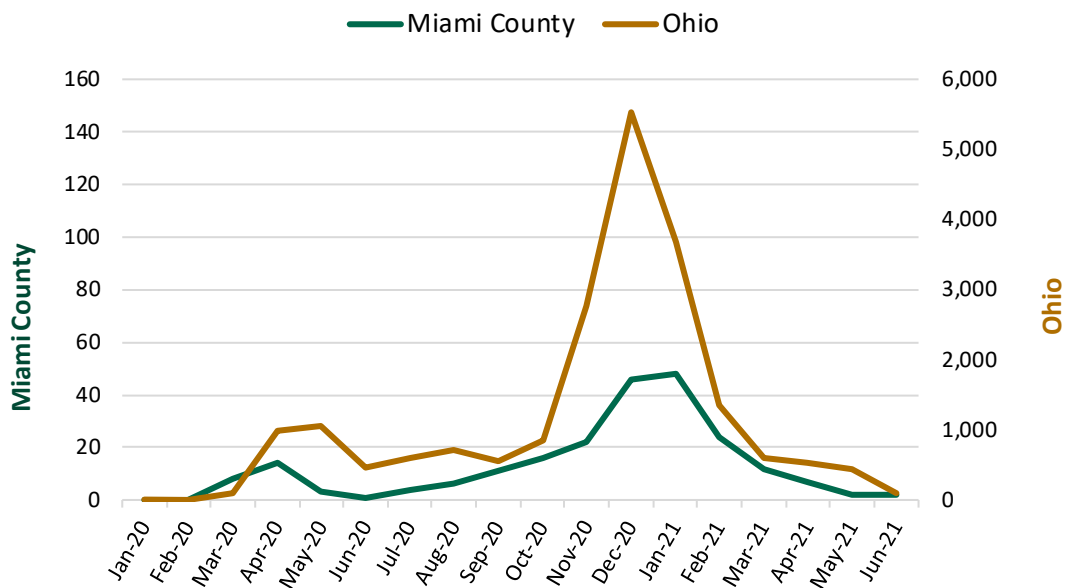
** Data does not include hospitalizations where the admission date is unknown.

Source: Ohio Department of Health COVID-19 Dashboard

Overall, Miami County hospitalizations by age groups have followed the same trend as Ohio. Among Miami County residents, 68% of those hospitalized with COVID-19 were 60 years or older.

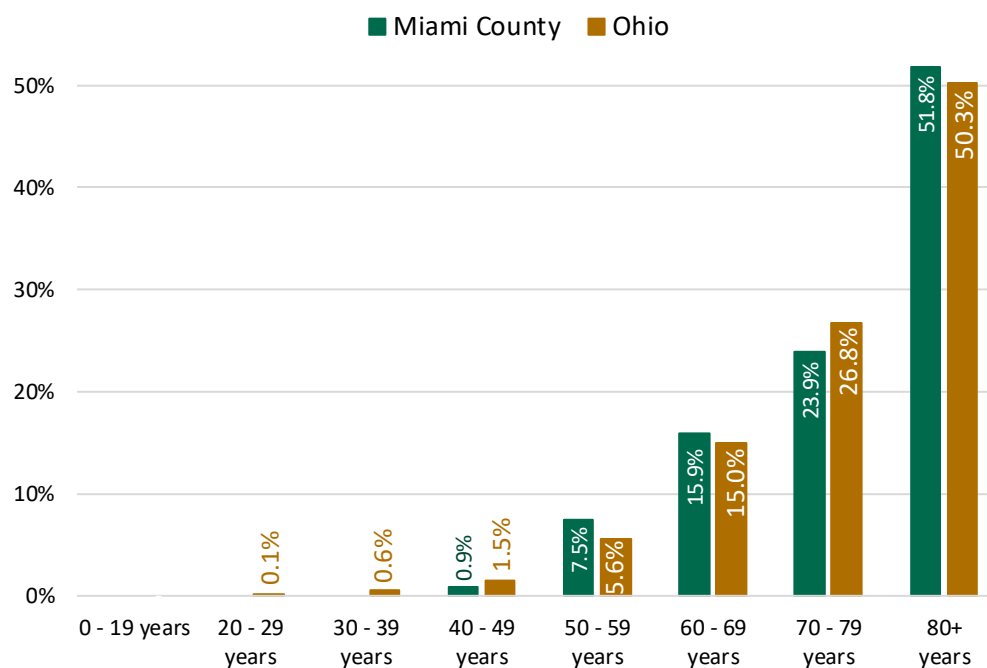
COVID-19 Mortality

As of June 30, 2021, Ohio had a COVID-19 case fatality rate of 2%, meaning for there were 2 COVID-19 related deaths for every 100 cases. Figure 47 shows the mortality trends for Miami County and Ohio and Figure 48 shows the percentage of total deaths by age group for Miami County and Ohio.

Figure 47: Trends of COVID-19 Mortality in Miami County and Ohio, January 2020 - June 2021

*Reported as of June 30, 2021

Source: Ohio Department of Health COVID-19 Dashboard

Figure 48: Percent of Total COVID-19 Deaths by Age Group, Miami County and Ohio, January 2020-June 2021

Source: Ohio Department of Health COVID-19 Dashboard

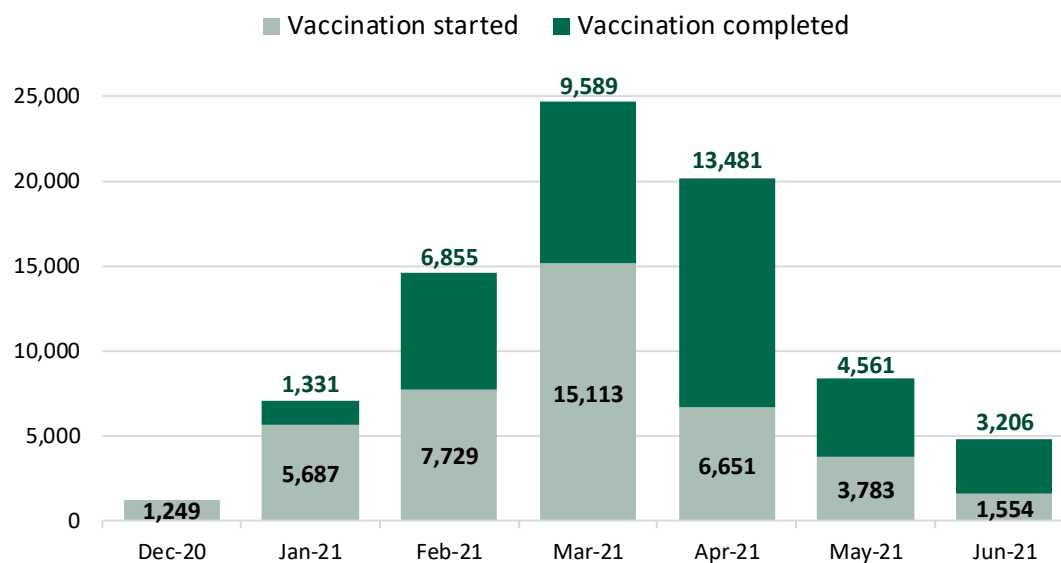
*Reported as of June 30, 2021

As of June 30, 2021, Miami County had reported a total of 226 COVID-19 deaths and Ohio reported 20,309 COVID-19 deaths. Over half of the COVID-19 fatalities in Miami County (51%) and Ohio (59%) occurred between November 1, 2020, to January 31, 2021. In Miami County, there were zero COVID-19 deaths in residents under the age of 40. In both Miami County and Ohio, approximately half of all deaths due to COVID-19 occurred among residents 80 years and older and over 90% of all the deaths occurred in residents aged 60 and older.

COVID-19 Vaccination

The U.S. Food and Drug Administration (FDA) issued the first emergency use authorization for a COVID-19 vaccine in December 2020 and vaccination efforts began immediately across Ohio and the U.S.

Figure 49: Number of Vaccinations Started and Completed by Month in Miami County; December 2020 - June 2021

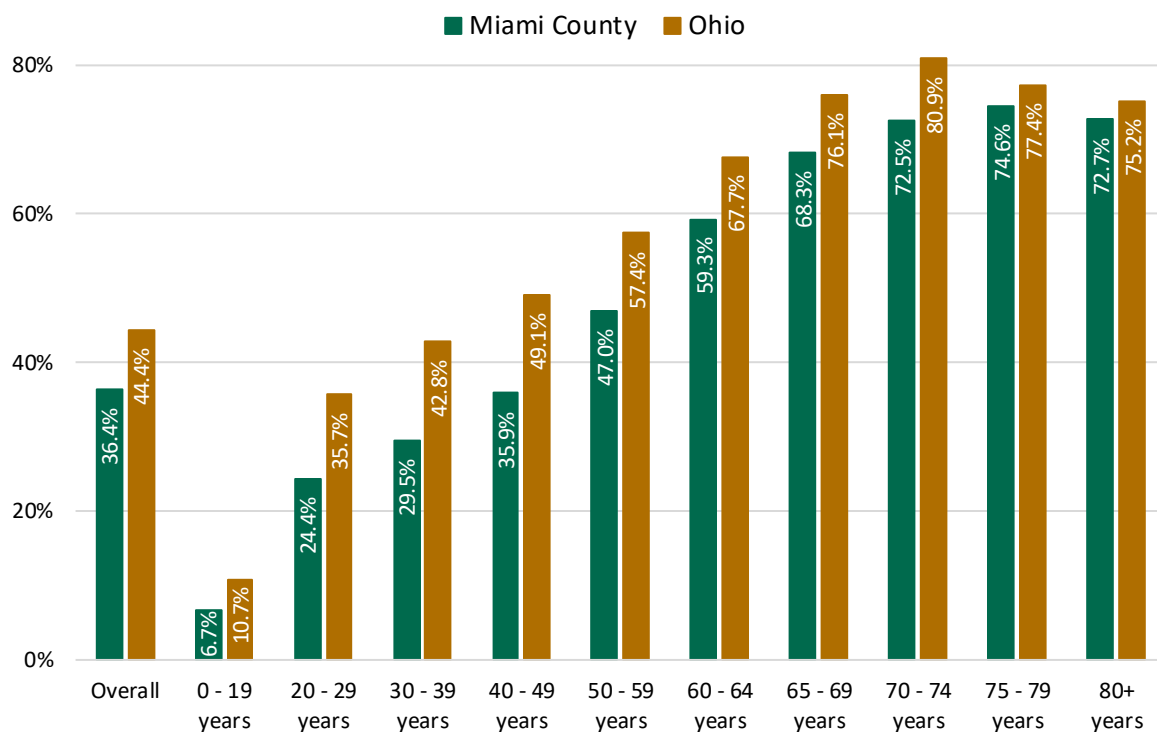


*Data reported as of June 30, 2021; data does not include those whose residency was not recorded

**Vaccination Completed includes those who received the second dose of Pfizer-BioNtech, Moderna and those with single dose of Johnson & Johnson/Janssen vaccine

Source: Ohio Department of Health COVID-19 Dashboard

Figure 50: Percent of Population who have Completed COVID-19 Vaccinations Overall and by Age Group, Miami County and Ohio, as of June 2021



*Reported as of June 30, 2021; data does not include those whose residency was not recorded

**Vaccination Completed includes those who received the second dose of Pfizer-BioNtech, Moderna and those with single dose of Johnson & Johnson/Janssen vaccine

Source: Ohio Department of Health COVID-19 Dashboard

Overall, 36% of Miami County (38,964) residents have been fully vaccinated compared to 44% of Ohio (5,196,046) residents, as of June 30, 2021. Ohio is higher than Miami County for percent vaccinated in every age group. The younger age groups have the largest gaps between Miami County's and Ohio's percent vaccinated.

Mental Health

Mental health is an essential part of overall health and well-being as it affects how a person thinks, feels, and acts. There are many social determinants that influence mental health struggles such as age, race, life experiences, community, and environment⁷⁴. Many people will experience both good and bad mental health days, even those diagnosed with mental illnesses, but there are a growing number of multi-faceted treatment options and providers to help cope with the bad days.

⁷⁴ (Centers for Disease Control and Prevention (CDC) Mental Health)

The NIDA also reports that the majority of drugs which are abused can alter a person's thinking and judgment, leading to health risks, including addiction, drugged driving, pregnancy risks, and infectious disease. Drugs which are commonly abused include alcohol, cocaine, heroin, marijuana, opioids, steroids, and nicotine.

Alcohol Consumption

While recent research has shown that moderate alcohol consumption can be beneficial to health, excessive alcohol consumption has the opposite effect. Excessive drinking includes both heavy drinking and binge drinking.

- **Heavy Drinking:** 15 or more drinks per week for men or 8 or more drinks per week for women
- **Binge Drinking:** 5 or more drinks on a single occasion for men or 4 or more drinks on a single occasion for women

It's also important to note the definition of one drink: one can or bottle of beer, one glass of wine, one can or bottle of wine cooler, one cocktail, or one shot of liquor.

As of 2018, 19.0% of adults in Miami County reported excessive alcohol consumption in the past 30 days which is only slightly higher than in Ohio (18.7%) and the nation (18.6%)⁸¹. Excessive drinking is a serious problem as it is a risk factor for many adverse health outcomes, such as alcohol poisoning, chronic diseases (e.g., hypertension, liver cirrhosis, pancreatitis, cancer), unintentional injuries (e.g., motor-vehicle crashes, falls, drowning), sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, and violence (e.g., child maltreatment, homicide, suicide)⁸². From 2015-2019, over a quarter of all motor-vehicle crash deaths in Miami County had alcohol involvement (28%) compared to Ohio overall where nearly one third had alcohol involvement (32%)⁸³.

Accidental Drug Overdose

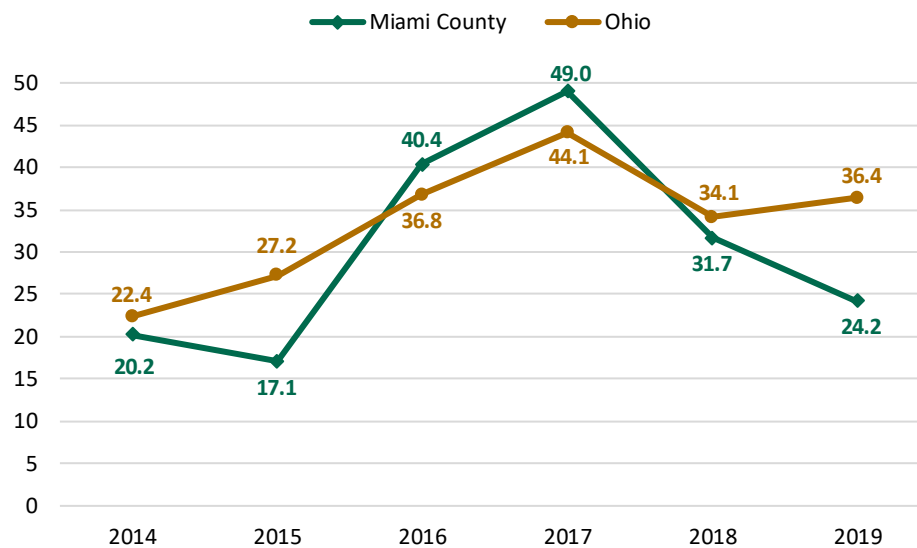
According to the Centers for Disease Control and Prevention (CDC), drug overdose deaths continue to rise in the U.S. with the U.S. overdose death rate increasing over 4% just from 2018 to 2019. The majority of drug overdose deaths involve opioids (70.6% of all drug overdose deaths in 2019)⁸⁴. Figure 51 shows the age-adjusted unintentional drug overdose rates per 100,000 population for Miami County compared to Ohio for years 2014 to 2019. When analyzing these overdose trends, note that Miami County surpassed Ohio's rate in only two out of the six years.

⁸¹ (County Health Rankings, 2021; America's Health Rankings, 2020)

⁸² (County Health Rankings, 2021; Centers for Disease Control and Prevention (CDC) Alcohol and Public Health)

⁸³ (County Health Rankings, 2021)

⁸⁴ (Centers for Disease Control and Prevention (CDC) Drug Overdose)

Figure 51: Unintentional Drug Overdose Death Rates in Miami County and Ohio, 2014-2019

*Deaths age adjusted per 100,000 population

Source: Centers for Disease Control and Prevention (CDC) Underlying Cause of Death

Mental Health Data Highlights

- Adults in Miami County, on average, report 5 poor mental health days per month⁸⁵
- Miami County drug overdoses decreased from 2018 to 2019 while they increased for Ohio overall⁸⁶

Disparities

- Low socioeconomic status is associated with more frequent mental health problems⁸⁷
- Suicide rate for men is nearly 4 times the rate for women⁸⁸
- Men are more likely to drink heavily or binge drink than women⁸⁹
- The number of unintentional drug overdoses is higher for African American non-Hispanics than it is for White non-Hispanics⁹⁰

Dental Health

Oral health is crucial at all stages of life and can be particularly important during a child's growth and development. Healthy teeth are needed for chewing nutritious foods, speech development and socialization. Pain from dental disease can impair sleep and the ability to learn. Research shows that

⁸⁵ (County Health Rankings & Roadmap, 2021 County Health Rankings)

⁸⁶ (Centers for Disease Control and Prevention (CDC) Underlying Cause of Death, 2018-2019)

⁸⁷ (Ohio Medicaid Assessment Survey (OMAS), 2019)

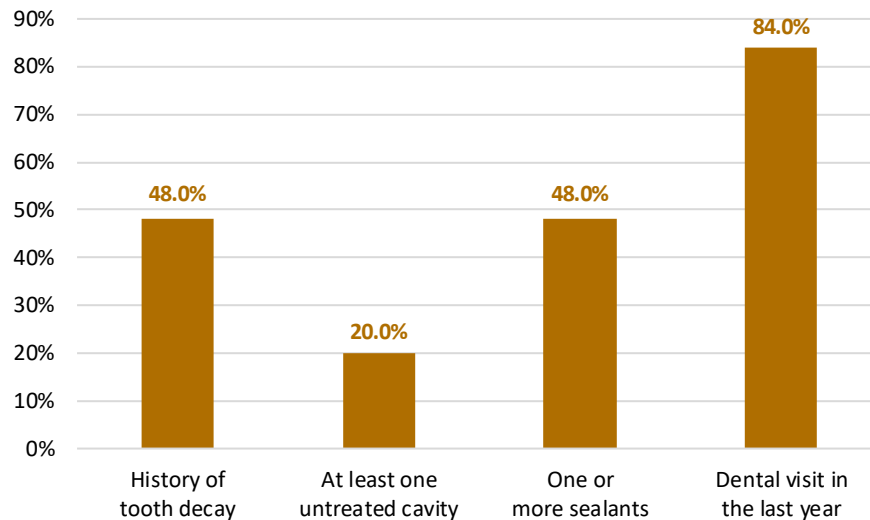
⁸⁸ (Ohio Department of Health (ODH), Suicide Demographics and Trends, 2018)

⁸⁹ (Ohio Medicaid Assessment Survey (OMAS), 2019)

⁹⁰ (Ohio Department of Health (ODH) Drug Overdose, 2021)

children with oral health problems experience more absences from school and have poorer academic performance⁹¹. Oral health measures of third grade children in Ohio are presented in Figure 52.

Figure 52: Oral Health Status of Third Grade Children in Ohio, 2017-2018



Source: Ohio Department of Health, Oral Health Program

Almost half of third graders in Ohio have a history of tooth decay and one or more sealants. Most (84%) have visited the dentist in the last year.

Table 8: Oral Health of Adults in Ohio and the U.S., 2018

	Ohio	U.S.
Visited the dentist or dental clinic within the past year for any reason	68.7%	67.6%
Adults that have had any teeth removed	45.1%	41.1%

Source: BRFSS, CDC

Approximately two thirds of adults in Ohio and the U.S. have been to the dentist in the past year. Forty-five percent of adults in Ohio have had at least 1 tooth removed.

⁹¹ (Carol Cristina Guarnizo-Herreño, DDS, PhD, Wei Lyu, MS, and George L. Wehby, PhD. Children's Oral Health and Academic Performance: Evidence of a Persisting Relationship Over the Last Decade in the United States. The Journal of Pediatrics.)

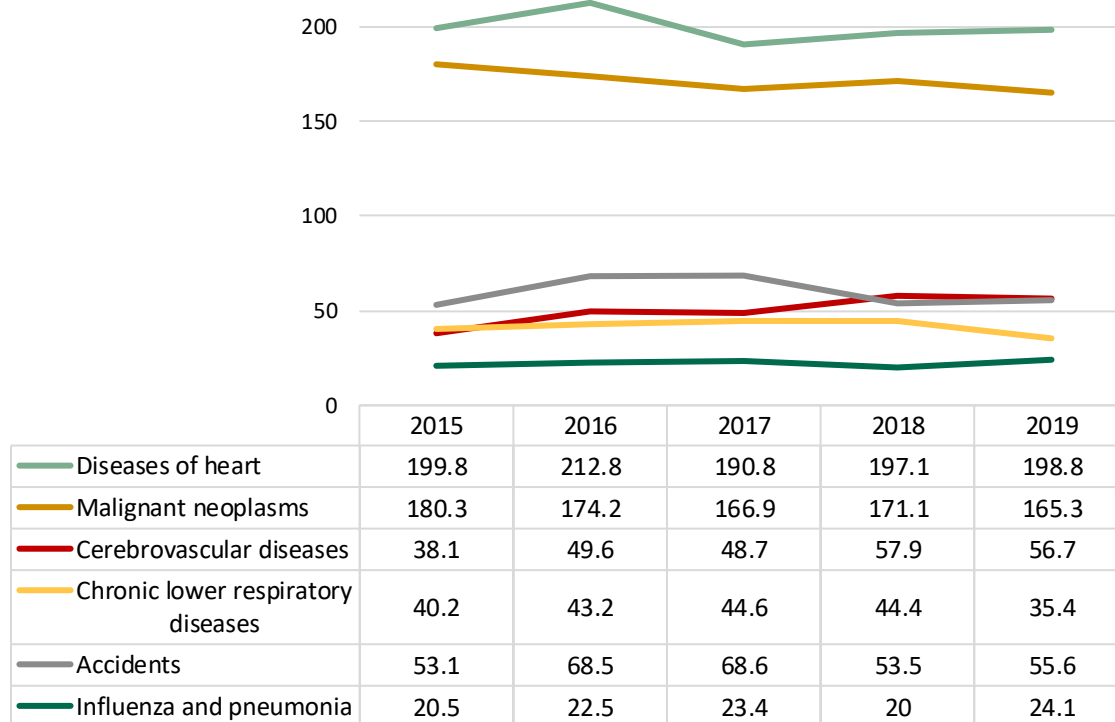
Adult Mortality

Leading Causes of Death

Average life expectancy in Miami County is 77.8 years old. There are many social determinants that influence average life expectancy including race, environment, and socioeconomic status. Similar to other health indicators, there are racial disparities in average life expectancy: 74.7 years for African American populations compared to 77.7 years for White populations. Miami County had a rate of 1,463 deaths per 100,000 population in 2019⁹². The three leading causes of death for adults in Ohio are: heart disease, cancer, and accidents⁹³.

Figure 53 presents the leading causes of mortality for adults in Miami County.

Figure 53: Adult Mortality Rate by Top Six Causes in Miami County, 2015-2019



* Age-adjusted rate per 100,000 population

Source: Data Ohio Portal, Ohio Department of Health

⁹² (National County Health Rankings, 2021)

⁹³ (Centers for Disease Control and Prevention (CDC), 2017)

As previously stated, heart disease includes atherosclerosis, coronary artery disease (CAD), hypertension, and other circulatory disorders. These conditions are exacerbated by detrimental health behaviors such as smoking and obesity, which affect 22% and 32% of Miami County adult residents respectively⁹⁴. In 2019, 410 Miami County residents died from heart disease⁹⁵.

In Miami County, cancer is the second leading cause of death for adults 40 to 79 years old and the third leading cause of death for adults 80 years and older. In 2019, cancer claimed the lives of 104 Miami County residents⁹⁶. Accidents are the leading cause of death for Miami County adults aged 20 to 39 and the third leading cause of death for adults 40 to 59 years old. Accidental deaths are unintentional deaths that are not a result of natural causes (e.g., falls, industrial/machinery incidents, choking, drowning, electrocution). The 2019 Ohio State Health Assessment estimated there were around 75 accidental deaths in Miami County.

Health Challenges

Chronic diseases encompass more than half of the leading causes of death in the U.S. and pose a severe threat to public health. Lifestyle choices, including those linked to development of chronic diseases, are seen as health challenges. There are many social determinants that effect a person's ability to make healthier lifestyle choices including age, race, environment, socioeconomic status, and community. This section outlines some health challenges faced by Miami County residents including immunizations, physical activity, and obesity.

Immunizations

The Ohio Department of Health (ODH) requires a list of specific immunizations for school attendance in order to protect children from potentially life-threatening diseases⁹⁷. While not all the vaccinations on the CDC's recommended schedule are required for school attendance in Ohio, the Ohio Department of Health (ODH) does strongly urge the completion of all vaccinations recommended by the CDC.

Ohio Schools, both public and private, are required to submit immunization summaries to ODH each year. These summaries include data about students entering into kindergarten, seventh, and twelfth grade. ODH then evaluates this data to determine immunization coverage and exemption rates for each county in Ohio. Table 9 includes a summary of this data for both Miami County and Ohio.

⁹⁴ (National County Health Rankings, 2021)

⁹⁵ (Miami County Public Health – Annual Report, 2019)

⁹⁶ (Miami County Public Health – Annual Report, 2019)

⁹⁷ (Ohio Department of Health (ODH) Immunization Summary for School Attendance, 2020; Centers for Disease Control (CDC), 2019)

Table 9: School Immunizations for Miami County and Ohio, 2019-2020 school year

	Kindergarten		7th Grade		12th Grade	
	Miami County	Ohio	Miami County	Ohio	Miami County	Ohio
% Of pupils with all required immunizations	94.1%	89.9%	94.4%	87.9%	94.2%	84.8%
% Of pupils who have a medical contraindication	0.3%	0.3%	0.5%	0.2%	0.1%	0.2%
% Of pupils exempt due to a reason of conscience or religious objection	3.5%	2.6%	4.8%	2.4%	5.1%	2.5%
% Of pupils who are incomplete (missing at least 1 required immunization)	2.1%	7.3%	0.2%	9.4%	0.6%	12.5%

Source: Ohio Department of Health (ODH) Immunization Program

It is also important to note that the CDC also has additional recommendations for infants under 6 months old and adults over 19 years old⁹⁸. As of 2021, the newest CDC vaccine recommendation is that all persons 12 years or older receive the COVID-19 vaccination for prevention of COVID-19⁹⁹. See Figure 50, *located in the COVID-19 section of this document*, for COVID-19 vaccination rates by age group for Miami County and Ohio.

Physical Activity

Physical activity promotes normal growth and development, improves sleep, enhances brain function, reduces stress, elevates mood, and lowers the risk of developing a chronic disease¹⁰⁰.

It is recommended that adults participate in two types of physical activity every week: aerobic and muscle-strengthening¹⁰¹. Aerobic exercise, often referred to as cardio, involves vigorous activity that increases both heart rate and breathing. Muscle-strengthening exercise involves all major muscle groups and is focused on building strength.

⁹⁸ (Centers for Disease Control and Prevention (CDC), 2019)

⁹⁹ (Centers for Disease Control and Prevention (CDC), 2021)

¹⁰⁰ (American Heart Association, 2021)

¹⁰¹ (U.S. Department of Health and Human Services Physical Activity Guidelines for Americans)

Despite the known benefits of regular physical activity, less than 1 in 5 adults in Ohio meet the guidelines for both aerobic and muscle-strengthening physical activity¹⁰².

In Miami County, over 25% of residents aged 20 years and old reported no leisure-time physical activity, which was slightly lower than the 25% in Ohio. 86% of Miami County residents have adequate access to exercise opportunities which is higher than rates across Ohio (84%)¹⁰³.



Source: Miami County Park District



Source: Miami County Park District

In addition to city parks, there are 15 parks under the jurisdiction of the Miami County Park District. Additionally, there are currently two recreational trails that pass-through Miami County: the Great Miami River Trail and the Ohio to Indiana Trail. Figure 19, *located in the Social Determinants of Health section of this document*, maps the locations of these.

The walkability index score measures walkability on a scale from 0 - 100 based on walking routes to destinations such as grocery stores, schools, parks, restaurants, and retail. In Miami County, the walkability score is 0, which means almost all errands require a car or are car-dependent¹⁰⁴.

¹⁰² (Centers for Disease Control and Prevention (CDC) Ohio Physical Activity, 2019)

¹⁰³ (County Health Rankings, 2021)

¹⁰⁴ (Walk Score, 2021)

Table 10: Walkability Scores for Miami County Jurisdictions, 2021

	Walkability Score	Notes
Troy	33	Most errands require a car. *Average of whole city. Score increases as it gets closer to the Troy circle.
Piqua	37	Most errands require a car. *Average of whole city. Score increases as it gets closer to downtown Piqua.
Tipp City	66	Some errands can be accomplished on foot. *Measured from center of downtown area. Score decreases as it gets further from downtown.
West Milton	40	Most errands require a car. *Measured from center of downtown area. Score decreases as it gets further from downtown.
Pleasant Hill	37	Most errands require a car. *Measured from center of village.
Covington	54	Some errands can be accomplished on foot. *Measured from center of downtown area. Score decreases as it gets further from downtown.
Bradford	36	Most errands require a car. *Measured from center of village.
Casstown	7	Most errands require a car. *Measured from center of village.

Source: Walk Score

Obesity

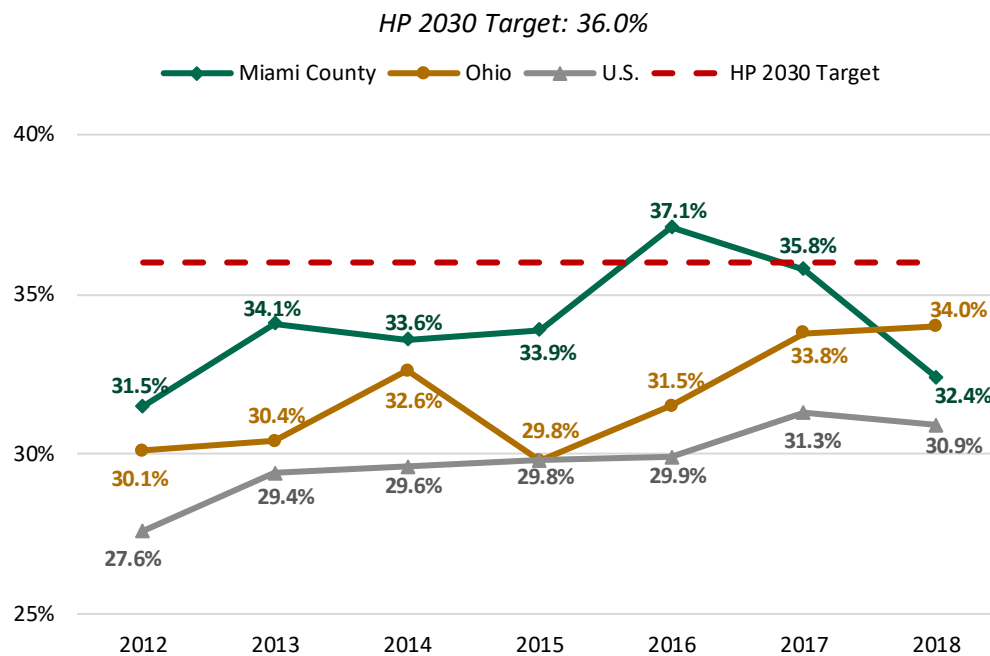
Obesity is a complex, serious, and costly health issue that has become increasingly common among U.S. adults and children. The most critical problem is that obesity increases risk for many chronic diseases and health conditions such as Type 2 Diabetes, heart disease, strokes, and certain cancer¹⁰⁵.

In 2018, 32.4% of adults, age 18 and older, in Miami County were obese¹⁰⁶. While this rate is lower than the overall obesity rate for adults in Ohio of 34.0%, it is still more than the national average 30.9%¹⁰⁷. In 2018, the percent of obese adults in Miami County was less than the Healthy People 2030 target of 36.0% following a downward trend started in 2016, as seen in Figure 54.

¹⁰⁵ (Centers for Disease Control and Prevention (CDC), 2019)

¹⁰⁶ (Behavioral Risk Factor Surveillance System (BRFSS), 2018)

¹⁰⁷ (Ohio State Health Assessment, 2018)

Figure 54: Percent of Adults with Obesity in Miami County, Ohio, and the U.S., 2012-2018

Source: Behavioral Risk Factor Surveillance System (BRFSS), 2012-2018

Tobacco Use

According to the Journal of the American Medical Association, tobacco use is the leading cause of preventable death in the United States. Smoking harms nearly every organ in the body and greatly reduces one's overall health. Similar to other health indicators, a person's likelihood to smoke is related to several social determinants of health including sex, age, socioeconomic status, and education level. On average, smokers can expect to die 10 years earlier than non-smokers. Each year smoking claims the lives of more than 480,000 people in the U.S. with about 41,000 of these deaths being attributed to secondhand smoke. This means that about one out of every five deaths are caused by smoking in the U.S. each year¹⁰⁸.

As of 2018, 22% of Miami County adults were current smokers compared to 21% for Ohio overall and 17% for the U.S. (all age-adjusted)¹⁰⁹. Daily cigarette smoking has declined in Miami County but still falls short of the HP 2030 goal of 16.2%.

Seatbelt Usage

According to the CDC, motor vehicle crashes are a leading cause of death, but by wearing seat belts and properly buckling children into car seats and booster seats, people can reduce the risk of serious injury and death in a crash by half. Even though wearing appropriate vehicle restraints can save lives and prevent injury, there are millions of Americans who do not take these safety measures. In 2019, Ohio had a

¹⁰⁸ (Centers for Disease Control and Prevention (CDC) Smoking & Tobacco Use)

¹⁰⁹ (County Health Rankings, 2021; Cancer Statistics Center, 2018)

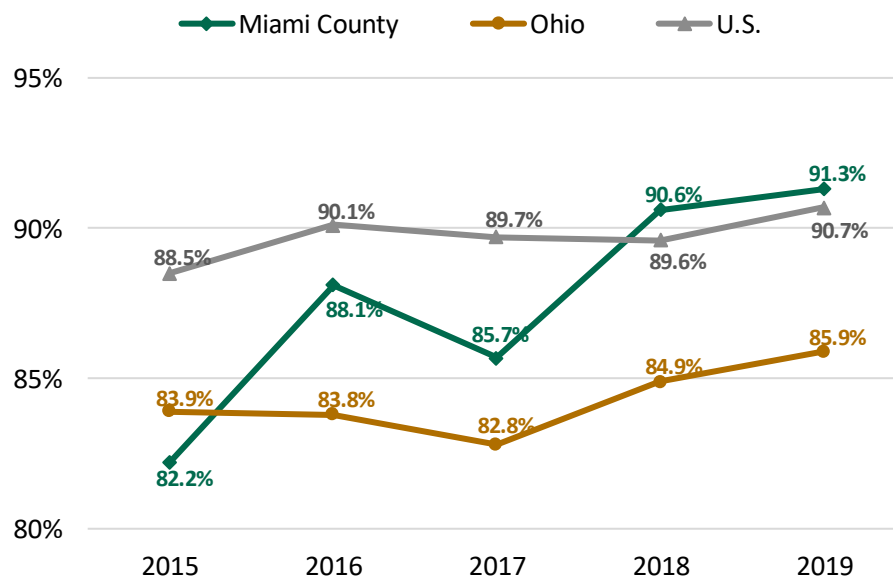
compliance rate of 85.9% according to the most recent observational survey, meaning 85.9% of drivers and front seat passengers were observed wearing their seat belt. This percent is nearly 5% lower than the national average in 2019 of 90.7% seat belt usage¹¹⁰.

The Governor's Highway Safety Office (GHSO) requires that Safe Communities, law enforcement, and occupant protection grant recipients conduct annual observation surveys of seat belt use in their respective Ohio counties. The required surveys conducted at randomly selected sites are a major component of the ongoing GHSO commitment to reduce highway fatalities and serious injuries throughout Ohio by increasing seat belt use. Miami County is one of the grantee counties participating in the *Grantee Observation of Seat Belt Use Surveys* since 2013. In 2019, the observational survey showed a compliance rate of 91.3% in Miami County (N = 403), which is greater than both Ohio's and the U.S.'s compliance rate for 2019¹¹¹.



Source: National Highway Traffic Safety Administration (NHTSA)

Figure 55: Seat belt Usage in Miami County, Ohio, and the U.S., 2013-2019



Source: National Highway Traffic Safety Administration (NHTSA) Traffic Safety Facts; Observational Survey of Seat Belt Use in Ohio

The study found that female seat belt use was higher than male (91% compliance compared to 86%). Older occupants were much more compliant than younger occupants. Ages 15-25 years had the lowest seat belt compliance, rate of 86%. These results are very similar to what has been seen historically¹¹².

¹¹⁰ (National Highway Traffic Safety Administration (NHTSA) National Occupant Protection Use Survey, 2019)

¹¹¹ (Observational Survey of Seat Belt Use in Ohio, 2019)

¹¹² (Observational Survey of Seat Belt Use in Ohio, 2019)

Health Challenges Data Highlights

Miami County, Ohio, U.S., and Healthy People 2030 Comparison

- 91.3% of Miami County respondents always wear their seat belt, which is greater than both Ohio (85.9%) and the U.S. median (90.7%)
- 94.1% of kindergarteners in Miami County have all their required vaccines, which is greater than Ohio at 89.9%
- 25% of adults in Miami County report no leisure-time physical activity which is similar to what is seen for Ohio (26%) and the nation (25.4%), all of which are above the HP 2030 goal of 21.2%
- 32.4% of adults in Miami County are obese which is still higher than the national average (30.9%) but less than the HP 2030 target (36%) along with the Ohio average of 34%
- The rate of new Human Immunodeficiency Virus (HIV) diagnoses in Miami County has been staying near 8 per 100,000 since 2015
- 22% of Miami County adults currently smoke cigarettes, which is higher than Ohio (21%), the nation (17%) and the HP 2030 target (16%)

Disparities

- Vaccine coverage is lower for uninsured children and children insured by Medicaid
- Low-income residents are less likely to achieve leisure-time physical activity than residents from higher income households
- Respondents over the age of 55 or who do not have at least a high school diploma or GED are less likely to report regular physical activity
- As age increases, so does the likelihood that the respondent does not participate in any regular physical activity
- Obesity is highest among those aged 45-54
- Obesity prevalence decreases by level of education
- Adults under the age of 55 are significantly more likely to indicate that they currently smoke
- Adults who do not have a high school diploma or GED are more likely to be current smokers

Windshield Survey

Survey

Understanding the needs of a community requires both qualitative and quantitative data to be collected. Qualitative data is data that may not be easily measured by or translated into numbers, but still plays a critical role in population health. Feelings, actions, and even pieces of community history affect residents of Miami County and must be organically observed to assess the county's needs¹¹³. To capture this qualitative data, windshield and walking surveys were performed across Miami County. Windshield surveys are systematic observations made on foot to help better understand either the community in general or a specific aspect of it. Community needs are assessed by examining housing, infrastructure, presence or absence of businesses, condition and use of public spaces, activity, traffic, and condition of public buildings¹¹⁴.

Purpose

To obtain qualitative data, seven neighborhoods and the county as a whole were surveyed. These neighborhoods include Troy-Staunton, Troy-Richards Chapel Church, Piqua-Mote Park, Piqua-Shawnee, Covington, West Milton, and Huber Heights. Conducting a qualitative data analysis provides further understanding of the physical condition, resources, and potential assets of these neighborhoods¹¹⁵.

Method

Windshield tours were conducted by pairs of public health professionals; one individual was tasked with driving through the community and the other documenting observations. Observations were documented with recordings, videos, photographs, and handwritten notes. Neighborhoods were evaluated for: housing, buildings, public spaces, culture and entertainment, communities, streetscapes, commercial activity, land use, environment, infrastructure, health services, transport, public services, safety, and variations among neighborhoods.

¹¹³ (Community Toolbox, 2021)

¹¹⁴ (Community Toolbox, 2021)

¹¹⁵ (Community Toolbox, 2021)



Source: Google Maps

Troy – Staunton

Observations recorded at 3:00PM on June 6, 2021, and 11:00PM on June 27, 2021.

Housing

The Staunton area is comprised of single-family homes as well as five apartment complexes. The single-family homes range from new builds to some built in the 1930s; most are well maintained with well-manicured yards and minimal overgrowth. Most homes in Staunton had either single-car garages or no garages. Most apartment complexes in Staunton were well maintained – one is currently being renovated and two others were new builds. Two apartment buildings in the area were equipped with solar panels. There were some apartment units that had boarded windows and doors. Most apartment complexes had patio furniture and outdoor items stored outside. These apartment buildings appeared to be handicap accessible.

Buildings

Outside of the previously mentioned single family homes and apartment complexes,

business buildings fill the rest of the neighborhood. All buildings appeared to be handicap accessible. A single apartment complex was designed for use by elderly residents and/or elderly residents with disabilities. Another apartment building had a designated handicap accessible unit with a ramp used for entry. Notably a respite care center, also known as adult daycare, was present within the neighborhood. Window air conditioning units were very common among both single-family homes and apartment units.

Public Spaces

Two of the apartment complexes were supplied with well-maintained playgrounds and basketball courts. The local elementary school hosts a playground area, a grass soccer field, and a paved basketball court. Notably, there is an area of open field near the outer edge of Staunton that has accessible grills and walking space for resident use.

Culture and Entertainment

Although no major events were occurring in Staunton, locals can seek entertainment nearby at events like the Strawberry Festival, local car shows, and theaters.

Communities

Staunton's resident population is primarily White with a smaller of both Hispanic and African American residents. Six faith-based organizations were present in this area.

Streetscapes

The sidewalks throughout Staunton were well maintained. Frequent street parking is observed throughout the neighborhood. The streets were also well maintained, and no construction was noted. Children's toys and outside furniture were visible throughout most of Staunton. A railroad track runs through the neighborhood; its crossings had observable barriers.

Commercial Activity

One industrial operation was local to this area, the Troy Water Treatment Plant. Additional commercial activities included a Family Dollar and Dollar General for minimal grocery shopping and household needs. No large chain grocery stores or local markets were noted. Staunton lacks notable medical facilities or childcare.

Land Use

The southern part of Staunton seemed to be agricultural land used for planting various crops. Additionally, some single-family homes in the southern portion of the neighborhood had large farm animals like horses and cows. Single-family homes were a considerable distance from each other and the roadways. Opposite of this the northern part of Staunton, single-family homes and apartment complexes are closer to each other and the roadways. New single-family homes were being built at the time of this survey; these new homes were extending the neighborhood into the adjacent farmland.

Environment

Most single-family homes and yards were well maintained, and minimal litter was observed. Vehicular traffic was low, and multiple residents were noted outside walking dogs or riding bikes. Two apartment complexes were outfitted with speed bumps to prevent reckless driving within their parking lots. A train passes through the area several times a day, and railroad crossings had observable barriers that prevent passage. Neither air nor water quality was assessed at the time of this survey.

Infrastructure

Staunton had well maintained roadways and interconnected sidewalks throughout the area. Street corners and sidewalks were equipped with streetlights and stop signs throughout. All houses and apartment complexes were equipped with power and water from the City of Troy. City provided trash and recycling receptacles are collected routinely.

Health Services

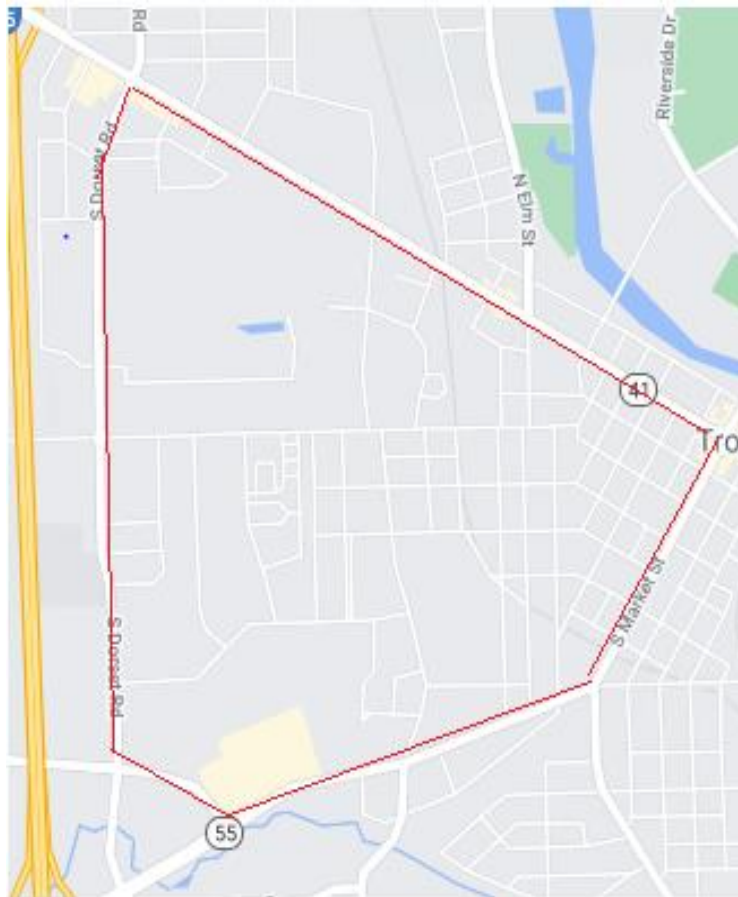
In the observed Staunton area, two health service providers, Studabaker Chiropractor and Miami County Recovery Council (MCRC) are present. MCRC is a non-profit agency that provides services to individuals with addiction and mental health issues. No local hospitals are present in this area.

Transport

Single family vehicles appeared to be the primary mode of transportation throughout the Staunton area. A taxi service and busing were available by reservation for residents utilizing public transportation.

In Staunton, two apartment complexes are privately owned subsidized housing; one is designated for families and children, and the other for elderly residents. Troy Christian Church, located near Staunton, hosts a food pantry for residents of Troy. Cookson Elementary School is also located within the neighborhood.

Staunton feels safe with individuals sitting on their porches, walking on sidewalks, and congregating in the area. No firehouses, police stations, or neighborhood watches were noted. At the time the observations were made, there were no incidences noted. There was graffiti on the external surface of a singular apartment complex.



Troy – Richard's Chapel Church Area
Observations recorded at 12:00PM on
June 6th and 3:00PM June 12th, 2021.

The Richards Chapel Church area is comprised of single-family homes, multi-family homes, and three apartment complexes. Both single-family homes and multi-family homes in this area ranged from well-maintained to outdated. Most homes had front porches, and some included makeshift additions to provide handicap accessible entry. Boarded windows and doors were peppered throughout the area. Several homes had children's toys stored in yards and on front porches. Signs such as "Love Thy Neighbor" and American Flags were also noted; these signs gave the area a feel of friendliness and patriotic pride.

Outside of the previously mentioned, local businesses including the Lincoln Community Center, Abbey Credit Union,

and Family Abuse Shelter of Miami County completed the area. Some of these businesses did not appear to be handicap accessible. One apartment complex in the Richards Chapel Church area was designed for use by elderly residents and residents with disabilities. Window air conditioning units were seen throughout the area among all types of residences.

Public Spaces

A single apartment complex in this area had a courtyard-like area with playground equipment for its residents. The local elementary school hosts a small playground area. In the northern part of the Richards Chapel Church area sits McKaig and Race Park. This area is an undeveloped park with grassy lawns and baseball diamonds.

Culture and Entertainment

Although no events were happening when this area was observed, it is central to the Troy Circle which often hosts community events such as the Strawberry Festival and other live entertainment.

Communities

The Richards Chapel Church is primarily White with a small number of Black residents. Several small churches were present in this area.

Streetscapes

Sidewalks, although present through the area, varied between well-maintained and dilapidated. Local construction was actively being performed on roads during both observations.

Commercial Activity

Several commercial activities were noted within this community including Hospice of Miami County, CVS Pharmacy, and Vecner Construction.

Land Use

The use of this area is consistent throughout with residences, places of worship, and businesses scattered within the area. Notably, Heywood Elementary is located within the area observed and Troy Christian High School sits just outside.

Environment

The local environment found around apartment complexes and some homes had cluttered yards, porches, and litter present; however, many areas are very well-maintained with no signs of litter. Neither air nor water quality was assessed at the time of this survey.

Infrastructure

Local roads are undergoing repair and sidewalks are present on almost all streets. Streetlights are present and appear to be in working order. Trash cans from multiple companies were seen including Rumpke and Troy City garbage collection. A railroad also runs throughout the area, but no safety barriers were noted during observation.

Health Services

Troy Rehabilitation and Healthcare Center and Hospice of Miami County were located within the Richards Chapel Church area. Notably, Troy Hospital, one of three hospitals in Miami County, was located just outside the area's perimeter.

Transport

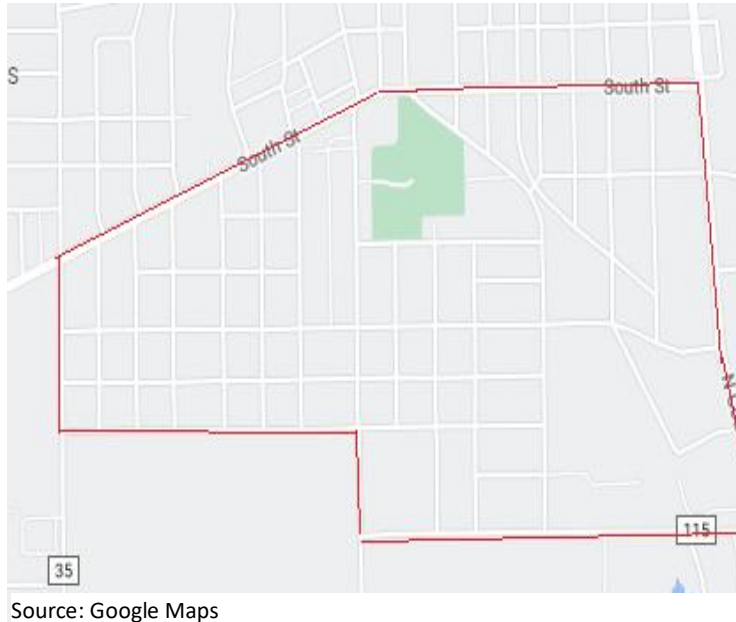
Single family vehicles appear to be the primary mode of transportation throughout the area. Miami County Public Transit bus is available within the area.

Public Services

The Lincoln Community Center and Family Abuse Shelter of Miami County both serve the local community. Also, Richards Chapel United Methodist Church hosts a free community hot lunch program Monday-Thursday.

Safety

The Richards Chapel Church area feels safe with welcoming signage seen throughout. No areas of graffiti, loitering personnel, or areas of suspicious activity noted.



Piqua – Mote Park

Observations recorded at 11:00AM on June 10th and 5:10PM June 11th, 2021.

Housing

The Mote Park area is comprised mostly of single-family homes with less than 10 multi-family homes noted. Most were well maintained with well-manicured lawns and landscaping. Most homes were well maintained with some areas having a higher concentration of homes with boarded windows and incomplete renovations. Most single-family homes did not have garages and street parking was used. No apartment complexes were noted during observation.

Buildings

Outside of the residences previously mentioned, businesses located in this area consist of automotive stores, repair centers, a laundry mat, food pantry, and the Salvation Army. On the eastern border, there are several industrial buildings that included a water treatment plant and a shuttered construction supply factory. Most of the businesses appear accessible for people with disabilities. In residential areas, several homes had stairs to the front doors; makeshift additions to provide handicap accessible entry were noted.

Public Spaces

Both Mote Park and the Pitsenbarger Sports Complex offer public spaces for this community. These areas provide fields, tennis courts, a swimming pool, skate park, several biking/walking paths. Residents were noted frequently utilizing these areas.

Culture and Entertainment

Although no scheduled events were happening, children and adults were frequently noted at both Mote Park and Pitsenbarger Sports complex. The local churches in the area host summer events at Mote Park with live music and free food for the community. Baseball and softball tournaments take place throughout the year at the Pitsenbarger Sports Complex.

Communities

The Mote Park area's resident population is primarily White with a proportion of African American residents. Several houses of worship of various denominations were located throughout the community. Mote Park seems to be a residential neighborhood which hosts two distinct areas; one which is well maintained and the other less maintained.

Streetscapes

Some streets were noted to be degrading and sidewalks are uneven with cracks. A small presence of litter can be seen but overall, the streets are relatively clean. In areas with homes lacking driveways, the streets have parked cars on both sides making passing another vehicle difficult. Crosswalks are clearly visible to traffic and pedestrians traverse the sidewalks throughout the residential areas.

Commercial Activity

A local attorney's office is present and very few political signs are found in the yards. One childcare center yard sign was noticed. On the southeastern border, several industrial buildings are fenced off or labeled condemned, however the lumber yard is still in operation with a working smokestack.

Land Use

Most of the Mote Park area are residential with small commercial and industrial sections. Notably, a few vacant lots are present within the residential areas. Mote Park is central to the area and Pitsenbarger Sports Complex located on the southwest side.

Environment

Sidewalks and streetlights were scattered throughout the area and varied block to block. Most homes utilized street parking, but vehicular traffic was low. Residents were noted traveling to and from the parks, walking dogs, and performing landscaping. Although neither air nor water quality was assessed at the time of this survey, a nearby lumber yard was exhausting smoke into the area which may affect air quality.

Infrastructure

Sidewalks appeared to both well-maintained in some areas and degrading in others with major flaws noted. Retaining walls along the sidewalk were crumbling and leaving large concrete sections in the roadways. New sidewalk construction was noted during one observation.

Health Services

A WIC Program Center was noted within the Mote Park Area. No other medical providers were noted.

Transport

Single family vehicles appeared to be the primary mode of transportation throughout the Mote Park area. Miami County Public transportation is present with a bus stop located on S Downing Street.

Public Services

Jerome Horwitz Elementary and WIC Program Center are notable public services in the area. No large childcare centers were noted.

Safety

The Mote Park area felt safe with residents walking throughout, visiting parks, and gathering with neighbors. No areas of graffiti, loitering personnel, or areas of suspicious activity noted.



Source: Google Maps

Piqua – Shawnee

Observations recorded at 12:30PM on June 13th, 2021.

Housing

The Piqua – Shawnee area consisted primarily of single-family housing with porches. Most appear to be well maintained with few in need of external repair or lawn care.

Buildings

As previously stated, most building in Shawnee are single-family homes but there were also a few abandoned buildings noted as well. Of those buildings, many seemed to have been abandoned for a significant amount of time with boarded up windows, doors, and requiring major external repairs.

Public Spaces

Few gathering places exist in the Shawnee area, although Mote Park is a popular nearby location. Felton Park, Hollow Park, and Fountain Park are also present.

Culture and entertainment

Although no major cultural events were occurring in Shawnee, locals can seek entertainment nearby at events like the Strawberry Festival, local car shows, and theaters.

Communities

Most of Shawnee's resident population are White with a smaller percentage of minority residents.

Streetscapes

The streets were maintained with few sidewalks with cracks. Street width is limited with vehicles parked along the side but do not prohibit from passing. Some areas have refuse built up which can be seen from the streets.

Commercial Activity

In Shawnee, the neighborhood is surrounded by industry including large factories like Crane and Evenflo. There are additional large-scale employers in the area like Wal Mart and chain restaurants.

Land Use

Most of the Shawnee area is residential with a local church and some businesses that are in the heart of the community.

Environment

Some litter and debris in small areas but not throughout the community. Piles of refuse are notable in some areas which can be viewed from the street.

Infrastructure

The overall infrastructure is well maintained although some improvements to waste management could be made. Roads appear well maintained and few buildings appear in disrepair.

Health Services

The major health services available are from Kettering Health and Premier Health; there are health centers and physician clinics available within neighboring communities.

Transport

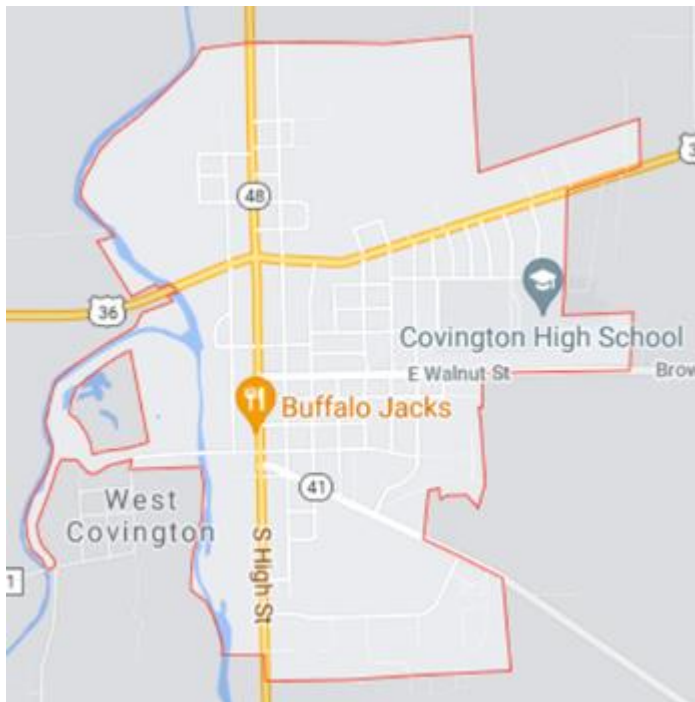
No public transportation services are in the immediate area; however, public school transport is available. Most transportation is by personally owned vehicles and some personal ride sharing ventures are participated in by the community.

Public Services

Within the local community is a Youth Center as well as YMCA.

Safety

During the windshield survey, no safety incidents were observed. Residents interviewed reported generally safe with quick response time from police when needed. Overall, the neighborhood feels safe with little to no graffiti or loitering noted.



Source: Google Maps

Covington

Observations recorded at 12:00PM on June 5th and 10:00AM on June 12th, 2021.

Housing

The Covington area consisted of primarily single-family homes which were well maintained and had manicured lawns. Of several dozen houses that were assessed, less than 10 appeared to be vacant or in need of repairs. Several homes were built using sheet metal, also known as prefabricated material.

Buildings

Buildings located in this area appear to be mostly single-family homes with sporadic businesses such as farm stores, hair salons, gas station, and large grain facility. For the most part, the town does not appear to be overly accessible to people with disabilities as wheelchair ramps are lacking. Most homes have porches and numerous buildings with

stairs, which would be difficult to navigate with a wheelchair or crutches. Also, several buildings appear under construction.

Public Spaces

Covington has two main parks, the Covington Community Park and FL Blankenship Riverside Sanctuary. There were also gathering spaces at the local high school for sports, and children's playground. The Town center is also an open square with an ice cream shop, where people are prone to gather.

Culture and entertainment

On the day of our windshield survey, there was numerous garage sales taking place. According to residents, this was a big community activity. Many locals also attend a nearby annual Strawberry Festival as well as the Annual Fort Rowdy festival with "Cowboys and Indians".

Communities

Covington is a rural, politically conservative small town comprised mostly middle-class Caucasian residents. The culture of the town appears to be predominately Christian, with a large heritage of German Baptist ancestry.

Streetscapes

Town layout is roughly square shaped, with roads following a grid like pattern, generally oriented north-south, east-west. The city is bordered by Stillwater River on the west. Highway 36 runs through the city east-west, Highway 48 runs north-south. Most roads appear well kept with road construction being actively performed.

Commercial Activity

The culture of Covington appears to be mostly rural, and agriculturally-based. Main industry appears to be grain mill, manufacturing, and construction. Scattered shops for car maintenance and detailing are present. A new Mexican restaurant attached to a gas station opened and locals report Buffalo Jack's is a restaurant attraction with unique menu.

Land Use

In the center of town, most areas are residential. There is a small-town square for commerce and scattered retail shops. Almost all property on the outskirts of town is farmland.

Environment

No litter was observed, Parks and River appeared to be clean and free from debris. Unable to assess water or air quality during the windshield survey.

Infrastructure

The vast majority of infrastructure is moderately maintained. There are areas of sidewalk breakdown, road breakdown. Unable to assess water or waste management services. However, after talking to residents, the water source for the town is a well located at a low level on Stillwater River.

Health Services

One Premier Health medical clinic is noted along with a Chiropractor's office, and skilled nursing/rehab facility.

Transport

No public transport services were noted. Most transportation is by personally owned vehicles. Minimal traffic was noted.

Public Services

The local school district has well maintained facilities. The local fire department appears new.

Safety

Residents and interviewees said that the communities are generally safe and that police are very quick to respond if they are ever needed. No areas of graffiti, loitering personnel, or areas of suspicious activity noted.



Source: Google Maps

West Milton

Observations recorded on June 8th and June 12th, 2021.

Housing

Homes in the central portion of West Milton tend to be older single-family dwellings in fair shape while those on the periphery were of newer construction on larger plots of land. A low-income housing development was recently remodeled and consisted of brick-multi-family dwellings with a community laundry as well as an adjacent green space with playground equipment. A new housing development with 133 one- and two-story single-family homes is being built in Northeast West Milton.

Buildings

The downtown area is comprised of older, large, attached brick businesses. Many front facades appear to be renovated although less care was taken to maintain the appearance of the sides of

the buildings than the front, and this area does seem handicap accessible. Many churches as well as other buildings including IGA grocery, Union Township Life Squad, and the new Milton Union School are well maintained.

Public Spaces

The Municipal Park is well maintained with a decorative fountain, a large playground area, canoe rentals, picnic shelters, disc golf, hiking paths and ample parking. West Milton also has a small locally run gym, as well as access to tennis courts, a track, soccer fields, and playgrounds at the Milton Union School.

Culture and entertainment

Popular areas include: Pearson House restaurant, the Municipal Park, Milton Bowling Alley, the Milton Union Stadium where locals gather to watch football games, the Milton Union Public library, and the many churches in town.

Communities

West Milton is predominantly Caucasian and seems to be a robust faith community with many churches. A new school, one formal childcare facility, and three preschools are present and all with limited availability. The sources of local information in the community are West Milton's open monthly city council meetings, a Municipal Facebook page, a YouTube channel connected with the school, digital signs outside city buildings, and word of mouth.

Streetscapes

The streets and roads are paved and well maintained. The residential area has good landscaping; most yards are neatly kept. Crosswalks, signals, streetlights, and stop signs are present. All areas have

sidewalks, trash removal, and recycling. Downtown parking on the street and behind businesses appeared ample to meet customer needs.

Commercial Activity

Small local businesses in the downtown area include Wertz Hardware and Variety stores, Pearson's Restaurant, antique/decor shops, hair salons, a vision center, and a florist. The perimeter of West Milton has large grain harvesters surrounded by farmland.

Land Use

West Milton mostly consists of residential land use with farmland and grain harvesters in the peripheral areas.

Environment

The downtown area is bustling with traffic and exhaust from construction vehicles traveling to and from a new housing construction. No litter or waste material was spotted anywhere around the Stillwater River and the parks.

Infrastructure

Most of the infrastructure in West Milton is fairly maintained with sidewalks on both sides of the street and a waste management facility. The streets are wide and well-marked with streetlights and trash cans. Solar panels are installed on the roof of newly constructed Milton Union school.

Health Services

Health services available include a physician, a dentist, an optometrist, and a chiropractor. No pharmacies are present in West Milton. The residents often drive 15-20 minutes for medical care. The nearest free clinic is in Troy. The Union Township Life Squad is available to transport West Milton residents to the hospital for emergency care.

Transport

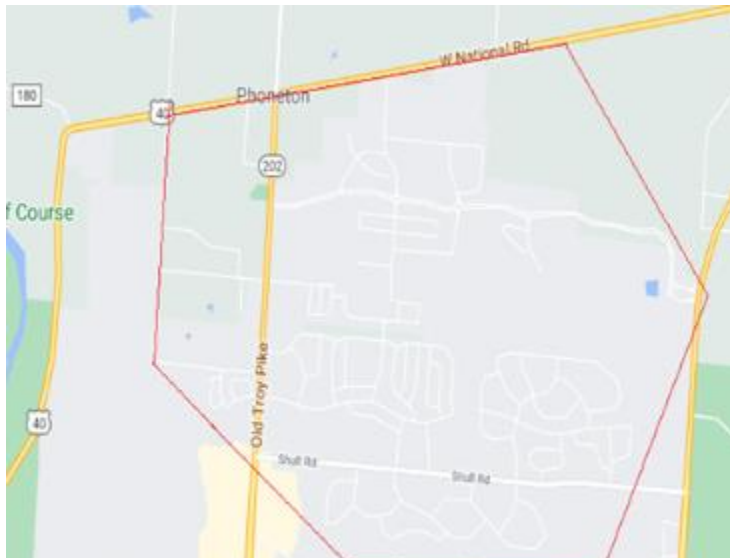
Miami County Transport Service provides affordable transportation within Miami County to its residents with advance notice. Most prefer personally owned vehicles for travel. Taxi service is available for a fee.

Public Services

Public services include the Union Township Life Squad, a governing city council, a police station, a fire-department, Milton Union Elementary, Middle and High School and a Senior Center on W. Hamilton Street. Churches provide many social activities and community outreach, including food, clothes, household goods, and referral services.

Safety

West Milton appears to be a safe community; however, residents have expressed future concerns for their safety from the new housing development. No areas of graffiti, loitering personnel, or areas of suspicious activity noted.



Source: Google Maps

Huber Heights

Observations recorded at 6:00PM on June 13th and 8:30PM June 13th, 2021.

Housing

Most homes are single family units either currently being built, newly built, or built within the last 5-7 years. Houses were all well maintained with well-manicured lawns, although none of the homes have visible handicap ramps.

Buildings

This area is a suburban neighborhood and comprised of houses and lacking small businesses, stores, or other buildings in this neighborhood.

Public Spaces

No obvious designated public spaces where people congregate are present, but there are features like a pond with a fountain and plenty of sidewalk space and yard space for small gatherings to occur. In a nearby community is a park and waterpark.

Culture and entertainment

Huber Heights residents are predominantly White with a smaller percentage of minority residents including a significant Turkish population. Due to lack of public space, most gatherings were noted to be happening in front and back yards.

Communities

No churches or other faith-based organizations are noted.

Streetscapes

The streets were free of clutter and debris for the most part. Vehicles can be seen parked along the road during large gatherings but mostly are in garages and driveways. The streets are mainly used by cars, but golf carts, children riding bicycles, and skating was also noted.

Commercial Activity

The local area is predominately households with a significant lack of commercial activity. Nearby areas have stores, restaurants, and other businesses but not easily accessed by walking.

Land Use

The area was filled with houses and is primarily residential land use. No businesses, churches, schools, or any other buildings are in the neighborhood. Small features including a fountain near the entrance add to the beauty and serenity to the aesthetic of the neighborhood.

Environment

The environment was clean and there was an adequate number of stop signs to promote safety. All lawns were free of clutter. Unable to assess water or air quality, but this area is near a busy street and a major highway. Some houses are being constructed contributing to temporary air and noise pollution in the area. There is scant observed litter on the streets.

Infrastructure

All the streets in the neighborhood were connected by the various roads and each have sidewalks. A substantial number of streetlights, sewers, and fire hydrants help to promote the safety of the neighborhood. All these features have been added within the last 5-7 years.

Health Services

There are no health services in the observed area. The closest major facility is the Fitzsimmons Hospital which is about a 4-minute drive from the neighborhood. Other facilities such as the Kettering Health Emergency Center, Premier Health Urgent Care, and Dayton Children's Outpatient Care Center are all within a 10-minute drive. A veterinary clinic is nearby for local sick pets.

Transport

No bus lines or bus stops are in this area. Most transportation is by personally owned vehicles, and little traffic is in the neighborhood. Since it is located near a major street and a highway, traffic may become a slight issue as someone is leaving or approaching the neighborhood. The neighborhood has multiple round-a-bouts instead of stoplights.

Public Services

This is mostly a residential area so there were no community centers. A local YMCA is in a nearby community. This area is served by Bethel local schools. One K-12 grade building consists of an elementary, middle, and high school. In 2018-2019 the total enrollment for the whole district was 1,564 students.

Safety

The area seems to be very safe and quiet. No strange or questionable behavior is noted and a lack of graffiti or litter. Children can be seen riding bicycles throughout the neighborhood and people were taking evening strolls.

APPENDIX A - ACCESS TO HEALTH CARE AND CHILD CARE

Access to Health Care and Barriers to Care in Miami County

It is critical that health departments understand where barriers and access to care and services exist in order to develop effective strategies addressing the lack of access to healthcare services. Healthcare service barriers can include financial, health care system capacity, cultural, geographic, and lack of health insurance (Public Health Accreditation Board, 2013).

Capacity and Distribution of Healthcare Providers

Approximately 51% of all health care services offered in Miami County are located within the city of Troy (Figure 1) (Figure 2), 25% is in the city of Piqua, 19% located in Tipp City, 4% located in the village of Covington and 2% is located in the village of West Milton (Figure 1). Table 1 contains details of each service type.

Miami County Health Services

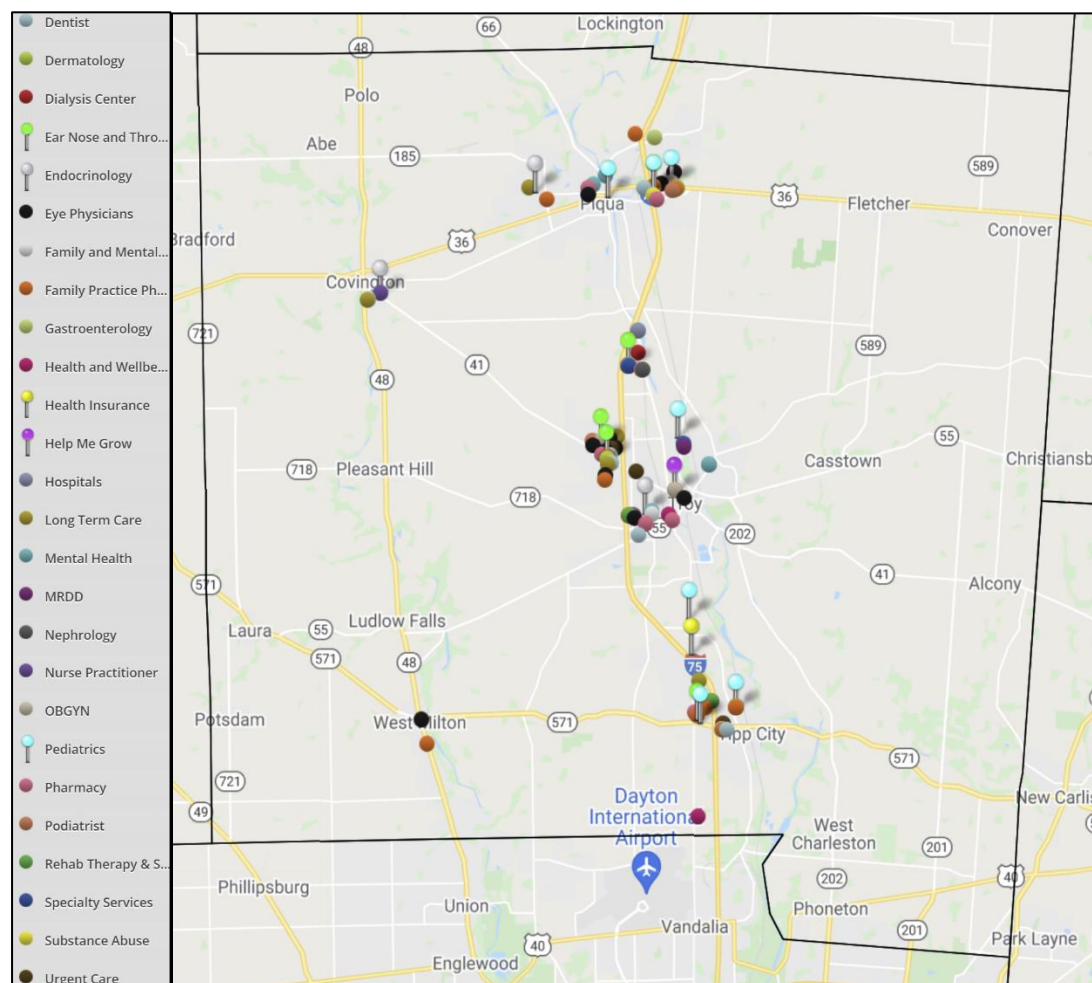


Figure 1: Health Care Services in Miami County, Ohio

Maptive

City of Troy Health Services

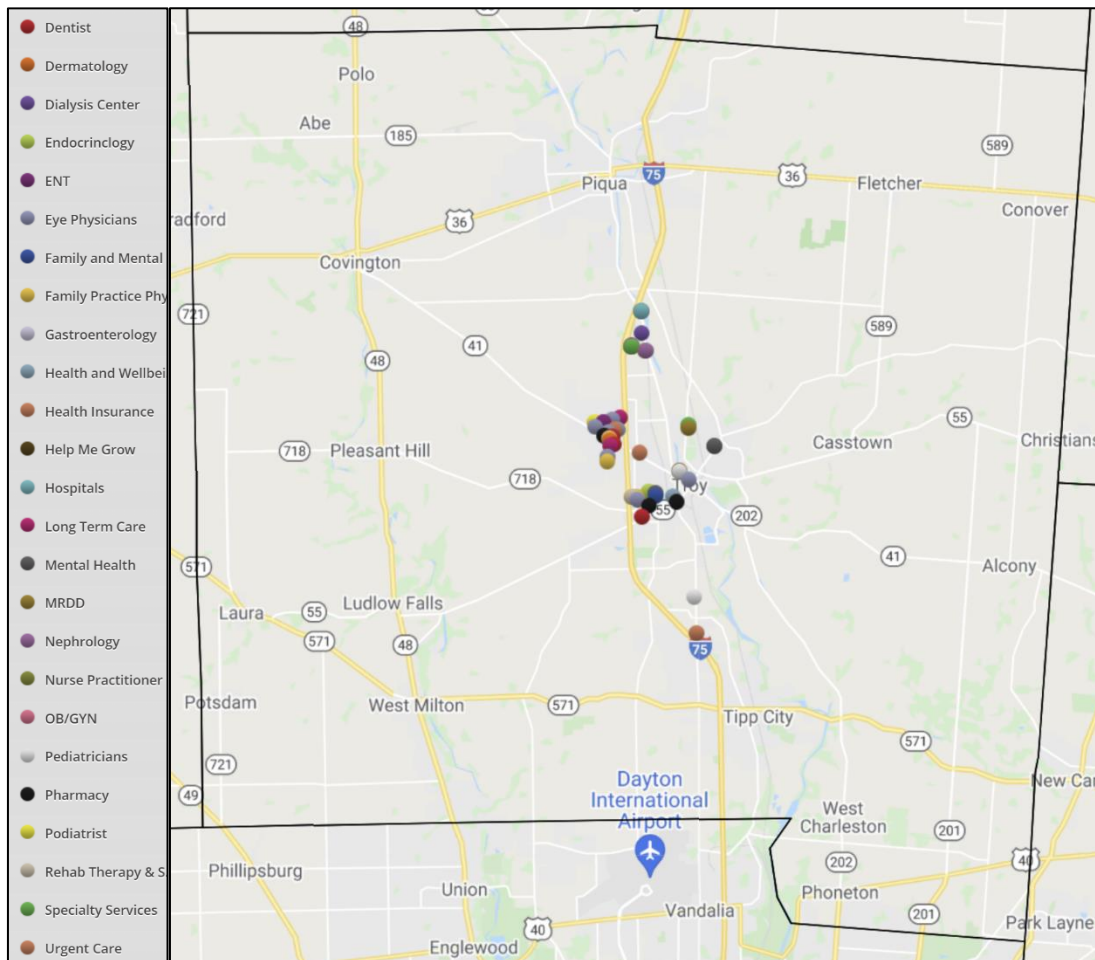


Figure 2: Health Care Services in Troy, Ohio

Maptive

Availability of Healthcare Services

There are many dentists, family practice physicians, eye physicians, and long-term care facilities along with other services available in Miami County (Table 1).

1.) There are two hospitals and four urgent care centers.

Table 1: Health care services in Miami County, Ohio

Type	Title	Address	Zip Code
Rehab Therapy & Sports Medicine	Sports Medicine and Physical Therapy at Hyatt Center	450 N Hyatt St	45371
	Inpatient/Outpatient Rehabilitation Program at Upper Valley Medical Center	3130 N County Rd 25A	45373
	Rehabilitation at UVMC outpatient Care Center North	280 N Looney Rd	45356
	Rehabilitation at UVMC outpatient Care Center South	998 S Dorset Rd	45373
	Kettering Sports Medicine	70 Weller Dr	45371
Dentist	Miami County Dental	70 Troy Town Dr	45373
	Troy Family Dental	1820 W Main St	45373
	Brighter Days Dental	1295 Archer Dr	45373
	Pure Smiles- Tipp City	110 S Tippecanoe Dr	45371
	Ritzi Dental	235 S Garber Dr	45371
	Bright Now Dental	987 E Ash St	45356
	Sunset Dental	1718 W High St	45356
	Covington Dental	550 Mote Dr #1	45318
Dermatology	DOCS- Dermatologists of Central States (Troy)	45 S Stanfield Rd	45373
	DOCS- Dermatologists of Central States (Tipp City)	450 N Hyatt St	45371
Dialysis Center	DaVita Upper Valley Kidney Center	3190 N County Rd 25A	45373
Eye Physicians	Midwest Vision Care	1800 West High St	45356
	Subler Eye Care	1001 S Dorset Rd	45373
	Primary Eye Care	10 Dotcom Dr	45373
	Ohio Eye Care Specialist	4 S Market St.	45373
	Eye Specialist of Troy	41 S Stanfield Rd	45373
	Procure Vision Center	1861 Towne Park Dr	45373
	Valley Eye Institute (Piqua)	1219 Recker Rd	45356
	Valley Eye Institute (Troy)	180 S Stanfield Rd	45373
	Tipp Eye Center	115 S Tippecanoe Dr #A	45371

	Ohio Vision LLC Dr. John J. Wilding	31 S Stanfield Rd	45373
	West Milton Optical	104 S Miami St	45383
	Walmart (Piqua)	1300 E Ash St	45356
	Walmart (Troy)	1801 W Main St	45373
Family and Mental Health Support	Tri- County Board of Recovery & Mental Health Services	1100 Wayne St	45373
Health and Wellbeing	The New Path	7695 S Co Rd 25A	45371
	First Place Food Pantry	721 Lincoln Ave	45373
	Miami County Public Health WIC	510 W Water St	45373
Health Insurance	Job and Family Services	2040 North S Co Rd 25A	45373
Help Me Grow	Miami County Public Health	510 W Water St	45373
Hospitals	Kettering Health Network (Troy)	3031 N County Line Rd 25A	45373
	Upper Valley Medical Center	3130 N County Line Rd 25A	45373
Long Term Care	Piqua Manor	1840 High St	45356
	Heartland of Piqua	275 Kienle Dr	45356
	Brookdale (Troy)	81 S Standfield Rd	45373
	StoryPoint (Troy)	1840 Towne Park Dr	45373
	Springmeade Health Center	4375 S Co Rd 25A	45371
	Stillwater Skilled Nursing and Rehabilitation	75 Mote Dr	45318
Mental Health	Miami County Mental Health Center	3031 N County Line Rd 25A	45373
	Safehaven	633 N Wayne St	45356
	Miami CCTY Recovery	1021 N Market St	45373
	Recovery and Wellness	550 Summit Ave	45373
	Miami County Recovery Council	1059 N Market St	45373
	Piqua Compassion Network Church	531 W Ash St	45356
MRDD	Miami County Board of Developmental Disabilities	1625 Troy-Sidney Rd	45373
Family Practice Physicians	Upper Valley Family Care	200 Kienle Dr	45356
	Upper Valley Family Care	700 S Stanfield Rd, Suite A	45373
	Dr. Richard O. Michael	280 Looney Rd #203	45356
	Dr. James Burkhardt	510 West Water St	45373
	Dorset Family Care	998 S Dorset Rd #204	45373
	Dr. Donald Luna	143 N. Sunset Dr, Suite 100	45356
	Dr. Kathryn E Lorenz	450 N. Hyatt St, Suite 302	45371
	Nash Integrative Medicine	245 S. Garber Dr	45371
	Dr. Leelmohan Ravikumar	998 S. Dorset Rd, Suite 301	45373

	Dr. Julio Cesar Soto Jr.	31 S. Stanfield Rd, Suite 306	45373
	Tippecanoe Family Medicine	70 Weller Dr	45371
	Dr. Rishi Patel	9060 Country Club Rd	45356
	Hyatt Family Care	450 N. Hyatt St, Suite B202	45371
	Kettering Physician Network	75 Weller Dr	45371
	Dr. William Ginn	751 S Miami St	45383
	Dr. Alan M. Wilimitis	1483 W Main St	45371
	Health Partners Free Clinic	13 N Co Rd 25A	45373
OB/GYN	Miami County OB-GYN	1930 Prime Ct, Suite 105	45373
	Premier Women's Center	101 Looney Rd	45356
	Miami County Public Health prenatal clinic	510 W. Water St, Suite 130	45373
	Wilson Health	1255 E. Ash St	45356
Pediatricians	Child & Adolescent Specialty Care	2760 S. Co Rd 25A	45373
	The Pediatric Group at Upper Valley Medical Center	3130 N. Co Rd 25A, Suite 201	45373
	The Pediatric Group at Hyatt Center	450 N. Hyatt St, Suite 204	45371
	The Pediatric Group at Outpatient Care Center North	280 N. Looney Dr, Suite 203	45356
	Wilson Health	1255 E. Ash St	45356
	Health Partners Free Clinic	13 N Co Rd 25A	45373
	Dr. Alan M. Wilimitis	1483 W Main St	45371
Podiatrist	Piqua Foot Specialist	1564 Garbry Rd	45356
	Advanced Foot & Ankle Care	2335 W Main St	45373
	Premier Foot & Ankle	450 N Hyatt St	45371
Specialty Services	Digestive Specialty Care	3130 N County Rd 25A #109	45373
	Miami County Community Services Center	1695 Troy- Sidney Rd	45373
Substance Abuse	Sunrise Treatment Center	1130 Garbry Rd	45356
Urgent Care	Premier Health Urgent Care (Piqua)	280 Looney Rd	45356
	Premier Health Urgent Care (Troy)	1843 W Main St	45373
	WellNow Urgent Care	1430 W Main St	45373
	MinuteClinic	914 W Main St	45371
Pharmacy	Walmart (Piqua)	1300 E Ash St	45356
	Hocks Piqua Pharmacy	649 W High St	45356
	Kroger (Troy)	731 W Market St	45373
	Meijer (Troy)	1900 W Main St	45373

	Walgreens (Troy)	20 W Market St	45373
	CVS (Tipp City)	914 W Main St	45371
	Hocks Tipp City Pharmacy	5175 S Co Rd 25A	45371
Nurse Practitioner	Kimberly Sue Diltz	101 Looney Rd	45356
	Susan L Hoying	3006 N County Rd 25A Ste 104	45373
	Miami County Internal Medicine- Heather Zuhl	2600 Mote Dr	45318
	Leah Rochelle Gale	998 S Dorset Rd Ste 301	45373
	Christine L Asher	3130 N County Line Rd 25A	45373
Ear Nose and Throat (ENT)	Ohio Institute of Ear Nose & Throat	280 Looney Rd. #201	45356
	Devore ENT	3130 N County Rd. 25A	45373
	Southwest Ohio ENT Specialist	1930 Prime Ct. #104	45373
	Premier ENT Associates	31 S Stanfield Rd. Ste. 304	45373
	Dr. Ronald L Devore	1475 W Main St.	45371
Gastroenterology	Advanced Colon Treatment	9163 N Co Rd. 25A	45356
	Digestive Specialty Care	3130 N Country Rd. 25A	45373
	Premier Gastroenterology Specialists	450 N Hyatt St. #302	45371
Endocrinology	Troy Internal Medicine Inc.	530 Crescent Dr.	45373
	Miami County Internal Medicine	2600 Mote Dr.	45318
	Upper Valley Internal Medicine	1752 High St.	45356
Nephrology	Renal Physicians	3006 N County Rd 25A #102	45373

Causes for Lack of Access to Services and Barriers to Care

Miami County is designated as a Health Professional Shortage Area (HPSA) in Mental Health (Health Resources and Services Administration (HRSA), 2018)). Barriers to healthcare could be associated with travel distance in rural areas or a lack in the ability to pay for services. Another barrier to care is the inability of those living in poverty to pay for healthcare services. While 94.4% of the population has health insurance, 78% of the unemployed residents are without health insurance (U.S. Census Bureau, 2019b). An estimated 8.8% of Miami County residents are living in poverty and 11% of children under the age of 18 in Miami County are living in poverty (U.S. Census Bureau, 2019a).

Child Care in Miami County

Types of Child Care Services

The Ohio Department of Job and Family Services defines type “A” childcare as a provider who can care for 7-12 children in home. Type “B” is a childcare provider who can care for no more than 6 children at one time and a type “C” childcare center is a Licensed Child Care Center. Type “P” is an Ohio Department of Education Licensed Preschool and type “S” is an Ohio Department of Education Licensed School Age Child Care (SACC).

Type	Total	Total Rated
A	0	0
B	1	1
C	27	15
P	13	9
S	3	0

Distribution of Child Care Services

Approximately 37% of all Licensed Child Care Centers (Type C) offered in Miami County are located within the city of Troy and 22% is located in the city of Piqua. Miami County offers one Type B childcare service located in Piqua and three Ohio Department of Education Licensed School Age Child Care (Type S) all located in Troy. Figure 3 shows the distribution of childcare services in Miami County and Table 2 contains details of each service type.

Miami County Child Care Services

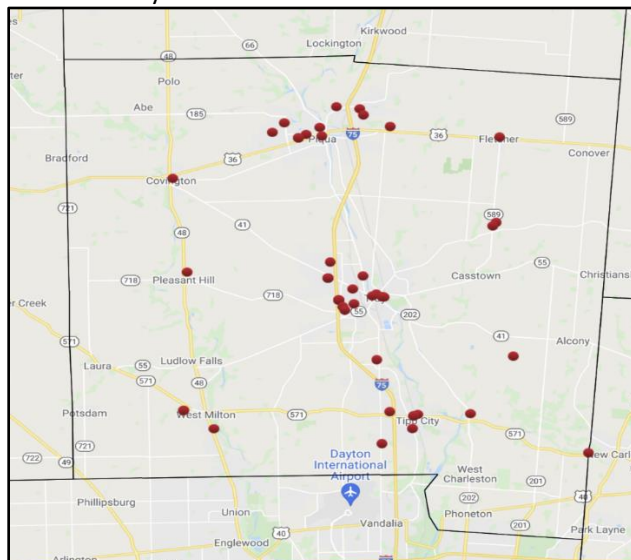


Figure 1: Child Care Services in Miami County, Ohio Maptive

Availability of Child Care Services

Table 2: Child Care Services in Miami County, Ohio

Program Name	Address	Zip Code	Type	Rating
Rhoades, Kelly	1142 Covington Ave.	45356	B	1 Star
Angela's Circle of Friends Child Care	2910 Stone Circle Drive	45373	C	
Early Beginnings	1021 S Dorset Rd.	45373	C	1 Star
Edison State Community College Child Care Center	1973 Edison Drive	45356	C	5 Star
First Kids Christian Coop Preschool	110 W Franklin St.	45373	C	
Fletcher United Methodist Preschool	205 S Walnut St.	45326	C	
Future 4 Families	840 Arthur Rd.	45373	C	1 Star
Ginghamsburg United Methodist Preschool/Day Care	6759 S County Rd. 25	45371	C	4 Star
Greene Street Day Care/Preschool	415 W Green St.	45356	C	2 Star
Kids Learning Place- Milton Union	7640 Milton-Potsdam Rd.	45380	C	5 Star
Kids Learning Place- Piqua	285 R.M. Davis Parkway	45356	C	5 Star
Kids Learning Place- Troy	1849 Towne Park Dr.	45373	C	5 Star
Little Jacobs Ladder Learning Center	625 N County Rd. 25A	45373	C	1 Star
Main Street Preschool	8 W Main St.	45371	C	
Miami County YMCA/Alexander Davis Child Care Center	300 W High St.	45356	C	
Milton-Union Early Childhood	918 S. Miami St., Suite A	45383	C	1 Star
Newton Early Learning Center	201 N Long St.	45359	C	
Overfield Early Childhood Program Inc.	172 S Ridge Ave.	45373	C	
Piqua Christian Preschool and Childcare	830 Covington Ave.	45356	C	1 Star
Play Learn Grow Child Care	8654 N County Rd. 25A	45356	C	1 Star
St. John's Early Childhood Program	753 S Hyatt St.	45371	C	
Sun Moon & Stars Preschool, LCC.	1100 Wayne St. Suite 2600	45373	C	
Tipp City Enrichment Program	223 W Broadway	45371	C	5 Star
Tipp City Preschool Learning Center	1221 W Main St.	45371	C	1 Star
Troy Rec After School Program	11 N Market St.	45373	C	
Walnut Grove Learning Center	5760 E Walnut Grove Rd.	45373	C	
Walnut Grove Learning Center-SA	4025 N St. Rte. 589	45312	C	

Wee Care Child Care Center	8870 State Route 571 #212	45344	C	5 Star
The Miami Montessori School	86 Troy Town Dr.	45373	S	
St. Patrick	420 E Water St.	45373	S	
Troy Christian Elementary School	700 S Dorset Rd.	45373	S	
Broadway School	223 W Broadway St.	45371	P	3 Star
Center for Early Learning at Piqua Catholic	218 S Downing St.	45356	P	
Covington School	101 S Wall St.	45318	P	3 Star
Miami County Preschool	4817 S State Route 202	45371	P	3 Star
Miami County Preschool	523 E Water St.	45373	P	3 Star
Miami County Preschool - Miami East	3825 N State Route 589	45312	P	3 Star
The Miami Montessori School	86 Troy Town Dr.	45373	P	
Milton-Union School	7620 Milton Potsdam Rd.	45383	P	3 Star
Springcreek Primary School	145 E US Route 36	45356	P	3 Star
St. Patrick	420 E Water St.	45373	P	5 Star
Troy Christian Elementary School	700 S Dorset Rd.	45373	P	
Upper Valley Career Center JVSD School	8811 Career Dr.	45356	P	
Washington Primary Elementary School	800 N Sunset Dr.	45356	P	3 Star

Prior to 2020, Child Care Choices referral system in Miami County estimated 1,200 childcare spots in Miami County for 6,373 children. Eighty one percent of children in Miami County had no center or licensed in-home care to prepare them for kindergarten. The COVID-19 Pandemic drastically reduced those numbers even more and the long-term effects remain to be seen on our available childcare.

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