

2023 COUNTY HEALTH RANKING REPORT

Warren County Health District

**Warren County
Health District**



Public Health
Prevent. Promote. Protect.

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What is County Health Rankings & Roadmaps?

County Health Rankings & Roadmaps (CHR&R) is a program of the University of Wisconsin Population Health Institute. This program provides data, evidence, guidance and examples to build awareness of the multiple factors that influence health. It supports leaders to empower their communities toward improving health equity. The population-level data provided by the CHR&R help us understand what influences how and how well we live. They provide measures of the current overall health (**Health Outcomes**) and the impact of the overall health on the future health of the communities (**Health Factors**). All the categories that make up Health Outcomes and Health Factors are able to be ranked nationally and statewide. This report focuses on the statewide ranking for Ohio, which compares all 88 counties in the state for each measure that contributes towards the ranking. For each of the overall health rankings, the ranking scale is from 1 (healthiest) - 88 (least healthy). For this report, we have included all the factors that make up the overall ranking for both the Health Outcomes and the Health Factors, as well as some measures that do not contribute towards the overall ranking.



I. Health Outcomes

Health Outcomes tell us how long people live on average within a community, and how much physical and mental health people experience in that community. In this category, there are 2 primary factors: Length of Life and Quality of Life. These factors each make up 50% of the Health Outcomes Ranking.

a. Length of Life

Length of Life is the time between birth and death. It measures how long people live to identify what might have led to early deaths. Community-level factors can influence how long people live and their health. Some examples of these factors include improving access to nutritious foods, quality medical care, good jobs, and a clean environment.

i. Premature Death

Premature Death indicates the years of potential life lost before age 75 per 100,000 population (age-adjusted¹). For Warren County, 5,700 years of life were lost to deaths of people under age 75, per 100,000 people (National Center for Health Statistics – Mortality Files, 2018-2020). The Leading Causes of Death under age 75 in Warren County are: malignant neoplasms, diseases of the heart, accidents, chronic lower respiratory disease, and diabetes mellitus.

Warren County	Ohio	US	Rank
5,700	8,700	7,300	7 th

¹ Age adjustment is used to compare risks for two or more populations at one point in time or for one population at two or more points in time. Age-adjusted rates are compared using the direct method by applying age-specific rates in a population of interest to a standardized age distribution. This eliminates differences in observed rates that results from age differences in population composition (Prevention, National Center for Health Statistics - Age Adjustment, 2022).

b. [Quality of Life](#)

Quality of Life represents the well-being of a community; it highlights the importance of physical, mental, social, and emotional health from birth to adulthood.

i. [Poor or Fair Health](#)

Poor or Fair Health refers to the percentage of adults who report being in fair or poor health (age-adjusted). In Warren County, 11% of adults reported that they consider themselves fair or poor health (Behavioral Risk Factor Surveillance System, 2020)

Warren County	Ohio	US	Rank
11%	15%	12%	2 nd

ii. [Poor Physical Health Days](#)

Poor Physical Health Days are the average number of physically unhealthy days reported in the past 30 days (age-adjusted). In Warren County, adults reported their physical health was not good on 2.5 of the previous 30 days (Behavioral Risk Factor Surveillance System, 2020).

Warren County	Ohio	US	Rank
2.5	3.2	3.0	2 nd

iii. [Poor Mental Health Days](#)

Poor Mental Health Days are the average number of mentally unhealthy days reported in the past 30 days (age-adjusted). In Warren County, adults reported that their mental health was not good on 4.6 of the previous 30 days (Behavioral Risk Factor Surveillance System, 2020).

Warren County	Ohio	US	Rank
4.6	5.0	4.4	2 nd

iv. [Low Birthweight](#)

Low Birthweight is the percentage of live births with low birthweight (<2,500 grams). Low birthweight can be due to preterm births (<37 weeks of gestation) and intrauterine growth restrictions that are associated with increased infant morbidity and mortality risks. Factors that increase the likelihood of preterm births include multiple births, preeclampsia, and infections such as chorioamnionitis, bacterial vaginosis, and sepsis. In Warren County, 7% of babies had low birth weights (under 5 pounds, 8 ounces). For this measure, Warren County ranked 4th overall. In Ohio, there were a total of 17 counties that had a lower percentage of low birthweights (National Center for Health Statistics – Natality Files, 2014-2020).

Warren County	Ohio	US	Rank
7%	9%	8%	4 th

Overall Health Outcomes Ranking

County	Length of Life Rank 2023	Length of Life Rank 2022	Length of Life Rank 2021	Quality of Life Rank 2023	Quality of Life Rank 2022	Quality of Life Rank 2021	Health Outcome Ranking 2023	Health Outcome Ranking 2022	Health Outcome Ranking 2021
Auglaize	9	9	8	11	13	8	10	9	8
Delaware	1	1	1	1	1	1	1	1	1
Geauga	3	3	4	7	4	5	4	3	3
Greene	12	12	11	9	8	11	9	10	11
Holmes	4	4	3	38	42	35	11	11	10
Medina	6	6	5	4	3	4	5	4	5
Mercer	10	10	9	3	6	6	7	7	7
Miami	19	19	22	10	11	10	12	13	14
Putnam	2	2	2	5	7	7	3	5	2
Union	5	5	7	6	5	3	6	6	4
Warren	7	7	10	2	2	2	2	2	6
Williams	34	34	27	8	12	15	13	21	18
Wood	8	8	6	12	10	13	8	8	9

II. Health Factors

Health Factors represent the many things that influence how well and long a community lives, as well as the future health of our community. In this category there are 4 factors that account for the Health Factor Ranking: Health Behaviors (30%), Clinical Care (20%), Social & Economic Factors (40%), and Physical Environment (10%).

a. Health Behaviors

Health Behaviors are health-related practices such as diet and exercise, which can improve or damage the health of community members. Health behaviors are determined by the choice available in the places where people live, learn, work, and play.

i. [Adult Smoking](#)

Adult Smoking refers to the percentage of adults who are current smokers (age-adjusted). This is important because approximately 480,000 premature deaths can be attributed to smoking each year in the United States. Cigarette smoking is identified as a cause of various cancers, cardiovascular disease, and respiratory conditions, as well as low birthweight and other adverse health outcomes. In Warren County, 16% of adults are current cigarette smokers (Behavioral Risk Factor Surveillance System, 2020).

Warren County	Ohio	US	Rank
16%	20%	16%	2 nd

ii. [Adult Obesity](#)

Adult Obesity refers to the percentage of the adult population (age 18 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m² (age-adjusted). Adult obesity is a chronic condition that puts individuals at increased risk for hypertension, heart disease, type 2 diabetes, breathing problems, chronic inflammation, mental illness, and some cancers. In Warren County, 36% of adults had a BMI of 30 or greater (Behavioral Risk Factor Surveillance System, 2020). For this measure, Warren County ranked 5th overall. In Ohio, there were a total of 13 counties that had a lower percentage of adult obesity.

Warren County	Ohio	US	Rank
36%	36%	32%	5 th

iii. [Food Environment Index](#)

The Food Environment Index is an index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best). The measure accounts for both proximity to healthy foods and income. It includes access to healthy foods by considering the distance an individual lives from a grocery store or supermarket, locations for healthy food purchases in most communities, and the inability to access healthy food because of cost barriers. Warren County scored 8.5 out of a possible 10 on the food environment index, which includes access to healthy foods and food insecurity. The average value across the country was 7.0 (USDA Food Environment Atlas; Map the Meal Gap from Feeding America, 2019 & 2020).

Warren County	Ohio	US	Rank
8.5	6.8	7.0	5 th

iv. [Physical Inactivity](#)

Physical Inactivity is the percentage of adults aged 18 and over reporting no leisure-time physical activity (age-adjusted). Physical inactivity is linked to increased risk of health conditions such as Type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and shortened life expectancy. In Warren County, 20% of adults reported participating in no physical activity outside of work (Behavioral Risk Factor Surveillance System, 2020).

Warren County	Ohio	US	Rank
20%	24%	22%	2 nd

v. [Access to Exercise Opportunities](#)

Access to Exercise Opportunities is the percentage of the population with adequate access to locations for physical activity. Increased physical activity is associated with lower risks of type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. In Warren County, 84% of people live close to a park or recreation facility (ArcGIS Business Analyst and Living Atlas of the World; YMCA, US Census TIGER/Line Shapefiles, 2022 & 2020). For this measure, Warren County ranked 12th overall. In Ohio, there were a total of 19 counties that had a higher percentage of adequate access for physical activity.

Warren County	Ohio	US	Rank
84%	84%	84%	12 th

vi. Excessive Drinking

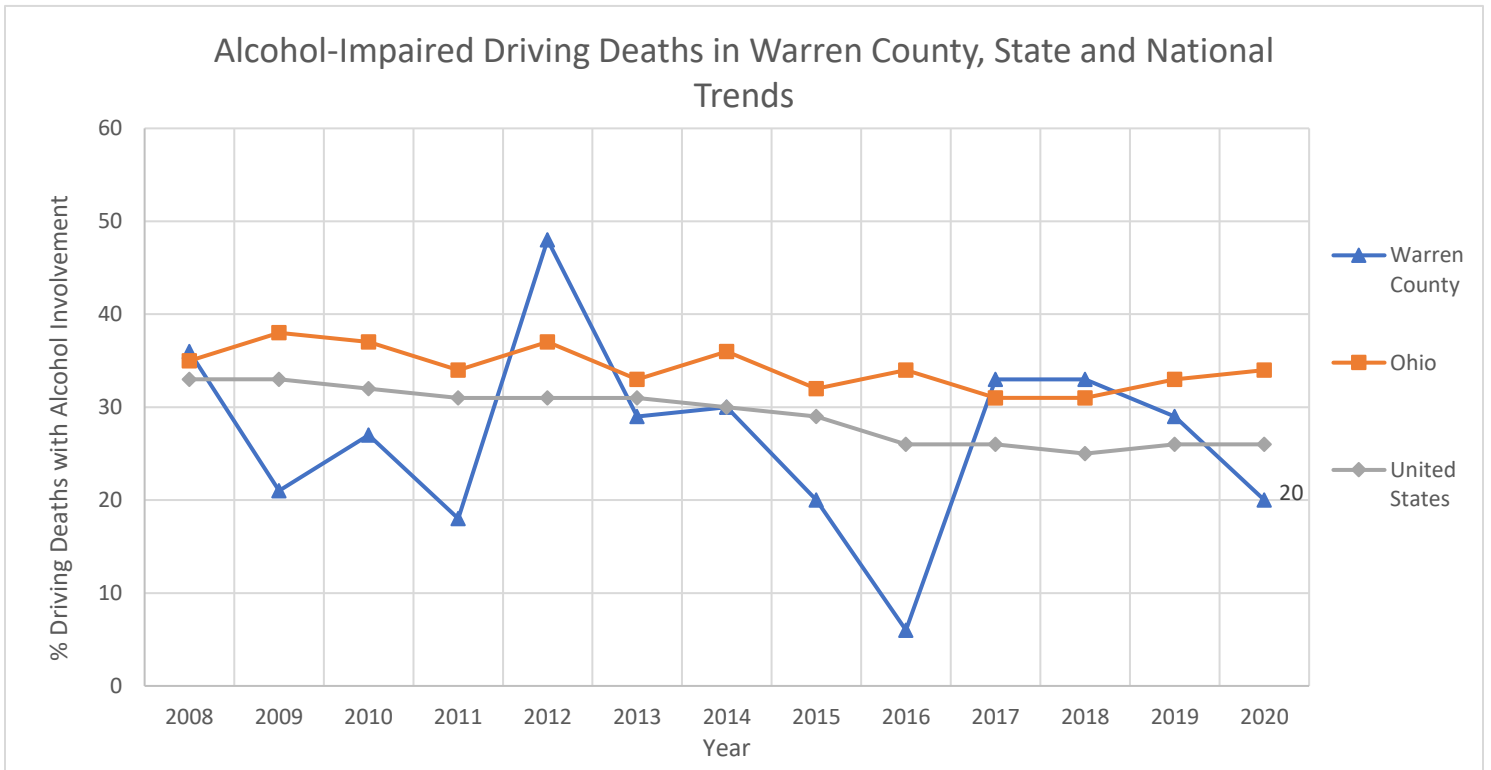
Excessive Drinking is the percentage of adults reporting binge or heavy drinking (age-adjusted). Binge drinking is defined as consuming 5 or more drinks on an occasion for men or 4 or more drinking on an occasion for women. Heavy drinking is defined as drinking 15 drinks or more per week for men or drinking 8 drinks or more per week for women. Excessive drinking is a risk factor for a number of adverse health outcomes, such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes. In Warren County, 18% of adults reported binge or heavy drinking (Behavioral Risk Factor Surveillance System, 2020). For this measure, Warren County ranked 2nd overall. In Ohio, there were a total of 25 counties that had a lower percentage of heavy drinking.

Warren County	Ohio	US	Rank
18%	19%	19%	2 nd

vii. Alcohol-Impaired Driving Deaths

Alcohol Impaired Driving Deaths is the percentage of driving deaths with alcohol involvement. This measure directly measures the relationship between alcohol and motor vehicle crash deaths. Alcohol is a substance that reduces the function of the brain and impairs thinking, reasoning, and muscle coordination, which are essential to operating a vehicle safely. In Warren County, 25% of motor vehicle crash deaths involved alcohol (Fatality Analysis Reporting System, 2016-2020). For this measure, Warren County ranked 11th overall. In Ohio, there were a total of 21 counties that had a lower percentage of alcohol-impaired driving deaths.

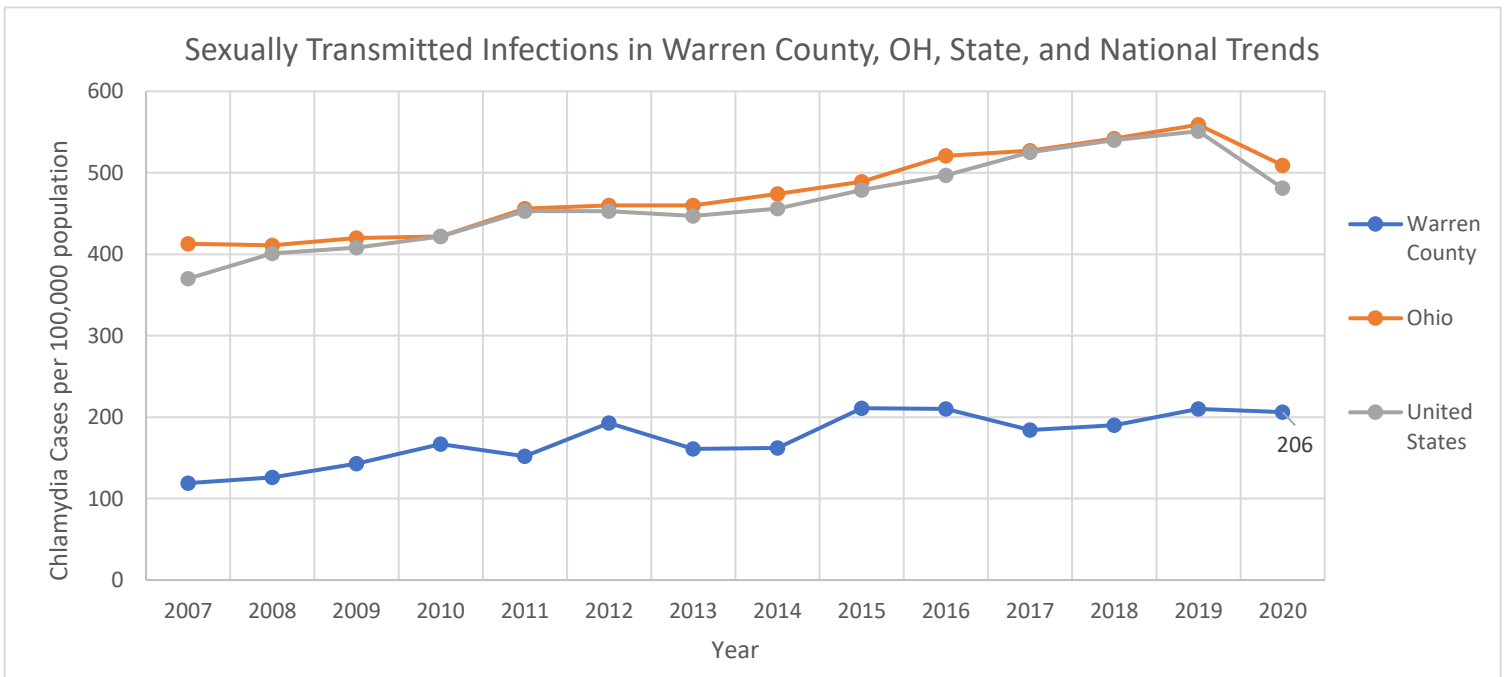
Warren County	Ohio	US	Rank
25%	33%	27%	11 th



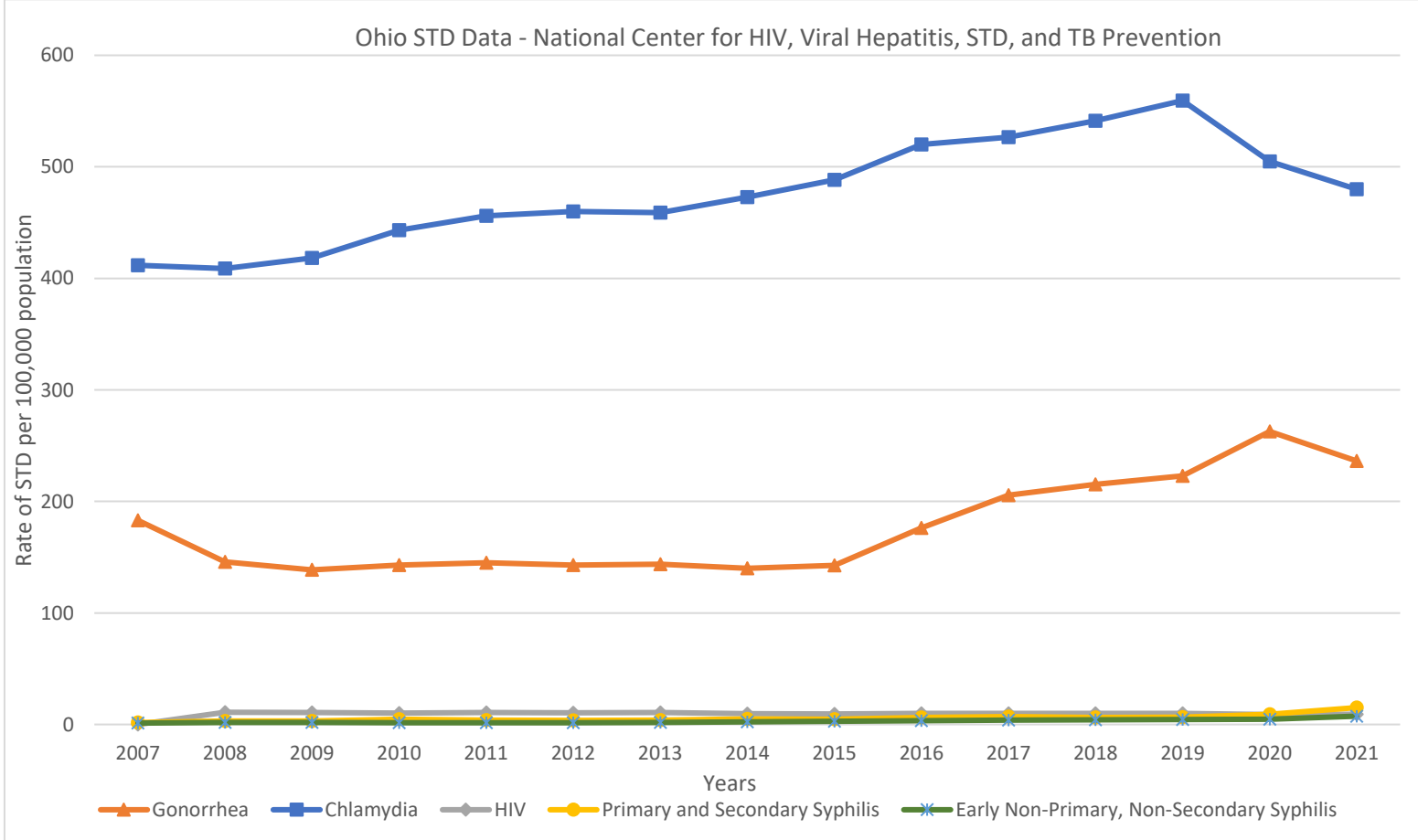
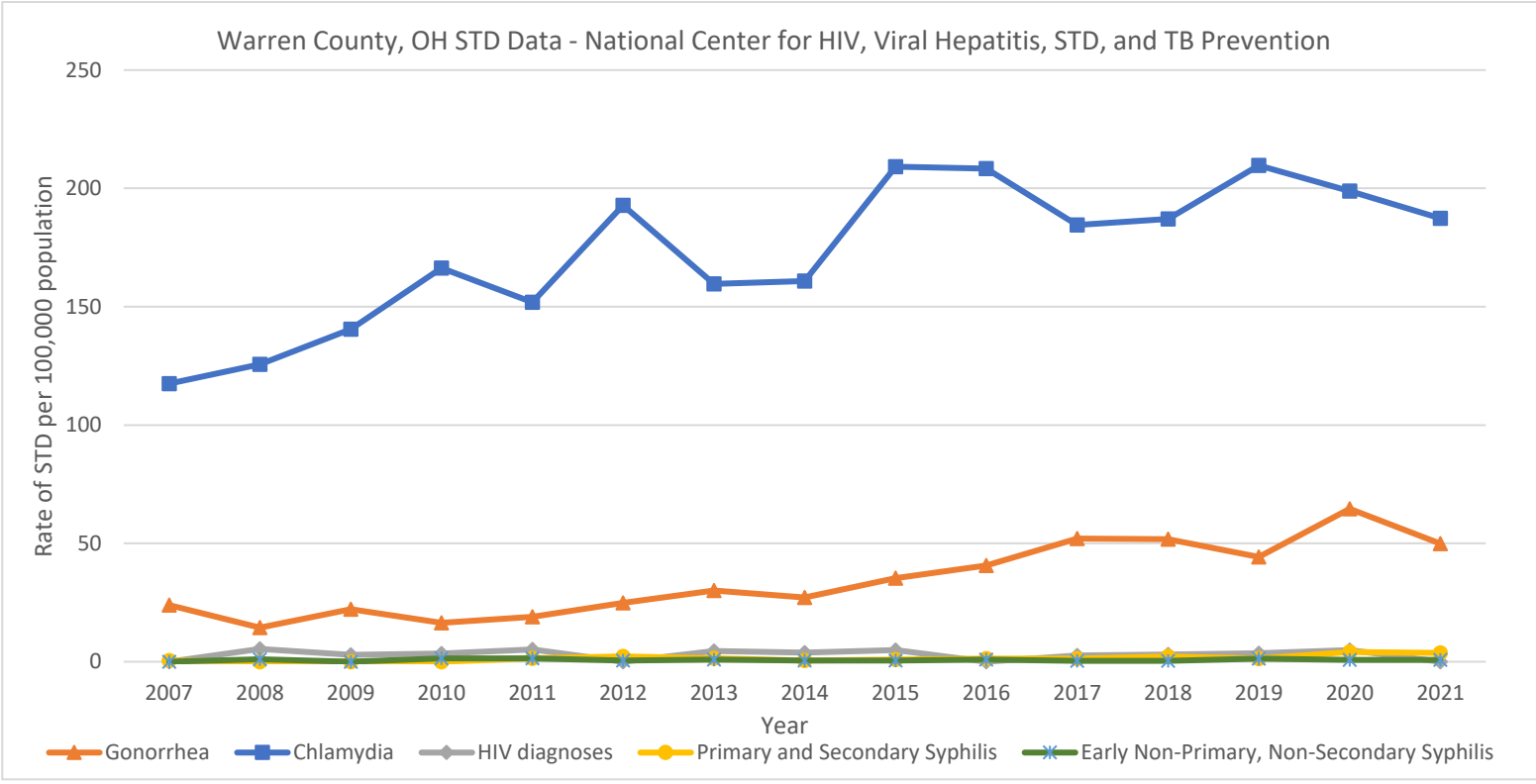
viii. Sexually Transmitted Infections

Sexually Transmitted Infections refers to the number of newly diagnosed chlamydia cases per 100,000 population. STIs are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, infertility, and premature death. In Warren County, 205.9 new cases of chlamydia were diagnosed per 100,000 people (National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2020).

Warren County	Ohio	US	Rank
205.9	509.2	481.3	18 th



The below graphs and tables were created using the National Center for HIV, Viral Hepatitis, STD, and TB Prevention data that is available (Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, 2023).



Year	Warren County				
Number of specified STDs per year	Gonorrhea	Chlamydia	HIV Diagnoses	Primary and Secondary Syphilis	Early Non-Primary, Non-Secondary Syphilis
2007	49	241	N/A	1	0
2008	30	262	9	0	2
2009	47	297	5	0	0
2010	35	355	6	0	3
2011	41	327	9	3	1
2012	54	419	N/A	5	2
2013	66	350	8	3	1
2014	60	356	7	1	1
2015	79	468	9	2	2
2016	92	472	N/A	3	1
2017	119	422	5	3	1
2018	120	434	6	5	3
2019	104	492	7	3	0
2020	157	483	10	10	2
2021	123	462	N/A	9	2

Year	Ohio				
Number of specified STDs per year	Gonorrhea	Chlamydia	HIV Diagnoses	Primary and Secondary Syphilis	Early Non-Primary, Non-Secondary Syphilis
2007	21066	47434	N/A	194	135
2008	16803	47117	1050	351	224
2009	15988	48239	1036	360	221
2010	16496	51150	982	528	189
2011	16726	52653	1039	440	160
2012	16493	53141	1007	425	171
2013	16619	53121	1034	436	211
2014	16237	54858	944	568	265
2015	16564	56726	919	560	326
2016	20487	60496	954	716	389
2017	23967	61389	980	832	454
2018	25146	63220	977	740	481
2019	26065	65393	965	749	519
2020	30977	59520	882	1084	555
2021	27838	56520	909	1783	874

ix. [Teen Births](#)

Teen births refer to the number of births per 1,000 female population ages 15-19. Early childbearing during teenage years has been associated with adverse health outcomes for the mother-child dyad, the impact of which can extend to partners, other family members, and the community. In Warren County, there were 9 teen births per 1,000 females ages 15-19 (National Center for Health Statistics – Natality Files, 2014-2020).

Warren County	Ohio	US	Rank
9	21	19	5 th

b. [Clinical Care](#)

Clinical Care is anything related to the direct medical treatment or testing of patients. Access to affordable, quality health care can prevent disease and lead to earlier disease detection. Communities are living longer lives because of breakthroughs in clinical care, such as advancements in vaccinations, surgical procedures, and preventative screenings.

i. [Medically Uninsured](#)

Uninsured refers to the percentage of the population under age 65 without health insurance. Lack of health insurance coverage is a significant barrier to accessing needed health care and to maintaining financial security. In Warren County, 5% of people under the age of 65 did not have health insurance (Small Area Health Insurance Estimates, 2020).

Warren County	Ohio	US	Rank
5%	8%	10%	1 st

ii. Primary Care Physicians

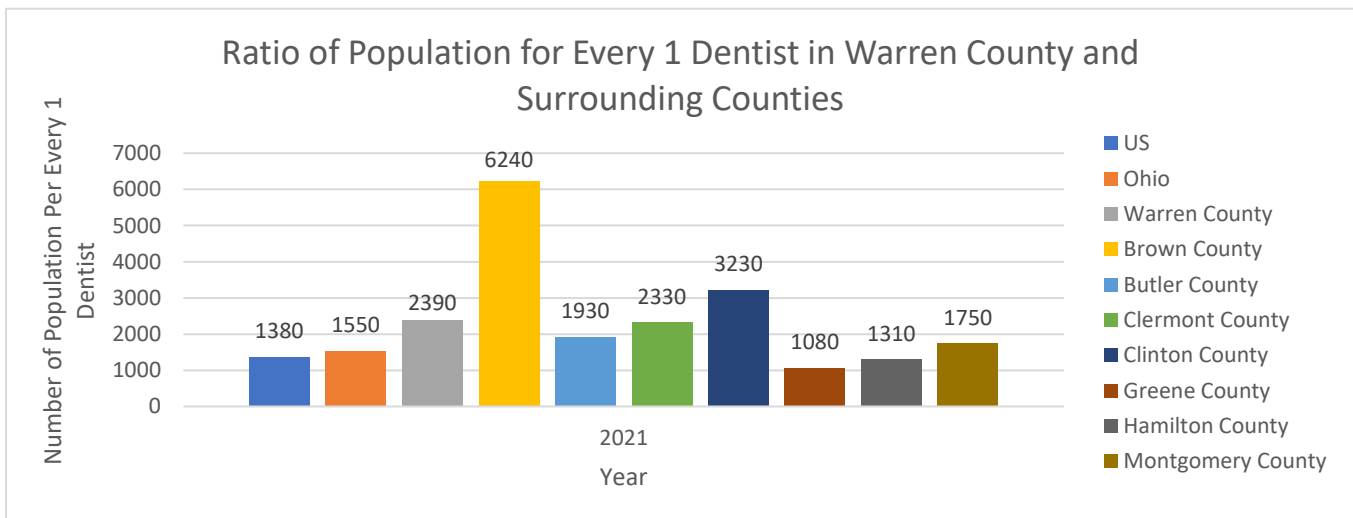
Primary Care Physicians refer to the ratio of population to primary care physicians. Access to care requires not only financial coverage, but also access to providers. While high rates of specialist physicians have been shown to be associated with higher (and perhaps unnecessary) utilization, sufficient availability of primary care physicians is essential for preventative and primary care and, when needed, referrals to appropriate specialty care. In Warren County, there is 1 primary care physician per 1,100 peoples in the county (Area Health Resource File/American Medical Association, 2020).

Warren County	Ohio	US	Rank
1,100:1	1,290:1	1,310:1	9 th

iii. Dentists

Dentists refer to the ratio of population to dentists. Untreated dental disease can lead to serious health effects including pain, infection, and tooth loss. In Warren County, there is 1 dentist per 2,390 people registered in the county (Area Health Resource/National Provider Identifier Downloadable File, 2021).

Warren County	Ohio	US	Rank
2,390:1	1,550:1	1,380:1	48 th

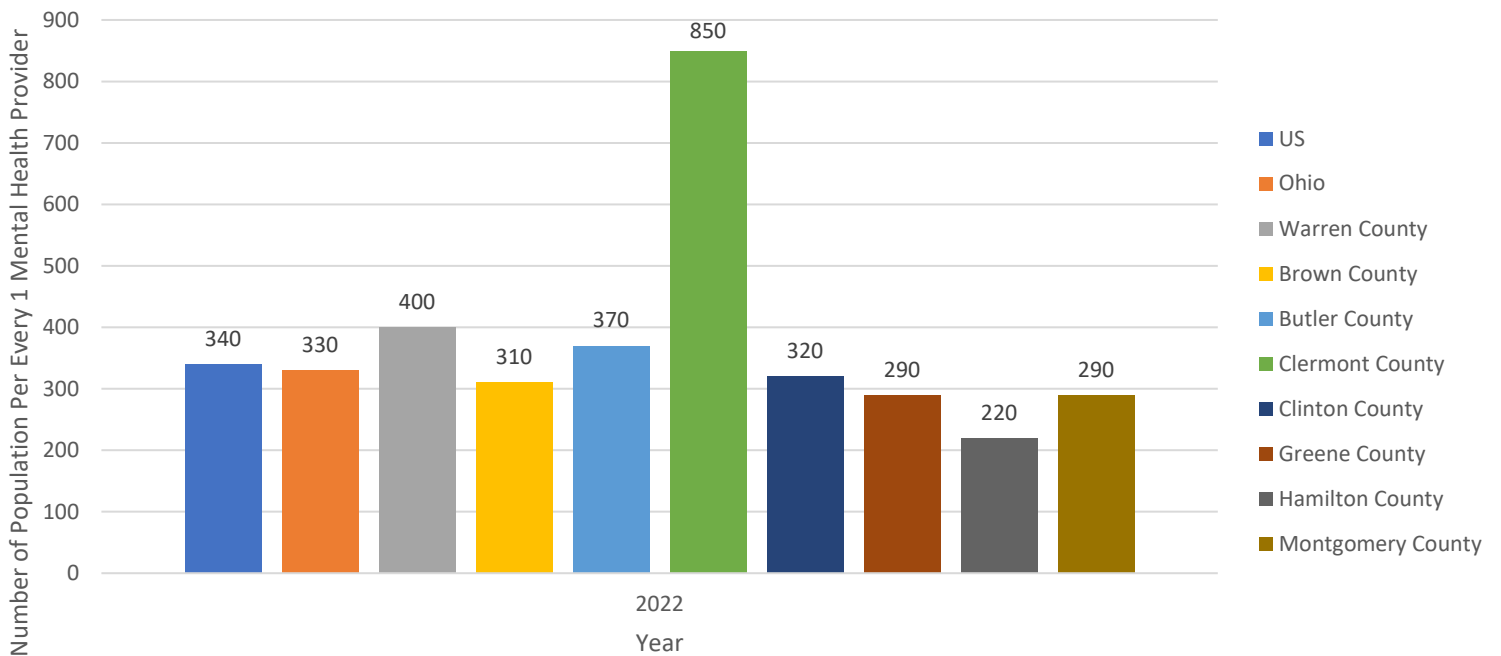


iv. Mental Health Providers

Mental Health Providers refers to the ratio of population to mental health providers. Access to care requires not only financial coverage, but also access to providers. In Warren County, there is 1 mental health provider per 400 people registered in the county (CMS, National Provider Identification, 2022).

Warren County	Ohio	US	Rank
400:1	330:1	340:1	25 th

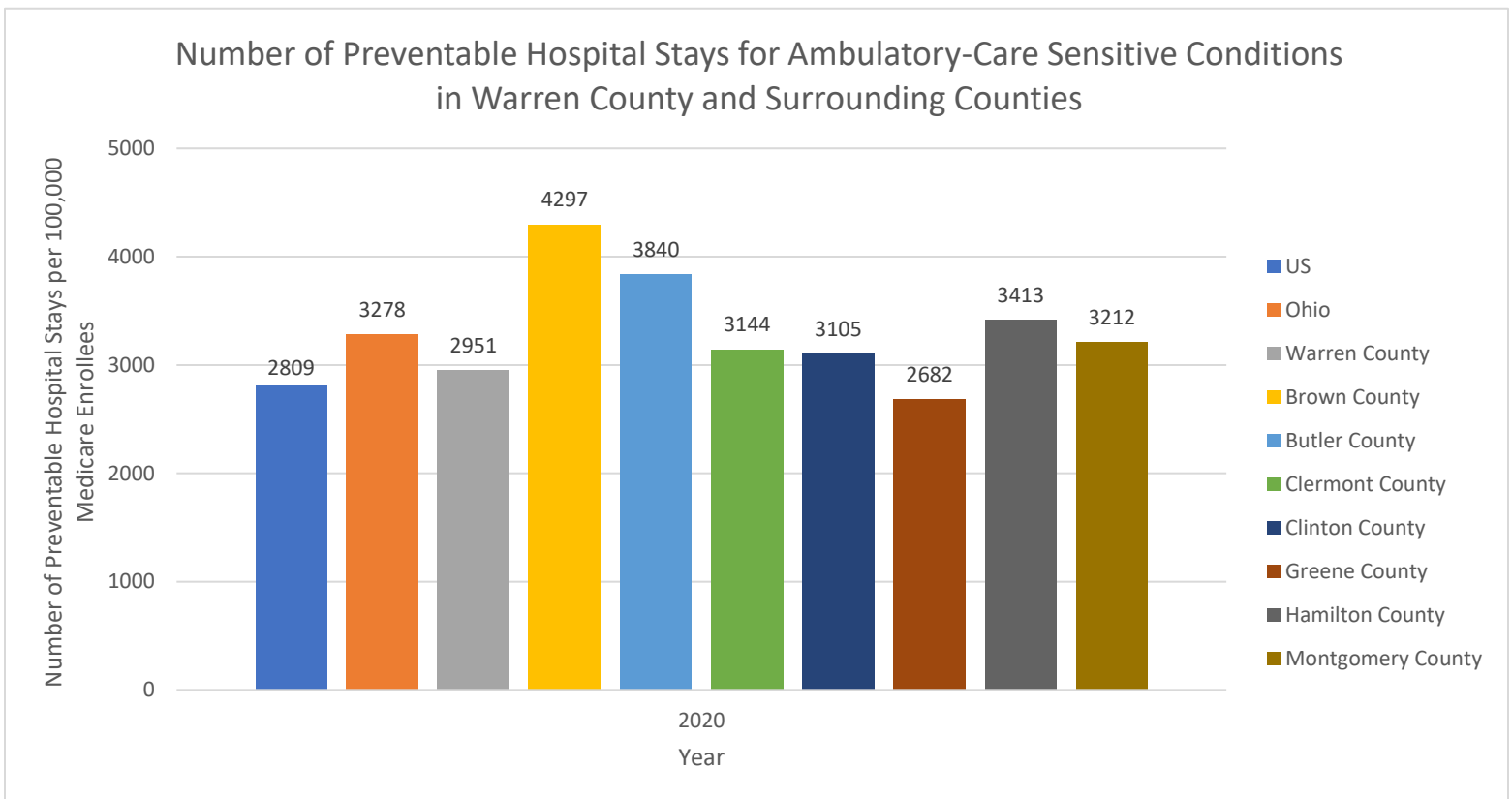
Ratio of Population for Every 1 Mental Health Provider in Warren County and Surrounding Counties



v. Preventable Hospital Stays

Preventable Hospital Stays refers to the rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees. Hospitalization for ambulatory-care sensitive conditions, which include diagnoses usually treatable in outpatient settings, suggests that quality outpatient care was not accessible. This measure may also represent a tendency to overuse emergency rooms and urgent care as a main source of care. In Warren County, there are 2,951 hospital stays per 100,000 people enrolled in Medicare that might have been prevented by outpatient treatment (Mapping Medicare Disparity Tool, 2020).

Warren County	Ohio	US	Rank
2,951	3,278	2,809	30 th



vi. Mammography Screening

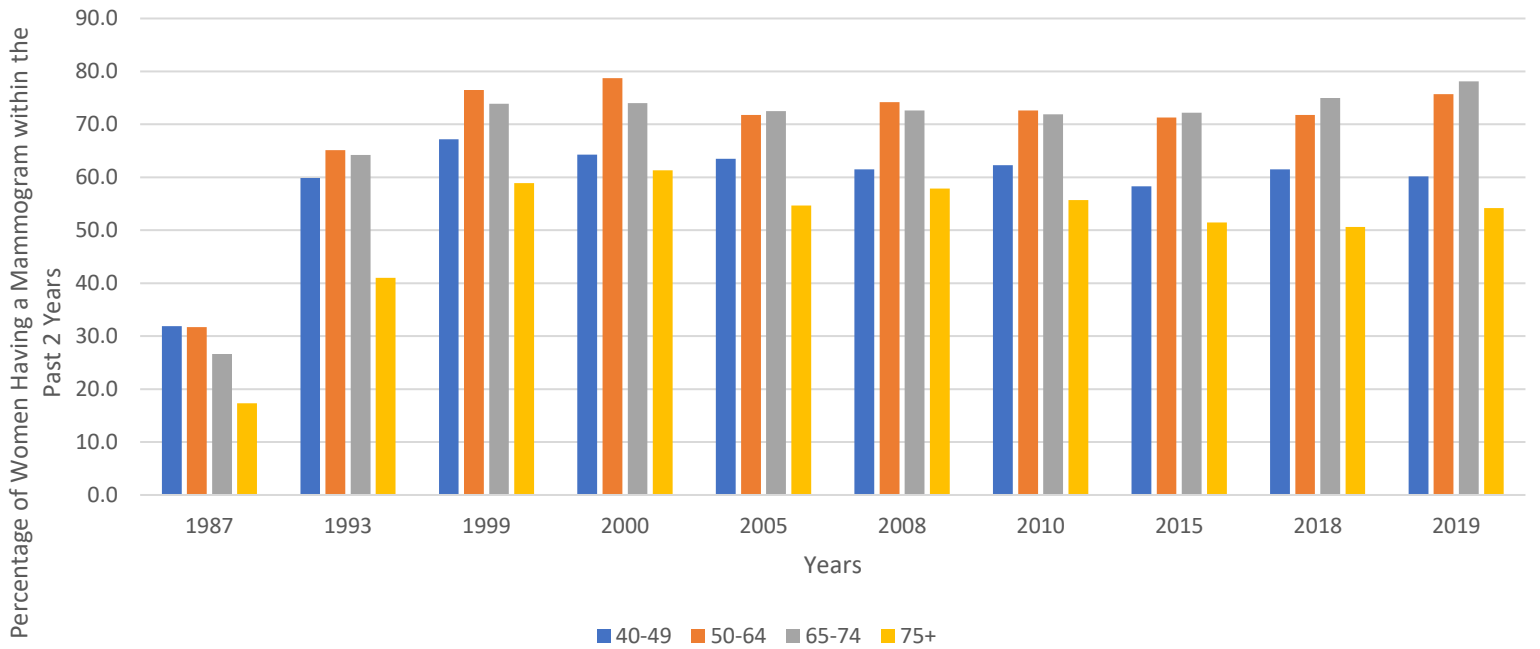
Mammography Screening refers to the percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening. Evidence suggests that mammography screening reduces breast cancer mortality, especially among older women. Currently, women ages 45-54 are recommended to get mammograms every year, and women 55 and older are recommended to get mammograms every 2 years. In Warren County, 44% of female Medicare enrollees received an annual mammography screening (Mapping Medicare Disparities Tool, 2020). For this measure, Warren County ranked 3rd overall. In Ohio, there were a total of 10 counties that had a higher percentage of mammography screenings among female Medicare enrollees ages 65-74.

Warren County	Ohio	US	Rank
44%	40%	37%	3 rd

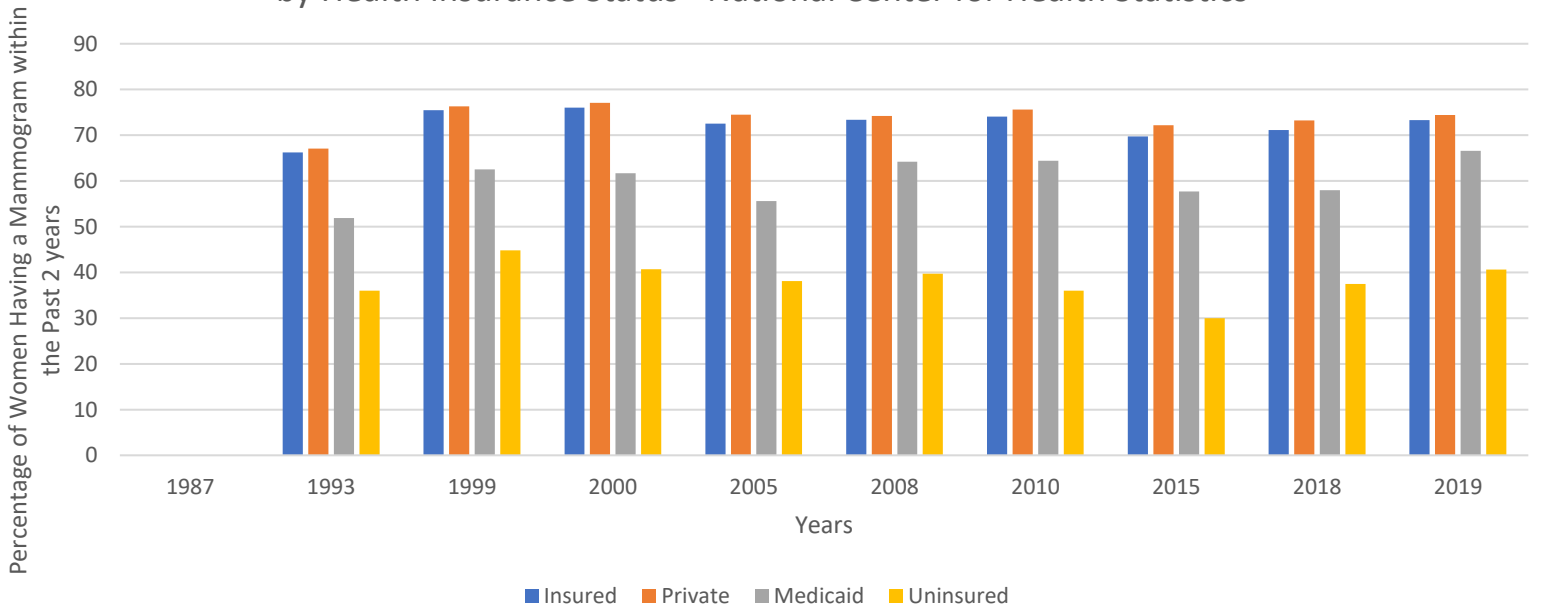
Below are graphs created from the data available at the National Center for Health Statistics (Centers for Disease Control and Prevention, 2020-2021). The graphs show the use of mammography among women aged 40 and over, by selected characteristics which include age group and health insurance status².

² Health insurance categories are mutually exclusive. People who reported both Medicaid and private coverage are classified as having private coverage. Starting with 1997 data, state-sponsored health plan coverage is included as Medicaid coverage. Starting with 1999 data, coverage by the Children’s Health Insurance program (CHIP) is included as Medicaid coverage. In addition to private and Medicaid, the insured category includes military plans, other government-sponsored health plans, and Medicare. People not covered by private insurance, Medicaid, CHIP, public assistance (through 1996), state-sponsored or other government-sponsored health plans (starting in 1997), Medicare or military plans are considered to have no health insurance coverage. People with only Indian Health Service coverage are considered to have no health insurance coverage.

Percentage of Women Having a Mammogram within the Past 2 Years by Age Group - National Center for Health Statistics



Percentage of Women (Aged 40-64) Having a Mammogram within the Past 2 Years by Health Insurance Status - National Center for Health Statistics



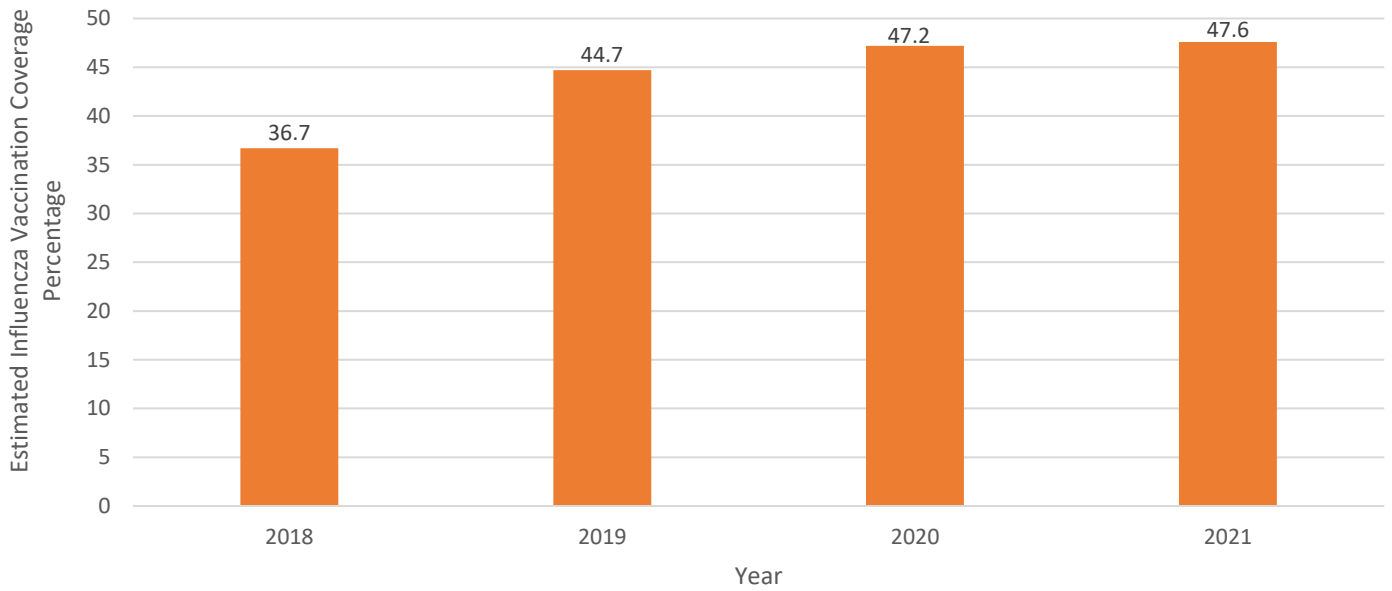
vii. Flu Vaccinations

Flu Vaccinations refer to the percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination. Influenza is a potentially serious disease that can lead to hospitalization and even death. An annual flu vaccine is the best way to protect against influenza and may reduce the risk of flu illness, flu-related hospitalizations, and even flu-related death. In Warren County, 56% of Medicare enrollees received an annual flu vaccine (Mapping Medicare Disparities Tool, 2020). For this measure, Warren County ranked 5th overall. In Ohio, there were a total of 14 counties that had a higher percentage of flu vaccinations among Medicare enrollees.

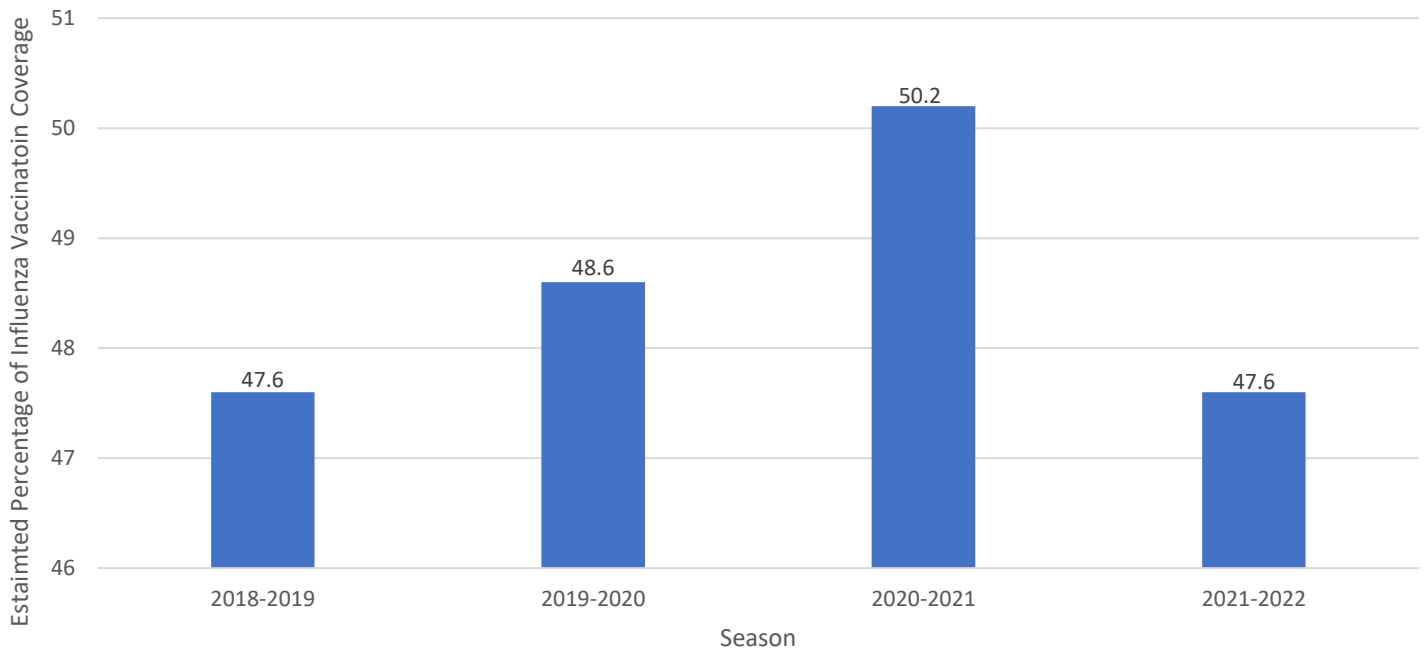
Warren County	Ohio	US	Rank
56%	53%	51%	5 th

Below are graphs created from the data available at the FluVaxView (Prevention, FluVaxView Interactive!, 2021). The graphs show the influenza vaccination coverage for adults (18 years and older) in the State of Ohio and Warren County.

Influenza Vaccination Coverage Among Persons Age 18 and Older in Warren County



End-of-Season Influenza Vaccination Coverage Among Persons Age 18 and Older in Ohio



c. [Social & Economic Factors](#)

Social & Economic factors affect how well and long we live, and include factors such as income, education, employment, community safety and social support.

i. [High School Completion](#)

High School Completion refers to the percentage of adults ages 25 and over with a high school diploma or equivalent. The relationship between education and improved health outcomes is well known, with a high school degree correlating strongly with higher life expectancies and improved quality of life. In Warren County, 95% of adults (ages 25 or older) had a high school degree or equivalent, such as GED (American Community Survey, 5-Year Estimates, 2017-2021).

Warren County	Ohio	US	Rank
95%	91%	89%	2 nd

ii. [Some College](#)

Some College refers to the percentage of adults ages 25-44 with some post-secondary education. The relationship between higher education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles. In Warren County, 73% of adults (age 25-44) have completed some post-secondary education, including vocational/technical schools, junior colleges, or four-year-colleges (American Community Survey, 5 Year Estimates, 2017-2021). This includes those who had and had not attained degrees.

Warren County	Ohio	US	Rank
73%	66%	67%	4 th

iii. [Unemployment](#)

Unemployment refers to the percentage of the population aged 16 and older unemployed but seeking work. The unemployed population experiences worse health and higher mortality rates than the employed population. Unemployment has been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors, which in turn can lead to increased risk for disease or mortality, especially suicide. In Warren County, 4% of people aged 16 and older were unemployed but seeking work (Bureau of Labor Statistics, 2021). For this measure, Warren County ranked 9th overall. In Ohio, there were a total of 11 counties that had a lower percentage of unemployment.

Warren County	Ohio	US	Rank
4%	5.1%	5.4%	9 th

iv. [Children in Poverty](#)

Children in Poverty refers to the percentage of people under age 18 in poverty. This measure captures an upstream measure of poverty that assesses both current and future health risk. Poverty and other social factors contribute to a number of deaths comparable to leading causes of death in the United States like heart attacks, strokes, and lung cancers. Children living in low-income households have an increased risk of injury as a result of unsafe environments and are susceptible to more frequent and severe chronic conditions and their complications such as asthma, obesity, diabetes, ADHD, behavior disorders, and anxiety, than children living in high income households. In Warren County, 6% of children lived in poverty (Small Area Income and Poverty Estimates, 2021).

Warren County	Ohio	US	Rank
6%	18%	17%	2 nd

v. [Income Inequality](#)

Income Inequality refers to the ratio of household income at the 80th percentile to income at the 20th percentile. Income inequality within U.S. communities can have broad health impacts, including increased risk of mortality, poor health, and increased cardiovascular disease risks. Communities with greater income inequality can experience a loss of social connectedness, as well as decreases in trust, social support, and a sense of community for all residents. In Warren County, households with higher incomes had income 3.7 times that of households with lower incomes (American Community Survey, 5-Year Estimate, 2017-2021). For this measure, Warren County ranked 6th overall. In Ohio, there were a total of 17 counties that had a lower ratio of household income at the 80th percentile to income at the 20th percentile.

Warren County	Ohio	US	Rank
3.7	4.6	4.9	6 th

vi. [Children in Single Parent Households](#)

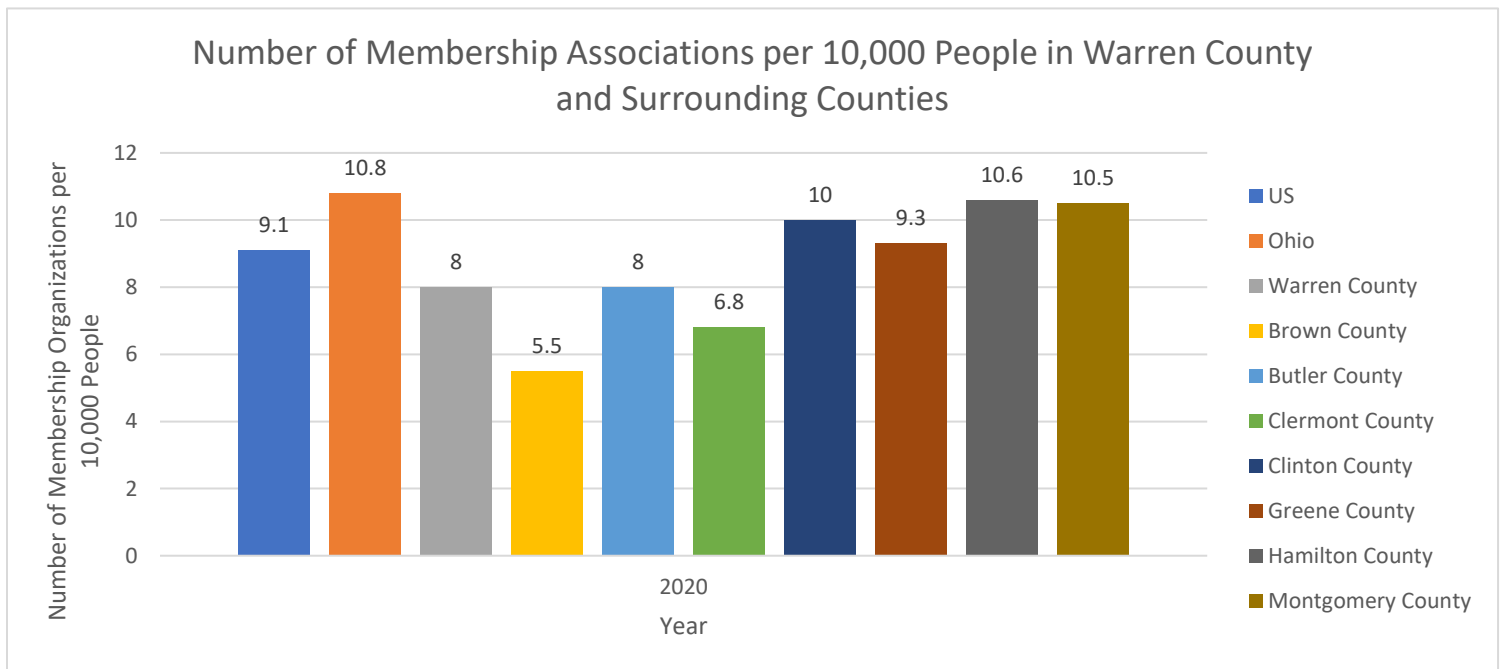
Children in Single Parent Households refer to the percentage of children that live in a household headed by a single parent. Adults and children in single-parent households are at risk for adverse health outcomes including mental illness (i.e., substance abuse, depression, suicide) and unhealthy behaviors (i.e., smoking, excessive alcohol use, food insecurity). In Warren County, 14% of children lived in a household headed by a single parent (American Community Survey, 5-Year Estimate, 2017-2021). For this measure, Warren County ranked 5th overall. In Ohio, there were a total of 9 counties that had a lower percentage of children in single parent households.

Warren County	Ohio	US	Rank
14%	27%	25%	5 th

vii. Social Associations

Social Associations refer to the number of membership organizations per 10,000 population. Minimal contact with others and limited involvement in community life are associated with increased morbidity and early mortality. Social support networks have been identified as powerful predictors of health behaviors, suggesting that individuals without a strong social network are less likely to make healthy lifestyle choices than individuals with a strong network. In Warren County, there were 8.0 membership organizations per 10,000 people. These include civic, political, religious, sports, and professional organizations (County Business Patterns, 2020). For this measure, Warren County ranked 56th overall. In Ohio, there were a total of 79 counties that had a higher number of membership organizations per 10,000 population.

Warren County	Ohio	US	Rank
8.0	10.8	9.1	56 th



viii. Injury Deaths

Injury Deaths refer to the number of deaths due to injury per 100,000 population. Injuries happen when a place is unsafe or when people engage in unsafe behaviors. Injuries may be intentional or unintentional: intentional injuries are usually related to violence caused by oneself or by another; unintentional injuries are accidental in nature. In Warren County, there were 66 deaths due to injury such as homicides, suicides, motor vehicle crashes and poisonings per 100,000 people (National Center for Health Statistics – Mortality Files, 2016-2020).

Warren County	Ohio	US	Rank
66	96	76	9 th

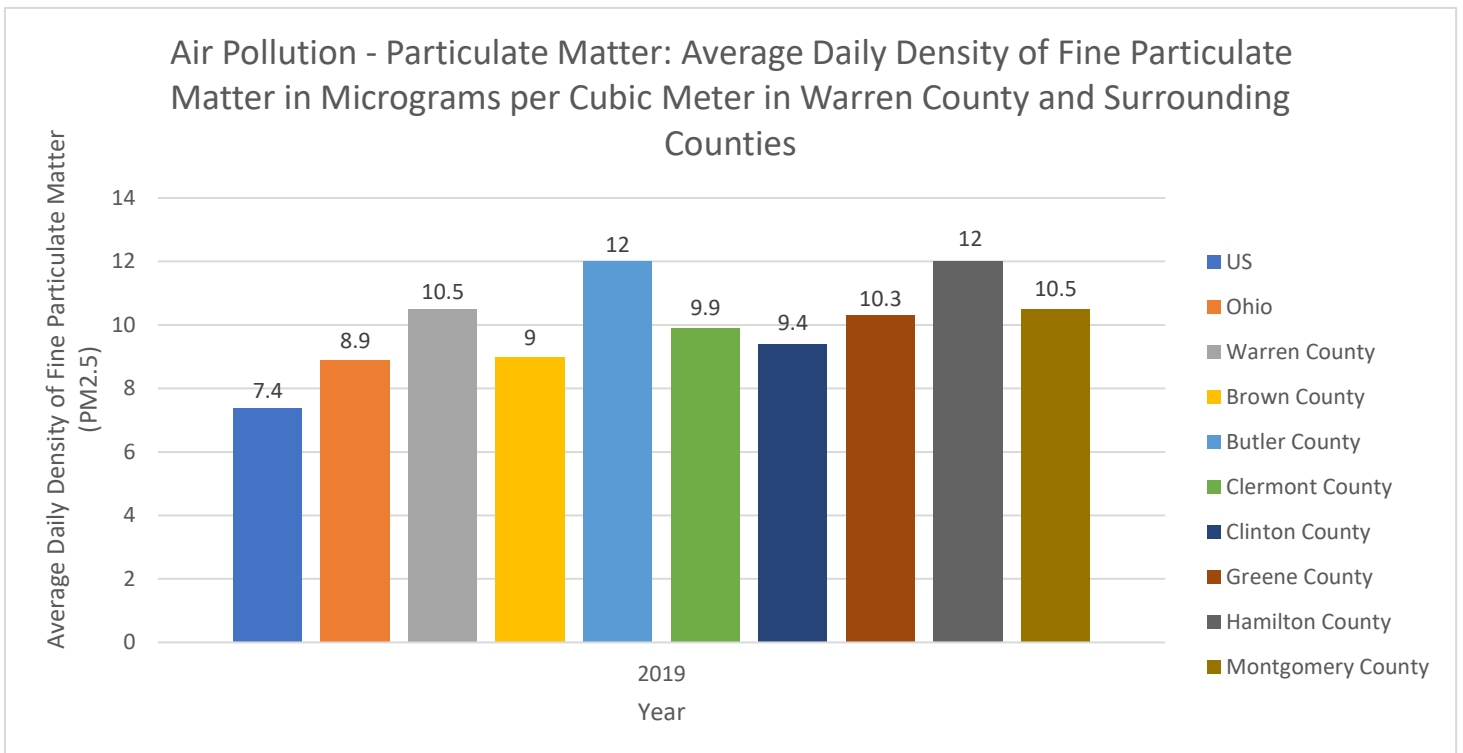
d. Physical Environment

Physical Environment refers to where individuals live, learn, work, and play. People interact with their physical environment through the air they breathe, the water they drink, the homes in which they live, and the transportation they use. Air pollution is associated with increased asthma rates and lung diseases, and an increase in premature deaths from heart and lung disease.

i. Air Pollution – Particulate Matter

Air Pollution – Particulate Matter refers to the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5). The relationship between elevated air pollution (especially fine particulate matter and ozone) and compromised health has been well documented. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. In Warren County, an annual average of 10.5 micrograms per cubic meter of fine particulate matter was measured in the air. The Environmental Protection Agency (EPA) has primary annual average standards of 12.0 micrograms per cubic meter (Environmental Public Health Tracking Network, 2019). For this measure, Warren County ranked 28th overall. In Ohio, there were a total of 84 counties that had a lower average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).

Warren County	Ohio	US	Rank
10.5	8.9	7.4	28 th



ii. Severe Housing Problems

Severe Housing Problems refer to the percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. When adequate housing protects individuals and families from harmful exposures and provides them with a sense of privacy, security, stability, and control, it can make important contributions to health. In contrast, poor quality and inadequate housing contributes to health problems such as infectious and chronic diseases, injuries, and poor childhood development. In Warren County, 9% of households experienced at least 1 of the following housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities (Comprehensive Housing Affordability Strategy (CHAS) data, 2015-2019). For this measure, Warren County ranked 4th overall. In Ohio, there were a total of 11 counties that had a lower percentage of severe housing problems.

Warren County	Ohio	US	Rank
9%	13%	17%	4 th

iii. Driving Alone to Work

Driving Alone to Work refers to the percentage of the workforce that drives alone to work. The transportation choices that communities and individuals make have important impacts on health through items such as active living, air quality, and traffic crashes. In Warren County, 80% of the workforce drives alone to work (American Community Survey, 5-Year Estimates, 2017-2021). For this measure, Warren County ranked 7th overall. In Ohio, there were a total of 17 counties that had a lower percentage of the workforce driving alone to work.

Warren County	Ohio	US	Rank
80%	80%	73%	7 th

iv. Long Commute – Driving Alone

Long Commute – Driving Alone refers to the percentage of workers who commute in their car alone, more than 30 minutes. Longer commuting distances in vehicles have been associated with an increase in blood pressure and body mass index, and a decrease in physical activity. In Warren County, 40% of workers who drive alone to work commute more than 30 minutes each way (American Community Survey, 5-Year Estimates, 2017-2021). For this measure, Warren County ranked 23rd overall. In Ohio, there were a total of 65 counties that had a lower percentage of the workforce driving alone to work more than 30 minutes.

Warren County	Ohio	US	Rank
40%	31%	37%	23 rd

Overall Health Factors Ranking:

County	Health Behaviors Rank 2023	Health Behaviors Rank 2022	Health Behaviors Rank 2021	Clinical Care 2023	Clinical Care 2022	Clinical Care 2021	Social & Economic Factors 2023	Social & Economic Factors 2022	Social & Economic Factors 2021	Physical Environment 2023	Physical Environment 2022	Physical Environment 2021
Auglaize	15	17	19	55	43	43	5	6	7	26	33	40
Delaware	1	1	1	1	1	1	1	1	1	75	26	24
Geauga	4	5	3	20	19	19	8	7	8	78	30	82
Greene	5	7	5	8	20	15	12	9	15	52	13	7
Hancock	9	4	11	14	17	18	13	14	10	5	8	64
Medina	6	3	4	4	6	4	7	8	6	19	11	10
Mercer	7	16	22	60	54	49	4	4	4	25	37	25
Putnam	8	10	17	23	12	11	3	2	3	69	68	11
Union	3	6	6	11	9	12	2	3	2	17	31	49
Warren	2	2	2	2	2	3	6	5	5	46	57	59
Wood	16	9	10	18	10	14	9	10	9	50	84	85

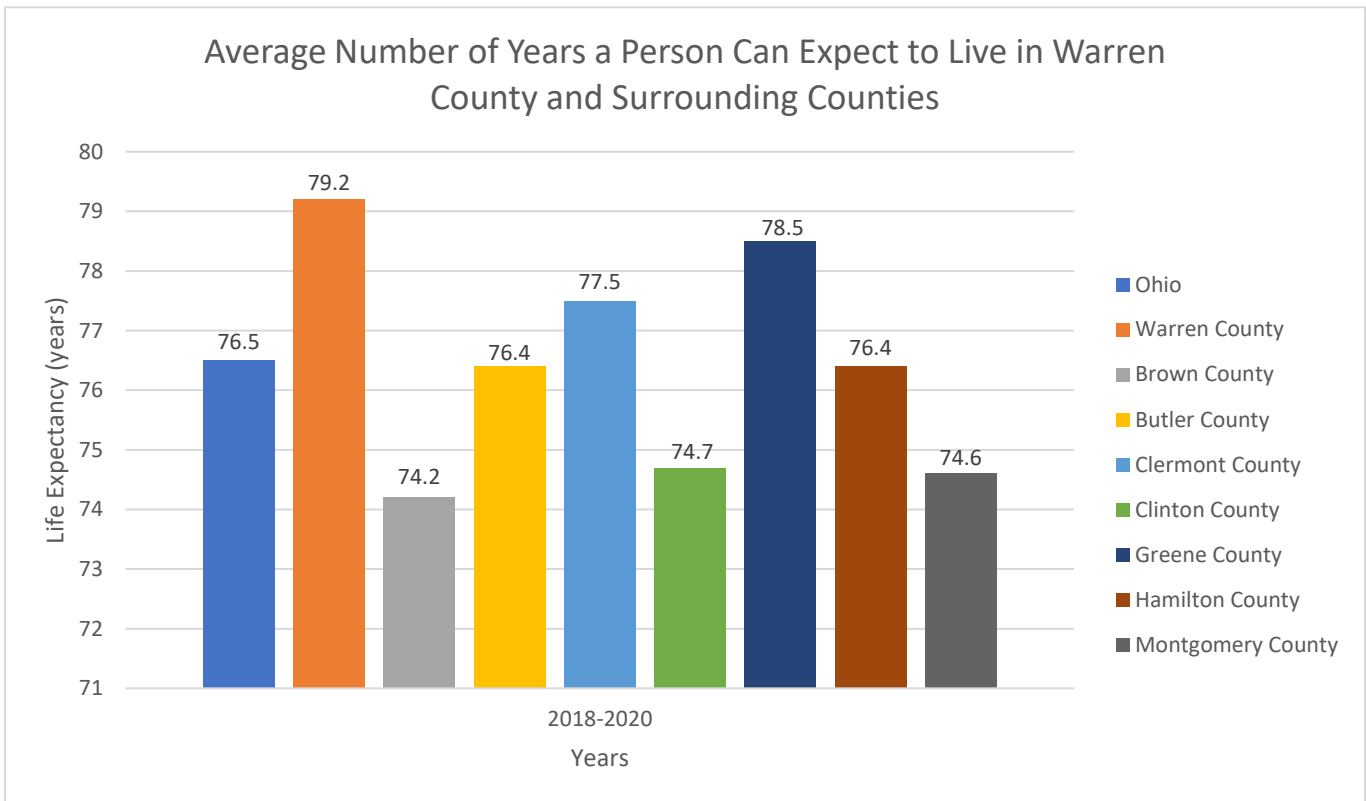
County	Health Factors Ranking 2023	Health Factors Ranking 2022	Health Factors Ranking 2021
Auglaize	10	11	11
Delaware	1	1	1
Geauga	7	6	4
Greene	6	8	7
Hancock	9	7	8
Medina	4	4	3
Mercer	8	9	10
Putnam	5	5	6
Union	2	3	5
Warren	3	2	2
Wood	11	10	9

III. Additional Measures – Do Not Contribute Towards Ranking

a. Life Expectancy

Life Expectancy is the average number of years a person can expect to live. This measure is an important population health outcome measure and can be easier to interpret than other mortality measures. In Warren County, the average life expectancy is 79.2 years (National Center for Health Statistics – Mortality Files, 2018-2020).

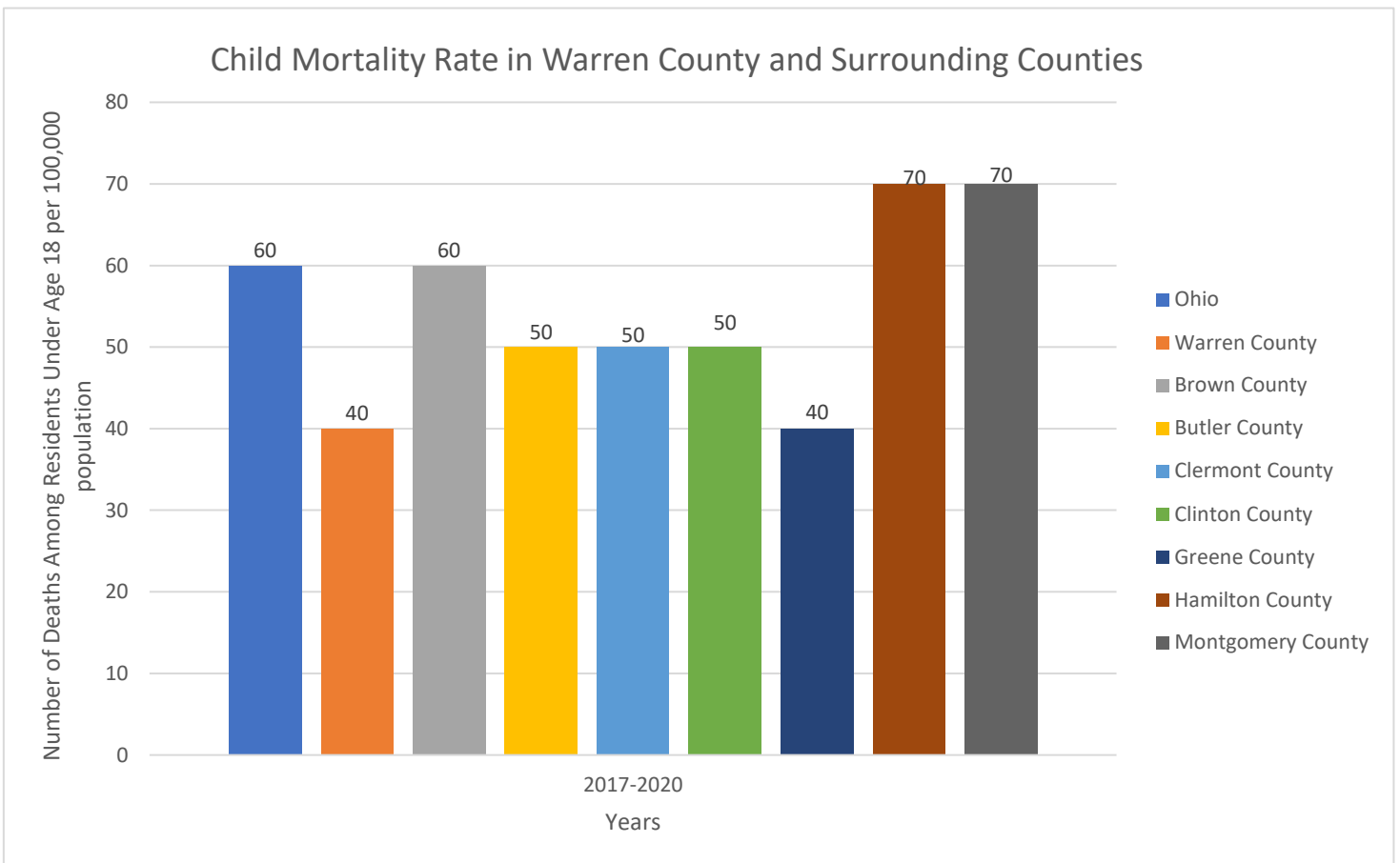
Warren County	Ohio	US
79.2	76.5	78.5



b. Child Mortality

Child Mortality is the number of deaths among residents under the age 18 per 100,000 population. The child mortality rate can have a large impact on years of potential life lost (YPLL), so it is an important measure to reference when interpreting a county’s YPLL rate. In Warren County, there were 40 deaths per 100,000 children under the age of 18 (National Center for Health Statistics – Mortality Files, 2017-2020).

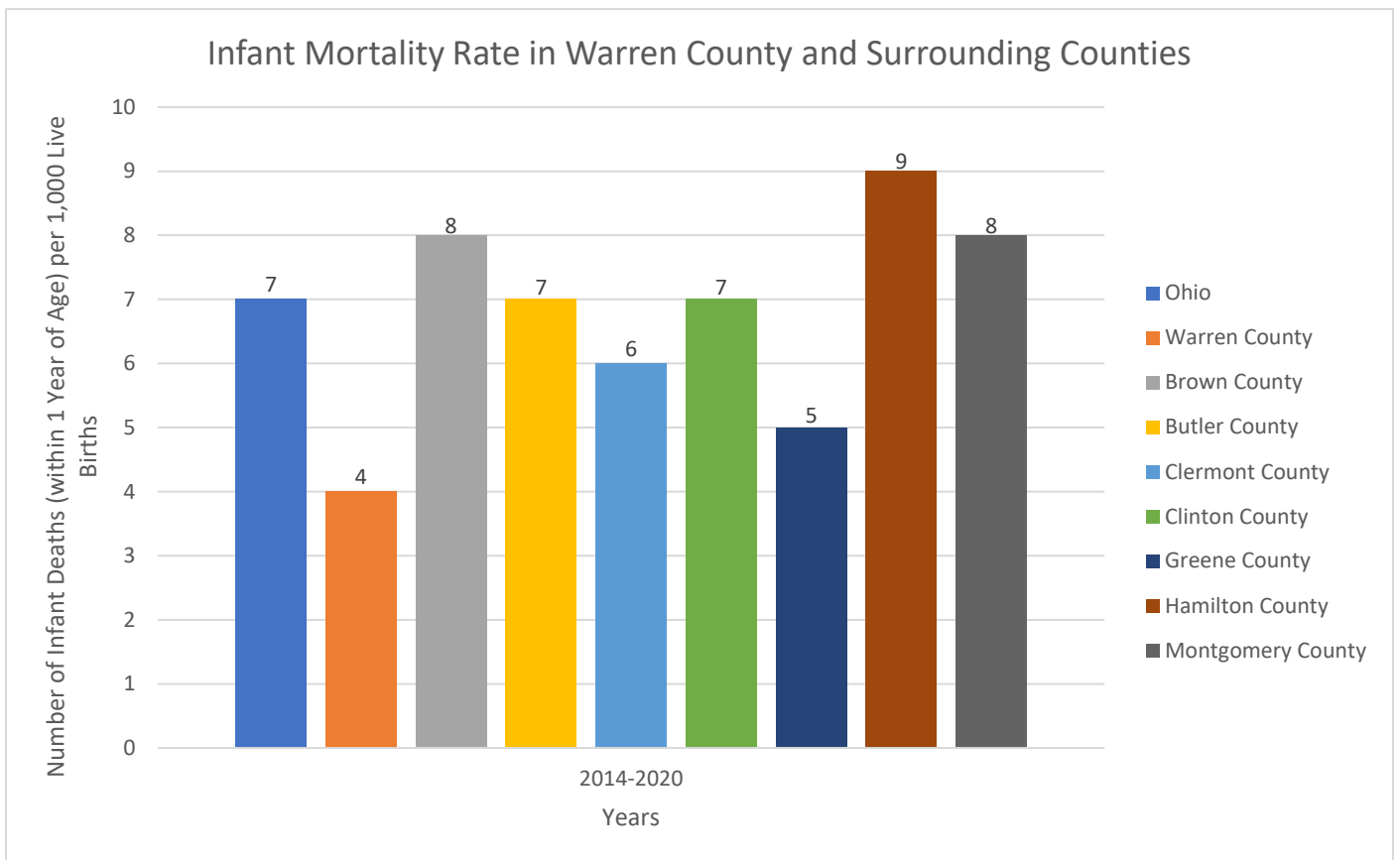
Warren County	Ohio	US
40	60	50



c. Infant Mortality

Infant Mortality is the number of deaths in infants less than 1 year of age per 1,000 live births. Infant Mortality represents the health of a vulnerable age group and can provide context to support interpretation of the years of potential life lost (YPLL) in a county. In Warren County, there were 4 deaths among infants less than 1 year of age per 1,000 live births (National Center for Health Statistics – Mortality Files, 2014-2020).

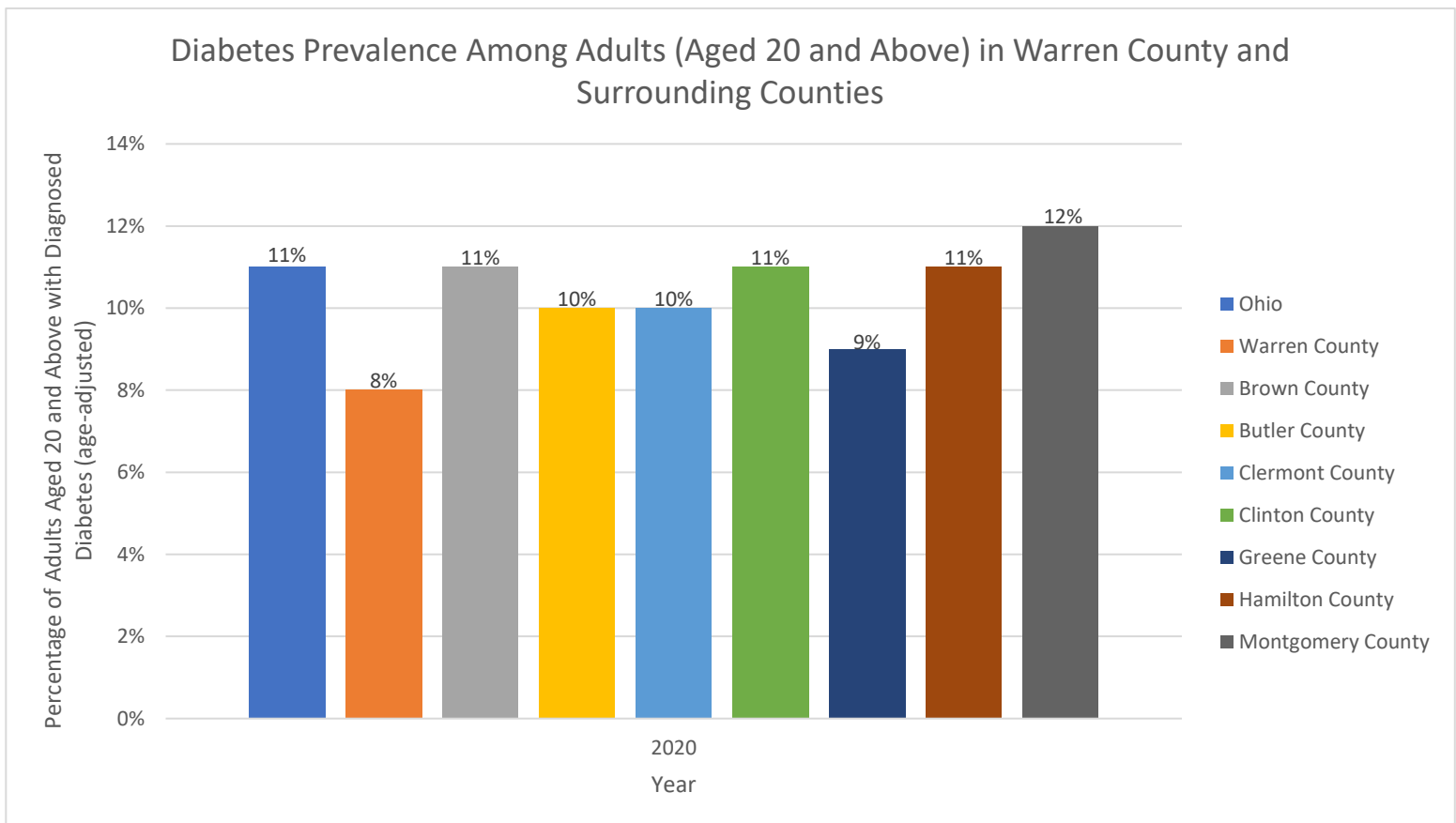
Warren County	Ohio	US
4	7	6



d. Diabetes Prevalence

Diabetes Prevalence refers to the percentage of adults aged 20 and above with diagnosed Type 1 or Type 2 diabetes (age-adjusted). Diabetes is a chronic condition known to have broad impacts on physical, social, and mental well-being, and causes significant morbidity and mortality in the United States. In Warren County, 8% of adults were living with a diagnosis of diabetes (Behavioral Risk Factor Surveillance System, 2020).

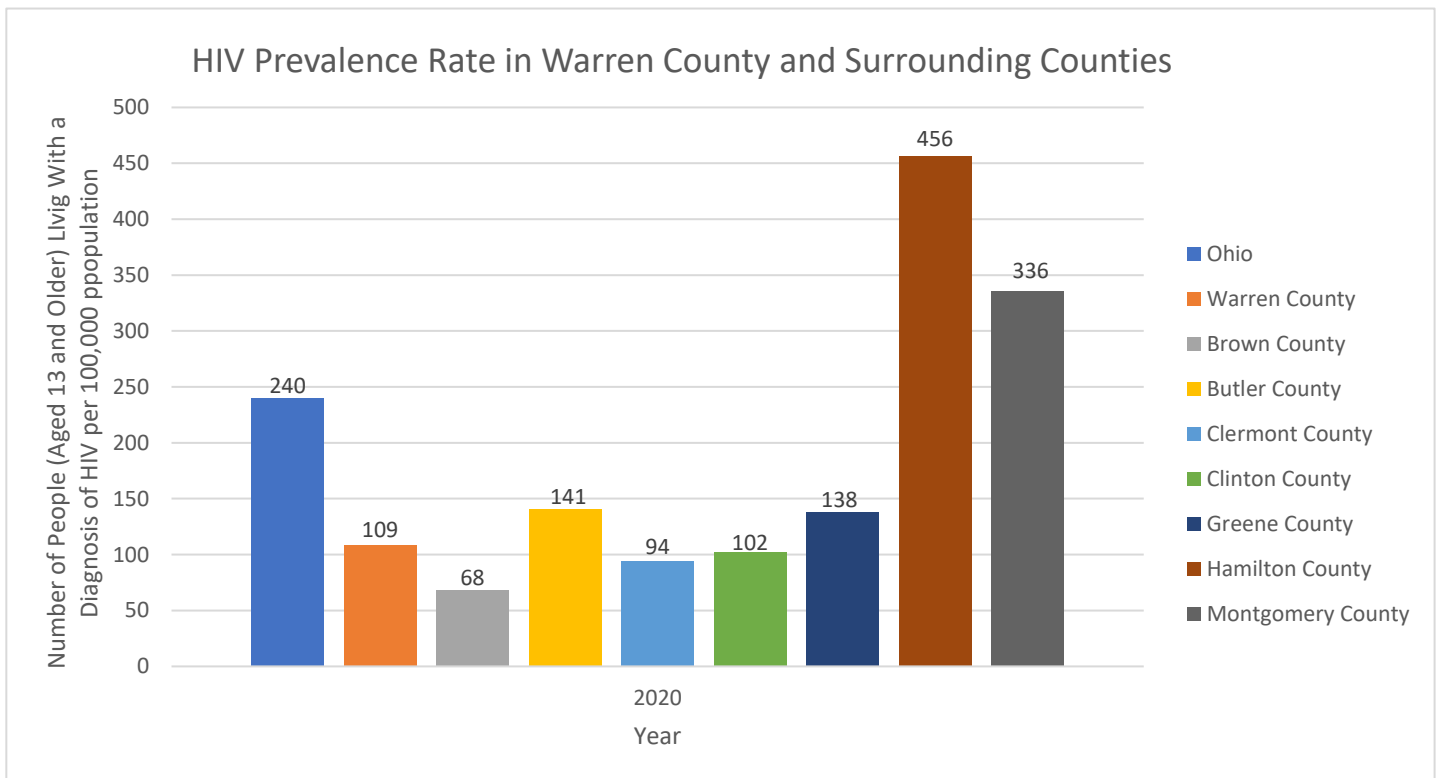
Warren County	Ohio	US
8%	11%	9%



e. HIV Prevalence

HIV Prevalence refers to the number of people aged 13 and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population. Prevalence of HIV can serve as a marker for environments leading to unsafe intravenous drug use, unprotected sex, lack of HIV treatment (antiretroviral therapy), or lack of HIV prevention medicines such as pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). In Warren County, 109 of every 100,000 residents (age 13 and above) are living with a diagnosis of HIV (National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2020).

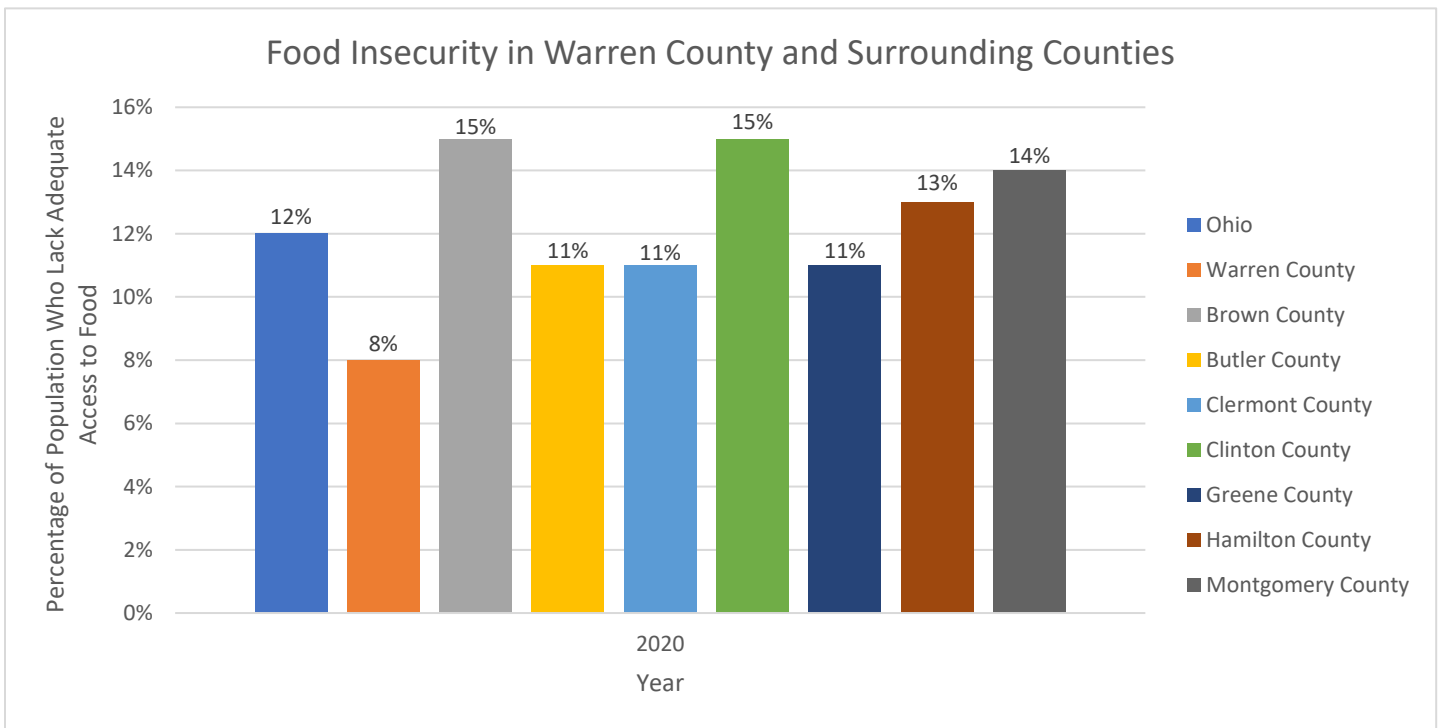
Warren County	Ohio	US
109	240	380



f. Food Insecurity

Food Insecurity refers to the percentage of the population who lack adequate access to food. Lacking consistent access to food is related to negative health outcomes such as weight-gain and premature mortality. In addition to asking about having a constant food supply, the measure also addresses the ability of individuals and families to provide balanced meals, including fruits and vegetables, further addressing barriers to healthy eating. In Warren County, 8% of people do not have a reliable source of food (Map the Meal Gap, 2020).

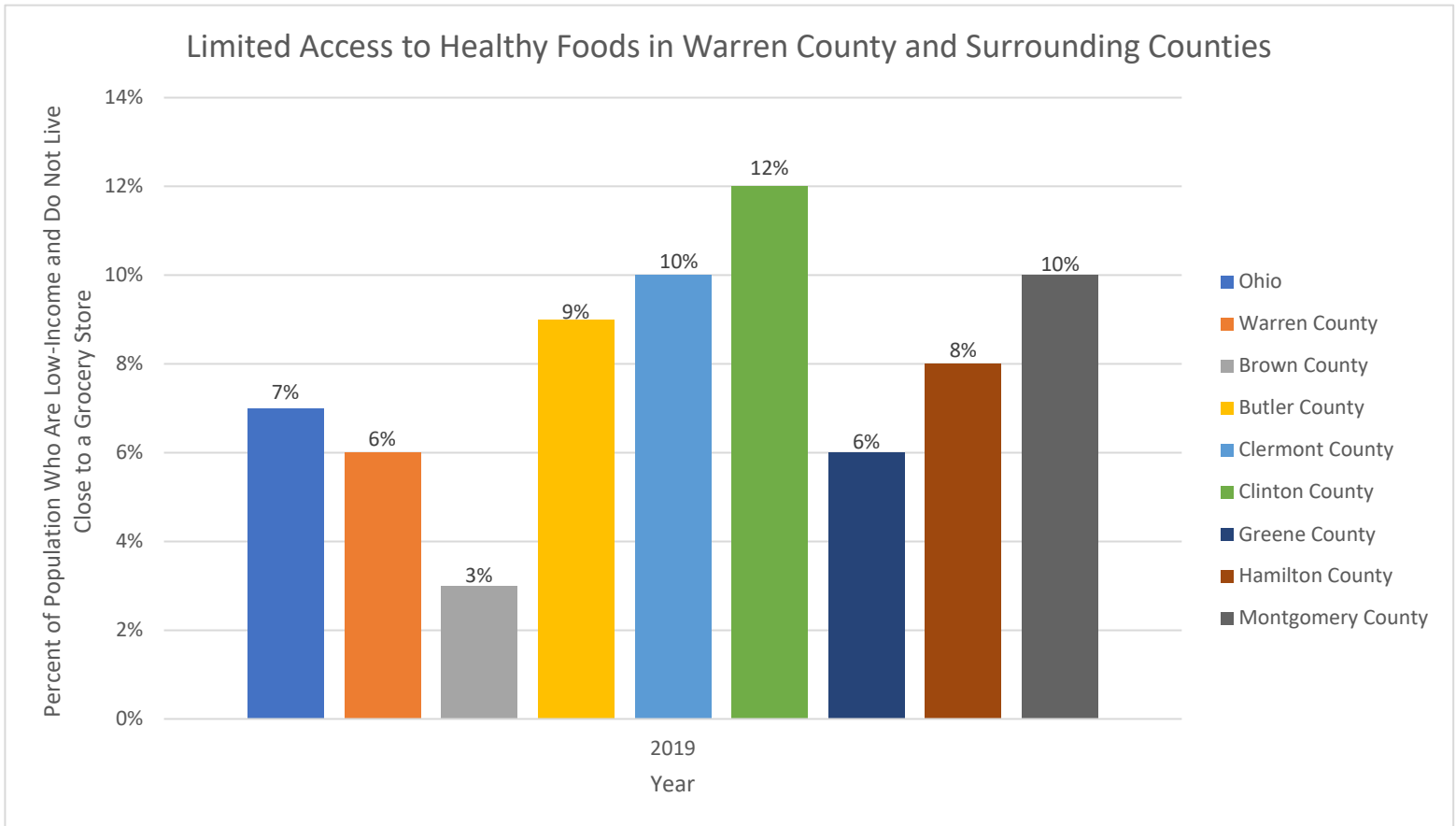
Warren County	Ohio	US
8%	12%	12%



g. Limited Access to Healthy Foods

Limited Access to Healthy Foods refers to the percentage of the population who are low-income and do not live close to a grocery store. Supermarkets traditionally provide healthier options than convenience stores or smaller grocery stores. There is strong evidence that residing in a food desert is correlated with a high prevalence of obesity and premature death. In Warren County, 6% of people who had low-income do not live close to a grocery store, limiting their ability to access healthy foods (USDA Food Environment Atlas, 2019).

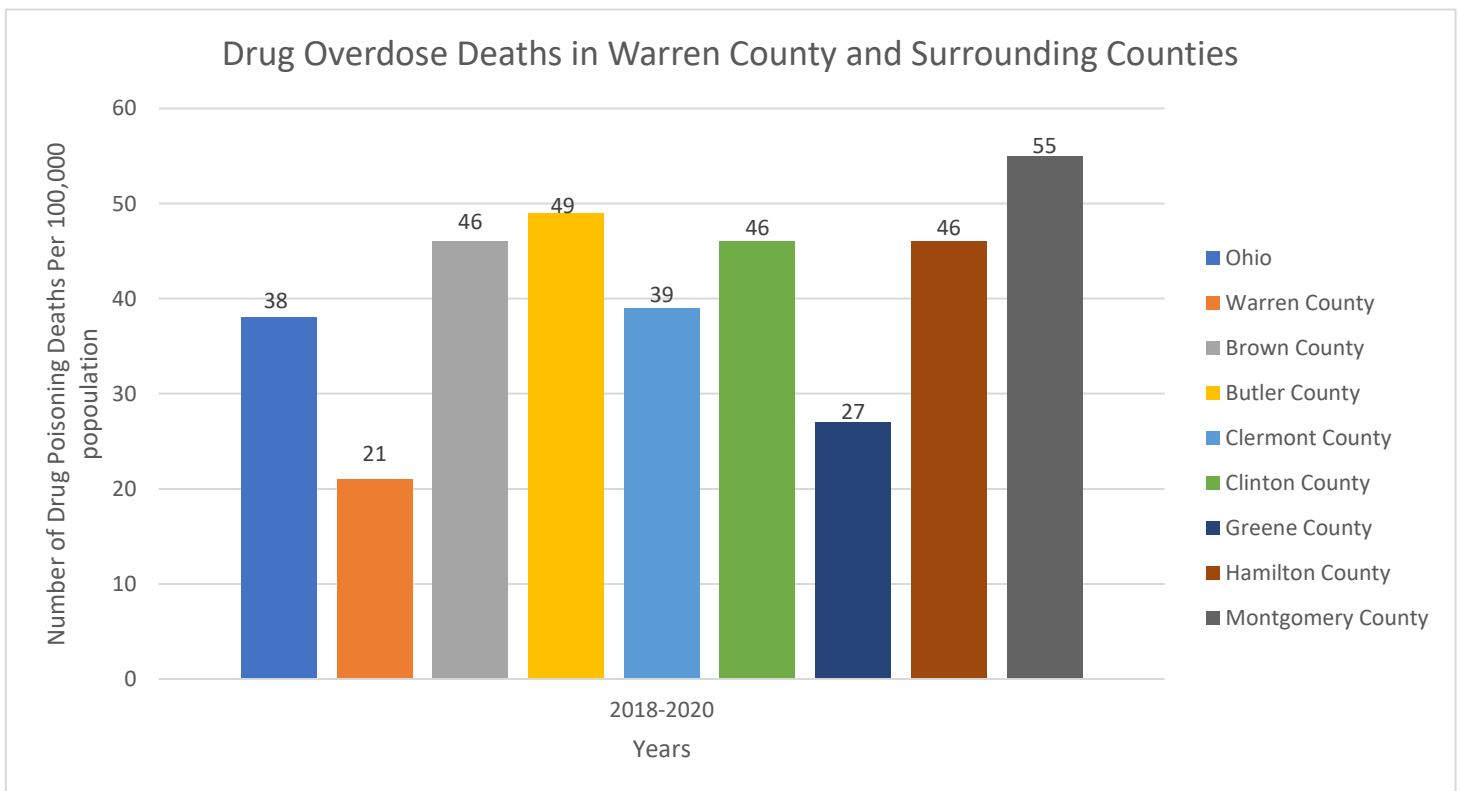
Warren County	Ohio	US
6%	7%	6%



h. Drug Overdose Deaths

Drug Overdose Deaths refer to the number of drug overdose deaths per 100,000 population. Drug overdose deaths are the leading contributor to premature death and are largely preventable. In Warren County, there were 21 drug overdose deaths per 100,000 people (National Center for Health Statistics – Mortality Files, 2018-2020).

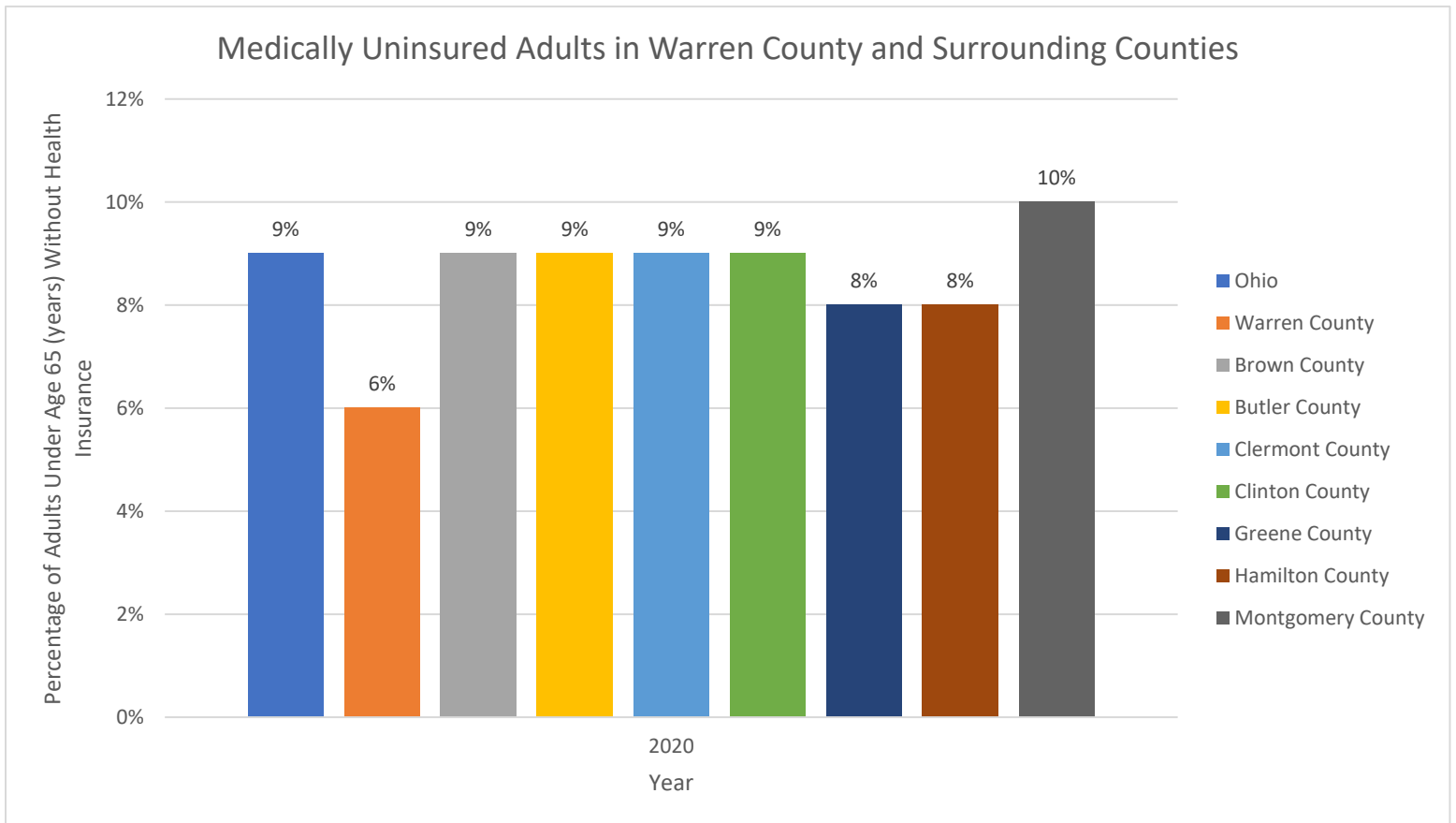
Warren County	Ohio	US
21	38	23



i. Medically Uninsured Adults

Uninsured Adults refers to the percentage of adults under age 65 without health insurance. Lack of health insurance coverage is a significant barrier to accessing needed healthcare and to maintaining financial security. In Warren County, 6% of adults under age 65 did not have insurance (Small Area Health Insurance Estimates, 2020).

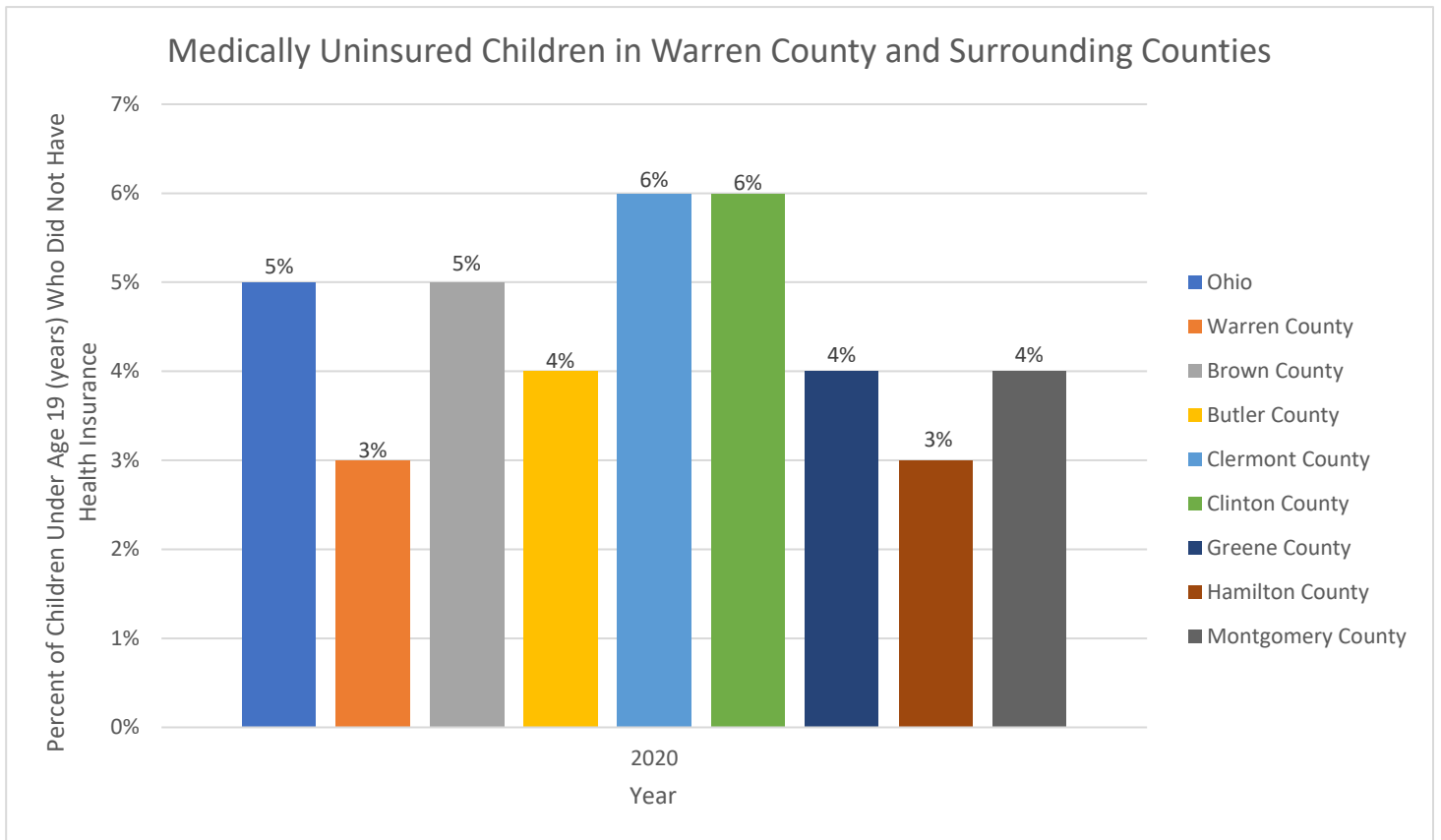
Warren County	Ohio	US
6%	9%	12%



j. Medically Uninsured Children

Uninsured Children refers to the percentage of children under age 19 without health insurance. Lack of health insurance coverage is a significant barrier to accessing needed healthcare and to maintaining financial security. Uninsured children are less likely to receive preventative care such as vaccinations and well child visits on time. In Warren County, 3% of children under age 19 did not have health insurance (Small Area Health Estimates, 2020).

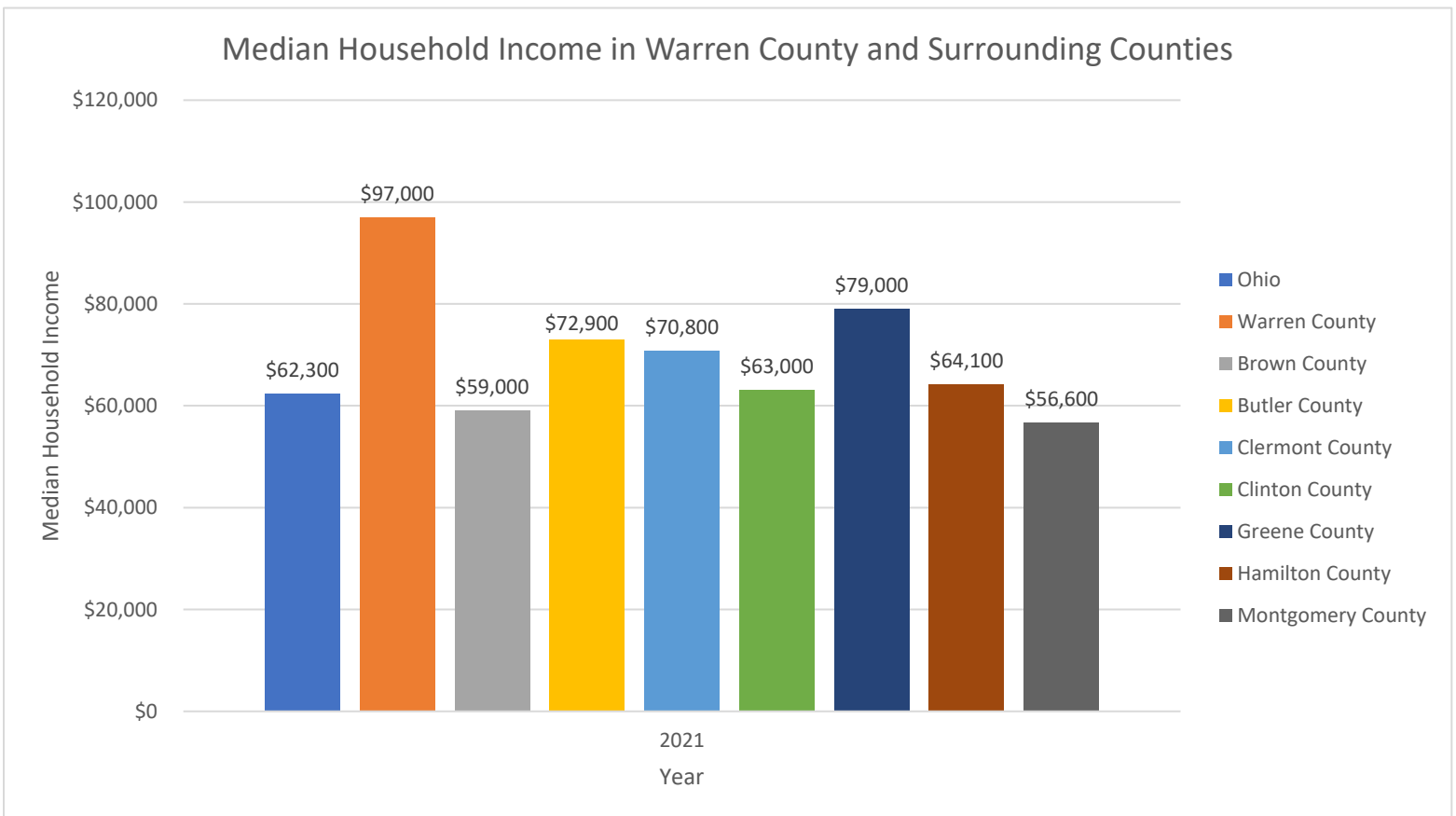
Warren County	Ohio	US
3%	5%	5%



k. Median Household Income

Median Household Income refers to the income where half of the households in a county earn more and half of the households earn less. This measure is a well-recognized indicator of income and poverty, which can affect physical and mental health. In Warren County, the median household income was \$97,000; half of all households had an annual income below that amount, and half had annual incomes above it (Small Area Income and Poverty Estimates, 2021).

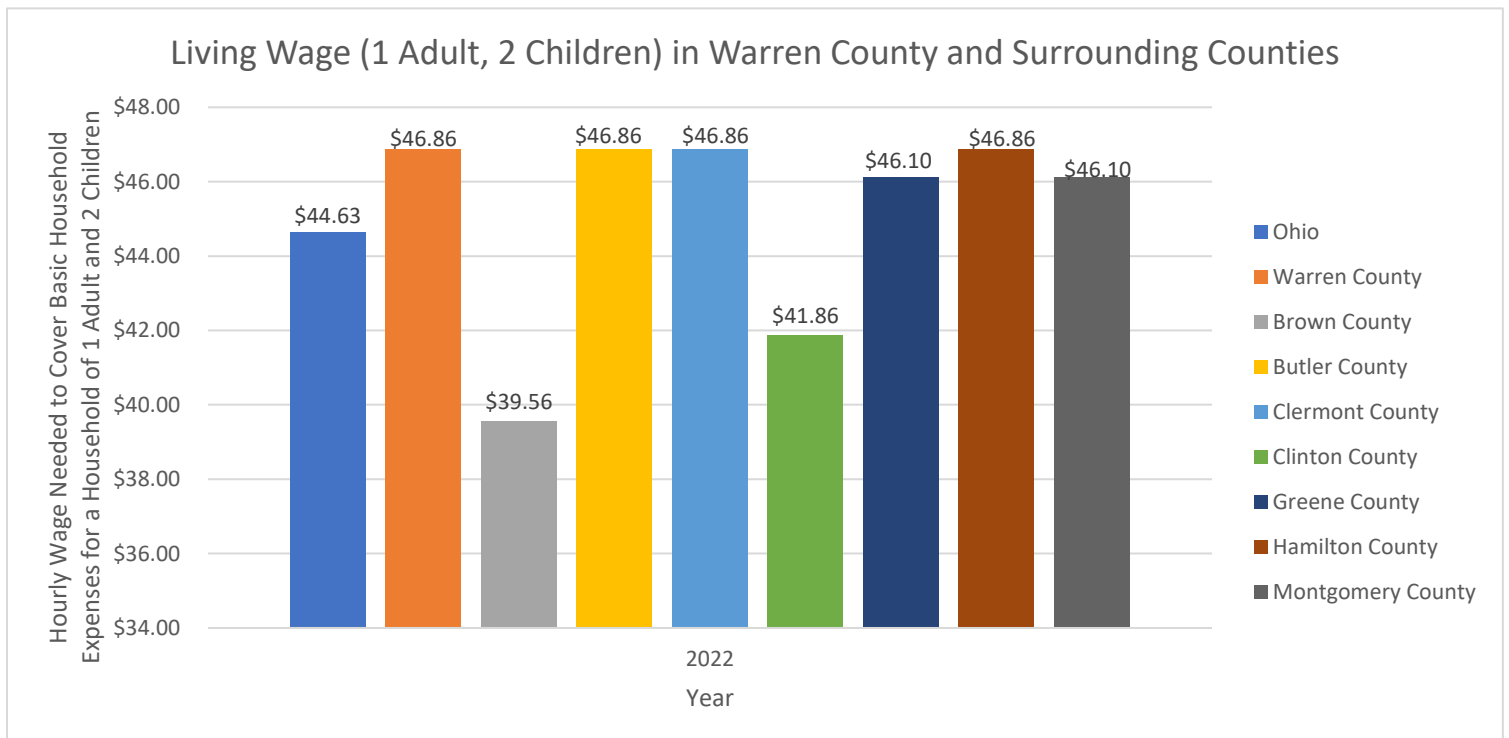
Warren County	Ohio	US
\$97,000	\$62,300	\$69,700



I. Living Wage

Living Wage refers to the hourly wage needed to cover basic household expenses plus all relevant taxes for a household of 1 adult and 2 children. This measure represents the minimum income necessary for financial independence to meet the basic needs of an individual or family without requiring public assistance in the form of income-conditioned benefits like the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI), Earned Income Tax Credit (EITC), and Temporary Assistance for Needy Families (TANF). The Living Wage measure specifically accounts for basic household needs, including food, childcare, health care, housing, transportation, and other necessities such as clothing, broadband service, and cell phone service. In Warren County, workers would need an hourly wage of \$46.86 to cover basic household expenses for a household of 1 adult and 2 children (The Living Wage Calculator, 2022).

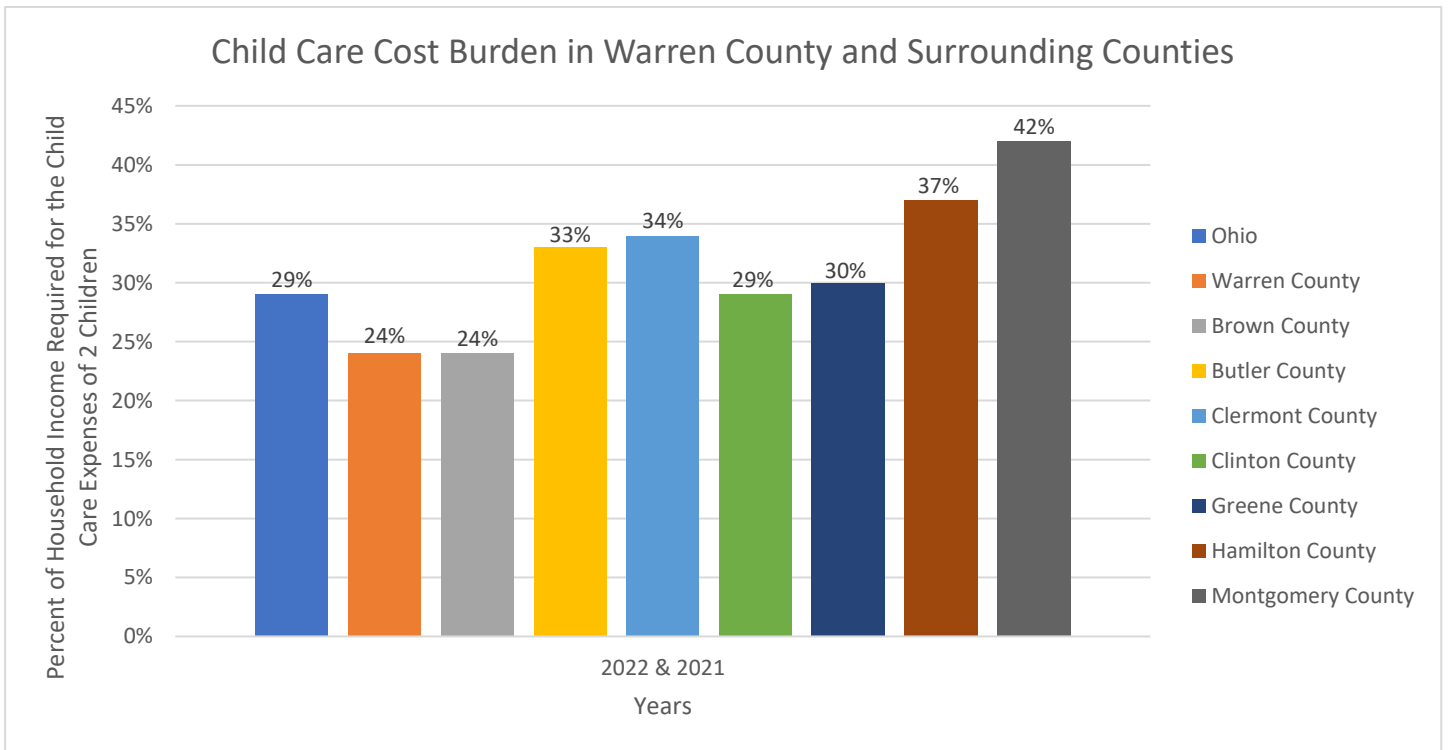
Warren County	Ohio	US
\$46.86	\$44.63	\$45.00



m. Child Care Cost Burden

Child Care Cost Burden refers to childcare costs for a household with 2 children as a percent of median household income. When childcare is affordable and accessible, it can increase opportunities for parents or guardians to pursue further education or participate in paid work to earn income, and in some cases, gain healthcare and retirement benefits to support their families. When much of a paycheck goes toward childcare expenses, households face difficult trade-offs in meeting other basic needs such as paying rent or mortgage, affording doctor visits, healthy foods, utility bills, and reliable transportation to work or school. In Warren County, the average household spent 24% of its income on childcare for 2 children (The Living Wage Calculator; Small Area Income and Poverty Estimates, 2022 & 2021).

Warren County	Ohio	US
24%	29%	27%

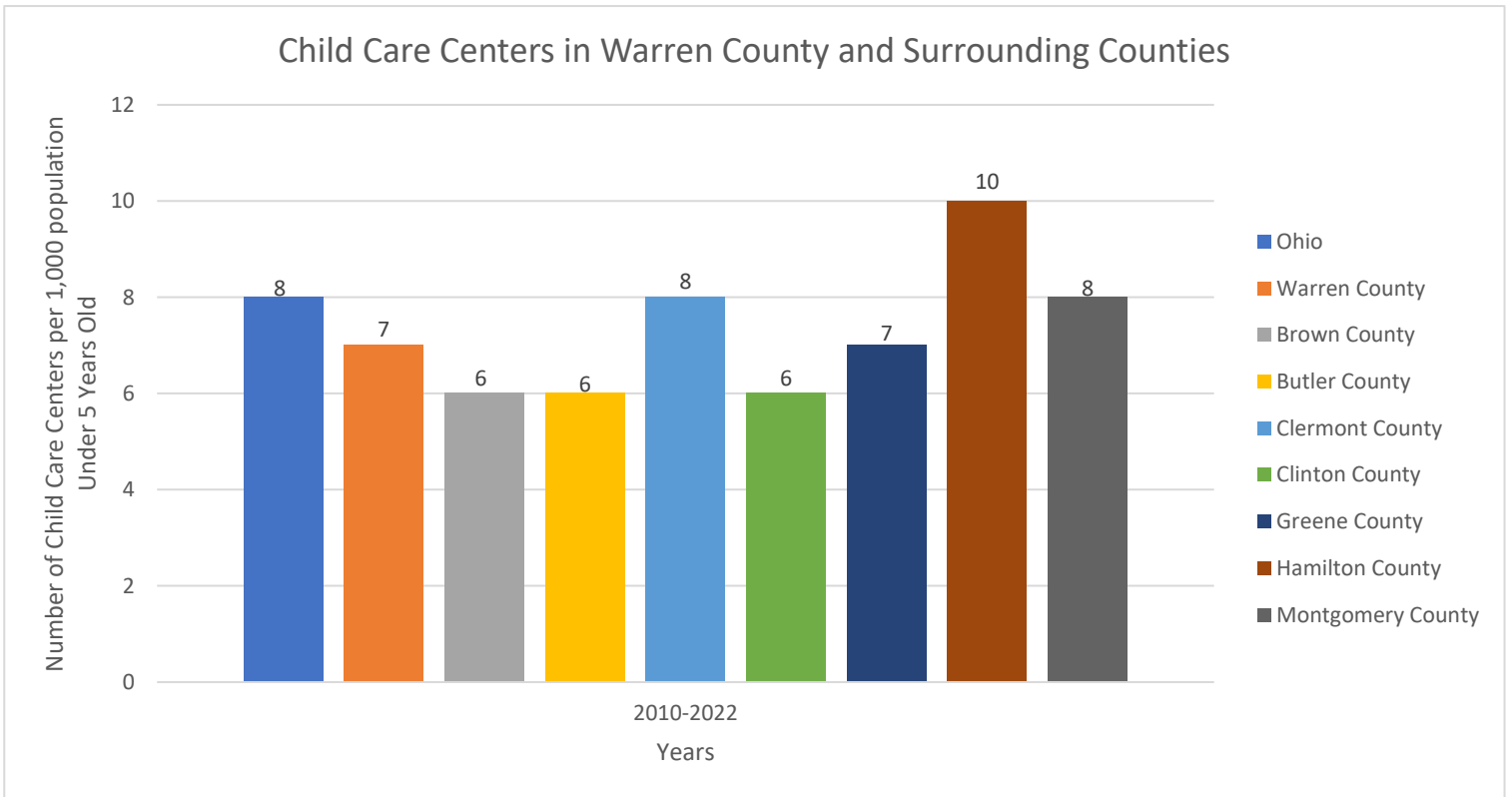


n. Child Care Centers

Child Care Centers refers to the number of childcare centers per 1,000 population under 5 years old.

Access to high-quality childcare contributes positively to a child’s health and development, especially for children from low-income or socially marginalized households. In Warren County, there were 7 childcare centers per 1,000 children under age 5 (Homeland Infrastructure Foundation – Level Data (HIFLD), 2010-2022).

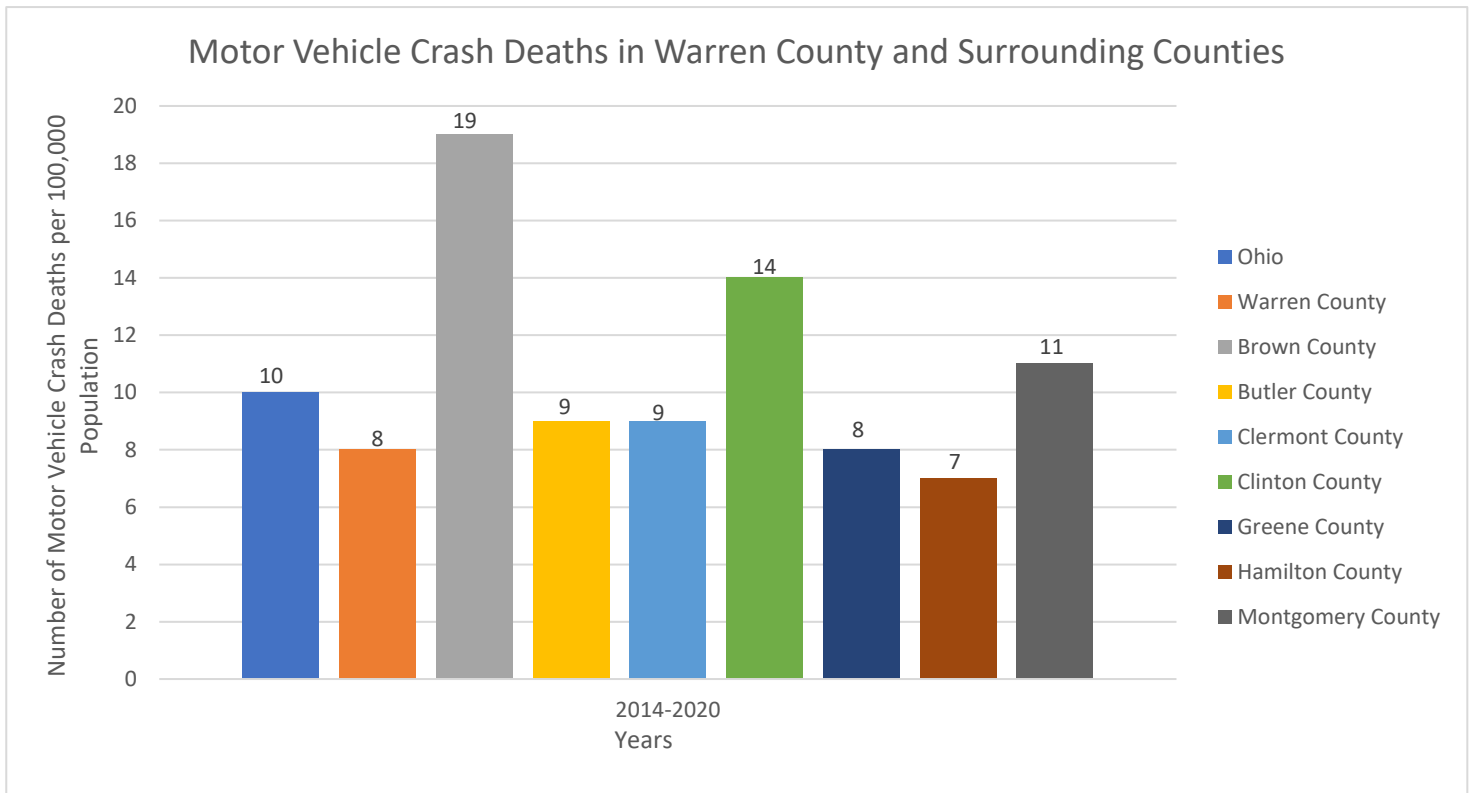
Warren County	Ohio	US
7	8	7



o. Motor Vehicle Crash Deaths

Motor Vehicle Crash Deaths refers to the number of vehicle crash deaths per 100,000 population. Motor Vehicle Crashes are one of the leading causes of death in the United States with almost 100 people dying each day. Medical care costs and productivity losses with injuries and deaths from motor vehicle crashes exceeded \$75 billion in 2017. In Warren County, there were 8 deaths from motor vehicle crashes per 100,000 people (National Center for Health Statistics – Mortality Files, 2014-2020).

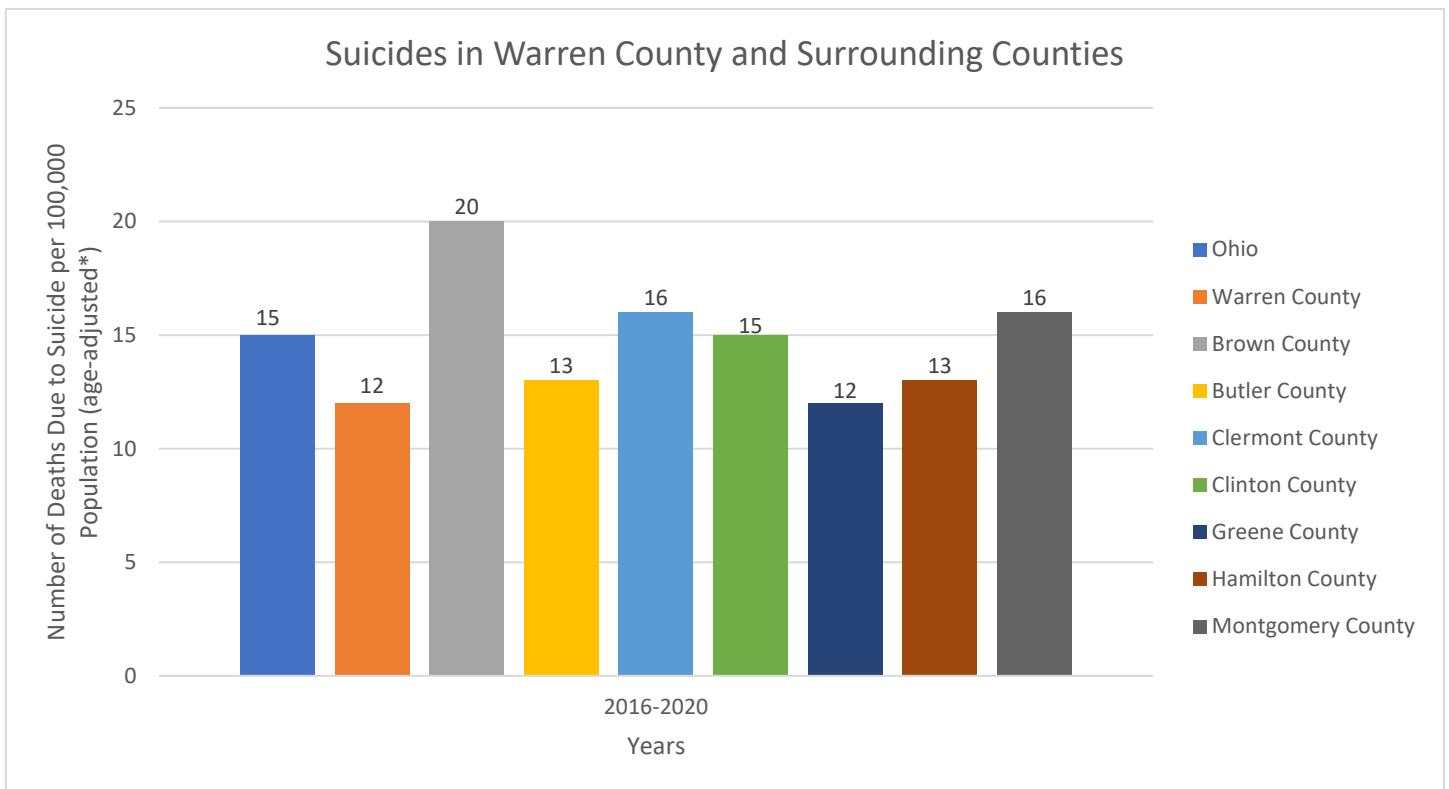
Warren County	Ohio	US
8	10	12



p. Suicides

Suicides refers to the number of deaths due to suicide per 100,000 population (age-adjusted). Suicide serves as an important measure of the mental health of a county’s population. Outside of the impact on the emotional and mental health of surviving friends, family members, and loved ones, suicide also has an economic impact and costs the United States an estimated \$70 billion per year. In Warren County, there were 12 deaths by suicide per 100,000 people (National Center for Health Statistics – Mortality Files, 2016-2020).

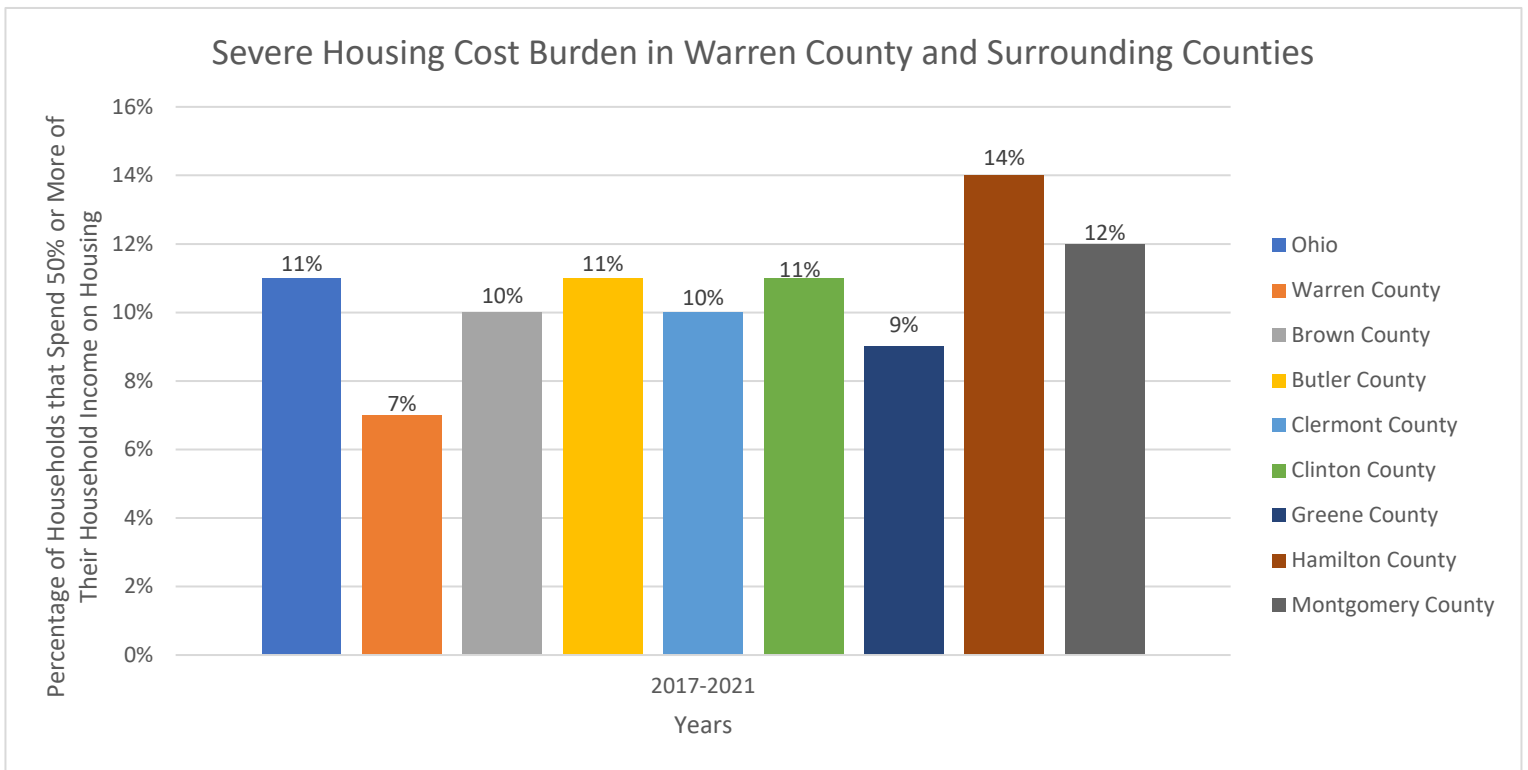
Warren County	Ohio	US
12	15	14



q. Severe Housing Cost Burden

Severe Housing Cost Burden refers to the percentage of households that spend 50% or more of their household income on housing. As housing costs have outpaced local incomes, households not only struggle to acquire and maintain adequate shelter, but also face difficult trade-offs in meeting other basic needs. In Warren County, 7% of households spent half or more of their income on housing (American Community Survey, 5-Year Estimates, 2017-2021).

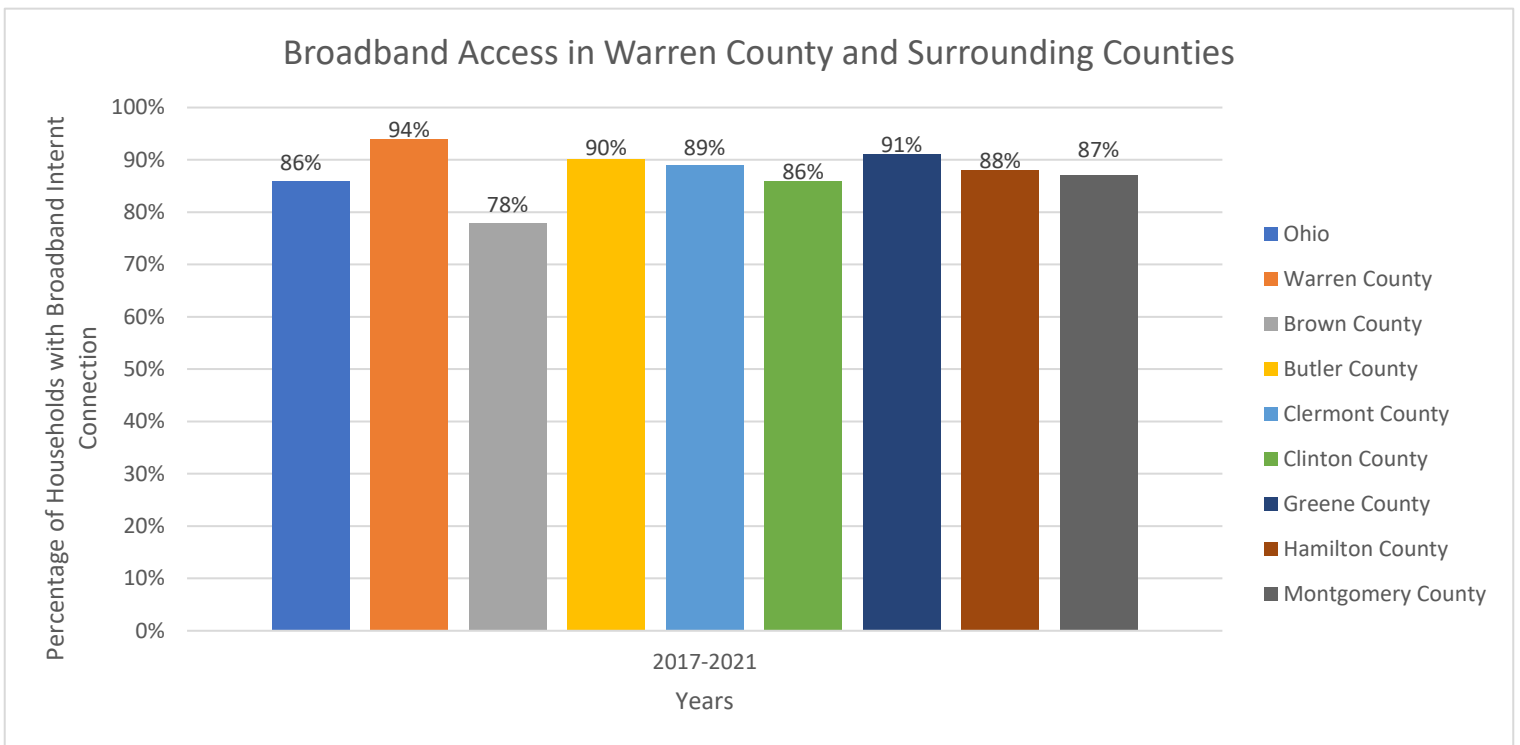
Warren County	Ohio	US
7%	11%	14%



r. Broadband Access

Broadband Access refers to the percentage of households with broadband internet connection. Access to reliable, high-speed broadband internet improves access to education, employment, and health care opportunities and is associated with increased economic development. In Warren County, 94% of households had a broadband internet connection (American Community Survey, 5-Year Estimates, 2017-2021).

Warren County	Ohio	US
94%	86%	87%



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