

# Wayne County Community Health Assessment 2021 Update



**Public Health**  
Prevent. Promote. Protect.

Wayne County Health Department



DECEMBER 2021

This updated assessment identifies and describes:

- The health of Wayne County
- The factors that contribute to health challenges
- Existing community assets and resources that can mobilize to improve the community's health.

# Wayne County Community Health Assessment 2021 Update

## ACKNOWLEDGEMENTS

This health assessment was published by the Wayne County Health Department.

We wish to thank those involved for their valuable participation in developing this document.

### **Wayne County Residents**

More than 500 residents participated in the Community Health Survey and Key Informant Interviews and focus groups.

### **Community Health Assessment and Planning Steering Committee**

Nicholas Cascarelli, Health Commissioner; Wayne County Health Department, Jaime Parsons, Viola Startzman Clinic; Richard Owens, Wayne Co. Dept. of JFS; Stacey Tanner, Wayne Co. Dept. of JFS; Sara Meeks, OSU Extension Services; Judy Wortham Wood, Mental Health and Recovery Board; Joanna Edwards, Mental Health and Recovery Board; Melissa Pearce, Community Action Wayne/Medina; Kristen Kerr, Community Action Wayne/Medina; Loretta Raff, Aultman Orrville Hospital; Angela Caldwell, Aultman Orrville Hospital; Michelle Flory, Wooster Community Hospital; Polly Johnson, Wooster Community Hospital; Lisa McLuckie, Wooster Community Hospital; Kathy Hartman, Wooster Community Hospital; Esther Hawkins, Family and Children First Council; Pastor Haroldo Nuñez Orrville Menonite Church; Juanita Greene, NAACP of Wooster and Orrville; Deanna Nichols-Stika, Wayne County Children Services Board

# TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>3</b>
Methods.....	3
Key Updates for the 2021 Community Health Assessment.....	4
Impact of Covid-19 Pandemic.....	4
Vision & Values.....	4
<b>CONTRIBUTING FACTORS TO HEALTH CHALLENGES</b> .....	<b>5</b>
<b>WAYNE COUNTY DEMOGRAPHIC PROFILE</b> .....	<b>7</b>
<b>FACTORS OF A “HEALTHY COMMUNITY”</b> .....	<b>9</b>
Low Crime/Safe Neighborhoods .....	9
Good Jobs and Healthy Economy.....	10
Health Care Access .....	11
Good Schools .....	14
<b>COMMUNITY HEALTH ISSUES</b> .....	<b>15</b>
Mental Health Problems.....	16
Adverse Childhood Experiences.....	22
What the Community is Saying.....	20
Assets and Resources .....	24
Cancer .....	24
What the Community is Saying.....	28
Assets and Resources .....	28
Child Abuse/Neglect.....	28
Assets and Resources .....	29
<b>REFERENCES</b> .....	<b>30</b>

# INTRODUCTION

The 2021 Wayne County Community Health Assessment (CHA) update continues to represent collaboration between the Health Department, Hospital Systems, social service agencies, and non-profit organizations to assess the community assets, resources, and health inequities of the community. This update CHA uses data collected from the community in 2019 and 2020 to describe the health of Wayne County residents by presenting the factors that affect health. This updated CHA creates an opportunity for community members to participate and own a plan to address health concerns impacting their community by participating in the survey and key informant surveys. Due to the pandemic it was necessary to update the data contained within the 2020 Community Health Assessment and to ensure considerations of additional impacts of the Covid-19 pandemic are included. There is also an expanded section on equity and is a companion to document for the Wayne County 2021-2024 Community Health Improvement Plan.

**Health – “A state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity. – World Health Organization**

## Methods

The Community Health Assessment was created using both primary and secondary data that was collected from the community. Sources of secondary data include: The Ohio Department of Health, United States Census Data, World Health Organization, and communitycommons.org.

The Community Health Assessment Steering Committee selected the Mobilizing for Action through Planning and Partnerships (MAPP) Model for the 2020 Community Health Assessment cycle. MAPP is a community-wide strategic planning process that assists communities with prioritizing public health issues, identifying resources for addressing those issues, and developing a shared, long-term Community Health Improvement Plan (CHIP). The MAPP approach involves multiple phases and four assessments, which the Steering Committee went through to determine the status of the community. The data collection that occurred in the first three phases described below yielded the content for the Community Themes and Strengths Assessment and the Community Health Status Assessment. In this document they are represented in Factors of a “Health Community” and Community Health Issues sections in this document. The Forces of Change Assessment was conducted in the forthcoming Community Health Improvement Plan.

The first phase of the project, a Community Health Survey, consisted of a convenient sampling of Wayne County Residents. The survey consisted of questions pertaining to the health of the residents and overall community. This survey was given during April, May and June of 2019 and it received 372 responses from community residents.

The second phase of the assessment, Secondary Data Analysis, consisted of reviewing and analyzing secondary data sources to identify priority areas of concern when compared to survey data. Health and demographic data was compiled from various sources.



The third phase of the project, Key Informant Interviews, consisted of a web survey given to community leaders whom are knowledgeable in the key areas identified as problematic in the initial community survey to gather more detailed information on the community issues identified.

The fourth phase of this project included updated secondary data collection and new primary data collection in 2021 regarding social determinants of health, overdose deaths, Covid-19(cases, hospitalizations and deaths) and youth risk behaviors that are discussed in greater detail in the next section of this document.

The goal of this collaborative effort is to foster successful partnerships among diverse segments of our community in order to improve the health of Wayne County residents. This comprehensive health assessment is meant to reveal timely, critical health priorities of our community. Then the strong partnerships built by this assessment can work together to better these areas of weakness.

## Key Updates for the 2021 Community Health Assessment

In 2021, the steering committee convened for a new Community Health Improvement Plan. To better align the new 2021 Wayne County Community Health Improvement Plan, this Assessment updated include expanded data on suicides and cancers. As we seen an increase in overdoses, there is a new section on overdose deaths in this update. These updated data include various demographics to include age, sex, race and communities to further examine inequities as we move forward on CHIP goals. We also included some research the Viola Startzman Clinic conducted with the College of Wooster on Social Determinants of Health. Lastly we included data on SARS COV 2 cases through December 25<sup>th</sup> 2021.

## The Impact of the Covid 19 Pandemic

<b>Covid -19 Indicators Through 12/25/21</b>	<b>Total to Date</b>
Number of Cases Reported	17420
Number of Hospitalized Cases	958
Number of Deaths:	325
Number of Presumed Recovered	15,627

The pandemic has made an indelible impact on the community. In the table above which has the cases listed through from the beginning of the pandemic through December 25, 2021, we have had just 17420 cases reported and 325 deaths where Covid-19 was listed a primary cause or a contributing cause of death and a cumulative death rate of a more depth. Even with a vaccine campaign to prevent the spread, 2021 to date has seen more cases than 2020. In addition to the direct impact on the physical health of the community, Covid-19 is also beginning to impact the mental health of the community and are manifested in suicides and overdoses. As a result, as previously mentioned this update takes includes updated data points.

## VISION

Wayne County embraces the belief that health is more than the absence of disease. It aims to create an engaged, interconnected community that encourages and supports all of its members to achieve and maintain physical, mental, and social wellness

## VALUES

- Trust – Ensuring transparency and doing what we should to serve the community
- Person-Centered – Promoting care and health of the individual with compassion.
- Equity – Supporting and providing residents choices regardless of their situation
- Collaborative – Fostering relationships with the community
- Empowerment – Encouraging individuals to take ownership for their well-being.
- Integrity – Giving community members respect so that it can be received in return
- Inclusion – Embracing diversity and cultural competency is paramount to achieving community wellness

## CONTRIBUTING FACTORS TO HEALTH CHALLENGES

Social determinants of health impact Wayne County in many ways. Using the Centers Disease Control and Prevention’s Social Vulnerability Index (SVI)2018, which is intended to identify communities that are vulnerable during times of hazardous threats, is also well suited to describe those who may be adversely impacted when it comes to health outcomes based on various social determinants of health as it relates to Wayne County. These areas of high SVI can also manifest itself into areas of greater risk for poorer health outcomes and help target interventions. In terms of overall SVI, Wayne County as a whole is moderate to high risk with an overall score of .65. Two census tracts one in Wooster and one in Apple Apple Creek have been identified has high overall SVI areas. Residents of the city of Wooster tends to have a disproportionately higher burden of illness and death than the rest of the county. Later in this report you will note various health outcomes are reported on by community and Wooster tends to have the higher rates especially, overdose deaths, suicide deaths and cancers.

But as it is broken down into themes, more vulnerabilities are present. As we look at Social Economic Status, the three cities in Wayne County; Wooster, Orrville and Rittman all have areas with high SVI. This indicator uses poverty levels, employment, per capita income and no high school diploma. Income is the biggest contributing factor to the county’s health challenges. Residents with income under \$20,000 per year state they have difficulty accessing healthcare due to lack of insurance and being unable to afford services. Whereas, residents with income over \$75,000 per year state their difficulties in accessing healthcare are due to convenience of times.



One of the biggest factors in health challenges in Wayne County is culture. One of the other themes in the calculation of the SVI is housing type/transportation. Those communities that have a high social vulnerability with this theme include parts of Wooster and the southeastern portions of Wayne County, including the areas of Apple Creek, Mount Eaton and Dalton. Factors for this theme that would trigger more vulnerability would include multiunit housing, crowding, Mobile homes and no vehicle. There is a significant Amish population in Wayne County, and they are concentrated in these areas that have high vulnerabilities for housing/transportation. The Amish way of life can hinder their access to medical care. One of the biggest factors is transportation because the Amish use horse and buggy. A medical appointment can be missed due to issues with distance, weather conditions, or horse issues. Another issue is that the majority of Amish do not have telephones in their homes, which affects access to immediate care particularly in emergencies. The Amish are also self-pay clients who do not believe in commercial health insurance, therefore, often the cost of procedures is a deterrent to receiving medical care or cause a delay in medical care which can make a relatively minor condition into a bigger problem. One of the best ways to reach this community is to develop a helping-trusting, authentic, caring relationship. It is important the medical staff trying to work with the Amish community understands the culture and beliefs to provide the best care possible.<sup>23</sup>

Although Wayne County is not an incredibly diverse county, race can be a contributing factor to the county's health challenges. One of the other SVI themes is race/ethnicity and language. Only one census tract in Orrville has a concentration of racial and ethnic minorities that deem it high. This census tract has a significant Black as well as Hispanic population, where English is not their primary language. In a focus group conducted with a number of black individuals, it was found that "black people go to the doctor too late". When asked why they stated "lack of trust of healthcare providers" and "not having providers that look like them". This was not stated during a focus group in the white community. It is worth noting that suicide deaths and overdose deaths are disproportionate higher in Black and Hispanic populations.

It also worth noting for this race, language, ethnicity aspect to SVI, those heavily concentrated Amish communities in Wayne County were moderate levels SVI for this theme. Amish people for the most part stop their formal education at the eighth grade, which can cause some language barriers that may make it difficult to make informed decisions if there are deficiencies in health literacy. This could also be true of our Hispanic population where English is not the primary language.

A local examination of social determinants was conducted in Wayne County among individuals that are patients of Viola Startzman Clinic, Wayne County's Rural Health Clinic by the College of Wooster<sup>28</sup>. The patient base is made up of patients that see a disproportionately higher number of Medicaid eligible population and also serves as a safety net provider for uninsured or underinsured.

Their survey included many aspects of the SVI scale discussed above and confirmed the reliability of the CDC ratings. A much higher percentage of Hispanics (83%) reported being in poverty compare to non-Hispanic (59%) respondents. In terms of housing, those clients who receive public health insurance were more likely to have reported housing insecurity than those who had private insurance. Interestingly in the research, race was not found to be a significant indicator of housing insecurity. Their veteran population also indicated about 1 in 16 were concerned about housing security. Transportation issues were also assessed. While not necessarily statistically significant 10.6 % of non-White compared to 9.7% White respondents indicated they have transportations issues getting to medical appointments. To further highlight income, those respondents who reported income less than \$10,000 yearly had the highest levels of mental health issues.



## WAYNE COUNTY DEMOGRAPHIC PROFILE

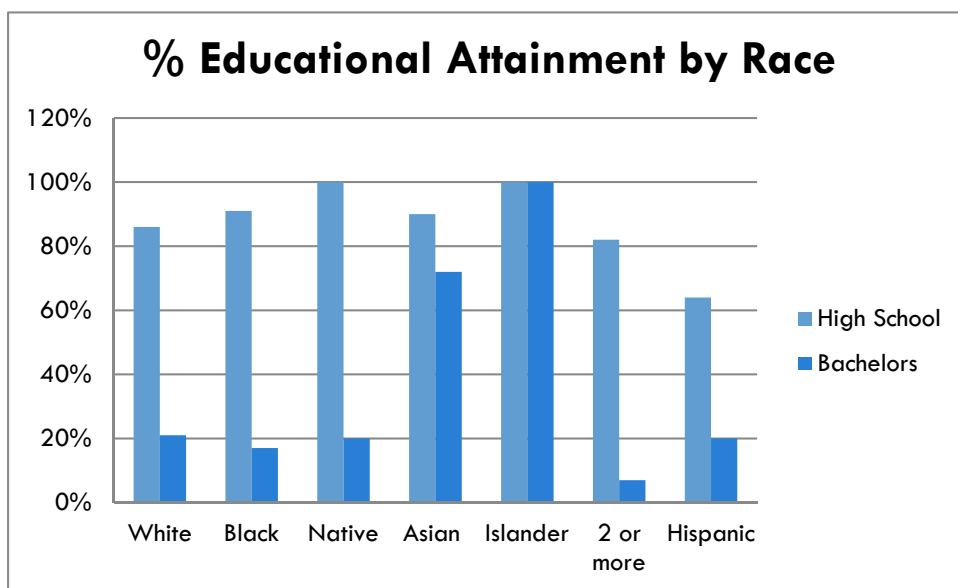
Wayne County is the 20th healthiest county in Ohio. Ranking 7<sup>th</sup> in health behaviors and 16<sup>th</sup> in quality of life.<sup>1</sup> The county has a population of 116,894, as of July 1, 2021.<sup>2</sup> There were 1,400 births in Wayne County in 2021.<sup>5</sup> The median age of the population is 38.6 years, which is close to the state which is 39.5 years. Twenty-four percent of the population are under 18 and 18% of the population is 65 and older.<sup>6</sup> The population is mostly white non-Hispanic (93.5%), however there are African American, American Indian, Asian and Hispanic populations living in the county. The county is a unique mix of rural (51%), urban 11%, and suburban (38%) residents.

Table 1. Source: Ohio Public Health Information Warehouse - Public: Browse - birth resident

<b>Population</b>	
<b>Population estimates, July 1, 2021, (V2021)</b>	<b>116,710</b>
Population estimates base, April 1, 2020, (V2021)	116,894
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	-0.2%
<b>Population, Census, April 1, 2020</b>	<b>114,520</b>

The average household income is \$61,424 per year which is the same as the state of Ohio (\$54,021/year).<sup>3</sup> Eighty-six percent of the population has at least a high school education, the percentage of people in poverty is 9.0% which is three-fifths of the amount in Ohio and the U.S.<sup>4</sup> The largest demographic living in poverty are females 25-34. The county is fairly educated with 87% of the population being a high school graduate, and 22.5% of persons having a bachelor's degree or higher.<sup>2</sup> As seen in Figure 1, the lowest educational attainments are in the Hispanic, multi-race, and white populations.

Figure 1. Source American Fact Finder. 2019



The percentage of single parent households with



a female householder is lower (11%) than the state and the nation (16%). The percentage of married households is in the county is 66% compared to 57% in the state, this is an almost 10% difference.<sup>4</sup> The percentage of households with children is 35%.<sup>7</sup>

Table 2. Households by Type. Source: Explore census data.

Column	Wayne County		Ohio		United States	
<b>Married couples</b>	55.8%	24,668	57.7%	2,145,605	59.7%	190,555,129
<b>Male householder</b>	16.1% <sup>†</sup>	7,125	6.5%	225,763	6.5%	20,822,516
<b>Female householder</b>	21.9% <sup>†</sup>	9,690	16.8%	580,783	16.6%	53,050,951
<b>Non-family</b>	14.4% <sup>†</sup>	6,386	19.1%	1,765,075	17.1%	54,647,234

Almost a third of the housing units in Wayne County are occupied while 31% are renter occupied. The percentage of vacant houses in Wayne County is lower (6%) than in Ohio (10%). The median value of a house is slightly higher in Wayne County than in the state.<sup>4</sup>

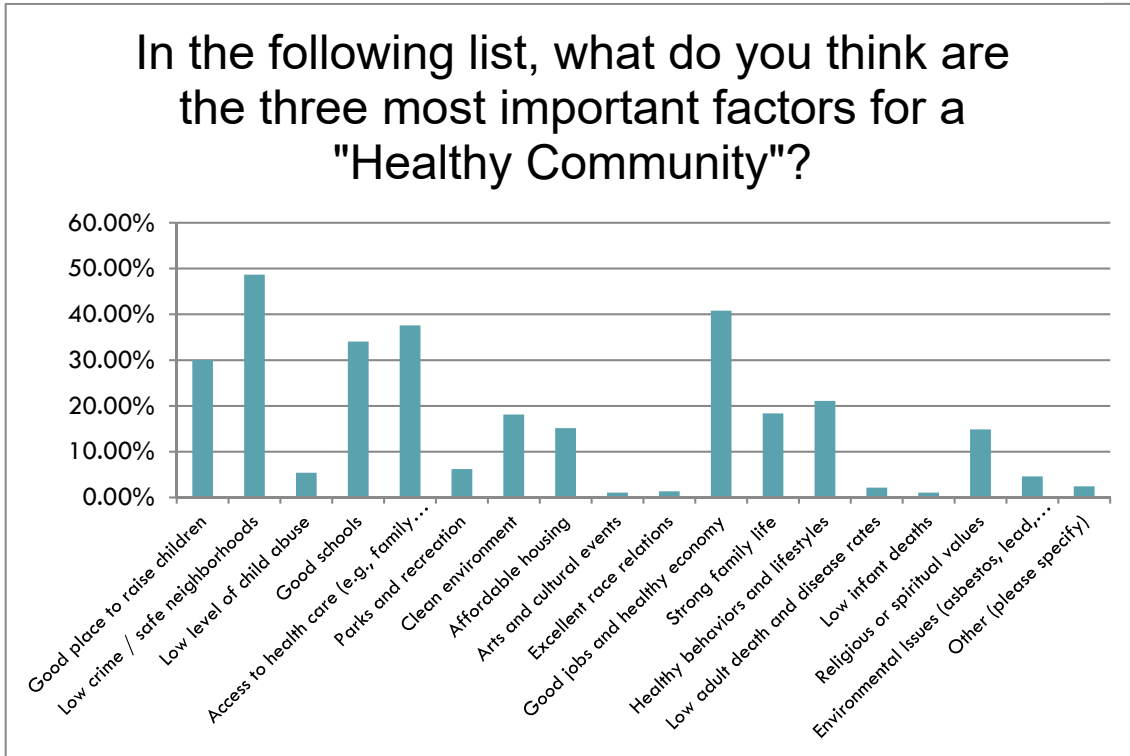
Table 3. Source: Explore census data.

	% Owner Occupied	% Renter Occupied	% Vacant	Median Value
Wayne County	73%	27%	6%	\$155,800
Ohio	65%	34%	10%	\$151,100

## FACTORS OF A “HEALTHY COMMUNITY”

Conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. These conditions are known as social determinants of health. The Community was surveyed about the three most important factors for a “healthy community”. The top factors were low crime/safe neighborhoods (48%), good jobs and a healthy economy (41%), access to healthcare (37%), and good schools (34%).

Figure 2. Factors for "Healthy Community". Source; Wayne County Community Health Survey 2019.



### Low Crime/Safe Neighborhoods

Patterns of social engagement and sense of security and well-being can affect a wide range of health, functioning, and quality-of-life outcomes and risks for a community.<sup>14</sup> Low crime/safe neighborhoods was chosen most often as an important factor for a “healthy community”, with 48% of respondents choosing this answer. In recent years violence has become a public health issue, with the understanding that violent behavior arises from contextual, biological, environmental, systemic, and social stressors. Public health uses a “trauma-informed” approach which suggests that violence is not symptomatic of ‘bad people’ but, rather, is a negative health outcome resulting from exposure to numerous risk factors.<sup>16</sup> High levels of violent crime compromise physical safety and psychological well-being. High crime rates can also deter residents from pursuing healthy behaviors, such as exercising outdoors. Wayne County has a violent crime rate of 118 as compared to the state which has a violent crime rate of 293 (figure 3).<sup>1</sup>

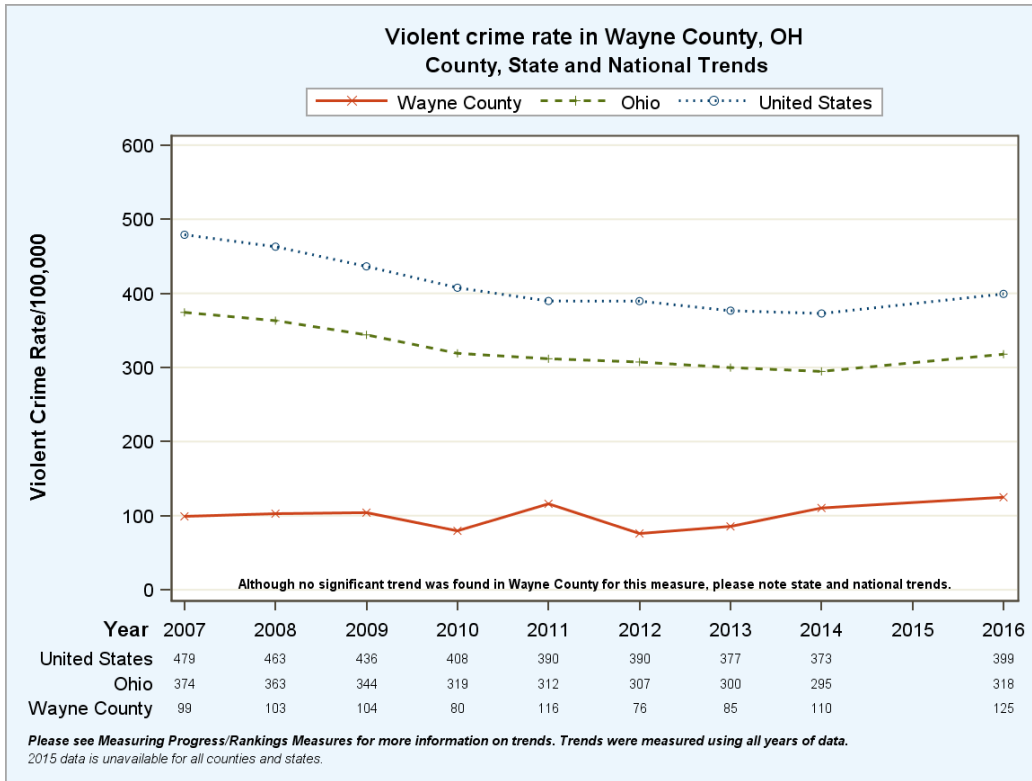


Figure 3. Source: Unemployment rate in Ohio.

## Good Jobs and Healthy Economy

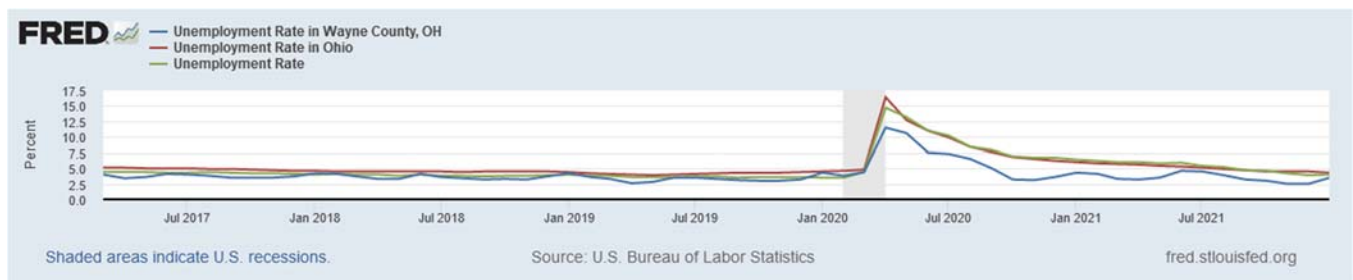
Good jobs and Healthy Economy was the second most often chosen factor for a healthy community with 41% of respondents choosing this factor. Historically, citizens of nations with higher average incomes tend to live longer, and despite that, experience fewer years of disability. People with higher incomes tend to live longer; children growing up in wealthier households are healthier. A study of US recessions and mortality from 1993 to 2012 found that a slowing economy is associated with greater mortality. Lower income and greater poverty are more strongly associated with higher mortality than is the unemployment rate.<sup>17</sup> The median household income in Wayne County is \$64,424 which is higher than the state of Ohio at \$56,111 and a little less than the U.S. at \$61,937.<sup>4</sup>

Table 4. Income. Source; Census Reporter 2019.

Income		
	Wayne County	Ohio
Median Household Income	\$61,424	\$58,116
Persons in Poverty	10.7%	13.6%

The unemployment rate in Wayne County is 2.5% which is lower than the state at 4.5%.<sup>1</sup>

Figure 4. Unemployment Rates. Source: Unemployment rate in Ohio.

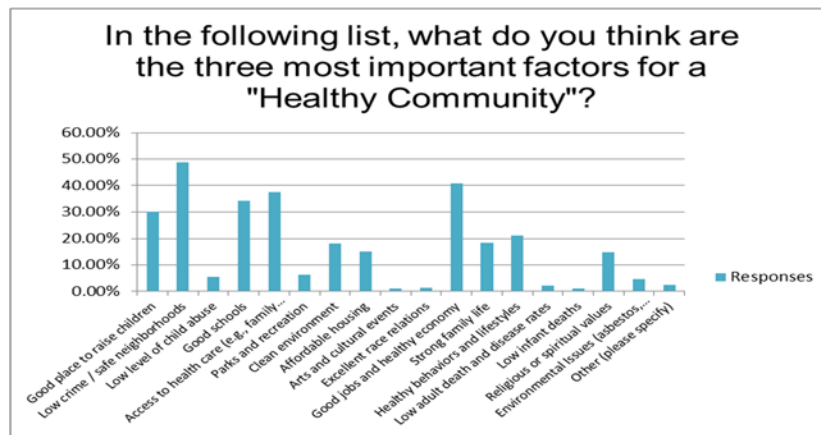


## Health Care Access

Access to comprehensive, quality medical care is important for ensuring long and healthy lives for everyone. Access to health services is one of Healthy People 2030’s Leading Health Indicators and its goal is to improve access to comprehensive, quality health care services. Access to healthcare was a crosscutting factor of the 2017-2019 Community Health Improvement Plan. The crosscutting factors are things that have the largest impact in shaping health outcomes, these factors permeate all aspects of the plan and every priority included at least one strategy that addressed access. Access is defined as; all people having timely use of comprehensive integrated and appropriate health services to achieve the best possible health outcomes. All residents have access to affordable care, insurance coverage, quality healthcare providers and appropriate transportation.

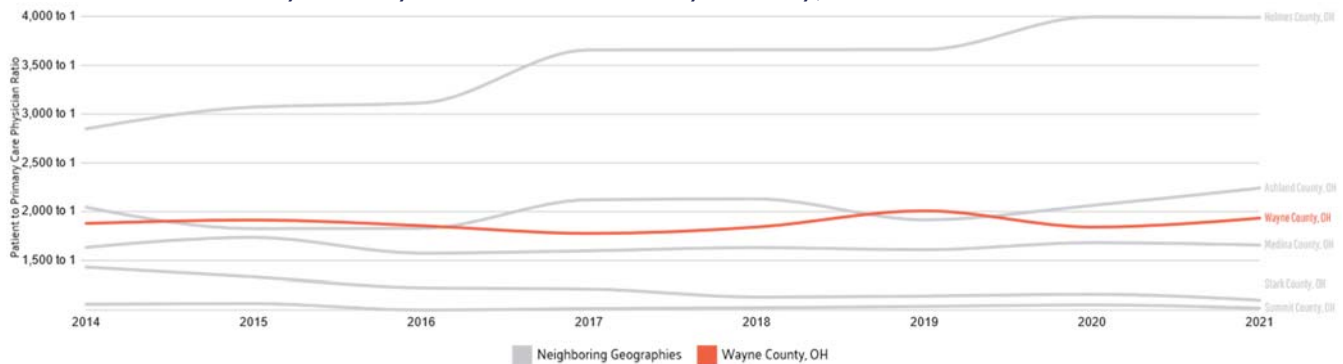
When asked about the most important factors for a “healthy community”, 38% of the respondents from the community said access to health care.<sup>10</sup>

Figure 5. Important Factor for "Healthy Community".



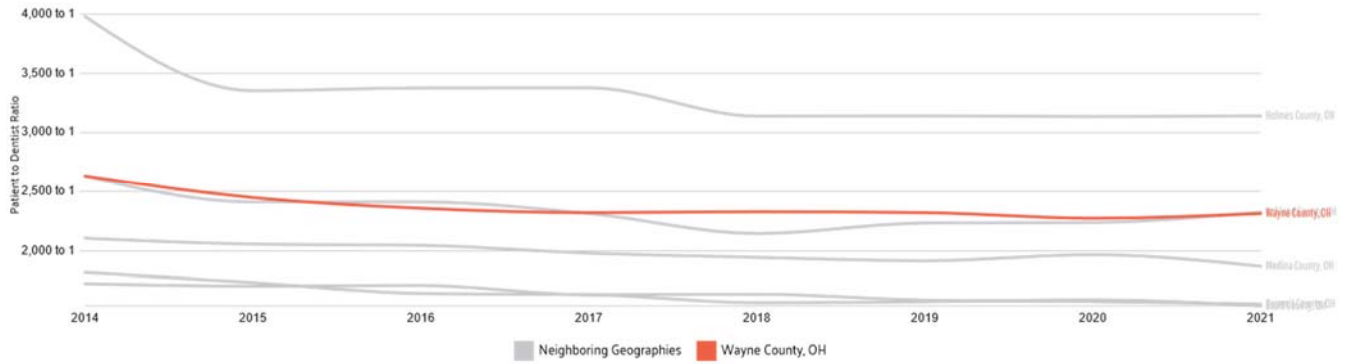
Access to healthcare measures the ability to receive preventative and/or corrective care from primary specialist, emergency, mental and oral healthcare providers. An estimated 10% of deaths may be affected by earlier screening and detection of disease, which can reduce disease severity and prevent recurrence of disease events. This requires access to high-quality, timely, and affordable health care. Wayne County has three healthcare systems, two having freestanding hospitals and the third with a large footprint in primary and specialty care. Aultman Orrville Hospital is a critical access facility that has been serving Orrville and the surrounding communities for over 60 years. Cleveland Clinic Wooster operates facilities that include an Urgent Care Center, Specialty Care Center and a Women’s Health Center. Wooster Community Hospital is a 150 bed full-service acute care facility with a complete range of inpatient and outpatient diagnostic care services. Primary care physicians in Wayne County see an average of 1,933 patients per year. This represents a 4.94% increase from the previous year (1,842 patients). The following chart shows how the number of patients seen by primary care physicians has been changing over time in Wayne County, OH in comparison to its neighboring geographies.

**Table 5. Patient to Primary Care Physician Ratio. Source: Wayne County, OH. Data USA**



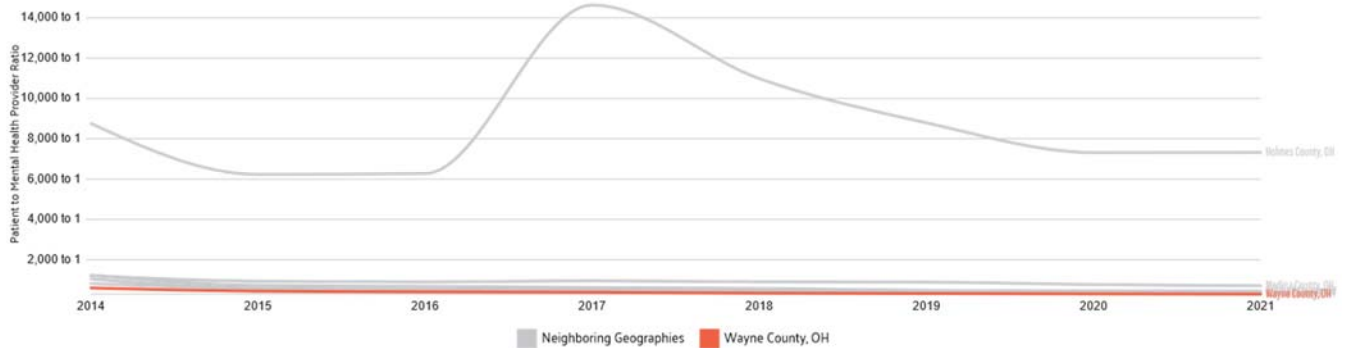
Good oral health enhances our ability to speak, smile, eat, and show our emotions through facial expressions. Dental care is one of children’s most prevalent unmet health needs. Cavities (tooth decay) are still the most common chronic health problem of childhood in the US, 5 times more common than asthma and 7 times more common than hay fever.<sup>9</sup> Dentists in Wayne County see an average of 2,314 patients per year. This represents a 1.76% increase from the previous year (2,274 patients). The following chart shows how the number of patients seen by dentists has been changing over time in Wayne County, OH in comparison to its neighboring geographies.

Table 6. Patient to Dentist Ratio. Source: Wayne County, OH. Data USA



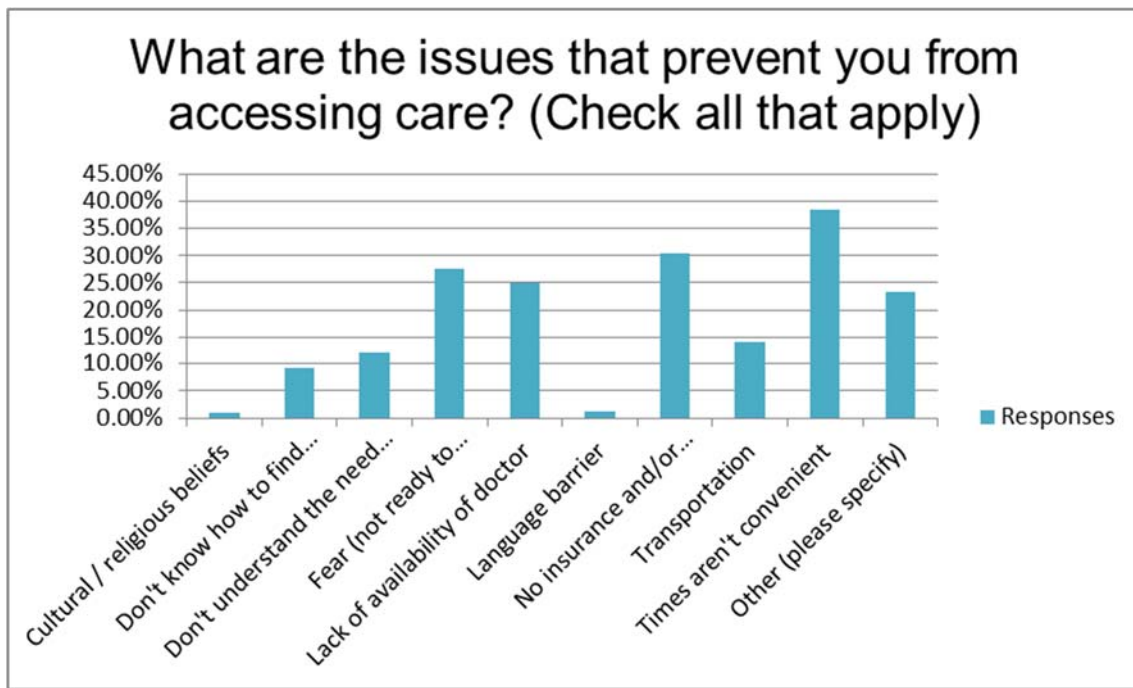
Access to healthcare is not only a problem for physical health issues but mental health issues as well. Access to mental health providers including psychiatrists, psychologists, clinical social workers, and counsellors that specialize in mental health care, is prevalent in this county (see table 6). Mental health providers in Wayne County see an average of 292 patients per year. This represents a 3.95% decrease from the previous year (304 patients). The following chart shows how the number of patients seen by mental health providers has been changing over time in Wayne County in comparison to its neighboring geographies.

Table 7. Source: Patient to Mental Health Provider Ratio. Source: Wayne County, OH. Data USA



When the community was asked about issues that prevented them from accessing care, 38% of respondents stated the times were not convenient to their schedules, 30% stated not having insurance and/or unable to pay for care, and 28% stated a fear (not ready to face/discuss health problems).<sup>10</sup>

Figure 6. Barriers to Access.



**Good**

## Schools

“Income and education are the two big ones that correlate most strongly with life expectancy and most health status measures. Education is the single most important modifiable social determinant of health”.<sup>18</sup> The Wayne County community seems to agree with this sentiment because 34% of respondents chose good schools as one of the most important factors for a healthy community. The percentage of students scoring ‘proficient’ or better in 4<sup>th</sup> grade reading is 72.8% for Wayne county which is higher than the state (64.8%) and the nation (50.7%). This is an important indicator because an inability to read English well is linked to poverty, unemployment, and barriers to healthcare access, provider communications, and health literacy/education.<sup>8</sup>

Table 8. Source: Ohio education by the numbers: 2022 statistics, charts, Tables & Maps: Thomas B. Fordham institute advancing educational excellence

Report Area	Total Students with Valid Test Scores	Percentage of Students Scoring 'Proficient' or Better	Percentage of Students Scoring 'Not Proficient' or Worse
Wayne County, OH	1,194	72.82%	<b>27.18%</b>
Ohio	121,870	64.84%	35.16%
United States	3,569,598	50.79%	46.4%

The percentage of persons with a high school degree or higher is 86% from 2014-2018.<sup>2</sup> This percentage has continually been above the state and national averages.

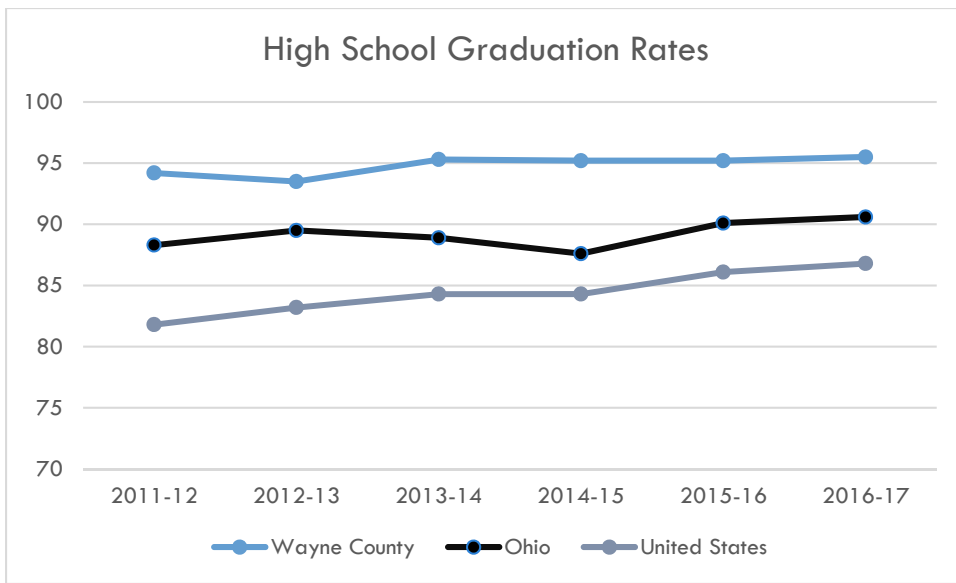
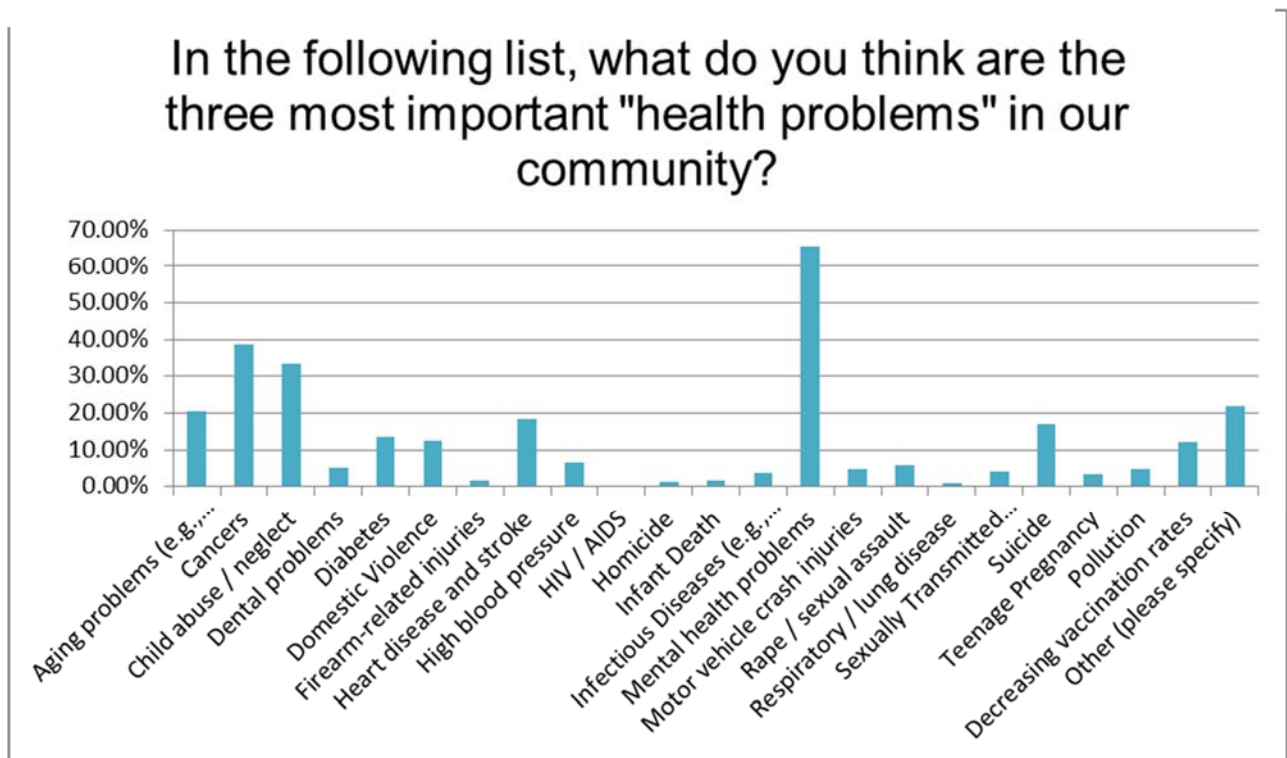


Figure 7. High School Graduation Rates. Source: CARES Report.

## COMMUNITY HEALTH ISSUES

The public was surveyed about the three most important “health problems” in the community and their top responses were Mental Health Problems (65%), Cancer (38%), and Child Abuse/Neglect (33%).

Figure 8. Most Important “Health Problems” in Wayne County.





## Mental Health Problems

Mental health was chosen most often as a “health problem” in the Wayne County Community. Mental health refers to our cognitive, behavioral, and emotional wellbeing – it is about how we think, feel, and behave.<sup>15</sup> Mental health can affect daily life, relationships and even physical health. Sixty-five percent of respondents said Mental Health was one of the top 3 “health problems” in the county. The most common types of mental illness are anxiety disorders, mood disorders, and schizophrenia disorders.<sup>15</sup>

Mental Health Provider Ratio					
	2015	2016	2017	2018	2019
Wayne County	449:1	410:1	380:1	340:1	320:1
Ohio	778:1	700:1	630:1	560:1	470:1

Table 9. Source: County Health Rankings & Roadmaps.

As seen in table 9 above, the ratio of providers per individual has decreased in the past five years. Though the ratio is decreasing, Wayne County struggles to have enough mental health professionals who can prescribe medications for their clients. In 2019, the average number of individuals on the waitlist to see a prescriber was 99 and the average number of children on the list was 6.<sup>21</sup>

Poor mental health days is based on survey responses to the question: “Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?”. Since 2015 the response to this question for Wayne County is approximately 3.9 days, which is slightly lower than the state average which is 4.3 days.

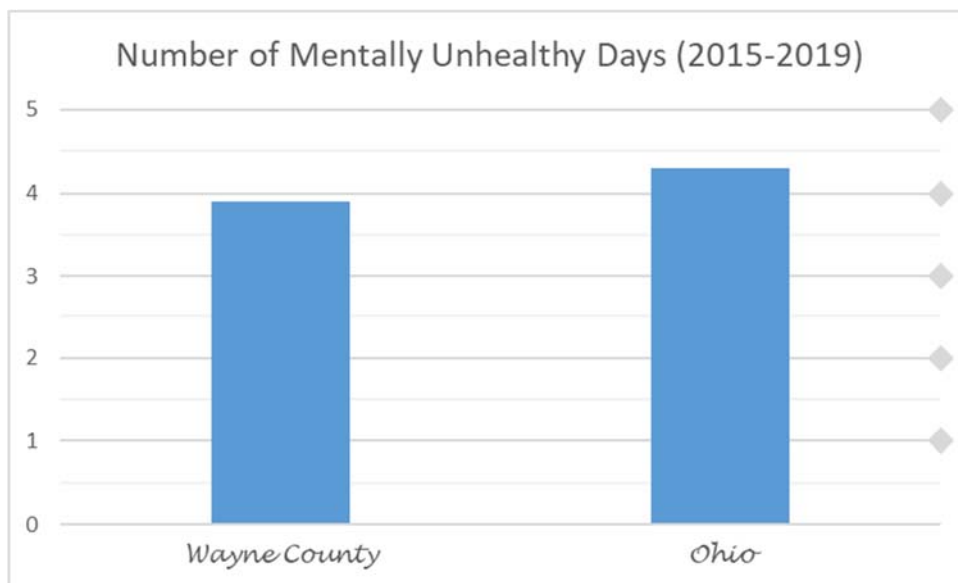


Figure 9. Mentally Unhealthy Days. Source: County Health Rankings & Roadmaps.

## Suicide

Perhaps the worst outcome for a community in terms of mental health is suicide. The CHIP steering committee in 2021 identified suicide as a topic they would like to undertake in terms of awareness and prevention. Indicated in table 10 below 2019 was the worst in Wayne County history as it relates to suicide as 24 residents died by suicide. While 2020 seemed to be not as bad, these are all preventable deaths.

**Table 10. Source Wayne County Health Department Vital Statistics**

*Number of Suicide Deaths among Wayne County Residents by Year*

Year	Deaths
2015	12
2016	11
2017	16
2018	17
2019	24
2020*	14

Males have consistently accounted for over 85% of suicides deaths in Wayne County 86% of deaths in 2020 and 86% percent of deaths from 2015-2019. (Table 10). In terms of age, while it historically has been pretty evenly divided, 2020 was a departure from that as ages 15-44 accounted for 10 of the 14 suicides. (Table 11).

**Table 11. Source Wayne County Health Department Vital Statistics**

*Number of Suicide Deaths among Wayne County Residents by Sex and Year*

Sex	2020*		2015-2019	
	N	Percent	N	Percent
Males	12	86%	71	89%
Females	2	14%	9	11%
<b>Total</b>	<b>14</b>		<b>80</b>	

**Table 12. Source Wayne County Health Department Vital Statistics**

*Number of Suicide Deaths among Wayne County Residents by Age and Year*

Age	2020*		2015-2019	
	N	Percent	N	Percent
0 to 14	0	0%	1	1%
15 to 24	3	21%	12	15%
25 to 34	3	21%	14	18%
35 to 44	4	29%	14	18%
45 to 54	0	0%	14	18%
55 to 64	2	14%	14	18%
65+	2	14%	11	14%
<b>Total</b>	<b>14</b>		<b>80</b>	

In examining social determinants and its impact on suicides, it is apparent. While the numbers among racial and ethnic minorities is low, in 2020 it is still disproportionate. Two of the fourteen suicides (14%) in 2020 were Black and Hispanic (Table 13). The Black and Hispanic communities combined account for less than 5 percent of Wayne County’s population. While the historical data is a more proportionate representation, this new trend is alarming.

**Table 13. Source Wayne County Health Department Vital Statistics**

*Number of Suicide Deaths among Wayne County Residents by Race/ethnicity and Year*

Race	2020*		2015-2019	
	N	Percent	N	Percent
White, non-Hispanic	12	86%	78	98%
Black	1	7%	0	0%
Hispanic	1	7%	1	1%
Other race	0	0%	1	1%
<b>Total</b>	<b>14</b>		<b>80</b>	

**Table 14. Source Wayne County Health Department Vital Statistics**

*Number of Suicide Deaths among Wayne County Residents by Community and Year*

Community	2020*		2015-2019	
	N	Percent	N	Percent
Burbank	0	0%	1	1%
Clinton	0	0%	0	0%
Creston	0	0%	1	1%
Doylestown	2	14%	3	4%
Rittman	0	0%	9	11%
Sterling	0	0%	1	1%
West Salem	0	0%	3	4%
Apple Creek	1	7%	1	1%
Dalton	0	0%	7	9%
Fredericksburg	1	7%	0	0%
Lakeville	0	0%	1	1%
Marshallville	0	0%	2	3%
Navarre	0	0%	1	1%
North Lawrence	0	0%	1	1%
Orrville	4	29%	7	9%
Shreve	1	7%	3	4%
Smithville	0	0%	1	1%
Wooster	5	36%	37	46%
Unknown	0	0%	1	1%
<b>Total</b>	<b>14</b>		<b>80</b>	

Another indicator of social determinants to health is the built environment. The cities of Wooster and Orrville combined have over 50% of the suicides in 2020. Wooster contains the only high Social Vulnerability Index (SVI) community in Wayne County according to the 2018 CDC/ATDSR rating. Orrville contains a moderate to high rating in SVI. Rittman, while did not have any suicides for 2020 accounted for 9% of all suicides in Wayne County from 2015-2019. Rittman, like Orrville is another community that contains moderate to high SVI communities. These communities account for less than 40% of Wayne County population but well over 60% of Wayne County suicide deaths in 2020 and over the course of the previous five years.

## Overdose

While not addressed in the 2020 community health assessment, substance use disorder was determined to be a focus for the Community Health Improvement Plan steering committee as overdoses and overdose deaths are on the rise. This perhaps is a latent impact of the Covid-19 pandemic. In 2020, Wayne County had 34 overdose deaths which was the highest number of deaths since 2016 when there 39 deaths that year (Table 15).

**Table 15. Source Wayne County Health Department Vital Statistics**

*Number of Overdose Deaths among Wayne County Residents by Year*

Year	Deaths
2015	25
2016	39
2017	25
2018	18
2019	23
2020*	34

Males have consistently accounted approximately 70% of overdose deaths in Wayne County with 71% of deaths in 2020 and 68% percent of deaths from 2015-2019 (Table 16). In terms of age, while it historically has been pretty evenly divided in various age groups from 24-64, 2020 was a departure from that as ages 25-44 accounted for 61% of overdose deaths (Table 17).

**Table 16. Source Wayne County Health Department Vital Statistics**

*Number of Overdose Deaths among Wayne County Residents by Sex and Year*

Sex	2020*		2015-2019	
	N	Percent	N	Percent
Males	24	71%	88	68%
Females	10	29%	42	32%
<b>Total</b>	<b>34</b>		<b>130</b>	

**Table 17. Source Wayne County Health Department Vital Statistics**

*Number of Overdose Deaths among Wayne County Residents by Age and Year*

Age	2020*		2015-2019	
	N	Percent	N	Percent
0 to 14	0	0%	0	0%
15 to 24	3	9%	8	6%
25 to 34	12	35%	35	27%
35 to 44	9	26%	32	25%
45 to 54	7	21%	24	18%
55 to 64	3	9%	25	19%
65+	0	0%	6	5%
<b>Total</b>	<b>34</b>		<b>130</b>	

**Table 18. Source Wayne County Health Department Vital Statistics**

*Number of Overdose Deaths among Wayne County Residents by Race/Ethnicity and Year*

Race/ethnicity	2020*		2015-2019	
	N	Percent	N	Percent
White, non-Hispanic	29	85%	122	94%
Black	2	6%	5	4%
Hispanic	0	0%	0	0%
White with unknown ethnicity	3	9%	3	2%
<b>Total</b>	<b>34</b>		<b>130</b>	

Similar to suicides in Wayne County, social determinants are also impactful when it comes to overdose deaths as well. Racial health equity is even more apparent. African Americans make up less than 2% of Wayne County’s population but account for 6% of overdose deaths in 2020 (Table 18). While this trend historically is less in years 2015-2019 at 4%, nonetheless is still disproportionate to Wayne County population.

In terms of communities, the city of Wooster bears the disproportionate burden of overdose deaths. While on its own accounting for only less than 25% of the county population, it accounts for 41% of overdose deaths in 2020 and 49% of deaths 2015-2019 (Table 19). Other areas of concern are Orrville and Rittman in 2020 and historically Doylestown and Creston.

**Table 19. Source Wayne County Health Department Vital Statistics**

*Number of Overdose Deaths among Wayne County Residents by Zip Code and Year*

Community	2020*		2015-2019	
	N	Percent	N	Percent
Burbank	0	0%	2	2%
Clinton	0	0%	1	1%
Creston	1	3%	6	5%
Doylestown	0	0%	13	10%
Rittman	4	12%	16	12%
Sterling	0	0%	1	1%
West Salem	1	3%	5	4%
Apple Creek	0	0%	3	2%
Dalton	0	0%	2	2%
Marshallville	1	3%	0	0%
Orrville	9	26%	12	9%
Shreve	0	0%	3	2%
Smithville	1	3%	0	0%
Wooster	14	41%	64	49%
Unknown	3	9%	2	2%
<b>Total</b>	<b>34</b>		<b>130</b>	

Wayne County similar to trends all across the country, fentanyl and methamphetamine were at least one of the drugs found in the system of 100% of deaths in 2020 and 78% in those deaths from 2015-2019. See Table 20.

**Table 20. Source Wayne County Health Department Vital Statistics**

*Number of Overdose Deaths among Wayne County Residents by Drug Class and Year*

Drugs Class	2020*		2015-2019	
	N	Percent	N	Percent
Fentanyl	21	62%	48	37%
Methamphetamine	13	38%	30	23%
Carfentanil	4	12%	21	16%
Alcohol	4	12%	14	11%
Other drugs	4	12%	14	11%
Opioids	3	9%	26	20%
Multiple unspecified drugs	3	9%	2	2%
Benzodiazepines	2	6%	16	12%
Marijuana	2	6%	2	2%
Heroin	1	3%	10	8%
Cocaine	1	3%	15	12%
<b>Total**</b>	<b>34</b>		<b>130</b>	

## **Adverse Childhood Experiences**

Adverse Childhood Experiences (ACEs) are used as a way of moving toward understanding the public health implications of childhood maltreatment and related experiences. The concept of using ACEs as a framework for primary prevention of public health problems is that stressful or traumatic childhood experiences such as abuse, neglect, or forms of household dysfunction are a common pathway to social, emotional and cognitive impairments that lead to increased risk of unhealthy behaviors, violence or re-victimization, disease, disability, and premature mortality.<sup>22</sup> Wayne County's rate for 2 or more Adverse Childhood Experiences is 26.8%. This is higher than the state rate which is 25.1% and having higher rate than several neighboring counties according to the 2016-2017 National Survey of Children's Health.

## **Youth Risk Behaviors and Assets**

An analysis was conducted on substance use and self-reported assets from Wayne County youth in grades 6-12<sup>29</sup>. All public school districts and a few private districts in Wayne County participated in the survey. Approximately 1300 students in grades 6-8 and 900 students in grades 9-12 participated. The survey asked about use of various substances including but not limited to tobacco, alcohol, marijuana, cocaine, vaping products, hallucinogens, steroids, opiates and their analogs. In addition they were asked about frequency of use of these substances.

Over twenty-eight percent of high school students reported using alcohol within the last year with seven percent indicating they use alcohol monthly. Eight percent of middle school students reported using alcohol at least once in the last year and a little over one percent report using it monthly. Vaping has fast become the substance use of choice among youth and Wayne County is trending no differently. Approximately 20% of high school and 5.5% middle school students reported vaping within the last year and 9.5 percent of high school students and just under 2% of middle school students use vaping products within the last month. Tobacco and marijuana use was behind alcohol and vaping use with high school students reporting 5.1% for tobacco and 7.7% for marijuana use at least once in the last year.

The other aspect of the survey assessed children for 14 developmental youth assets. These assets are thought to prevent youth from engaging in high risk behaviors and greater resilience. The presence of these can help mitigate the impacts of Adverse Childhood Events. Youth having more of these assets may make them less likely to use substances.



**Table 21. Source Wayne County Substance Use/Youth Asset**

*Odds of not using substances based upon displaying Youth Asset*

Youth Asset	Non use of alcohol	Non-use of vapor products	Non-use of Marijuana
Community Involvement	1.45	2.01	1.5
Cultural Respect	2.01	1.74	1.64
Educational Aspirations	1.23	2.04	2.96
Family Communication	1.83	2.62	3.44
General Aspirations	1.30	1.48	.78
Good Health Practices	1.99	2.16	1.94
Non-Parental Adult Role Model	1.26	1.62	2.96
Parental Monitoring	5.63	3.70	3.34
Peer role Model	3.56	4.56	3.96
Religiosity	1.49	1.97	2.47
Responsible Choices	2.52	2091	2.76
Self Confidence	1.04	1.19	1.27
Use of Time (Groups/sports)	1.11	1.26	4.1
Use of Time (Religion)	2.35	2.14	5.56
Having eight or more assets	2.09	3.14	3.21

**Source: Vimont, Michael and One Eighty: 2020 Wayne County Substance Use/Youth Asset Survey**

Table 21 above indicates whether displaying any one of these assets is better than another. On their own having parental monitoring or a good peer role model are the best predictors of whether or not a youth will engage in substance use behavior. A student in this sample is over 5 times less likely use alcohol and a student having a good peer role model is 4 and half times less likely to use vapor products. A student engagement in religious activities makes them over 5 and ½ times less likely to use marijuana. If a student indicating having eight more more assets, they were twice as likely not to use alcohol and 3 less likely to use vaping products or marijuana.

**What the Community is Saying**

- On the most valuable thing that the community could do to help improve the situation.

“Supporting Mental Health initiatives and programs that would help, we don’t have much that is available to adolescent age students”

“Making sure these issues are being addressed when the children are younger. Using educational settings to reach children with their own issues or assist them in handling the adults in their lives, more education that mental health issues are nothing to be ashamed of.”

“Educate. Decrease stigma!”

- On barriers to providing needed programs/interventions.

“Stigma.”



## Assets and Resources

<b>Mental Health and Recovery Board</b>	<a href="http://www.whmhrb.org">www.whmhrb.org</a>	(330)-264-2527
<b>Description: Provides leadership, support, and funding to community partners and agencies in the delivery of mental health and addiction prevention, treatment, and recovery services.</b>		
<b>OneEighty</b>	<a href="http://www.one-eighty.org">www.one-eighty.org</a>	(330)-264-8498
<b>Description: OneEighty is a non-profit organization dedicated to people recover from addiction and substance use. We assist victims of domestic violence and sexual assault (including Rape Crisis Services) and Housing &amp; Supportive Services in Wayne and Holmes counties</b>		
<b>ANAZAO</b>	<a href="http://www.anazaocommunitypartners.org">www.anazaocommunitypartners.org</a>	(330)-264-9597
<b>Description: A private, non-profit organization providing treatment, intervention and prevention services to residents and organizations throughout Wayne and Holmes Counties.</b>		
<b>Counseling Center</b>	<a href="http://www.ccwhc.org">www.ccwhc.org</a>	(330)-264-9029
<b>Description: A private, not-for-profit corporation, that provides comprehensive and confidential mental health services in Wayne and Holmes Counties.</b>		

## Cancer

Cancer is the name given to a collection of related diseases. In all types of cancer, some of the body’s cells begin to divide without stopping and spread around surrounding tissues. Approximately 38.4% of men and women will be diagnosed with cancer at some point during their lifetimes.<sup>13</sup> Looking at these statistics it is no surprise the survey respondents believe cancer is one of the most important “health problems” in the community (Figure 8). The incidence rate of cancer in Wayne County is 427.2, which is lower than the state of Ohio (456.1).<sup>12</sup> Since 1996 the three most prevalent cancers have been breast cancer (2,196 cases), lung and bronchus cancer (1,775 cases), and prostate cancer (1,519 cases).<sup>11</sup> Cancer (malignant neoplasms) was the 2<sup>nd</sup> leading cause of death in Wayne County in the last 5 years, exceeded only by diseases of the heart (See figure 5).



**Table 22. Leading Causes of Death; Wayne County.**  
**Source: Ohio Department of Health; Ohio Public Health Information**

Year	2014	2015	2016	2017	2018	2019 **
Leading Cause of Death (113)	Death Count	Death Count	Death Count	Death Count	Death Count	Death Count
Tuberculosis	0	0	0	2	0	0
Septicemia	10	14	14	17	8	15
Viral hepatitis	0	2	2	0	0	0
<b>Malignant neoplasms</b>	<b>243</b>	<b>223</b>	<b>245</b>	<b>256</b>	<b>217</b>	<b>236</b>
Anemias	1	1	1	4	1	3
Diabetes mellitus	38	53	42	48	47	43
Parkinson's disease	15	10	16	11	31	25
Alzheimer's disease	41	47	52	48	77	57
Diseases of heart	266	241	272	278	302	294
Essential (primary) hypertension and hypertensive renal disease	5	13	14	4	7	9
Cerebrovascular diseases	60	61	63	53	61	58
Atherosclerosis	0	1	1	2	2	0
Aortic aneurysm and dissection	2	3	2	5	5	1
Influenza and pneumonia	24	20	15	23	25	17
Acute bronchitis and bronchiolitis	0	0	0	0	0	0
Chronic lower respiratory diseases	54	71	66	68	66	65
Pneumonitis due to solids and liquids	7	9	14	4	7	14
Chronic liver disease and cirrhosis	12	12	9	14	11	10
Cholelithiasis and other disorders of gallbladder	4	0	3	4	3	4
Nephritis, nephrotic syndrome and nephrosis	13	21	11	16	15	8
Pregnancy, childbirth and the puerperium	1	1	2	1	1	0
Certain conditions originating in the perinatal period	3	5	6	4	7	7
Congenital malformations, deformations and chromosomal abnormalities	4	10	2	6	4	6
Accidents (UNINTENTIONAL INJURIES)	64	72	90	68	70	70
Intentional self-harm (suicide)	12	12	11	16	17	23
Assault (homicide)	1	2	2	2	2	1
Complications of medical and surgical care	4	1	1	0	0	2

The death rate of cancer in Wayne County is 163.6 which is lower than the state of Ohio at 173.5, but still higher than the Healthy People 2020 goal of 161.4.<sup>14</sup> As seen in figure 6, there have been 1,177 cancer deaths in Wayne County since 2015. Lung and bronchus cancer has the highest death rate of all the diagnoses.<sup>5</sup>

**Table 23. Cancer Incidence 2018**  
**Source: Ohio Department of Health Information Warehouse**

SITE/TYPE	Wayne County, 2018		Ohio, 2018
	Number	Crude Rate per 100,000	Crude Rate per 100,000
Bladder	26	22.4	28.3
Brain and Other CNS	25	21.5	7.7
Breast*	103	88.6	84.9
Cervix	< 10		7.6
Colon & Rectum	59	50.8	49.8
Esophagus	< 10		7.4
Hodgkins Lymphoma	< 10		2.5
Kidney & Renal Pelvis	19	16.3	21.7
Larynx	< 10		4.7
Leukemia	14	12.0	14.4
Liver & Intrahepatic Bile Duct	< 10		7.6
Lung and Bronchus	97	83.5	85.8
Melanoma of Skin	78	67.1	29.1
Multiple Myeloma	< 10		7.9
Non-Hodgkins Lymphoma	29	25.0	23.7
Oral Cavity & Pharynx	12	10.3	15.9
Other Sites/Types	52	44.7	
Ovary	< 10		11.9
Pancreas	17	14.6	18.7
Prostate	61	105.7	149.7
Stomach	< 10		7.2
Testis	< 10		5.3
Thyroid	13	11.2	15.7
Uterus	20	34.2	49.0

\*Count includes both males and females

Table 21 above is a list of cancer incidence rates by site for Wayne County and for Ohio. While most of Wayne County rates are lower than the state rates for most cancers, Wayne County is higher than the state rate for cancers of the brain and central nervous system, breast, colon and non-Hodgkins lymphoma. However, the most pronounced disparity is melanoma crude rates in Wayne County compared to the state crude rate, 67.1 versus 29.1 respectively. One can surmise much of this difference may be due to the fact that Wayne county is a large agricultural community and a lot of time is spent outdoors.

**Table 24. Cancer Incidence 2018 by Race and Ethnicity**  
**Source: Ohio Department of Health Information Warehouse**

<b>Wayne County, 2018</b>			
<b>Race and ethnicity</b>	<b>Number</b>	<b>Population</b>	<b>Rate per 100,000</b>
White, non-Hispanic	621	109,717	566.0
African American	< 10	1,584	
All other races	< 10		
Unknown race or ethnicity	40		
Hispanic	0	2,335	0.0

As we look at social determinants and its effect on cancer incidence in Wayne County, it is difficult to ascertain the impact of race and ethnicity because the numbers are so low in terms of population and incidence. See Table 24. In a focus group conducted with African-Americans in Wayne County, the group major health concern in terms of health outcomes was cancer. The groups felt specifically colon cancer. And while the numbers do not bear that out here, it certainly cannot be dismissed. If we look to where someone lives in Wayne County, while the population numbers are low in some communities to calculate an accurate crude rate, communities such as West Salem, Creston, Doylestown, Shreve, Sterling and Wooster have higher rates. This is a mix of rural and urban communities within the county. See Table 25.

**Table 25. Cancer Incidence 2018 by Community**  
**Source: Ohio Department of Health Information Warehouse**

<b>Wayne County, 2018</b>			
<b>Community</b>	<b>Number</b>	<b>Population</b>	<b>Crude Rate per 100,000</b>
Burbank	< 10	1,871	
Creston	31	3,829	809.6
Doylestown	63	8,094	778.4
Rittman	42	8,236	510.0
Sterling	12	1,906	629.6
West Salem	40	4,542	880.7
Apple Creek	28	7,819	358.1
Dalton	36	6,338	568.0
Fredericksburg	11	3,843	286.2
Lakeville	< 10	74	
Marshallville	< 10	2,465	
Navarre	< 10	627	
North Lawrence	0	456	0.0
Orrville	79	13,481	586.0
Shreve	27	3,745	721.0
Smithville	10	2,543	393.2
Wooster	267	43,708	610.9
Total	671		

## What the Community is Saying

- On the most valuable thing that the community could do to help

“Prevention education and assistance for medical expenses”

“Sometimes people need to travel out of the county for tests, treatment, etc and if they cannot drive, and have no one to help them, there is no one to drive them.”

- On barriers to providing needed services

“Cost, getting people to participate”

“Funding!”

## Assets and Resources

<b>Wooster Community Hospital</b>	<a href="http://www.woosterhospital.org">www.woosterhospital.org</a>	<b>(330)-263-8100</b>
<b>Description: WCH Health System is a 172-bed, full service and acute-care facility. Offering a complete range of inpatient and outpatient services, comprehensive cancer care, advanced imaging services, total joint replacement, rehabilitation, sleep medicine center, wound healing center and hyperbaric oxygen therapy, ambulatory surgery center, urgent care clinic, telehealth, and more.</b>		
<b>Aultman Orrville Hospital</b>	<a href="http://www.aultmanorrville.org">www.aultmanorrville.org</a>	<b>(330)-682-3010</b>
<b>Description: A 25-bed critical access facility that has been serving Orrville and Wayne County for more than 60 years. Offering a full range of inpatient and outpatient services; employing 230 health care professionals and having a medical staff of 140 active and courtesy physicians and allied health professionals.</b>		
<b>Cleveland Clinic</b>	<a href="http://My.clevelandclinic.org">My.clevelandclinic.org</a>	<b>(330)-287-4500</b>
<b>Description: A nonprofit multispecialty academic medical center that integrates clinical and hospital care with research and education.</b>		

## Child Abuse/Neglect

Thirty-four percent of community members surveyed chose child abuse/neglect as one of the most important health issues in our community (Figure 8). The Child Abuse Prevention and Treatment Act (CAPTA) has defined child abuse and neglect as “any recent act or failure to act on the part of a parent or caregiver that results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act that presents an imminent risk of serious harm.”<sup>19</sup> In Wayne County, in 2018, there were 110 children placed in Wayne County Children Services Board (CSB) custody, as compared to the 15,928 children in custody for the state. The placement rate (number of children in children services custody per 1,000) for Wayne County is 6.6 which is lower than the Ohio’s placement rate at 10.5. The biggest reason these children are removed from the home is dependency (meaning there is no one able to provide for the child’s care or supervision), making up 34% of the cases, followed by neglect (child does not receive proper care, or supervision) making up 16% of the cases, and abuse (physical and sexual) makes up 11% of the cases.<sup>20</sup> Some of the issues the Wayne County Children Services is facing are; children requiring higher levels of care to address complex and multi-system needs, children being placed out of county for their treatment needs, and because of these other issues, children are remaining in custody longer. Figure 13 shows the number of presenting problems that Wayne County Children Services Board has investigated from 2015-2019. The number of intake calls is shown in table 10. As seen in the table and figure the number of calls and the number of presenting problems has increased since 2015 and



continues to rise. These figures prove there are not only more cases but that the cases are more complex. Another issue is the number of grandparents raising grandchildren. This number is up from 789 in 2012 to 965 in 2019.<sup>20</sup>

Intake Calls Screened In	
2015	845
2016	963
2017	1000
2018	1040
2019	1010

Table 26. Source: Wayne County Children Services Board

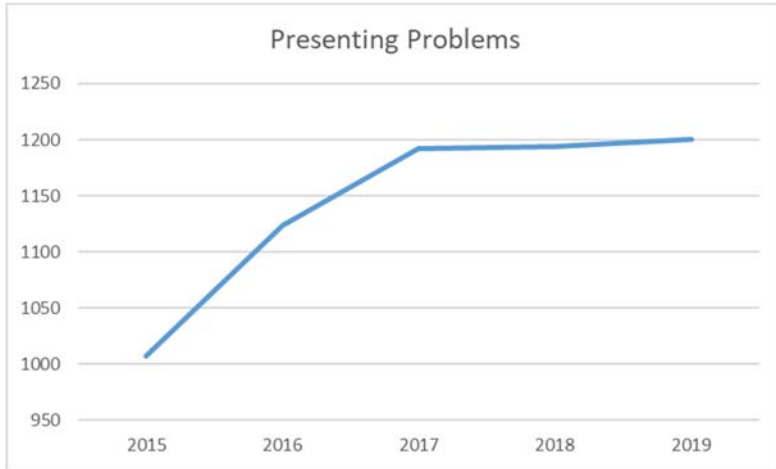


Figure 10. Presenting Problems. Source: Wayne County Children Services Board. \*Note: Can have more than one presenting problem per child.

### What the Community is Saying

- On the most valuable thing that the community could do to help

“Parent/caregiver intervention programs; awareness or programs and reporting procedures/outcomes; Knowledge of services like CSB, counseling, parenting support services, etc.”

“Parenting classes, education”

- On barriers to providing needed services

“Lack of funding, shortage of good foster homes, workforce shortage”

“Getting people to attend without court intervention”

### Assets and Resources

<b>Ohio Children’s Trust Fund</b>	<a href="http://octf.ohio.gov">octf.ohio.gov</a>	<b>(614)-387-5478</b>
<b>Description: Prevent child abuse and neglect through investing in strong communities, healthy families and safe children.</b>		
<b>Wayne County Children Services Board</b>	<a href="http://www.waynecsb.org">www.waynecsb.org</a>	<b>(330)-345-5340</b>
<b>Description: Protect abused and neglected children and to strengthen, preserve, and empower families.</b>		

## REFERENCES

1. County Health Rankings & Roadmaps. (n.d.). Retrieved from <https://www.countyhealthrankings.org/app/ohio/2021/measure/outcomes/42/data>
2. *Ohio Public Health Information Warehouse - Public: Browse - birth resident*. Public. (n.d.). Retrieved from <https://publicapps.odh.ohio.gov/EDW/DataBrowser/Browse/OhioLiveBirths>
3. Explore census data. (n.d.). Retrieved from <https://data.census.gov/cedsci/table?q=Wayne+County%2C+Ohio+Families+and+Living+Arrangements&tid=ACSDP5Y2020.DP02>
4. *Unemployment rate in Ohio*. FRED. (2022, April 1). Retrieved from <https://fred.stlouisfed.org/series/OHWAYN5URN>
5. *Wayne County, OH*. Data USA. (n.d.). Retrieved from <https://datausa.io/profile/geo/wayne-county-oh>
6. *Ohio education by the numbers: 2022 statistics, charts, Tables & Maps: Thomas B. Fordham institute advancing educational excellence*. Ohio Education by the Numbers: 2022 Statistics, Charts, Tables & Maps: Thomas B. Fordham Institute Advancing Educational Excellence. (n.d.). Retrieved from <https://www.ohiobythenumbers.com/#student-achievement-national-exams>
7. *U.S. Census Bureau quickfacts: Wayne County, Ohio*. (n.d.). Retrieved from <https://www.census.gov/quickfacts/waynecountyohio>
8. *Wayne County, OH*. Data USA. (n.d.). Retrieved from <https://datausa.io/profile/geo/wayne-county-oh>
9. *Census profile: Wayne County, OH*. Census Reporter. (n.d.). Retrieved from <https://censusreporter.org/profiles/05000US39169-wayne-county-oh/>
10. *Ohio Public Health Information Warehouse - Public: Browse - birth resident*. Public. (n.d.). Retrieved from <https://publicapps.odh.ohio.gov/EDW/DataBrowser/Browse/OhioLiveBirths>
11. *Data for a purpose*. BroadStreet. (n.d.). Retrieved from <https://broadstreet.io/board/BOARD/collection/Qm9hcmROb2RIOjy1MTQx>
12. Explore census data. (n.d.). Retrieved from [http://www.factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](http://www.factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml)



13. *Center for Applied Research and engagement systems*. CARES HQ. (n.d.). Retrieved [https://engagementnetwork.org/assessment/?REPORT=%7B%22indicator%22%3A%5B46%2C47%2C48%2C49%2C50%2C51%2C52%2C53%2C54%2C55%2C56%5D%2C%22name%22%3A%22Health+Indicators+Report%22%2C%22contentId%22%3A%22%23cdt-report-content%22%2C%22output%22%3A%7B%22countylist%22%3Afalse%2C%22statelist%22%3Atrue%2C%22map%22%3Atrue%2C%22breakout%22%3Atrue%7D%2C%22location%22%3A%7B%22key%22%3A%22county%22%2C%22type%22%3A%22county%22%2C%22show\\_county%22%3Atrue%2C%22show\\_state%22%3Atrue%2C%22id%22%3A%5B%2239169%22%5D%2C%22name%22%3A%5B%22Wayne+County%2C+OH%22%5D%7D%7D](https://engagementnetwork.org/assessment/?REPORT=%7B%22indicator%22%3A%5B46%2C47%2C48%2C49%2C50%2C51%2C52%2C53%2C54%2C55%2C56%5D%2C%22name%22%3A%22Health+Indicators+Report%22%2C%22contentId%22%3A%22%23cdt-report-content%22%2C%22output%22%3A%7B%22countylist%22%3Afalse%2C%22statelist%22%3Atrue%2C%22map%22%3Atrue%2C%22breakout%22%3Atrue%7D%2C%22location%22%3A%7B%22key%22%3A%22county%22%2C%22type%22%3A%22county%22%2C%22show_county%22%3Atrue%2C%22show_state%22%3Atrue%2C%22id%22%3A%5B%2239169%22%5D%2C%22name%22%3A%5B%22Wayne+County%2C+OH%22%5D%7D%7D)
14. *College of Dentistry*. The Value of Preventive Oral Health Care | College of Dentistry | University of Illinois Chicago. (n.d.). Retrieved from <https://dentistry.uic.edu/news-stories/the-value-of-preventive-oral-health-care/>
15. *Wayne County Community Health Survey 2019*. 2019Wayne County Health Department.
16. *Ohio Department of Health Information Warehouse*. 2019. Cancer Identified Incidence Data
17. *State Cancer Profiles*. State Cancer Profiles > Incidence Rates Table. (n.d.). Retrieved <https://statecancerprofiles.cancer.gov/incidencerates/index.php?stateFIPS=39&cancer=001&race=00&sex=o&age=001&type=incd&sortVariableName=rate&sortOrder=default#results>
18. *Cancer statistics*. National Cancer Institute. (n.d.). Retrieved from <https://cancer.gov/about-cancer/understanding/statistics>
19. *Nutrition and weight status*. Nutrition and Weight Status | Healthy People 2020. (n.d.). Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status>
20. MediLexicon International. (n.d.). *Mental health: Definition, common disorders, early signs, and more*. Medical News Today. Retrieved from <https://medicalnewstoday.com/articles/154543.php>
21. Violence is a public health issue: Public Health is essential to understanding and treating violence in the U.S. (n.d.). Retrieved from <https://apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2019/01/28/violence-is-a-public-health-issue>
22. Austin B. Frakt, P. D. (2018, March 27). *How the Economy Affects Health*. JAMA. Retrieved from <https://jamanetwork.com/journals/jama/fullarticle/2676095>
23. McGill, N. (2016, August 1). *Education attainment linked to health throughout lifespan: Exploring social determinants of health*. The Nation's Health. Retrieved from <https://www.thenationshealth.org/content/46/6/1.3>





24. *Definitions of child abuse and Neglect - Child Welfare.* (n.d.). Retrieved from <https://www.childwelfare.gov/pubPDFs/define.pdf>
25. *Public Children's Services Association of Ohio Factbook.* 2018-2019. 14<sup>th</sup> Edition. 2019. Counseling Center of Wayne and Holmes County. SFY 2019.
26. *Anda, R. F., Butchart, A., Felitti, V. J., & Brown, D. W.* (2010). Building a framework for global surveillance of the public health implications of adverse childhood experiences. *American journal of preventive medicine*, 39(1), 93-98.
27. *Weyer, S. M., Hustey, V. R., Rathbun, L., Armstrong, V. L., Anna, S. R., Ronyak, J., & Savrin, C.* (2003). A look into the Amish culture: what should we learn? *Journal of Transcultural Nursing*, 14(2), 139-145.
28. *Krause, Brooke and students enrolled in The College of Wooster Health Economics course in Spring 2021.* (May 3, 2021). *The Role of Social Determinants of Health among Viola Startzman Patients.*
29. *Vimont, Michael and One Eighty: 2020 Wayne County Substance Use/Youth Asset Survey*

