



Community Health Needs Assessment  
**November 2022**



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## EXECUTIVE SUMMARY

### What is the Pike County Community Health Assessment?

A community health assessment (CHA) is also known as a community health needs assessment (CHNA). The assessment is a comprehensive and systematic data collection and analysis process, designed to inform communities of top health needs and priorities, and intended to drive effective planning that results in positive changes. Evidence-based practice indicates that multisector collaborations should support shared ownership of all phases of community health improvement, including assessment, planning, investment, implementation, and evaluation, to realize healthy communities. The Pike County Health Coalition completed the last assessment in 2019. The previous health assessment was reviewed and updated in 2022, with data sets added to improve community knowledge and capacity to improve health.

### How was the CHA developed?

For the 2022 assessment, the Pike County Health Coalition utilized the Center for Disease Control (CDC) and National Association of City and County Health Officials' (NACCHO) Mobilizing Action through Planning and Partnership (MAPP) process. MAPP is a six-phase process that guides the assessment of the community's health needs and leads to the development of a community health improvement plan (CHIP). The assessment portion of the process includes a four-part strategy, focused on collecting qualitative and quantitative data from both primary and secondary sources, in order to identify community themes and strengths, community health status, and the forces of change in the community and within the local public health system. A total of 401 surveys were received. Demographic, socio-economic, health outcomes, and factors data were also obtained to create the assessment.

### How has the 2022 CHA been improved since the last assessment?

The 2022 CHA improves upon the 2019 CHA with the following additions:

- Additional survey questions and data on social factors
- Questions related to COVID and community response
- More questions related to substance use and mental health

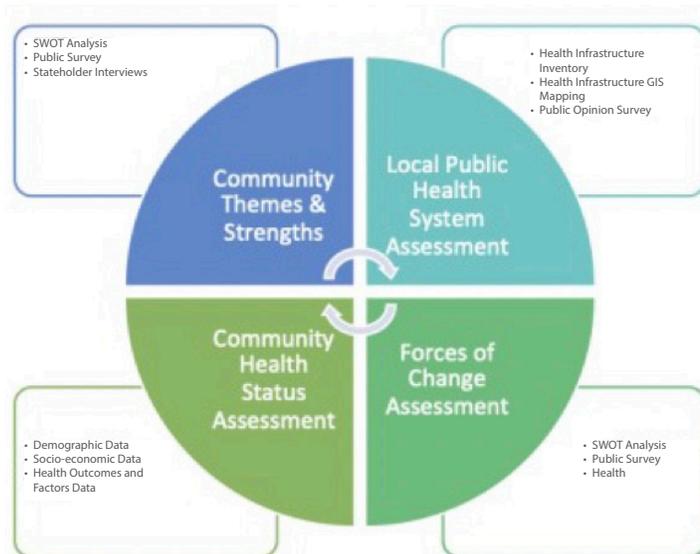


Figure 1: MAPP Four Part Comprehensive Assessment Process

Table 1: 2014-2022 County Health Rankings for Pike County

2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Outcomes (ranking out of 88 counties)</b>								
<b>83</b>	<b>85</b>	<b>88</b>	<b>88</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>
<b>Factors (ranking out of 88 counties)</b>								
<b>88</b>	<b>88</b>	<b>88</b>	<b>86</b>	<b>86</b>	<b>83</b>	<b>80</b>	<b>84</b>	<b>79</b>

### Key Findings

The 2022 CHA process included review of the 2019 assessment, as well as current county health rankings Report, to outline trends impacting public health. Health outcomes for Pike County continue to be in the lower quartile of the state, with Pike County ranking 87 out of 88 counties. Health factors have improved since the last assessment, as Pike County is currently ranked 79th out of Ohio’s 88 counties (source: 2022 County Health Rankings report).

### Since the 2019 Community Health Assessment

One area in which the Pike County Health Coalition was able to make progress was related to the goals surrounding smoking cessation. Prior to the pandemic, smoking cessation toolkits were distributed to Pike County businesses. A smoking cessation resource guide was created, published, and distributed to local businesses, with support of the Pike County Chamber of Commerce.

Unfortunately, other areas of progress were limited to non-existent. Once the 2019 assessment was completed and action plans developed, the COVID-19 pandemic brought the proposed programs and initiatives to a halt. The focus of the health partners in the coalition shifted to managing and addressing pandemic-related issues. That’s especially true for the work of the Pike Health District and local healthcare entities. Very few of the action plans were implemented, as access to partners was limited because of social distancing and because schools shifted to online; when they reopened, community partners access was restricted. In early 2022, work efforts of the Pike Health District were still focused on pandemic management; only in the second half of 2022 have community entities shifted to pre-COVID functions.

While progress on the CHIP was limited, participants in the coalition were busy addressing health concerns. The work that the Pike County Health Coalition partners performed during the pandemic was instrumental to saving lives and was received favorably from members of the community, as noted on the community input on this year’s assessment.





## PURPOSE AND OVERVIEW

### Introduction

The term “health” embodies a multi-faceted concept, particularly from a community perspective. An individual’s health is measured by the presence and/or severity of illness; whether they engage in behaviors that are a risk to their health; if so, the length of time the behavior has occurred. It can also be measured by asking individuals to report their personal perception of their overall health. The health of an entire community is measured by collecting and compiling individual data. Commonly used measurements of population health status are morbidity (incidence and prevalence of disease) and mortality (death rates). Socioeconomic data is usually included, as it relates to the environment in which individuals live. A particular population’s level of health is usually determined by comparing it to other populations, or by looking at health-related trends over time.

Everyone in a community has a stake in health. Poor health is costly to people trying to maintain employment, coupled with the fact that employers’ costs are impacted by high rates of absenteeism and higher health insurance costs. Entire communities can suffer economic loss when groups of citizens are ill, which became more apparent during the COVID-19 pandemic. As members of the community became ill, more businesses closed, which resulted in more assistance to fill the gaps. Everyone benefits from addressing determinants of social, environmental, economic, and behavioral health.

While race and culture matter to health, health status is also closely related to a number of socioeconomic characteristics. Individuals of various socioeconomic status show different levels of health and incidence of disease. Social and economic

variables shown to impact health include income, education, employment, literacy, language, and culture. Studies have shown that as much as 80% of health outcomes are determined by the social factors a person faces, as opposed to clinical intervention. If one doesn't understand the prescribed treatment (literacy), can't afford it (economic), is led by cultural perceptions, or can't access it (transportation), the intervention will not work, despite being the correct method.

Health literacy is a concept that links a person's level of literacy with their ability to understand and act upon health information and to ultimately take control of his or her health. When health information is communicated via the use of medical jargon or unclear language that likely exceeds his or her language skills, individuals with lower health literacy are at-risk for poor outcomes. Those individuals can have difficulty reading and comprehending materials, such as prescription bottles, educational brochures, and nutrition labels. They are more likely to have higher rates of medical complications than those who are more literate.

Obtaining information and views from community members is one of the most important aspects of the community health needs assessment. That involves surveying a percentage of the community to determine which health problems are most prevalent, in order to solicit their ideas concerning strategies to address those problems. It also explores the factors that impact the design of programs and services to effectively address the identified health problems on a broader scope.



## Influence of Healthy People 2030

In addition to collecting specific and direct population health data, surveys are also conducted to identify some of the forces of change, community strengths and weaknesses, and other factors that indirectly influence health outcomes. The public health survey used in this assessment was designed with the desired health metrics for Healthy People 2030.

The Healthy People initiative is focused on improving health and well-being in the United States, under the direction of the United States Department of Health and Human Services. The initiative identifies public health priorities to help individuals, organizations, and communities across the United States improve health and well-being.

Healthy People 2030, building on knowledge gained over the first four decades, established five overarching health goals for 2030:

- 1. Attain healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death.*
- 2. Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all.*

- 3. Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all.*
- 4. Promote healthy development, healthy behaviors, and well-being across all life stages.*
- 5. Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.*

To achieve those goals, a comprehensive set of objectives was established (Healthy People 2030), with 23 leading health indicators arranged with 358 objectives to measure health over a 10-year period. Those indicators, selected for their ability to motivate action, the availability of data to measure progress, and their importance as health issues for the public, influenced the development of the Pike County Health Coalition's 2022 CHNA.



# Healthy People 2030 Objectives and Measures



Healthy People 2030 Objectives and Measures  
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Figure 2: 2030 Healthy People Objectives and Measures

## Healthy People 2030 Leading Health Indicators (LHIs)

LHIs by life stage + h h

**All ages\*** + h h

- Children, adolescents, and adults who use the oral health care system (2+ years)
- Consumption of calories from added sugars by persons aged 2 years and over (2+ years)
- Drug overdose deaths
- Exposure to unhealthy air
- Homicides
- Household food insecurity and hunger
- Persons who are vaccinated annually against seasonal influenza
- Persons who know their HIV status (13+ years)
- Persons with medical insurance (<65 years)
- Suicides

\*Except where otherwise noted

Infants <span>+</span>	Children and adolescents <span>h</span>	Adults and older adults <span>h</span>
Infant deaths	<ul style="list-style-type: none"> <li>4th grade students whose reading skills are at or above the proficient achievement level for their grade</li> <li>Adolescents with major depressive episodes (MDEs) who receive treatment</li> <li>Children and adolescents with obesity</li> <li>Current use of any tobacco products among adolescents</li> </ul>	<ul style="list-style-type: none"> <li>Adults engaging in binge drinking of alcoholic beverages during the past 30 days</li> <li>Adults who meet current minimum guidelines for aerobic physical activity and muscle-strengthening activity</li> <li>Adults who receive a colorectal cancer screening based on the most recent guidelines</li> <li>Adults with hypertension whose blood pressure is under control</li> <li>Cigarette smoking in adults</li> <li>Employment among the working-age population</li> <li>Maternal deaths</li> <li>New cases of diagnosed diabetes in the population</li> </ul>

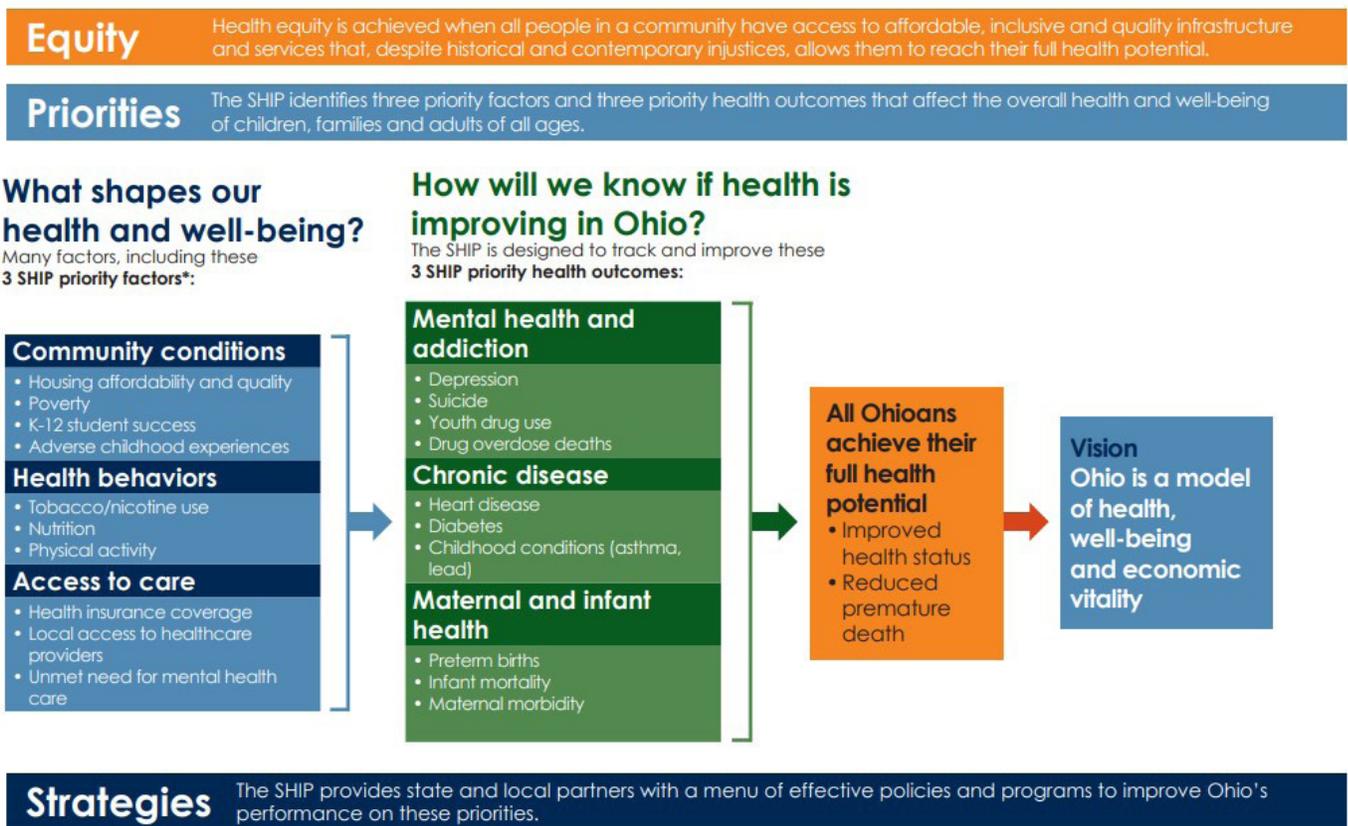
Figure 3: Healthy People 2030 Leading Health Indicators (LHIs)

## Ohio State Health Improvement Plan

The Ohio Department of Health has aligned statewide community health planning with the Healthy People 2030 approach. With the long-term goal of ensuring that all Ohioans achieve their full health potential, the Ohio state health improvement plan (SHIP) takes a comprehensive approach to achieving equity and addressing the many factors that shape our health, including housing, poverty, education, and trauma (Figure 4).

The SHIP is a tool to strengthen state and local efforts to improve health, well-being, and economic vitality in Ohio. The Pike County Health Coalition has aligned several local CHIP priorities with the SHIP. The SHIP's main components:

- Six priorities, including three factors and three health outcomes
- 37 measurable objectives
- A menu of evidence-informed strategies
- An evaluation plan to track and report progress



\* These factors are sometimes referred to as the social determinants of health or the social drivers of health

## Pike County Health Coalition

The Pike County Health Coalition is a collaborative, community-based group, whose efforts are aimed at improving the quality of life for Pike County residents. The coalition will continue its collaboration, with the objective to complete an updated assessment and strategic plan in 2022.

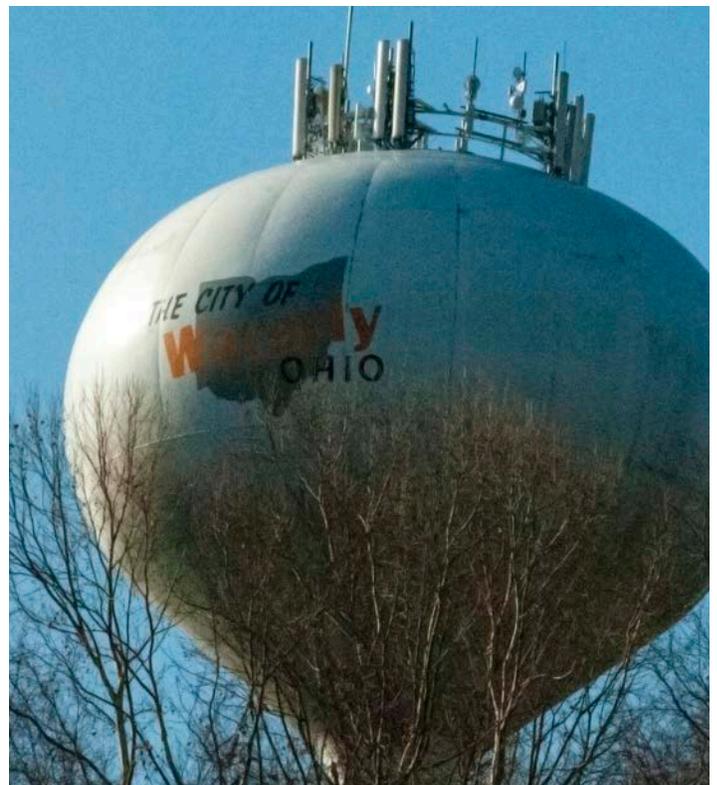
The coalition, organized with a memorandum of understanding (MOU), is structured with a steering committee and subcommittees that are focused on specific health priorities, with representation from:

- Pike County General Health District
- Adena Health System
- Valley View Health Center
- Community Action Committee of Pike County
- OSU Extension – Pike County
- Pike Healthy Lifestyle Initiative (PHLI)
- Pike County Job and Family Services
- Pike County Senior Center
- Pike County Children’s Services
- The Recovery Council
- Southern Ohio Medical Center
- Paint Valley ADAMH Board
- Pike County YMCA
- Pike County Sherriff’s Department
- Pike County Partnership Against Domestic Violence
- Ross-Pike Educational District

The coalition’s efforts are driven by a vision of a community, in which everyone has knowledge of and access to health and wellness resources. By keeping in mind the values of respect, trust, inclusiveness, engagement, and communication, the Pike County Health Coalition is mission-focused to raise awareness and to ultimately improve the health and wellness of Pike County residents through the ongoing cooperation of community leaders, local health care providers, community organizations, and citizen support.

By working through the Pike County residents’ socioeconomic issues, the goal of improved health and wellness can be achieved.

For the 2022 CHA, the Pike County Health Coalition utilized the data-driven Mobilizing Action for Planning and Partnership (MAPP) process developed by the National Association of City and County Health Officials (NACCHO) and the Centers for Disease Control (CDC). The six-phase process includes a four-part community health needs assessment, as well as an in-depth analysis of community health trends, gaps, and resources with which to comprehensively evaluate the current state of health in Pike County and to prioritize key public health issues. The data will subsequently be used to develop a community health strategic plan.



**Planning Process**

The 2022 CHNA was completed through a comprehensive process of data collection and evaluation, utilizing the MAPP process. The data for this report reflects Pike County only. Both qualitative and quantitative data were collected from primary and secondary sources. Data was collected in a total of four categories (Figure 5): community themes and strengths; local public health system; community health status; and forces of community change.

The information was compiled and evaluated by the Pike Health Coalition hospital and public health work teams to finalize specific health-related priorities. The published assessment completed from those efforts is intended to inform decision makers and funders about the challenges that Pike County faces with improving community health and the priority areas in which support is most needed. The information is also envisioned to be useful as a planning tool for community organizations.

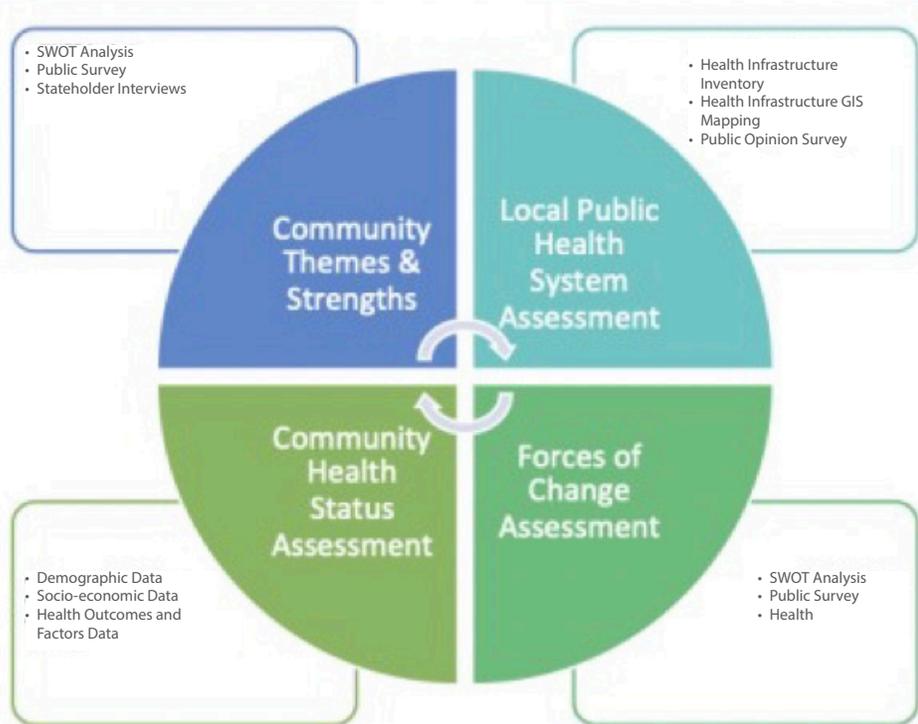


Figure 5: MAPP Four-part Comprehensive Assessment Process

## Methods

Quantitative and qualitative methods were used to collect information for this assessment. Quantitative data collected includes demographic data for the county's population; vital statistics, such as birth and death rates; and disease prevalence for the county as a whole. An inventory of the community's health-related infrastructure was taken and mapped, utilizing GIS technology.

Qualitative data for this report was collected, which provided greater insight to the issues experienced by the population. Data includes opinions expressed by residents from a widely distributed community health survey. Paper copies and digital access to the survey was utilized to capture as many voices as possible. Surveys were available at local health organizations, libraries, community and social service agencies, as well as community events, such as the Pike County Fair. The coalition received 401 survey responses; however, only 294 were used in the analysis, as the others indicated that they were not residents of Pike County. Feedback was also solicited from community stakeholders.

## Source

Primary and secondary data sources were used as part of the needs assessment and came from both internal and external sources. Internal data came from within the health system/hospital (patient population data) and external from outside the health system/hospital (county and state). The primary data gathered includes new information that may be used to investigate and help solve a problem (e.g., the percentage of survey participants who ranked obesity as a top-10 health problem). Secondary data are the statistics and other data already published or reported to government agencies (e.g., childhood obesity rates).

## Secondary Data: Publicly-Available Statistics

Existing data were collected from all applicable local, state, and federal agency sources, including from public health agencies (e.g., Ohio Department of Health; Ohio Department of Job and Family Services; United States Department of Labor; United States Census Bureau). That information included

demographics, economic and health status indicators, and service capacity/availability. Local data on health infrastructure, including an inventory of all healthcare providers, nutrition, fitness, and social support, was collected as part of the public health system review and then mapped with GIS technology to create a visual for health resource gaps in the community. That information was also compared with local health system population health data to identify disparities in resource availability.

Data at the national and state level are generally available for community health-related indicators. Local data from counties and cities is less accessible and sometimes less reliable. Some data from publically available sources typically lags by at least two years, as it takes time for the reported data to be received, reviewed, approved, analyzed, and prepared for presentation.

## Primary Data: Community Input

Primary methods used in the assessment process for collecting input from the community includes community and stakeholder survey techniques.

## Community Questionnaire

A questionnaire was developed for the general public, which queried respondents about the most important health needs, as well as common barriers and habits they use to maintain their own personal health (Appendix 2). The survey was distributed in hard copy by member agencies and community partners to a variety of Pike County locations in which groups of interest would be best reached. Those included local food banks, social service providers, community health clinics, public health department, and Adena Health System physician practices. In addition, the survey was broadly available through an electronic survey. Notices about the online version and the survey link were posted on member agencies' websites and social media pages, published via social media, and emailed to members of local business, government, civic groups, schools, and universities. All of the hard-copy survey data was entered into the electronic survey by Adena Health System or Pike Health District staff.

## Stakeholder Interviews

Another primary data strategy was the solicitation of input from community stakeholders. A survey was developed for the community leaders in community that asked participants their opinions about the community's strengths, major challenges, and needed improvements to community health. The survey was distributed, but minimal responses received. Given limited response to the assessment, subsequent follow-up will be completed with stakeholders for their input to the CHIP. Some of the discussion within the Pike Health Coalition meetings has centered on how to reengage stakeholders post-pandemic, as their cooperation will be needed for initiatives and further community progress.

## Limitations of the public data

Conducting community health assessments and the other MAPP assessments in a rural community can be difficult. Limitations to data collection, the reliability of survey results, and the extent of community participation limit the ability of the health department and its partners to develop community health programming and activities.

Limitations to the 2022 CHA survey:

- Limited interaction from male members of the population.
- Reliance on online survey tools to collect data, which can be a barrier to some in the community.
- Low overall community literacy rates, which could lead to difficulty in understanding survey questions.

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## 2019 CHIP PROGRESS REPORT

The Pike County Health Coalition completed its last collaborative CHNA in 2019. As part of the 2019 CHNA, the coalition identified needs around a number of health issues in the Pike County community. Secondary to limited capacity of participating agencies, the group decided to focus on three issues for which they could build infrastructure and programming that would impact top health concerns, including improving systems, the creation of collaborations, and the resources needed to increase community capacity to improve health.

### Process

The CHIP was developed in cooperation with the Pike County Health Coalition (PCHC). Due to consistently low ratings in the county health rankings over the last 10 years, the Pike County General Health District has been working with the PCHC to develop priorities and to strategize desired outcomes.

The Pike County General Health District integrated a framework with the PCHC to distinguish CHIP priorities. The Mobilizing for Action through Planning and Partnerships (MAPP) framework is a community-driven strategic planning tool for improving community health. The MAPP phases are organizing; visioning; assessments; strategic issues; goals/strategies; and action cycle.

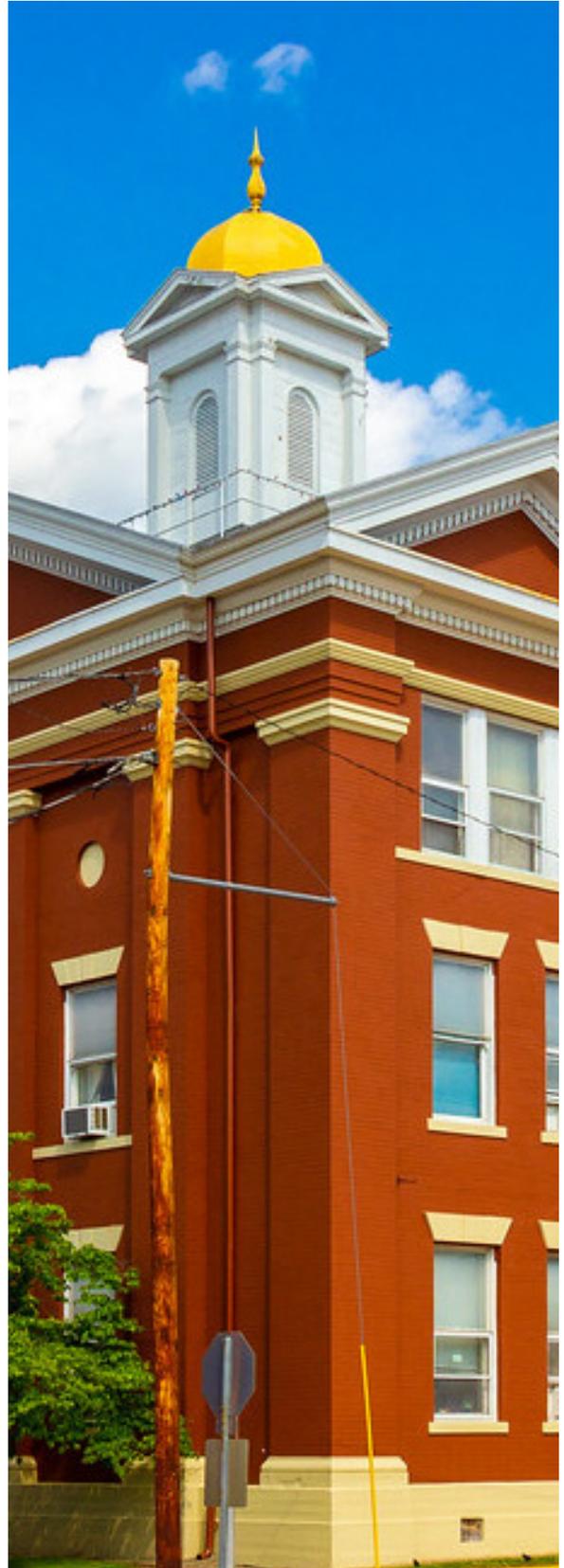
### Priorities

The Pike County General Health District was instrumental during the process of forming a small group from the PCHC to set the priorities for the CHIP and to fulfill a grant deliverable. County priorities were aligned with the SHIP. Those priorities were also based upon the survey that Pike County residents completed as part of the community health assessment. The SHIP priorities consisted of mental health and substance abuse, chronic disease, and maternal and infant health.

After deciding to align with the SHIP priorities, the following health factors were selected for the Pike County CHIP:

- Drug abuse
- Tobacco
- Obesity

After selecting the priorities, subcommittees were formed from the PCHC to focus efforts on making progress in each of the areas. For example, the Pike County Drug Abuse Prevention and Re-entry Coalition would take on the drug abuse priority; the smoking cessation committee would lead the tobacco initiative, and the Pike Healthy Lifestyle Initiative would spearhead the obesity priority. Each subcommittee would have a member from the Pike County General Health District to guide, monitor, and assist in the development of the strategies necessary to measure performance of the priorities



<p>Priority #1: Substance Abuse</p> <p><b>The drug abuse epidemic is of national, state, and local concern. Drug abuse negatively impacts our community socially, economically, genetically, and environmentally.</b></p> <p><b>Goal 1:</b> Reduce drug abuse in Pike County residents.</p> <p><b>Key Measure 1:</b> Increase the percentage of adolescents who never use illicit drugs.</p> <p><b>Key Measure 2:</b> Increase the visibility of prevention, treatment, and recovery resources.</p>				
<p><b>Objectives</b></p>				
<p><b>Objective 1:</b> Increase the visibility of SUD resources.</p>	<p><b>Deliverable</b></p> <p><b>Reach 15% of Pike County residents (4,210 citizens) and vulnerable population with resource information via multiple communication venues.</b></p> <ol style="list-style-type: none"> <li>1.) Distribute 500 resource guides via local emergency department, health events.</li> <li>2.) Activities on communication plan executed 100%.</li> </ol>	<p><b>Action Steps</b></p> <ol style="list-style-type: none"> <li>1.) Update current resource guide.</li> <li>2.) Share and educate community partners on resource guide.</li> <li>3.) Establish communication plan for resource dissemination.</li> <li>4.) Establish a resource distribution tracking system.</li> <li>5.) Develop quarterly reporting plan of data.</li> </ol>	<p><b>Timeframe</b></p> <p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p><b>Responsible</b></p> <p>Brandi Hawthorne (Community Action) Melanie Swisher (ADAMH) Nichole Smith (PCGHD)</p> <p><b>Data Source:</b> PCGHD social media analysis, newspaper circulation, etc. as percentage of total population</p> <p><b>Data Source:</b> Resource guides distributed to individuals and families (counted and reported by Community Action).</p>
<p><b>Objective 2:</b> Implement OH YES survey or similar instrument in the Pike County School Districts.</p>	<p><b>Deliverable</b></p> <p><b>Receive surveys from 60% of 7<sup>th</sup> graders enrolled in Pike County schools.</b></p> <ol style="list-style-type: none"> <li>1.) 237 surveys completed.</li> </ol> <p><b>Data Source:</b> Survey responses</p>	<p><b>Action Steps</b></p> <ol style="list-style-type: none"> <li>1.) Determine survey instrument to be used.</li> <li>2.) Contact Pike County School Districts and educate partners.</li> <li>3.) Have students complete and collect surveys.</li> </ol>	<p><b>Timeframe</b></p> <p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p><b>Responsible</b></p> <p>Brandi Hawthorne (Community Action) Melanie Swisher (ADAMH) Nichole Smith (PCGHD) Kim Jones (Adena)</p>

<p><b>Objective 3:</b> Implement HIPS program.</p>	<p><b>Increase parent/guardian participation in HIPS program.</b></p> <ol style="list-style-type: none"> <li>1) Greater than 5 events each year to make HIPS accessible to community.</li> <li>2) Greater than 100 parents/guardian participating each year where HIPS is available.</li> </ol> <p><b>Date Source:</b> Pre and post-tests returned</p>	<p>4.) Analyze data.</p> <ol style="list-style-type: none"> <li>1.) Contact stakeholders in community for participation.</li> <li>2.) Develop pre and posttests.</li> <li>3.) Explore funding options to support sustainability.</li> <li>4.) Monitor program for success.</li> <li>5.) Secure a trailer for easy set up at events – Needs communication plan</li> </ol>	<p><b>Start:</b> January 31, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Brandi Hawthorne (Community Action) Melanie Swisher (ADAMH) Nichole Smith (PCGHD)</p>
<p><b>Objective 4:</b> Increase PORT engagement</p>	<p><b>Revisit greater than 80% of overdose victims and/or families.</b></p> <ol style="list-style-type: none"> <li>1.) Greater than 190 PORT harm reduction kits distributed.</li> <li>2.) # of Narcan kits distributed</li> </ol>	<ol style="list-style-type: none"> <li>1.) Review and update PORT process and response team members</li> <li>2.) Develop harm reduction kits for dissemination during visits.</li> <li>3.) Secure funding to provide Narcan to OUD victims and families</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Brandi Hawthorne (Community Action) Melanie Swisher (ADAMH) Nichole Smith (PCGHD) Kim Jones (Adena)</p>

Priority #2: Tobacco and Vaping				
Tobacco use continues to create unhealthy lifestyles for the residents of Pike County. Health risks associated with smoking and tobacco use include cancer, heart disease, low birth weight babies, and stroke. Those health conditions are among the top health challenges for Pike County residents.				
Goal 1: Reduce the rates of early death from lung cancer and COPD in Pike County residents year over year.				
Key Measure 1: Reduce tobacco and vaping rates from 34.6% to 29.6% for Pike County residents.				
Key Measure 2: Increase tobacco and vaping education across Pike County 6 <sup>th</sup> -8 <sup>th</sup> grade classrooms.				
Objectives	Deliverable	Action Steps	Timeframe	Responsible
Objective 1: Increase the visibility of smoking and vaping cessation resources.	<p><b>Reach 10% of Pike County residents with cessation resources. Population 28,709. Reach 2,870 citizens.</b></p> <ol style="list-style-type: none"> <li>1.) Distribute 500 resource guides via local primary care offices, health department, and community events.</li> <li>2.) Activities on communication plan executed 100%.</li> <li>3.) Implement a smoking cessation class.</li> <li>4.) Increase the use of the Ohio quit line.</li> </ol> <p><b>Data Source:</b> Resource guides distributed to individuals and families (counted and reported by Adena Health System).</p> <p><b>Data Source:</b> PCGHD social media analysis, newspaper circulation, etc. as percentage of total population.</p>	<ol style="list-style-type: none"> <li>1.) Review and update resource guide</li> <li>2.) Share and educate community partners on resource guide.</li> <li>3.) Establish communication plan for distribution of guide.</li> <li>4.) Develop timeline for reporting back and data analysis</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Kim Jones (Adena) Dave Zanni (Adena) Nichole Smith (PCGHD)</p>
Objective 2: Implement middle school tobacco and vaping education.	<p><b>Engage greater than 650 (50%) students with vaping and smoking prevention education.</b></p> <ol style="list-style-type: none"> <li>1.) Deliver tobacco and vaping prevention education to greater than 580 students in 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade.</li> <li>2.) 60% of 5<sup>th</sup> graders return Smoke Free Home contracts</li> </ol> <p><b>Data Source:</b> Participant roster data.</p> <p><b>Data Source:</b> Completed and submitted contracts.</p>	<ol style="list-style-type: none"> <li>1.) Develop education and communication plan.</li> <li>2.) Develop contract.</li> <li>3.) Contact Pike County School Districts and educate partners.</li> <li>4.) Have students complete and collect contracts.</li> <li>5.) Incentive for education participation and returned contracts.</li> <li>6.) Analyze data.</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Kim Jones (Adena) Dave Zanni (Adena) Nichole Smith (PCGHD) Todd Burkitt (RPESD)</p>

<p><b>Objective 3:</b> Increase smoke free public space adoption across Pike County.</p>	<p><b>Greater than 10% of public businesses and parks across the county adopt smoke free policies.</b></p> <ol style="list-style-type: none"> <li>1.) Greater than 80 businesses request smoke free workplace kits each year.</li> <li>2.) Greater than 1 park adopts smoke free space policies each year.</li> </ol> <p><b>Data Source:</b> Utilization of business kits and adoption of smoke free space policy.</p>	<ol style="list-style-type: none"> <li>1.) Develop smoke free space education and communication plan.</li> <li>2.) Develop and brand smoke free workplace kits for distributions to businesses.</li> <li>3.) Secure funding to purchase "no smoking" signs for parks.</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Kim Jones (Adena) Dave Zanni (Adena) Nichole Smith (PCGHD) Shirley Bandy (Pike County Chamber of Commerce)</p>
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Priority #3: Obesity				
Obesity is a growing problem in Pike County. Exercise and nutrition were identified as key topics of interest by the residents of Pike County.				
Goal 1: Reduce the obesity rate in Pike County by 29.1% to 25.1%.				
Key Measure 1: Increase the visibility of fitness and nutrition education and resources.				
Key Measure 2: Increase the number of children who receive healthy eating education.				
Objectives	Deliverable	Action Steps	Timeframe	Responsible
<p><b>Objective 1:</b> Improve, increase, and sustain the current MY PLATES program among Pike County 3<sup>rd</sup> grade students.</p>	<p><b>60% of 3<sup>rd</sup> graders complete program</b></p> <ol style="list-style-type: none"> <li>1.) % of schools implementing the MyPlate program</li> <li>2.) # of students participating in MyPlate program</li> <li>3.) Greater than 50% of students increase their knowledge of healthy eating.</li> </ol> <p><b>Data Source:</b> Tracking form, number of student participants, pre and post test results</p>	<ol style="list-style-type: none"> <li>1.) Develop education and communication plan.</li> <li>2.) Educate 3<sup>rd</sup> grade teachers and students on program guide.</li> <li>3.) Develop a pre and posttest for MyPlate program.</li> <li>4.) Identify funding for continued purchase of plates for program.</li> <li>5.) Data analysis</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Rita Auton (PHLI) Clint Boggs Nichole Smith (PCGHD) School Nurses (Waverly, Pikeon, Eastern and Western School Districts)</p>
<p><b>Objective 2:</b> Disseminate community nutrition and fitness education.</p>	<p><b>Reach 10% of Pike County residents (2,871) with fitness and nutrition resources and education.</b></p> <ol style="list-style-type: none"> <li>1.) Distribute 500 resource guides via local emergency department, health department, PORT, and community events.</li> <li>2.) Activities on communication plan executed 100%.</li> </ol> <p><b>Data Source: PCGHD social media analysis, newspaper circulation, etc., as percentage of total population</b></p>	<ol style="list-style-type: none"> <li>1.) Develop and brand community nutrition and fitness resource guide.</li> <li>2.) Develop and brand a school healthy celebrations guide.</li> <li>3.) Develop and execute communication plan for resource education and dissemination, including target plan for developmentally disabled population.</li> <li>4.) Develop data collection and reporting plan</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Nichole Smith (PCGHD) Rita Auton (PHLI) Clint Boggs Kim Jones (Adena) Dave Zanni (Adena) Sherry Shepherd (Adena) Hillary Nichols (Adena)</p>

Priority #4: Access To Care				
Access to medical care has been identified by the Pike County community (via survey) as barrier to improved health outcomes and factors.				
Goal 1: Reduce barriers to care identified by the community – service availability, childcare, transportation.				
Key Measure 1: Reduce the access to care barrier by 15%.				
Key Measure 2: Decrease the childcare burden within the community by 20%				
Key Measure 3: Reduce the transportation burden in the community by 25%.				
Objectives	Deliverable	Action Steps	Timeframe	Responsible
Objective 1: Education around proper healthcare utilization.	<p><b>Reach 10% of Pike County residents (2,871) with healthcare utilization and resource education.</b></p> <ol style="list-style-type: none"> <li>1.) Distribute 500 education guides via local emergency departments, health department, primary care offices and community events/organizations.</li> <li>2.) Activities on communication plan executed 100%.</li> </ol> <p><b>Data Source:</b> Education guides distributed to individuals and families (counted and reported by PCGHD).</p> <p><b>Data Source:</b> PCGHD social media analysis, newspaper circulation, etc. as percentage of total population; ED utilization data.</p>	<ol style="list-style-type: none"> <li>1.) Develop education and communication plan.</li> <li>2.) Produce education materials and communication pieces.</li> <li>3.) Develop data collection and tracking plan</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Nichole Smith (PCGHD)</p> <p>Kim Jones (Adena)</p> <p>Dave Zanni (Adena)</p> <p>Sherry Shepherd (Adena)</p> <p>Hillary Nichols (Adena)</p>
Objective 2:	<b>Reach 10% of Pike County residents (2,871) with</b>	1.) Develop education	<b>Start:</b> September 1, 2020	Nichole Smith (PCGHD)

<p>Transportation resources for medical appointments.</p>	<p><b>transportation resource education.</b></p> <ol style="list-style-type: none"> <li>1.) Distribute 500 education guides via local emergency department, health care offices and community events/organizations.</li> <li>2.) Activities on communication plan executed 100%.</li> </ol> <p><b>Data Source:</b> Education guides distributed to individuals and families (counted and reported by PCGHD); survey results.</p>	<p>and communication plan.</p> <ol style="list-style-type: none"> <li>2.) Produce education materials and communication pieces.</li> <li>3.) Develop data collection and tracking plan</li> </ol>	<p><b>End:</b> December 31, 2022</p>	<p>Dave Zanni (Adena) Sherry Shephard (Adena) Hillary Nichols (Adena)</p>
<p><b>Objective 3:</b> Increase childcare utilization.</p>	<p><b>Increase the number of childcare providers in Pike County by 20%</b></p> <ol style="list-style-type: none"> <li>1.) Activities on service development plan 100% executed.</li> <li>2.) Distribute 200 childcare service information pieces and referrals via local schools, ODJFS, Ross Pike ESD community events/organizations.</li> <li>3.) Activities on communication plan executed 100%.</li> </ol>	<ol style="list-style-type: none"> <li>1.) Identify agency partners to support new provider opportunities.</li> <li>2.) Develop service development plan.</li> <li>3.) Develop childcare provider guide.</li> <li>4.) Develop communication plan</li> </ol>	<p><b>Start:</b> September 1, 2020 <b>End:</b> December 31, 2022</p>	<p>Nichole Smith (PCGHD) Kim Jones (Adena) Childcare representative (ODJFS) Childcare representative (Local business owner)</p>

<p><b>Objective 4:</b> Increase pediatric care options in Pike County to decrease travel time to services.</p>	<p><b>Increase the number of pediatric specialty care services in Pike County by 20%</b></p> <ol style="list-style-type: none"> <li>1.) Activities on service development plan 100% executed.</li> <li>2.) Distribute 500 education guides via local emergency department, health department, primary care offices and community events/organizations.</li> <li>3.) Activities on communication plan executed 100%.</li> </ol>	<ol style="list-style-type: none"> <li>1.) Identify agency partners to support new provider opportunities.</li> <li>2.) Develop service development plan.</li> <li>3.) Develop childcare provider guide.</li> <li>4.) Develop communication plan</li> </ol>	<p><b>Start:</b> September 1, 2020</p> <p><b>End:</b> December 31, 2022</p>	<p>Nichole Smith (PCGHD) Kim Jones (Adena Specialty Care Representative (NCH Representative (Valley View)</p>
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**COVID-19 PANDEMIC IMPACT TO COMMUNITY HEALTH ASSESSMENT AND PLAN**

It should be noted that the 2019 CHNA was completed in December 2019. By the end of the first quarter of efforts to update the CHIP and continue with initiatives, the COVID-19 pandemic forced an immediate re-prioritization of community health needs, with a sole focus on preventing deaths and hospital surges. That focus was maintained well into 2021, with efforts re-focusing on the 2019 CHNA at the beginning of 2022. Although not a great deal of progress was made on the 2020 CHIP developed from the 2019 CHA, there was progress in some areas; in 2022, the community began to transition to pre-COVID norms.

Unfortunately, in Pike County, the pandemic resulted in leadership and staffing changes with many agencies in the Pike Health Coalition. Such changes resulted in a needed education period for member and community agencies about the goals, purpose, and objectives of the health coalition.

**2022 Data Review**

The Pike County Health Coalition collected a variety of data during 2022 to complete the CHNA. The data included both qualitative and quantitative data from both primary and secondary sources.

Qualitative data included the survey, key stakeholder interviews, and public data offered via the Pike County General Health District social media sites. Internet and social media sites were utilized to post the survey and to solicit public comment information. Both electronic and paper copies of the surveys were collected at local healthcare and social service delivery sites, as well as via social media sharing by partnering agencies. All paper copies of the survey were input to the electronic system by employees of the Pike County General Health District and the Adena Health System. More than 400 surveys were collected from the general public. Only 290 of the respondents indicated that they were residents of Pike County and ultimately counted in the survey responses.



## COMMUNITY PROFILE

### Pike County, Ohio

Pike County is located in rural, south central Ohio (Figure 6) and is one of Ohio's 32 Appalachian counties. The county covers 444 square miles, of which only approximately five percent is used for residential, commercial, or industrial purposes (Ohio Development Services Agency 2018). More than 64% of the land is forested and another 9% is farmland. The remaining 15% is pasture.

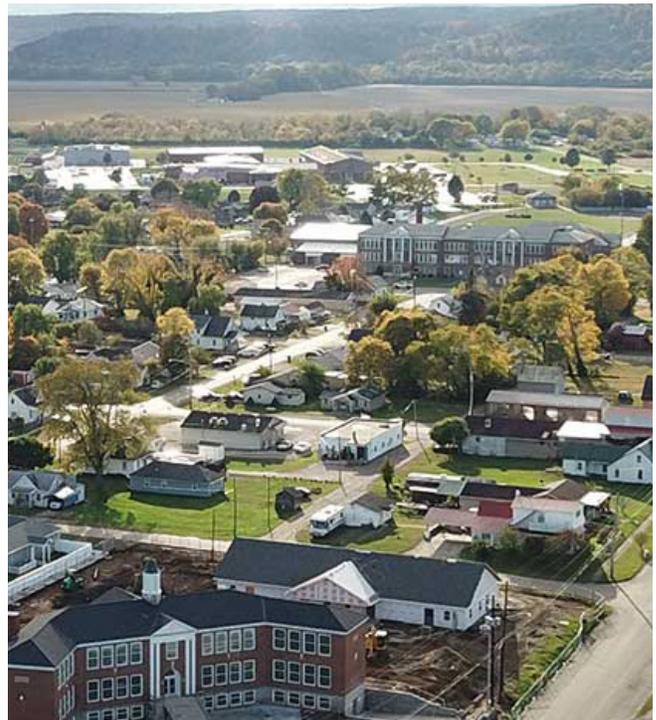
Pike County is rich in natural resources—particularly timber—which contributes to the leading industrial sector for the county – goods producing services. In addition, the local healthcare system, senior living and care facilities, and the local school systems provide the most employment opportunities.

With 27,695 people, Pike County is the 79th most populated of Ohio's 88 counties (2022 County Health Ranking Study). Approximately 4,120 people (2020 Census Data) live in Waverly, the county seat. The county is part of the 2nd Congressional District and contains the population patterns and distinct economic conditions inherent to the Appalachian region. Those include challenges such as low educational attainment and limited economic diversification and growth.

Poverty levels are considerably high in the region, with more than 24% of the children in the county living below the federal poverty level. The median household income is \$46,400. Educational attainment is also considerably lower than the state and national averages, with approximately 14% having a four-year college degree or higher.



Figure 6: Pike County, Ohio



## COUNTY HEALTH RANKINGS

The economic and educational challenges experienced in Pike County and the surrounding region have been correlated to declining health. Many southern Ohio counties, including Pike County, are considered some of Ohio’s unhealthiest. The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute publish an annual report outlining health outcomes and factors of counties throughout the United States. Pike County’s findings are outlined further in this assessment.

In overall positive health outcomes, the State of Ohio is ranked low nationally. All 88 counties were ranked as related to both health outcomes and health factors. Rates of death from heart disease, lung cancer, and pulmonary-respiratory diseases are all above state and national averages. Pike County ranks 87th of 88 counties for health outcomes and 79th for health factors, which is an improvement over recent years.

Pike County has stayed relatively the same over the last several years in terms of health outcomes. There has been some improvement on health factors and access to healthcare has improved. Socio-economic conditions, such as employment and educational attainment, have improved slightly. For clinical care, Pike County is ranked 18th in the state of Ohio.

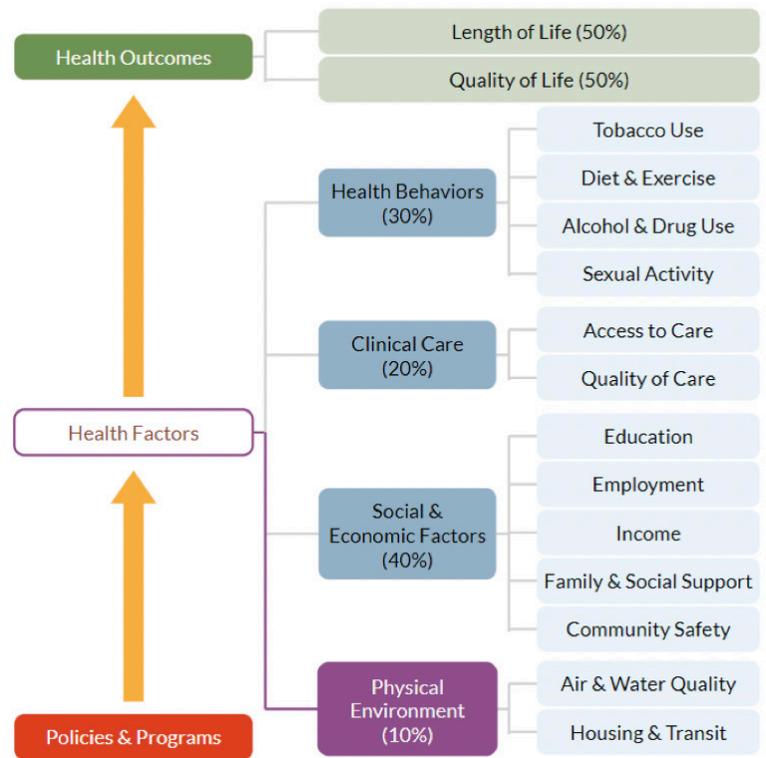


Figure 7: County Health Rankings Assessment Criteria

Given the improvements made in health factors, eventual improvement in health outcomes are indicated.

Opportunities exist to improve early death related to accidents (drug overdoses and traffic fatalities), as well as to improve social supports, mental health, and health behaviors, such as drinking and smoking.

Table 2: Pike County Health Rankings - 2014-2022

2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Outcomes:</b>								
83	85	88	88	87	87	87	87	87
<b>Factors:</b>								
88	88	88	86	86	83	80	84	79

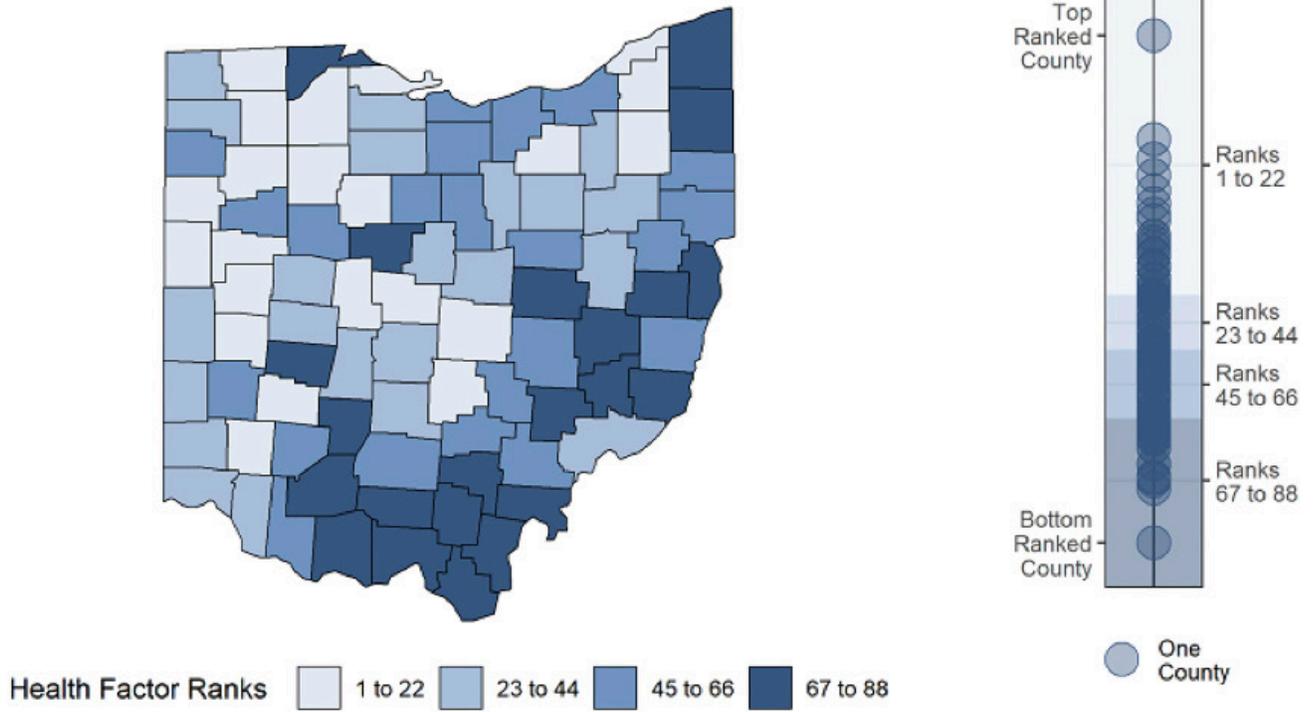


Figure 8: 2022 Ohio Health Factor Ranking Map

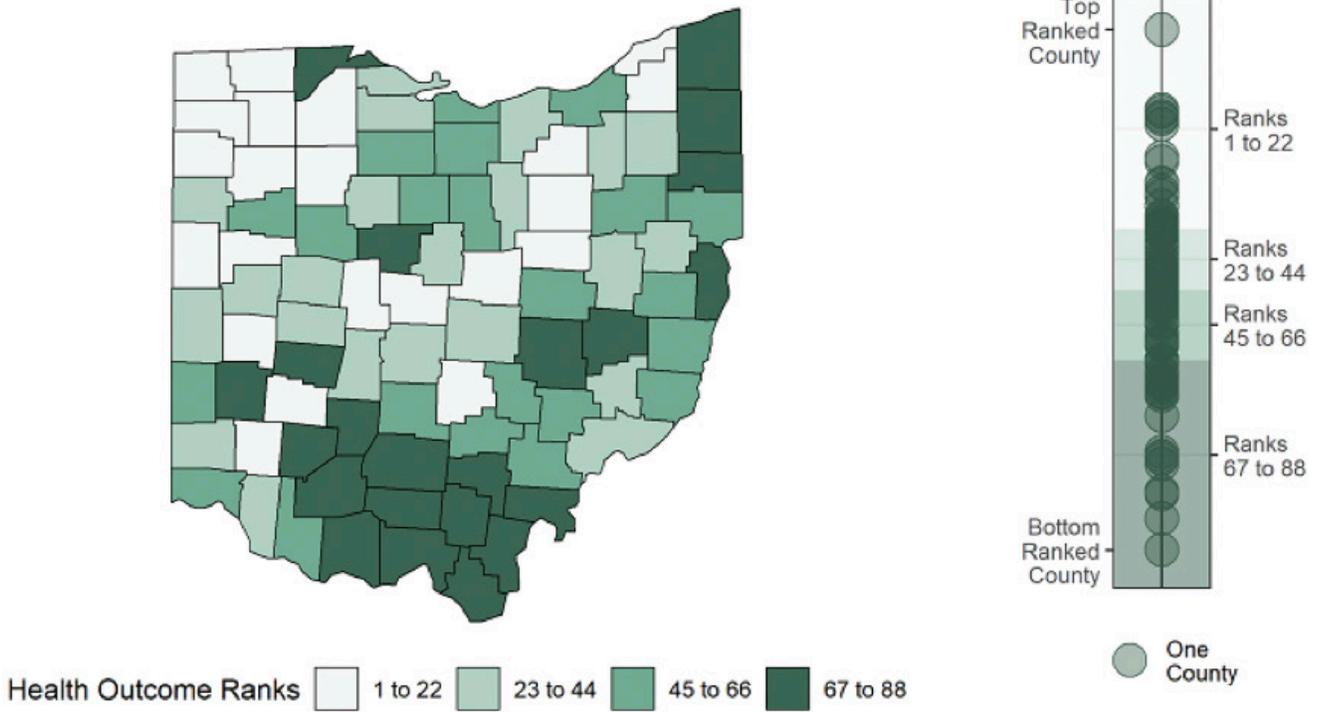


Figure 9: 2022 Ohio Health Outcomes Ranking Map

Table 3: Pike County Health Rankings - 2022

<b>2022 County Health Rankings - Pike</b>				
	<b>County</b>	<b>Error Margin</b>	<b>Top US Performers</b>	<b>State</b>
<b>County Demographics</b>				
Population	27,695			11,693,217
% below 18 years of age	23.40%			22.0%
% 65 and older	18.70%			17.9%
% Non-Hispanic Black	1.10%			12.7%
% American Indian & Alaska Native	0.70%			0.3%
% Asian	0.30%			2.6%
% Native Hawaiian/Other Pacific Islander	0.10%			0.1%
% Hispanic	1.30%			4.2%
% Non-Hispanic White	94.80%			78.0%
% not proficient in English	0%			1%
% Females	50.50%			51.0%
% Rural	74.20%			22.1%
<b>Health Outcomes (Pike Co. ranked 87 of 88 counties)</b>				
<b>Length of Life</b>				
Premature Death	13,600	2,000-15,200	5,600	8,700
<b>Quality of Life</b>				
Poor or fair health	26%	22-29%	15%	18%
Poor physical health days	5.3	4.9-5.6	3.4	4.2
Poor mental health days	6	5.6-6.3	4	5.2
Low birthweight	9%	8-10%	6%	9%
<b>Additional Health Outcomes (not included in overall ranking)</b>				
COVID-19 age-adjusted mortality	38	21-63	43	87
Life expectancy	72	70.9-73.1	80.6	76.5
Premature age-adjusted mortality	650	600-710	290	420
Child mortality	50	30-80	40	60
Infant mortality			4	7
Frequent physical distress	17%	16-19%	10%	13%
Frequent mental distress	20%	19-22%	13%	17%

Diabetes prevalence	13%	12-14%	8%	10%
HIV prevalence	103		38	235
<b>Health Factors (Pike Co. ranked 79 of 88 counties)</b>				
<b>Health Behaviors</b>				
Adult smoking	27%	24-31%	15%	22%
Adult obesity	39%	37-40%	30%	35%
Food environment index	7		8.8	6.8
Physical inactivity	36%	33-40%	23%	28%
Access to exercise opportunities	28%		86%	77%
Excessive drinking	17%	16-18%	15%	21%
Alcohol-impaired driving deaths	17%	8-27%	10%	33%
Sexually transmitted infections	316.9		161.8	559.4
Teen births	47	42-53	11	21
<b>Additional Health Behaviors (not included in overall ranking)</b>				
Food insecurity	19%		9%	13%
Limited access to healthy foods	1%		2%	7%
Drug overdose deaths	61	45-80	11	38
Motor vehicle crash deaths	23	17-31	9	10
Insufficient sleep	42%	40-44%	32%	41%
<b>Clinical Care (Pike Co. ranked 18 of 88 counties)</b>				
Uninsured	9%	7-10%	6%	8%
Primary care physicians	3,470:1		1,010:1	1,290:1
Dentists	2,130:1		1,210:1	1,570:1
Mental health providers	100:1		250:1	350:1
Preventable hospital stays	1,564		2,233	4,338
Mammography screening	39%		52%	45%
Flu vaccinations	45%		55%	51%
<b>Additional Clinical Care Factors (not included in overall ranking)</b>				
Uninsured adults	10%	8-11%	7%	9%
Uninsured children	5%	4-7%	3%	5%
Other primary care providers	1540:1		580:1	830:1
<b>Social and Economic Factors (Pike Co. ranked 83 of 88 counties)</b>				
High school completion	84%	81-86%	94%	91%
Some college	48%	40-56%	74%	66%
Unemployment	9.40%		4.00%	8.10%
Children in poverty	25%	15-34%	9%	17%
Income inequality	4.7	4.1-5.3	3.7	4.6
Children in single-parent households	22%	15-29%	14%	27%
Social associations	7.6		18.1	10.9

Violent crime	82		63	293
Injury deaths	146	126-166	61	96
<b>Additional Social and Economic Factors (not included in overall ranking)</b>				
High school graduation	84%		96%	83%
Disconnected youth			4%	6%
Reading scores	3		3.3	3.1
Math scores	2.7		3.4	3
School segregation	0.05		0.02	0.3
School funding adequacy	-\$196			\$927
Gender pay gap	0.83	0.65-1.02	0.88	0.79
Median household income	\$46,400	\$39,500 to \$53,300	\$75,100	\$60,400
Living wage	\$35.36			\$37.72
Children eligible for free or reduced price lunch			32%	36%
Residential segregation - Black/white	62		27	69
Residential segregation - non-white/white	31		16	57
Childcare cost burden	35%		18%	27%
Childcare centers	8		12	7
Homicides	10	6-15	2	6
Suicides	25	17-35	11	15
Firearm fatalities	21	14-31	8	14
Juvenile arrests	10			33
<b>Physical Environment (Pike Co. ranked 56 of 88 counties)</b>				
Air pollution - particulate matter	8.5		5.9	9
Drinking water violations	No			
Severe housing problems	15%	12-18%	9%	13%
Driving alone to work	84%	79-89%	72%	82%
Long commute - driving alone	39%	32-45%	16%	31%
<b>Additional Physical Environment (not included in overall ranking)</b>				
Traffic volume	87			404
Homeownership	67%	63-71%	81%	66%
Severe housing cost burden	10%	8-13%	7%	12%
Broadband access	74%	70-77%	88%	85%
<i>Note: Blank values reflect unreliable or missing data</i>				

### Demographic Characteristics

A profile of Pike County and its residents was formulated by collecting publically available data such as vital statistics, economic, and education data. Research shows that sociological and economic factors affect health in complicated ways. It is understood, then, that such information must be reviewed with public opinion data (provided in the next section) to develop a clear understanding of the state of health of a particular community. The following tables describe the population in relation to diversity.

### Population Size and Growth

The current population of Pike County per the United States Census Bureau was estimated to be 27,914—a 2% decline since 2010, which is significantly less growth than that currently seen in Ohio and across the United States.

### Age, Sex, Ethnicity, Immigration, Veterans Disability Status

Pike County, Ohio, has limited diversity among its population, with more than 95% of the residents being white/Caucasian. Approximately 18% of the population is over the age of 65. The veteran population is comparable to the rest of Ohio, at approximately 9% (Ohio is 7.6%). More than 22% of the population has a disability, which is considerably higher than Ohio (14%) and the rest of the United States (13%).



Table 4: Pike County Population Patterns

	Pike County	Ohio	U.S.
2010	28,709	11,536,504	308,745,538
2015	28,117	11,617,527	320,635,163
2020	27,914	11,689,100	328,239,523
<b>Percent Change</b>	<b>-2.77</b>	<b>1.32%</b>	<b>6.31%</b>

Source: U.S. Census Bureau, 2019

Information was found from Table PEPANNRES: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019

Table 5: Pike County/Ohio Population - Age, Race, Gender and Disability

Population Demographics	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Age (Table S0101)</b>				
0-17 Years	23.5%	23.5%	22.2%	22.4%
18-24 Years	8.0%	7.4%	9.1%	9.3%
25-44 Years	23.9%	24.1%	25.1%	26.5%
45-64 Years	27.9%	27.4%	26.5%	25.6%
65 years or more	16.8%	17.6%	17.0%	16.0%
<b>Race &amp; Ethnicity (Table DP05)</b>				
African American	1.2%	1.0%	12.4%	12.6%
Asian	0.1%	0.1%	2.3%	5.6%
Hispanic (of any race)	1.0%	0.8%	3.9%	18.2%
American Indian/ Alaska Native	0.4%	0.6%	0.2%	0.8%
Native Hawaiian/ Pacific Islander	0.0%	0.3%	0.0%	0.2%
White	95.9%	95.6%	80.5%	70.4%
Other	0.4%	0.2%	1.1%	5.1%
Two or more races	2.0%	2.1%	3.6%	5.2%
<b>Gender (Table DP05)</b>				
Male	49.8%	49.3%	49.0%	49.2%
Female	50.2%	50.7%	51.0%	50.8%
<b>Veterans (Table S2101)</b>				
Veterans	8.2%	9.2%	7.6%	7.1%
<b>Disabilities (Table S1810)</b>				
Any age	22.5%	22.6%	14.0%	12.7%
Under the age of 18	8.8%	5.1%	5.0%	4.3%
Ages 18-64	22.7%	21.5%	11.9%	10.3%
65 years and over	41.7%	50.8%	34.0%	34.0%

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

Source: U.S. Census Bureau; 2016-2020 American Community Survey Estimates

### Household and Location

The average household size in Pike County is slightly larger in comparison to households across Ohio, but smaller than the U.S. average, which also holds true for the percentage of households with children under the age of 18. Nearly three-quarters of the population in Pike County reside in a rural area—a significantly larger portion of the population than in other parts of Ohio or the United States. In 2019, half (50%) of the children under the age of 18 were being raised by grandparents or other family members in Pike County. That’s nearly double the rate for Ohio.

Table 6: Pike County, Ohio Household Data

<b>Families and Living Arrangements – Size and Status</b>	<b>Pike County 2019*</b>	<b>Pike County 2022</b>	<b>Ohio 2022</b>	<b>U.S. 2022</b>
<b>Households (Table S1101 &amp; S1001) <sub>1</sub></b>				
<b>Total Households</b>	<b>11,033</b>	<b>11,037</b>	<b>4,717,226</b>	<b>122,354,219</b>
Average household size	2.52	2.49	2.41	2.60
Family households with children (under 18 years of age)	25.6%	27.6%	25.9%	27.3%
Children (under 18 years of age) living with a grandparent householder with no parent present	50.1%	N/A	25.9%	27.3%
Female-led households with children (under 18 years of age)	5.3%	5.0%	6.9%	6.4%
<b>Marital Status (Table S1201) <sub>1</sub></b>				
Never-married males	30.8%	29.7%	35.8%	36.6%
Never-married females	20.1%	20.2%	29.7%	30.5%
Now-married males	48.1%	51.1%	48.9%	49.7%
Now-married females	49.5%	53.6%	46.1%	46.6%
Divorced males	14.1%	12.3%	10.8%	9.4%
Divorced females	16.7%	12.2%	13.1%	12.1%

*\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported*

*N/A – Data unavailable*

*Source 1: U.S. Census Bureau; 2016-2020 American Community Survey Estimates*

## LEADING CAUSES OF DEATH

The leading causes of death, particularly premature death, as well as illness and injury, are indicators of the primary health challenges facing a population in a particular region. They can also indicate what health risk factors are most prevalent among a population. The life expectancy of a resident of Pike County is 72 years of age, which is lower than the average age of an Ohioan (76.5) and the national average of 77.

The leading causes of death in Pike County are heart disease, cancer (all kinds), chronic lower respiratory diseases, and unintentional injuries. The rate of death for each of those conditions is significantly higher than state and national averages.

Table 6: Pike County, Ohio Leading Causes of Death, Age-Adjusted Rate per 100,000 Population

<b>Cause of Death</b> (Age-adjusted rate per 100,000 population)	<b>Pike County 2019*</b>	<b>Pike County 2022<sup>1</sup></b>	<b>Ohio 2022<sup>1</sup></b>	<b>U.S. 2022<sup>2</sup></b>
<b>Heart disease</b>	207.0	227.1	188.6	164.8
<b>Cancer</b>	186.5	196.0	169.6	152.3
<b>Unintentional injury</b>	80.0	100.1	65.8	47.5
<b>Chronic lower respiratory diseases</b>	88.7	81.2	48.1	40.2
<b>Stroke</b>	40.9	40.2	41.8	37.3
<b>Diabetes</b>	20.1	26.1	25.2	21.3
<b>Alzheimer's Disease</b>	N/A	24.2	33.4	30.2
<b>Total death rate</b>	<b>1,055.0</b>	<b>1,045.3</b>	<b>835.3</b>	<b>726.3</b>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A- Data unavailable

Source 1: ODH Public Health Information Warehouse, Mortality, 2015-2019

Source 2: CDC Wonder, Underlying Cause of Death, 2015-2019

Table 8: Pike County, Ohio Leading Causes of Death, Crude Rate per 100,000 Population

<b>Cause of Death</b> (Crude rate per 100,000 population)	<b>Pike County 2019*</b> (crude rate per 100,000 population)	<b>Pike County 2022</b> (crude rate per 100,000 population)
<b>Heart disease</b>	272.9	337.6
<b>Cancer</b>	246.3	289.1
<b>Unintentional injury</b>	--*	107.7
<b>Chronic lower respiratory diseases</b>	101.0	79.0
<b>Stroke</b>	125.8	52.1
<b>Diabetes</b>	49.6	43.1
<b>Alzheimer's Disease</b>	N/A	39.5
<b>Total death rate</b>	<b>1,283.0</b>	<b>1,420.3</b>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

--\* Indicates rates have been suppressed for low, unreliable counts

N/A- Data unavailable

Source: ODH Public Health Information Warehouse, Mortality, 2018-2019

**Premature Death**

The premature death rate in Pike County Ohio is considerably higher (12,400) than Ohio (8,500), as well as the United States (5,400). Some related factors, such as suicide, and infant and child mortality contribute. Rates for those factors are higher than state and national statistics.

Table 9: Premature Death in Pike County Ohio - 2022

	Pike County	Ohio	United States
Average age of death	72	76.5	77
Suicide	27.2	14.6	13.6
Infant mortality	ND	7.7	5.8
Child mortality	60	60	DNF

Table 10: Infant and Child Mortality

Infant and Child Mortality	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
Infant mortality rate (per 1,000 live births)	--*	--*	7.1 <sub>1</sub>	5.8 <sub>2</sub>
Child mortality (rate per 100,000 population)	66.7	49.4 <sub>3</sub>	56.9 <sub>3</sub>	48.1 <sub>4</sub>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

--\* Indicates rates have been suppressed for low, unreliable counts

Source 1: CDC Wonder, 2014-2020, as compiled by 2022 County Health Rankings

Source 2: CDC Wonder, Linked Birth/Infant Death Records, 2014-2019

Source 3: CDC Wonder, 2017-2020, as compiled by 2022 County Health Rankings

Source 4: CDC Wonder, Underlying Cause of Death, 2017-2020

## Social Vulnerability

The other complicating factor in Pike County is that the majority of those living in poverty reside in the more rural parts of the county, which makes it challenging to provide services and resources to those areas.

Social vulnerability refers to the potential negative effects on communities caused by external stresses on human health. Such stresses include natural or human-caused disasters or disease outbreaks.

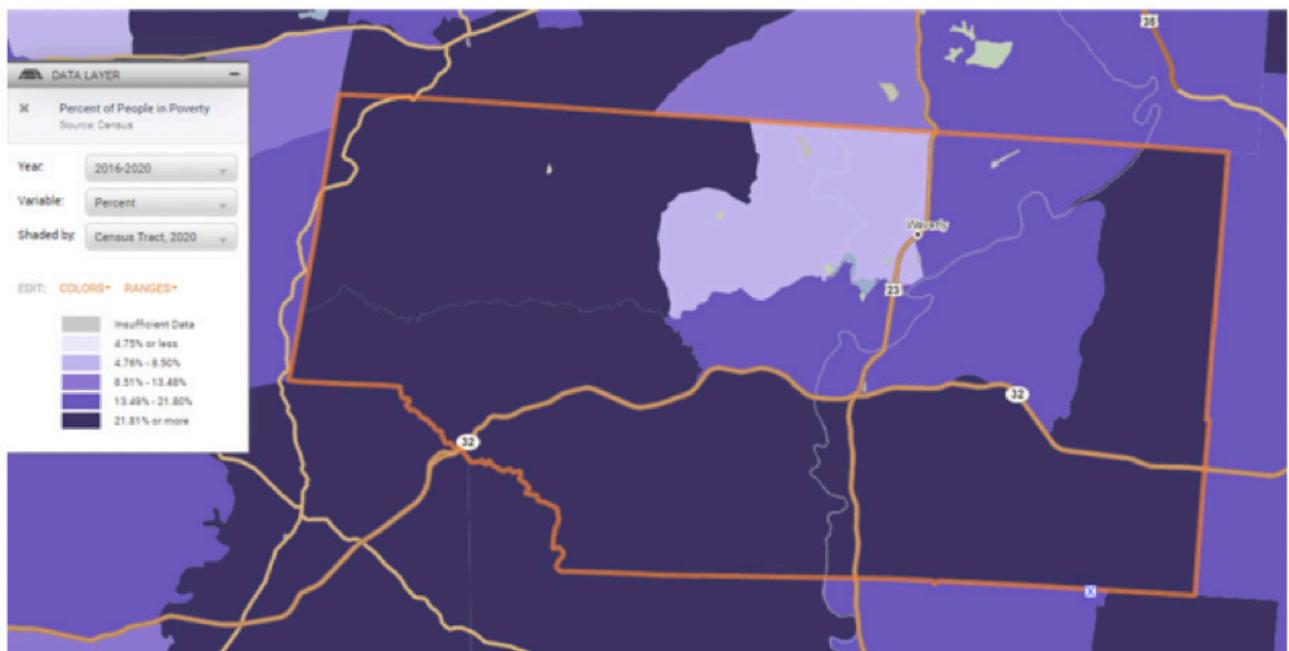
Reducing social vulnerability can reduce both human suffering and economic loss.

The socially vulnerable index (SVI) is composed of 15 indicators grouped into four themes, as defined by CDC and shown in the figure below. The tool includes interactive data and maps specific to all components of the SVI.

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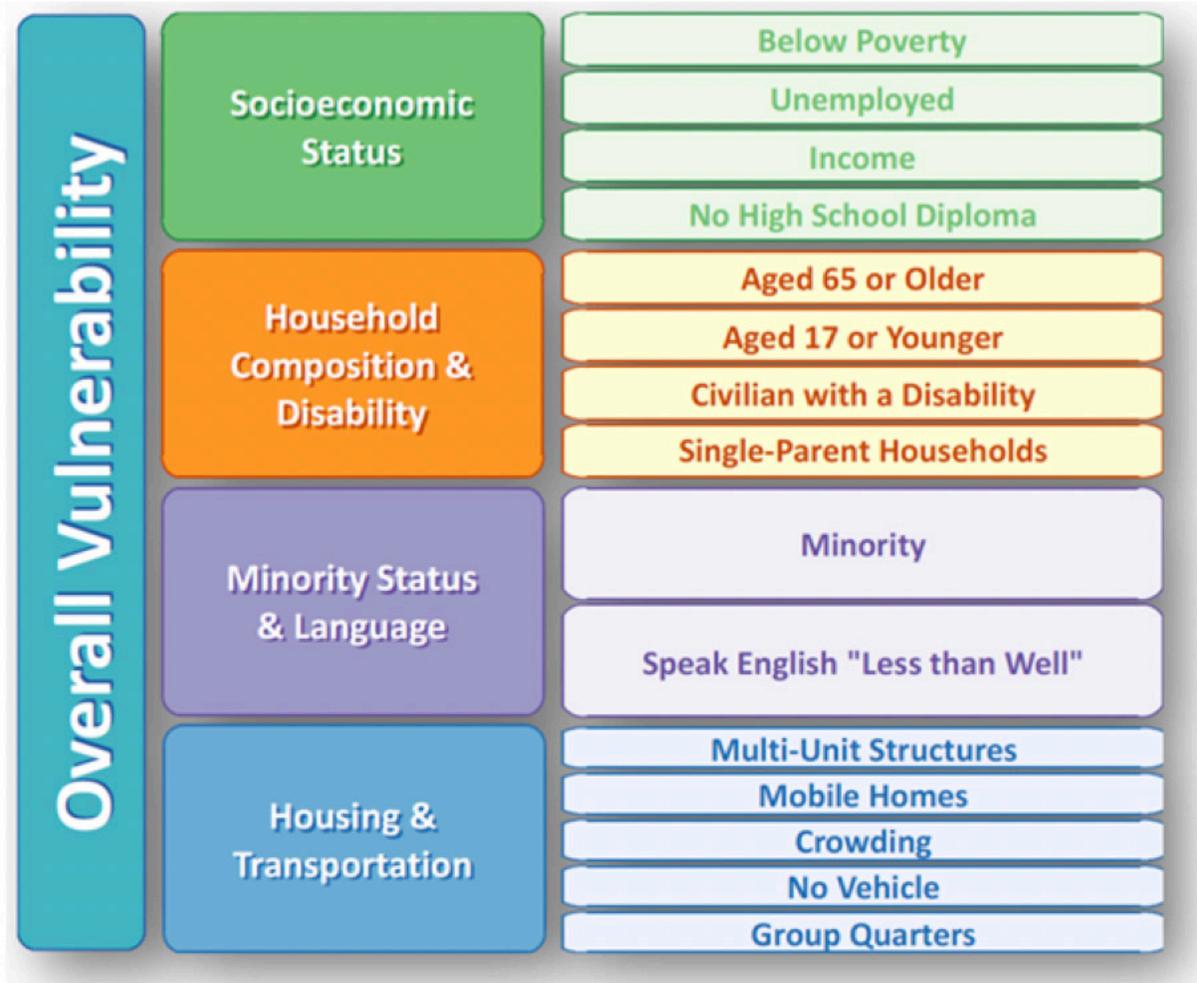
The socially vulnerable index (SVI) is composed of 15 indicators grouped into four themes, as defined by CDC and shown in the figure below. The tool includes interactive data and maps specific to all components of the SVI.

Figure 10: Percent of People in Poverty - Pike County - 2016-2020



The socially vulnerable index (SVI) contains both county-level and US Census Tract-level data to designate health improvement zones. The tool uses SVI created by the US Centers for Disease Control and Prevention (CDC), employing the most current data available from the US Census Bureau American Community Survey five-year estimates (2014-2018). The SVI is a score ranging from 0 – 1, detailing areas of high SVI (darker colors and higher scores) and areas of low SVI (lighter colors and lower scores).

Figure 11: Social Vulnerable Index Markers



The areas of Pike County with significant poverty issues closely resemble the areas of Pike County with the most socially vulnerable residents, according to the SVI published by Ohio Department of Health and Centers for Disease Control . In Pike County, no census tract is rated in the lowest quartile of concern for general vulnerability, disability, housing, or transportation. Instead, there are several census tracts that are considered at-risk in those areas.

Approximately 74% of the county’s residents live in the rural county areas. Being a rural county impacts residents’ access to grocery stores that sell fresh fruits and vegetables, as well as to fitness facilities (other than parks) and social support services. Convenience marts, including those selling alcohol and tobacco products, are much more prevalent, making healthier choices more challenging. In addition, there is very limited access to childcare and transportation resources.

Individual elements of the SVI assist public health leaders to design better policies and programs to address health factors and outcomes. The next two figures show the disparities for both disability and transportation in Pike County. The more challenges an area has directly impacts outcomes, in regard to health and socioeconomic improvement.

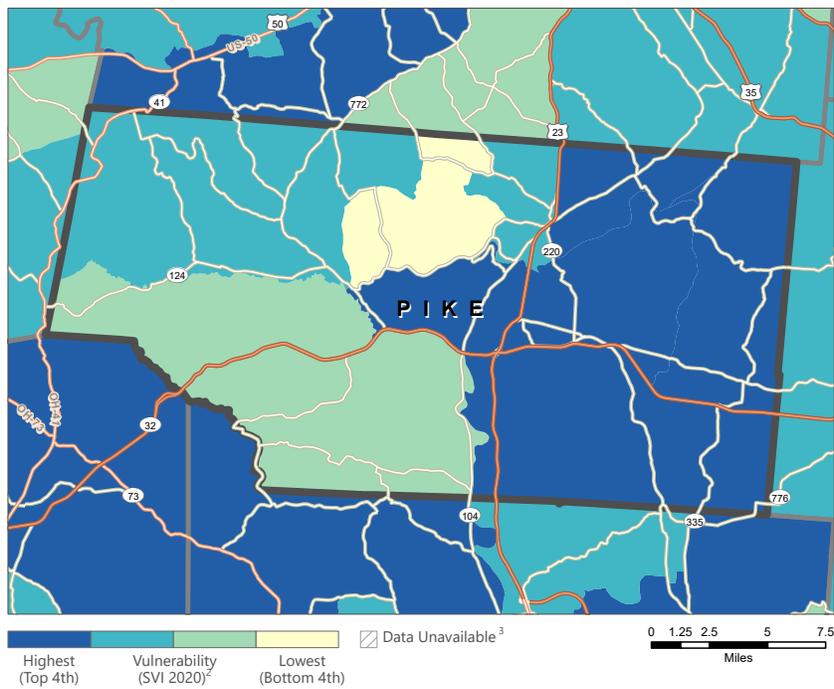
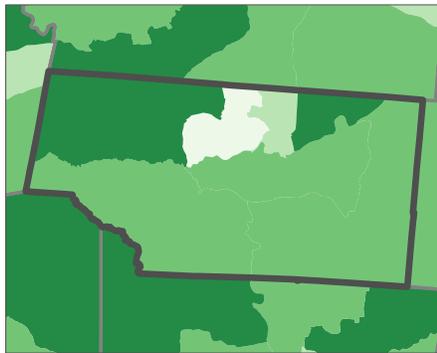


Figure 12: Overall Social Vulnerability Map - Pike County

### CDC/ATSDR SVI Themes

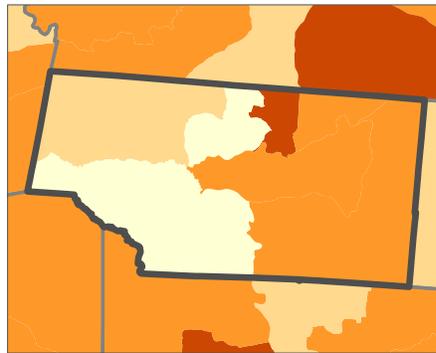


Socioeconomic Status<sup>5</sup>



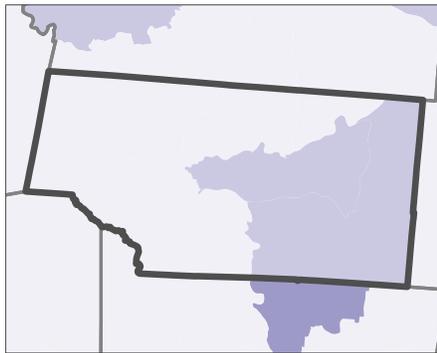
Highest (Top 4th) Vulnerability (SVI 2020)<sup>2</sup> Lowest (Bottom 4th)

Household Characteristics<sup>6</sup>



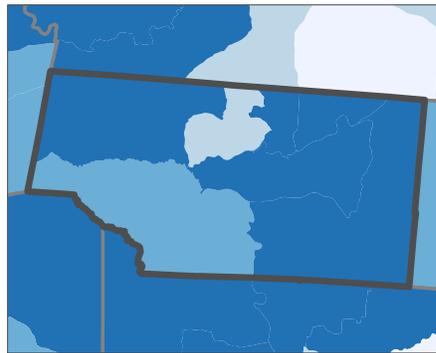
Highest (Top 4th) Vulnerability (SVI 2020)<sup>2</sup> Lowest (Bottom 4th)

Racial and Ethnic Minority Status<sup>7</sup>



Highest (Top 4th) Vulnerability (SVI 2020)<sup>2</sup> Lowest (Bottom 4th)

Housing Type/Transportation<sup>8</sup>



Highest (Top 4th) Vulnerability (SVI 2020)<sup>2</sup> Lowest (Bottom 4th)

**Data Sources:** <sup>2</sup>CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium.  
**Notes:** Overall Social Vulnerability: All 16 variables. <sup>3</sup>Census tracts with 0 population. <sup>4</sup>The CDC/ATSDR SVI combines percentile rankings of US Census American Community Survey (ACS) 2016-2020 variables, for the state, at the census tract level. <sup>5</sup>Socioeconomic Status: Below 150% Poverty, Unemployed, Housing Costs Burden, No High School Diploma, No Health Insurance. <sup>6</sup>Household Characteristics: Aged 65 and Older, Aged 17 and Younger, Civilian with a Disability, Single-Parent Household, English Language Proficiency. <sup>7</sup>Race/Ethnicity: Hispanic or Latino (of any race); Black and African American, Not Hispanic or Latino; American Indian and Alaska Native, Not Hispanic or Latino; Asian, Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander, Not Hispanic or Latino; Two or More Races, Not Hispanic or Latino; Other Races, Not Hispanic or Latino. <sup>8</sup>Housing Type/Transportation: Multi-Unit Structures, Mobile Homes, Crowding, No Vehicle, Group Quarters.  
**Projection:** Ohio NAD 1983 UTM Zone 17N, CM shifted to -82.  
**References:** Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011, 8(1).  
 CDC/ATSDR SVI web page: <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>.

Figure 13: SVI Themes - Pike County

## Adverse Childhood Experiences

Adverse childhood experiences (ACE) are traumatic events that occurred in childhood, but which impact the individual later in life. ACE can include violence, abuse, and growing up in a family with mental health or substance use problems and/or other traumatic childhood events. Toxic stress from ACE can change brain development and affect how the body responds to stress. Knowledge about ACE is important, as ACE are linked to chronic health problems, mental illness, and substance misuse in adulthood. Exposure to ACE is associated with increased risk for health problems across the lifespan. Nationally, 61% of adults had at least one ACE and 16% had four or more types of ACE. Ohio ranks 46th in the nation for kids with high levels of early childhood trauma; one in seven Ohio kids have experienced at least three incidents of ACE, putting them at higher risk for long-lasting negative effects.

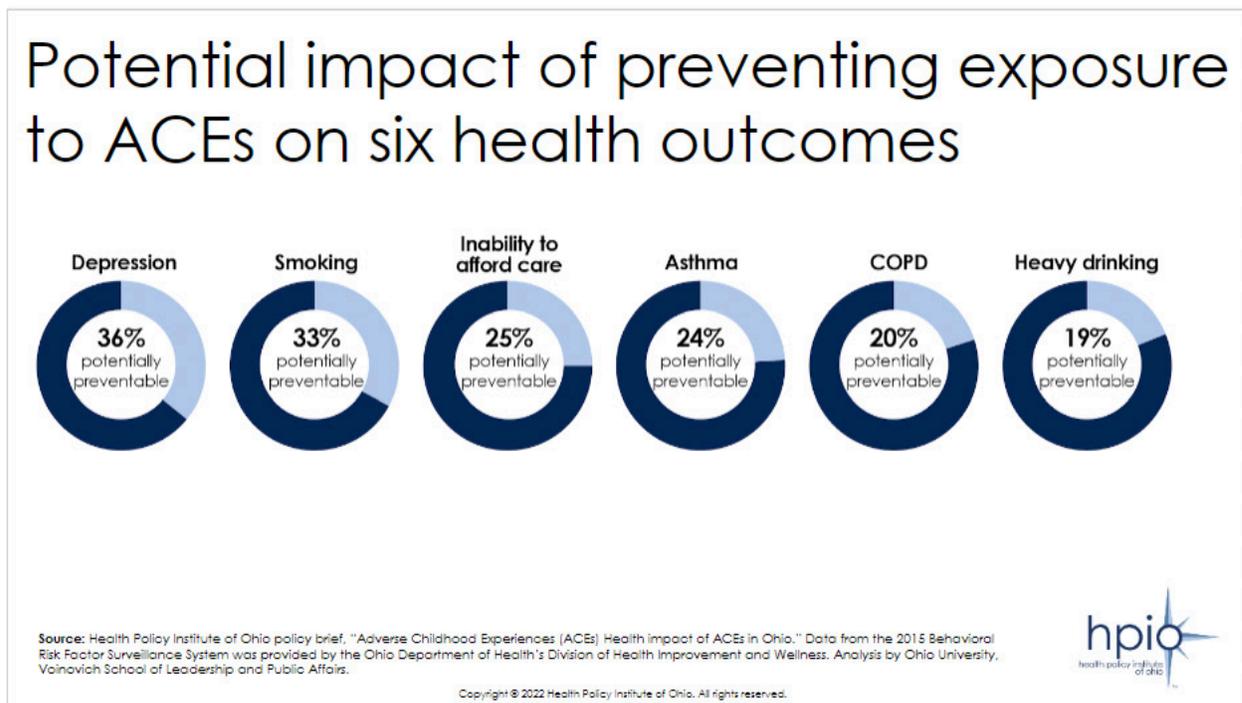


Figure 14: ACEs Impact on Health in Ohio

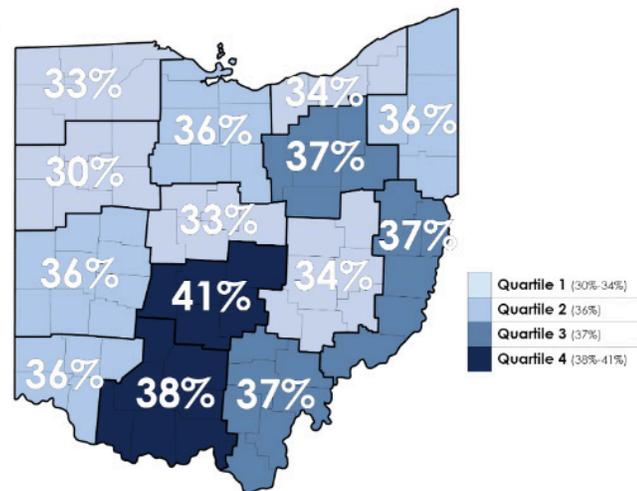
Preventing ACEs benefits children and adults potentially:

- Lowers risk for conditions like depression, asthma, cancer, and diabetes in adulthood.
- Reduces risky behaviors, like smoking and heavy drinking.
- Improves education and employment potential.
- Stops ACE from being passed from one generation to the next.

Nearly two-thirds of Ohioans have been exposed to an ACE, with more than one-third of Ohioans exposed to two or more ACEs. The prevalence of ACEs in Pike County is higher than in other parts of the state.

# Prevalence of 2 or more ACEs

By region, Ohio, 2015



Source: Health Policy Institute of Ohio policy brief, "Adverse Childhood Experiences (ACEs) Health Impact of ACEs in Ohio." Data from the 2015 Behavioral Risk Factor Surveillance System was provided by the Ohio Department of Health's Division of Health Improvement and Wellness. Analysis by Ohio University, Voinovich School of Leadership and Public Affairs. County designation from the Ohio Medicaid Assessment Survey.

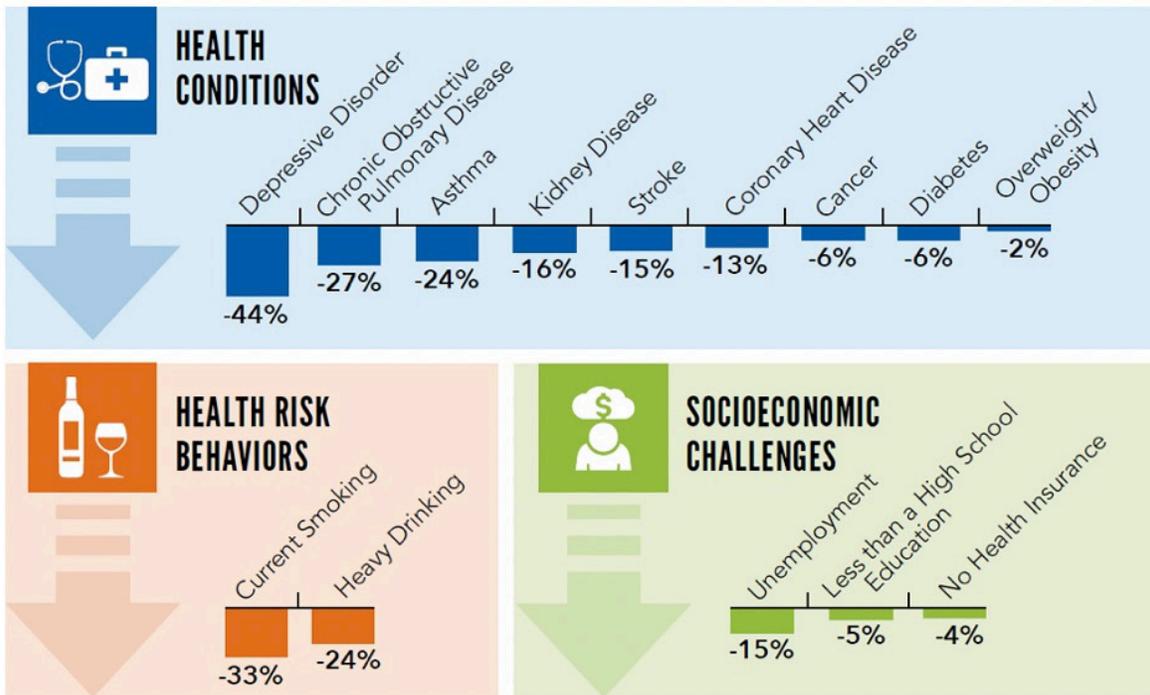


Addressing the impact ACE in Ohio is the purpose of the Health Policy Institute of Ohio (HPIO). The institute has prepared a series of briefs for policymakers and other stakeholders to address the impact of ACE:

- Ohioans of color and Ohioans with low incomes, disabilities, and/or who are residents of urban and Appalachian counties are more likely to experience multiple ACEs.
- Among Ohioans who reported exposure to at least one ACE, the most common type of ACE reported was emotional abuse (57%), followed by substance use by a household member (41%) and divorce (36%).
- Preventing ACE can improve health. For example, if exposure to ACE were eliminated among Ohioans, an estimated 36% of depression diagnoses could be prevented.
- Focusing action on specific ACE may yield more significant health impacts. For example, if adequate supports and policies were in place to prevent parental or other household member incarceration, an estimated 7% of current smoking and 12% of limited healthcare access due to cost could also be eliminated.
- Early childhood education programs have been found to prevent and mitigate ACE, such as mental illness in the home, and have strong evidence of

return on investment, with an estimated cost-benefit ratio of \$3.15.

- Research indicates that family income in early childhood is a predictor of health outcomes later in life and that childhood poverty is linked to diminished educational and employment opportunities across the life course.
  - Medical-legal partnerships impact ACE by reducing stress and improving the well-being of children and their families and have a cost-benefit ratio of \$6.98.
  - Family income supports reduce poverty and increase employment, among other outcomes. Supports may also address many of the physical, social and economic conditions (e.g., limited economic resources, low educational attainment, poor mental health) that contribute to ACE and the generational impacts of ACE.
  - Ohioans could save more than \$1 billion annually in public and private healthcare and related spending if just 10% of the cost attributable to ACE exposure were avoided.
- Adverse childhood experiences in one generation are often a predictor of adverse experiences in the next generation, unless there is intervention to break the cycle. The socioeconomic and geographic factors as noted above indicate that ACE mitigation needs to be considered in Pike County policy development.



## Population Health

The prevalence of certain health conditions, as well as disease, can provide insight to the leading causes of death in a population in a particular region. They can also indicate the health behaviors most prevalent among a population.

## Obesity and related issues

More than 38% of Pike County’s adult residents are considered obese. Obesity rates are higher than the state’s average (approximately 36%) and the national average (32%). The percentage of the population with other health conditions – diabetes, high cholesterol, high blood pressure, and heart disease – is also higher than national and state averages.

Illness and Disease	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Overweight</b>	N/A	N/A	33.5% <sub>1</sub>	35.2 <sub>1</sub>
<b>Obese</b>	38.1%	38.7% <sub>2</sub>	35.5% <sub>1</sub>	31.9% <sub>1</sub>
<b>Diabetes</b>	11.2%	12.7% <sub>2</sub>	12.4% <sub>1</sub>	10.6% <sub>1</sub>
<b>High cholesterol</b>	N/A	N/A	32.8% <sub>3</sub>	33.1% <sub>3</sub>
<b>High blood pressure</b>	N/A	N/A	34.5% <sub>3</sub>	32.3% <sub>3</sub>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A – Data unavailable

Source 1: CDC, 2020 BRFSS, Crude-Rate

Source 2: CDC, 2019 BRFSS Age-Adjusted Rate, as compiled by County Health Rankings, 2022

Source 3: CDC, 2019 BRFSS, Crude-Rate

Table 11: Pike County, Ohio Obesity, Diabetes, High Blood Pressure, and High Blood Cholesterol

## Respiratory Issues

Pulmonary and respiratory issues are also prevalent in Pike County. In 2019, more than 23% of the population experienced asthma, which is considerably more than the state (14.4%) and national (14.2%) averages. COPD prevalence is also higher than state and national averages.

Table 12: Pike County, Ohio Asthma and Chronic Obstructive Pulmonary Disease (COPD)

Illness and Disease	Pike County 2019*	Pike County 2022 <sub>1</sub>	Ohio 2022 <sub>2</sub>	U.S. 2022 <sub>2</sub>
Currently have asthma	N/A	7.8%	9.9%	9.6%
Ever been told they have asthma	N/A	N/A	14.4%	14.2%
Ever been told they had COPD	N/A	N/A	8.0%	6.2%

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A – Data unavailable

Source 1: ODH Public Health Data Warehouse, Mortality, 2015-2019

Source 2: CDC Wonder, 2015-2019

## Cancer

Of all cases of cancer in Pike County, breast, lung and colon/rectal are most often reported. The rate of breast cancer occurrence in Pike County is 13.7, which is higher than state (12.0) and national (11.0) averages. The rate of lung cancer is significantly higher in Pike County at 63.1, compared to state (45.0) and national (36.7) rates.

Table 13: Pike County, Ohio Age-Adjusted Cancer Mortality Rates per 100,000 Population

Forms of Cancer	Pike County 2019*	Pike County 2022 <sub>1</sub>	Ohio 2022 <sub>1</sub>	U.S. 2022 <sub>2</sub>
Lung	65.9	63.1	45.0	36.7
Colon and rectal	--*	19.9	14.8	13.4
Breast	--*	13.7	12.0	11.0
Prostate	--*	--*	19.4	18.8
Ovarian	N/A	--*	6.5	6.5
Oral cavity & pharynx	N/A	--*	2.8	2.5
Larynx	N/A	--*	1.2	0.9
Testicular	N/A	--*	0.3	0.3

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

--\*Indicates rates have been suppressed for low, unreliable counts

N/A – Data unavailable

Source 1: ODH Public Health Data Warehouse, 2015-2019

Source 2: CDC Wonder, 2015-2019

Table 14: Pike County, Ohio Age-Adjusted Cancer Incidence Rates per 100,000 Population

Forms of Cancer	Pike County 2019*	Pike County 2022 <sub>1</sub>	Ohio 2022 <sub>1</sub>	U.S. 2022 <sub>2</sub>
Lung	92.6	99.6	66.7	57.3
Prostate	75.2	98.2	112.5	106.2
Breast	134.1	71.5	69.9	67.7
Colon and rectal	42.5	39.6	40.5	38.0
Oral cavity & pharynx	10.0	14.3	12.5	11.9
Cervical	15.5	14.3	7.9	7.7
Ovarian	10.8	9.4	10.0	10.7
Larynx	7.6	7.9	3.9	3.1
Brain	5.6	7.2	7.1	6.5
Esophagus	5.9	5.8	5.6	4.5
Testicular	5.6	--*	5.8	5.7

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

--\*Indicates rates have been suppressed for low, unreliable counts

Source 1: ODH Public Health Data Warehouse, Cancer Incidence, 2015-2019

Source 2: CDC Wonder, Cancer Incidence, 2014-2018

## Sexually Transmitted Disease

The overall occurrence of sexually transmitted disease is less in Pike County Ohio than state and national averages.

Table 15: Pike County, Ohio Sexually Transmitted Diseases

Sexually Transmitted Diseases	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Chlamydia</b> (rate per 100,000 population)	191.4	367.3 <sub>1</sub>	504.8 <sub>1</sub>	481.3 <sub>2</sub>
<b>Gonorrhea</b> (rate per 100,000 population)	28.4	50.4 <sub>1</sub>	262.6 <sub>1</sub>	206.5 <sub>2</sub>
<b>HIV</b> (rate per 100,000 population)	97.7	79.4 <sub>3</sub>	214.6 <sub>3</sub>	379.7 <sub>4</sub>
<b>Hepatitis C</b> (rate per 100,000 population)	N/A	327.7 <sub>5</sub>	111.0 <sub>5</sub>	N/A
<b>Hepatitis A</b> (rate per 100,000 population)	N/A	N/A	15.4 <sub>6</sub>	5.7 <sub>6</sub>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A – Data unavailable

Source 1: ODH STD Surveillance, 2020

Source 2: CDC STD Surveillance State Ranking Tables, 2020

Source 3: ODH Ohio HIV Surveillance Annual Report, 2020

Source 4: CDC, HIV National Profile, Prevalence, 2019

Source 5: ODH, 2020 Ohio Hepatitis C: Surveillance Summary

Source 6: CDC, 2019 Viral Hepatitis Surveillance Report, 2015-2019

## Maternal Health

The low birth weights in Pike County are comparable to the state average. The rate of smoking during pregnancy is significantly higher (27.4%) than the rest of Ohio (11.5%). The number of women who receive prenatal care within their first trimester of pregnancy is lower in Pike County (65.6%), compared to Ohio (68.9%) and the United States (76.1%).

Table 16: Pike County, Ohio Maternal Health

Maternal Health	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Low birth weight</b> (1500g-2499g)	7.7%	7.9% <sub>1</sub>	7.1% <sub>1</sub>	6.9% <sub>2</sub>
<b>Very low birth weight</b> (<1500g)	N/A	--*	1.4% <sub>1</sub>	1.3% <sub>2</sub>
<b>Pre-term birth</b> (<37 weeks gestation)	10.6%	12.9% <sub>1</sub>	10.3% <sub>1</sub>	10.3% <sub>2</sub>
<b>Maternal smoking</b> (any tobacco smoking during pregnancy)	27.7%	27.4% <sub>1</sub>	11.5% <sub>1</sub>	5.5% <sub>2</sub>
<b>First trimester prenatal</b>	60.1%	65.6% <sub>1</sub>	68.9% <sub>1</sub>	76.1% <sub>2</sub>
<b>Late prenatal care</b> (in third trimester)	5.3%	--%*	4.2% <sub>1</sub>	4.2% <sub>2</sub>
<b>Breastfeeding at discharge</b>	N/A	62.7% <sub>1</sub>	75.0% <sub>1</sub>	71.0% <sub>2</sub>
<b>Unmarried</b>	51.1%	51.9% <sub>1</sub>	43.6% <sub>1</sub>	36.0% <sub>2</sub>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

--\* Indicates rates have been suppressed for low, unreliable counts

N/A – Data unavailable

Source 1: Ohio Department of Health, Data Warehouse 2020

Source 2: CDC Wonder, Natality, 2020

### Birth Rate

The crude rate of birth in Pike County is higher than the state average and national average. The rate of teen births per 100,000 is significantly higher than the state and national rates.

Table 17: Pike County, Ohio Birth Rates

Birth Rates	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Total births</b>	350	343 <sub>1</sub>	129,313 <sub>1</sub>	3,613,647 <sub>2</sub>
<b>Teen birth rates (ages 15-19 per 1,000 population)</b>	61.3	26.6 <sub>3</sub>	17.6 <sub>4</sub>	15.4 <sub>5</sub>
<b>Crude birth rate (per 1,000 population)</b>	12.4	12.7 <sub>1,6</sub>	11.1 <sub>2</sub>	11.0 <sub>2</sub>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A- Data unavailable

Source 1: Ohio Department of Health Public Health Information Warehouse, Birth Resident, 2020

Source 2: CDC Wonder, 2020 Natality

Source 3: United States Census Bureau ACS 5-Year Estimates, Fertility, 2020

Source 4: CDC, National Center for Health Statistics, Ohio Key Health Indicators, 2020

Source 5: CDC, National Center for Health Statistics, Teen Births, 2020

Source 6: United States Census Bureau Quick Facts, Population Estimates, 2020

### Child Health

A total of 270 children were screened in 2020, with 1% testing with elevated blood levels.

Table 18: Pike County, Ohio Child Health

Child Health	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Children lead-screened (under age 6)</b>	260	270	143,705	N/A
<b>Percentage of those with confirmed elevated blood levels (≥5µg/dL) (under age 6)</b>	2.3%	1%	2%	N/A

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A – Data unavailable

Source: ODH Public Health Data Warehouse, Lead Data, 2020

### Oral Health – Children

Oral health problems for children in Pike County are higher than the rest of the state. More than 20% of children in 2019 had untreated cavities.

Table 19: Oral Health for Children in Pike County

Oral Health	Pike County	Ohio	U.S.
<b>Percentage of children with untreated cavities</b>	38.4%	17%	15%
<b>Percentage of children with one or more dental sealants</b>	67.2%	49%	43%
<b>Percent of children with a history of tooth decay</b>	63.5%	51%	43.1%

Source: Ohio Department of Health, 2015-2016

Source: Centers for Disease Control, 2016

## Healthy Behaviors

The prevalence of certain health behaviors can serve as early indicators for a number of health conditions and diseases, as well as some causes of death. Nutrition, fitness, and other behaviors for Pike County were researched from public health information and surveyed within the population. According to the data from the Centers for Disease Control, more than 36% of Pike County residents don't engage in sufficient physical activity. Alcohol consumption is not as high as other parts of Ohio, but the prevalence of smoking is higher than state and national averages.

Table 20: Pike County, Ohio Adult Health Behaviors

Health Behaviors	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Physical inactivity</b> (did not participate in any physical activities in past month)	28.7%	36.2% <sup>1</sup>	27.6% <sup>1</sup>	26.3% <sup>2</sup>
<b>Fruit consumption</b> (less than one time per day)	N/A	N/A	42.7% <sup>2</sup>	39.3% <sup>2</sup>
<b>Vegetable consumption</b> (less than one time per day)	N/A	N/A	20.2% <sup>2</sup>	20.3% <sup>2</sup>
<b>Current drinkers</b> (had at least one drink of alcohol within the past 30 days)	N/A	N/A	50.8% <sup>3</sup>	52.9% <sup>3</sup>
<b>Binge drinkers</b> (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	N/A	16.8% <sup>1</sup>	20.7% <sup>1</sup>	16.8% <sup>2</sup>
<b>Current smokers</b>	21.6%	27.3% <sup>1</sup>	21.8% <sup>1</sup>	16.0% <sup>2</sup>
<b>Current e-cigarette users</b>	N/A	N/A	5.4% <sup>4</sup>	5.6% <sup>4</sup>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A – Data unavailable

Source 1: 2019 BRFSS age-adjusted rate, as compiled by County Health Rankings, 2022

Source 2: BRFSS, Crude Prevalence, 2019

Source 3: BRFSS, Crude Prevalence, 2020

Source 4: 2018 BRFSS, as compiled by State Tobacco Activities Tracking and Evaluation System

## INJURY AND VIOLENCE

Accidental death is one of the leading causes of death in Pike County. Closer review reveals drug overdoses and traffic fatalities as the majority of those deaths. Local data is collected through the Pike County Coroner's Office, Pike County General Health District, and the local State Highway Patrol Post.

### Drug Overdose Deaths

Drug overdose deaths continue to be a leading cause of death in Pike County Ohio. A communitywide deployment of Narcan has helped reduce the number of deaths

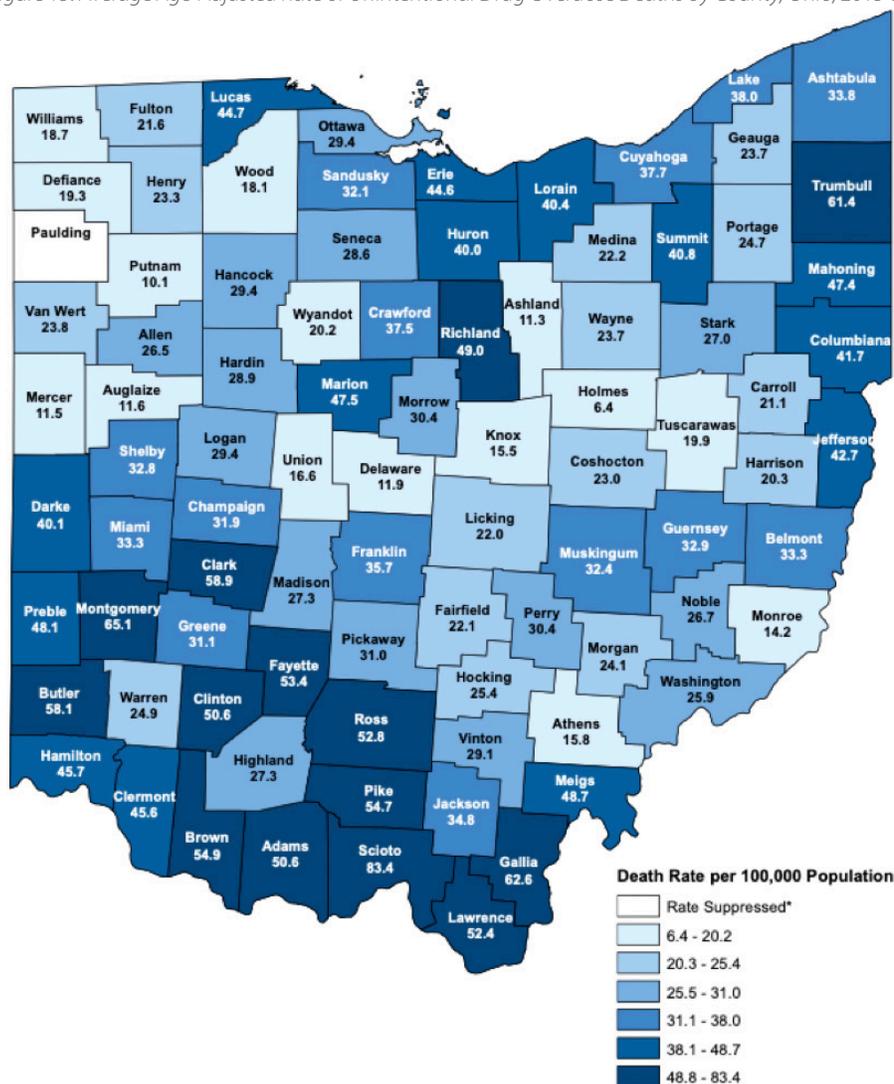
Table 21: Drug Overdose Deaths

Drug overdose deaths	Pike County	Ohio
Total drug overdose deaths	61	38

Source: 2022 County Health Rankings report

Demographics: County

Figure 15: Average Age-Adjusted Rate of Unintentional Drug Overdose Deaths by County, Ohio, 2015-2020



Source: Ohio Department of Health, Bureau of Vital Statistics, U.S. Census Bureau (Vintage 2020 population estimates). Analysis: ODH Violence and Injury Prevention Section. Includes Ohio residents who died due to unintentional drug poisoning (underlying cause of death ICD-10 codes X40-X44). County is determined by county of residence. \* Rates are suppressed when there are fewer than 10 total deaths.

## Traffic Safety

Traffic fatalities also contribute to accidental death. Most fatalities were secondary to drivers/passengers not wearing a seat belt. That trend appears to be continuing. Crash-related deaths in Pike County are more than double the state averages. Also of note, the number of investigated traffic accidents in Pike County has more than doubled YTD as of October 2022 (297 crashes), compared to all of 2021 (163 crashes). The majority of fatalities were unrestrained drivers/passengers.

Table 22: Crash Deaths

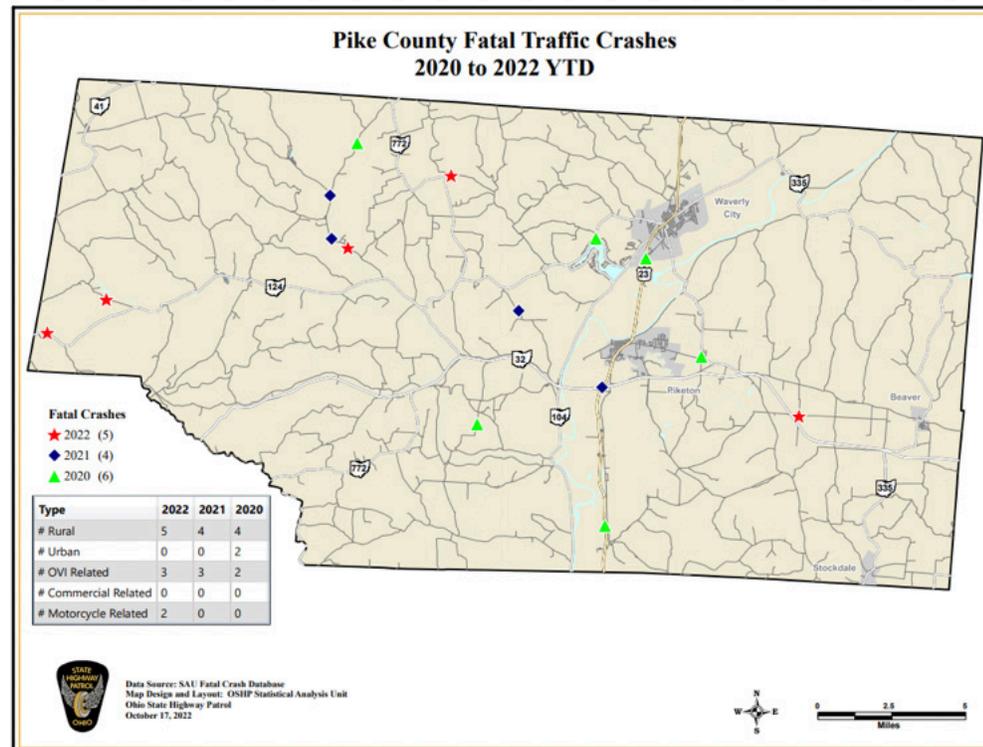
Crash Deaths Total	Pike County	Ohio
	23	10

Source: 2022 County Health Rankings Report

Table 23: Traffic Fatalities (unrestrained v. restrained) 2019-2022

Motor Vehicle Fatalities	Restrained	Unrestrained
2019	2	3
2020	3	3
2021	1	3
2022 (as of 11/1/2022)	3	2

Figure 16: Fatal Traffic Crashes - Pike County 2020-2022



## Crime

The rate of both property and violent crime in Pike County is significantly less than the rest of Ohio and the United States.

Table 24: Pike County, Ohio Crime

<b>Pike County Crime</b>	<b>Crime Reported</b>	<b>Crime Cleared</b>	<b>Crime Reported Minus Crime Cleared*</b>
<b>All Violent Crimes</b>	<b>248</b>	<b>52</b>	<b>196</b>
Homicide**	11	2	9
Rape	78	9	69
Robbery	24	2	22
Aggravated assault	131	39	170
<b>All Property Crimes</b>	<b>3,924</b>	<b>95</b>	<b>3,829</b>
Arson	64	0	64
Burglary	1,038	20	1,018
Larceny-theft	2,466	59	2,407
Motor vehicle theft	420	16	404

*\*Crimes are not necessarily cleared in the year they occur- use caution when interpreting data*

*\*\*Data only available from 2012-2020*

*Source: Federal Bureau of Investigation, Crime Data Explorer, Pike County Sheriff's Office, 2010-2020*

## SOCIAL AND ECONOMIC ENVIRONMENT

The Pike County region has many of the same socio-economic conditions prevalent in other part of the Appalachian region. Educational attainment is considerably lower than in other parts of Ohio and U.S., particularly for advanced education. Median individual and family income is also lower. The following provides a breakdown of education, employment, industry, occupations, income, and poverty for Pike County as it compares with the rest of Ohio and the U.S.

### Education

More than 15% of the adults in Pike County have not graduated from high school, which is higher than both Ohio (9.2%) and national (11.5%) averages. Fourteen percent of the population holds a bachelor’s degree or higher, which is significantly lower than state and national averages.

Table 25: Pike County, Ohio Educational Attainment

Education Level (persons 25 years of age or older)	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
No high school diploma	19.7%	16.2%	9.2%	11.5%
High school graduate	41.4%	44.0%	32.8%	26.7%
Some college, no degree	18.7%	18.5%	20.3%	20.3%
Associate degree	7.2%	7.2%	8.8%	8.6%
Bachelor’s degree or higher	13.2%	14.2%	28.9%	32.9%

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported  
Source: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table S1510)

### Employment

The unemployment rate in Pike County (6.2%) is higher than the rest of Ohio (4.1%) and the top U.S. performers (2.6%). However, nearly half of the population is not in the workforce, which is higher than the state and national averages (36%).

### Industry and Occupations

The private sector provides the majority of the employment opportunities in Pike County, with the service sector providing more than 80% of those opportunities. Professional and business services provide the majority (35%) of the service sector jobs, while trade, transportation, and utilities occupations (25%), and education and health services (23%) also provide significant opportunities. The private sector also provides 1,439 jobs in Pike County.

Table 26: Pike County, Ohio Economics, 2020

Industrial Sector	Estimated Employment	%
<b>Total Civilian Employed Population (16 years and over)</b>	<b>10,736</b>	<b>100.0%</b>
Educational services; health care and social assistance	3,297	30.7
Manufacturing	1,366	12.7
Retail trade	1,282	11.9
Construction	890	8.3
Arts, entertainment, and recreation; accommodation and food services	856	8.0
Professional, scientific, and management, and administrative and waste management services	714	6.7
Transportation and warehousing; utilities	679	6.3
Public administration	500	4.7
Other services, except public administration	394	3.7
Finance and insurance; real estate and rental and leasing	344	3.2
Agriculture, forestry, fishing and hunting; mining	203	1.9
Information	133	1.2
Wholesale trade	78	0.7

Source: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table DP03)

## Income and Poverty

The per capita, median, and mean household incomes in Pike County are considerably lower than the state and U.S. averages. Poverty rates are also higher than the state and national average. Approximately 25% of the children of Pike County are living at or below 100% of the federal poverty line (FPL).

Table 27: Pike County, Ohio Income and Poverty Data

Income & Poverty	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Income</b>				
Per capita income <sup>1</sup>	\$21,983	\$26,006	\$32,465	\$35,384
Median family income <sup>1</sup>	N/A	\$58,718	\$74,391	\$80,069
Median household income <sup>2</sup>	\$43,562	\$46,413	\$60,360	\$67,340
<b>Poverty</b>				
Individuals below poverty status (FPL 100%) <sup>2</sup>	20%	17.4%	12.6%	11.9%
Children (under 18) below poverty status (FPL 100%) <sup>2</sup>	27%	24.5%	16.6%	15.7%
Children eligible for free/reduced lunch <sup>3</sup>	57.1%	--* <sub>3</sub>	36%	52%
<b>Poverty by Race</b>				
White <sup>4</sup>	N/A	18.7%	10.8%	10.6%
Black/African American <sup>4</sup>	N/A	15.5%	28.4%	22.1%
American Indian/Alaska Native <sup>4</sup>	N/A	53.5%	23.0%	24.1%
Asian <sup>4</sup>	N/A	0.0%	12.6%	10.6%
Native Hawaiian/other Pacific Islander <sup>4</sup>	N/A	0.0%	27.2%	16.8%

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported  
N/A- Data unavailable

--\* Indicates rates have been suppressed for low, unreliable counts

Source 1: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table DP03)

Source 2: U.S. Census Bureau SAIPE Estimates, 2020

Source 3: National Center for Educational Statistics 2018-2019, as compiled by 2021 County Health Rankings

Source 4: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table S1701)

## Food Access and Insecurity

The food insecurity experienced by Pike County residents is higher in 2022 (19%) than it was in the 2019 CHNA (16%). The amount of food insecurity in Pike County is higher than it is in both Ohio and the United States. Nearly 23% of Pike County households receive SNAP benefits, which is almost double the Ohio (12.6%) and U.S. (11.4%) rates. There is also less access to grocery stores and healthy food options. There is only one food pantry in Pike County.

Table 28: Food Access in Pike County

Food Access	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Food Security</b>				
Food insecure population <sup>1</sup>	16.0%	19.1%	13.2%	10.9%
Food insecure population – child <sup>1</sup>	N/A	24.5%	17.4%	14.6%
Households receiving SNAP <sup>2</sup>	24.1%	23.2%	12.6%	11.4%
Number of food pantries	1	N/A	N/A	N/A
Grocery store access (establishment rate per 100,000 population)	28.28	N/A	N/A	N/A
Fast-food access (establishment rate per 100,000 population)	106.04	N/A	N/A	N/A

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported  
N/A- Data unavailable

Source 1: Feeding America, Map the Meal Gap, 2019

Source 2: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table S2201)

## HOUSING: CHARACTERISTICS AND ACCESS

Home ownership rates in Pike County (66.8%) in similar to Ohio (66.3%). There is a lower rate of HUD housing available to the low-income population. There are also fewer rental properties available in the county, compared to the 2019 CHNA. Fourteen percent of the homes in Pike County are classified as having a severe housing problem, meaning that the home meets one or more of the following criteria: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. Median gross rent (\$726) is lower than the state (\$825) and national (\$1096) averages, but there are nearly the same number of households burdened with the cost of housing (more than 30% of household income). More than 59% of the housing units in Pike County are owner-occupied.

Table 29: Pike County, Ohio Housing Characteristics

Housing Characteristics	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Rent average</b> <sub>1</sub>	\$665	\$726	\$825	\$1,096
<b>Mortgage average – average monthly owner cost with mortgage</b> <sub>1</sub>	\$1,051	\$1,085	\$1,286	\$1,621
<b>Average home value – owner-occupied units</b> <sub>1</sub>	\$100,100	\$119,900	\$151,400	\$229,800
<b>Homeownership</b> <sub>1</sub>	68.7%	66.8%	66.3%	64.4%
<b>Number of rentals</b> <sub>1</sub>	3,448	3,283	1,507,568	41,390,514
<b>Average home age</b>	1981	N/A	N/A	N/A
<b>Homelessness (per 10,000 people in general population)</b> <sub>2</sub>	N/A	N/A	9	18

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

N/A – Data unavailable

Source 1: U.S. Census Bureau; 2016-2020 American Community Survey Estimates, Table DP04

Source 2: National Alliance to End Homelessness, State of Homelessness 2021 Edition

## PHYSICAL ENVIRONMENT

Information on environmental factors, such as air and water quality, can provide insight to many of the underlying issues that impact community health. Data on air and water quality was collected to monitor the physical aspects of life for Pike County residents.

### Air Quality

The Ohio Department of Health and the Environmental Protection Agency are partners of a joint effort monitor air quality for radiologic contamination. The monitors used are placed near those utilized by the Department of Energy. General air quality for the county is not measured.

Some toxics release inventory emissions inventory (TRI) is available from the EPA to provide some insight into the pollutants that are disposed of and/or emitted in the community by local industry, as well as car emissions, etc. Currently, nitrate compounds disposal information is available for review below.

Table 30: Toxin Release Inventory, Pike County - 2017

Chemical	Total On-site Disposal or Other Releases	Total Off-site Disposal or Other Releases	Total On- and Off-site Disposal or Other Releases
NITRATE COMPOUNDS	36,000.00	0	36,000.00
Total	36,000.00	0	36,000.00

Source: Environmental Protection Agency, 2017

### Water Quality

Only water quality reports for the Village of Waverly were available for this assessment. Sampling tests for bacteriological (coliform), radioactive contaminants (pCi/L), inorganic contaminants (lead, fluoride, copper, nitrate, barium), synthetic organic contaminants, including pesticides and herbicides, volatile organic contaminants (trihalomethanes and haloacetic acids); and residual disinfectants (chlorine). The Village of Waverly Water Department did not receive any violations in 2019 or 2020.

Table 31: Waverly City Water Quality Reports, 2020

CONTAMINANTS (UNITS)	MCLG	MCL	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINATION
<p><b>SOURCE OF WATER INFORMATION</b>                      THE VILLAGE OF WAVERLY HAS TREATED AND TESTED WATER AT ITS PRESENT LOCATION ON 220 EAST SINCE 1969. THE WATER PLANT RECEIVES ITS WATER FROM THE TEAY'S VALLEY AQUIFER BY WAY OF THREE 10+ FOOT DEEP WELLS. THE RAW WATER IS APPROXIMATELY AT A HARDNESS OF 400 PPM OR 21.4 GRAINS PER GALLON WITH A PH OF 7.2. THE WATER IS PUMPED TO A TANK CALLED A CLARIFIER. THERE IT IS MIXED WITH A LIME SLURRY WHICH RAISES THE PH TO AROUND 10.5. THIS IN TURN REDUCES THE HARDNESS TO AROUND 128-160 PPM OR 7.0-11.5 GRAINS PER GALLON. FROM THE CLARIFIER IT IS GRAVITY FED TO A RECARBONATION TANK. HERE IT IS MIXED WITH CARBON DIOXIDE. THIS STABILIZES THE WATER TO A PH OF AROUND 8.5. THIS WATER IS THEN RUN THROUGH RAPID SAND FILTERS TO ELIMINATE ANY PARTICLES LEFT OVER FROM THE TREATMENT PROCESS. THEN IT GRAVITY FEEDS TO A 200,000 GALLON CLEARWELL. CHLORINE AND FLUORIDE ARE ADDED FOR BACTERIA AND TEETH, RESPECTIVELY HIGH SERVICE PUMPS THEN PUMP THE FINISHED PRODUCT TO OUR 5 MILLION GALLON WATER TOWER ON GRANDVIEW AVE. FROM THERE IT IS PUMPED, BY BOOSTER PUMPS, TO OUR 1 MILLION GALLON WATER TANK ON 220 WEST. BOTH TANKS THEN GRAVITY FEED WATER TO RESIDENTS AND COMMERCIAL SITES FROM BOTH TANKS. WHILE THIS PROCESS IS GOING ON, PLANT PERSONNEL ARE RUNNING TESTS ON THE WATER IN OUR CERTIFIED LAB TO ENSURE WE MEET ALL OF EPA'S GUIDELINES IN THE YEAR OF 2020. THIS MEANT THE TREATMENT AND TESTING OF APPROXIMATELY 131 MILLION GALLONS OF WATER FOR OUR COMMUNITY.</p>							
LEAD & COPPER, MICROBIOLOGICAL, INORGANICS							
LEAD	0	AL=15.5 PPB	1.2 PPB	N/A	NO	2020	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS
OF 20 SAMPLES, 0 WAS FOUND TO HAVE LEAD LEVELS IN EXCESS OF LEAD ACTION LEVEL OF 15 PPB							
COPPER	1300	AL=1350 PPB	21.8 PPB	N/A	NO	2020	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS
OF 20 SAMPLES, 0 WAS FOUND TO HAVE COPPER LEVELS IN EXCESS OF THE ACTION LEVEL OF 1300 PPB							
TOTAL COLIFORM BACTERIA (TC)	0	1	0	N/A	NO	2020	NATURALLY PRESENT IN THE ENVIRONMENT
FECAL COLIFORM / E. COLI	0	1	0	N/A	NO	2020	HUMAN AND ANIMAL FECAL WASTE
FLUORIDE (PPM)	4 mg/l	4 mg/l	1.03 mg/l	.80 - 1.22 mg/l	NO	2020	EROSION OF NATURAL DEPOSITS. WATER ADDITIVE THAT PROMOTES STRONG TEETH. DISCHARGE FROM FERTILIZER AND ALUMINUM PLANTS
NITRATE (PPM)	10 mg/l	10 mg/l	< 0.10 mg/l	N/A	NO	2020	RUNOFF FROM FERTILIZER USE. EROSION OF NATURAL DEPOSITS.
BARIUM (PPM)	2 mg/l	2 mg/l	.0197 mg/l	N/A	NO	2019	DISCHARGE OF DRILLING WASTES. DISCHARGE FROM METAL REFINERIES. EROSION OF NATURAL DEPOSITS.
ARSENIC (PPB)	0	10 ug/l	4.1 ug/l	0 - 4.1 ug/l	NO	2020	EROSION OF NATURAL DEPOSITS. RUNOFF FROM ORCHARDS. RUNOFF FROM GLASS AND ELECTRONICS PRODUCTION WASTES.
RESIDUAL DISINFECTANTS							
TOTAL CHLORINE (PPM)	MRDL=4	MRDLG=4	1.27 mg/l	0.40 - 2.20 mg/l	NO	2020	WATER ADDITIVE TO CONTROL MICROBES
DISINFECTION BYPRODUCTS							
TRICHALOMETHANES (PPB)	N/A	80 ug/l	32.4 ug/l & 46.7 ug/l	N/A	NO	2020	BY-PRODUCT OF DRINKING WATER CHLORINATION
HALOACETIC ACIDS (PPB)	N/A	60 ug/l	3.7 ug/l & 4.6 ug/l	N/A	NO	2020	BY-PRODUCT OF DRINKING WATER CHLORINATION

Source: Village of Waverly Water Department, Retrieved From <https://www.cityofwaverly.net/Downloads/CCR-2020.pdf>

**ACCESS TO HEALTHCARE**

The Pike County community has one critical access hospital (Adena Pike Medical Center) serving the broader community and is within an approximate radius of two regional medical centers – Adena Regional Medical to the north and Southern Ohio Medical Center to the south. A regional medical center is dedicated to serving veterans (Chillicothe VA Medical Center) is also located approximately 25 miles to the north. The critical access hospital and all other facilities in the region have emergency departments. Adena Regional Medical Center and Chillicothe VAMC offer inpatient psychiatric services. The community also has three community health clinics.

**Healthcare System Utilization**

There is one hospital in Pike County, Adena Pike Medical Center. The 25-bed facility has a critical access hospital designation and provides 24-hour emergency room services. The facility also offers acute inpatient hospitalization and swing bed services.

*Table 32: APMC Hospital Utilization, 2021*

<b>Services</b>	<b>2021</b>
<b>Observation admissions (2021)</b>	<b>441</b>
<b>Inpatient hospital utilization (2021)</b>	<b>275</b>
<b>Swing bed admissions (2021)</b>	<b>429</b>
<b>Emergency department utilization (2021)</b>	<b>10895</b>

Local Hospital Utilization – 2021 (have previous years if need a comparison). Majority of patient days are swing bed stay days.

The leading reasons for hospitalizations and state comparisons are reviewed in the next table. Numbers below are based on a rate per 1000 admissions. Maternity care was a leading reason for hospitalization; however, it was not included as it did not impact health rankings as it’s a positive admission.

*Table 33: Pike County Hospitalization Diagnoses (Top 5)*

<b>Hospitalized reason</b>	<b>Pike County</b>	<b>Ohio</b>
<b>Lung and respiratory</b>	<b>15.9</b>	<b>14.0</b>
<b>Septicemia</b>	<b>12.5</b>	<b>6.2</b>
<b>Psychiatry</b>	<b>5.8</b>	<b>5.7</b>
<b>Acute MI</b>	<b>3.4</b>	<b>1.4</b>

## Healthcare Service Access

Pike County is a partially medically underserved area (MUA) designation and a partial medically underserved population (MUP), due to the limited number of providers who access healthcare with Medicaid and the geographic isolation experienced in the more rural areas of the county. The area is considered a healthcare provider shortage area (HPSA) for primary care, oral health, and mental health, due to limited access for services.

Table 34: Pike County, Ohio Health Services

Health Services	Pike County 2019*	Pike County 2022
Number of physicians	16	N/A
Health Professional Shortage Area	Yes	Yes
Number of free clinics	0	N/A
Number of FQHCs (federally qualified health center)	3	3

*\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported*

*N/A – Data unavailable*

*Source: Health Resources and Services Administration, Health Professional Shortage Area (HPSA) Find*

## Healthcare Provider Access: Primary, Oral and Mental Health Care

Pike County has limited capacity to provide healthcare services. There are currently 3,510 patients for every primary care provider. For the purpose of this report, a primary care provider may be a physician or certified nurse practitioner.

Access to a dental provider in Pike County is better than past surveys, but worse than state or national averages. There are 2,140 patients for every dentist.

The number of mental health providers has increased to improve access to mental and behavioral health services. For the purpose of the county health rankings, mental health providers are defined as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental health care. There is a mental health provider for every 110 patients in Pike County. That ratio is better than Ohio (380:1) and nearing some of the top U.S. performers. Access to mental health care remains an issue in the primary survey data, which will be reviewed later.

Table 35: Pike County, Ohio Healthcare Provider Access

Provider Access	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Patient to provider ratio</b>				
Primary Care <sub>1</sub>	3,130:1	3,510:1	1,300:1	1,320:1
Oral Health Care <sub>2</sub>	2,570:1	2,140:1	1,560:1	1,400:1
Mental Health Care <sub>3</sub>	240:1	110:1	380:1	380:1

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported

Source 1: Area Health Resource File, 2018, as compiled by County Health Rankings and Roadmaps, 2021

Source 2: Area Health Resource File, 2019, as compiled by County Health Rankings and Roadmaps, 2021

Source 3: CMS, National Provider Identification, 2020, as compiled by County Health Rankings and Roadmaps, 2021

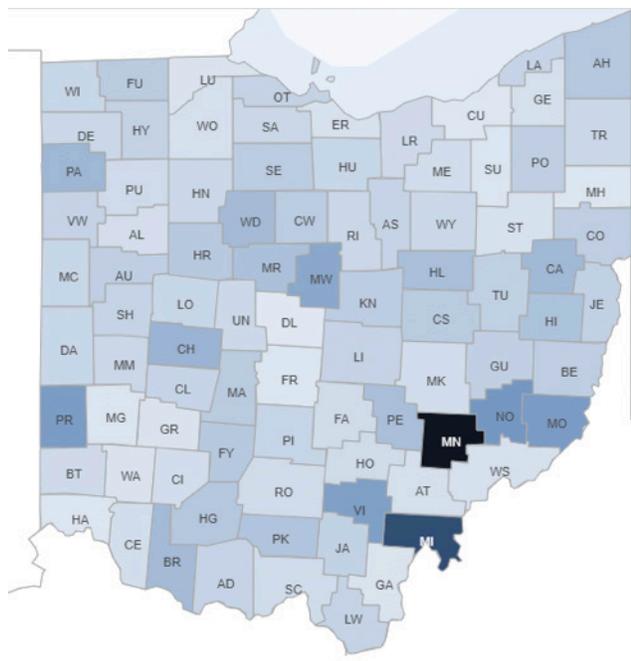


Figure 17: Primary Care Provider Coverage - Ohio

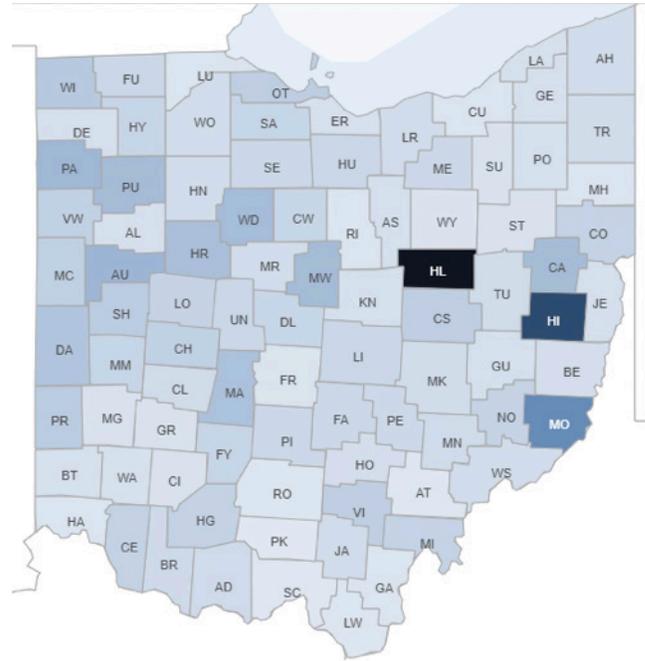


Figure 18: Ohio Map Depicting Mental Health Providers - 2022

## Insurance Coverage

Approximately 8% of the total Pike County population does not have health insurance, which is better than Ohio and national rates and an improvement from the 2019 CHNA. Fewer than 2% of the children in the county do not have health insurance, which is also lower than the national and state averages. More than half of the children in Pike County access healthcare services with Medicaid, which is considerably higher than the national and state rates.

Table 36: Healthcare Insurance in Pike County

Health Care Access	Pike County 2019*	Pike County 2022	Ohio 2022	U.S. 2022
<b>Insurance</b>				
Total population without health insurance (under age 65)	10.3%	7.7% <sup>1</sup>	8.4% <sup>1</sup>	12.3% <sup>1</sup>
Children without health insurance (under age 19)	3.4%	1.2% <sup>1</sup>	4.4% <sup>1</sup>	5.2% <sup>1</sup>
<b>Medicaid</b>				
Insured population using Medicaid	32.4%	34.2% <sup>2</sup>	20.5% <sup>2</sup>	20.1% <sup>2</sup>
Children under 19 using Medicaid	54.3%	52.4% <sup>2</sup>	36.2% <sup>2</sup>	37.9% <sup>2</sup>
Medicaid births	61.9%	N/A	52.9% <sup>3</sup>	41.7% <sup>4</sup>

\*See Pike County 2019 Community Health Needs Assessment for sources and years of data reported  
N/A- Data unavailable

Source 1: U.S. Census Bureau, 2016-2020, Table S2701

Source 2: U.S. Census Bureau, 2016-2020, Table S2704

Source 3: Ohio Department of Medicaid, Report on Pregnant Women, Infants, and children – SFY 2020

Source 4: CDC Wonder, Natality, 2020

## PUBLIC HEALTH AND PREVENTION

A communicable disease is an illness caused by microorganisms, such as bacteria, viruses, parasites and fungi. The route of transmission varies by disease and may include direct contact with contaminated body fluids or excretions, contact with contaminated objects, inhalation of contaminated airborne particles, ingestion of contaminated food or water, or transmission from an animal or vector (re: arthropod) carrying the microorganism (CDC, 2019).

Communicable diseases that are of high public health concern are reportable to the Pike County General Health District for investigation. The majority of reportable diseases can spread rapidly and cause outbreaks, resulting in widespread and potentially severe illness in the community. In Ohio, these diseases are reported to local health district according to the Ohio Administrative Code (OAC) Chapter 3701-3 (OAC, 2019).

The Pike General Health District is responsible for the surveillance and investigation of over 100 different communicable diseases that are reported through a variety of reporting sources including laboratories, physicians, hospitals, infection preventionists, school nurses, or any individual having knowledge of a person suffering from a disease expected to be communicable. Diseases are entered to the Ohio Disease Reporting System (ODRS) by the health department's infectious disease case manager, which provides immediate access for ODH to document the distribution of disease in Ohio and to assist in identifying disease outbreaks occurring across the state (ODH, 2015).

When communicable diseases are investigated and are determined to be a threat to people and communities in Pike County, the Pike General Health District implements control measures, through health education/awareness, enforcement actions,

and interventions to help reduce the spread of communicable diseases. That can be done through a variety of measures and, in many times, is done with cooperation from our local healthcare network and community stakeholders. With COVID, the workload at the local Pike Health District has grown, in regard to those investigations.

Table 38: Reportable Diseases Pike County - 2019-2021

Reportable Diseases			
Disease	2019	2020	2021
Campylobacteriosis	12	7	8
Chlamydia infection	89	101	68
COVID-19	n/a	1420	3691
CP-CRE	2	1	3
CP-CRE Investigation	0	0	1
Cryptosporidiosis	1	0	0
Cyclosporiosis	1	0	0
E. coli, Shiga Toxin-Producing (O157:H7, Not O157, Unknown Serotype)	2	1	1
Ehrlichiosis-Ehrlichia chaffeensis	2	2	0
Giardiasis	1	0	0
Gonococcal infection	15	14	24
Hepatitis A	11	0	0
Hepatitis B (including delta) - acute	4	2	0
Hepatitis B (including delta) - chronic	15	16	14
Hepatitis C - acute	3	1	1
Hepatitis C - chronic	117	87	93
Influenza-associated hospitalization	32	27	1
Legionellosis - Legionnaires' Disease	1	0	1
Listeriosis	0	1	0
Lyme Disease	3	4	2
Meningitis - aseptic/viral	5	0	0
Mumps	0	1	0
Pertussis	0	1	0
Salmonellosis	1	2	3
Shigellosis	1	0	1
Spotted Fever Rickettsiosis, including Rocky Mountain spotted fever (RMSF)	3	6	1
Streptococcal - Group A - invasive	1	3	10
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	7	6	5
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	1	0	5
Syphilis - unknown duration or late	1	0	3
Varicella	1	0	0
Yersiniosis	1	0	0
Total per year	333	1703	3936

## **Public Health Funding**

A variety of programs that promote health are coordinated for both adults and youth in Pike County. Prior to the COVID pandemic, many of those programs were growing and gaining traction in the community. In 2019, many of those initiatives were halted for COVID. For some, the programs returned in 2022 and are still in the “redevelopment” stage.

As some of the programs are restarting, numbers are significantly lower than participation prior to COVID was reported. For example, “Walk with a Doc” has been on hold since late 2019. At that time, the program had 103 unique participants per year. Since the relaunch in July, the number is 20 unique participants. The Healthy Kids Summer Challenge is another program that’s rebuilding. In 2022, there were 330 youth and 180 adult participants—less than that which was noted in previous years. “Dining with Diabetes” also returned in October 2022 to Pike County since COVID, with a reduced class size of 10 participants.

To provide public health services in Pike County, the financial support of the community is necessary. Funding sources for the health district include: grants, contracts, fees for services— the most important being a potential 1 mill tax levy. A one mill health tax levy would generate approximately \$457,857.00 and completely remove the financial burden from the municipalities (\$228,929.00 – 1/2 mill).

## **Public Health Workforce and Accreditation**

The Pike County General Health District is actively working on its accreditation. The PCGHD submitted all documentation to the Public Health Accreditation Board in February 2020. With COVID, the site visit was delayed until April 2022. Currently, the PCGHD provides additional documentation to the Accreditation Board, which is due by August 2023. At that time, a final decision will be made about accreditation for the PCGHD.

## **PUBLIC SURVEY SUMMARY**

As part of the assessment process, the Pike County Health Coalition engaged the broader community in a public survey to gain more insight to a variety of factors that may impact the health of the community, as well as to solicit feedback about the community needs to improve overall health. In addition to asking general questions regarding demographics, education, income, and social factors, additional questions regarding environmental factors, health behaviors, and top community health needs are also asked. The survey was made available for several months in both electronic and paper form. The link to the electronic copy of the survey was shared on multiple social media and web sites.

A copy of the full survey response summary is located in the Appendix. The following highlights the most significant findings from the survey. The raw survey data will be made available to the public for in-depth analysis of specific topics of interest.

## **Information Gathering**

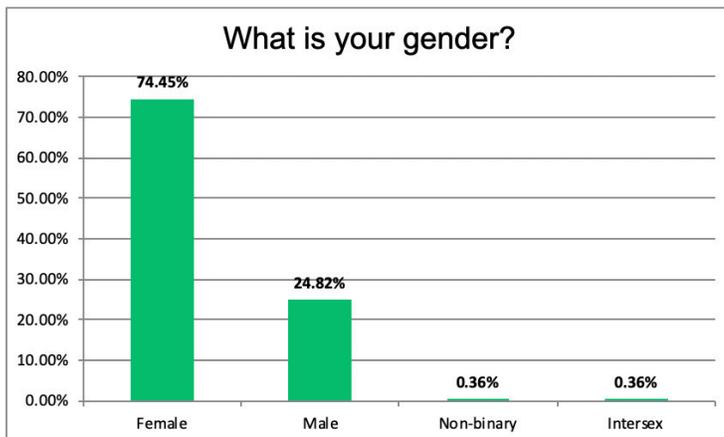
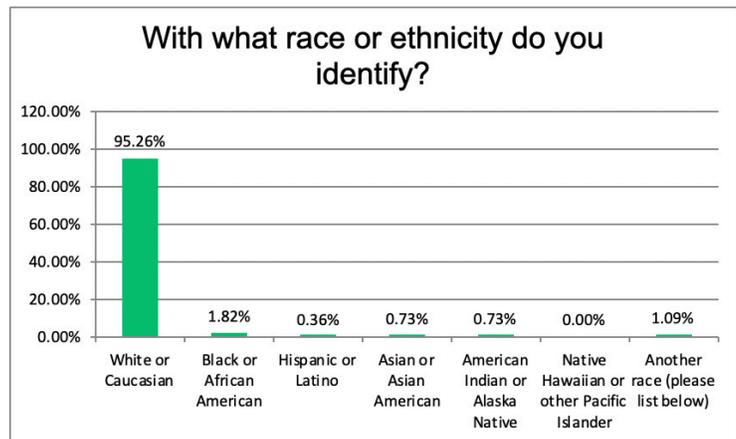
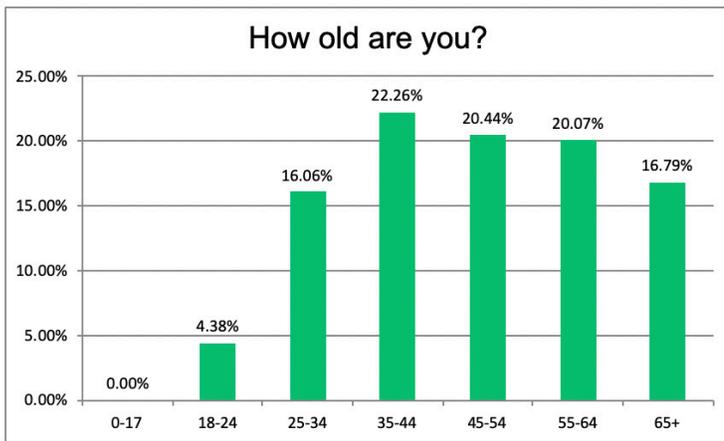
The Pike County community was engaged as part of the community health assessment process in a variety of ways. A broad community survey was utilized. An assessment by stakeholders was conducted to gain input about top health priorities and needs in the community.

Respondents to the community survey indicated that social media and direct mail are the preferred methods of receiving community health related information.

## Community Input

Multiple methods of community input were sought for this community health assessment. It's important to note that not all rural communities, particularly those that are Appalachian, understand the relevance or importance of providing input to the community health assessment process, so it can be difficult to obtain via some routes, such as public comment.

There 401 surveys returned. Of those, only 290 were accepted as valid surveys (i.e., county residents). The majority of survey respondents (36.9%) resided in Pee Township; however, surveys were received from all 14 townships in Pike County. Respondents' age demographics were fairly evenly distributed, except for 18-24 (4.83%) and 0-17 (no respondents). Twenty-two percent of respondents were in the 35-44 age range. The majority of survey respondents were female (75%), heterosexual (94%), and Caucasian (95%).

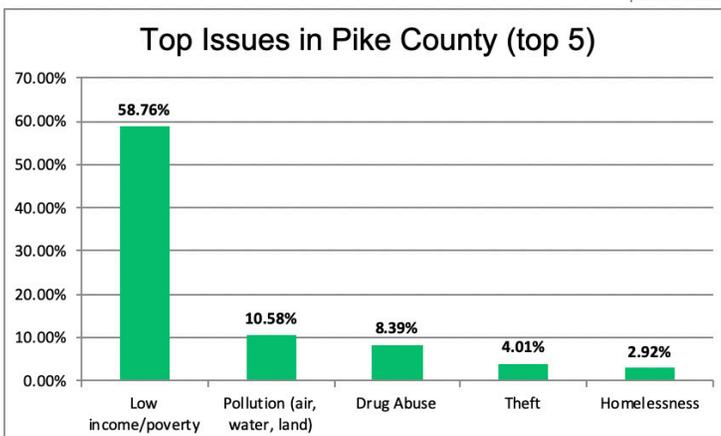
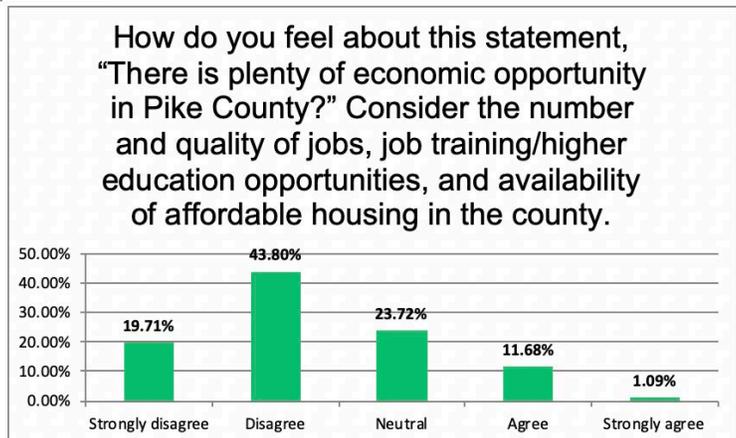
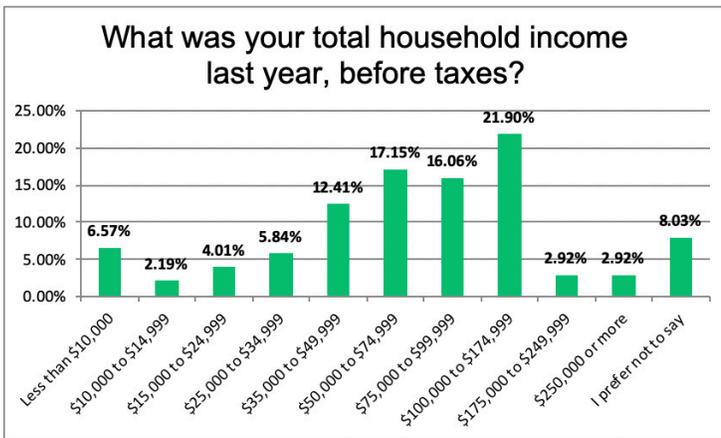


## SUMMARY OF KEY FINDINGS

The following sections detail findings from the public input in the community health assessment process, as noted by their responses to the public survey. The majority of respondents felt that Pike County is a safe place to live, raise a family, and grow old. With that, they felt that there were opportunities for the situation in Pike County to improve.

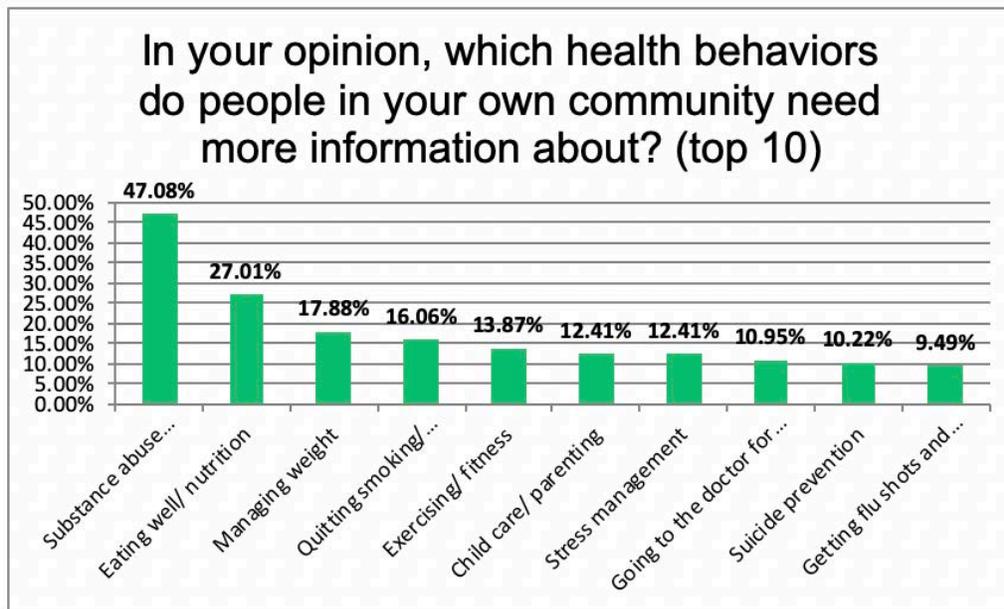
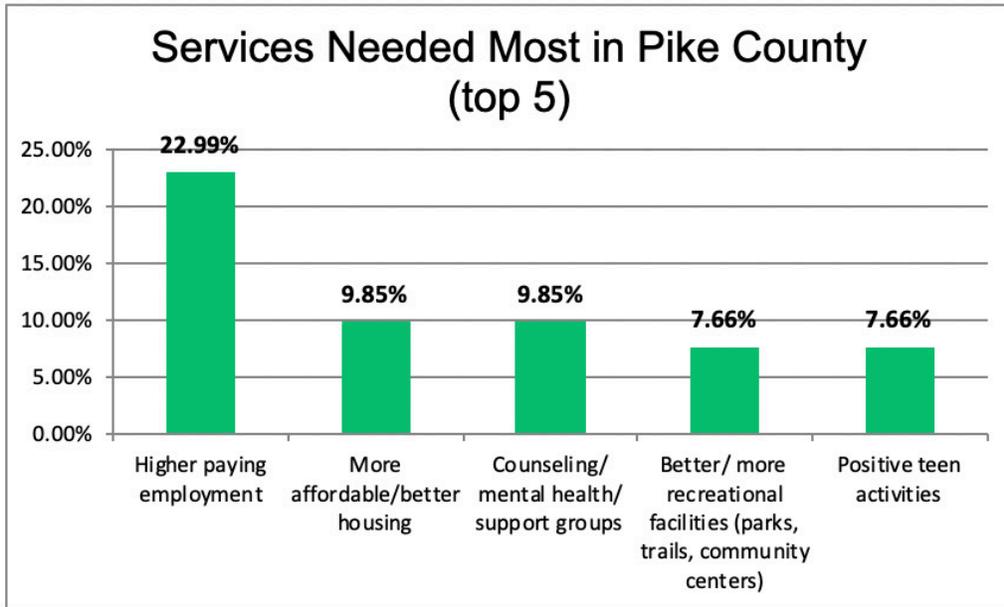
### Economic Factors

Economic factors impact public health. If people have to drive farther for employment or if area wages are lower, it can impact choices made related to health. Economic issues were a concern to many in Pike County. Twenty percent of those surveyed struggle to pay for housing. Of the 274 responses, 63% of respondents did not feel that there is economic opportunity in Pike County. More than 58% of respondents feel that low income/poverty affected the quality of life in Pike County the most, with higher paying employment (23%) being the greatest community need.

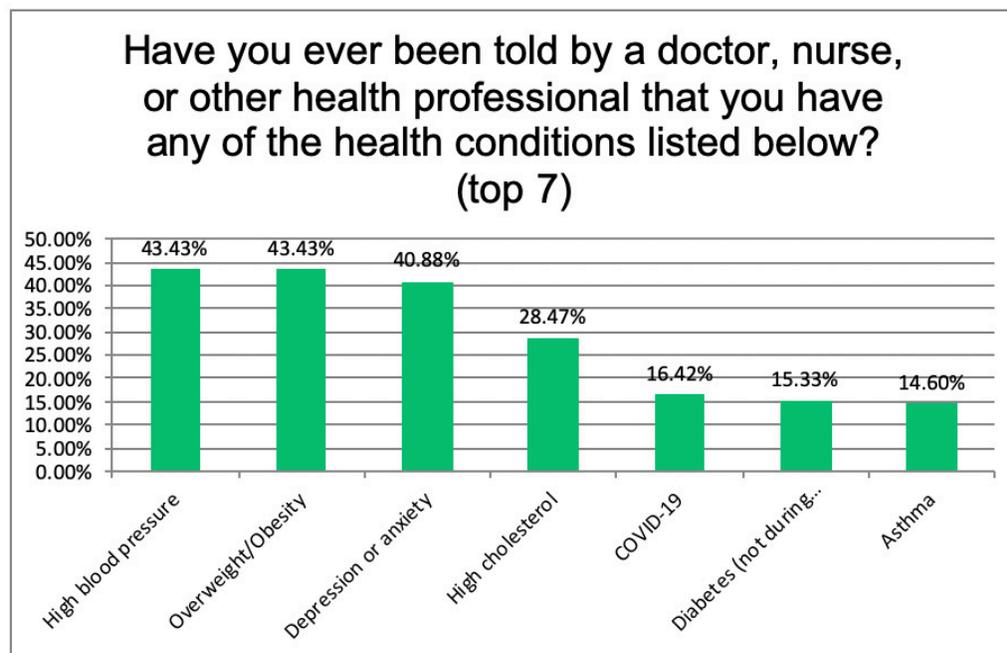
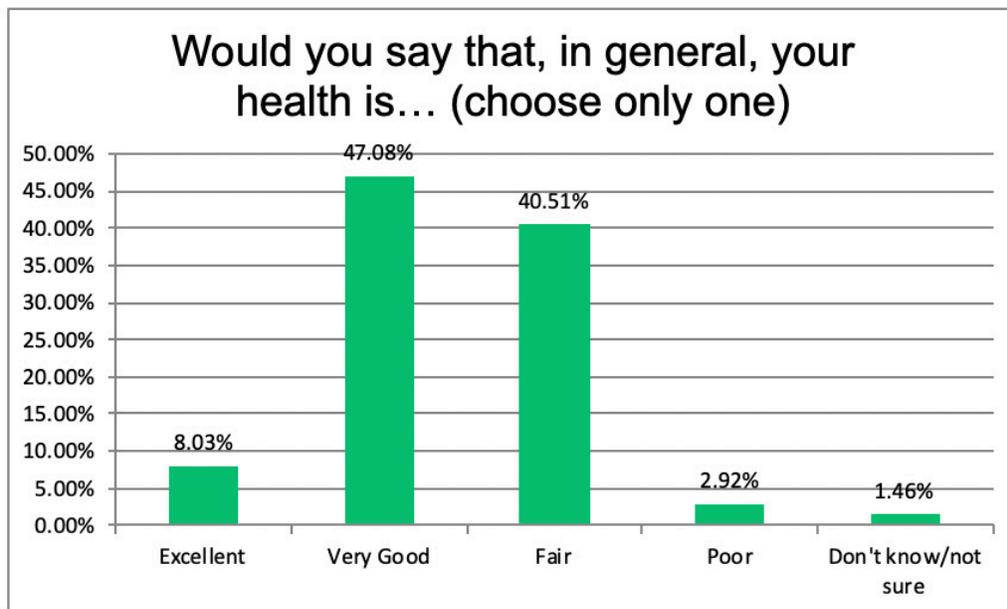


### Environmental and Social Factors

Environmental and social factors have a significant impact on individual and public health. In general, those factors are wide-ranging and diverse. A variety of questions related to personal and community factors were asked, in order to identify critical indicators that may impact health. In addition to poverty, concerns in Pike County were mental health issues and drug abuse. Most survey respondents believe that drug abuse, cancer, obesity, and mental health are the primary health issues; those were also areas in which the community requests health information.

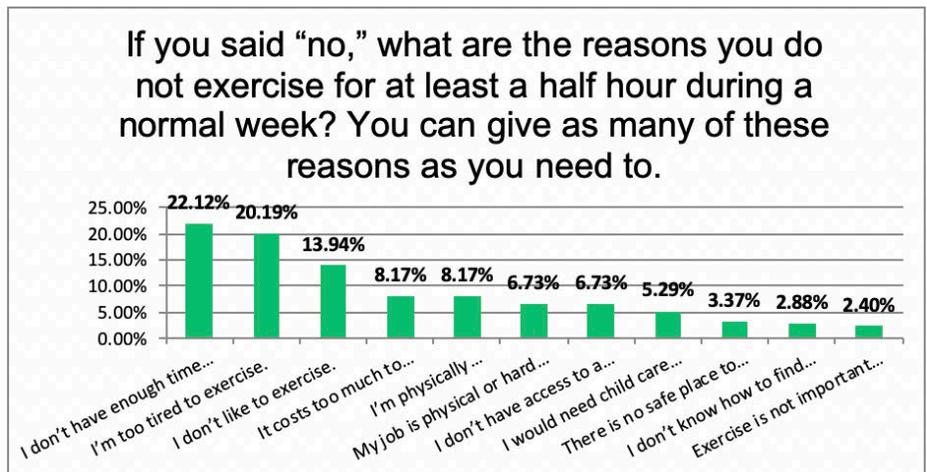
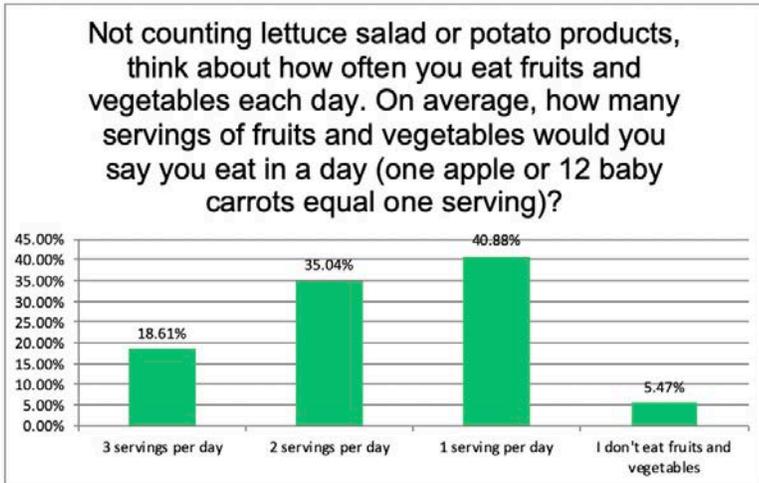


The majority of respondents reported that they are in good/very good health. More than 40% of those responding to the question reported having been told by a health professional that they had depression or anxiety, high blood pressure, and/or were overweight/obese. That information correlates closely to the survey behavior questions and nutrition questions.

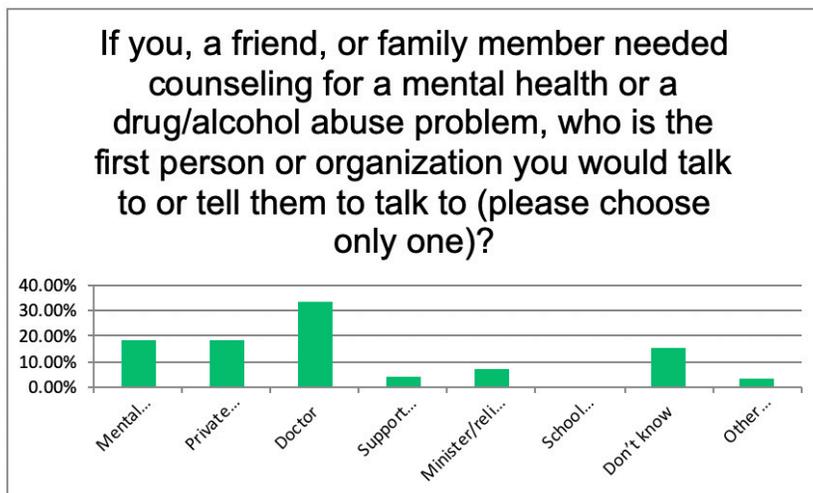
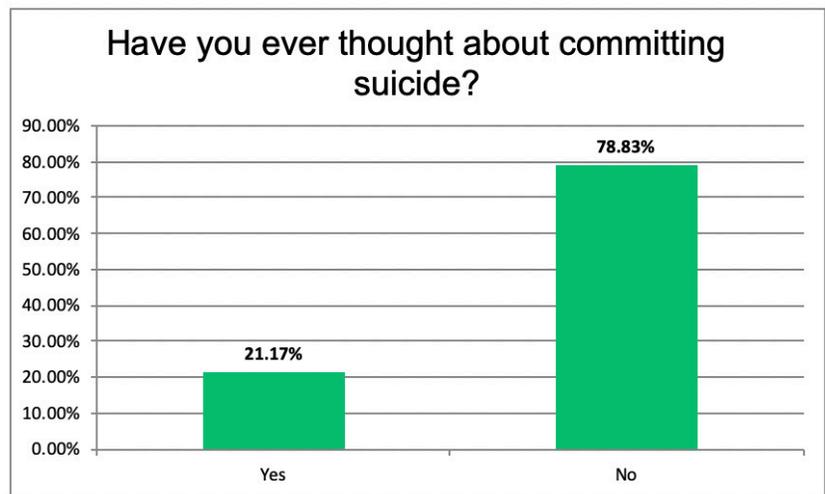
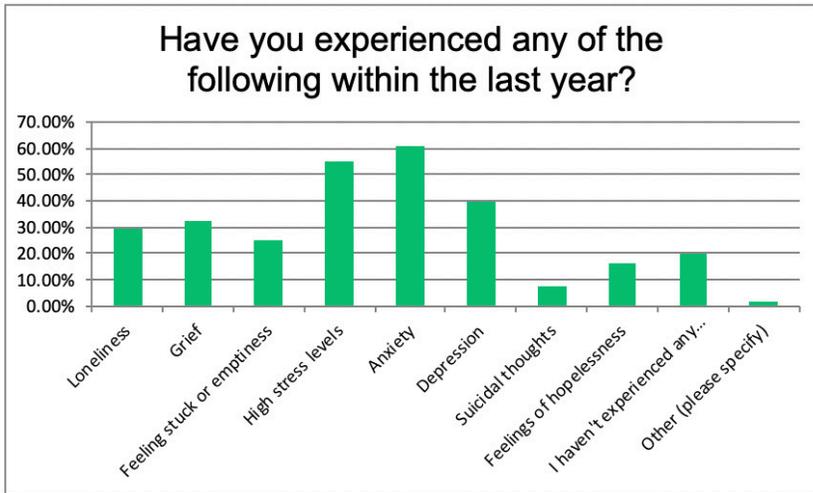


## Health Behaviors and Experiences

Survey respondents were also asked to report their own health behaviors and what they experience as members of a broader community; 41% reported that they only eat one serving of fruits and vegetables a day. The majority report that they do not use tobacco (78%) or consume alcohol (57%). More than 88% reported seeing a family doctor in the past year. Respondents also shared their barriers to exercise and accessing healthcare.

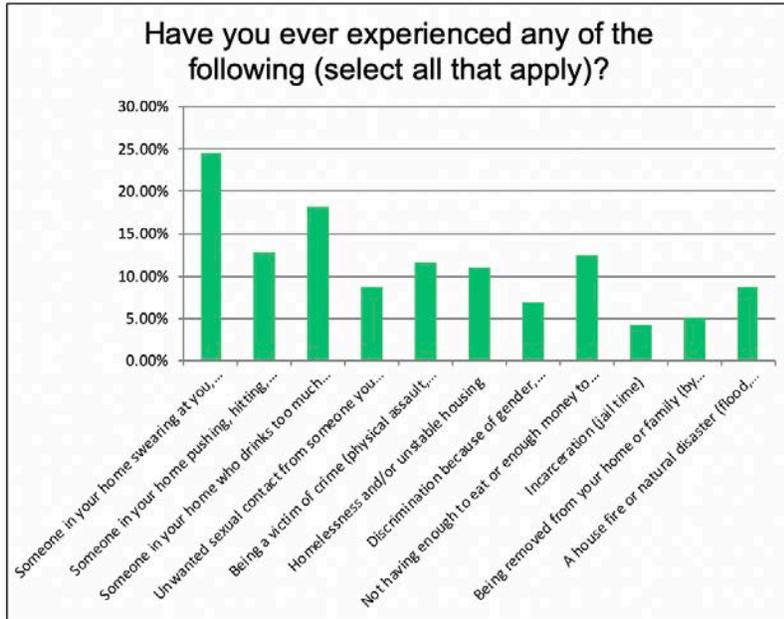


Questions were asked about mental health, with more than 60% reporting that they had anxiety. Many of those who responded reported they would reach out to their family doctor if they had a mental health or addiction issue (33%) as opposed to a mental health professional/clinic (18%).



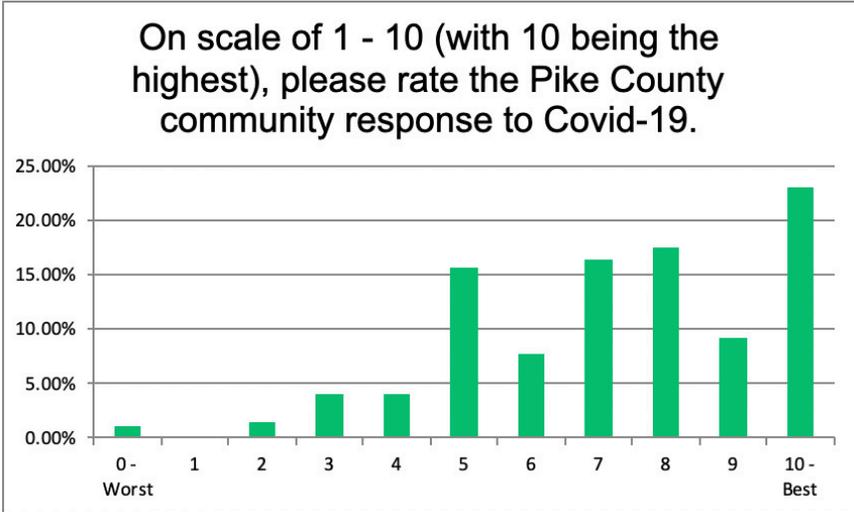
### Adverse Childhood Experiences (ACEs)

Below is a table of typical adverse childhood experiences (ACE) reflected in the Pike County community assessment. While the data does not provide the information if the event was in childhood or adulthood, it is known that the prevalence of ACE in Pike County is higher than in other parts of the state. That’s also correlated with the secondary data received in this study, such as the poverty rates, percentage of youth living with a non-parent, suicide rate, addiction rate, and other corroborating data points.

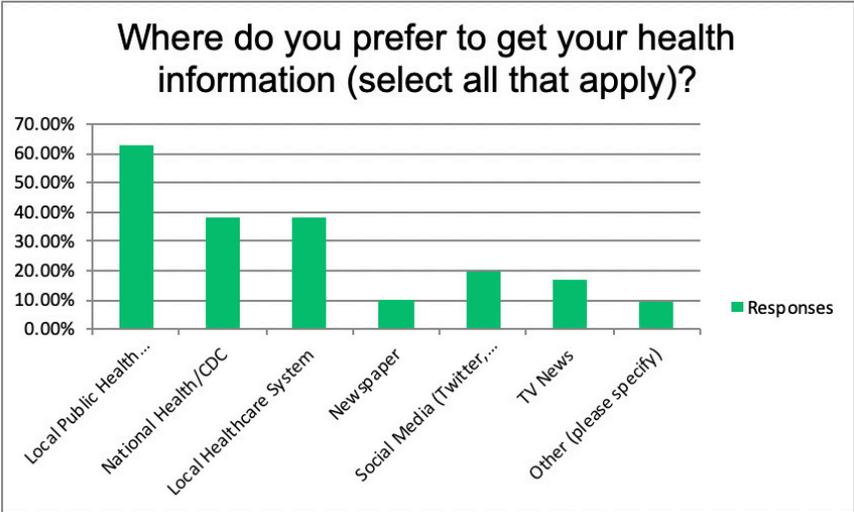


**Community Views on Public Health**

Community members also provided insight to that factor that they believe affect the community’s health the most. Most indicated that substance use disorder was a key issue. Cancer, obesity, and mental health were also identified as key issues, with more education needed on a variety of mental health, medical, and social topics. The majority of responders seek health information from the local health department, followed by national health institutions, such as CDC (38%) and local health system (38%).



The community did have a relatively favorable response to how the local public health system addressed one of the greatest challenges – COVID-19.



## **OTHER FACTORS IMPACTING PIKE COUNTY SINCE THE 2019 ASSESSMENT**

Pike County Health Coalition had a plan to improve health outcomes. Unfortunately, two unforeseen variables forced a new direction for the development of action plans to address, as those were immediately impacting the health of the residents. The obstacles were radiation exposure to residents from the local uranium enrichment plant and COVID-19.

In 2019, the Pike County Health District became involved when radiation was detected, following testing at a local middle school. Zahn's Corner Middle School was closed once after air samples both inside and outside the school tested positive for radioactive materials, likely connected to the Portsmouth Gaseous Diffusion Plant, located three miles away. As the investigation started in 2019, the health district, along with other community members, learned that neptunium was present in the air at the middle school; that information was noted in the Department of Energy's 2017 Annual Site Environmental Report (ASER). The report was not released to the public until January 2019. The ASER specifically talks about neptunium-237 being found at the school, and states that the amount found was 0.08 percent of the acceptable standard for the radioactive material. Americium-241, a radioactive isotope with health effects similar to neptunium, was also detected. Neptunium is a transuranic element and a known carcinogen (cancer-causing substance)

Once the health district learned of the radiation at the school, they increased advocacy for the county by holding public education forums and working with the Department of Energy, Environmental Protection Agency, and local community partners, to determine the extent of radiation exposure at the school and in the community. The health district continues to advocate for disclosure of exposures to the community from the plant,

and monitor levels, as by the Ohio Department of Health. They also monitor suspicious cancers to determine if they are related to the radiation exposure in the community.

COVID-19 was the other factor impacting Pike County. The pandemic forced the closure of schools and businesses. It limited the work of the Pike Health Coalition partners, as agencies were closed or their resources were diverted to the pandemic response. The Pike Health District and local hospital were also pushed to record volumes as part of the pandemic response.

For the local hospital, Adena Pike Medical Center, acute beds were filled at record levels (average daily census pre-COVID was 15; average during the pandemic was the was 23). The local facility is a critical access hospital with 25 inpatient beds. At the peak of the pandemic locally, the hospital used the pandemic waivers and added five beds to address the local need. The acuity of admissions at the hospital also rose as bed availability at tertiary care centers in Columbus and Cincinnati were often unavailable, because they were also filled to capacity.

Pike County Health District also had operations directed to the pandemic. The health district was responsible for the contract tracing of exposures, community education, and other pandemic-related outreach efforts. Staffing volumes at the health district remained the same, despite the increased workload to manage pandemic response.

The efforts of the local health district and Adena Health System were recognized by the community on the recent community health survey, as respondents favorably scored the local COVID-19 pandemic response. They also rated the health district as their primary place to seek health information.

## Review of the Current Public Health System

In 2019, the Pike County Health Coalition analyzed the 10 essential public health functions in Pike County. The assessment was completed by the Pike County General Health District, utilizing the National Public Health Performance Standards Assessment. The assessment scored the local system at 70.4, based on the public health system's capacity to:

- Monitor health status to identify and solve community health problems
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate, and empower people about health issues
- Mobilize community partnerships and action to identify and solve health problems
- Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect health and ensure safety
- Link people to needed personal health services and assure the provision of health care, when otherwise unavailable
- Assure competent public and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems

While the study was not repeated for this assessment, the work of the Pike Health District was visible to the local community by their actions during the COVID pandemic and the radiation exposure leak concerns. Action plans developed at the time of this study will be modified as appropriate during development process of the next CHIP.



Figure 25: Essential Public Health Functions

Table 35: Assessment of the Pike County Public Health System, 2019

Model Standards by Essential Services	Performance Scores	Priority Rating	Agency Contribution Scores
<b>ES 1: Monitor Health Status</b>	<b>62.5</b>	<b>4.7</b>	<b>75.0</b>
1.1 Community Health Assessment	66.7	10.0	100.0
1.2 Current Technology	58.3	2.0	50.0
1.3 Registries	62.5	2.0	75.0
<b>ES 2: Diagnose and Investigate</b>	<b>54.2</b>	<b>6.3</b>	<b>83.3</b>
2.1 Identification/Surveillance	58.3	7.0	75.0
2.2 Emergency Response	54.2	7.0	100.0
2.3 Laboratories	50.0	5.0	75.0
<b>ES 3: Educate/Empower</b>	<b>52.8</b>	<b>7.7</b>	<b>66.7</b>
3.1 Health Education/Promotion	58.3	8.0	100.0
3.2 Health Communication	50.0	8.0	50.0
3.3 Risk Communication	50.0	7.0	50.0
<b>ES 4: Mobilize Partnerships</b>	<b>62.5</b>	<b>5.5</b>	<b>62.5</b>
4.1 Constituency Development	50.0	5.0	50.0
4.2 Community Partnerships	75.0	6.0	75.0
<b>ES 5: Develop Policies/Plans</b>	<b>50.0</b>	<b>5.8</b>	<b>81.3</b>
5.1 Governmental Presence	25.0	1.0	50.0
5.2 Policy Development	50.0	4.0	75.0
5.3 CHIP/Strategic Planning	75.0	9.0	100.0
5.4 Emergency Plan	50.0	9.0	100.0
<b>ES 6: Enforce Laws</b>	<b>33.3</b>	<b>5.3</b>	<b>58.3</b>
6.1 Review Laws	25.0	4.0	50.0
6.2 Improve Laws	25.0	4.0	25.0
6.3 Enforce Laws	50.0	8.0	100.0
<b>ES 7: Link to Health Services</b>	<b>84.4</b>	<b>7.0</b>	<b>87.5</b>
7.1 Personal Health Service Needs	75.0	7.0	100.0
7.2 Assure Linkage	93.8	7.0	75.0
<b>ES 8: Assure Workforce</b>	<b>43.2</b>	<b>3.0</b>	<b>81.3</b>
8.1 Workforce Assessment	25.0	3.0	100.0
8.2 Workforce Standards	66.7	3.0	100.0
8.3 Continuing Education	50.0	3.0	50.0
8.4 Leadership Development	31.3	3.0	75.0
<b>ES 9: Evaluate Services</b>	<b>35.4</b>	<b>5.3</b>	<b>66.7</b>
9.1 Evaluation of Population Health	31.3	3.0	75.0
9.2 Evaluation of Personal Health	50.0	10.0	75.0
9.3 Evaluation of LPHS	25.0	3.0	50.0
<b>ES 10: Research/Innovations</b>	<b>41.7</b>	<b>3.7</b>	<b>41.7</b>
10.1 Foster Innovation	50.0	3.0	50.0
10.2 Academic Linkages	50.0	3.0	50.0
10.3 Research Capacity	25.0	5.0	25.0
<b>Average Overall Score</b>	<b>52.0</b>	<b>5.4</b>	<b>70.4</b>
<b>Median Score</b>	<b>51.4</b>	<b>5.4</b>	<b>70.8</b>



### Summary of Key Findings

Date for the current assessment continues to be consistent with the 2019 assessment. There are several elements to note. First, the Pike County population continues to decline. As of 2022, the migration continues to increase, but it isn't yet offsetting the decrease in the older population. The rates of poverty and unemployment have continued to improve. However, more than 50% of families in Pike County still earn less than \$50,000 per year. Teen pregnancies continue to rise. Also rising is the number of those experiencing some mental health or substance use/abuse.

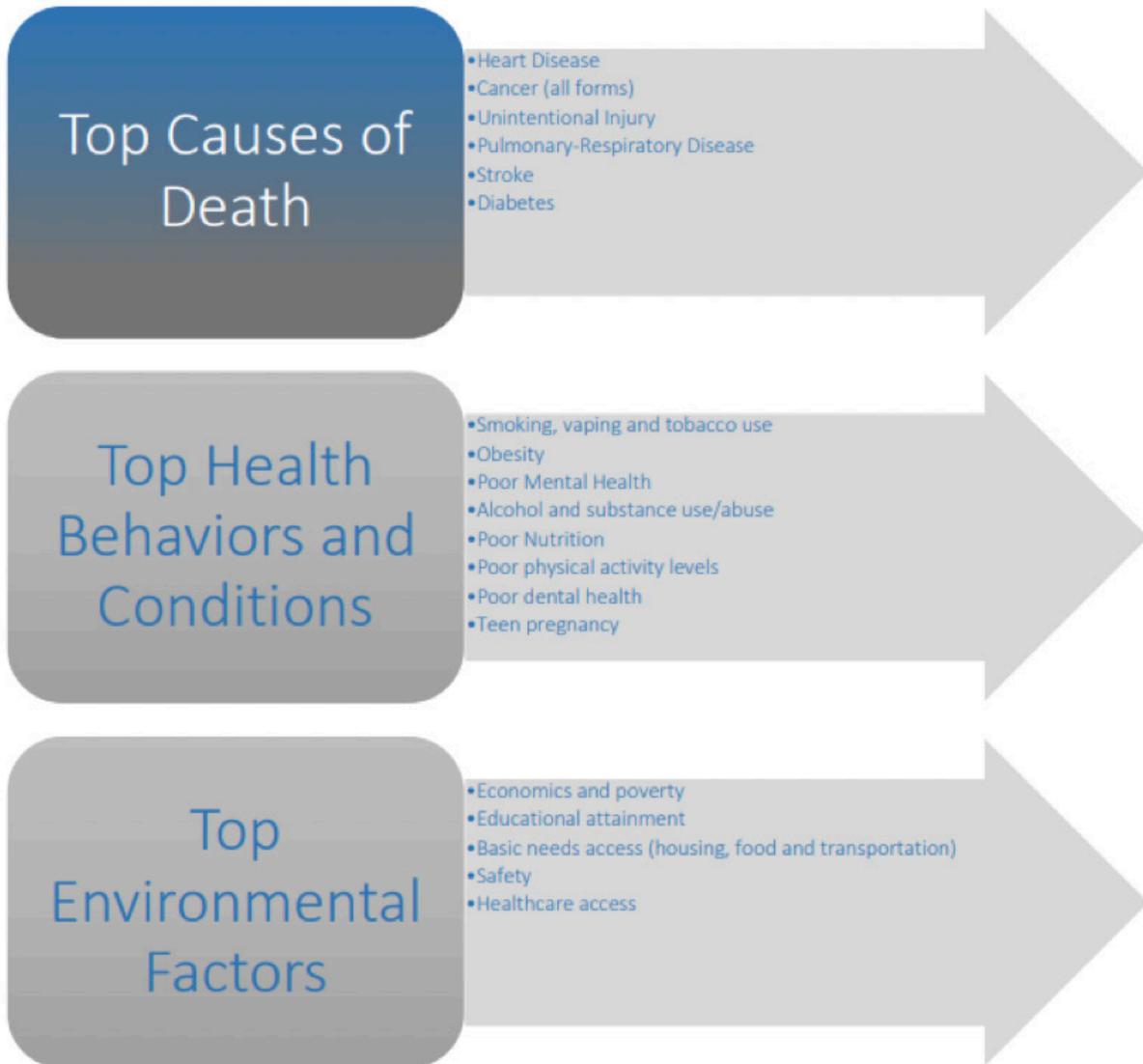


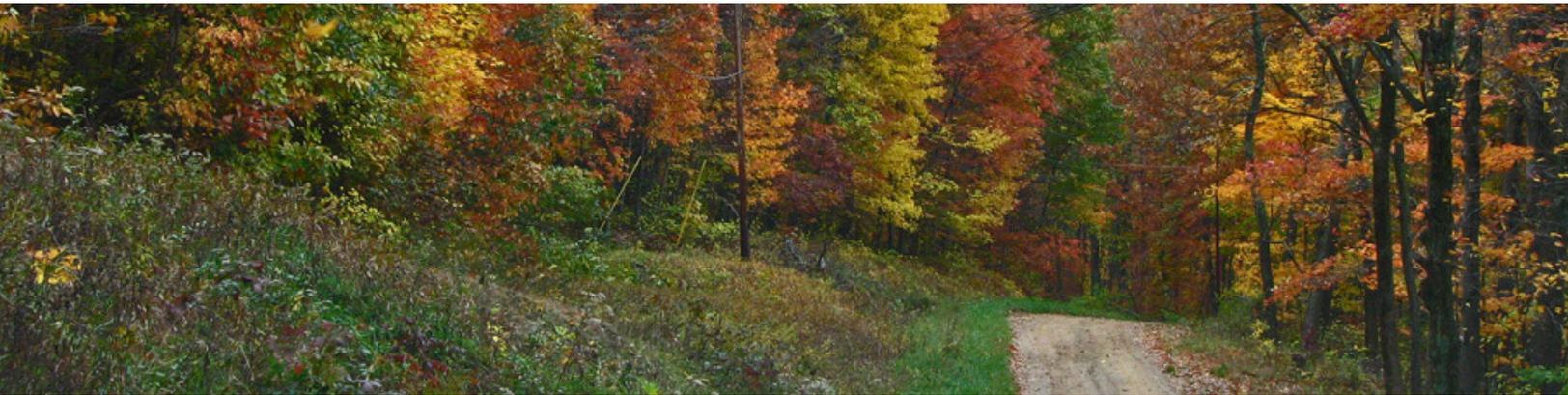
Figure 19: 2022 Top Health Needs - Pike County

After three years of various projects for data collection, there are still gaps across the Pike County rural continuum. A need for real-time and forecasting health data continues to be a need for rural communities, particularly those in the rural Ohio communities.

Once the primary and secondary data was collected and summarized from each of the four assessment categories, the results were analyzed to identify the opportunities to improve the health of Pike County. The top mortality causes, health behaviors, and related environmental factors that resulted from the prevalence data (Figure 27) are listed. The list is similar to the list created in 2019.

Figure 27





## CONCLUSIONS AND NEXT STEPS

As health outcomes and factors in Pike County, Ohio, have not changed since the last assessment, collaboration will be necessary around top health issues to have impact in the community. Data from this assessment will be useful for the community as they develop and plan community infrastructure that drives positive health outcomes. Next steps for the Pike County Health Coalition will be to utilize this assessment to complete a community health improvement plan. Following the MAPP process, data will be further analyzed and prioritized, as well compared to the accomplishments from the last plan. Metric-driven goals can then be developed to further the efforts around improving priority health issues.

Figure 38



## **Pike County Local Public Health Assessment**

In 2022, the Pike County General Health District, in partnership with the Adena Health System, combined efforts on the community health assessment. The partners utilized a framework known as MAPP (Mobilizing for Action through Planning and Partnerships). MAPP is a community-driven strategic planning process to assist communities in prioritization for public health issues, identify community resources, and take action to improve conditions for healthier living. That recognized best practice was designed by the National Association of City and County Health Officials (NACCHO).

In October 2022, coalition members provided their opinions and concerns about the local public health system and reviewed the recent public survey completed as part of this community health assessment.

Overall, common themes that emerged across the Pike County public health system:

- Pike County's public health system is underfunded and under-resourced to address the 10 essential public health services at an optimal level
- Pike County lacks community engagement from residents to deliver innovative concepts to grow the services of residents; and
- The agencies that comprise Pike County's public health system need to improve their communication within the system

The local public health system assessment (LPHSA) is a method of assessing a community's activity level surrounding the 10 essential public health services, utilizing the National Public Health Performance Standards Assessment (NPHPS).

According to the National Public Health Performance Standards (NPHPS), the LPHSA measures how well our local public health system delivers the 10 essential public health services. The instrument describes what the local public health system would look like if all the organizations, groups, and individuals in the community worked together to ensure essential services, and measures the local public health system performance.

It is more than the Pike County General Health District that comprises this role of the local public health system. It includes different institutions and organizations, such as:

- Public health agencies
- Recreation and arts-related
- Human service and charity organizations
- Education and youth development organizations
- Public safety agencies
- Healthcare providers
- Economic and philanthropic organizations
- Environmental agencies or organizations

At the time of that assessment, a performance score was associated with the community performance; the score is used as baseline data. Additional assessment of the Pike County Health District and local health system is warranted, post-COVID.

## Assessment Conclusions

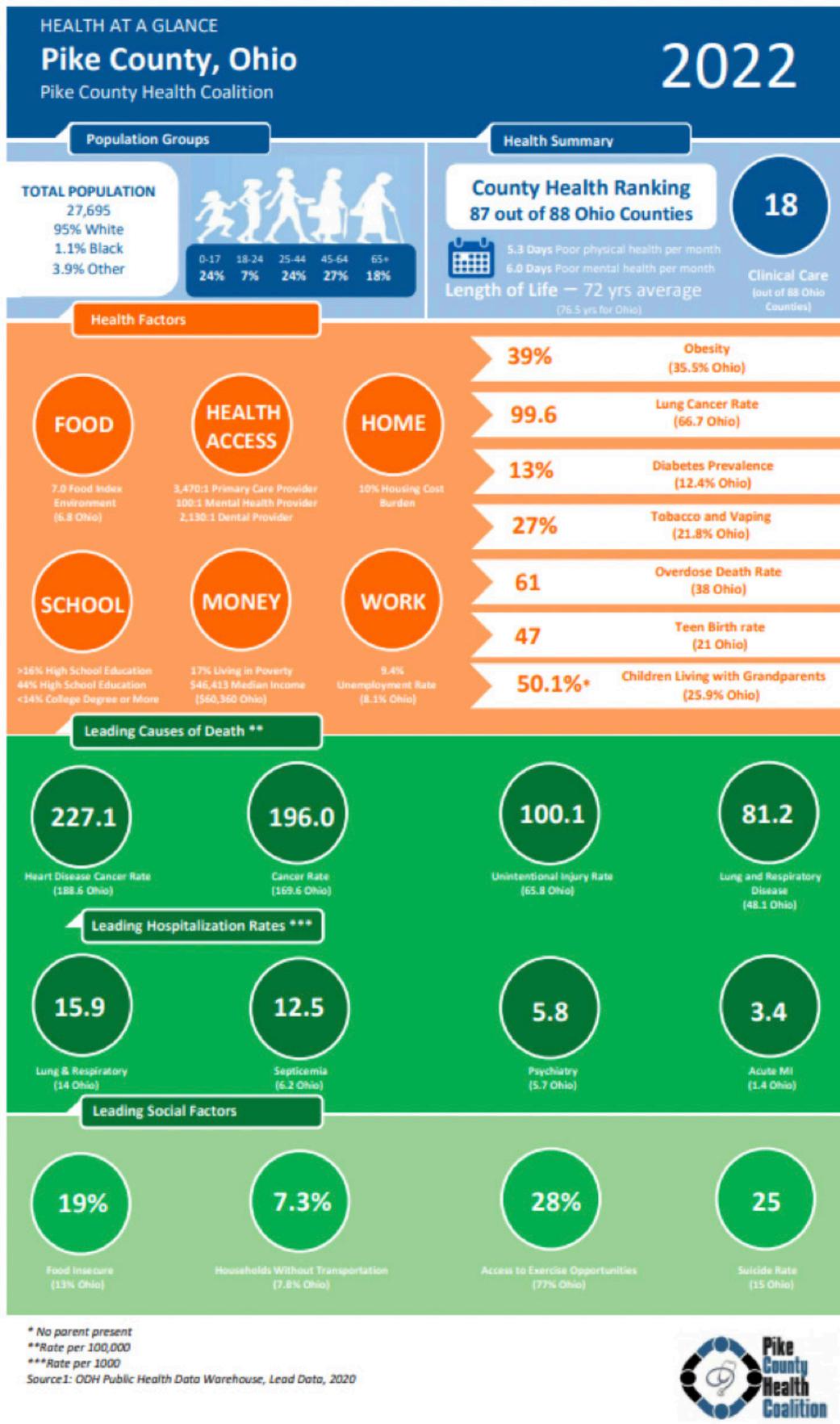
Overall, the coalition members reiterated that community agencies and partners do a fair job in the standards and measures. All partnering agencies offer linkage to personal health and social services. During the in-person meeting, there was an overall theme that, while the public health system does a good job of meeting the required items within the NPHPS tool, the community lacks some of the resources. Key themes identified:

- Need for more funding and resources to improve performance in many of the essential services. Funding has always been an issue for more activities to occur for any small community, especially for residents of Pike County.
- A lack of community engagement from residents to be involved in community programs and meetings. Getting inspiration from residents is essential to providing creative ideas and innovative concepts to overall community priorities.
- Lack of effective communication between agencies about what it is occurring in Pike County. Many agencies are unaware of the essential public health services and community activities overall.

As health factors in the county are improving through the efforts of community partners, health outcomes have shown little change in the county rankings. Outcomes were hampered in this past assessment, secondary to COVID. Efforts will need refocused on addressing the social vulnerability and health disparities in the county to improve outcomes.



# Appendix 1: Infographic Shared with Community Stakeholders



# Pike County Community Snapshot



## Population

Population:	27,695
White:	94.8%
Black:	1.1%
Hispanic:	1.3%
Asian:	0.3%
Other:	0.7%
% Below 18:	23.4%
% Above 65:	18.7%
% Rural	74.2%



## Education



No HS Diploma:	16.2%
HS Graduate:	44.0%
Some College:	18.5%
Associate's Degree:	7.2%
Bachelor's Degree or Higher	14.2%

## Income

Per Capita Income:	\$26,006
Median Household Income:	\$46,413
Individuals Below Poverty:	17.4%
Unemployment	9.4%



## Housing



Avg Monthly Rent:	\$726
Avg Mortgage:	\$1,085
Homeownership:	66.8%
Avg Home Age:	1981
Families w/Housing Cost Burden	10%

## Industry

Civilians Employed: Workforce	10,736
Participation:	51.3%
Education, Health, Social:	30.7%
Manufacturing:	12.7%
Retail Trade:	11.9%

