



HIGHLAND COUNTY
Healthcare
Collaborative

Community Health Needs Assessment **2019**



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Secondary Data Collection

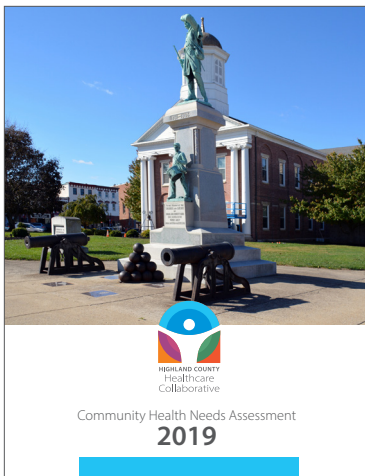
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EXECUTIVE SUMMARY

What is the Highland County Community Health Assessment?

A community health assessment (sometimes called a CHA), also known as community health needs assessment (sometimes called a CHNA) is a comprehensive and systematic data collection and analysis process designed to inform communities on top health needs and priorities to drive effective planning that results in positive change. Evidence based practice indicates 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 Highland County Health Coalition completed its last assessment in 2016. The previous assessment was reviewed and updated in 2019 with additional data sets added to improve community knowledge and capacity to improve health.

How has the 2019 CHA been improved since the last assessment?

The 2019 CHA improves upon the 2017 CHA with the following additions:

- More in-depth assessment of the public health system including GIS mapping
- Additional survey questions and data on social factors like interpersonal violence, housing, transportation, income and education that impact health
- Increased engagement of the community via survey and stakeholder interviews

How was the CHA developed?

For the 2019 assessment, the Highland County Health Collaborative utilized the CDC and NACCHO's Mobilizing Action through Planning and Partnership (M.A.P.P) strategy. M.A.P.P. is a six-phase process that guides the assessment of the community's health needs and development of a community health improvement plan (CHIP). The assessment portion of this process includes a four part strategy focused on collecting qualitative and quantitative data from both primary and secondary sources to identify community themes and strengths, community health status and forces of change in the community, as well as assess the local public health system. A total of 598 public surveys were obtained from the general public and a focus group of eight local stakeholders was convened. In addition, demographic, socio-economic, health outcomes and factors data were also obtained to create the assessment.

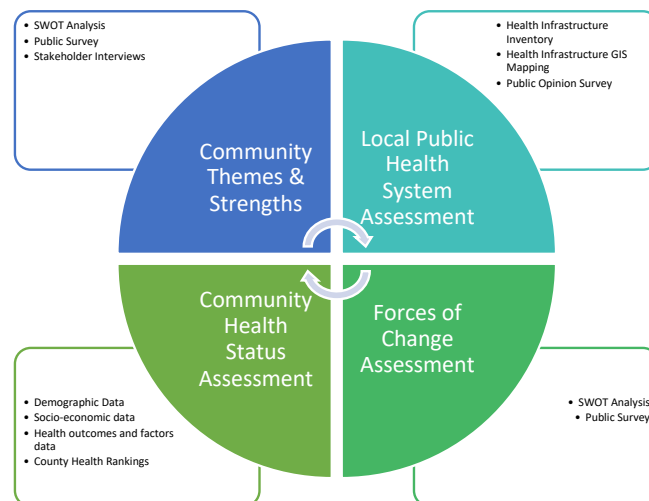


Figure 1: MAPP Four-Part Comprehensive Assessment Process

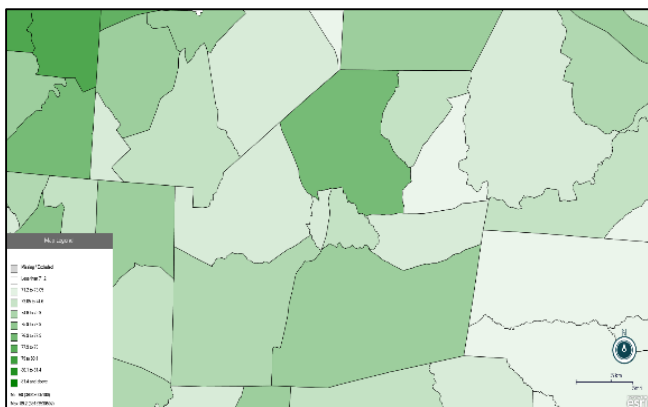


Figure 2: Highland County Life Expectancy by Census Tract

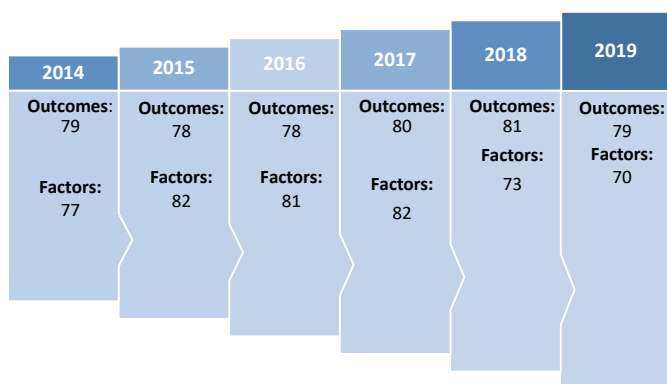


Figure 3: Highland County, OH Health Rankings, 2014-2019

Summary of Key Findings

While most of the data continues to be consistent with the 2016 assessment and plan, several changes can be noted. First, the population of Highland County continues to decline. In migration has increased some, but it isn't yet offsetting the decrease in the older population as of 2019. The rates of poverty and unemployment have continued to improve. However, 58% of families in Highland County still earn less than \$50,000 per year. Educational attainment also continues to lag far behind state and national levels.

Key Findings

The 2019 CHA process included review of the assessment completed 2016, as well as current County Health Rankings to outline any trends impacting public health. Health outcomes for Highland County continue to be in the very lower quartile of the state in 2019. A life expectancy mapping was also completed (Figure 2) to better understand disparities across the county and areas of opportunity for health related engagement.

Health factors showed improvement signaling that some movement, particularly around clinical services and community resources, was starting to have some impact (Figure 3). Top causes of death remained the same, as did public perception of quality of life issues, health behaviors and top environmental factors.

Top Accomplishments Since the 2016 CHA

- Over 200 Naloxone kits have been distributed to the community and to first responder groups.
- Family Recovery Services and Paint Valley ADAMH have increased availability of in-patient substance abuse treatment in the community.
- Family Recovery Services has increased Vivitrol access in the community.
- The Highland County Health Department acquired funding for tobacco prevention activities and provided training to 765 local students.
- Highland District Hospital and Adena Medical System sponsored new “Walk with a Doc” programs to increase physical activity and healthcare access to the community.

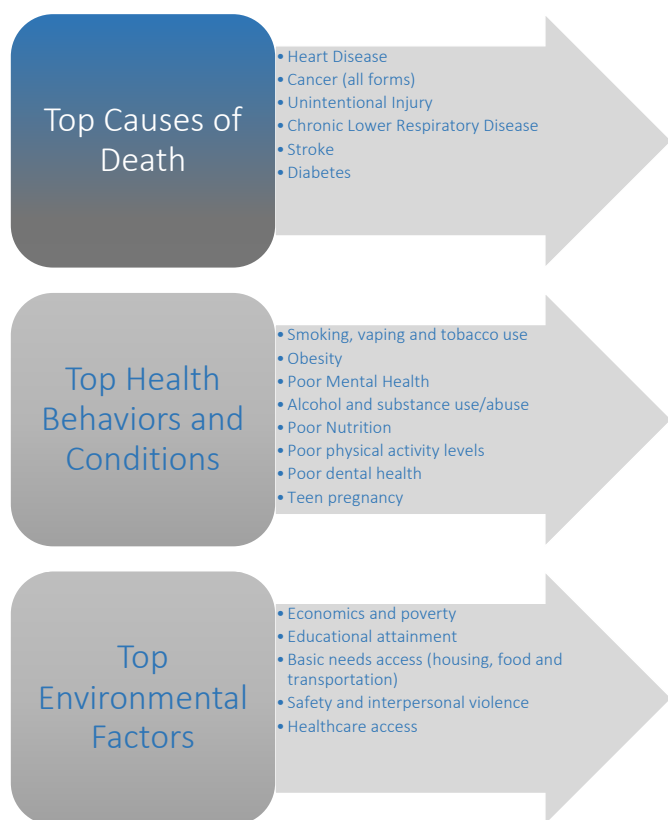


Figure 4: 2019 CHA Health Priorities in Highland

Teen pregnancies also continue to rise. As does those reporting experiencing some mental health or substance use/abuse issue. For this assessment, questions relating to environmental factors and barriers such as interpersonal violence, healthcare access and transportation have provided insight on challenges faced by many in Highland County.

After three years of various projects for data collection, there are still gaps across the Highland 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 communities of Ohio.

After the primary and secondary data was collected and summarized from each of the four assessment categories, the results were then analyzed to identify the opportunities to improve the health of Highland County. The top mortality causes, health behaviors, and related environmental factors that resulted from the prevalence data collected and summarized (Figure x) are listed. The list is very similar to the list created in 2016.

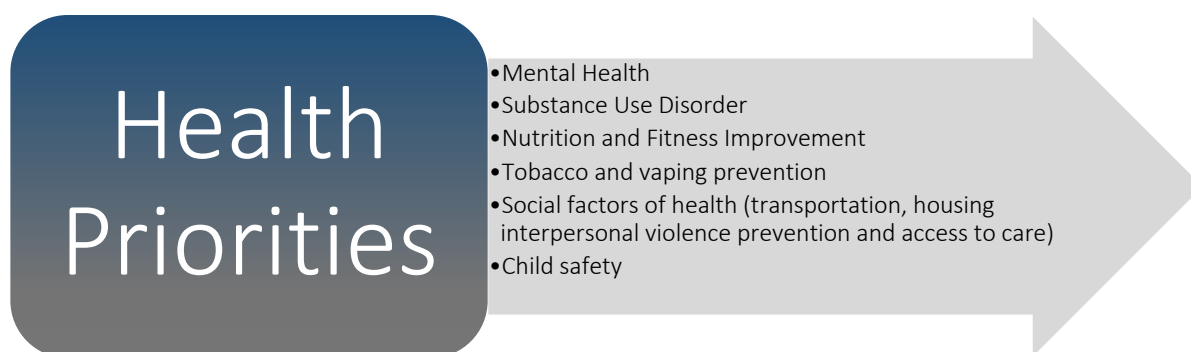


Figure 5: 2019 CHA Health Priorities in Highland County



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 or not they engage in behaviors that are a risk to their health, and 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, and employers pay for it via high rates of absenteeism and higher health insurance costs. Whole communities can suffer economic loss when groups of citizens are ill. As a result, everyone benefits from addressing social, environmental, economic, and behavioral determinants of health.

Health status is closely related to a number of socioeconomic characteristics. Individuals of various socioeconomic status show different levels of health and incidence of disease, while race and culture matter in complex ways. Social and economic variables that have been shown to impact health include income, education, and employment, as well as literacy, language, and culture.

Health literacy is a concept that links a person's level of literacy with their ability to understand and act upon health information and, ultimately, to take control of their health. Individuals with poor health literacy are at risk for poor health outcomes when important health care information is communicated using medical jargon and unclear language that exceed their literacy skills. These individuals can have issues reading and comprehending materials such as prescription bottles, educational brochures, and nutrition labels, thus they are more likely to have higher rates of complications than people who are more literate.

A comprehensive community health needs assessment can provide a better understanding of a population's health needs. Provisions of the Patient Protection and Affordable Care Act (ACA) requires all 501(c) (3) health systems operating one or more hospitals, as well as federally qualified health centers (FQHC's) to complete one every three years. All public health districts are required to complete health needs assessments every five years. The purpose is to provide the health continuum in a community with a foundation for their community health planning and to provide information to policymakers, provider groups, and community advocates for improvement efforts, including the best ways to direct health-related grants and appropriations.



Obtaining information and views from community members is one of the most important aspects of the community health needs assessment. This involves surveying a percentage of the community to determine which health problems are most prevalent and to solicit their ideas concerning strategies to address these 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.

The U.S. Department of Health and Human Services established four overarching health goals for the year 2020:

1. *Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.*
2. *Achieve health equity, eliminate disparities, and improve the health of all groups.*
3. *Create social and physical environments that promote good health for all.*
4. *Promote quality of life, healthy development, and healthy behaviors across all life stages.*

To achieve these goals a comprehensive set of objectives were established (Healthy People 2020), with 26 leading health indicators arranged into 12 topics used to set priorities and measure health over a 10-year period. These indicators, selected on the basis of 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 Highland County Health Collaborative's 2019 Community Health Needs Assessment.

Highland County Health Collaborative

The Highland County Health Collaborative is a community-based group whose efforts are aimed at improving the quality of life for residents of Highland County. The coalition will continue its collaboration to complete an assessment and strategic plan in 2019. The collaborative, is structured with a steering committee and subcommittees focused on specific health priorities. There is representation from the following agencies:

Highland County Community Action, Paint Valley ADAMH Board, Highland County EMS, Highland County Health Department, Adena Health System, Adena Greenfield Medical Center, Highland County Coroner's Office, Hillsboro City Police, Highland County Sheriff, Highland County Job and Family Services, Family and Children First Council-Highland, Highland District Hospital, Paint Creek Fire and EMS, Hillsboro City Schools, Samaritan Outreach Services, City of Hillsboro, City of Greenfield, Highland County Senior Center, Highland County Commissioners, Highland County Probation Department, Paint Creek EMS/Fire, Turning Point ALC reentry Services, FRS Transportation, Family Recovery Services, Highland County Chamber of Commerce, Members of the General Public, Village of Highland, Area Agency on Aging, Highland County Prosecutor, Greenfield Police Department, Southern Ohio Education Center, Highland County Medical Reserve Corps.

U. S. Department of Health and Human Services Health People 2010 Leading Health Indicator Topics

Access to Health Services

Clinical Preventative Services

Environmental Quality

Injury and Violence

Maternal, Infant and Child Health

Mental Health

Nutrition, Physical Activity, and Obesity

Oral Health

Reproductive and Sexual Health

Social Determinants

Substance Abuse

Tobacco

For the 2019 CHA, the Highland County Health Collaborative utilized the data-driven Mobilizing Action for Planning and Partnership (M.A.P.P.) process developed by the National Association of City and County Health Officials (NACCHO) and the Centers for Disease Control (CDC). This six-phase process includes a four-part community health needs assessment, as well as an in-depth analysis of current community trends, gaps, and resources with which to comprehensively evaluate the current state of health in Highland County and to prioritize key public health issues. This data will be used to develop the community health strategic plan.

Process

The 2019 Community Health Needs Assessment was completed through a comprehensive process of data collection and evaluation utilizing the M.A.P.P. process. The data for this report reflects only Highland County. Both qualitative and quantitative data were collected from primary and secondary sources. Data was collected in a total of four categories (Figure 1): Community Themes and Strengths; Local Public Health System; Community Health Status; and Forces of Community Change. This information was compiled and analyzed by a work team of Highland County Health Department, Adena Health System, and Highland Community Action Organization representatives. The published assessment completed as part of these efforts is intended to inform decision makers and funders about the challenges Highland County faces in improving community health, and the priority areas where support is most needed. The information is also intended to be useful as a planning tool for community organizations.

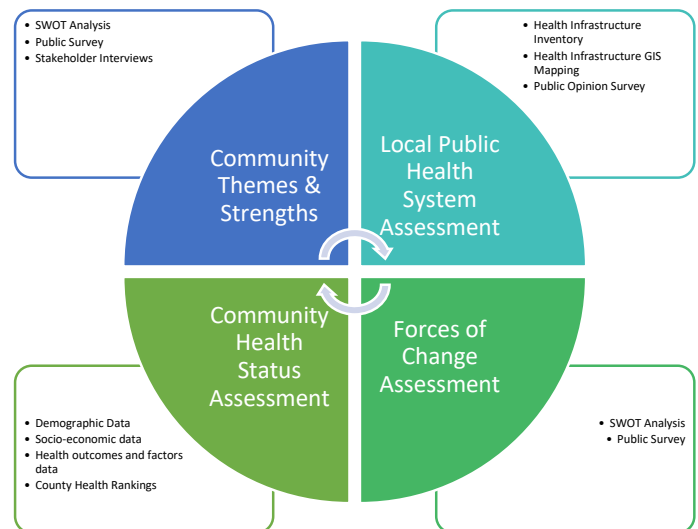


Figure 6: MAPP Four-Part Comprehensive Assessment Process



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. In addition, an inventory of all the community's health related infrastructure was taken and mapped utilizing GIS technology. Qualitative data for this report was collected to provide greater insight into the issues experienced by the population. Data includes opinions expressed from a widely distributed community health survey - which received 598 responses - as well as a community stakeholder group held in Greenfield, Ohio that had seven total participants.

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. An example of this would be 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. An example of this would be rates of childhood obesity.

Secondary Data: Publicly-Available Statistics

Existing data were collected from all applicable local, state, and federal agency sources, including public health agencies (e.g., Ohio Department of Health, Ohio Department of Job and Family Services, U.S. Department of Labor, U.S. Census Bureau). These data 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 also taken as part of the public health system review and then mapped utilizing GIS technology to create a visual on health resource gaps in the community. This was also compared with local health system population health data to identify disparities in resource availability.

While data at the national and state level are generally available for community health-related indicators, local data - from counties and cities - are less accessible and sometimes less reliable. Some data from publicly-available sources also typically lags by at least two years because it takes time for 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 were a community survey and a key stakeholder focus group.

Community Questionnaire

A questionnaire was developed for the general public, which queried respondents about the most important health needs, common barriers, and habits they used to maintain their own personal health (*See Appendix*). The survey was distributed in hard copy by member agencies and community partners to a variety of locations in Highland County where the groups of interest would best be reached. These included local food banks, social service providers, community health clinics, public health department, and Adena Health System physician offices. In addition, the survey was made available broadly through an electronic Survey Monkey. Notices about the online version with its link were posted on member agency's websites, social media pages, published via social media 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 Monkey by Health Department and Adena Health System staff and volunteers.

Stakeholder Interviews

An interview script was developed for the community leaders in the public private sector, which asked participants their opinions about the community's strengths, major challenges and what is needed to improve the health of the community (*See Appendix*). A total of eight stakeholders were interviewed in one focus group by two representatives from the Highland County Health Collaborative team. The Responses were then reviewed for themes and consensus results. The focus group was held on August 5, 2019 at the Greenfield Area Medical Center. Representatives from local business, civic leadership, school systems, healthcare and social service agencies participated (*See Appendix*)



2016 CHIP PROGRESS REPORT

The Highland County Health Department coordinated the last community health assessment and improvement plan in partnership with the Highland County Health Collaborative in 2016. As part of the 2016 CHA, the coalition identified great need around a number of health issues in the Highland County community. This included improving systems, creating collaborations and seeking resources to increase community capacity to improve health.

Process

The Community Health Improvement Plan (CHIP) was developed in cooperation with the Highland County Health Collaborative. Due to consistently low ratings in the County Health Rankings over the last five years, the Highland County Health Collaborative has been working with PCHC to develop priorities and strategize desired outcomes.

The Highland County Health Collaborative integrated a framework 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 six MAPP phases are organizing, visioning, assessments, strategic issues, goals/strategies, and action cycle.

Priorities

In August of 2017, the Highland County Health Collaborative finalized the priorities for the CHIP. The Highland County Health Department was instrumental during this process and county priorities were aligned with the State Health Improvement Plan (SHIP). These priorities were also based upon the survey that Highland County residents completed as part of the Community Health Assessment. The SHIP priorities consisted of the following: 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:

- Illegal Substance Abuse
- Mental Health
- Obesity, Physical Activity, and Nutrition
- Chronic Disease
- Child Fatality
- Tobacco Use

A regular meeting schedule of Highland County Health Collaborative members was coordinated to conduct regular review of the work plan and follow progress of the activities develop to address the priority health issues. The group agreed to convene as a group to address each issue. The following outlines the detail of the work team and what progress has been made to date.

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Illegal Substance Abuse					
Goal: Reduce unintentional overdose deaths in Highland County to less than 17 per 100,000 (less than 8 overdose deaths per year) by January 1, 2019.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress to Date	
Objective 1.1: Reduce unintentional drug overdose deaths.	Distribute at least 200 naloxone kits in Highland County in 2018. 12/6/2018 Update: As of December 2018, approximately 100 kits have been distributed.	January 1, 2018 to December 31, 2018.	Health department maintains inventory of naloxone distributed.	11/2019: Over 200 naloxone kits have been distributed to members of the Highland County Community at over 25 separate events. Highland County Sheriff, Hillsboro Police Department, Lynchburg Police Department, and Leesburg Police Department are now carrying naloxone kits.	
	Support the implementation of a quick opioid overdose response team. 12/6/2018 Update: The HCHD was an active participant in the QRT initially, though team activities no longer involve the health department. REACH continues to operate the QRT.	Implementation by January 1, 2018	Process established and put into place. First referral of overdose survivor to QRT occurs.	11/2019: Quick Response Team has been established in Highland County and is actively interacting with overdose victims. Reach for Tomorrow is heading this initiative.	
	Increase the number of prescription medication drop boxes in Highland County. 12/6/2018 Update: No progress made on this objective	July 1, 2019	Development of agreements for drop box placement. Drop boxes installed and regular pick up scheduled.	11/2019: No progress to date, current legislation makes it difficult to create additional drop sites. Several agencies have distributed at home medication disposal kits to the community in place of prescription drop boxes. An estimated 400 home disposal kits have been distributed by the health department and other agencies.	
Objective 1.2: Inform the public about drug issues, available resources in the community, and other drug prevention information.	Develop and distribute drug abuse prevention educational information utilizing various forms of media. 12/6/2018 Update: All partners continue to provide regular media information concerning drug abuse.	Ongoing. Annual media program in October during Red Ribbon Week.	Release of articles, program information	11/2019: The health department and many other agencies continue to produce, share, and distribute drug prevention related information to the community.	

	Increase community awareness of available resources for drug prevention education, drug drop box options, and other resources available to the community.	Ongoing. Annual media program in October during Red Ribbon Week.	Release of articles, program information	11/2019: Community resources are routinely shared at community meetings, through social media, and other methods of distribution.
	Review the education and support process in place between Highland District Hospital, Help Me Grow, Women Infants and Children Program, and other resources. 12/6/2018 Update: Complete	January 1, 2019	Report of progress to Child Fatality Review Board in February, 2019	11/2019: The health department facilitated discussions between HDH, Adena, WIC, HMG, and other agencies during the 2018 Child Fatality Review process in order to ensure coordination between these key agencies.
	Provide drug abuse prevention information to healthcare providers in the county. 12/6/2018 Update: Complete	December 31, 2018	Materials sent to local healthcare providers. Materials posted on Highland County Health Department website.	11/2019: The health department provided information to healthcare providers on several different occasions, most recently related to vaping injury reports.
	Support community events that increase awareness and education regarding substance abuse. 12/6/2018 Update: Complete	July 1, 2019	As they occur. Hope for Highland, other nonprofits regularly host events.	11/2019: Since January, 2018, the health department has attended more than 25 community events related to drug abuse prevention.
	Pursue funding options for additional medication assisted treatment options. 12/6/2018 Update: 12/6/2018	Ongoing	Monthly review at Drug Abuse Prevention Coalition	11/2019: FRS and ADAMH Board have both developed additional treatment programs in Highland County.
	Investigate the potential to increase access to Vivitrol. 12/6/2018 Update: FRS has increased Vivitrol access	Ongoing	Monthly review at Drug Abuse Prevention Coalition	11/2019: FRS has increased vivitrol access to the community.
				11/2019: No progress to date, current legislation makes it difficult to create additional drop sites. Several agencies have distributed at home medication disposal kits to the community in place of prescription drop boxes. An estimated 400 home disposal kits have been distributed by
Objective 1.3: Expand local stabilization, treatment, and recovery support options for Highland County residents.				

						the health department and other agencies.
Highland County Community Health Improvement Plan Action Plan						
Priority Area: Illegal Substance Abuse						
Goal: By January, 2019, decrease the number of new Hepatitis C infections by 10% (less than 100 new cases per year).						
Objective	Action Step (Activities)	Timeline	Performance Indicator	11/2019: Health Department continues to work with FRS, Lynn Goff Center, and other treatment providers to increase access to preventative healthcare services.		
Objective 2.1: Increase awareness of Hepatitis C resources in Highland County	Encourage those entering treatment, surviving an overdose, or otherwise connected to medical or mental health treatment to seek testing for Hepatitis C. 12/6/2018 Update: Completed	July 1, 2018	Written request submitted from health department to local healthcare agencies.	11/2019: Educational resources have been added to the HCHD Website.		
	Develop media campaign that promotes access to Hepatitis C testing and educational resources. 12/6/2018 Update: Completed	January 31, 2018	Release of media information	11/2019: Educational resources have been added to the HCHD Website.		
	Develop online resource list for all Hepatitis C resources in Highland County 12/6/2018 Update: No progress on this effort.	January 31, 2018	Website goes live with information	11/2019: Health Department continues to work with FRS, Lynn Goff Center, and other treatment providers to increase access to preventative healthcare services.		

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Mental Health					
Goal: Increase the overall number of mental health services being received in Highland County by 5% by June 30, 2019.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress to Date	
Objective 1.1: Increase the number of available stabilization, detox, treatment, and recovery beds in Highland County.	Support nonprofit development of licensed and qualified stabilization, detox, treatment, and recovery beds 12/6/2018 Update: Completed	Ongoing	Monthly review at Drug Abuse Prevention Coalition	11/2019: Health Department continues to work with FRS, Lynn Goff Center, and other treatment providers to increase access to preventative healthcare services.	
	Support the expansion of existing mental health agency resources 12/6/2018 Update: Some progress. Grant applications in the works to increase access to those in legal system.	Ongoing	Monthly review at Drug Abuse Prevention Coalition	11/2019: Educational resources have been added to the HCHD Website.	
	Work with mental health agencies to determine if a centralized, coordinated process for connection to mental health services is possible in Highland County. 12/6/2018 Update: No progress	January 1, 2019	Meeting conducted to evaluate potential of central process	11/2019: Educational resources have been added to the HCHD Website.	
Objective 1.2: Develop a more coordinated and streamlined process for accessing the existing mental healthcare system.	Develop an enhanced community resource directory that provides more comprehensive contact information for mental health services 12/6/2018 Update: No progress	January 1, 2019	Mental Health resource list released to community partners	11/2019: Health Department continues to work with FRS, Lynn Goff Center, and other treatment providers to increase access to preventative healthcare services.	
	Investigate the use of 211 as an option for connecting people to local mental health resources 12/6/2018 Update: Conversations continue with Ross County to implement 211.	January 1, 2019	Meeting conducted to evaluate potential of 211 implementation	11/2019: Educational resources have been added to the HCHD Website.	
	Coordinate with faith leaders, citizens, other influential members of the community to change the way that our community views mental health issues. 12/6/2018 Update: Completed	January 1, 2019	Meeting conducted to discuss mental health stigma with local leaders	11/2019: Additional work is needed in this area, no progress to date.	
Objective 1.3: Reduce the stigma associated with mental illness	Increase the availability of mental health training and information for the general public. 12/6/2018 Update: No progress	January 1, 2019	Trainings conducted	11/2019: Additional work is needed in this area, no progress to date.	

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Obesity, Physical Activity, and Nutrition					
Goal: By January 1, 2019, decrease the Highland County Obesity Rate to 31%, a reduction of 1%.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date	
Objective 1.1: Increase access to healthy cooking classes	Promote existing health cooking / healthy eating classes and educational programs. 12/6/2018 Update: Completed. OSU continues to promote healthy eating classes.	Ongoing	Ongoing	11/2019: OSU Extension Office continues to promote healthy eating classes. HCHD has joined the local OSU Extension Office board. Additional work is needed in this area, no progress to date.	
	Investigate funding opportunities for healthy eating education efforts 12/6/2018 Update: Additional grant funds will be available in September 2019 for the HCHD.	Ongoing	Ongoing	11/2019: Additional grant funds have been applied for on multiple occasions.	
Objective 1.2: Encourage the development and implementation of workplace wellness programs	Promote the development of workplace wellness programs in government agencies 12/6/2018 Update: No progress	July 1, 2019	Formal promotion of workplace wellness plan presented to government partners	11/2019: Additional work is needed in this area, no progress to date.	
	Promote the development of workplace wellness programs in private business 12/6/2018 Update: No progress	July 1, 2019	Formal promotion of workplace wellness plan presented to government partners	11/2019: Additional work is needed in this area, no progress to date.	
Objective 1.3: Investigate the development of community gardens and other community based efforts to promote healthy food options.	Work with Highland County cities and villages to discuss the possibility of creating community gardens and promoting health eating. 12/6/2018 Update: Creating Healthy Communities Grant applied for by HCHD. Awaiting award decision.	January 1, 2019	Meetings conducted with Greenfield, Hillsboro, and Paint Township	11/2019: Creating Healthy Communities Grant applied for by HCHD. Other funding opportunities sought to fund these efforts.	

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Chronic Disease					
Goal: Decrease the breast cancer mortality rate from 26.7 per 100,000 (11.5 cases in Highland County) to 24 per 100,000 (10.3 cases in Highland County) by July 1, 2019.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date	
Objective 1.1: Increase the availability and utilization of breast cancer screenings.	Work with local healthcare providers to provide education on the importance of mammograms and to increase access to free or low cost mammograms. 12/6/2018 Update: Completed	January 1, 2018	Meeting occurs to investigate expansion of existing program.	11/2019: HCHD has partnered with HDH to offer mammograms on multiple occasions in a community partnership	

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Chronic Disease					
Goal: Decrease the overall cancer mortality rate from 204.6 per 100,000 (88 deaths in Highland County) to 194 per 100,000 (75 deaths in Highland County) by July 1, 2022.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date	
Objective 2.1: Increase the availability and utilization of preventative and early detection cancer screenings.	Work with local healthcare providers to increase access to free or low cost preventative health screenings, early detection cancer screenings, annual physical exams, and other preventative healthcare services. 12/6/2018 Update: Completed	January 1, 2018	Meeting occurs to investigate possibilities for partnerships.	11/2019: The HCHD has provided free access to prostate cancer screenings, mammograms, colorectal cancer screenings, blood pressure checks, and other preventative healthcare screenings on multiple occasions annually since the approval of the CHIP.	

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Chronic Disease					
Goal: Decrease the overall heart disease mortality rate from 186.9 per 100,000 (80 deaths in Highland County) to 175 per 100,000 (75 deaths in Highland County) by July 1, 2022.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date	
Objective 3.1: Increase the rates of physical activity in Highland County.	Work with community partners to sponsor active events for various ages and abilities. 12/6/2018 Update: No progress	January 1, 2019	Meeting occurs to investigate possibilities for partnerships.	11/2019: Additional work is needed in this area, no progress to date.	
	Work with community partners to increase the availability of walking, biking, and other active transportation options. 12/6/2018 Update: Creating Healthy Communities Grant applied for by HCHD. Awaiting award decision.	January 1, 2019	Meeting occurs to investigate possibilities for partnerships.	11/2019: Additional work is needed in this area, no progress to date.	
	Promote healthy community programs and initiatives. 12/6/2018 Update: Creating Healthy Communities Grant applied for by HCHD. Awaiting award decision.	Ongoing	Ongoing	11/2019: Additional work is needed in this area, no progress to date.	
Objective 3.2: Increase the rates of heart health screenings and opportunities for the public.	Work with community partners and groups to increase the availability of free blood pressure screenings, lipid profiles, and other preventative screenings that support early detection of heart disease. 12/6/2018 Update: Completed	January 1, 2018	Meeting occurs to investigate possibilities for partnerships.	11/2019: The HCHD has provided free access to prostate cancer screenings, mammograms, colorectal cancer screenings, blood pressure checks, and other preventative healthcare screenings on multiple occasions annually since the approval of the CHIP.	

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Chronic Disease					
Goal: Decrease the overall rate of diabetes prevalence to below 11% (4,730 people in Highland County) by July 1, 2019.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date	
Objective 4.1: Provide educational and health promotion information for diabetes prevention and diabetes management.	Work with community partners to sponsor educational events related to diabetes prevention and disease management. 12/6/2018 Update: Completed	January 1, 2019	Meeting occurs to investigate possibilities for partnerships.	11/2019: Some organizations have made limited progress in increasing education events for diabetes. Additional work is needed in this area, no community wide progress to date.	
	Promote healthy eating as a method for diabetes prevention. 12/6/2018 Update: Completed	January 1, 2019	Meeting occurs to investigate possibilities for partnerships.	11/2019: Some organizations have made limited progress in increasing education events for diabetes. Additional work is needed in this area, no community wide progress to date.	

Highland County Community Health Improvement Plan Action Plan

Priority Area: Infant Mortality

Goal: Decrease the overall rate of infant mortality from 8.6 per 1,000 live births to 6 per 1,000 live births by July 1, 2019.

Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date
Objective 1.1: Increase community education and information related to safe sleep practices, postpartum depression, child supervision, and other safety issues.	Promote safe sleep via social media, traditional media, and in community presentations and events.	April 1, 2018	Release infant mortality media information	11/2019: HCHD has provided safe sleep information annually each year to the media using the HCHD website, press releases, and social media.
	12/6/2018 Update: Completed Support community events and activities that promote safe sleep education, postpartum depression, child supervision, and other safety issues.	Ongoing	Ongoing	11/2019: HCHD has provided safe sleep information annually each year to the media using the HCHD website, press releases, and social media.
	12/6/2018 Update: Completed Improve the coordination between Highland District Hospital and Help Me Grow, Women, Infant, and Children's Health program, and other prenatal education and infant education providers.	April 1, 2018	Meeting conducted to evaluate coordination of programs	11/2019: The health department facilitated discussions between HDH, Adena, WIC, HMG, and other agencies during the 2018 Child Fatality Review process in order to ensure coordination between these key agencies.
	12/6/2018 Update: Completed Promote the availability of Cribs for Kids, Safe Sleep Boxes, and other safe bedding options for infants.	April 1, 2018	Release infant mortality media information	11/2019: HCHD has provided safe sleep information annually each year to the media using the HCHD website, press releases, and social media.
Objective 1.2: Increase community access to safe sleep resources.	12/6/2018 Update: Completed Investigate other funding opportunities and options for providing safe sleep resources to local parents.	Ongoing	Ongoing	11/2019: Additional work is needed in this area, no progress to date.
	12/6/2018 Update: Completed			

Highland County Community Health Improvement Plan Action Plan					
Priority Area: Tobacco Use					
Goal: Decrease the overall rate of adult tobacco use from 23.7% to 23% by July 1, 2019.					
Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date	
Objective 1.1: Provide education and information to the community regarding the negative health effects of tobacco use.	Develop social media and traditional media campaigns for tobacco prevention education. 12/6/2018 Update: Completed	April 1, 2019	Release of tobacco prevention media information	11/2019: Health department has conducted multiple tobacco prevention campaigns with community children, including a program in 2017 and 2018, where 800 students received education. In 2019, over 300 students received vaping and tobacco use prevention education.	
	Promote local programs and efforts for smoking cessation. 12/6/2018 Update: Completed	April 1, 2019	Release of tobacco prevention media information	11/2019: Health department has conducted multiple tobacco prevention campaigns with community children, including a program in 2017 and 2018, where 800 students received education. In 2019, over 300 students received vaping and tobacco use prevention education.	

Highland County Community Health Improvement Plan Action Plan

Priority Area: Tobacco Use

Goal: Decrease the overall rate of student annual tobacco use from 28.2% to 25% by July 1, 2019.

Objective	Action Step (Activities)	Timeline	Performance Indicator	Progress To Date
Objective 2.1: Provide education and information to the community regarding the negative health effects of tobacco use.	Develop social media and traditional media campaigns for tobacco prevention 12/6/2018 Update: Completed	April 1, 2019	Release of tobacco prevention media information	11/2019: HCHD conducted multiple tobacco and vaping prevention education efforts in 2018 and 2019.
	Support school based tobacco prevention efforts 12/6/2018 Update: Completed	Ongoing	Ongoing	11/2019: Health department has conducted multiple tobacco prevention campaigns with community children, including a program in 2017 and 2018, where 800 students received education. In 2019, over 300 students received vaping and tobacco use prevention education.
	Increase prevention education that is targeted at 7th-12th Grade. 12/6/2018 Update: Completed	January 1, 2018	Meeting with interested community partners to address childhood tobacco use	11/2019: Health department has conducted multiple tobacco prevention campaigns with community children, including a program in 2017 and 2018, where 800 students received education. In 2019, over 300 students received vaping and tobacco use prevention education.
	Provide programs to elementary age children that teach coping skills and healthy decision making. 12/6/2018 Update: Completed	July 1, 2019	Formal implementation of elementary programs	11/2019: Health department has conducted multiple tobacco prevention campaigns with community children, including a program in 2017 and 2018, where 800 students received education. In 2019, over 300 students received vaping and

					tobacco use prevention education.
	Push for greater regulations for vaping and e-cigs 12/6/2018 Update: Completed	January 1, 2018	Correspondence sent to local legislative members	11/2019: HCHD has worked with Association of Ohio Health Commissioners to monitor ongoing proposed vaping legislation.	

COMMUNITY PROFILE

Highland County, Ohio

Highland County is located in rural, south western Ohio (Figure 7) and is one of Ohio's 32 Appalachian counties. The county covers 553 square miles, of which only about six percent is used for residential, commercial or industrial purposes (Ohio Development Services Agency 2018). Over 32% of the land is forested and another 60% is farmland and/or pasture.

Hillsboro is the largest city in Highland County with a population of 6,527 and provides the bulk of the employment in the county. Highland County's leading industrial sector for the county is service-driven, with transportation, trade and utilities. Education, healthcare, leisure and hospitality services also are the top areas of employment. The unemployment rate in Highland County is 5.1%.

The population of Highland County is 43,058 (U.S. Census Bureau 2018). It is part of the 2nd Congressional District and contains the population patterns and distinct economic conditions inherent of the Appalachian region of the U.S. These include challenges such as low educational attainment, limited economic diversification and growth.

Poverty levels are considerably high in the region with more than 16% of families living below the federal poverty level. Approximately 58% of households in Highland County earn less than \$50,000 per year. Educational attainment is also considerably lower than the state and national averages with approximately only 12% having a four year college degree or higher.

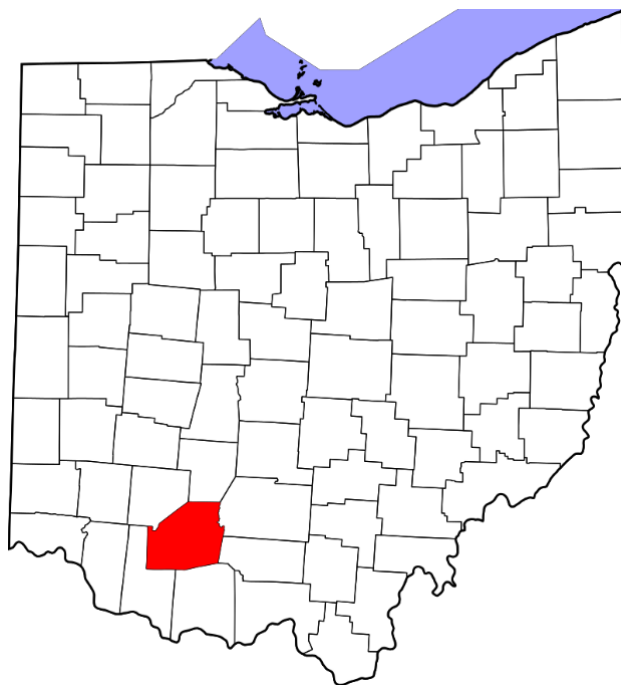


Figure 7: Highland County, Ohio

Community Snapshot

Population: 43,058
(population declining)

Percent with four year college degree or higher: 12%

Median household income: \$42,333

Families living below poverty level: 16.1%

Median gross rent: \$668

2018 Unemployment Rate: 5.1%

Largest industrial sector: Service Providing, 5,926 jobs
(top three sectors trade, transportation, utilities, education, health services, leisure and hospitality)

2019 Data Review

The Highland County Health Collaborative collected a variety of data during 2019 to complete the Community Health Assessment (CHA). This data included both qualitative and quantitative data from both primary and secondary sources.

Qualitative data included survey, key stakeholder interviews and public comment. Close to 600 surveys were collected from the general public. Internet and social media sites were utilized to post the survey and 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 from partner agencies. All paper copies of the survey were input into the electronic system by employees of the Highland County Health Department and the Adena Health System. In-person interviews were completed for the stakeholder interviews. The interviewees were engaged in a focus group based on their community involvement and association with the Highland County Health Collaborative to provide their related perspective.

Quantitative data included demographic, socio-economic, health status, health behavior, health outcomes and factors data from multiple sources. These sources included the Ohio Department of Health, the U.S. Census Bureau, and the Ohio Development Services Agency, as well as the local Highland County Health Department, local law enforcement, the Adena Health System, and the Ohio Department of Job and Family Services, among others. In addition, new data, including a health inventory and life expectancy mapping, as well as GIS mappings were included in this assessment. Life expectancy data by census was also collected and mapped as part of this portion of the data collection.

What is most notable in the 2019 public survey are the significant additions to the survey.

Additional data sets regarding health behaviors and experiences were added to the 2019 CHA. In addition, inventory of the health continuum, including GIS mapping, was also added for the assessment to provide a visual for resource disparities. Stakeholder interviews were also added to broaden community input on the health needs of the community.

County Health Rankings

The economic and educational challenges experienced in Highland County and the surrounding region have been correlated to declining health. Many Appalachian Ohio counties, including Highland County, are considered some of Ohio's unhealthiest. A 2019 report published by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, *County Health Rankings: Mobilizing Action Toward Community Health* outlines the health outcomes and factors impacting health of Highland County residents.

In overall positive health outcomes, the State of Ohio ranked low nationally. All 88 counties in Ohio were then ranked both related to health outcomes and health factors. Rates of death from heart disease, lung cancer, and pulmonary-respiratory disease are all above state and national averages. Highland County is currently ranks 79th out of 88 counties for health outcomes and 70th for health factors, which is an improvement over recent years (Figure 8).

Highland County has stayed relatively the same over the last several years in terms of health outcomes and health factors and haven't shown significant improvement. Access to healthcare has improved. Socio-economic conditions such as employment and educational attainment have also improved slightly, as have health behaviors. All of which have

improved overall ranking for health factors and would indicate eventual improvements in health outcomes. Opportunities exist to improve early death related to accidents (drug overdoses and traffic fatalities), as well as improving social support, mental health and health behaviors like drinking and smoking.

2014	2015	2016	2017	2018	2019
Outcomes: 79	Outcomes: 78	Outcomes: 78	Outcomes: 80	Outcomes: 81	Outcomes: 79
Factors: 77	Factors: 82	Factors: 81	Factors: 82	Factors: 73	Factors: 70

Figure 8: 2014-2019 County Health Rankings, Highland County, Ohio



**Highland (HG)
2019 Rankings**

County Demographics

	County	State
Population	42,971	11,658,609
% below 18 years of age	24.0%	22.3%
% 65 and older	18.0%	16.7%
% Non-Hispanic African American	1.4%	12.5%
% American Indian and Alaskan Native	0.3%	0.3%
% Asian	0.4%	2.3%
% Native Hawaiian/Other Pacific Islander	0.0%	0.1%
% Hispanic	1.1%	3.8%
% Non-Hispanic white	95.2%	79.1%
% not proficient in English	0%	1%
% Females	51.0%	51.0%
% Rural	73.0%	22.1%

	Highland County	Error Margin	Top U.S. Performers ^	Ohio	Rank (of 88)
Health Outcomes					79
Length of Life					76
Premature death	10,600	9,400-11,800	5,400	8,500	
Quality of Life					74
Poor or fair health **	20%	19-21%	12%	17%	
Poor physical health days **	4.3	4.1-4.6	3.0	4.0	
Poor mental health days **	4.2	4.0-4.5	3.1	4.3	
Low birthweight	8%	7-9%	6%	9%	
Additional Health Outcomes (not included in overall ranking)					
Life expectancy	74.8	73.9-75.8	81.0	77.0	
Premature age-adjusted mortality	490	450-520	280	400	
Child mortality	70	50-100	40	60	
Infant mortality	10	7-13	4	7	
Frequent physical distress	14%	13-14%	9%	13%	
Frequent mental distress	14%	13-14%	10%	14%	
Diabetes prevalence	13%	11-16%	9%	12%	
HIV prevalence	50		49	213	
Health Factors					70
Health Behaviors					52
Adult smoking **		21-23%	14%	23%	
Adult obesity		25-36%	26%	32%	
Food environment index	7.6		8.7	6.7	
Physical inactivity	28%	24-33%	19%	25%	
Access to exercise opportunities			91%	84%	
Excessive drinking **		15-17%	13%	19%	
Alcohol-impaired driving deaths	36%	26-45%	13%	33%	
Sexually transmitted infections	241.7		152.8	520.9	
Teen births		37-45	14	26	
Additional Health Behaviors (not included in overall ranking)					
Food insecurity	16%		9%	15%	
Limited access to healthy foods	2%		2%	7%	
Drug overdose deaths	47	36-61	10	37	
Motor vehicle crash deaths	16	12-22	9	10	
Insufficient sleep	36%	35-37%	27%	38%	
Clinical Care					81
Uninsured		7-9%	6%	7%	
Primary care physicians			1,050:1	1,300:1	
Dentists	2,260:1		1,260:1	1,620:1	
Mental health providers	1,300:1		310:1	470:1	
Preventable hospital stays	5,340		2,765	5,135	
Mammography screening			49%	41%	
Flu vaccinations			52%	47%	
Additional Clinical Care (not included in overall ranking)					
Uninsured adults	10%	8-11%	6%	8%	
Uninsured children	4%	3-6%	3%	4%	
Other primary care providers	1,953:1		726:1	1,161:1	
Social & Economic Factors					73
High school graduation			96%	85%	
Some college		40-49%	73%	65%	
Unemployment			2.9%	5.0%	

	Highland County	Error Margin	Top U.S. Performers ^	Ohio	Rank (of 88)
Injury deaths		84-110	57	82	
Additional Social & Economic Factors (not included in overall ranking)					
Disconnected youth	15%	8-23%	4%	6%	
Median household income	\$43,800	\$40,000-47,600	\$67,100	\$54,100	
Children eligible for free or reduced price lunch	65%		32%	39%	
Residential segregation - Black/White	60		23	69	
Residential segregation - non-white/white	44		15	58	
Homicides	8	5-11	2	6	
Firearm fatalities	11	7-17	7	12	
Physical Environment					
Air pollution - particulate matter **	10.9		6.1	11.5	39
Drinking water violations	No				
Severe housing problems		15-19%	9%	15%	
Driving alone to work	81%	78-84%	72%	83%	
Long commute - driving alone	42%	38-46%	15%	30%	
Additional Physical Environment (not included in overall ranking)					
Homeownership	70%	68-73%	80%	66%	
Severe housing cost burden	15%	12-17%	7%	13%	

^ 10th/90th percentile, i.e., only 10% are better.

** Data should not be compared with prior years

Note: Blank values reflect unreliable or missing data

Demographic Characteristics

A profile of Highland County and its residents was formulated by collecting publicly available data such as vital statistics, economic, and education data. Research shows that sociological and economic factors affect health in complicated ways, so it is understood that this 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 total population of Highland County is estimated at 43,058. This is a more than 1% decline since 2010. This is less growth than what is currently seen in Ohio as a whole and across the U.S. (Table 1)

Age, Sex, Ethnicity, Immigration, Veterans Disability Status

Highland County, Ohio has limited diversity among its population, with more than 96% of residents being white/Caucasian. Approximately 45% of the population is over the age of 45 which is higher than the rest of Ohio and the U.S. The veteran population is also slightly higher. In addition, 19% of the population has a disability which is considerably higher than Ohio (14%) and the rest of the U.S. (13%).



Table 1: Highland County Ohio Population Patterns

Year	Highland County	Ohio	U.S.
2010	43,589	11,536,504	308,745,538
2015	42,952	11,617,850	320,742,673
2018 (est.)	43,058	11,689,442	327,167,434
Percent Change	-1.22%	1.33%	5.97%

Source: U.S. Census Bureau, 2018

Information was found from Table PEPANNRES: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018

Table 2: Highland County, Ohio Population, Age, Race and Gender

Population Demographics		Highland	Ohio	U.S.
Age	Total Population	Percent	Percent	Percent
	0-17 Years	24.1%	22.6%	22.9%
	18-24 Years	8.0%	9.4%	9.7%
	25-44 Years	23.2%	24.9%	26.4%
	45-64 Years	27.3%	27.3%	26.1%
	65 years or more	17.4%	15.9%	14.9%
Race & Ethnicity	Total Population	Percent	Percent	Percent
	African American	1.4%	12.3%	12.7%
	Asian	0.4%	2.0%	5.4%
	Hispanic	0.9%	3.6%	17.6%
	American Indian/ Alaska Native	0.2%	0.2%	0.8%
	Native Hawaiian/ Pacific Islander	0%	0.03%	0.2%
	White	96%	81.9%	73.0%
	Other	0.1%	0.9%	4.8%
	Two or more races	2%	2.7%	3.1%
Gender	Total Population	Percent	Percent	Percent
	Male	49.4%	49.0%	49.2%
	Female	50.6%	51.0%	50.8%
Foreign Born	Total Population	0.9%	4.3%	13.4%
Veterans	Total Population	10.8%	8.4%	7.7%
Disabilities	Total Population	Percent	Percent	Percent
	Any age	19%	13.8%	12.6%
	Under the age of 18	6.4%	5.0%	4.2%
	Ages 18-64 years of age	18.1%	11.9%	10.3%
	Over the age of 65	40.1%	34.8%	35.5%

Source: U.S. Census Bureau; 2013-2017 American Community Survey

Household and Location

The average household size in Highland County is slightly larger in comparison to households across Ohio but smaller than the U.S. average. This is also true for the percentage of households with children under the age of 18 years. Nearly three quarters of the population (73%) of Highland County resides in a rural area. This is a significantly larger portion of the population than in other parts of Ohio or the U.S. More than half (60%) of children under the age of 18 are being raised by grandparents or other family members, which is significantly higher than the state and national averages.

Table 3: Highland County, Ohio Households

Families and Living Arrangements	Size and Status	Highland County	Ohio	U.S.
Households ₁	Total Households	16,731	4,633,145	118,825,921
(Table CP02)	Average Household Size	2.54	2.44	2.63
	Families With Children (under 18 years of age)	25.7%	26.7%	28.2%
	Children Raised by Grandparents/Other Family (under 18 years of age)	59.5%	44.0%	35.5%
	Female Led Households With Children (under 18 years of age)	6.4%	7.2%	6.8%
Marital Status ₂	Never Married Males	28.1%	35.0%	36.3%
	Never Married Females	22%	29.0%	30.1%
	Now Married Males	53.5%	49.7%	49.9%
	Now Married Females	49.7%	46.5%	46.6%
	Divorced Males	13.4%	10.9%	9.5%
	Divorced Females	13.6%	13.0%	12.1%
Location ₃	Urban	27.0%	77.9%	80.7%
	Rural	73.0%	22.1%	19.3%

Source: U.S. Census Bureau, 2013-2017 ₁

Source: 2013-2017 American Community Survey (US Census Bureau) ₂

Source 3: U.S. Census Bureau, 2010 Decennial Census₃

Education, Employment, Industry, Occupations, Income and Poverty

The Highland 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 significantly lower, with more than 20% of individuals living below the poverty level. More than 30% of children live below the poverty level. The following provides a breakdown of education, employment, industry, occupations, income and poverty for Highland County and how it compares with the rest of Ohio and the U.S.

Table 4: Highland County, Ohio Educational Attainment

Education Level (persons 25 years of age or older)	Highland County	Ohio	U.S.
No High School Diploma	16.2%	10.2%	12.6%
High School Graduate	44.7%	33.6%	27.3%
Some college, no degree	18.6%	20.5%	20.8%
Associate Degree	8.2%	8.5%	8.3%

Bachelor's Degree or Higher	12.3%	27.2%	30.9%
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Source: U.S. Census Bureau, 2013-2017

Table 5: Highland County Employment Data

Employment Status	Highland County	Ohio	U.S.
Civilian Labor Force (16 years of age or older)	55.6%	63.1%	63.0%
Employed	51.6%	59.1%	58.9%
Unemployed	4.1%	4.1%	4.1%
Not in the workforce	44.4%	36.8%	36.6%

Source: U.S. Census Bureau, 2013-2017

Table 6: Highland County Economics *Ohio Development Services Agency, 2018*

Industrial Sector	Occupations	Average Employment
Private Sector		8,075
<i>Goods Producing</i>	Natural Resources and Mining	66
	Construction	317
	Manufacturing	1,766
<i>Service Providing</i>	Trade, Transportation and Utilities	2,051
	Information	71
	Financial Services	445
	Professional and Business Services	735
	Education and Health Services	1,300
	Leisure and Hospitality	1,041
	Other Services	284
Public Sector		2376
	Federal Government	97
	State Government	93
	Local Government	2,186

Source: Ohio Development Services Agency, 2018

Table 7: Highland County Income and Poverty Data

Income & Poverty	Highland County	Ohio	U.S.
Income			
Per Capita Income ₁	\$22,079.00	\$29,011.00	\$31,177.00
Median Household Income ₁	\$42,333.00	\$52,407.00	\$57,652.00
Poverty			
Individuals Below Poverty Status (FPL 100%) ₁	21.6%	14.9%	14.6%
Children (under 18 years) Below Poverty Status (FPL 100%) ₁	32.4%	21.3%	20.3%

Children Eligible for Free/Reduced Lunch	42.9% ₂	44.9% ₃	52.1% ₃
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Source 1 - U.S. Census Bureau, 2013-2017

Source 2 - National Center for Educational Statistics 2015-2016, as compiled by 2018 County Health Rankings

Source 3 - National Center for Education Statistics, 2015-2016, obtained from:
https://nces.ed.gov/programs/digest/d17/tables/dt17_204.10.asp?current=yes

Leading Causes of Death

The leading causes of death, particularly premature death, as well as illness, and injury are indicators to 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 Highland County resident is 74.8 years of age which is lower than the average age of an Ohioan (77 years of age) or those that live in some of the U.S.'s healthiest communities (81 years of age). Figure x provides a breakout of life expectancy by census tract for Highland County and demonstrates disparity for those living in those areas.

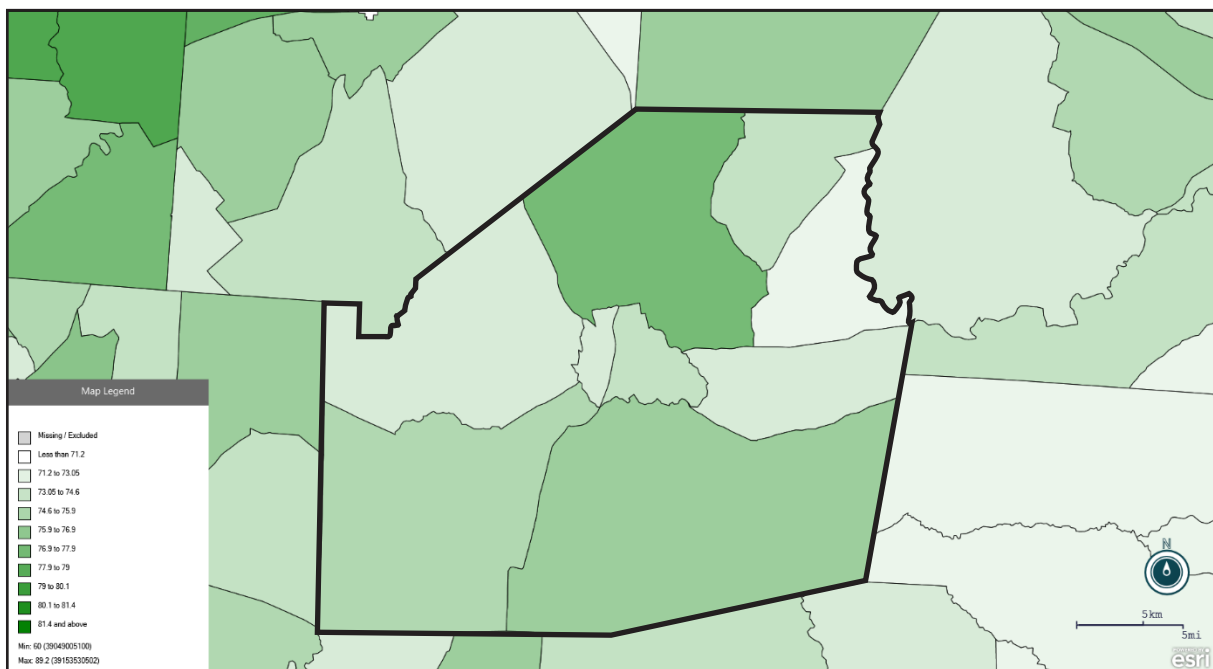


Figure 9: Life Expectancy Mapping, Highland County Ohio

Source: Ohio Department of Health, 2018

Premature Death

The premature death rate in Highland County, Ohio is considerably higher (10,600) than Ohio (8,500) as well as the U.S. (5,400) most healthiest areas. Some related factors, like suicide, infant and child mortality contribute. Rates for these factors are much higher than state and national statistics.

Table 8: Premature Death in Highland County, Ohio

	Highland County	Ohio	U.S.
Premature death rate	10,600	8,500	5,400
Suicide	18	13.5	13.1
Infant Mortality	10	7	4
Child Mortality	70	60	60

Source: County Health Rankings, 2019

Leading Causes of Death

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

Table 9: Leading Causes of Death in Highland County

Age-Adjusted Cause of Death (rate per 100,000)	Highland County ¹	Ohio ¹	U.S. ¹	
Heart Disease	210.2	187.5	167.7	
Cancer	199.6	171.2	159.4	
<i>Trachea, Bronchus and Lung Cancer</i>	48.1	44.1	40.9	
<i>Prostate Cancer</i>	34.2	19		
<i>Colorectal Cancer</i>	14.4	15.1	14.3	
<i>Breast Cancer</i>	35.1	22.7		
Unintentional Injury	80.5	56.3	43.2	
Chronic Lower Respiratory Diseases	84.6	48.9	41.2	
Stroke	43.6	40.9	37.0	
Diabetes	39.7	25.4	24.4	
Total Death Rate	922.7	824.9	730.4	

Source 1: Centers for Disease Control and Prevention, 2012-2017, CDC Wonder, 2012-2017, obtained from: <https://wonder.cdc.gov/>

Source 2: Centers for Disease Control and Prevention, 2012-2017, CDC Wonder, 2016-2017, obtained from: <https://wonder.cdc.gov/>

Population Health

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

Obesity and Related Issues

More than 30% of Highland County's adult residents are considered obese. Obesity rates are considerably higher than state (32%) and national averages (31%). The percentage of the population with other health conditions related to obesity – diabetes, high cholesterol, high blood pressure and heart disease – is comparable state and national averages.

Table 10: Obesity, Diabetes, Blood Pressure and Heart Disease in Highland County

Illness and Disease	Highland County	Ohio	U.S.
Obese ²	30.1%	32%	31%
Diabetes ³	11%	12%	9%
High Cholesterol	35%	37%	22%
High Blood Pressure	34%	28%	23%
Heart Disease	47%	48%	47%

Source: Centers for Disease Control and Prevention, 2016

Respiratory Issues

Pulmonary and respiratory issues are also prevalent in Highland County. More than 12% of the population experiences asthma, which is comparable to the state (13.8%) and national (13.4%) averages. COPD prevalence is higher than state and national averages.

Table 11: Asthma and COPD in Highland County

Illness and Disease	Highland County	Ohio	U.S.
Asthma	12.3%	14.2%	8.3%
COPD	10%	7.6%	6.4%

Source: Center for Disease Control and Prevention, 2016

Source: Ohio Department of Health Vital Statistics 2016

Source 2: CDC, BRFSS, 2017

Cancer

Of all cases of cancer in Highland County, breast cancer, lung and prostate cancer are most often found. The rate of breast cancer occurrence in Highland County (113.3) is less than state (126.2) and national (126) averages. The rates of prostate cancer, while one of the leading cancers, are also less than state and national averages. The incidences of lung and cervical cancer however are considerably higher than state and national averages.

Table 12: Highland County Cancer Incidence Rates per 100,000 (2011-2015)

Forms of Cancer	Highland County	Ohio	U.S.
Breast Cancer	113.3	126.2	126.0
Cervical Cancer	13.2	7.6	7.4
Lung Cancer	73.6	69.3	54.6
Colon and Rectum	48.7	41.7	39.4
Prostate	82.5	108.0	112.6
Ovarian	6.6	11.4	11.6
Testicular	5.0	5.6	5.7
Oral Cavity & Pharynx	12.4	11.7	11.3
Larynx	5.8	4.1	3.0
Esophagus	4.3	5.1	4.2
Brain	6.6	6.9	6.4

Source: Ohio Department of Health County Cancer Profile 2017

Source: Ohio Department of Health, Ohio Cancer Atlas 2019, obtained from: https://odh.ohio.gov/wps/wcm/connect/gov/9047e9b6-2e98-4f9a-b7fa-d3ffd6397b20/Ohio+Cancer+Atlas+2019.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-9047e9b6-2e98-4f9a-b7fa-d3ffd6397b20-mEhAtCQ

Sexually Transmitted Disease

The overall rate of occurrence for sexually transmitted disease in Highland County, Ohio is considerably lower than state and national averages.

Table 13: Highland County Sexually Transmitted Diseases

Sexually Transmitted Diseases	Highland County	Ohio	U.S.
Chlamydia (rate per 100,000)	241.7	520.9	497.3
Gonorrhea (rate per 100,000)	27.9	176.4	174.0
HIV prevalence (rate per 100,000) (ages 13 and older)	53.2	217.6	365.5
Hepatitis C (rate per 100,000)	N/A	1.6	1.0
Hepatitis A (rate per 100,000)	N/A	0.3	0.6

Source: Centers for Disease Control and Prevention, National Centers for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, 2016, obtained from: <https://www.cdc.gov/nchhstp/atlas/index.htm>

Maternal Health

The rate of low birth weights in Highland County are comparable to the state average. The rate of smoking during pregnancy is significantly higher (24.3%) than the rest of Ohio (14.4%). The number of women receiving prenatal care within their first trimester of pregnancy is considerably lower (70.4%) than the rest of Ohio (83%).

Table 14: Maternal Health in Highland County

Maternal Health	Highland County	Ohio	
Low Birth Weight	6.5%	7.1%	
Pre-term Birth	10.3%	6.5%	
First Trimester Prenatal	70.4%	83%	
Unmarried	46.3%	43%	
Smoking During Pregnancy (2016) ²	24.3%	14.4%	

Source: Ohio Department of Health, Data Warehouse 2017

Source 2: Ohio Department of Health, Ohio State Health Assessment: obtained from:

https://analytics.das.ohio.gov/t/ODHPUB/views/SHA_DRAFT_Domain_PopHealth/10_PopHealth?linktarget=s&isGuestRedirectFromVizportal=y&embed=y

Birth Rate

The crude rate of birth in Highland County is similar to the state and national averages. The rate of teen births per 100,000 is significantly higher than the state and national rates.

Table 15: Birth Rates in Highland County

Birth Rates	Highland County	Ohio	U.S.
Total Births	525	136,890	3,855,500
Teen Birth Rates (Ages 15-19)	42.6	38.5	18.8
Crude Birth Rate	12.2	11.8	12.0

Source 2: CDC Wonder, 2017 Natality

Source Ohio Department of Health, Vital Statistics 2016

Child Health

A total of 559 children were screened for lead exposure in 2016 in Highland County with 2.3% testing with elevated blood levels.

Table 16: Child Health in Highland County

Child Health	Highland County	Ohio	U.S.
Children lead screened	559	169,547	N/A
Percentage of those with elevated blood levels	1.6% (9/559)	3% (4707/169547)	N/A

Source: Ohio Department of Health, Data Warehouse 2017

Oral Health – Children

Oral health problems for children in Highland County are higher than the rest of state. More than 29% of children have untreated cavities.

Table 17: Oral Health in Highland County

Oral Health	Highland County	Ohio	
Percentage of children with untreated cavities	29%	17%	
Percentage of children with one or more dental sealants	69.8%	49%	
Percent of children with a history of tooth decay	63.8%	51%	

Source: Source: Ohio Department of Health, 2015-2016

Health Behaviors

The prevalence of certain health behaviors can serve as early indicators for a number of health conditions and diseases, as well some causes of death. Nutrition, fitness, and other behaviors for Highland County were researched from public health information, as well as surveyed within the population. According to data from the Centers for Disease Control, more than 28% of Highland County residents are not engaging in enough physical activity. Alcohol consumption is not as high as other parts of Ohio and the U.S. but smoking prevalence continues to be higher.

Table 18: Health Behaviors in Highland County

Health Behaviors	Highland County	Ohio	U.S.
Physical Inactivity	28.2%	25%	19%

Fruit/Vegetable Consumption Not Consuming Fruit Daily, 2017	N/A	37.7%	36.6%
Not Consuming Vegetables Daily, 2017	N/A	18.7%	18.1%
Binge Drinking	7.2%	8.8%	8.3%
Current Smokers	29.9%	22.5%	16.3%

Source: CDC BRFSS Data, as compiled by County Health Rankings, 2019

Injury

Accidental death is a leading cause of death in Highland County. Closer review reveals drug overdoses and traffic fatalities being the majority of those deaths. Local data is collected through the Highland County Coroner's Office, Highland County Health Department and the local State Highway Patrol Outpost.

Drug Overdose Deaths

Drug overdose deaths continue to be a leading accidental death cause in Highland County Ohio, although community-wide deployment of Narcan has decreased deaths over the last few years. Figure 10 shows the number of deaths since 2012.

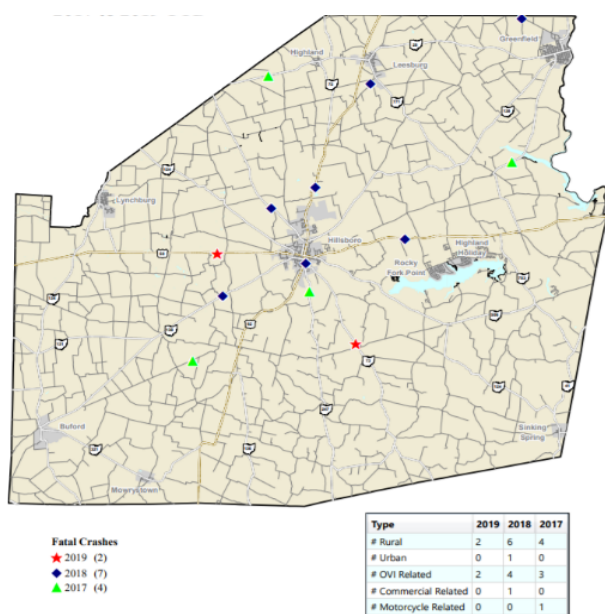


Figure 11: Ohio State Patrol Fatality Map, 2016-2019

Source: Ohio State Highway Patrol, 2019

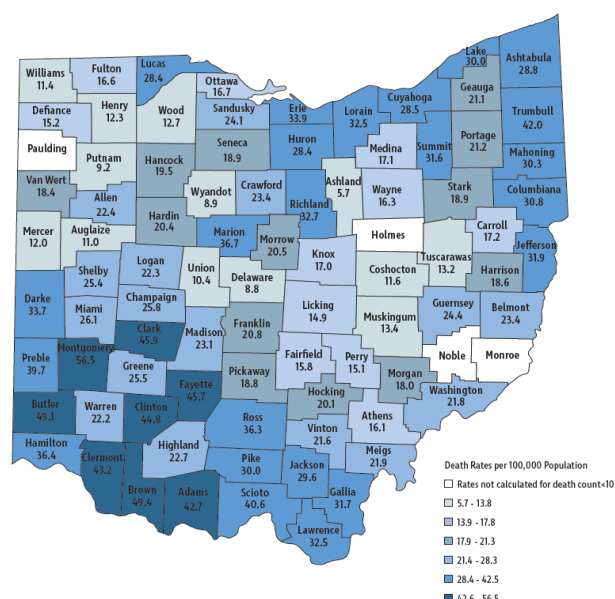


Figure 10: Average Age-Adjusted Unintentional Drug Overdose Death Rate Per 100,000 Population, by County, 2012-2017

Traffic Safety

In 2016 through 2019, traffic fatalities significantly contributed to accidental death rates in Highland County. Many fatalities were due to drivers not wearing seat belts.

Healthcare System

There are two hospitals in Highland County, Highland District Hospital and the Adena Greenfield Medical Center. Both hospitals are 25 bed facilities with Critical Access Hospital designations. Both also provide emergency services. The following provides information utilization of services across the county.

Table 19: Local Hospital Utilization

Services	2018 Utilization (Per 1,000 people, all hospitals)
Inpatient Hospital Utilization	133
Emergency Department Utilization	572

Source:

IP/ED Discharges - OHA Insight, CY 2018

Population - 2010 US Census Data

US Utilization - Analysis of American Hospital Association Annual Survey data, 2016, for community hospitals.

US Census Bureau: National and State Population Estimates, July 1, 2016.

Access to Healthcare

The Highland County community has the benefit of two critical access hospitals (Highland District Hospital and the Adena Greenfield Medical Center) serving the broader community. The critical access hospital and all other hospital facilities in the region have emergency departments. The community also has three community health clinics and a free clinic located Hillsboro Health Center.

Healthcare Service Access

Highland County has a partial medically underserved area (MUA) designation, as well as a partial medically underserved population (MUP). This is due to the limited number of providers, those 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 20: Healthcare Availability in Highland County

Service Access	MUA/MUP	HPSA Primary Care	HPSA Oral Health	HPSA Mental Health
Highland County	Partial	Whole Low Income Population, and Facilities	Whole Low Income Population and Facilities	Geographic Area and Facilities

Source: U.S Department of Health and Human Services, Health Professional Shortage Area Find, 2019

Healthcare Provider Access: Primary, Oral and Mental Health Care

Highland County has limited capacity to provide healthcare services. There are currently 3,070 patients for every primary care provider. There are 2,260 patients for every dentist. The number of mental health providers has increased slightly to improve access to mental and behavioral health services. However, there are still 1,300 patients for every mental health provider in Highland County. This ratio is significantly worse than the rest of Ohio (470:1) and top U.S. performers.

Table 21: Healthcare Provider Access in Highland County

Provider Access	Highland County	Ohio	U.S.
Patient to Provider Ratio			Top U.S. Performers
Primary Care ₁	3,070:1	1,300:1	1,050:1
Oral Health Care ₂	2,260:1	1,620:1	1,260:1
Mental Health Care ₃	1,300:1	470:1	310:1

Source 1: Area Health Resource File, 2016, as compiled by County Health Rankings and Roadmaps, 2019

Source 2: Area Health Resource File, 2017, as compiled by County Health Rankings and Roadmaps, 2019

Source 3: CMS, National Provider Identification, 2018, as compiled by County Health Rankings and Roadmaps, 2019

Insurance Coverage

Less than 10% of the total Highland County population does not have health insurance which is higher than the state average (7.4%) but comparable to the national average. A little more than 6% of children in the county do not have insurance which is higher than both the state and national averages that are around 5%. More than half of children in Highland County access healthcare services with Medicaid, which is considerably higher than state and national rates.

Table 22: Health Care Services in Highland County

Healthcare Access	Highland County	Ohio	U.S.
Insurance			
Total population without health insurance (under age 65) ₁	9.5%	7.4%	10.5%
Children without health insurance (under the age of 19) ₁	6.4%	4.6%	5.7%
Medicaid			
Insured population using Medicaid ₁	31%	21%	20.6%
Children under 18 using Medicaid ₁	50.5%	36.8%	38.6%
Medicaid Births ₂	66.9%	51.8%	47.8%

Source: U.S. Census Bureau, 2013-2017 ₁

Source: Child and Family Health Services, Ohio Department of Health 2017 ₂

PUBLIC HEALTH AND PREVENTION

Communicable Disease Control

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 Highland County Health Department 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 department according to the Ohio Administrative Code (OAC) Chapter 3701-3 (OAC, 2019).

The Highland County Health Department 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 in the Ohio Disease Reporting System (ODRS) by the health department's Infectious Disease Case Manager. This 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 Highland County, the Highland County Health Department implements control measures, through health education / awareness, enforcement actions, and interventions to help reduce the spread of communicable diseases. This can be done through a variety of measures and in many times is done with cooperation from our local healthcare network and community stakeholders. Table 23 provides a summary of reports.

Table 23: 2018 Communicable Disease Report, Highland County, Ohio

Disease	Total Cases
Campylobacteriosis	14
Chlamydia	108
Cryptosporidiosis	1
Gonococcal	18
Hepatitis A	38
Hepatitis B 23	23
Hepatitis C	45 (new)
Hepatitis C	111 (recheck)
Influenza-Associated Hospitalization	48
Lyme Disease	5
Meningitis - Aseptic/Viral 2	2
Pertussis 4	4
Spotted Fever Rickettsiosis, Including Rocky	6
Mountain Spotted Fever (RMSF) 6	6
Streptococcal Pneumoniae 9	9
Varicella 5	5
Other Reportable Diseases 67	67
TOTAL	504

Source: Highland County Health Department

2018 HCHD Revenue

Public Health Funding

The local public health agency in Highland County is primarily funded in 3 categories. Grants are used to support program specific work related to environmental health programs, substance abuse prevention efforts, and other areas of public health significance. Fees and Licensing Income is collected from health department clients when immunizations, environmental health licensing fees, and other income is generated from health department activities. Levy income is generated through taxes collected on property value.



Levy Funding (51.18%) Fees and Licensing (31.52%) Grant Funds (17.31%)

The Health Department is funded by 3 main sources. Approximately 50% of revenue comes from the health department's tax levies.

Figure 12: Revenue Sources, Highland County Health Department, 2018

Health Department General Fund

January 1, 2018 Beginning Balance: **\$256,149.80**

Revenue Sources

Levy and Inside Millage: \$606,515.13

Operating Revenue: \$512,116.58

Total Revenue: **\$1,118,631.71**

Total Expenditures: **\$1,107,430.43**

Ending Balance: **\$11,201.28**

December 31, 2018 Ending Balance **\$267,351.08**

NET PROFIT OR LOSS, ALL FUNDS

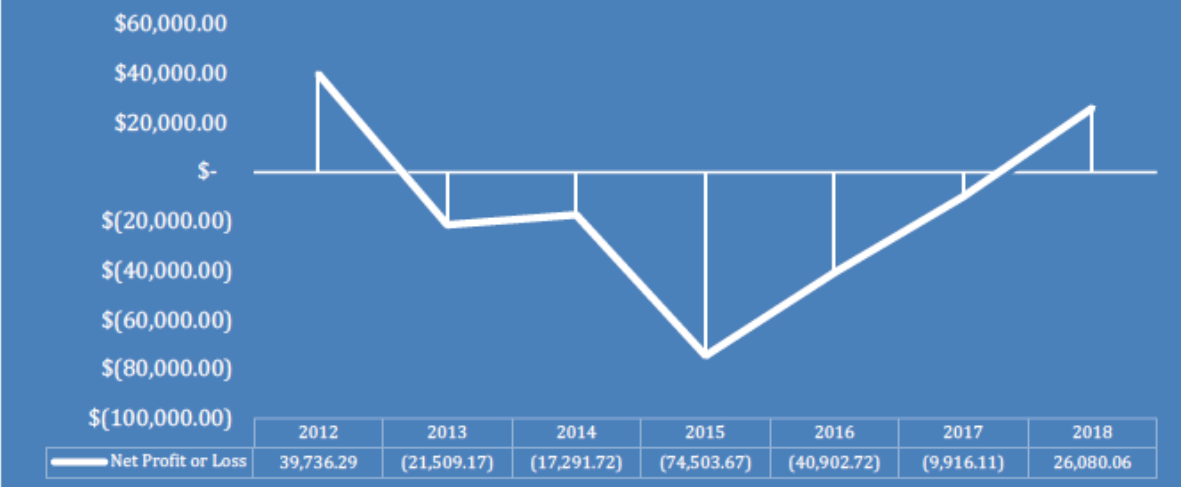


Figure 13: Budget, Highland County Health Department, 2018

Public Health Workforce and Accreditation

The Highland County Health Department applied for Public Health Accreditation in September of 2019. Achieving public health accreditation is an important part of the health departments ongoing efforts to ensure that quality health services are being provided to the community, and that these services are focused in the areas where the community needs them the most. Accreditation efforts are expected to continue into 2021 as site visits and follow up reviews are conducted to ensure that the health department fully satisfies national public health standards and measures.

SOCIAL AND ECONOMIC ENVIRONMENT

The Highland 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 Highland County and how it compares with the rest of Ohio and the U.S.

Education

More than 16% of the adults in Highland County have not graduated from high school. This percentage is higher than both Ohio (10.2%) and national (12.6%) averages. Less than thirteen percent of the population holds a Bachelor's degree or higher, which is significantly lower than state and national averages.

Table 24: Highland County, Ohio Educational Attainment

Education Level (persons 25 years of age or older)	Highland County	Ohio	U.S.
No High School Diploma	16.2%	10.2%	12.6%
High School Graduate	44.7%	33.6%	27.3%
Some college, no degree	18.6%	20.5%	20.8%
Associate Degree	8.2%	8.5%	8.3%
Bachelor's Degree or Higher	12.3%	27.2%	30.9%

Source: U.S. Census Bureau, 2013-2017

Employment

The unemployment rate in Highland County (4.1%) is comparable to the rest of Ohio and the U.S. average. However, more than 44% of the population is not in the workforce. This is higher than the state and national averages (36%).

Table 25: Highland County Employment Data

Employment Status	Highland County	Ohio	U.S.
Civilian Labor Force (16 years of age or older)	55.6%	63.1%	63.0%
Employed	51.6%	59.1%	58.9%
Unemployed	4.1%	4.1%	4.1%

Not in the workforce	44.4%	36.8%	36.6%
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Source: U.S. Census Bureau, 2013-2017

Industry and Occupations

The private sector provides the majority of the employment opportunities in Highland County with the service sector providing nearly three quarters of those opportunities. Trade, transportation, and utilities occupations (25%) provide the most opportunities for employment, with education and health services (17%) also provide significant opportunities. The private sector also provides 2,376 jobs in Highland County.

Table 26: Highland County Economics *Ohio Development Services Agency, 2018*

Industrial Sector	Occupations	Average Employment
Private Sector		8,075
<i>Goods Producing</i>	Natural Resources and Mining	66
	Construction	317
	Manufacturing	1,766
<i>Service Providing</i>	Trade, Transportation and Utilities	2,051
	Information	71
	Financial Services	445
	Professional and Business Services	735
	Education and Health Services	1,300
	Leisure and Hospitality	1,041
	Other Services	284
Public Sector		2376
	Federal Government	97
	State Government	93
	Local Government	2,186

Highland County Profile, as obtained from:
<https://development.ohio.gov/files/research/C1037.pdf>

Income & Poverty

The per capita and median household incomes in Highland County are considerably lower than the state and U.S. averages. Poverty rates are also higher than the state and national average. More than 32% of children are living at or below 100% of the Federal Poverty Level (FPL).

Table 27: Highland County Income and Poverty Data

Income & Poverty	Highland County	Ohio	U.S.
Income			
Per Capita Income ₁	\$22,079.00	\$29,011.00	\$31,177.00
Median Household Income ₁	\$42,333.00	\$52,407.00	\$57,652.00
Poverty			
Individuals Below Poverty Status (FPL 100%) ₁	21.6%	14.9%	14.6%
Children (under 18 years) Below Poverty Status (FPL 100%) ₁	32.4%	21.3%	20.3%
Children Eligible for Free/Reduced Lunch	42.9% ₂	44.9% ₃	52.1% ₃

Source 1 - U.S. Census Bureau, 2013-2017

Source 2 - National Center for Educational Statistics 2015-2016, as compiled by 2018 County Health Rankings

Source 3 - National Center for Education Statistics, 2015-2016, obtained from:

https://nces.ed.gov/programs/digest/d17/tables/dt17_204.10.asp?current=yes

PHYSICAL ENVIRONMENT

Information on environmental and community factors - food, air, water, housing and crime - can provide insight into many of the underlying issues that impact the health of a community. Data on food and housing access and security, air and water quality, and safety was collected to inform on the basic needs of Highland County residents.

Air Quality

Ambient air quality monitoring is currently not established in Highland County, Ohio, and therefore not available for review as part of the 2019 Community Health Needs Assessment. Some toxics release inventory emissions inventory (TRI) is available from the EPA to provide some insight into what pollutants are disposed of and/or emitted in the community by local industry, as well car emissions etc. Currently, diethanolamine, nickel and Toluene Diisocyanate (Mixed Isomers) disposal information is available for review.

Table 28: Toxics Release Inventory, Highland County, OH 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
Diethanolamine	0	0	0
Nickel	692	0	692
Toluene Diisocyanate (Mixed Isomers)	99	0	0
Total	791	0	791

Source: Environmental Protection Agency, 2017

Water Quality

Water quality reports for the Highland County Water Company 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 halo acetic acids), and residual disinfectants (chlorine). The Highland County Water Company did not receive any violations in 2018.

Table 29: Highland County Water Company Report, 2018

Contaminants (Units)	Sample Year	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Disinfectants and Disinfection By-Products								
Chlorine	2018	1.3	1.1 – 1.42	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2018	6.1	<6.0 – 6.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes	2018	21	12.7 – 21	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium	2018	0.101	.101 - .101	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2018	1.1	.85 – 1.26	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2018	.45	.45 - .45	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead and Copper								
	Sample Year	90 th Percentile	# of Samples Over AL	MCLG	Action Level (AL)	Units	Violation	Likely Source of Contamination
Copper	2018	0.619	1	1.3	1.3	ppm	N	Erosion of natural deposits; Corrosion of household plumbing systems.
Lead	2018	0	0	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Source: Highland County Water company, Retrieved from <https://www.highlandcountywater.com/consumer-confidence-reports>

Food Access and Insecurity

The food insecurity experienced by Highland County residents is slightly higher (16%) than Ohio and the U.S. as a whole. Nearly one fifth of Highland County households (19.7%) receive SNAP benefits, which is higher than the rest of Ohio (14.2%) and the U.S. (12.6%). There is also less access to grocery stores for Highland County residents.

Table 30: Food Access in Highland County

Food Access	Highland County	Ohio	U.S.
Food Security			
Food Insecure Population ₁	15.9%	14.5% ¹	12.9% ¹
Households receiving SNAP ₂	19.7%	14.2%	12.6%
Number of Food Pantries	13	N/A	N/A

Grocery Store Access (establishment rate per 100,000 population) ²	25.56	29.01	29.72
Fast Food Access (establishment rate per 100,000) ²	113.87	163.91	172.30

Housing: Characteristics and Access

While Highland County has a larger percentage of home owners (68.7%) than the rest of Ohio (66.1%) and the U.S. (63.8%), there is a significantly lower rate of HUD housing available to the low income population. Median gross rent is lower than the state and national averages but there nearly the same number of households burdened with the cost of housing (more than 29% of household income). More than 61% of the 19,339 housing units in Highland County are owner occupied. An estimated 2,608 housing units are vacant.

Table 31: Housing Access in Highland County

Housing	Highland County	Ohio	U.S.
Cost Burdened Households (more than 30% of income) ¹	29.3%	27.4%	32%
HUD Housing (rate available per 100,000 population) ²	390.4	1934.3	1568.7
Median Gross Rent ³	\$668	\$764	\$982
Owner-occupied housing unit rate ³	70.2%	66.1%	63.8%

Source: U.S. Census Bureau, 2013-2017 American Community Survey ¹

Source: U.S. Department of Housing and Urban Development (HUD) ²

Source: U.S. Census Bureau, 2013-2017 (Table DP04) ³

Crime

The rate of both property crime and violent crime Highland County is significantly less than the rest of Ohio and the U.S.

Table 32: Crime in Highland County

Violent Crime	Highland County	Ohio	U.S.
Property Crime (rate per 100,000 population)	808.7	2419.1	2362.2
Violent Crimes (rates per 100,000 population)	65.1	297.5	382.9

Source: Federal Bureau of Investigation 2017

Built Environment and Community Resources

Highland County has many resources that impact the health of the community. In 2019 an inventory of these resources was conducted. The results from the inventory were then also mapped utilizing a geographic information system (GIS) provided by the Ross County Soil and Water Department.

The mapping (below) provides a visual to demonstrate the limited resources available to 74% of the county's residents living in the rural county areas. Access to grocery stores that sell fresh fruits and vegetables, fitness facilities other than parks and social support services are very limited to Highland County's rural residents. Access to convenience marts, including those selling alcohol and tobacco products, is much more prevalent making healthier choices more challenging. In addition, there is very limited access to childcare and transportation resources.

Table 33: Health Infrastructure Inventory for Highland County, OH

Health Element	Resource	Total inventoried
Fitness	Parks	9
	Fitness Facilities	<u>5</u>
	Athletic Complexes	10
Nutrition	Food Banks	13
	Fresh Produce Drops	1
	Fast Food Restaurants	21
	Grocery (fresh food)	6
	Grocery (frozen, canned only)	13
	Convenience Stores	24
Wellbeing	Churches	89
	Clubs	5
	Community Centers	3
	Shelters	2
	Social Support and Safety Net	11
	Licensed Childcare Providers	13
Healthcare	Emergency Management Services	6
	Emergency and Urgent Care Services	4
	Dental Services	11
	Primary and Specialty Care Services	11
	Mental Health Services	12
	Hearing Services	4
	Optometric Services	7
	Skilled Nursing Facilities	7
	Pharmacies	11
	Schools/Childcare programs	17
	Social Service Agencies	11



Community Input

Multiple methods of community input were sought for this community health assessment to inform the process. It is important to note that not all rural communities, particularly those that are Appalachian, have the understanding of 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. Therefore, other methods are employed to obtain input into the process.

PUBLIC SURVEY SUMMARY

As part of the assessment process, the Highland County Health Collaborative engaged the broader community in a public survey to gain more insight into a variety of factors that may be impacting the health of the community, as well as to ask for feedback about what 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 two 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.

Survey Response Snapshot

Total Surveys: 598

Gender: 79% Female; 19% Male

Race: 95.48% White; 1.57% Black; 1% American Indian or Alaska Native; 1% Hispanic; Less than 1% Asian; 1% Other

Education: 35% 4 year degree or higher; 21% Associates Degree; 38% High School Diploma or GED and/or some college; 4.45% No High School Diploma

Household Income: 17% earning \$100,000 or more; 38% earning less than \$50,000; 15% earning less than \$20,000 per year

Children in the Home Younger than 18 years of Age: 40% Yes; 60% No

Marital Status: 9% divorced; 69% married; 5.28% widowed; 1% separated

Employment Status: 68% employed; 4% self-employed; 3% unemployed; 6% homemaker; 4% disabled; 12% retired.

Insured Status: 89.31% insured; 8.97% uninsured; 10.5% insured by Medicaid; 15.9% insured by Medicare; 63.60% insured by employer

Environmental Factors

Environmental factors do have a significant impact on individual health and public health in general, and they are wide ranging and diverse. A variety of questions related to personal and community factors were asked to identify critical indicators that may impact health.

The most significant findings for environmental issues in Highland County from the public survey included access to healthcare, including socio-economic barriers like transportation that may impact ability to access services. Those reporting barriers to healthcare in the Highland County community indicated the cost of care was the most significant.

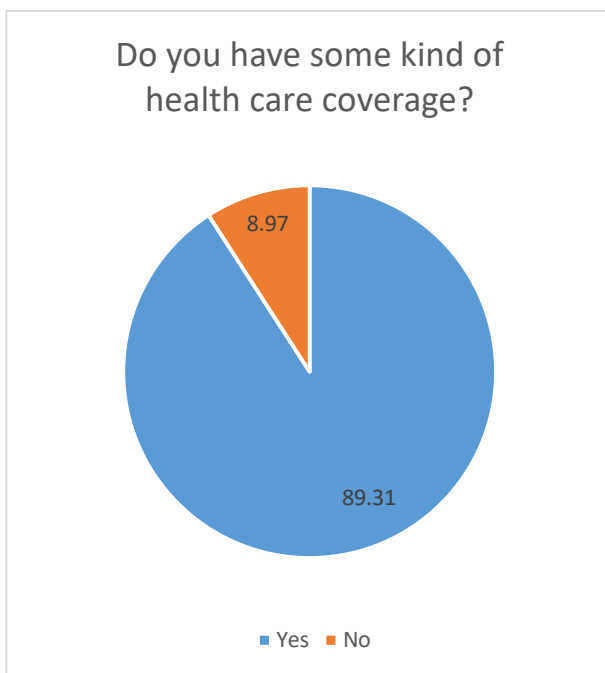


Figure 14: Public Survey Response – Insurance Coverage

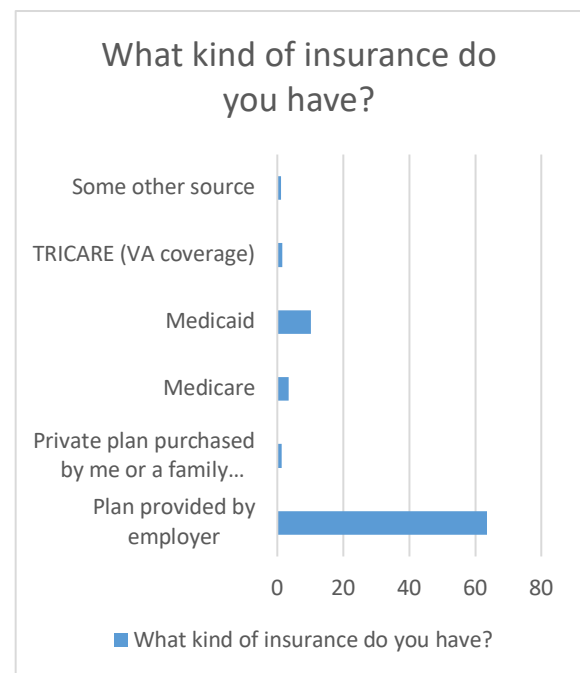


Figure 15: Public Survey Response – Type of Insurance



Was there a time in the last 12 months when you needed to see a doctor but couldn't because of cost?

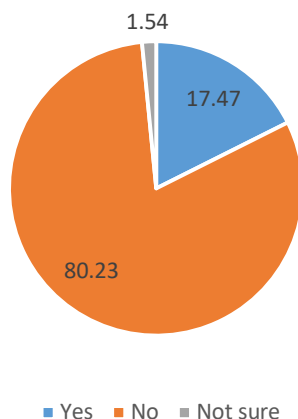


Figure 16: Public Survey Response – Financial Barriers to Healthcare

Within the last year, did you get groceries from a food pantry?

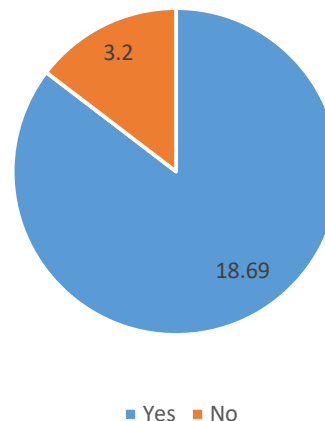


Figure 17: Public Survey Response – Food Insecurity

Do you currently have a reliable source of personal transportation?

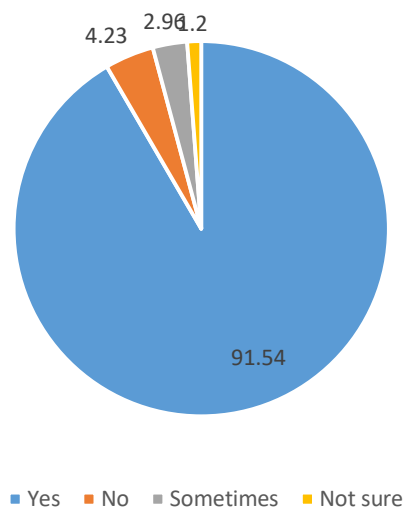


Figure 18: Public Survey Response – Transportation Barriers

Health Behaviors and Experiences

Survey respondents were also asked to report on their own health behaviors and what they experience as members of a broader community. More than 40% of respondents felt their health was excellent or very good, while approximately 17% felt their health was fair or poor. Close to 10% indicated they had some physical barriers limited their ability to walk or climb stairs. More than 38% of respondents indicated they had high blood pressure. High cholesterol and arthritis were also other conditions reported.

Nearly a quarter (23.1%) of respondents indicated they have been diagnosed with a depressive disorder. Another 8% indicated they had difficulty with memory. When asked who they would seek help from for a mental health or substance use disorder issue, more than 35% indicated they would speak to a physician first.

Approximately half of respondents indicated they were eating fruits and vegetables each day and just as many indicated they were getting at least 30 minutes of physical activity in a few times per week. Less than 18% of respondents indicated they utilize cigarettes, tobacco or vaping products on a regular basis.

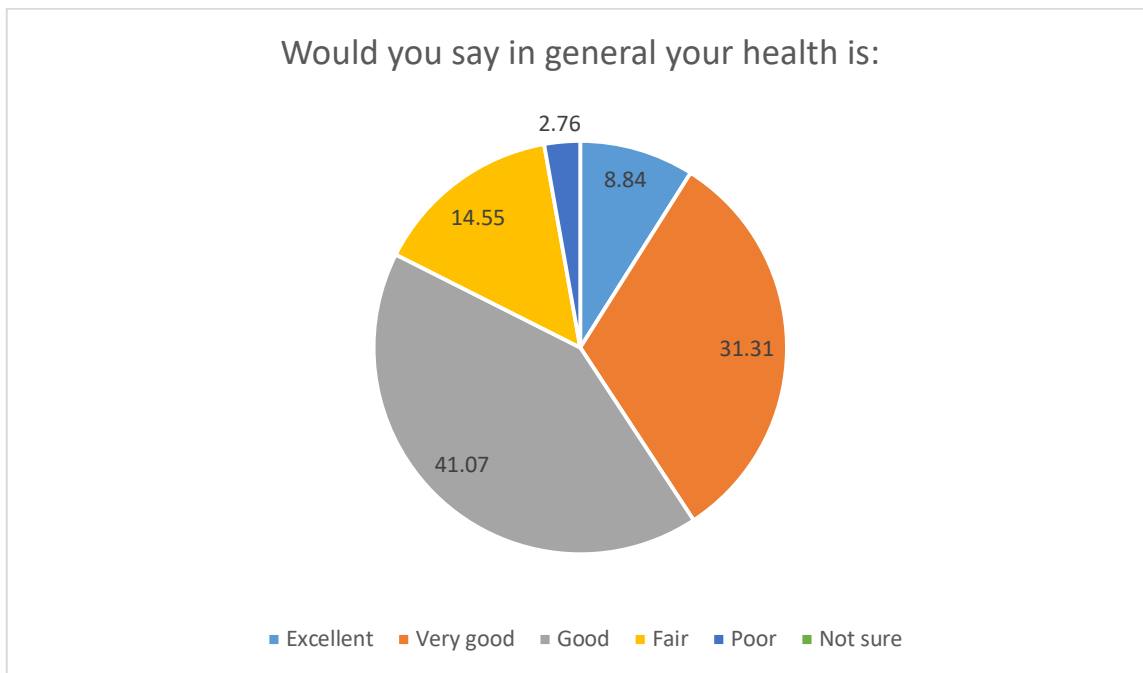


Figure 19: Public Survey Response – Personal Health Status

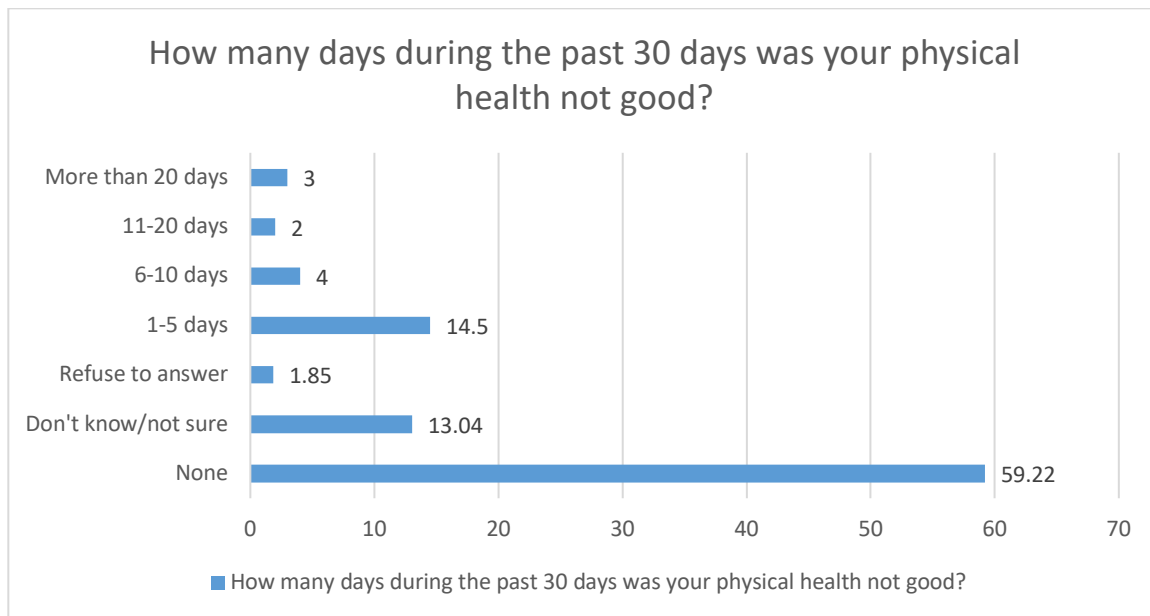


Figure 20: Public Survey Response – Poor Health Days

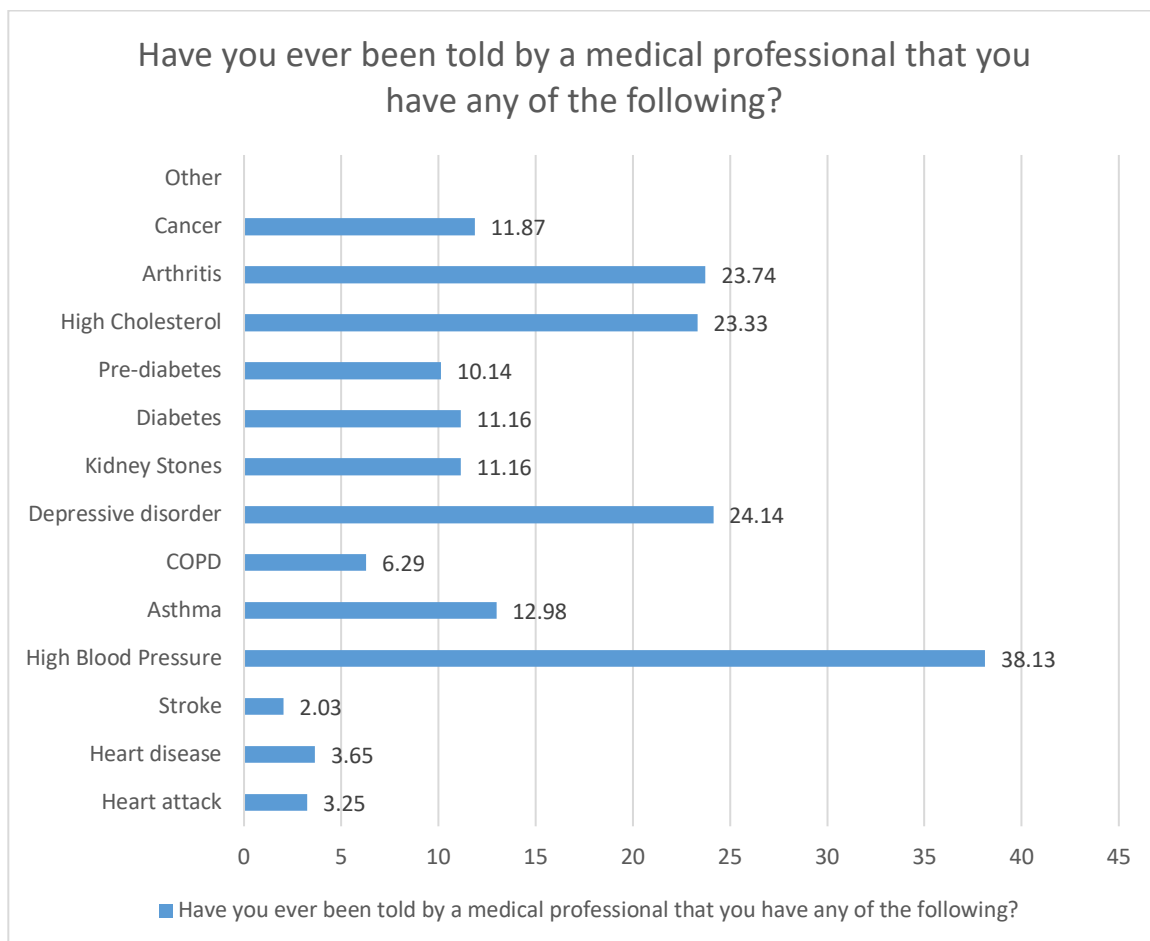


Figure 21: Public Survey Response – Diseases or Health Conditions

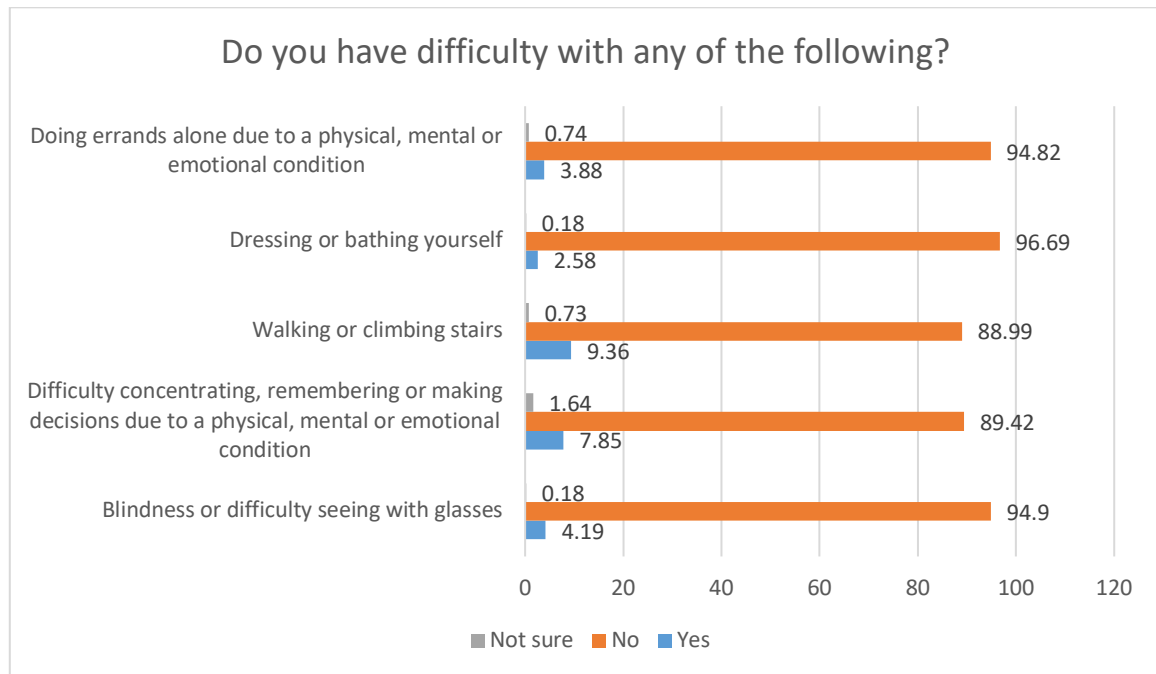


Figure 22: Public Survey Response – Health Challenges

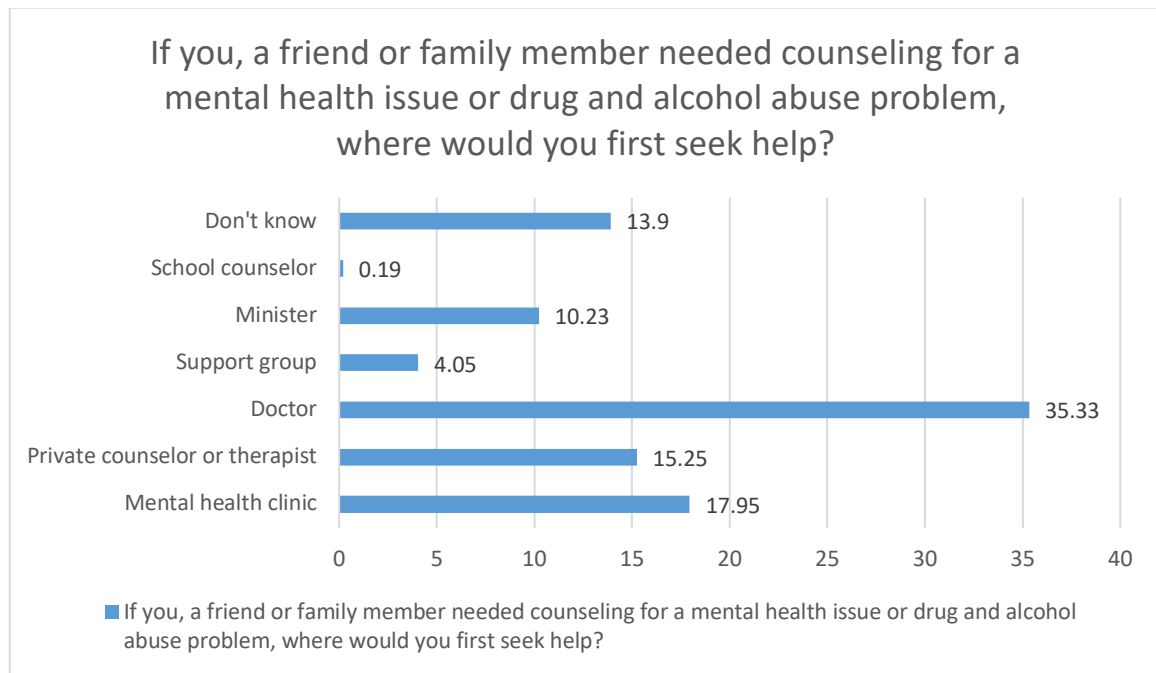


Figure 23: Public Survey Response – Coping With Mental Health Issues

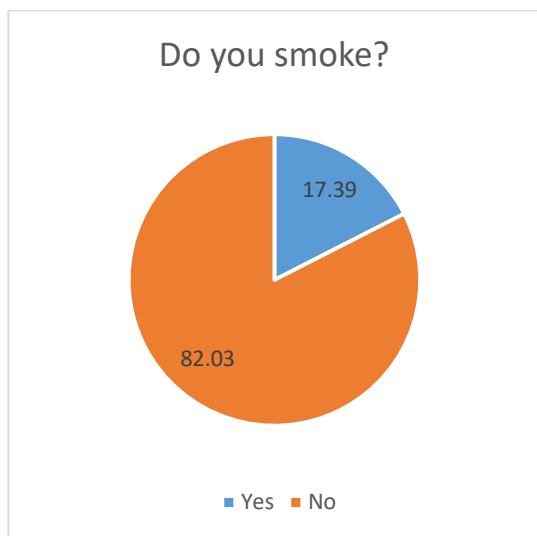


Figure 24: Public Survey Response – Smoking

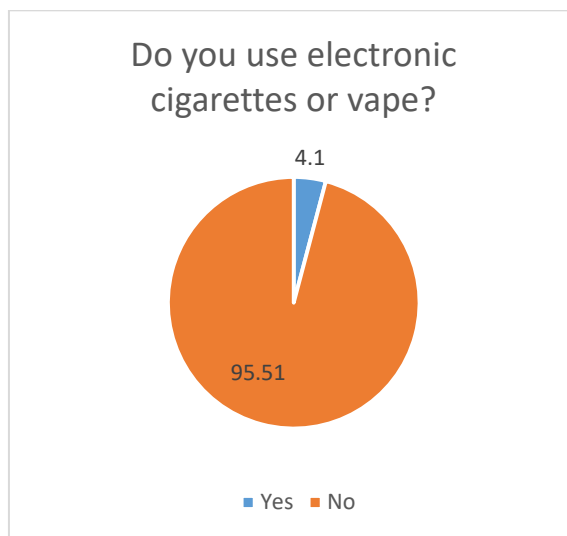


Figure 25: Public Survey Response – Vaping

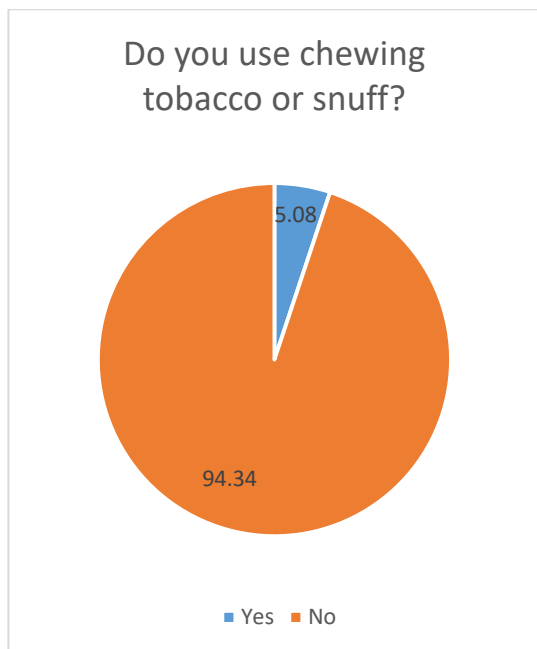


Figure 26: Public Survey Response – Tobacco Use

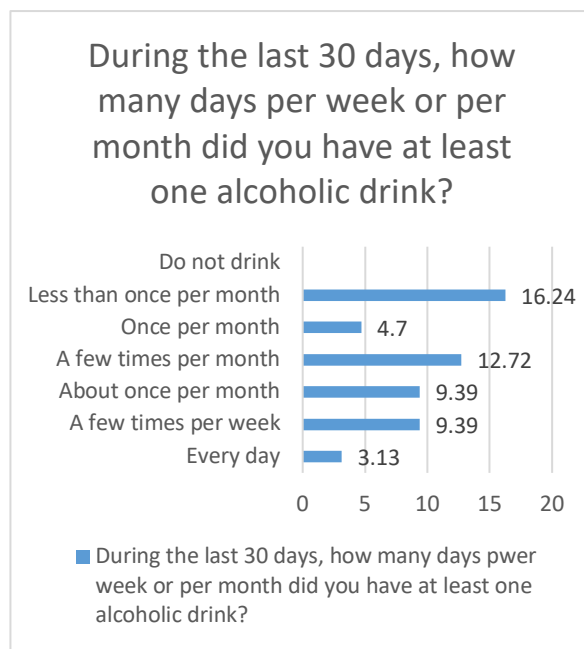


Figure 27: Public Survey Response – Alcohol Use

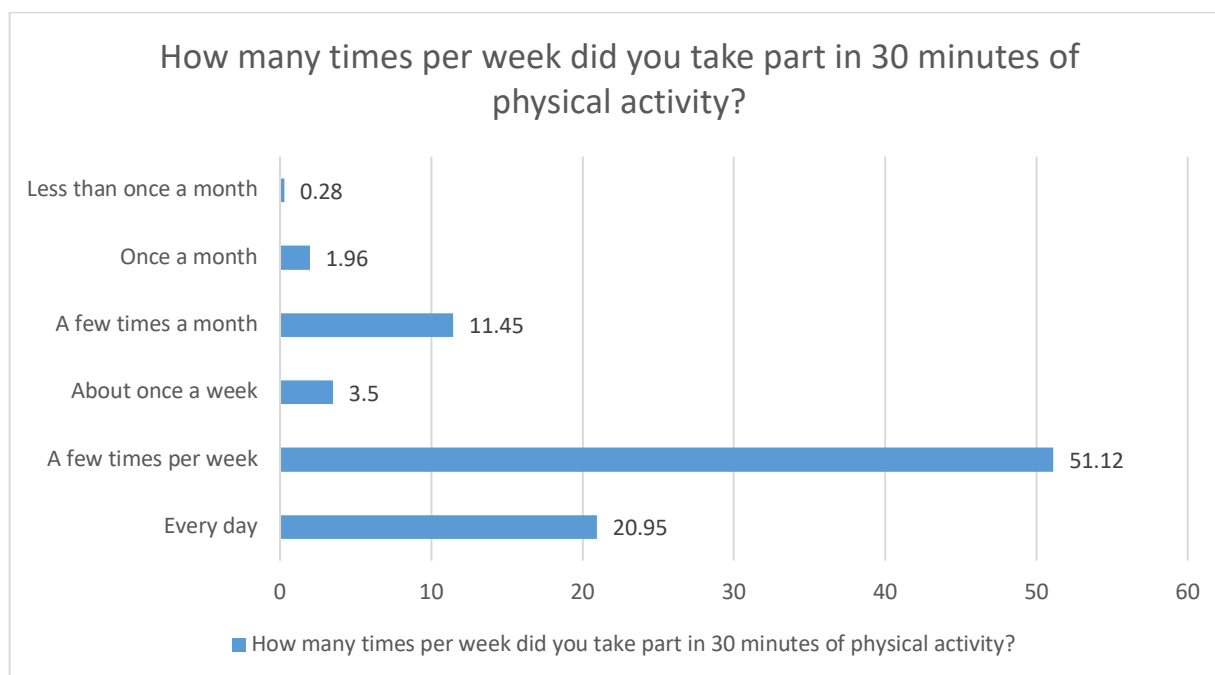


Figure 28: Public Survey Response – Physical Activity

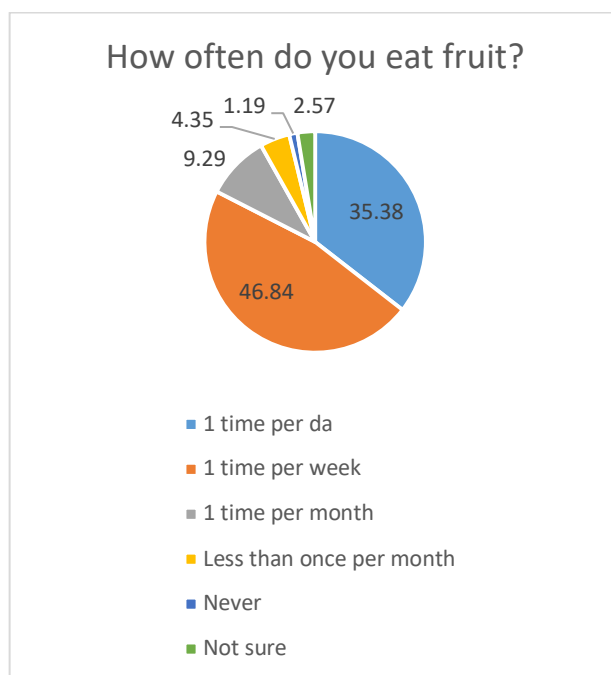


Figure 29: Public Survey Response – Fruit Consumption

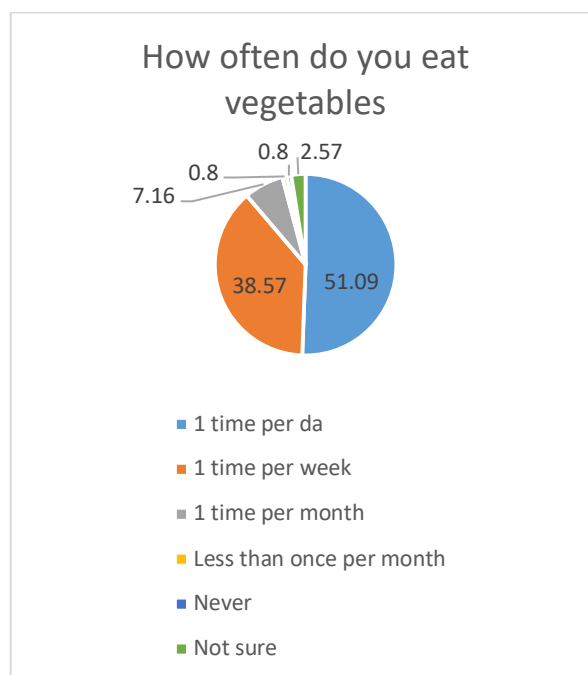


Figure 30: Public Survey Response – Vegetable Consumption

Survey respondents were also asked questions related to quality of life in Highland County. These included questions on community conditions such as safety and resources. It also included questions related to personal experiences, including experiences of trauma and poor mental health.

More than 17% of respondents indicated they experienced verbal abuse and another 8% indicated they had been victims of physical abuse. Food insecurity was another factor experienced by more than 11% of respondents. Over 9% of respondents indicated they had more than 5 poor mental health days per month. More than 16% of respondents indicated they had considered suicide with 18% of those respondents indicating they had attempted it at least once.

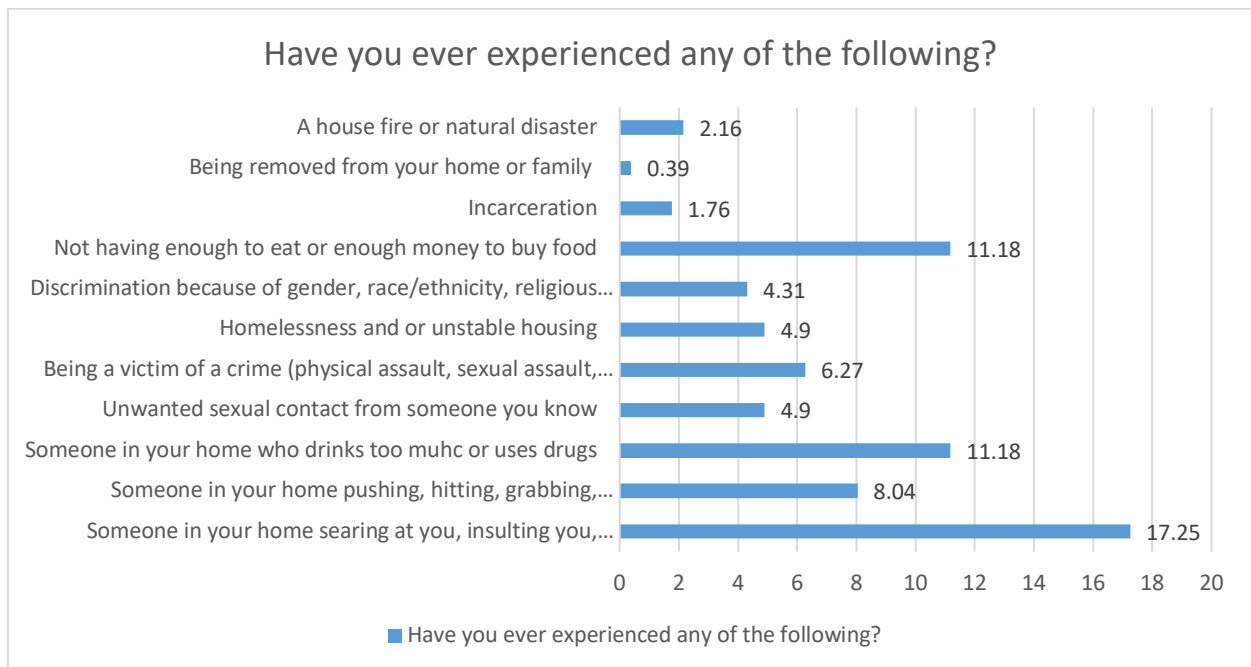


Figure 31: Public Survey Response – Trauma Experiences

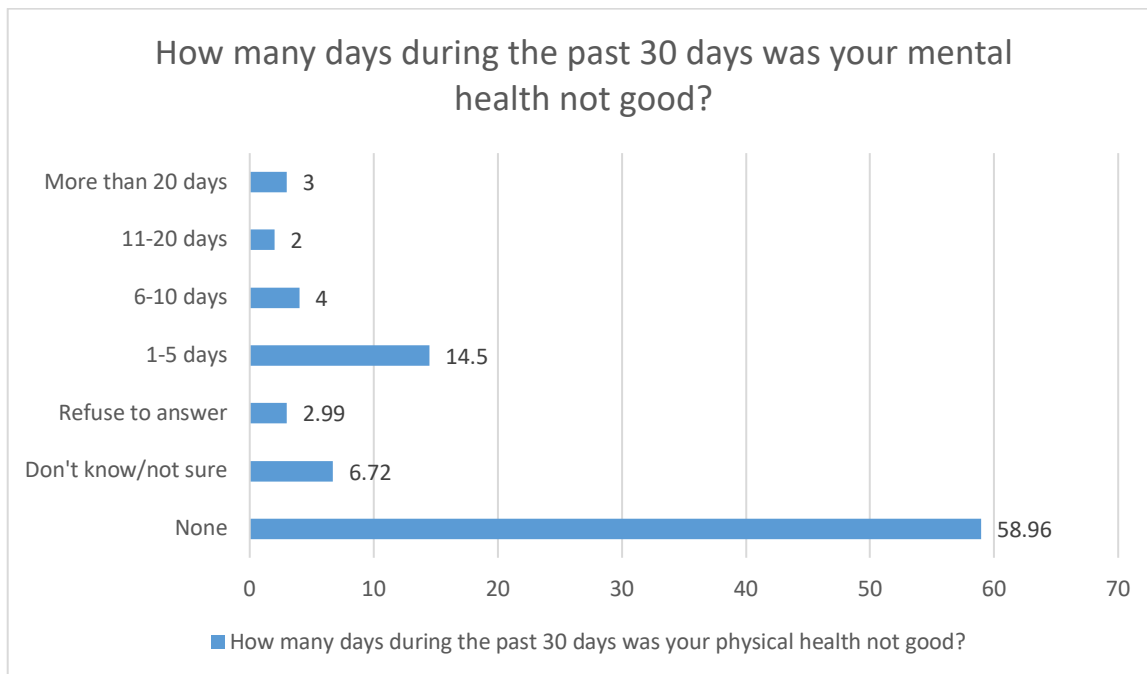


Figure 32: Public Survey Response – Poor Mental Health Days

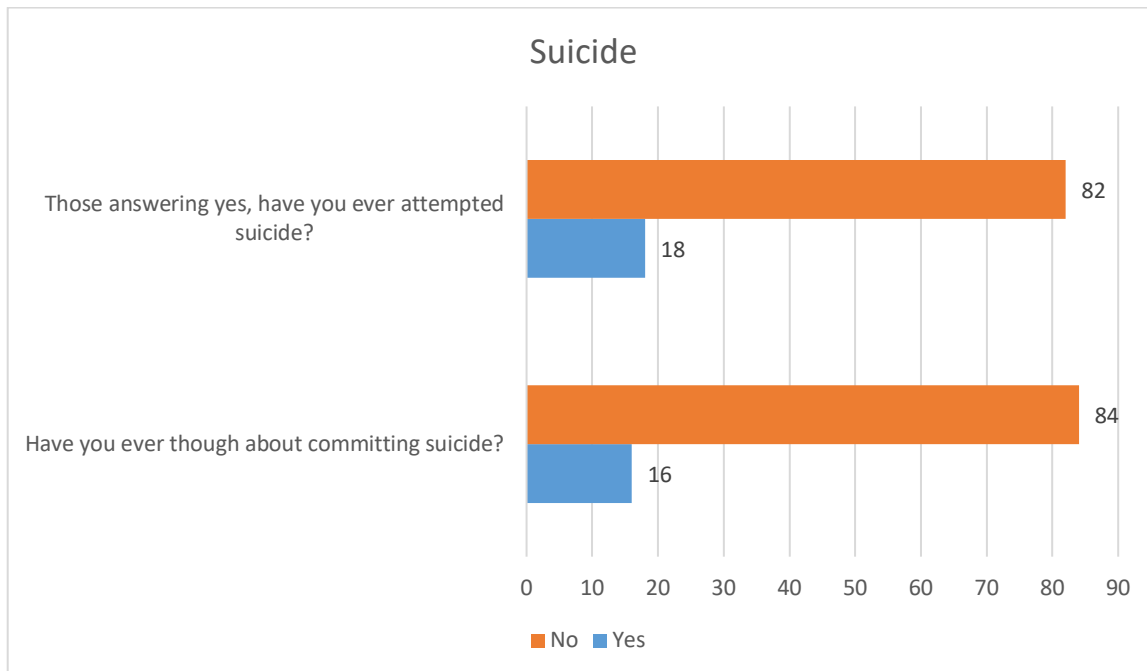


Figure 33: Public Survey Response – Suicidal Ideation

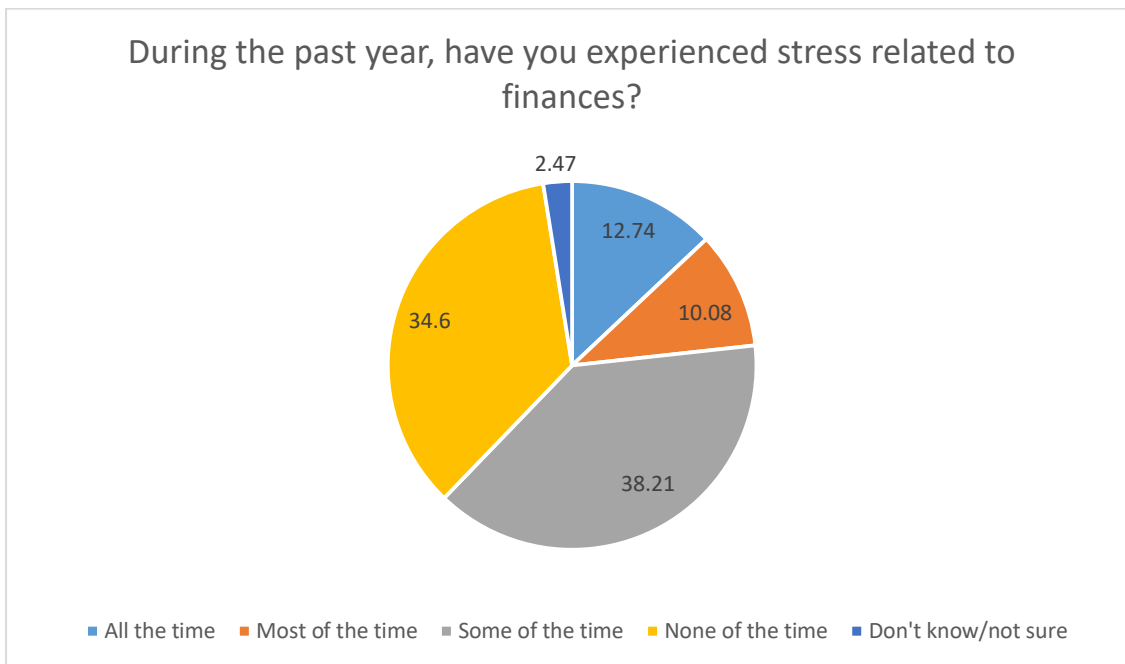


Figure 34: Public Survey Response – Stress, Financial

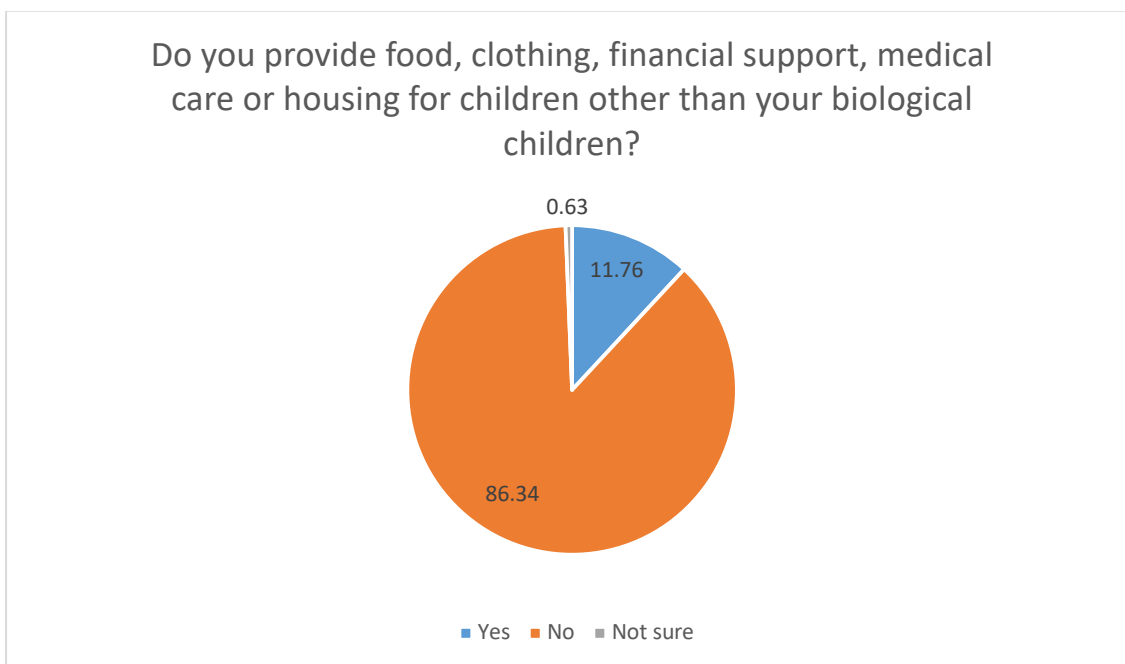


Figure 35: Public Survey Response – Caregiver Obligations and Stress

Stakeholder Interview Summary

A total of eight community stakeholders were interviewed for the 2019 Highland County Community Health Assessment (roster available in the Appendix). These included individuals from government agencies, education, healthcare and social services. Each were asked a series of question (see Appendix) regarding the current state of community health, and what they believed was necessary to improve health in Highland County. The group was convened on August 5, 2019 at the Greenfield Medical Center in Greenfield, Ohio. The group was asked a series of related to the health needs of the community. Notes were taken during the discussion and reviewed prior to the end of the session to finalize agreement on top opportunities and needs. Several themes emerged from these conversations, including an improved effort at reaching children with health messages, as well as addressing mental health among both adults and children.

The education sector reported a great deal of poverty related issues, as well as mental health for many students that are victims of the region's substance use disorder epidemic. The education system continues to be challenged with mitigating the many behavioral issues of students from families in distress. The issues noted were poor school performance and attendance, disciplinary issues, chronic hunger and lack of parental engagement. Working with non-immediate family members who have custody of the children were also mentioned as challenging issues. Additional resources and education for school staff was mentioned as help that was needed.

In speaking with leadership from the local mental health system, collaboration was identified as a key issue among agencies that was continuing

to improve but also still an area of opportunity. Data sharing to understand need for staffing and community concerns was also noted as a key area of opportunity. Crisis services and substance use disorder treatment services were also discussed as part of improving the health continuum.

Other community and civic leaders also indicated the need for more health and mental health services, as well as prevention efforts to change the health habits of future generations. Most would like to see increased engagement with youth such as before and after school programming to reduce screen time.

Most all agreed that more economic opportunities to increase personal capacity of the population would be of most help. They also indicated transportation, health literacy and culture changed were needed in the community to improve health in Highland County.

Stakeholder Interview Summary

Top Health Needs: Mental health (adults and youth); more physicians, more economic opportunities; health education and awareness

Barriers: Money; transportation; time; health literacy

Environmental factors: More use of parks and recreational activities, culture of safety and lack of activity; healthcare consumption

Opportunities: Educational opportunities for educators; improved provider and patient relationships; after school programs to engage youth

Summary of Key Findings

While most of the data continues to be consistent with the 2016 assessment and plan, several changes can be noted. First, the population of Highland County continues to decline. In migration has increased some, but it isn't yet offsetting the decrease in the older population as of 2019. The rates of poverty and unemployment have continued to improve. However, 58% of families in Highland County still earn less than \$50,000 per year. Educational attainment also continues to lag far behind state and national levels.

Teen pregnancies also continue to rise. As does those reporting experiencing some mental health or substance use/abuse issue. For this assessment, questions relating to environmental factors and barriers such as interpersonal violence, healthcare access and transportation have provided insight on challenges faced by many in Highland County.

After three years of various projects for data collection, there are still gaps across the Highland 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 communities of Ohio.

After the primary and secondary data was collected and summarized from each of the four assessment categories, the results were then analyzed to identify the opportunities to improve the health of Highland County. The top mortality causes, health behaviors, and related environmental factors that resulted from the prevalence data collected and summarized (Figure 37) are listed. The list is very similar to the list created in 2016.

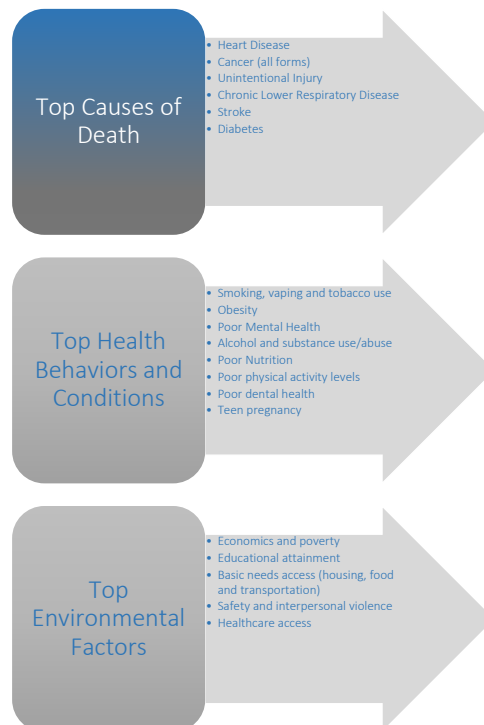


Figure 36 2019 CHA Health Priorities in Highland

Health Priorities

- Mental Health
- Substance Use Disorder
- Nutrition and Fitness Improvement
- Tobacco and vaping prevention
- Social factors of health (transportation, housing interpersonal violence prevention and access to care)
- Child safety

Conclusions and Next Steps

As health outcomes and factors in Highland 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 Highland County Health Collaborative will be to utilize this assessment to update and improve its 2016 community health improvement plan. Following the M.A.P.P process, data will be further analyzed and prioritized, as well compared to what was accomplished in the last plan. Metric driven goals can then be developed to further the efforts around improving priority health issues.



Figure 38: MAPP Process Utilized for Community Health Improvement Plan

