Partners for a Healthier Ross County

Community Health Needs Assessment
November 2022

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ACKNOWLEDGEMENTS

Figure 1: Community Health Assessment Process

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

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

• More in-depth assessment of the social vulnerabilities of Ross County, including mapping

• Additional survey questions and data on social factors, such as interpersonal violence, housing, transportation, income, and education that impact health

• Survey questions and data on the COVID-19 pandemic

• Increased engagement of the community via survey, public commenting periods and stakeholder interviews

EXECUTIVE SUMMARY

What is the Ross County Community Health Needs Assessment?

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

How was the CHA developed?

As in 2016 and 2019, the Partners for a Healthier Ross County utilized the CDC and NACCHO's Mobilizing Action through Planning and Partnership (M.A.P.P) for the 2022 assessment. M.A.P.P. is a six-phase process that guides the assessment of the community's health needs, as well as the development of a community health improvement plan (CHIP). The assessment portion of the process includes a four-part strategy focused on collecting qualitative and quantitative data from both primary and secondary sources to identify community themes and strengths, community health status, and forces of change in the community, as well as the assessment of the local public health system. More than 1,000 public surveys were completed; seven local stakeholder interviews were conducted; and demographic, socio-economic, health outcomes, and health factors data were also obtained to create the assessment.
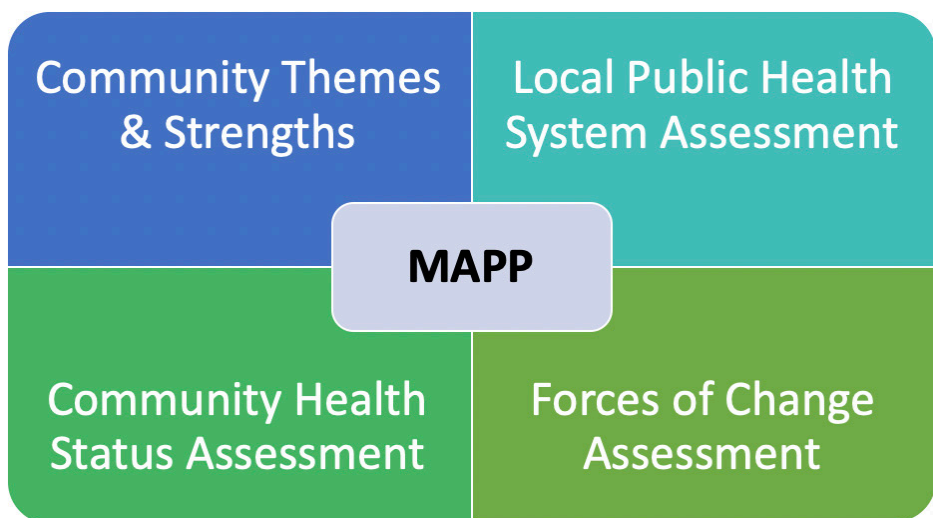
Figure 2: MAPP Four-Part Comprehensive Assessment Process

Key Findings

The 2022 CHA process included review of the assessment completed in 2019, as well as current County health rankings to outline trends impacting public health. Although health outcomes for Ross County stayed the same since the last assessment, health factors continued to improve, signaling that some movement, particularly around clinical services and community resources, was starting to have impact. Top causes of death remained the same, although cancer (all forms) has now superseded heart disease as the leading cause of death. Public perception of quality of life issues, health behaviors, and top environmental factors.

Community Snapshot

Population: 76,666 (population declining)

Percent with four-year college degree or higher: 16%

Median household income: $45,792

Families living below poverty level: 15%

Individuals and Families with Housing Cost Burden: 12%

2022 Unemployment Rate: 4.6%

Largest industrial sector: Health, Education, Service, Manufacturing

County Health Rankings Ross County, Ohio									
	2014	2015	2016	2017	2018	2019	2020	2021	2022
Outcomes	81	81	74	81	74	76	77	77	77
Factors	69	72	64	64	65	56	55	49	56

Table 1: Ross County, Ohio 2014-2019 County Health Rankings

Health Outcomes Leading Causes of Death
- Cancer (all forms)
- Heart Disease
- Unintentional Injury
- Pulmonary-Respiratory Disease
- Stroke

Health Outcomes Leading Health Issues
- Substance Use Disorder
- Obesity and Diabetes
- Depression and Anxiety
- Lung cancer and COPD
- Child Wellness and Safety

Health Factors Leading Health Behaviors
- Drug and alcohol use
- Mental health management
- Tobacco use and vaping
- Poor nutrition
- Limited primary care utilization

Health Factors Leading Environmental Factors
- Economics and poverty
- Access to basic needs (housing, food and transportation)
- Safety (crime and interpersonal violence)
- Healthcare access (preventative services)
- Air quality

Figure 3: Highlights of 2022 Community Health Assessment (CHA)

Public Input and Comment

A total of 1,053 surveys were attempted and collected from residents of Ross County. All survey respondents were anonymous. Only surveys from respondents who reside in Ross County were accepted. Responses from individuals less than 18 years of age were not accepted and were excluded in the final analysis as well, as surveys that were incomplete. Data was prepared and cleaned to allow for analysis; and a total final analysis. Of the 768 completed surveys, 701 were fully completed.

For some questions, the total number of responses were from a pool of 768 survey responses, and for other questions, only 701 responses could be used, as some information was not completed by the person completing the survey. Additionally, some subgroup categories had too few responses to be considered for final analysis.

As with many health assessments, it's important to consider the findings of the public survey with limitations and caution. Surveys were collected from a variety of populations in Ross County to get a desired number of responses (age, race, gender, income, education, etc.) to aid in better understanding of the health issues within our community. In all instances, the public surveys were voluntary and anonymous.

Please note: Caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Survey respondents were asked a total of 78 total possible questions regarding their opinions on the quality of life in the Ross County community, including services, environmental factors, and community needs, as well as questions related to health behaviors, personal experiences, and lifestyle. Several themes emerged from those responses in the areas of health outcomes, health factors, social factors, and health-related education needs.

Who Responded

Total Surveys: 1,053

Gender: 77.5% female; 20.7% male, 1% non-binary

Race: 92.7% White; 3.9% Black; 0.7% Hispanic; Less than 1% Asian; 2% other

Education: 39.5% four-year degree or higher; 17.12% Associates degree; 39.7% high school diploma or GED and/or some college; 3.5% no hgh school diploma

Household Income: 24.97% earning $100,000 or more; 37.22% earning less than $50,000; 18.25% earning less than $25,000

Mental health and overweight/obesity continue to be health issues for many Ross County residents. Chronic diseases, such as diabetes, cancer, and heart disease, continue be top health issues. Drug abuse continues to be a leading issue in our communities, as identified by survey respondents. Drug abuse continues to be a leading issue in our communities as identified by survey respondents. The following highlights the results of the survey:

Health Outcomes

• Asthma continues to be a health issue for Ross County residents.

• 16% of public survey respondents reported having diabetes.

• 54.3% of survey respondents feel they have "very good" or "excellent" health, whereas 43.5% of adults feel they have "fair" or "poor" health.

• 12% of survey respondents answered "yes" to having cancer or may have had cancer in the past.

• 2016 and 2019 CHA Public Survey responses reveal similar findings yes to having cancer or have had cancer in the past.

Health Factors

• 37.9% of survey respondents reported being overweight or obese, while 35.8% of survey respondents reporting not exercising at least 30 minutes or more per week.

• 18% of survey respondents report using tobacco or tobacco products (includes vaping, electronic cigarettes, chewing tobacco, pipe tobacco, and cigarettes).

• 49.1% of survey respondents use alcohol.

• 12.9% of survey respondents use marijuana.

• Mental health continues to be a top health issue in our community, as 41.7% of survey respondents noted that they experience depression or anxiety, but only 11.6% of respondents noted they visit a mental health specialist in the past year.

• 75% of survey respondents reported visiting a family doctor in the past year, 64.2% of survey respondents reported visiting the dentist in the past year, and 46.9% of respondents reported visiting the eye doctor in the past year.

• 5.0% of survey respondents said they have received treatment for substance use.

Social Factors

• Survey respondents indicated that the need for higher paying employment, more affordable housing, and mental health counseling support groups are as major needs in Ross County.

• 22.7% of survey respondents struggle to pay for housing. Of those who have children in their household under the age of 18, 26.5% say they struggle to pay for housing. 54% of those who made less than $25,000 annual income struggle to pay for housing.

• 2% of survey respondents said they have experienced unstable housing or are homeless.

Health Education Needs

• Respondents identified that children need to learn about drug abuse prevention, suicide prevention, and mental health management.

• Respondents say that our community needs to learn more about substance abuse prevention, nutrition, stress management, and weight management.

• Respondents would like adults to learn more about mental health, nutrition, and food resources.

Social Vulnerability

The CDC social vulnerability index (CDC SVI 2018) county map depicts the social vulnerability of communities, at census tract level, within a specified county. CDC SVI 2018 groups 15 census-derived factors into four themes that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data, as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall social vulnerability combines all the variables to provide a comprehensive assessment.
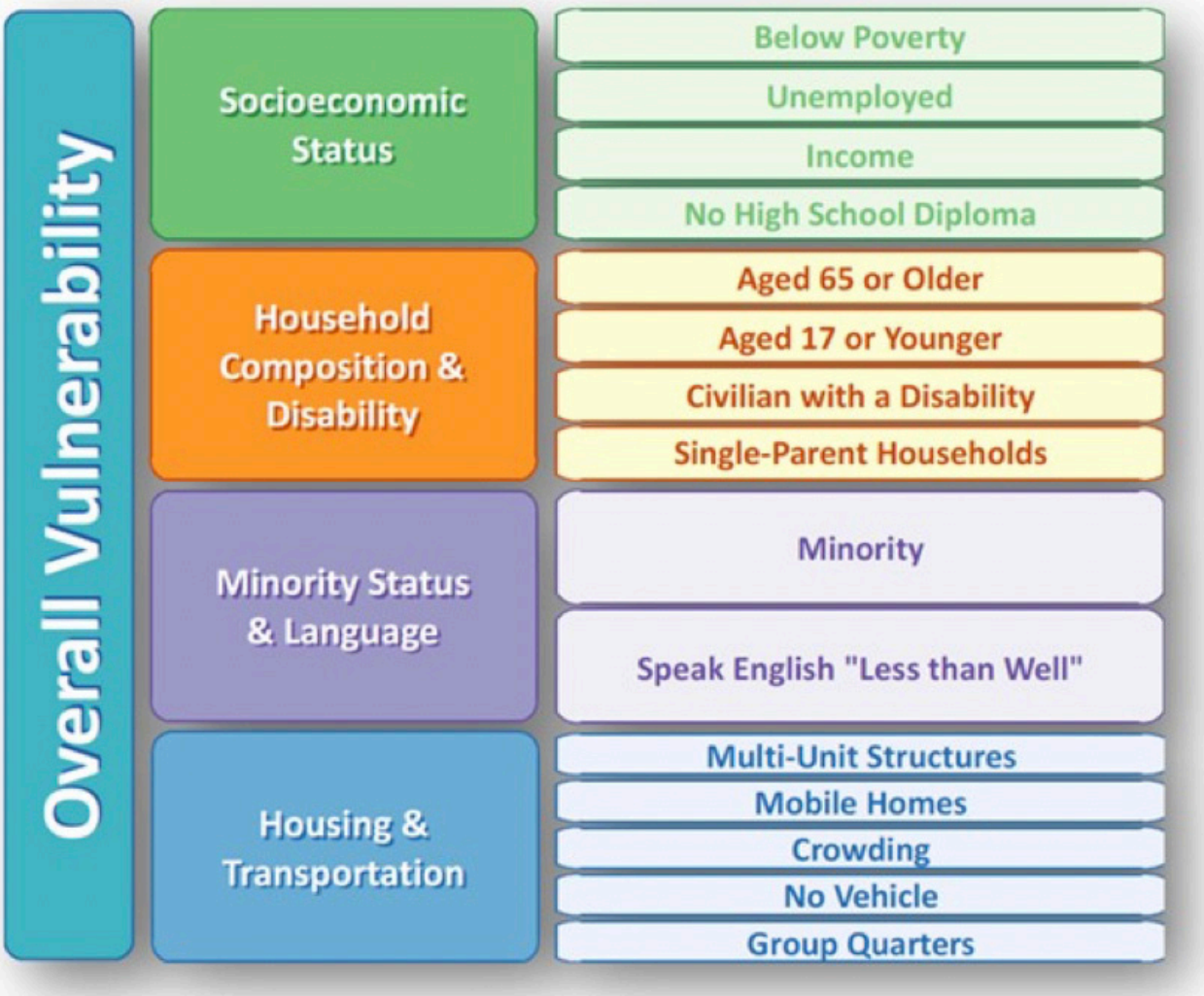
Figure 4: Social Vulnerability Scale

Areas of the highest vulnerability are the east region of Chillicothe, Ohio, city limits, as well as the south-central region of the rural areas of the county, are noted in dark blue in Figure 5.

Top Accomplishments Since the 2019 CHA

As part of the 2019 CHA, Partners for a Healthier Ross County identified great need to build infrastructure around top health issues. That included improving systems, creating collaborations, and seeking funding to increase community capacity to improve health.

- 2-1-1 information and referral system migrated to new, updated management system and relaunched in February 2020, ahead of the COVID-19 pandemic. Local leaders utilized the data from the line to inform on community needs and trends in those needs throughout the end of 2021.

- The LiveWell Ross sub-committee was able to expand with a "Creating Healthy Communities" grant secured by the Ross County Health District that resulted in bike lanes, an active mobility plan, expanded produce markets and an additional community garden at Mt. Logan School.

- BreatheWell Ross, a committee focused on tobacco and vaping prevention and cessation, expanded, with additional resources provided by an Ohio Department of Health grant that enabled tobacco sales compliance and additional resources for cessation and expanded smoke-free spaces including all Ross County parks.

- Continued monitoring of air quality in Ross County utilizing PurpleAir technology.

- A $1 million grant for substance use disorder prevention, treatment, and recovery for Partners-affiliated.

- Establishment of a community "Access to Care" cooperative and community clinic located in identified critical need community neighborhood inside of Mt. Logan School

- Establishment of a community mobility and transportation planning cooperative that has improved rural transportation to health resources with on-demand service
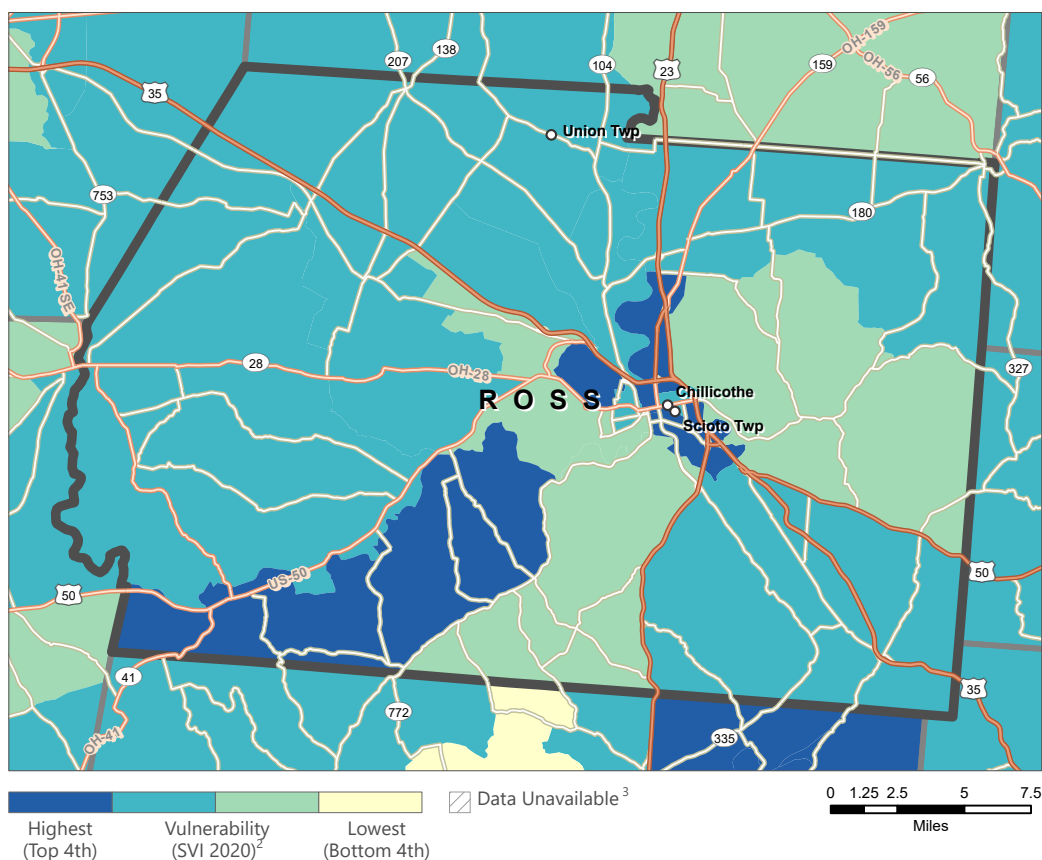
Figure 5: CDC Areas of Social Vulnerability for Ross County, Ohio

PURPOSE AND OVERVIEW

Introduction

The term "health" embodies a multi-faceted concept, particularly from a community perspective. An individual's health is measured by the presence and/or severity of illness; whether they engage in behaviors that are a risk to their health, and if so, the length of time that 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. Entire 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. Zip code areas, social, and economic variables have been shown to impact health including life expectancy, 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. Those individuals can have issues reading and comprehending materials, such as prescription bottles, educational brochures, and nutrition labels, and are thus more likely to have higher rates of complications than people who are more literate.

A comprehensive community health needs assessment (CHNA) 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 (FQHCs), to complete a CHNA every three years. All public health districts are required to complete health needs assessments every five years. The purpose is to provide a community health continuum with a foundation for 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.

The United States Department of Health and Human Services established five overarching health goals for the year 2030:

1. *Attain healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death.*
2. *Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all.*
3. *Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all.*
4. *Promote healthy development, healthy behaviors, and well-being across all life stages.*
5. *Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.*

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

Figure 6: 2030 Healthy People 2030 Leading Health Indicators

Healthy People 2030 Objectives and Measures

Vision
A society in which all people can achieve their full potential for health and well-being across the lifespan.

Overall Health and Well-Being Measures
8 broad, global outcome measures intended to assess the Healthy People 2030 vision

Core Objectives
358 measurable public health objectives that have 10-year targets and are associated with evidence-based interventions

Leading Health Indicators
A small subset of 23 high-priority Healthy People 2030 core objectives selected to drive action toward improving health and well-being

Developmental Objectives
Public health issues with evidence-based interventions but lacking reliable data

Research Objectives
Public health issues that are not yet associated with evidence-based interventions

Healthy People 2030 Objectives and Measures
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Healthy People 2030

Figure 7: Healthy People 2030 Objectives and Measures

The Ohio Department of Health has aligned statewide community health planning with the Healthy People 2030 approach. With the long-term goal of ensuring that all Ohioans achieve their full health potential, the Ohio state health improvement plan (SHIP) takes a comprehensive approach to achieving equity and addressing the many factors that shape our health, including housing, poverty, education, and trauma (Figure 7).

The SHIP is a tool to strengthen state and local efforts to improve health, well-being, and economic vitality in Ohio. The Partners for a Healthier Ross County have aligned several local CHIP priorities with the SHIP. The SHIP's main components are:
  • Six priorities, including three factors and three health outcomes
  • 37 measurable objectives
  • A menu of evidence-informed strategies
  • An evaluation plan to track and report progress

Equity Health equity is achieved when all people in a community have access to affordable, inclusive and quality infrastructure and services that, despite historical and contemporary injustices, allows them to reach their full health potential.

Priorities The SHIP identifies three priority factors and three priority health outcomes that affect the overall health and well-being of children, families and adults of all ages.

What shapes our health and well-being?
Many factors, including these 3 SHIP priority factors*:

Community conditions
• Housing affordability and quality
• Poverty
• K-12 student success
• Adverse childhood experiences

Health behaviors
• Tobacco/nicotine use
• Nutrition
• Physical activity

Access to care
• Health insurance coverage
• Local access to healthcare providers
• Unmet need for mental health care

How will we know if health is improving in Ohio?
The SHIP is designed to track and improve these 3 SHIP priority health outcomes:

Mental health and addiction
• Depression
• Suicide
• Youth drug use
• Drug overdose deaths

Chronic disease
• Heart disease
• Diabetes
• Childhood conditions (asthma, lead)

Maternal and infant health
• Preterm births
• Infant mortality
• Maternal morbidity

All Ohioans achieve their full health potential
• Improved health status
• Reduced premature death

Vision
Ohio is a model of health, well-being and economic vitality

Strategies The SHIP provides state and local partners with a menu of effective policies and programs to improve Ohio's performance on these priorities.

Figure 8: Ohio 2020-2022 State Health Improvement Plan Framework

PARTNERS FOR A HEALTHIER ROSS COUNTY

Established in 1996, the Partners for a Healthier Ross County is a collaborative, community-based group whose efforts are aimed at improving the quality of life for residents of Ross County. After almost 20 years of each participating agency conducting their own community health assessment and subsequent plans, the group collaborated in 2016 to complete Ross County's first collaborative assessment and strategic plan. The coalition, organized with a memorandum of understanding (MOU), is structured with a steering committee and senior advisory council. Both have representation from the following agencies:
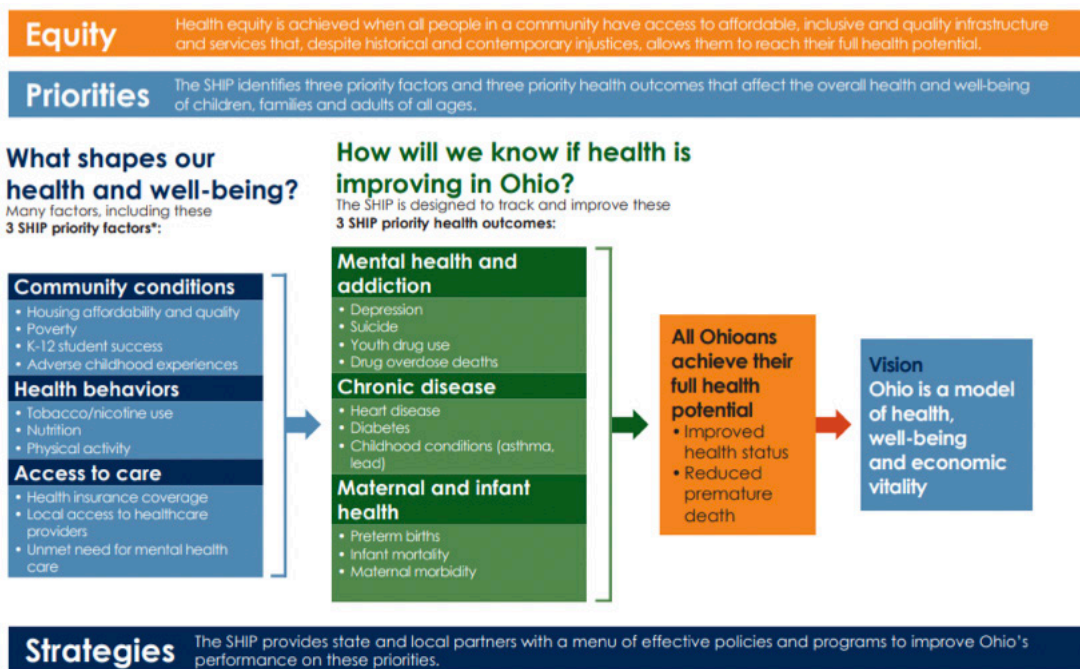

Figure 9: MAPP Four-Part Comprehensive Assessment Process

Adena Health System; Chillicothe & Ross Public Library; City of Chillicothe Parks and Recreation; Hope Clinic of Ross County; Hope Partnership Project; Hopewell Health Center; Ohio State University Extension; Ohio University-Chillicothe; Paint Valley ADAMH Board; Friel and Associates; Ross County Board of Developmental Disabilities/Pioneer Center;, Ross County Community Action; Ross County Health District; Ross County YMCA; Ross County Parks District; Scioto Paint Valley Mental Health Center; United Way of Ross County; Veterans Administration Hospital.

Partners utilizes 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) for its community health The 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 Ross County and to prioritize key public health issues. The data was then used to develop the 2020 CHIP (community health improvement plan).

Utilizing the values of commitment, engagement, communication, and respect, it is the vision of Partners for a Healthier Ross County that all people within the region are empowered and inspired to reach their fullest physical and mental potential in a clean and safe environment through positive community collaborations. By working through strategic initiatives that improve the physical, mental, emotional, and socioeconomic well-being of Ross County residents, that goal will be achieved.
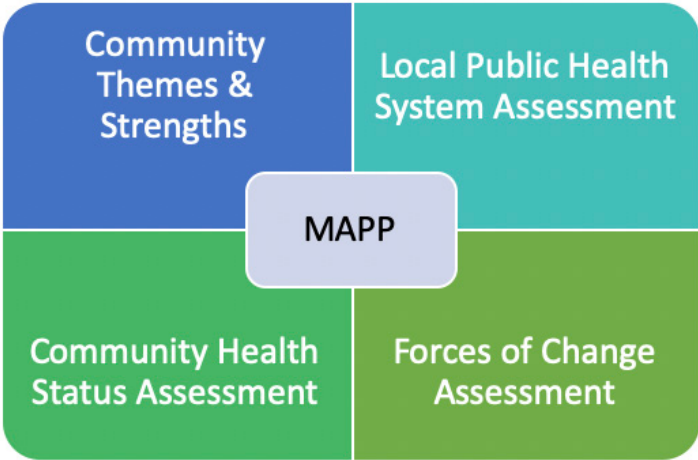
Process

 2022 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 the report reflects Ross County only. Both qualitative and quantitative data were collected from primary and secondary sources. Data was collected in a total of four categories (Figure 7): Community Themes and Strengths; Local Public Health System; Community Health Status; and Forces of Community Change. The information was compiled and evaluated by the Partners steering committee and hospital and public health work teams, in order to finalize specific health-related needs.

The published assessment completed as part of those efforts is intended to inform decision makers and funders about the challenges that Ross County faces with improving community health, and the priority areas in which support is most needed. The information is also intended to be useful as a planning tool for community organizations.

Methods

Quantitative and qualitative methods were used to collect information for the 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 to the issues experienced by the population. Data includes opinions expressed from a widely distributed community health survey - which received more than 1,000 responses - as well as community stakeholder interviews and focus groups.

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 (hospital utilization) 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 is the percentage of survey participants who ranked obesity as a top health need. Secondary data are the statistics and other data already published or reported to government agencies. An example israted of childhood obesity.

Secondary Data: Publicly-Available Statistics

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).

Those 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 of health resource gaps in the community. That 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 year, 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, focus groups, and stakeholder interviews.

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 Ross County where the groups of interest would best be reached. Those include local food banks, social service providers, community health clinics, the public health department, and Adena Health System. In addition, the survey was made available broadly through an electronic survey.

Notices about the online version with its link were posted on member agency's websites, social media pages, and emailed to members of local business, government, civic groups, schools, and universities. All of the hard-copy survey data was entered to the electronic survey by Adena Health System volunteers and Ross County Health District interns.

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 resources needed to improve the health of the community (see Appendix). A total of seven stakeholders were interviewed by two to three representatives from the Partners steering committee. Responses were then reviewed for themes and consensus results.

2019 CHIP PROGRESS REPORT

The Partners for a Healthier Ross County completed its most recent collaborative community health needs assessment (CHNA) in 2019. As part of the 2019 CHA, Partners for a Healthier Ross County agreed to expand on the infrastructure they were able to achieve since their first collaborative assessment in 2016, which included improving systems, creating collaborations, and seeking funding to increase community capacity to improve health.

Beginning with identification of top causes of death, health issues, health behaviors, and environmental factors (Figure 10), Partners for a Healthier Ross County outlined two strategic questions with aligned goals to build a work plan for 2016-2019. That was continued for the 2019 assessment, but expanded to include Access to Care initiatives.

COVID-19 Pandemic Impact to Community Health Assessment and Plan

It should be noted that the 2019 CHNA was completed in December 2019. By the end of the first quarter of efforts to update the CHIP and continue with initiatives, the COVID-19 pandemic forced an immediate re-prioritization of community health needs, with a sole focus on preventing deaths and hospital surges. That focus was maintained well into 2021, with efforts re-focusing on the 2019 CHNA at the beginning of 2022.

Although not a great deal of progress was made on the 2020 CHIP developed from the 2019 CHA, there was some progress in areas, as the community began to transition into a COVID-19 endemic at the end of 2021 and into 2022. The following outlines the 2019 health priorities, as well as the goals and objectives and the progress made.

Health Outcomes Leading Causes of Death
- Heart Disease
- Cancer (all forms)
- Unintentional Injury
- Pulmonary-Respiratory Disease
- Stroke

Health Outcomes Leading Health Issues
- Substance Use Disorder
- Obesity and Diabetes
- Depression and Anxiety
- Lung cancer and COPD
- Child Wellness and Safety

Health Factors Leading Health Behaviors
- Drug and alcohol use
- Mental health management
- Tobacco use and vaping
- Poor nutrition
- Limited primary care utilization

Health Factors Leading Environmental Factors
- Economics and poverty
- Access to basic needs (housing, food and transportation)
- Safety (crime and interpersonal violence)
- Healthcare access (preventative services)
- Air quality

Figure 10: 2019 Ross County Health Priorities

Strategic Question 1:

How do we as a public health community ensure continued access and improve navigation to all points of the public health continuum?

Goal 1:

Demonstrate engagement and cross-system collaboration across the community health continuum in Ross County.

Task	Deliverable	Who	Progress Report
Ongoing assessment of community needs and gaps in resources	Ongoing 211 utilization reports; CMS Utilization Data	Steering Committee (Jones, RCHD Rep); 211 Advisory Committee (Henning); Access to Care Committee (Long, Jones)	2-1-1 Resource and Referral line went live on February 1, 2020. An average of 145 calls are being made each month for housing, food and utility assistance as top community needs.
Establish venues and calendar of engagement for agencies on the continuum to interact and highlight services	Annual quarterly events	Steering committee	Paused during COVID-19 pandemic
Establish inter-agency referral protocol for organizations on the healthcare continuum.	Finalized policy and procedure addendum to MOU	Steering committee	Paused during COVID-19 pandemic
Design and implement a community health assessment education initiative.	Community education plan 100% executed	Steering committee (Jones, RCHD Rep)	Partially executed. Press releases shared with *Chillicothe Gazette*. PHRC social media page announcement. Health department press release. Adena Health System press release
Improve transportation access and navigation in Ross County.	Coordinated transportation plan; mobility management program; utilization and referral data	Ross County coordinated transportation committee (Harris)	Ross County transportation plan completed. Mobility management program in operation with call referrals in place, along with call referral data reports. Active transportation planning completed and active transportation projects underway.
Develop and implement a comprehensive communication plan to highlight community health services.	Yearly communication plan 100% executed	Access to Care committee (Long, Jones)	Access to Care committee paused due to COVID-19 pandemic. Access to Care Committee relaunched in spring 2022. Community health worker pathways program launched by Ross County Health District.
Develop and implement an agency leadership campaign to encourage inter-agency participation, education, and engagement in the continuum and in the community.	Finalized communication plan communication plan 100% executed	Steering committee (Jones, RCHD Rep)	Paused during COVID-19 pandemic

Goal 2:
Develop a long-term sustainability and operations plan for Partners for a Healthier Ross County.

Task	Deliverable	Who	Progress Report
Develop operational infrastructure for coordination of activities and success measurement.	Dashboard of community health metrics business plan	Steering committee Advisory council (Jones, RCDH Rep)	Paused during COVID-19 pandemic
Align CHIP with community development priorities.	Inclusion of community health plan in regional development plans.	Inclusion of community health plan in regional development plans.	Paused during COVID-19 pandemic

Strategic Question 2:
How do we as a public health community impact the culture of acceptance around unhealthy choices and environments?

Goal 1:
Establish a baseline and improvement plan for community health literacy.

Task	Deliverable	Who	Progress Report
Design and implement health literacy measurement initiative across community health continuum.	Healthy literacy survey ED/primary care utilization campaign	Access to Care Committee (Long, Jones)	Paused during COVID-19 pandemic
Create coordinated, accessible, and culturally appropriate health messages around the five health priorities.	# completed surveys with agency participation	Access to Care committee (Long, Jones)	Paused during COVID-19 pandemic
Evaluate agency population outcomes.	Data reports	Access to Care committee (Long, Jones)	Paused during COVID-19 pandemic

Goal 2:
Develop improvement strategies and metrics for success for top health priorities.
Hope Partnership Project

Task	Deliverable	Who	Progress Report
Integrate PHRC CHIP with the heroin partnership Advisory council strategic plan.	Integration plan 100% complete	Steering committee (Jones, RCHD Rep)	Completed
Support youth drug prevention strategy.	Youth drug prevention work plan	Pike-Ross ESD (Kitchen)	Paused during COVID-19 pandemic Aligned in 2022 with Adena Health System school-based health initiative
Support affordable housing.	Complete affordable housing assessment Align with community development plan	Hope Partnership Project (Barker) Ross County Community Action (Bolen)	Affordable housing assessment completed in August 2021
Support employment initiatives that support people in recovery.			
Increase visibility of the Hope Partnership Project.		Hope Partnership Project (Barker, Priest, Gabis)	HSRA RCORP grant funding received September 1, 2019-August 31, 2022 Communication plan completed Plan in process of execution

Ross Mental Health Forum

Task	Deliverable	Who	Progress Report
Align the mental health forum with the Paint Valley ADAMH board strategic plan.	MOU	ADAMH (Swisher)	Paused during COVID-19 pandemic
Develop a comprehensive campaign to reduce mental health stigma.	Communication plan	ADAMH (Swisher) NAMI (Cramner)	Paused during COVID-19 pandemic
Develop operational partnership with courts to reduce recidivism	Special court docket	Municipal Court (Schmidt)	Court docket certification started in spring 2022 and in process as of November 2022.

Breathe Well Ross

Task	Deliverable	Who	Progress Report
Reduce the number of people exposed to secondhand smoke in public spaces or multi-unit housing	Policy development education initiative	Breathe Well Ross (Hardesty)	Health equity workgroup initiated in 2021/2022 to identify strategies to address cessation and policy development for high-risk populations.
Increase community readiness of community orgs and service providers to address tobacco dependence and increase individuals readiness to quit tobacco.	Community training increased cessation services peer support initiative	Breathe Well Ross (Hardesty)	Health equity workgroup initiated in 2021/2022 to identify strategies to address cessation and policy development for high risk populations.
Create evidence of program sustainability.	CHIP integration Increased partnerships	Breathe Well Ross (Hardesty)	Paused during COVID-19 pandemic
Raise community awareness of youth and vaping.	Community training vaping task force community action plan	Breathe Well Ross (Hardesty)	Conducted awareness campaigns with local school district for vaping prevention and cessation.

Live Well Ross

Task	Deliverable	Who	Progress Report
Align Live Well Ross with the "Creating Healthy Communities" grant at RCHD.	CHIP integration	Live Well Ross (Clever)	Completed in 2021
Improve healthy eating across Ross County	Yearly activity plan	Live Well Ross (Clever)	2020 implemented/expanded healthy food access through online ordering for local farmers market. 2022 expanded Chillicothe farmers market to Bainbridge area.
Engage schools with healthy eating education, activities, and initiatives	Education plan Healthy celebrations guide Updated menus	Live Well Ross (Clever)	2020 Completed health eating policy with Paint Valley Schools. 2022 Completed a community garden in partnership with Chillicothe City Schools in target neighborhood
Engage community with healthy eating education, activities, and initiatives		Live Well Ross (Clever)	2021 Completed a community garden in partnership with Chillicothe Ross County Public Library in target neighborhood
Increase active living across Ross County	Active transportation plan	Live Well Ross (Clever)	2020 Implemented and completed Active Transportation planning for Ross County
Improve bike and pedestrian infrastructure	Active transportation plan	Live Well Ross (Clever)	2021 Implemented "Book A Bike" program with Chillicothe Ross Public Library 2021 Implemented and improved bike lane, crosswalk, and active transportation infrastructure in City of Chillicothe 2022 Began "Complete Streets" policy development for City of Chillicothe.

Child Health and Wellness

Task	Deliverable	Who	Progress Report
Align PHRC with the Pike Ross ESD whole child initiative.	MOU Yearly goals and plan	Pike Ross ESD (Kitchen) Steering committee (Jones, RCHD Rep)	Paused during COVID-19 pandemic
Align PHRC with the Appalachian whole child initiative	MOU Yearly goals and plan	ADAMH (Dehner) Ohio University (Hodges)	Paused during COVID-19 pandemic
Review collaboration data and priorities to identify key projects and partnership opportunities	Monthly report	Steering committee Senior advisory council	Paused during COVID-19 pandemic

COMMUNITY PROFILE
Ross County, Ohio

Ross County is located in rural, south central Ohio (Figure 9) and is one of Ohio's 32 Appalachian counties. The county covers 688.5 square miles and is Ohio's second largest county, in terms of geographic area. Only about three percent is used for residential, commercial, or industrial purposes (Ohio Development Services Agency 2014). More than 44% of the land is forested and more than 38% is farmland. The remaining 14% is pasture.

The population of Ross County is 76,666 (U.S. Census Bureau 2018). Approximately 21,738 live in the Chillicothe, the county seat Ross County is divided into two Congressional Districts (2nd and the 15th) and contains the population patterns and distinct economic conditions inherent of the Appalachian region of the U.S., such as low educational attainment, limited economic diversification, and growth.

Community Assets

Seven total community capitals were assessed in a separate study conducted in fall 2015 as part of a Ross County Chamber of Commerce planning exercise and are provided for this report (Jones, 2015). Those include natural, cultural, human, social, political, financial, and built capital. In addition, governance of the region was also researched. The following provides a summary of each of those assessments.

Natural Capital

The Chillicothe and Ross County region is rich in natural capital, including farmland, two local aquifers that supply the county and surrounding region with water, large tracts of forested land, and wildlife. In addition, natural resources were also inventoried and assessed. Almost half of Ross County (400,000 acres) is covered in trees, with 10 total acres inside the city of Chillicothe alone, making the forested areas of the region one of the most important natural capital

Figure 11: Ross County, Ohio

Community Snapshot

Population: **76,666** *(population declining)*

Percent with four-year college degree or higher: 16%

Median household income: $45,792

Families living below 200% of poverty level: 39%

Median gross rent: $721

2018 Unemployment Rate: 4.6%

Largest industrial sector: Service, 16,719 jobs
(top three sectors health, hospitality, trade)

resources. The county also has an ample supply of high-quality water, has rich soil that provides infrastructure to support more than 1,000 farms, and a temperate climate that allows a 140-170 day growing season.

The diversity of the landscape of Chillicothe and Ross County supports a diverse wildlife population. The numerous bodies of water and acres of forestry provide the habitat for many species of birds, mammals, fish, reptiles, amphibians, butterflies, and insects. In addition, numerous plant species are also abundant. Those numerous resources make natural capital one of Chillicothe and Ross County's greatest assets.

Cultural Capital
The Chillicothe and Ross County region has a rich history that dates to pre-historic times. The area has mounds, created by the ancient Hopewell culture, scattered across the county. Themounds were later used by the Native American tribes, who also inhabited the area, in sacred rituals. The Shawnee Tribe was welcoming to European settlers, including Thomas Worthington, who built an estate here. Worthington was Ohio's sixth governor and helped to make Chillicothe Ohio's first capital city. That history draws tourists each year, who can still tour the mounds and the Adena Mansion, the home of Worthington's family. Those tourist attractions are some of the most important cultural capital for the region.

Chillicothe and Ross County are situated in the Appalachian region. The community culture is indicative of that part of the United States. More than a quarter of the population is affiliated with one of the 123 churches in the area, but the area still resonates the independent nature and clan culture that developed in the first settlers in the area. That often limits the willingness of individuals and small groups to integrate and collaborate with others. There is also limited diversity among the population.

Human Capital
Chillicothe and Ross County have access to higher education and numerous civic and philanthropic groups that work to increase the capacity of the residents. That includes a branch of Ohio University, the oldest college in the Midwest. The rates of educational attainment are slowly increasing in the region, partially due to the career ladder opportunities that the college makes available to older students. There are also many civic and philanthropic groups that support education with scholarships and volunteer support. Those resources are some of the most important human capital for the region.

Social Capital
The numerous groups, including churches in the community, engage much of the population, which encourages interaction and collaboration. Currently there are 10.2 associations per 10,000 (county health rankings, 2022) people, which has continued to increase over the years. There is also a developing community council, which is looking at ways to increase engagement. Those are some of the most important social capital for both Chillicothe and Ross County.

Local media also helps to engage the public. *The Chillicothe Gazette*, the only newspaper in the area, has a wide circulation, as does the local radio station, WBEX. In addition, there is a community-based magazine, *Great Seal*, as well as a local outlet Litter Media, which reports mostly through Internet-based venues. Social media utilization has been on the rise over the last 10 years. More than a quarter of the population is now using it and many organizations, including local government agencies, rely on it to inform the public of issues and events. Those resources contribute to the social capital in Chillicothe and Ross County.

Political Capital

Chillicothe and Ross County have a number of organizations and agencies that advocate on the behalf of the population. Those include political groups, socio-economic support agencies, disability support services, and cancer and crime victim support. In addition, there are a number of civic groups that provide volunteer support for many local causes. Those are some of the most important political capital for the area.

There are also a growing number of individuals with economic and outside political capacity who work to influence the community. Most are local business owners interested in developing the region, particularly if it serves to develop their own resources. Such is seen predominantly in the downtown Chillicothe area that is experiencing a rebirth since 2015. That along with their political and economic connections outside the community, also increases their capacity to influence. All of those resources contribute to the political capital of Chillicothe and Ross County.

Built Capital

Chillicothe and Ross County have a tremendous amount of built capital, including a state-supported road, bridge, water, and communication infrastructure, as well as many historic buildings and sites, such as the Hopewell Mounds. There is also a strong civic infrastructure. The local healthcare system provides 261 beds for care. There are also seven local school districts, with approximately 700 staff members. Those are some of the most important built capital for the area.

Housing stock is also ample and newer than in other parts of the state. The median housing value is approximately $111,000, making it affordable for a large segment of the population. There is also a limited amount of low-income housing within the city of Chillicothe and across the county. The City of Chillicothe has a growing land bank that is in development to improve access to housing. All of those resources contribute to the built capital of the area.

Governance

Chillicothe and Ross County has a government structure that is supported by a number of committees and commissions, including seven city commissions dedicated to planning, development, and community improvement. The county is also supported by a three-member board of commissioners that oversees 10 county offices supporting infrastructure, planning, development, and budget management.

Most notable additions to the 2022 public survey.

Due to the mental health indicators identified in the 2022 secondary data collection (suicide rate and quality of life data), more in-depth questions regarding mental health were added to the 2022 community health survey. Questions regarding the COVID-19 pandemic were also added, including questions about community response and where health information was sourced.

2022 Data Review

The Partners for a Healthier Ross County collected a variety of data during 2022 to complete the community health assessment (CHA). The data included both qualitative and quantitative data from primary and secondary sources.

Qualitative data included survey, key stakeholder interviews, and public comment. More than 1,000 surveys were collected from the general public. Response to both primary and secondary data was offered via the Ross County Health District and Partners for a Healthier Ross County social media sites, to provide access to the survey and offer public comment opportunity. 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 Partners agencies. All paper copies of the survey were input to the electronic system by interns of the Adena Health System. In-person interviews were completed for the stakeholder interviews. The interviewees were determined by the steering committee, considering their involvement and association with Partners for a Healthier Ross County and their related perspective.

Quantitative data included demographic, socio-economic, health status, health behavior, health outcomes, and factors data from multiples sources. Those sources included the Ohio Department of Health, the U.S. Census Bureau, and the Ohio Development Services Agency, as well as the Ross County Health District, local law enforcement, and Adena Health System, among others. In addition, new data, including a health inventory and CDC social vulnerability maps, were included in this assessment. Life expectancy data by census was also collected and mapped as part of the data collection.

COUNTY HEALTH RANKINGS

The economic and educational challenges experienced in Ross County and the surrounding region have been correlated to declining health. Many southern Ohio counties, including Ross County, are considered some of Ohio's unhealthiest. A 2022 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 Ross 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. Ross County currently ranks 77th out of 88 counties for health outcomes and 56th for health factors, which is an improvement over recent years.

While Ross County has stayed relatively the same over the last couple of years in terms of health outcomes, health factors have shown significant improvement. Access to healthcare has improved. Socio-economic conditions, such has employment and educational attainment, have also improved. Clinical care is now performing at a level higher than top national performers. The combination of the aforementioned have improved overall ranking for health factors and would indicate eventual improvements in health outcomes. Opportunities exist to improve early death related to accidents, lack of social support, mental health, and health behaviors, like drinking and smoking.

Table 2: Ross County, Ohio Health Rankings 2014-2022

County Health Rankings Ross County, Ohio									
	2014	2015	2016	2017	2018	2019	2020	2021	2022
Outcomes	81	81	74	81	74	76	77	77	77
Factors	69	72	64	64	65	56	55	49	56

2022 County Health Rankings - Ross

	County	Error Margin	Top US Performers	State
County Demographics				
Population	76,420			11,693,217
% below 18 years of age	21.00%			22.00%
% 65 and older	17.70%			17.90%
% Non-Hispanic Black	5.50%			12.70%
% American Indian & Alaska Native	0.40%			0.30%
% Asian	0.50%			2.60%
% Native Hawaiian/Other Pacific Islander	0.00%			0.10%
% Hispanic	1.40%			4.20%
% Non-Hispanic White	89.60%			78.00%
% not proficient in English	0%			1%
% Females	47.90%			51.00%
% Rural	58.70%			22.10%
Health Outcomes (77 out of 88 counties)				
Length of Life -				
Premature death	10,400	9,600-11,300	5,600	8,700
Quality of Life				
Poor or fair health	23%	20-26%	15%	18%
Poor physical health days	4.8	4.5-5.1	3.4	4.2
Poor mental health days	5.6	5.3-5.9	4	5.2
Low birthweight	9%	8-10%	6%	9%
Additional Health Outcomes (not included in overall ranking) –				
COVID-19 age-adjusted mortality	100	80-119	43	87
Life expectancy	74.1	73.5-74.8	80.6	76.5
Premature age-adjusted mortality	520	490-550	290	420
Child mortality	50	30-70	40	60

Infant mortality	6	9-Apr	4	7
Frequent physical distress	16%	14-17%	10%	13%
Frequent mental distress	19%	17-21%	13%	17%
Diabetes prevalence	12%	11-13%	8%	10%
HIV prevalence	158		38	235

Health Factors (56 out of 88 counties)				
Health Behaviors				
	County	**Error Margin**	**Top US Performers**	**State**
Adult smoking	27%	23-30%	15%	22%
Adult obesity	42%	41-44%	30%	35%
Food environment index	7.1		8.8	6.8
Physical inactivity	33%	30-36%	23%	28%
Access to exercise opportunities	63%		86%	77%
Excessive drinking	19%	18-20%	15%	21%
Alcohol-impaired driving deaths	18%	12-25%	10%	33%
Sexually transmitted infections	353.5		161.8	559.4
Teen births	34	31-37	11	21
Additional Health Behaviors (not included in overall ranking) –				
Food insecurity	16%		9%	13%
Limited access to healthy foods	6%		2%	7%
Drug overdose deaths	58	48-68	11	38
Motor vehicle crash deaths	16	12-19	9	10
Insufficient sleep	44%	43-46%	32%	41%
Clinical Care (5 out of 88 counties)				
Uninsured	8%	6-9%	6%	8%
Primary care physicians	1,700:1		1,010:1	1,290:1
Dentists	1,590:1		1,210:1	1,570:1
Mental health providers	200:1		250:1	350:1
Preventable hospital stays	985		2,233	4,338
Mammography screening	41%		52%	45%
Flu vaccinations	47%		55%	51%
Additional Clinical Care Factors (not included in overall ranking) –				
Uninsured adults	9%	7-10%	7%	9%
Uninsured children	5%	4-6%	3%	5%
Other primary care providers	550:1		580:1	830:1

Social and Economic Factors

	County	Error Margin	Top US Performers	State
High school completion	89%	88-90%	94%	91%
Some college	52%	48-56%	74%	66%
Unemployment	8.00%		4.00%	8.10%
Children in poverty	19%	12-26%	9%	17%
Income inequality	4.5	4.2-4.9	3.7	4.6
Children in single-parent households	23%	19-27%	14%	27%
Social associations	10.2		18.1	10.9
Violent crime	247		63	293
Injury deaths	125	114-137	61	96
Additional Social and Economic Factors (not included in overall ranking) –				
High school graduation	84%		96%	83%
Disconnected youth	8%	5-12%	4%	6%
Reading scores	3.1		3.3	3.1
Math scores	2.9		3.4	3
School segregation	0.09		0.02	0.3
School funding adequacy	$420			$927
Gender pay gap	0.74	0.67-0.81	0.88	0.79
Median household income	$49,500	$44,100 to $55,000	$75,100	$60,400
Living wage	$33.69			$37.72
Children eligible for free or reduced price lunch	75%		32%	36%
Residential segregation - Black/white	53		27	69
Residential segregation - non-white/white	31		16	57
Childcare cost burden	26%		18%	27%
Childcare centers	6		12	7
Homicides	3	2-5	2	6
Suicides	18	14-23	11	15
Firearm fatalities	12	9-16	8	14
Juvenile arrests	43			33

Physical Environment

	County	Error Margin	Top US Performers	State
Air pollution - particulate matter	8.8		5.9	9
Drinking water violations	No			
Severe housing problems	13%	11-15%	9%	13%
Driving alone to work	84%	81-86%	72%	82%
Long commute - driving alone	33%	30-36%	16%	31%
Additional Physical Environment (not included in overall ranking) –				
Traffic volume	145			404
Homeownership	71%	69-73%	81%	66%
Severe housing cost burden	12%	10-14%	7%	12%
Broadband access	81%	79-83%	88%	85%

Note: Blank values reflect unreliable or missing data

Demographic Characteristics

A profile of Ross 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 such information must be reviewed with public opinion data (provided in the next section) to develop a clear understanding of the state of health of a particular community. The following tables describe the population in relation to diversity.

Population Data

The current total population of Ross County is estimated at 76,666. This is a 1.79% decrease in population since 2010, even though current estimates indicate a population decrease since 2010. This is significantly less growth than what is currently seen in Ohio as a whole and across the U.S.

Age, Sex, Ethnicity, Immigration, Veterans Disability Status

Approximately 54% of the population is between the ages of 25 and 64. About 16.6% of the population is over the age of 65, which is increasing. The majority of the population is white, with African Americans making up the majority of the region's minority population. Table 4 provides demographic information reported by the U.S. Census Bureau's American Community Survey from 2013-2017 for Ross County.

Table 3: Ross County, Ohio Population Patterns

Year	Ross County	Ohio	U.S.
2010	78,064	11,536,504	308,745,538
2015	77,049	11,617,527	320,635,163
2019	76,666	11,689,100	328,239,523
Percent Change	-1.79%	1.32%	6.31%

Source: U.S. Census Bureau, 2019
Information was found from Table PEPANNRES: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019

Table 4: Ross County, Ohio Population Demographics

Population Demographics	Ross 2019*	Ross 2022	Ohio 2022	U.S. 2022
Age (Table S0101)				
0-17 Years	21.7%	21.3%	22.2%	22.4%
18-24 Years	8.0%	7.8%	9.1%	9.3%
25-44 Years	25.9%	25.7%	25.1%	26.5%
45-64 Years	28.9%	28.6%	26.5%	25.6%
65 years or more	15.4%	16.6%	17.0%	16.0%
Race & Ethnicity (Table DP05)				
African American	5.2%	5.7%	12.4%	12.6%
Asian	0.6%	0.5%	2.3%	5.6%
Hispanic (of any race)	1.2%	1.3%	3.9%	18.2%
American Indian/ Alaska Native	0.02%	0.0%	0.2%	0.8%
Native Hawaiian/ Pacific Islander	0.02%	0.0%	0.0%	0.2%
White	90.3%	90.2%	80.5%	70.4%
Other	0.6%	0.4%	1.1%	5.1%
Two or more races	3.4%	3.1%	3.6%	5.2%
Gender (Table DP05)				
Male	52.7%	52.2%	49.0%	49.2%
Female	47.3%	47.8%	51.0%	50.8%
Veterans (Table S2101)				
Veterans	9.9%	8.7%	7.6%	7.1%
Disabilities (Table S1810)				
Any age	20.0%	20.4%	14.0%	12.7%
Under the age of 18	7.9%	5.8%	5.0%	4.3%
Ages 18-64	19.0%	18.8%	11.9%	10.3%
65 years and over	41.8%	45.0%	34.0%	34.0%

Household and Location

The average household size in Ross County is slightly larger in comparison to households across Ohio, but smaller than the U.S. average, which holds true for the percentage of households with children under the age of 18 years. Female-headed households with children under the age of 18 are notably higher in Ross County, as compared with the rest of Ohio and U.S.

Table 5: Ross County, Ohio Households

Families and Living Arrangements – Size and Status	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Households *(Table S1101 & S1001)* [1]				
Total Households	**28,526**	**29,080**	**4,717,226**	**122,354,219**
Average household size	2.49	2.44	2.41	2.60
Family households with children (under 18 years of age)	28.3%	26.8%	25.9%	27.3%
Children (under 18 years of age) living with a grandparent householder with no parent present	N/A	N/A	1.7%	1.4%
Female-led households with children (under 18 years of age)	8.9%	7.5%	6.9%	6.4%
Marital Status *(Table S1201)* [1]				
Never-married males	33.4%	34.0%	35.8%	36.6%
Never -married females	23.3%	24.6%	29.7%	30.5%
Now-married males	48.3%	47.2%	48.9%	49.7%
Now-married females	50.9%	49.7%	46.1%	46.6%
Divorced males	12.6%	14.0%	10.8%	9.4%
Divorced females	15.2%	14.9%	13.1%	12.1%

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
Source 1: U.S. Census Bureau; 2016-2020 American Community Survey Estimates

Vital Statistics Data
The leading causes of death, particularly premature death, as well as illness and injury are indicators of the primary health challenges facing a population in a particular region. They can also indicate a population's most prevalent health risk factors. The life expectancy of a Ross County resident is 74.1 years, which is lower than the average age of an Ohioan (76.7 years o) or those who live in some of the U.S.' healthiest communities (80 years).

Premature Death
The premature death rate in Ross County is considerably higher (10,400) than Ohio (8,700), as well as in the U.S. (7,300). Some related factors, like suicide and infant and child mortality contribute. Rates for those factors are much higher than state and national statistics.

Table 6: Premature Death in Ross County, Ohio

	Ross County	Ohio	U.S.
Premature death rate	10,400	8,700	7,300
Suicide rate	17.5	14.6	13.6
Infant mortality rate (per 1,000 live births)	6.2	7.1	5.8
Child mortality rate (per 100,000 population)	49.3	56.9	48.1

Source1: County Health Rankings, 2022
Source 2: Ohio Department of Health Public Health Information Warehouse, Mortality, 2015-2019
Source 3: Centers for Disease Control and Prevention, CDC Wonder, Underlying Cause of Death, 2015-2019
Source 4: CDC Wonder, 2014-2020, as compiled by 2022 County Health Rankings
Source 5: CDC Wonder, Linked Birth/Infant Death Records, 2014-2019
Source 6: CDC Wonder, Underlying Cause of Death, 2017-2020

Suicide

Suicide rates in Ross County are higher overall (17.5), as compared with the state (14.6) and the U.S. (13.6). Rates among youth ages 15-24 are considerably higher than the state and national levels, as well as among those who are 65 and older.

Table 7: Ross County, Ohio Age-Adjusted Suicide Rate per 100,000 Population by Demographics

Suicide Deaths by Demographics (Age-adjusted rate per 100,000 population)	Ross County 2022 [1]	Ohio 2022 [1]	U.S. 2022 [2]
Female	--*	5.9	6.1
Male	28.9	24.0	22.0
14 and younger	0.0	1.1	1.2
15-24	24.3	14.6	13.7
25-34	22.9	19.1	17.0
35-44	23.6	20.4	17.7
45-54	19.7	20.4	19.9
55-64	21.8	18.8	19.2
65 and older	20.8	16.5	16.9
Total Suicide Rate	17.5	14.6	13.6

*--* Indicates rates have been suppressed for low, unreliable counts*
Source 1: Ohio Department of Health Public Health Information Warehouse, Mortality, 2015-2019
Source 2: Centers for Disease Control and Prevention, CDC Wonder Underlying Cause of Death, 2015-2019

Leading Causes of Death

The three leading causes of death in Ross County are cancer (all kinds), heart disease, and unintentional injuries. Deaths related to chronic lower respiratory diseases are a very close fourth cause. The rate of death for each of those conditions is significantly higher than state and national averages. Most unintentional deaths were due to drug overdoses. That statistic had steadily decreased since 2017 with the broad deployment of Naloxone the community and additional resources to mitigate substance abuse disorder. However, the COVID-19 pandemic and the limits it placed on treatment access significantly impacted the overdose rates in the community, which have seen a spike during 2020 and 2021. Traffic accidents with drivers/passengers who are unbelted are the other leading cause of accidental deaths.

Figure 4: Average Age-Adjusted Rate of Unintentional Drug Overdose Deaths by County, Ohio (2015-2020)
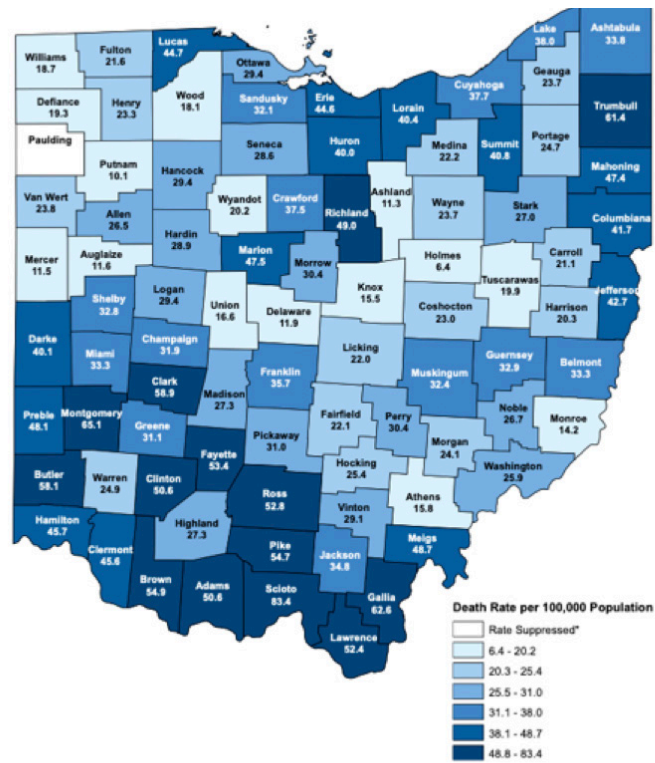
Source: Ohio Department of Health, Bureau of Vital Statistics. U.S. Census Bureau (Vintage 2020 population estimates). Analysis: ODH Violence and Injury Prevention Section. Includes Ohio residents who died due to unintentional drug poisoning (underlying cause of death ICD-10 codes X40-X44). County is determined by county of residence.

Table 8: Ross County, Ohio Leading Causes of Death, Age-Adjusted Rate per 100,000 Population

Cause of Death (Age-adjusted rate per 100,000 population)	Ross County 2019*	Ross County 2022 [1]	Ohio 2022 [1]	U.S. 2022 [2]
Cancer	196.2	191.8	169.6	152.3
Heart disease	206.3	185.9	188.6	164.8
Unintentional injury	75.6	94.4	65.8	47.5
Chronic lower respiratory diseases	73.9	76.0	48.1	40.2
Stroke	42.8	42.9	41.8	37.3
Alzheimer's Disease	N/A	39.5	33.4	30.2
Diabetes	34.1	38.7	25.2	21.3
Total Death Rate	958.0	958.0	835.3	726.3

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

N/A- Data unavailable

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

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

Table 9: Ross County, Ohio Leading Causes of Death, Crude Rate per 100,000 Population

Cause of Death (Crude rate per 100,000 population)	Ross County 2019* (crude rate per 100,000 population)	Ross County 2022 (crude rate per 100,000 population)
Cancer	237.8	261.3
Heart disease	218.4	232.6
Unintentional injury	88.8	108.8
Chronic lower respiratory diseases	107.6	93.8
Diabetes	48.6	48.2
Stroke	54.4	46.9
Alzheimer's disease	40.2	40.4
Total Death Rate	1,115.9	1,195.0

*See Ross County 2019 Community Health Needs Assessment for sources
and years of data reported
Source: ODH Public Health Information Warehouse, Mortality, 2018-2019

While lung cancer deaths are much higher than state and national averages, deaths from prostate and breast cancer are lower. Colorectal cancer deaths are higher than state and national averages.

Table 10: Ross County, Ohio Age-Adjusted Cancer Mortality Rates per 100,000 Population

Forms of Cancer	Ross County 2019*	Ross County 2022 [1]	Ohio 2022 [1]	U.S. 2022 [2]
Lung	61.2	57.7	45.0	36.7
Prostate	7.3	18.4	19.4	18.8
Colon and rectal	N/A	16.4	14.8	13.4
Breast	11.3	11.9	12.0	11.0
Ovarian	N/A	5.4	6.5	6.5
Oral cavity & pharynx	N/A	3.6	2.8	2.5
Larynx	N/A	--*	1.2	0.9
Testicular	N/A	--*	0.3	0.3

*See Ross County 2019 Community Health Needs Assessment for sources and
years of data reported
N/A – Data unavailable
--* Indicates rates have been suppressed for low, unreliable counts
Source 1: ODH Public Health Data Warehouse, Mortality, 2015-2019
Source 2: CDC Wonder, 2015-2019

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 the population's most prevalent health behaviors.

Obesity and Related Issues

More than 42% of Ross County's residents are obese. Obesity rates are considerably higher than state (35.5%) and national averages (31.9%). The percentage of the population with other health conditions – diabetes, high cholesterol, high blood pressure, and heart disease – is similar to the state and national averages.

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

Illness and Disease	Ross County 2022	Ohio 2022	U.S. 2022
Obese	42.3% [2]	35.5% [1]	31.9% [1]
Diabetes	11.7% [2]	12.4% [1]	10.6% [1]
High cholesterol	N/A	32.8% [3]	33.1% [3]
High blood pressure	N/A	34.5% [3]	32.3% [3]

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source 1: CDC, 2020 BRFSS, Crude-Rate
Source 2: CDC, 2019 BRFSS Age-Adjusted Rate, as compiled by County Health Rankings, 2022
Source 3: CDC, 2019 BRFSS, Crude-Rate

Respiratory Issues

Pulmonary and respiratory issues are also prevalent in Ross County. More than 10% of the population experiences asthma, which is higher than state (9.9%) and national (9.6%) averages.

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

Illness and Disease	Ross County 2022 [1]	Ohio 2022 [2]	U.S. 2022 [2]
Currently have asthma	10.4%	9.9%	9.6%
Ever been told they have asthma	N/A	14.4%	14.2%
Ever been told they had COPD	N/A	8.0%	6.2%

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source 1: CDC, State Maps for Asthma Prevalence, 2016-2018
Source 2: 2020 BRFSS, Crude-Rate

Cancer

Of all cases of cancer experienced in Ross County, prostate, lung, breast, and colorectal cancers are most often experienced. The rate of breast cancer occurrence in Ross County (60.2) is less than state (66.7), but higher than national (57.3) averages. The same is true of prostate cancer occurrence. The occurrence of lung, cervical, and colorectal cancer, however, is higher, with lung cancer occurrence considerably higher (87.8) than state (66.7) and national (57.3) averages.

Table 13: Ross County, Ohio Age-Adjusted Cancer Incidence Rates per 100,000 Population

Forms of Cancer	Ross County 2019*	Ross County 2022 [1]	Ohio 2022 [1]	U.S. 2022 [2]
Prostate	66.0	96.9	112.5	106.2
Lung	94.7	87.8	66.7	57.3
Breast	117.6	60.2	69.9	67.7
Colon and rectal	42.6	42.2	40.5	38.0
Oral cavity & pharynx	13.3	15.0	12.5	11.9
Cervical	11.4	9.0	7.9	7.7
Ovarian	15.2	7.6	10.0	10.7
Testicular	3.8	7.6	5.8	5.7
Esophagus	5.4	7.5	5.6	4.5
Brain	7.3	6.5	7.1	6.5
Larynx	5.7	6.3	3.9	3.1

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
Source 1: ODH Public Health Data Warehouse, Cancer Incidence, 2015-2019
Source 2: CDC Wonder, Cancer Incidence, 2014-2018

Sexually Transmitted Disease Data

The overall rate of occurrence for sexually transmitted disease is considerably lower than state and national averages.

Table 14: Ross County, Ohio Sexually Transmitted Diseases

Sexually Transmitted Diseases	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Chlamydia (rate per 100,000 population)	209.9	301.3 [1]	504.8 [1]	481.3 [2]
Gonorrhea (rate per 100,000 population)	106.3	50.4 [1]	262.6 [1]	206.5 [2]
HIV (rate per 100,000 population)	N/A	89.0 [3]	214.6 [3]	379.7 [4]
Hepatitis C (rate per 100,000 population)	N/A	217.8 [5]	111.0 [5]	N/A
Hepatitis A (rate per 100,000 population)	N/A	N/A	15.4 [6]	5.7 [6]

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source 1: ODH STD Surveillance, 2020
Source 2: CDC STD Surveillance State Ranking Tables, 2020
Source 3: ODH Ohio HIV Surveillance Annual Report, 2020
Source 4: CDC, HIV National Profile, Prevalence, 2019
Source 5: ODH, 2020 Ohio Hepatitis C: Surveillance Summary
Source 6: CDC, 2019 Viral Hepatitis Surveillance Report, 2015-2019

Mental Health Data

The average number of poor mental health days reported in Ross County is slightly higher (5.6 days) than the rest of Ohio (5.2 days) and the U.S. (4.5 days). Days of frequent mental distress is also higher.

Table 15: Ross County, Ohio Mental Health

Mental Health	Ross County 2022	Ohio 2022	U.S. 2022
Adult depression – ever been told that they have a form of depression [1]	N/A	22.0%	19.6%
Average number of poor mental health days in past 30 days [2]	5.6	5.2	4.5
Frequent mental distress – adults reporting 14+ days of poor mental health per month [2]	19.2%	17.1%	N/A
Youth mental health – felt sad or hopeless almost every day for two or more weeks in a row that they stopped performing some usual activities within the past 12 months[3]	N/A	33.0%	36.7%

N/A – Data Unavailable
Source 1: CDC, 2020 BRFSS, Crude-Rate
Source 2: CDC, 2019 BRFSS Age-Adjusted Rate, as compiled by 2022 County Health Rankings
Source 3: CDC, YRBS 2019

Maternal Health

The rate of low birth weights in Ross County is higher than the state average and national averages. The rate of maternal smoking is significantly higher (23.4%) than the rest of Ohio (11.5%) and the U.S. (5.5%). The number of women who prenatal care within their first trimester of pregnancy is improving, although it's still not as high as the U.S. average. The number of mothers who breastfeed at discharge is considerably lower than the rest of Ohio and U.S.

Table 16: Ross County, Ohio Maternal Health

Maternal Health	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Low birth weight (1500g-2499g)	9.7%	7.8% [1]	7.1% [1]	6.9% [2]
Very low B=birth weight (<1500g)	1.3%	0.7% [1]	1.4% [1]	1.3% [2]
Pre-term birth (<37 weeks gestation)	11.4%	10.5% [1]	10.3% [1]	10.3% [2]
Maternal smoking (any tobacco smoking during pregnancy)	27.9%	23.4% [1]	11.5% [1]	5.5% [2]
First trimester prenatal care	68%	70.6% [1]	68.9% [1]	76.1% [2]
Late prenatal care (in third trimester)	2%	--*	4.2% [1]	4.2% [2]
Breastfeeding at discharge	N/A	63.0% [1]	75.0% [1]	71.0% [2]
Unmarried	N/A	49.4% [1]	43.6% [1]	36.0% [2]

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
--* Indicates rates have been suppressed for low, unreliable counts
N/A – Data unavailable
Source 1: Ohio Department of Health, Data Warehouse 2020
Source 2: CDC Wonder, Natality, 2020

Birth Rate

The crude rate of birth in Ross County is less than (9.7) the state (11.1) and national (11) averages, as compared by 1,000 population. The rate of teen births per 1,000 has improved and is now less than the state average but still higher than the national average.

Birth Rates	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Total births	862	745 [1]	129,313 [1]	3,613,647 [2]
Teen birth rates (Ages15-19 per 1,000 population)	51.0	16.5 [3]	17.6 [4]	15.4 [5]
Crude birth rate (per 1,000 population)	N/A	9.7 [1,6]	11.1 [2]	11.0 [2]

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A- Data unavailable
Source 1: Ohio Department of Health Public Health Information Warehouse, Birth Resident, 2020
Source 2: CDC Wonder, 2020 Natality
Source 3: Untied States Census Bureau ACS 5-Year Estimates, Fertility, 2020
Source 4: CDC, National Center for Health Statistics, Ohio Key Health Indicators, 2020
Source 5: CDC, National Center for Health Statistics, Teen Births, 2020
Source 6: United States Census Bureau Quick Facts, Population Estimates, 2020

Child Health

Nearly 700 children were screened for lead exposure in 2020, with 1% testing with elevated blood levels.

Child Health	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Children lead-screened (under age 6)	612	695	143,705	N/A
Percentage of those with confirmed elevated blood levels ($\geq 5\mu g/dL$) (under age 6)	2%	1%	2%	N/A

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source: ODH Public Health Data Warehouse, Lead Data, 2020

Oral Health

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

Table 19: Oral Health in Ross County

Oral Health	Ross County	Ohio	U.S.
Percentage of children with untreated cavities	20.8%	17%	N/A
Percentage of children with one or more dental sealants	57.9%	49%	N/A
Percent of children with a history of tooth decay	54.5%	51%	N/A

Source: Ohio Department of Health, 2015-2016
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

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 Ross 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 33% of Ross County residents are not engaging in sufficient physical activity or getting enough fruits and vegetables in their diet. Alcohol consumption is not as high as other parts of Ohio and the U.S,. but smoking prevalence continues to be much higher.

Table 20: Ross County, Ohio Adult Health Behaviors

Health Behaviors	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Physical inactivity (did not participate in any physical activities in past month)	30%	33.1% [1]	27.6% [1]	26.3% [2]
Fruit consumption (fewer than one time per day)	N/A	N/A	42.7% [2]	39.3% [2]
Vegetable consumption (fewer than one time per day)	N/A	N/A	20.2% [2]	20.3% [2]
Current drinkers (had at least one drink of alcohol within the past 30 days)	N/A	N/A	50.8% [3]	52.9% [3]
Binge drinkers (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	N/A	18.9% [1]	20.7% [1]	16.8% [2]
Current smokers	23.4%	27.0% [1]	21.8% [1]	16.0% [2]
Current e-cigarette users	N/A	N/A	5.4% [4]	5.6% [4]

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source 1: 2019 BRFSS age-adjusted rate, as compiled by County Health Rankings, 2022
Source 2: BRFSS, Crude Prevalence, 2019
Source 3: BRFSS, Crude Prevalence, 2020
Source 4: 2018 BRFSS, as compiled by State Tobacco Activities Tracking and Evaluation System

HEALTHCARE SYSTEM

The Ross County community has a regional medical center/hospital (Adena Regional Medical Center) serving the broader community, as well as a regional medical center dedicated to serving veterans (Chillicothe VA Medical Center). Both facilities have emergency departments, as well as inpatient psychiatric units. The community also has a medical residency clinic, one federally qualified health center (FQHC), and a free clinic, providing a wide range of options to access primary and specialty medical care.

Healthcare System Utilization

There is one hospital in Ross County-- Adena Regional Medical Center. The 261-bed hospital provides emergency services, cancer care, orthopedics, cardiology, women's, and children's healthcare, in addition to other specialty services. The following provides information utilization of services by the population.

Table 21: Local Hospital Utilization

Leading Hospitalization Rates	Ross County	Ohio
Septicemia	13	6.2
Lung & respiratory issues	12.4	14
Psychiatry	7.3	5.7
Acute MI	2.9	1.4

Source:
Adena Regional Medical Center
Population - 2010 US Census Data
US Utilization - Analysis of American Hospital Association Annual Survey data, 2016, for community hospitals.

Healthcare Service Access

Ross County has a partial medically underserved area (MUA) designation, as well as a partial medically underserved population (MUP), which is due to the limited number of providers who access Medicaid and the geographic isolation experienced in the more rural areas of the county. The area is considered a healthcare provider shortage area (HPSA), due to limited access for some specialty services.

Table 22: Ross County, Ohio Health Services

Health Services	Ross County 2019*	Ross County 2022
Number of physicians	160	x
Health professional shortage area	Yes	Yes
Number of free clinics	1	1
Number of FQHCs (federally qualified health center)	2	2

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source: Health Resources and Services Administration, Health Professional Shortage Area (HPSA) Find

ACCESS TO HEALTHCARE:
Primary Care, Oral Health and Mental Health

Ross County has some limited capacity to provide healthcare services. There are currently 1,640 patients for every primary care provider. There are 1,600 patients for every dentist in Ross County. The number of mental health providers has increased to improve access to mental and behavioral health services. There is now a provider for every 220 patients in Ross County. That ratio is better than Ohio (380:1) and nearing some of the top U.S. performers. Ross County's clinical care is rated fifth out of 88 counties in Ohio, helping to improve its health factors.

Table 23: Ross County, Ohio Health Care Provider Access

Provider Access	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Patient to Provider Ratio				
Primary care [1]	1,640:1	1,640:1	1,300:1	1,320:1
Oral health care [2]	1,840:1	1,600:1	1,560:1	1,400:1
Mental health care [3]	340:1	220:1	380:1	380:1

See Ross County 2019 Community Health Needs Assessment for sources and years of data reported

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

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

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

Insurance Coverage

Similar to Ohio and the rest of the U.S., a little more than 5% of Ross County children under the age of 19 lack health insurance. Nearly half of children in Ross County access healthcare services with Medicaid, which is more than state and national rates. More than 8% of the total population does not have health insurance, which has increased since 2019.

Table 24: Ross County, Ohio Health Care Services

Health Care Access	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Insurance				
Total population without health insurance (under age 65)	7.9%	8.3% [1]	8.4% [1]	12.3% [1]
Children without health insurance (under age 19)	5.4%	5.4% [1]	4.4% [1]	5.2% [1]
Medicaid				
Insured population using Medicaid	N/A	25.2% [2]	20.5% [2]	20.1% [2]
Children under 19 using Medicaid	N/A	42.3% [2]	36.2% [2]	37.9% [2]
Medicaid births	N/A	N/A	52.9% [3]	41.7% [4]

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A- Data unavailable
Source 1: U.S. Census Bureau, 2016-2020, Table S2701
Source 2: U.S. Census Bureau, 2016-2020, Table S2704
Source 3: Ohio Department of Medicaid, Report on Pregnant Women, Infants, and children – SFY 2020
Source 4: CDC Wonder, Natality, 2020

PUBLIC HEALTH AND PREVENTION
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 Ross County Health District (RCHD) 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, those diseases are reported to local health district according to the Ohio Administrative Code (OAC) Chapter 3701-3 (OAC, 2019).

The RCHD 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 RCHD 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). In 2021, 983 cases of communicable diseases were reported among Ross County residents, compared to 755 cases in 2017.

When communicable diseases are investigated and are determined to be a threat to people and communities in Ross County, the Ross County Health District implements control measures, through health education/awareness, enforcement actions, and interventions to help reduce the spread of communicable diseases. That can be done through a variety of measures and in many times is done with cooperation from our local healthcare network and community stakeholders. In 2021, 983 cases of communicable diseases were reported among Ross County residents, compared to 755 cases in 2017.

Table 25: 2020-2021 Ross County Reported Communicable Diseases

Communicable Disease	2019 Cases	2020 Cases	2021 Cases	Total Cases
Chlamydia trachomatis infections	280	238	222	740
Hepatitis C	212	169	138	519
Gonorrhea (neisseria gonorrhoeae)	81	51	55	187
Influenza-hospitalized	98	104		
Hepatitis B	43	52	49	144
Campylobacteriosis	10	15	25	50
Salmonellosis			8	
Steptococcus pneumoniae, invasive	5	9	18	32
Syphilis	5	4		
Pertussis	8	4		
Strep Group A, invasive	0	12	8	20
Spotted fever Rickettsiosis	9	5		
Lyme disease	14	11	38	63
Haemophilis influenza, invasive	0	4		
Coccidioidomycosis	0	5		

Source: Ross County Health District's Communicable Disease Program and RCHD Annual Reports (2019, 2020, 2021)

COVID-19 and Vaccination

The COVID-19 pandemic was slow to hit most rural Ohio communities, including Ross County. However, cases peaked in 2021, as vaccines started to become available to the general public. Both the public health system and local healthcare systems made vaccines widely available as supply allowed. The percentage of those taking the vaccine in Ross County was about 10% less than the rest of the state and approximately 25% less than the rest of the U.S.

Table 26: Ross County, Ohio COVID-19

COVID-19	Ross County 2022 [1]	Ohio 2022 [1]	U.S. 2022 [2]
COVID-19 vaccine started* (at least one dose of a COVID-19 vaccine)	52.1%	62.6%	77.8%
COVID-19 vaccine completed* (completion of the original COVID-19 vaccine series, not including booster doses)	48.5%	58.1%	66.3%
COVID-19 total cases*	19,464	2,743,577	82,820,565
COVID-19 total hospitalizations*	1,023	116,307	N/A
COVID-19 Total Deaths*	301	38,590	998,512

*Total as of May, 2022
N/A – Data Unavailable
Source 1: ODH, COVID-19 Dashboard
Source 2: CDC, COVID Data Tracker

Public Health Funding

Public health funding for Ross County comes from a variety of funders, including a local 1.0 mil tax levy for Ross County, which brings approximately $1.4 in revenue to the Ross County Health District to support foundational public health services and essential public health programs, services, and strategies. Additional funding is needed in Ross County outside of the 1.0 mil tax levy. In some cases, program-specific services, such as food service inspections, water and sewage system permitting and inspections, clinical health services for immunizations, public health nursing, birth and death certificates, and several other services are supported by local fees and revenues. For some public health services, RCHD relies on state and federal funding. In 2021, RCHD received funding for injury prevention, public health emergency, maternal and child health services from both federal and state public health grants. In 2021, with help from strong community partnerships and community collaborations, RCHD was able to secure additional state and federal grants/ undoing for multiple public health initiatives including tobacco use prevention and cessation; chronic disease prevention; mobility and transportation advocacy to improve access to healthcare; opioid data sharing; and Naloxone distribution, which all correlate with strategies and public health initiatives and which influenced Partners for a Healthier Ross County's 2020 HIP.

Figure 15: Public Health Funding in Ross County, Ohio 2021
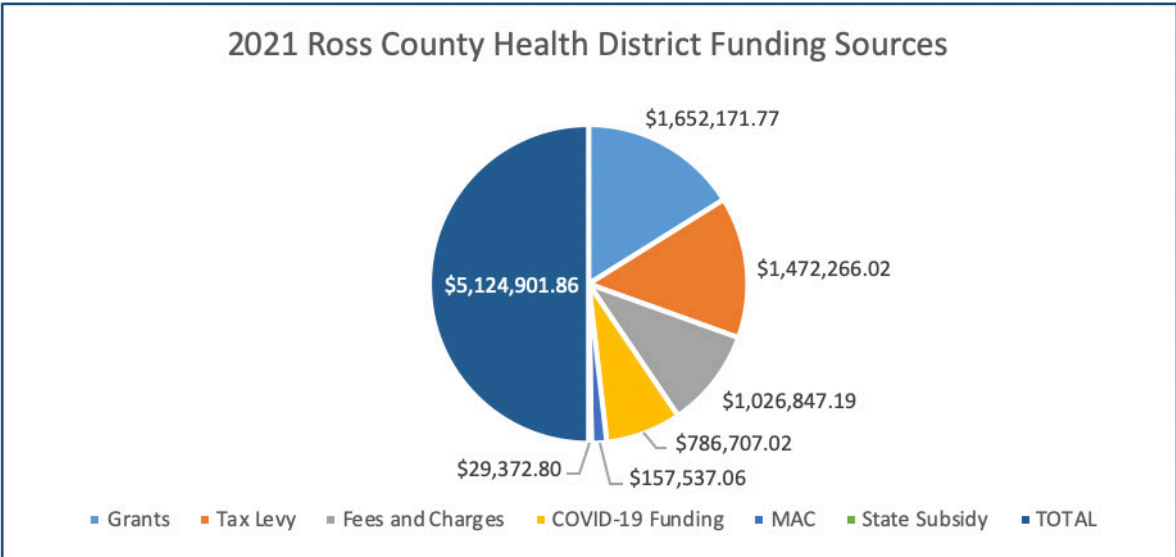
Source: Ross County Health District 2021 Annual Report

Public Health Services and Accreditation

There are many foundational public health services, which in Ross County are supported by a combination of local tax levy dollars, local fees and revenue, and state and federal grants. Figure 16 provides a summary of what is provided in Ross County, as well as how it is supported by the local government and community.

Figure 16: Foundational Public Health Services in Ross County, Ohio
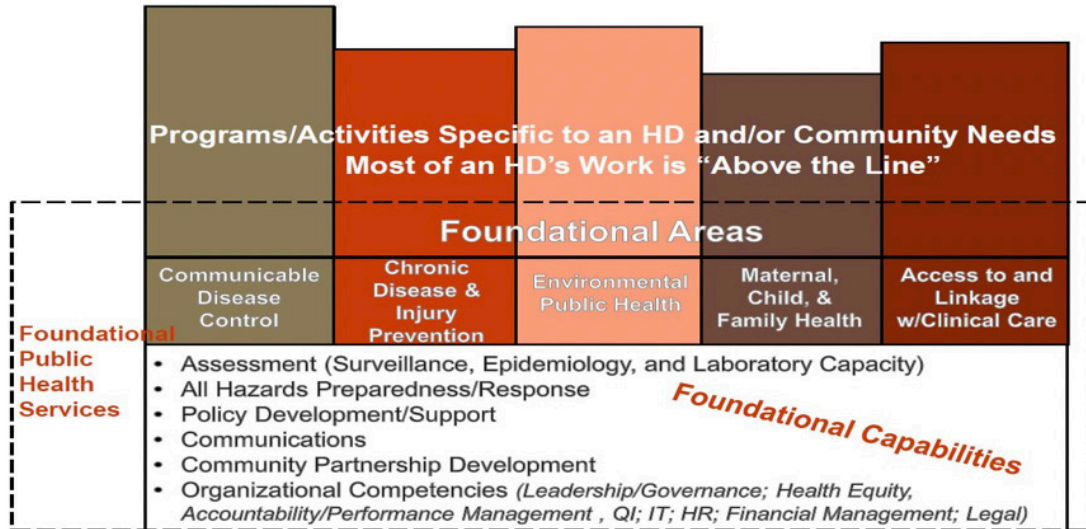
Source: Ross County Health District

Figure 17 outlines the essential public health services of the public health system. Ross County Health District focuses on providing the 10 essential public health services in many programs, services, and interventions to improve health outcomes. Implementing methods from 10 essential public health services is the foundation of RCHD efforts toward becoming a nationally accredited health district.

Figure 17: Essential Public Health Services
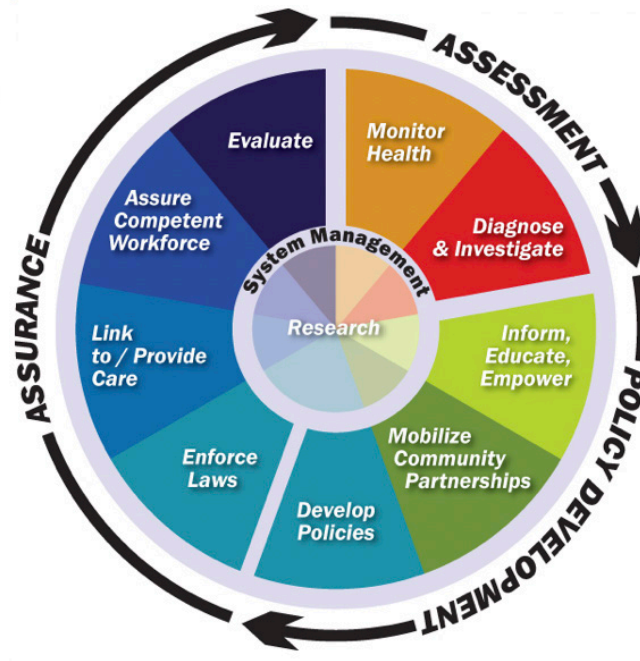
Source: Ross County Health District

SOCIAL AND ECONOMIC ENVIRONMENT

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

Education

Approximately 11.1% of the adults in Ross County have not graduated from high school. That percentage is higher than Ohio (9.2%), but the same as the national (11.5%) average. More than 16% percent of the population holds a Bachelor's degree or higher, which is significantly lower than state (28.9%) and national (32.9%) averages.

Table 27: Ross County, Ohio Educational Attainment

Education Level (persons 25 years of age or older)	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
No high school diploma	13.3%	11.1%	9.2%	11.5%
High school graduate	43.4%	44.4%	32.8%	26.7%
Some college, no degree	18.2%	20.1%	20.3%	20.3%
Associate degree	9.1%	8.1%	8.8%	8.6%
Bachelor's degree or higher	16%	16.2%	28.9%	32.9%

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

Source: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table S1510)

Employment Status

The unemployment rate in Ross County (4.1%) is currently comparable to the Ohio and U.S. average. However, nearly 47% of the population is not in the workforce, which is higher than the state and national averages (36%).

Table 28: Ross County Employment Data

Employment Status	Ross County	Ohio	U.S.
Civilian labor force (16 years of age or older)	53.3%	63.1%	63.0%
Employed[2]	49.2%	59.1%	58.9%
Unemployed [2]	4.1%	4.1%	4.1%
Not in the workforce [2]	46.7%	36.8%	36.6%

Source: U.S. Census Bureau, 2013-2017, (Table DP03)

Industry and Occupations

The private sector provides more than 65% of the employment opportunities in Ross County, with service providing organizations providing more than 45% of those opportunities. More than 20% of the population is employed by a local, state, or federal agency. Ross County has almost 27% of its workforce employed in education, healthcare, and social services occupations. Another 17.6% are employed in manufacturing occupations and more than 13% hold jobs in the retail sector.

Table 29: Ross County, Ohio Economics, 2020

Industrial Sector	Estimated Employment	%
Total civilian employed population (16 years and over)	**30,904**	**100.0%**
Educational services, and health care; social assistance	8,313	26.9
Manufacturing	5,450	17.6
Retail trade	4,058	13.1
Arts, entertainment, and recreation; accommodation and food services	2,342	7.6
Professional, scientific, and management; administrative and waste management services	1,975	6.4
Transportation and warehousing; utilities	1,863	6.0
Public administration	1,807	5.8
Construction	1,721	5.6
Other services, except public administration	1,366	4.4
Finance and insurance; real estate and rental and leasing	1,059	3.4
Wholesale trade	433	1.4
Information	330	1.1
Agriculture, forestry, fishing and hunting; mining	187	0.6

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

Income & Poverty

The per capita, median, and mean household incomes in Ross County are lower than the state and U.S. averages. Poverty rates are also higher than state and national averages but lower than the rest of the region. More than 19% of children are living at or below 100% of the federal poverty level (FPL).

Table 30: Ross County, Ohio Income and Poverty Data

Income & Poverty	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Income				
Per capita income [1]	$22,714	$25,576	$32,465	$35,384
Median family income [1]	N/A	$64,677	$74,391	$80,069
Median household income [2]	$45,792	$49,543	$60,360	$67,340
Poverty by Age				
Individuals below poverty status (FPL 100%) [2]	18.2%	15.0%	12.6%	11.9%
Children (under 18 years) below poverty status (FPL 100%) [2]	25.3%	19.3%	16.6%	15.7%
Children eligible for free/reduced lunch [3]	49.0%	75%**	36%**	52%**
Poverty by Race				
White [4]	N/A	16.0%	10.8%	10.6%
Black/African American [4]	N/A	12.3%	28.4%	22.1%
American Indian/Alaska Native [4]	N/A	0.0%	23.0%	24.1%
Asian [4]	N/A	41.7%	12.6%	10.6%
Native Hawaiian/Other Pacific Islander [4]	N/A	0.0%	27.2%	16.8%

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A- Data unavailable
Source 1: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table DP03)
Source 2: U.S. Census Bureau SAIPE Estimates, 2020
Source 3: National Center for Educational Statistics 2018-2019, as compiled by 2021 County Health Rankings
Source 4: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table S1701)

Crime

The rate of both property crime and violent crime in Ross County is significantly less than the rest of Ohio and the U.S. Violence crimes, particularly sexual assault the interpersonal violence, as well as burglary/ theft related crimes, are most prevalent.

Table 31: Ross County, Ohio Crime

Ross County Crime	Crime Reported	Crime Cleared	Crime Reported Minus Crime Cleared*
All Violent Crimes	**917**	**343**	**574**
Homicide**	9	6	3
Rape	262	10	252
Robbery	125	32	93
Aggravated assault	521	295	226
All Property Crimes	**15,745**	**703**	**15,042**
Arson	126	9	117
Burglary	4,361	185	4,176
Larceny-theft	10,391	463	9,928
Motor vehicle theft	993	55	938

Crimes are not necessarily cleared in the year they occur- use caution when interpreting data
**Data only available from 2014-2020*
Source: Federal Bureau of Investigation, Crime Data Explorer, Ross County Sheriff's Office, 2010-2020

PHYSICAL ENVIRONMENT

Information on environmental and community factors—health, food, air, water, housing and crime can provide insight to 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 about the manner in which residents of Ross County access basic needs.

Table 32: Ross County, Ohio Envirnmental Health

Environmental Health	Ross County 2022	Ohio 2022	U.S. 2022
Air pollution – particulate matter (average daily density of fine particulate matter in micrograms per cubic meter [PM2.5]) [1]	8.8	9.0	7.5
Water quality – drinking water violations (Presence of health-related drinking water violations) [2]	No	N/A	N/A
Transportation – percentage of the workforce who drive alone to work [3]	84%	82%	75%
Transportation – commute 30 minutes alone (Among workforce that drives alone to work) [3]	33%	31%	37%
Households without a vehicle [4]	6.9%	7.8%	8.5%
Adequate access to exercise opportunities [5]	63%	77%	80%
Lead detection – number of ead hazardous properties (properties with notices of non-compliance/orders to vacate due to lead hazards) [6]	4	N/A	N/A

N/A – Not Applicable
Source 1: 2018 Environmental Public Health Tracking Network, as compiled by 2022 County Health Rankings
Source 2: 2020 Safe Drinking Water Information System, as compiled by 2022 County Health Rankings
Source 3: 2016-2020 American Community Survey 5-Year Estimates, as compiled by 2022 County Health Rankings
Source 4: U.S. Census Bureau; 2016-2020 American Community Survey Estimates
Source 5: Business Analyst, ESRI, YMCA & US Census Tigerline Files, as compiled by 2022 County Health Rankings
Source 6: Ohio Public Health Information Warehouse, Ohio Lead Hazardous Properties, Updated 5/18/2022

Water Quality

Water quality levels are required to be measured by both the federal and state environmental protection agencies. In 2021, Ross County Water Company had no reportable contaminate violations as detailed in the Safe Drinking Water Act and there were no incidents in which the contaminate levels exceeded the MCLs (maximum contaminate levels) established by the EPA. The City of Chillicothe operates its own water treatment facility and receives its drinking water from seven deep wells located in Yoctangee Park, in close proximity to the water treatment facility. The aquifer in which the wells are located is part of the Scioto Buried River Valley Aquifer. In 2021, Chillicothe had an unconditioned license to operate our water system. No reportable contaminate violations were noted in 2021 for the city.

Figure 18: 2021 Water Quality Report, Ross County Water - 2021

CONTAMINANTS UNITS	MCLG	MCL	LEVEL FOUND	RANGE OF DETECTION	VIOLATIONS	SAMPLE DATE	TYPICAL SOURCE OF CONTAMINANTS
BACTERIOLOGICAL							
Total Coliform	0	<5%	<5%	N/A	NO	2021	Naturally Present in Environment
Radioactive Contaminants							
Alpha Total pCi/L	0	15	1.1	N/A	NO	2019	Erosion of Natural Deposits
Radium 228	0	5	1.6	N/A	NO	2019	Erosion of Natural Deposits
Inorganic Contaminants							
*Lead - ppb	0	AL=15	2.3	ND-2.3	NO	2021	Corrosion of Household Plumbing Systems
30 SAMPLES - ZERO OUT OF 30 SAMPLES EXCEEDED 15 PPB							
*Copper - ppm	1.3	AL=1.3	1.02	0.034-1.02	NO	2021	Corrosion of Household Plumbing Systems
30 SAMPLES - ZERO OUT OF 30 SAMPLES EXCEEDED 1.30 PPM							
Fluoride - ppm	4	4	0.93	0.89-0.97	NO	2021	Water Additive which Promotes Strong Teeth
Nitrate - ppm	10	10	1.10	0.58-1.10	NO	2021	Runoff from Fertilizer
Barium - ppm	2	2	0.05	0.04-0.05	NO	2019	Erosion of Natural Deposits
Volatile Organic Contaminants							
TTHMS - ppb (total trihalomethanes)	No Goal	80	21.1	18.8-21.1	NO	2021	By-Product of Drinking Water Chlorination
HAA5 - ppb (total haloacetic acids)	No Goal	60	5.6	1.8-5.6	NO	2021	By-Product of Drinking Water Chlorination
Residual Disinfectants							
TOTAL CHLORINE - ppm	MRDLG = 4	MRDL=4	1.5	1.1-1.5	NO	2021	Water Additive Used to Control Microbes

Figure 19: City of Chillicothe Water Quality Report - 2021

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2019	2	2	0.015	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2021	[4]	[4]	1.1875	1.08–1.24	No	Water additive used to control microbes
Fluoride (ppm)	2021	4	4	1.0058	0.85–1.20	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2021	60	NA	6.02	<6–6.02	No	By product of drinking water disinfection
Nitrate (ppm)	2021	10	10	0.13	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radium-228 (pCi/L)	2019	5	NA	1.0 +/- 0.5	NA	No	Erosion of natural deposits
TTHMs [total trihalomethanes] (ppb)	2021	80	NA	38	32.3–38	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	1.3	0.027	<0.010–0.089	0/31	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2019	15	0	2.3	<2.0–110	1/31[1]	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

[1] One sample at Site LC 292 contained 110 μg/L of lead, which is above the AL.

Food Access and Insecurity

The food insecurity experienced by Ross County residents is slightly higher (16.1%) than Ohio and the U.S. as a whole. Close to one-fifth of Ross County households (18.8%) receive SNAP benefits, which is considerably higher than the rest of Ohio (12.6%) and the U.S. (11.4%).

Table 33: Ross County, Ohio Food Access

Food Access	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Food Security				
Food insecure population – overall [1]	15.0%	16.1%**	13.2%**	10.9%**
Food insecure population – child [1]	N/A	20.2%**	17.4%**	14.6%**
Households receiving SNAP [2]	21.1%	18.8%	12.6%	11.4%
Number of food pantries	2	N/A	N/A	N/A
Grocery store access (establishment rate per 100,000 population)	23.34	N/A	N/A	N/A
Fast food access (establishment rate per 100,000 population)	140.03	N/A	N/A	N/A

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A- Data unavailable
Source 1: Feeding America, Map the Meal Gap, 2019
Source 2: U.S. Census Bureau; 2016-2020 American Community Survey Estimates (Table S2201)

Housing

Average cost of rent and mortgage in Ross County is less than the rest of Ohio and the U.S. and the percentage of home ownership is considerably higher (71.1%) than Ohio (66.3%) and the U.S. (64.4%).

Table 34: Ross County, Ohio Housing Characteristics

Housing Characteristics	Ross County 2019*	Ross County 2022	Ohio 2022	U.S. 2022
Rent average [1]	$721	$738	$825	$1,096
Mortgage average – average monthly owner cost with mortgage [1]	$1,088	$1,167	$1,286	$1,621
Average home value – owner-occupied units [1]	$114,600	$125,000	$151,400	$229,800
Homeownership [1]	70.4%	71.1%	66.3%	64.4%
Number of rentals [1]	8,451	7,643	1,507,568	41,390,514
Average home age	1972	N/A	N/A	N/A
Homelessness (per 10,000 people in general population) [2]	N/A	N/A	9	18

*See Ross County 2019 Community Health Needs Assessment for sources and years of data reported
N/A – Data unavailable
Source 1: U.S. Census Bureau; 2016-2020 American Community Survey Estimates, Table DP04
Source 2: National Alliance to End Homelessness, State of Homelessness 2021 Edition
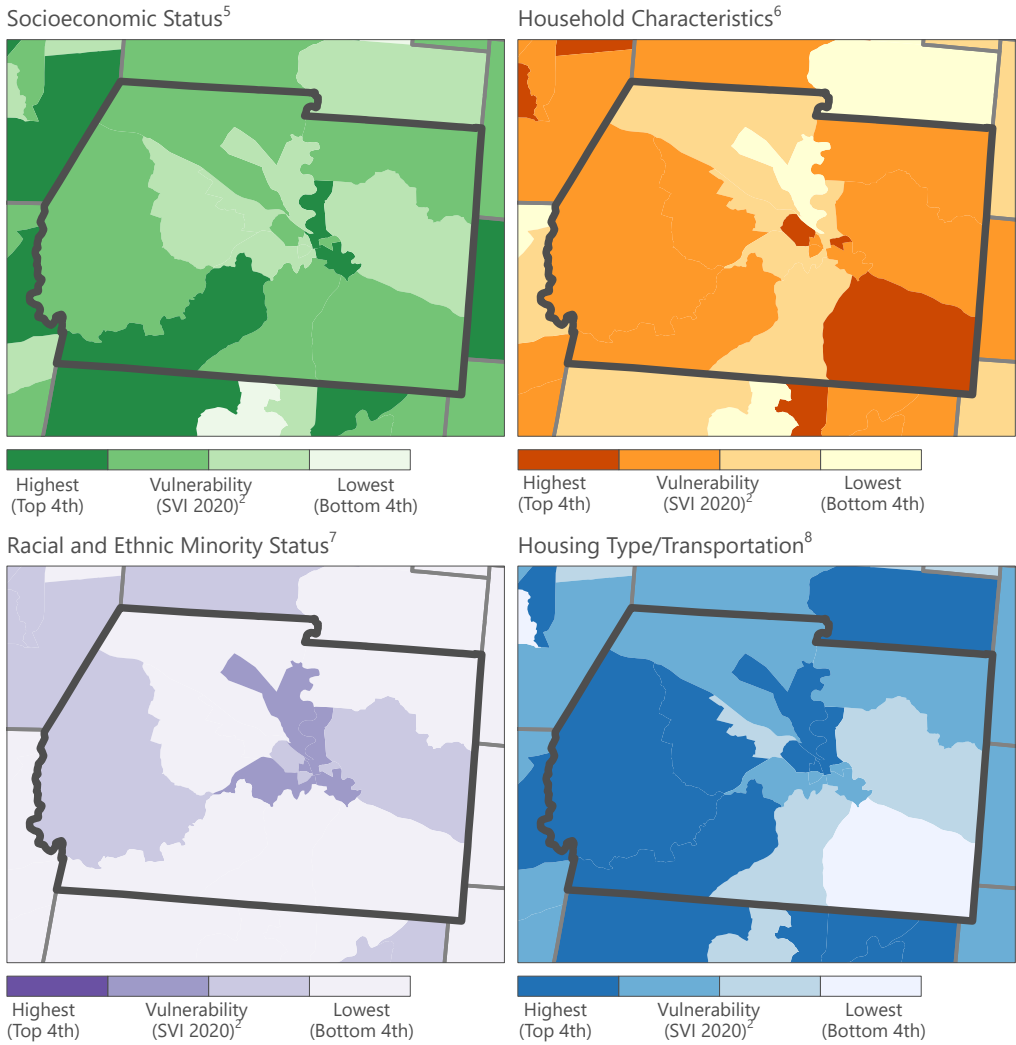
Social Vulnerability

Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills.

The CDC social vulnerability index (CDC SVI 2018) county map depicts the social vulnerability of communities, at census tract level, within a specified county. CDC SVI 2020 groups 15 census-derived factors into four themes that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data, as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall social vulnerability combines all the variables to provide a comprehensive assessment.

Areas of the highest vulnerability—the east region of Chillicothe city limits, as well as the southcentral region of the rural areas of the county, are noted in dark areas in Figure 20.

Figure 20: CDC Areas of Social Vulnerability for Ross County, Ohio

Socioeconomic Status[5]

Household Characteristics[6]

Racial and Ethnic Minority Status[7]

Housing Type/Transportation[8]

Source: Centers for Disease Control, SVI, 2018

Community Input

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

More than 1000 surveys were taken by residents of Ross County between June 1, 2022 and August 31, 2022. Surveys were distributed throughout the community using various means, including electronic surveys via social media and agency websites, in local medical offices and community agency offices, at the local libraries, at local food drops and community events, and with the help of community partners who work with various populations. Analysis of survey results were conducted between September through October 2022 by the Partners for a Healthier Ross County and the Ross County Health District.

The Partners for a Healthier Ross County began preparation for the public survey (primary data collection) portion of the community health assessment in January 2022. As part of the survey preparation, a survey instrument was designed, using the 2019 public survey as a template. Questions were added to better understand social determinants that lead to poorer health. A total of 72 questions were included in the survey.

Public surveys were conducted beginning in June 2022 and continued until late August 2022. A variety of methods were used to collect survey responses: online through use of electronic survey via hard copy in a variety of settings throughout the community and Ross County. More than 1053 surveys were attempted and collected from residents of Ross County. All survey respondents were anonymous. Only surveys from respondents who reside in Ross County were accepted. Respondents less than 18 years of age were excluded in the final analysis, as were incomplete surveys.

Analysis of public survey results began in August/ September 2022. Cleaning, preparation, and analysis of survey results was conducted. After data was prepared and cleaned, a total of 768 surveys where used for analysis.

During October and November 2022, final analysis of data was conducted to identify key findings and populations that may be a higher risk for specific health outcomes, unhealthy behaviors, and to identify social determinants that lead to poorer health.

Survey Response Snapshot

Total Surveys: 768

Gender: 77% female; 21% male, less than 2% prefer not to say, open ended response, or non-binary.

Race: 93% White; 4% Black; 2% other race, less than 1% Hispanic; less than 1% Asian; less than 1% American India;less than 1% Native Hawaiian

Education: 17% four-year degree or higher; 21% graduate degree or higher, 15% some college, 18% Associates degree; 24% high school diploma or GED and/or some college; 4% no high school diploma

PUBLIC SURVEY DATA FINDINGS

Adult public survey data was cross-analyzed to identify subgroups that may have a higher risk for health issues. Data analysis include graphs displaying total percentage of survey respondents who answered "yes" to a specific question. Additional cross analysis of the results was then subdivided by sex (male/female), age (18-34, 30-64, and 65+), and income (less than $25,000 annually, $25,000 to $99,000 annually, and $100,000 or more). All survey data was from individuals 18 years or older. Responses were not accepted from those less than 18 years of age.

As with many health assessments, it is important to consider the findings of the public survey with limitations and caution. Surveys were collected from a variety of populations in Ross County to get a desired number of responses (age, race, gender, income, education, etc.) to aid in better understanding of the health issues within our community. In all instances, the public surveys were voluntary and anonymous. Please note, caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Overall Top Health Issues Self-Reported by Survey Respondents

Outcome results include both those who reported currently have the health issue or have had the health issues in the past.

Key Findings for Health Outcomes from Adult Public Survey:
   • Mental wealth and weight/obesity continue to be issues.
   • Chronic disease, such as diabetes, cancer, and heart disease continue be top health issues.
   • Asthma continues to be a health issue.
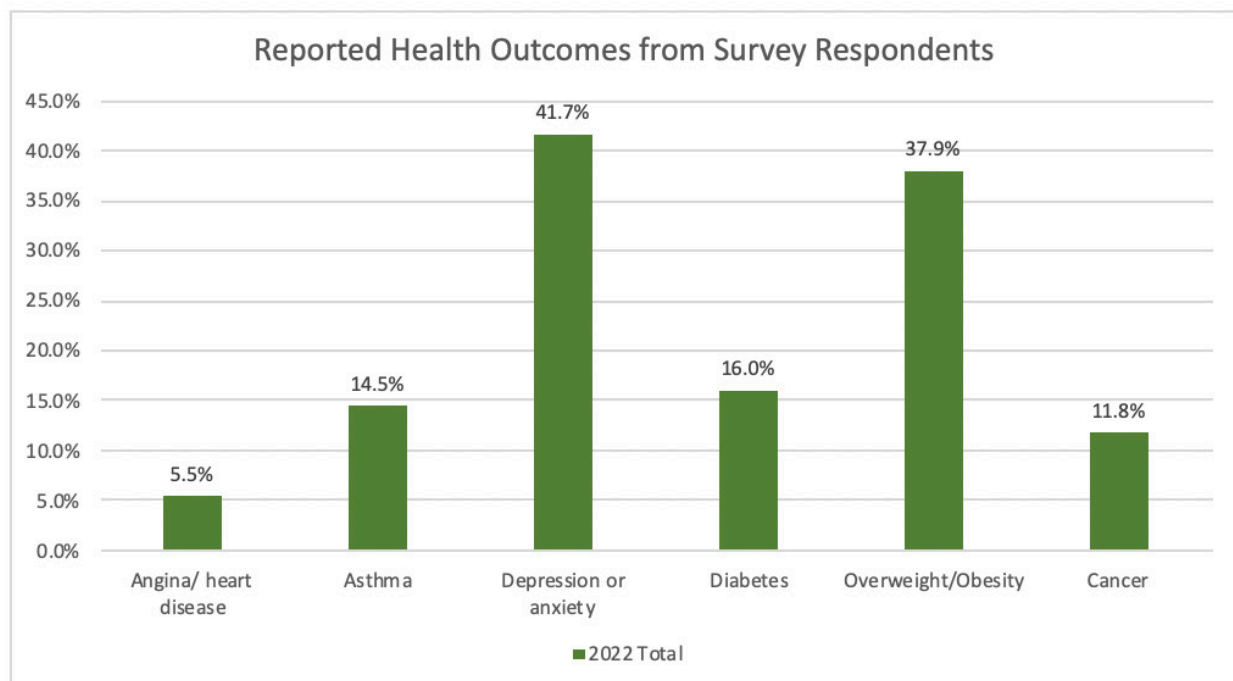

Table 35: Reported Health Outcomes From Survey Respondents

Health Perceptions

Key Findings:

• Survey respondents indicated the need for higher paying employment, more affordable housing, and mental health counseling/support groups are major needs.

• Drug abuse continues to be a leading issue in our communities, as identified by survey respondents.

• Respondents identified children need to learn about drug abuse prevention, suicide prevention, and mental health management.

• Respondents state that our community needs to learn more about substance abuse prevention, nutrition, stress management, and weight management.

• Respondents would like adults to learn more about mental health, nutrition, and food resources.

• 54.3% of survey respondents feel they have "very 'good" or "excellent" health, whereas 43.5% of adults feel they have "fair" or "poor" health.

Top Community Issues that need improved

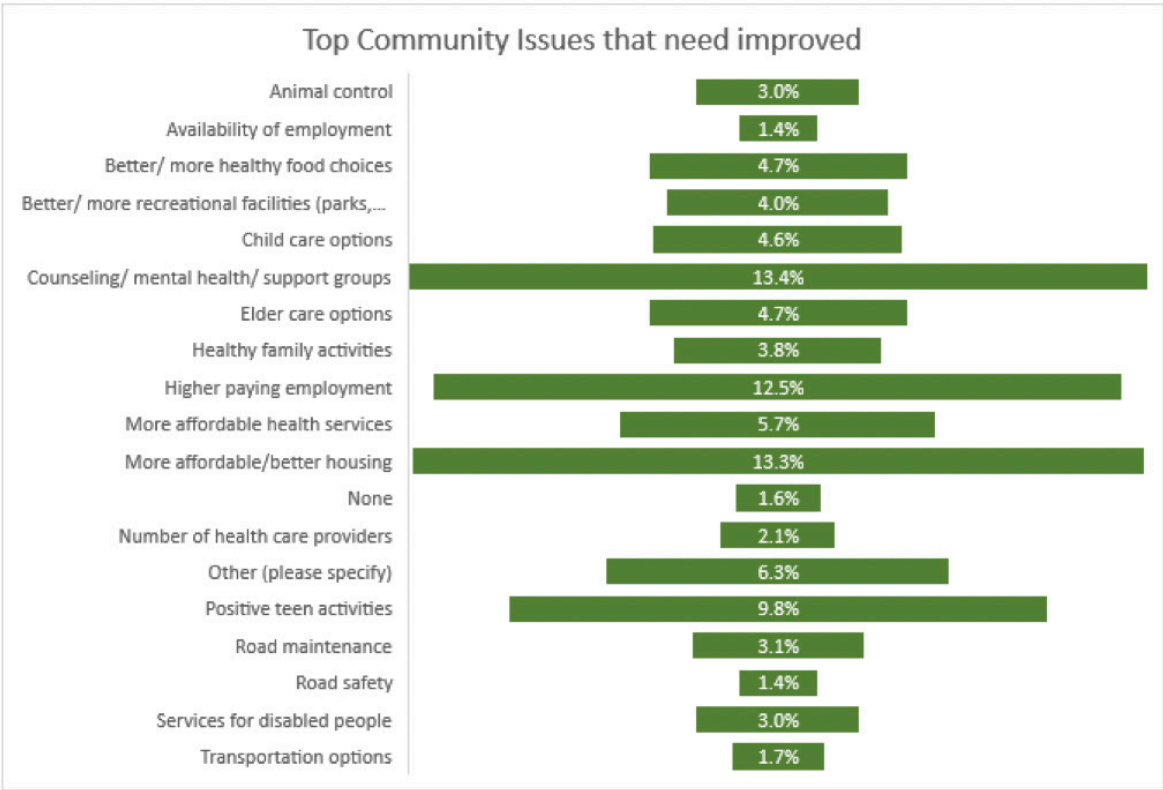| Issue	Percentage
Animal control	3.0%
Availability of employment	1.4%
Better/ more healthy food choices	4.7%
Better/ more recreational facilities (parks,...	4.0%
Child care options	4.6%
Counseling/ mental health/ support groups	13.4%
Elder care options	4.7%
Healthy family activities	3.8%
Higher paying employment	12.5%
More affordable health services	5.7%
More affordable/better housing	13.3%
None	1.6%
Number of health care providers	2.1%
Other (please specify)	6.3%
Positive teen activities	9.8%
Road maintenance	3.1%
Road safety	1.4%
Services for disabled people	3.0%
Transportation options	1.7%

Table 36: Top Community Issues That Need Improved

Table 37: Top Community Issues That Affest The Quality of Life

Top community issues that affect the quality of life

Issue	Value
Child abuse	
Discrimination/ racism	
Domestic Violence	
Dropping out of school	
Elder abuse	
Homelessness	13.0%
Hopelessness	4.0%
Lack of community support	
Lack of/ inadequate health insurance	3.4%
Low income/poverty	33.7%
None	4.3%
Other (please specify)	17.7%
Pollution (air, water, land)	3.9%
Rape/sexual assault	
Theft	7.4%
Violent crime (murder, assault)	6.0%

Table 38: Which Health Behaviors Does Our Community Need More Information About
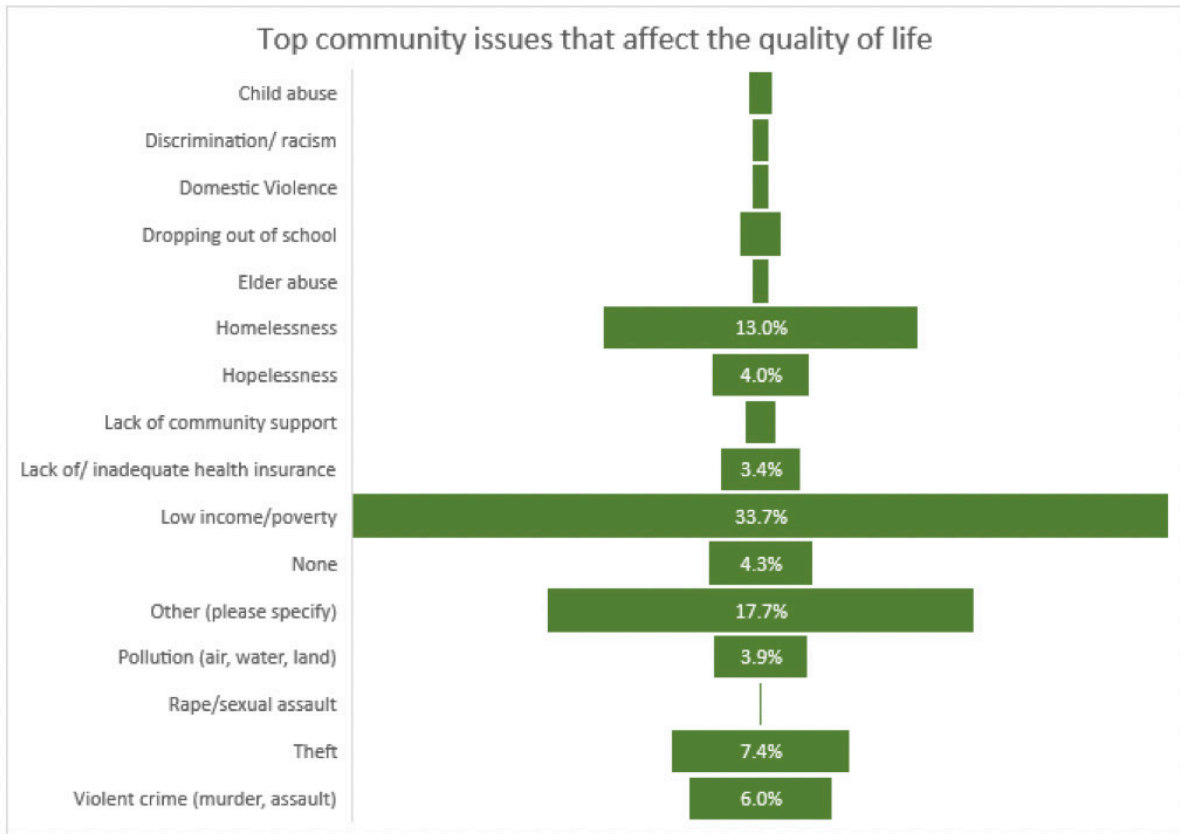
Which health behaviors does our community need more information about?

Table 39: Health Topics Adults Need to Learn About

Health topics adults need to learn about

- Other (please specify)
- COVID-19
- Human trafficking
- Child abuse/neglect
- Elder abuse/neglect
- Domestic violence
- Diabetes management
- Suicide prevention
- Alcohol abuse
- Asthma management
- Caregiver support
- Grief support
- Mental health issues
- Pregnancy prevention
- Eating Disorders
- Reckless driving/speeding
- Sexually transmitted infections (STIs)
- Food resources
- Nutrition
- Drug Abuse
- Tobacco cessation
- Affording my medications
- Health screenings
- Primary healthcare
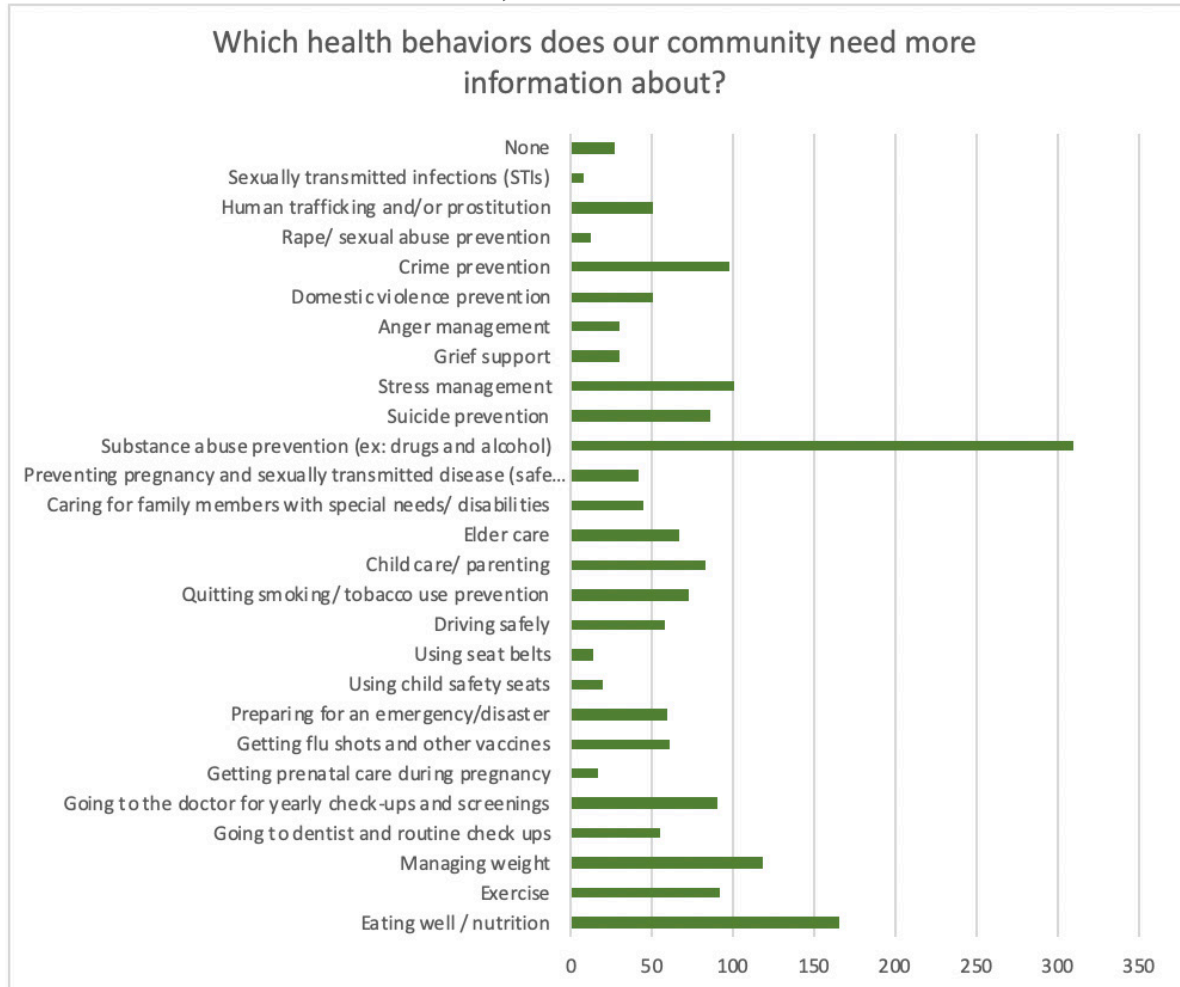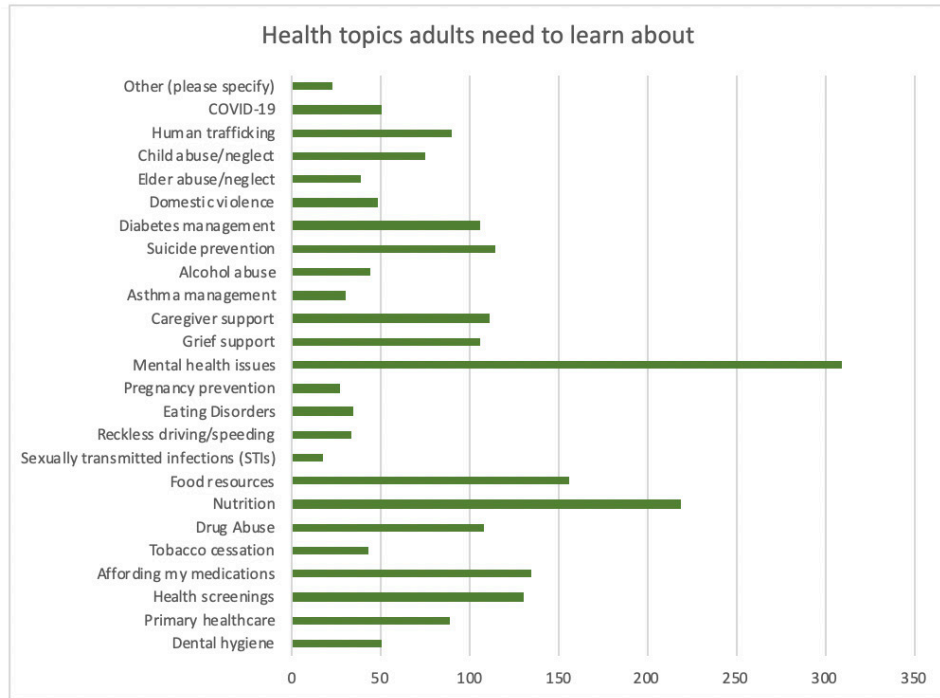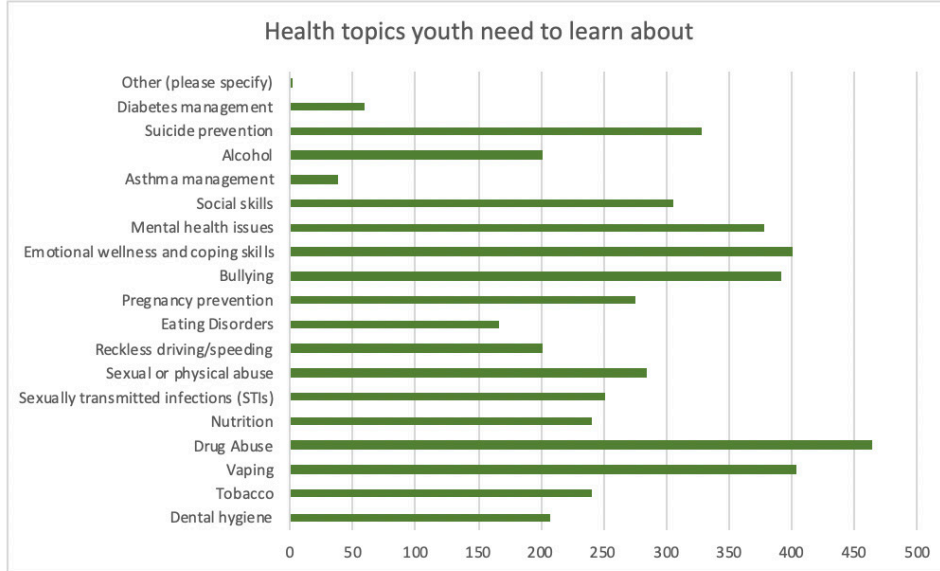- Dental hygiene

(axis: 0, 50, 100, 150, 200, 250, 300, 350)

Table 40: Health Topics Youth Need to Learn About

Health topics youth need to learn about

- Other (please specify)
- Diabetes management
- Suicide prevention
- Alcohol
- Asthma management
- Social skills
- Mental health issues
- Emotional wellness and coping skills
- Bullying
- Pregnancy prevention
- Eating Disorders
- Reckless driving/speeding
- Sexual or physical abuse
- Sexually transmitted infections (STIs)
- Nutrition
- Drug Abuse
- Vaping
- Tobacco
- Dental hygiene

(axis: 0, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500)

Table 41: What Condition Do You Think is Your Health

In general, what condition do you think is your health?

	2022 Total	Less than $25K	$25K - $99K	$100k or more	18-34	35-64	65+	Female	Male
Excellent	6.5%	3.6%	6.0%	9.5%	9.2%	5.9%	5.8%	5.4%	10.0%
Very Good	47.8%	23.9%	50.4%	63.7%	45.4%	48.3%	48.4%	48.8%	46.3%
Fair	39.2%	53.6%	38.6%	26.3%	40.4%	38.8%	39.4%	39.9%	36.3%
Poor	4.3%	12.3%	3.4%	0.0%	3.6%	5.3%	1.3%	3.6%	5.0%
Don't know/not sure			1.6%	0.6%	1.4%	1.7%			2.1%

Legend: Excellent, Very Good, Fair, Poor, Don't know/not sure
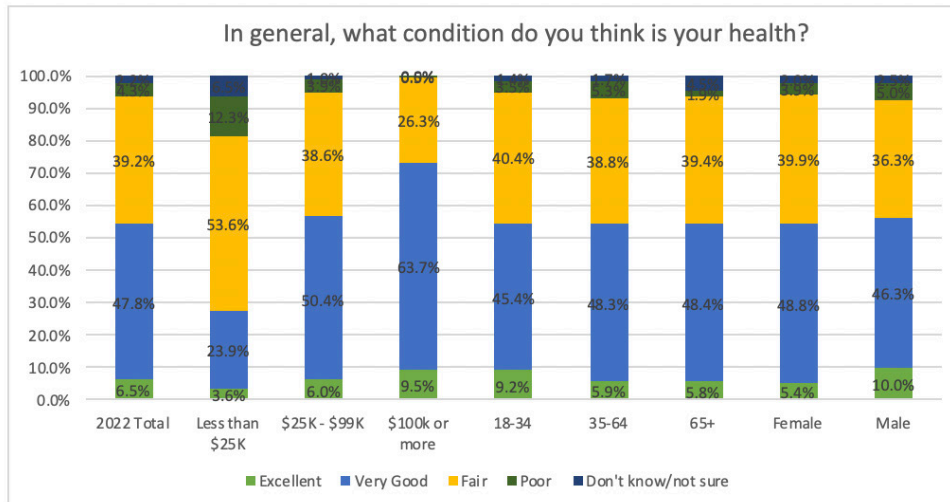
Housing

Key Findings:

- 22.7% of survey respondents struggle to pay for housing. Of those who have children in their household under the age of 18, 26.5% say they struggle to pay for housing; 54% of those with under $25,000 annual income struggle to pay for housing.

- 2% of survey respondents said they have experienced unstable housing or are homeless.
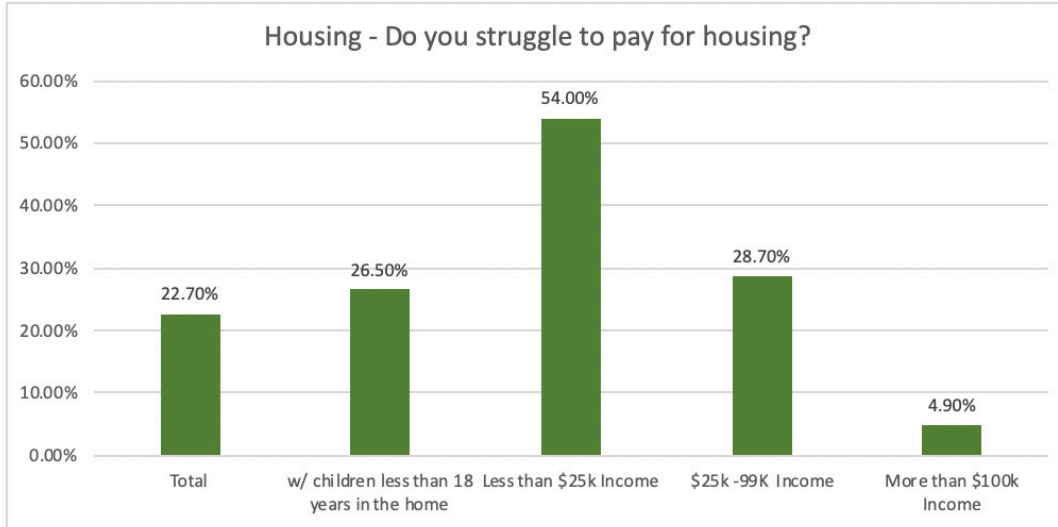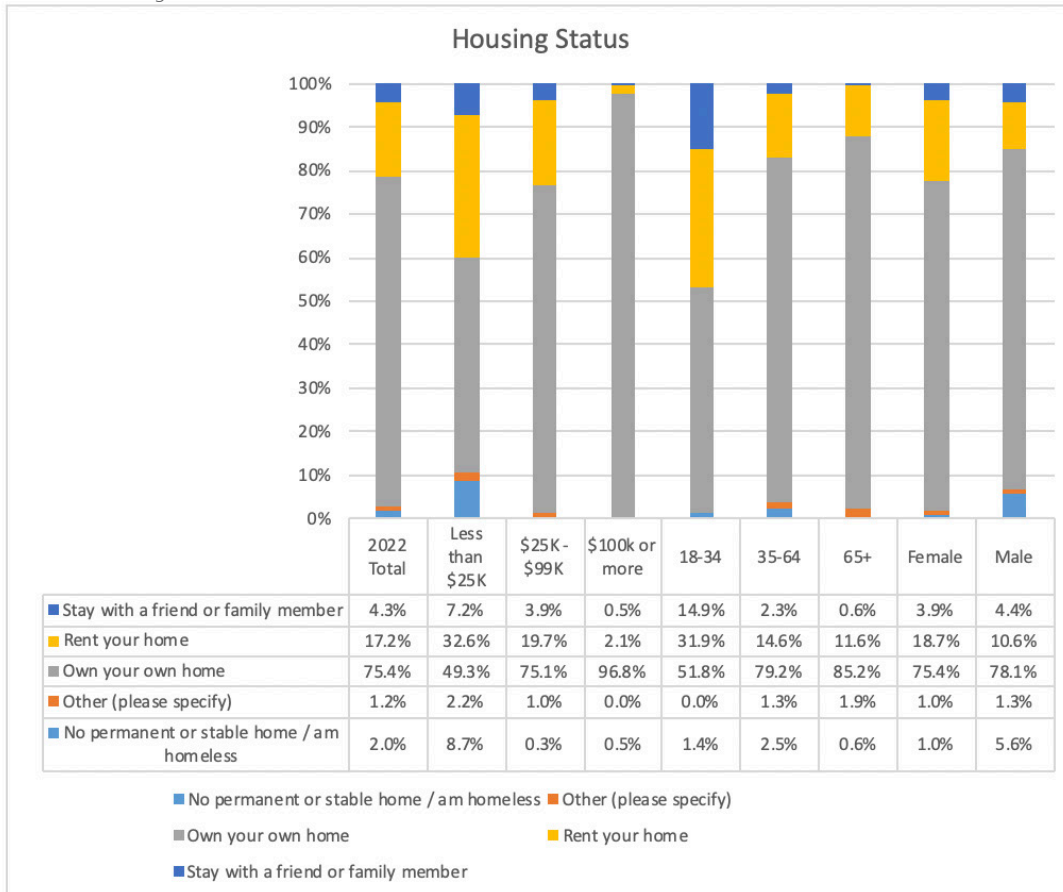
Table 42: Do You Struggle to Pay for Housing

Table 43: Housing Status

	2022 Total	Less than $25K	$25K - $99K	$100k or more	18-34	35-64	65+	Female	Male
Stay with a friend or family member	4.3%	7.2%	3.9%	0.5%	14.9%	2.3%	0.6%	3.9%	4.4%
Rent your home	17.2%	32.6%	19.7%	2.1%	31.9%	14.6%	11.6%	18.7%	10.6%
Own your own home	75.4%	49.3%	75.1%	96.8%	51.8%	79.2%	85.2%	75.4%	78.1%
Other (please specify)	1.2%	2.2%	1.0%	0.0%	0.0%	1.3%	1.9%	1.0%	1.3%
No permanent or stable home / am homeless	2.0%	8.7%	0.3%	0.5%	1.4%	2.5%	0.6%	1.0%	5.6%

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Behaviors: Substance Use

Key Findings:

- 18% of survey respondents report using tobacco or tobacco products (includes vaping, electronic cigarettes, chewing tobacco, pipe tobacco, and cigarettes).

- 49.1% of survey respondents use alcohol.

- 12.9% of survey respondents use marijuana.

- 5.0% of survey respondents said they have received treatment for substance use.
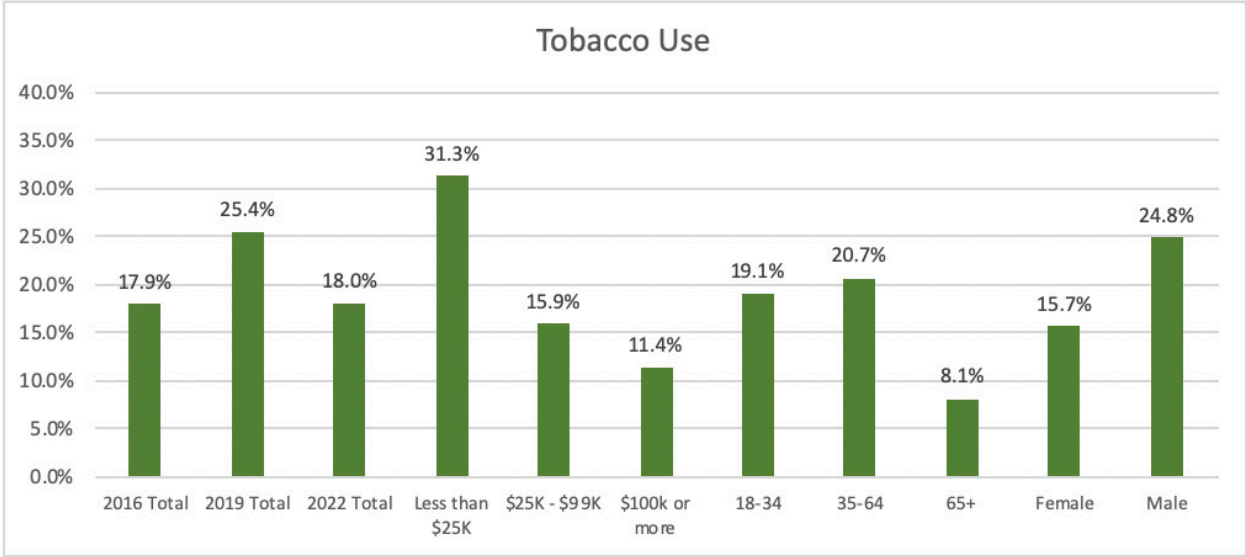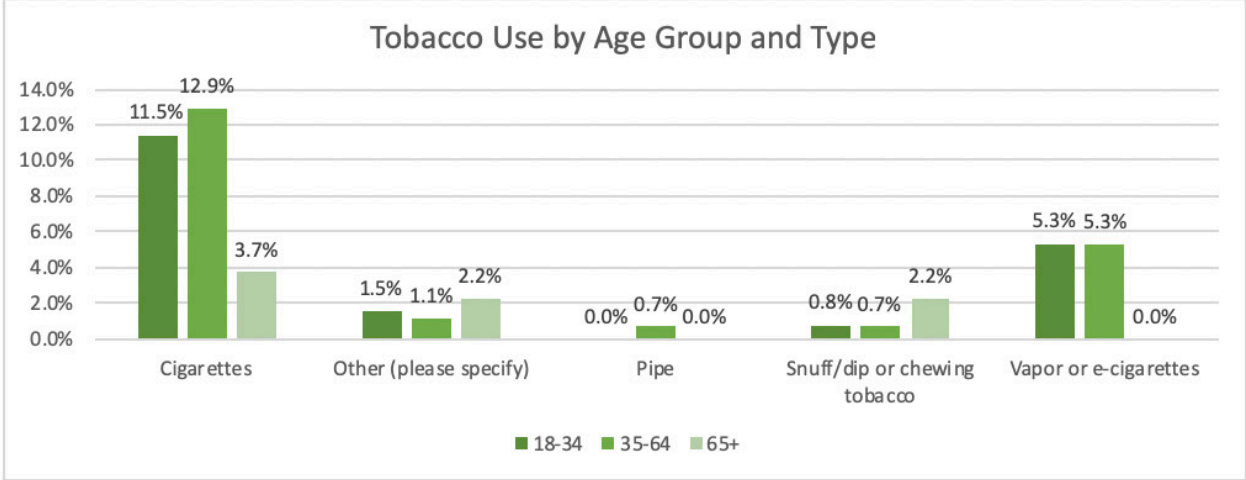
Table 44: Tobacco Use

Table 45: Tobacco Use by Age Group and Type

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey

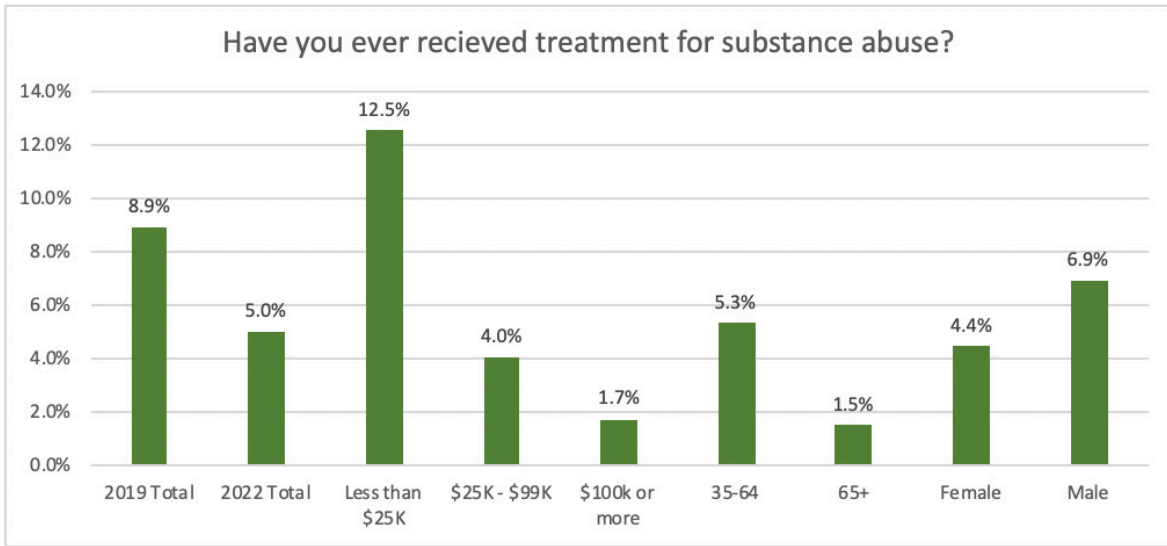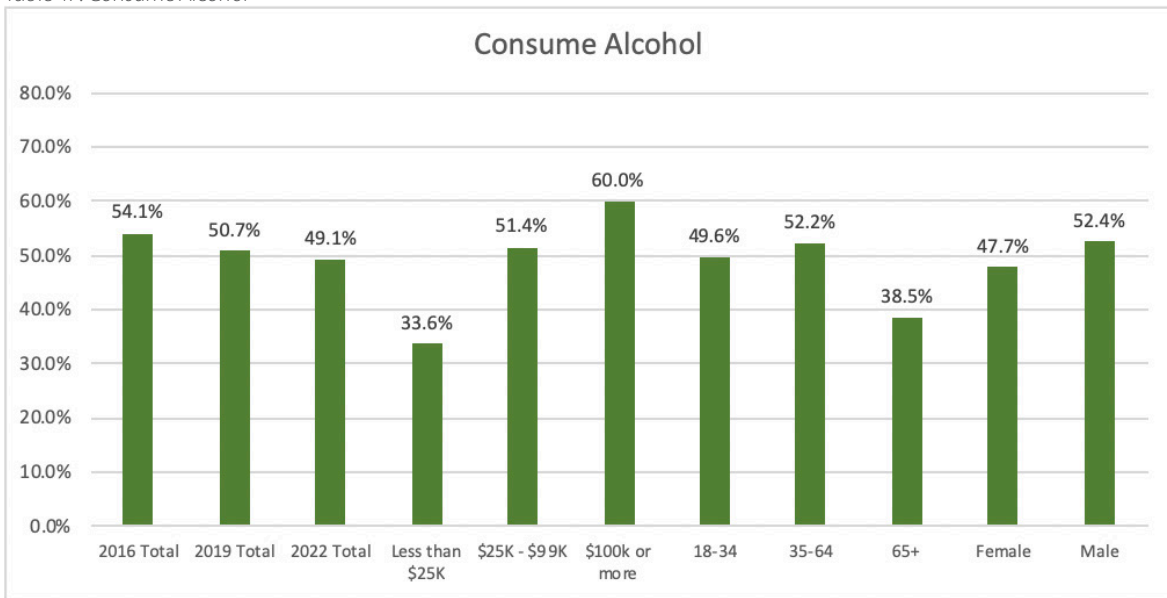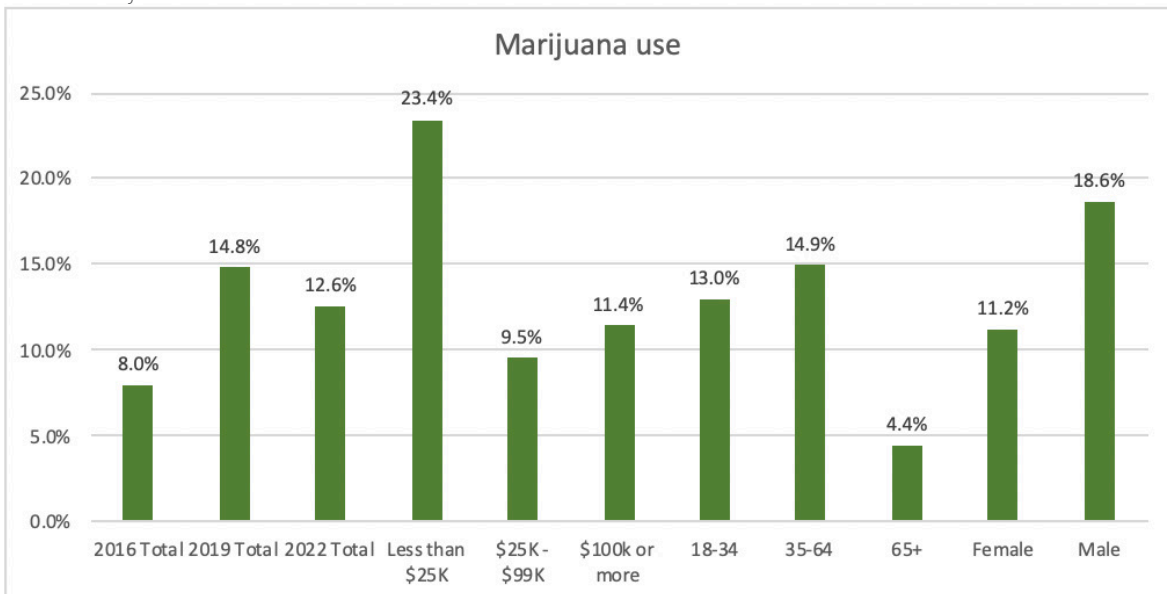*Table 46: Have You Ever Received Treatment for Substance Abuse*

Have you ever recieved treatment for substance abuse?

- 2019 Total: 8.9%
- 2022 Total: 5.0%
- Less than $25K: 12.5%
- $25K - $99K: 4.0%
- $100k or more: 1.7%
- 35-64: 5.3%
- 65+: 1.5%
- Female: 4.4%
- Male: 6.9%

Table 47: Consume Alcohol

Consume Alcohol

- 2016 Total: 54.1%
- 2019 Total: 50.7%
- 2022 Total: 49.1%
- Less than $25K: 33.6%
- $25K - $99K: 51.4%
- $100k or more: 60.0%
- 18-34: 49.6%
- 35-64: 52.2%
- 65+: 38.5%
- Female: 47.7%
- Male: 52.4%

Table 48: Marijuana Use

Marijuana use

- 2016 Total: 8.0%
- 2019 Total: 14.8%
- 2022 Total: 12.6%
- Less than $25K: 23.4%
- $25K - $99K: 9.5%
- $100k or more: 11.4%
- 18-34: 13.0%
- 35-64: 14.9%
- 65+: 4.4%
- Female: 11.2%
- Male: 18.6%

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Outcomes: Mental Health

Key Findings:

• Mental health continues to be a top health issue in our community, as 41.7% of survey respondents noted that they experience depression or anxiety, but only 11.6% of respondents noted they visit a mental health specialist in the past year.

Table 49: Mental Health - Depression or Anxiety
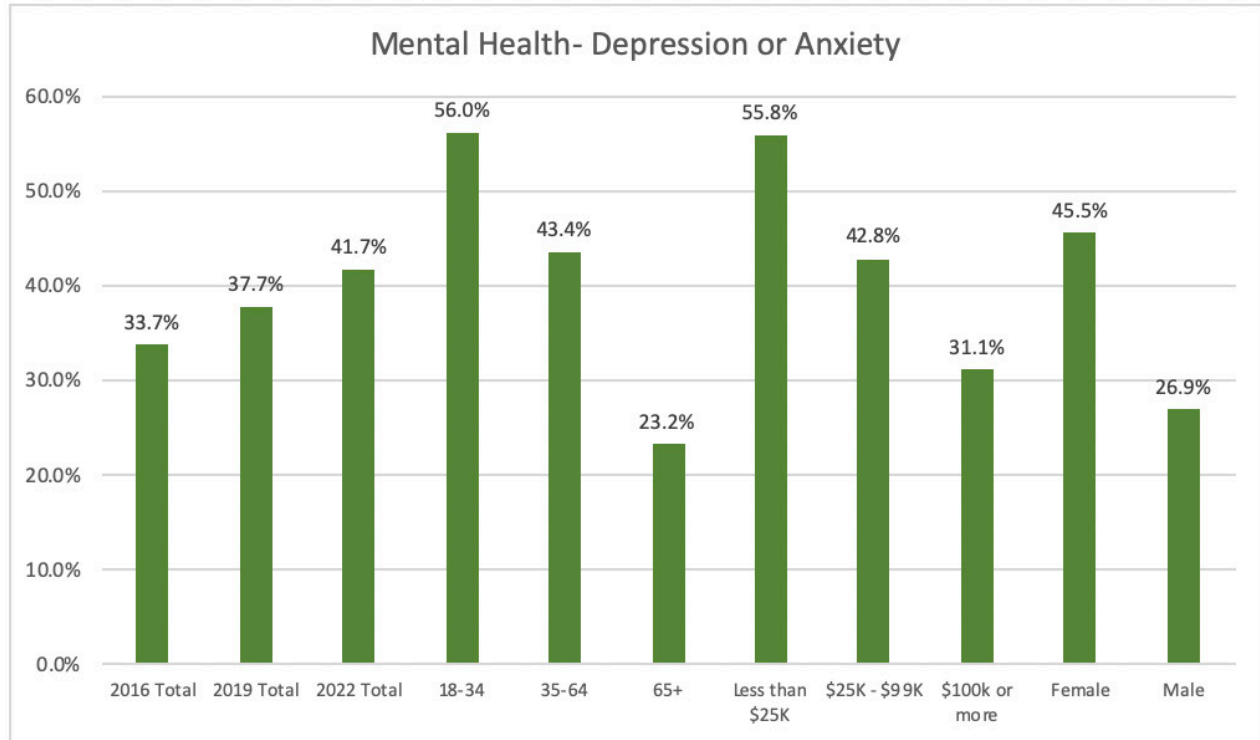
Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

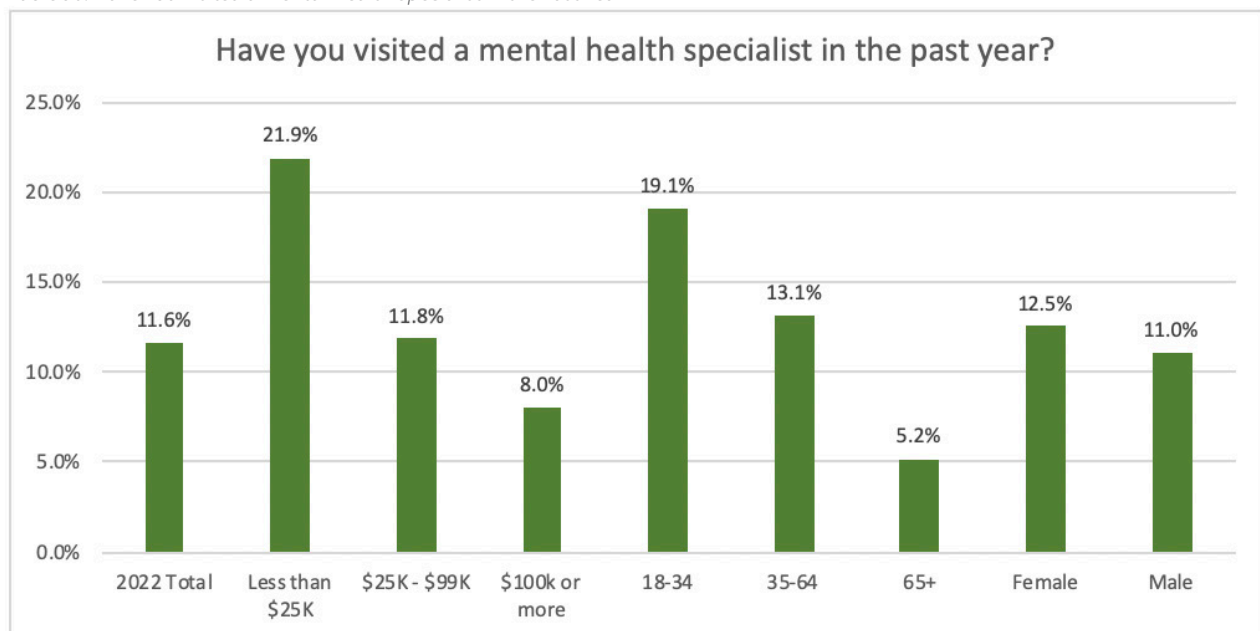*Table 50: Have You Visited a Mental Health Specialist in the Past Year*

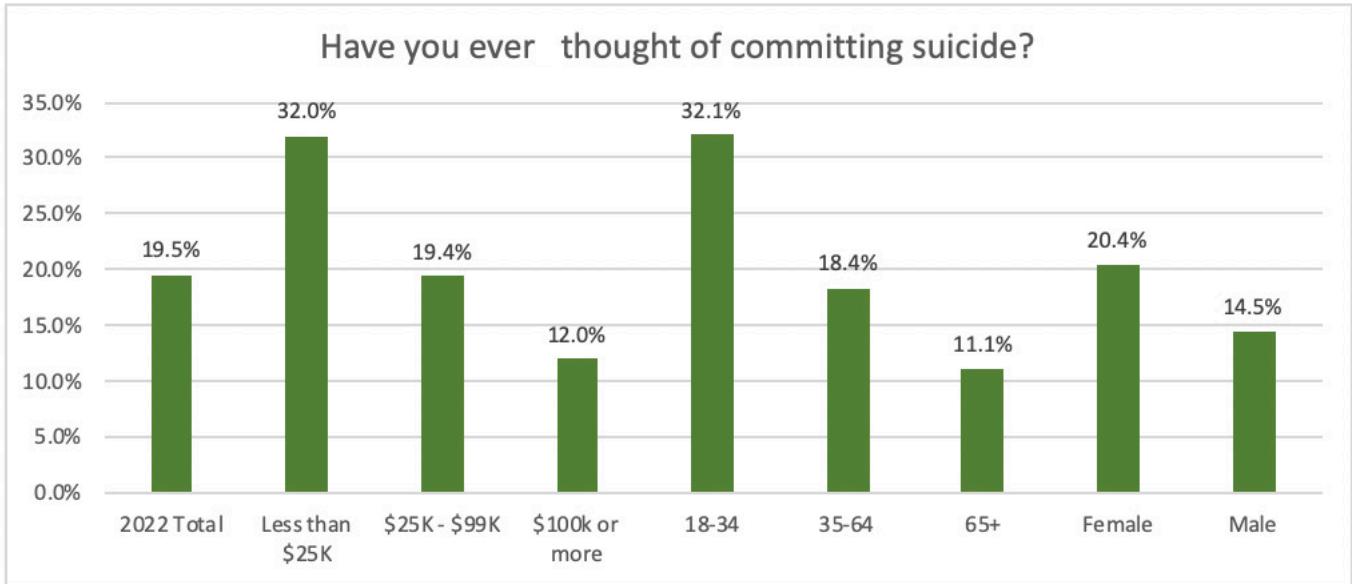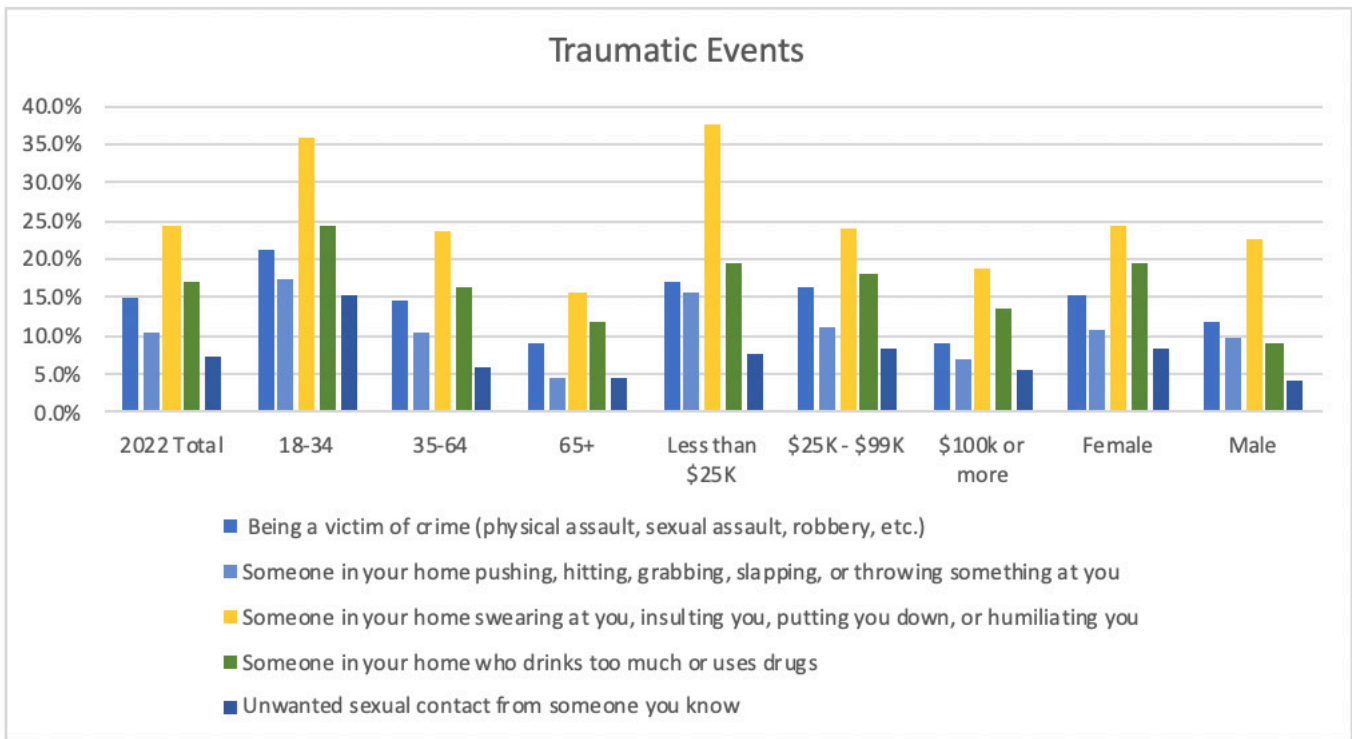*Table 51: Have You Ever Thought of Committing Suicide*

Have you ever thought of committing suicide?

Category	Percentage
2022 Total	19.5%
Less than $25K	32.0%
$25K - $99K	19.4%
$100k or more	12.0%
18-34	32.1%
35-64	18.4%
65+	11.1%
Female	20.4%
Male	14.5%

Table 52: Traumatic Events

Traumatic Events

Legend:
- Being a victim of crime (physical assault, sexual assault, robbery, etc.)
- Someone in your home pushing, hitting, grabbing, slapping, or throwing something at you
- Someone in your home swearing at you, insulting you, putting you down, or humiliating you
- Someone in your home who drinks too much or uses drugs
- Unwanted sexual contact from someone you know

Traumatic Events - Housing-related
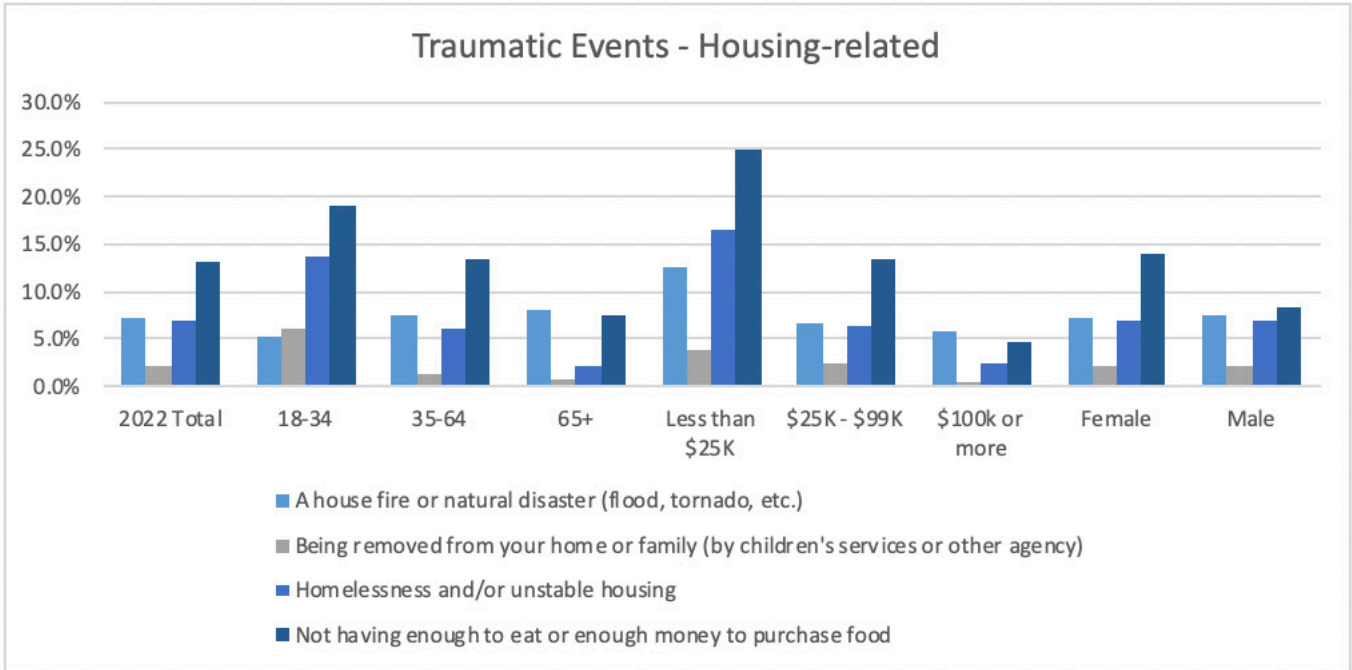
Legend:
- A house fire or natural disaster (flood, tornado, etc.)
- Being removed from your home or family (by children's services or other agency)
- Homelessness and/or unstable housing
- Not having enough to eat or enough money to purchase food

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.
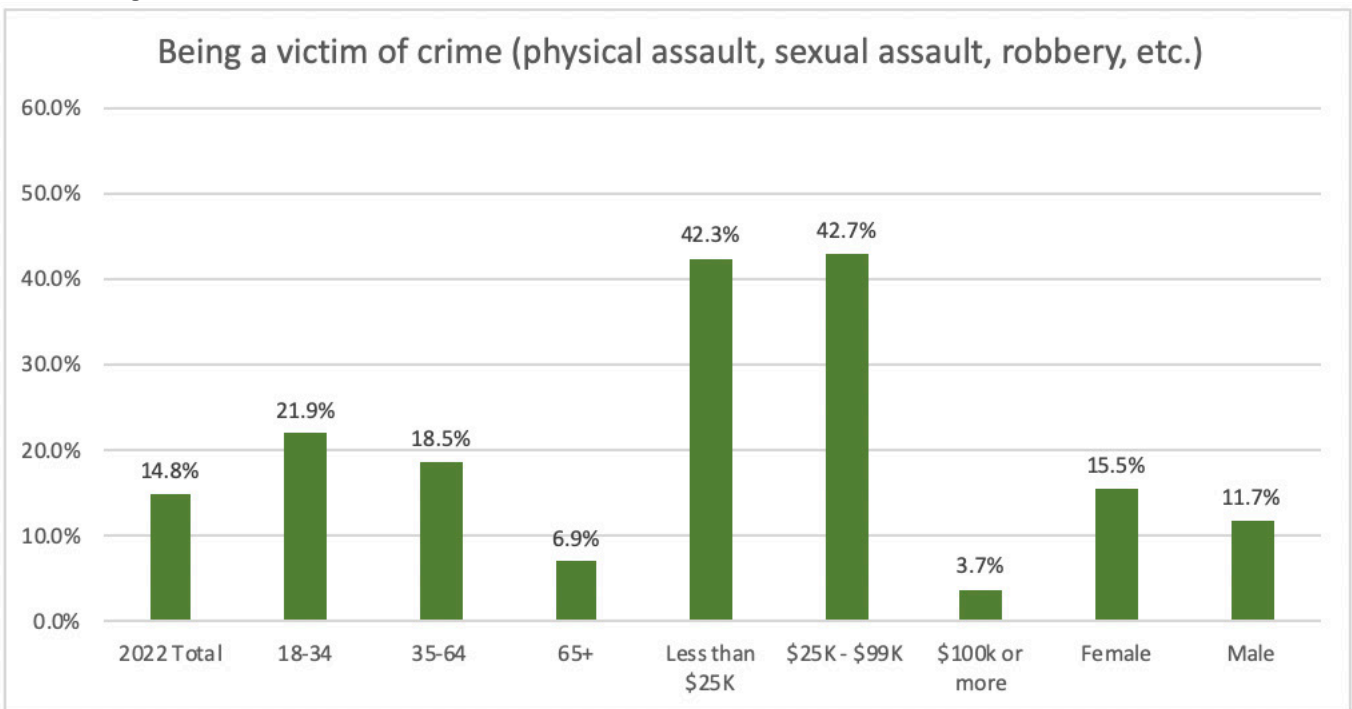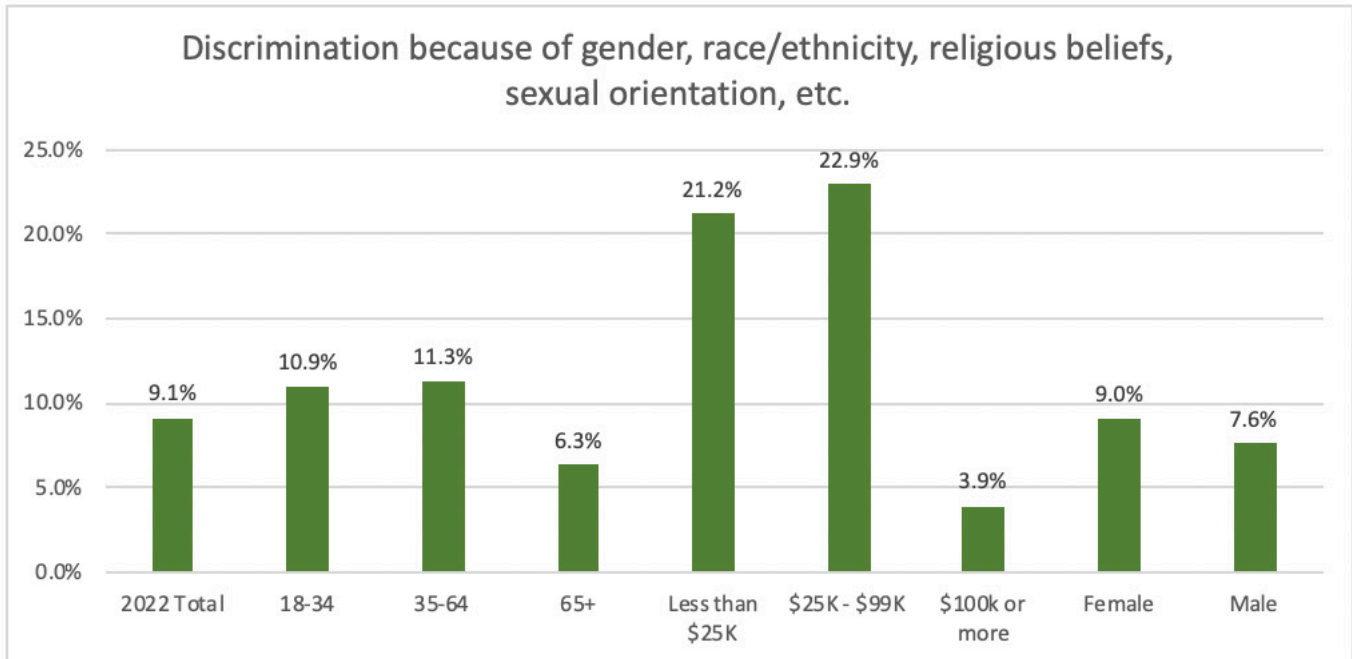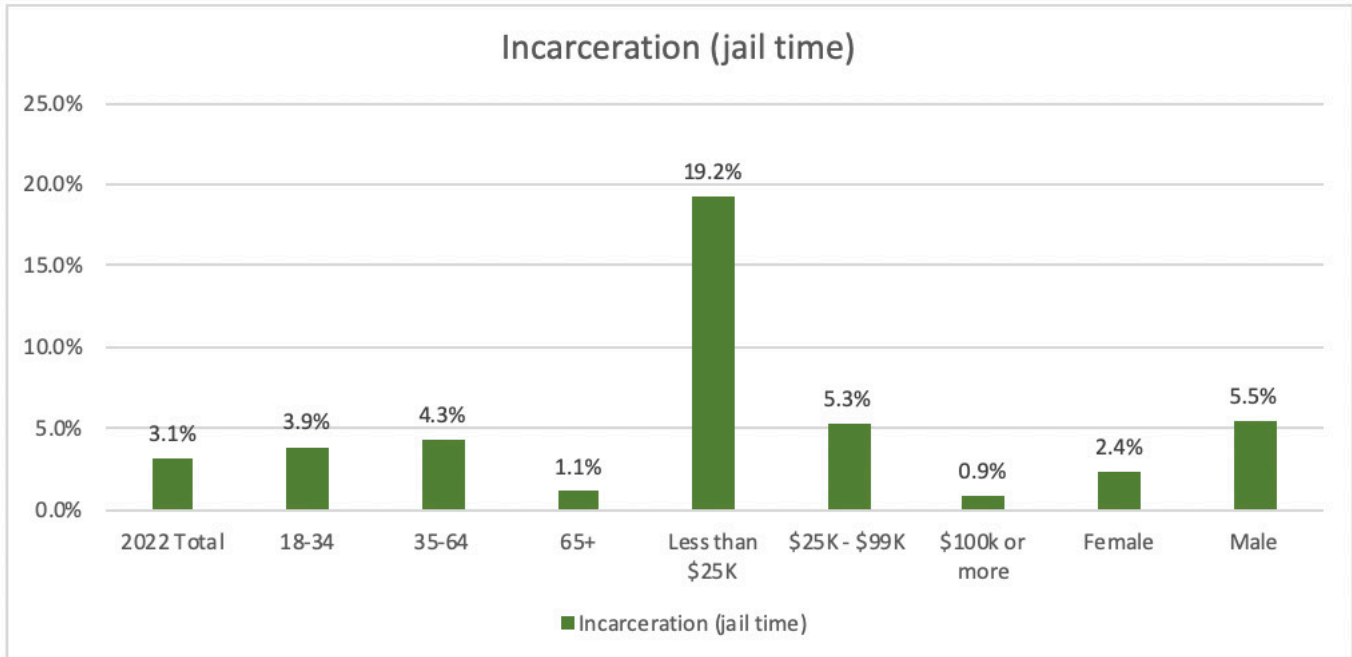
Being a victim of crime (physical assault, sexual assault, robbery, etc.)

2022 Total	18-34	35-64	65+	Less than $25K	$25K - $99K	$100k or more	Female	Male
14.8%	21.9%	18.5%	6.9%	42.3%	42.7%	3.7%	15.5%	11.7%

Discrimination because of gender, race/ethnicity, religious beliefs, sexual orientation, etc.

Category	Percentage
2022 Total	9.1%
18-34	10.9%
35-64	11.3%
65+	6.3%
Less than $25K	21.2%
$25K - $99K	22.9%
$100k or more	3.9%
Female	9.0%
Male	7.6%

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Table 56: Incarceration

Incarceration (jail time)

Category	Incarceration (jail time)
2022 Total	3.1%
18-34	3.9%
35-64	4.3%
65+	1.1%
Less than $25K	19.2%
$25K - $99K	5.3%
$100k or more	0.9%
Female	2.4%
Male	5.5%

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Outcomes: Asthma

Key Findings:

- 14.5% of survey respondents noted they experience asthma.

Table 57: Asthma
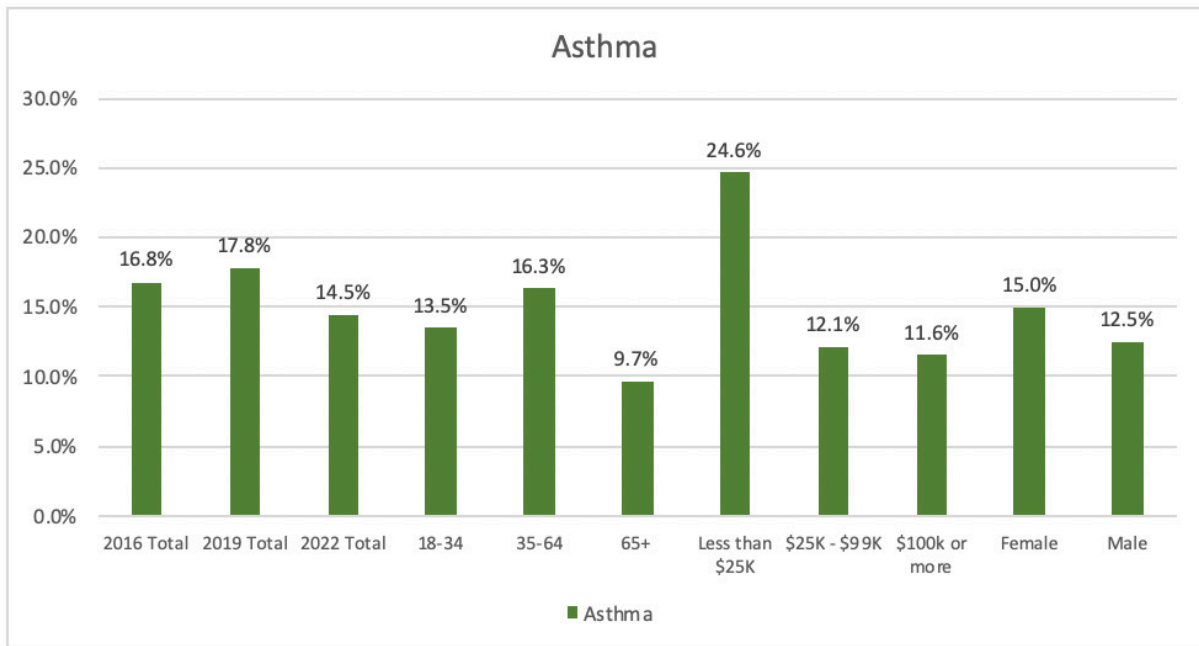
Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Outcomes: Cancer

Key Findings:

  • 12% of survey respondents answered "yes" to having cancer or have had cancer.

  • 2016 and 2019 CHA public survey responses reveal similar findings of having cancer or have had cancer.

Table 58: Cancer
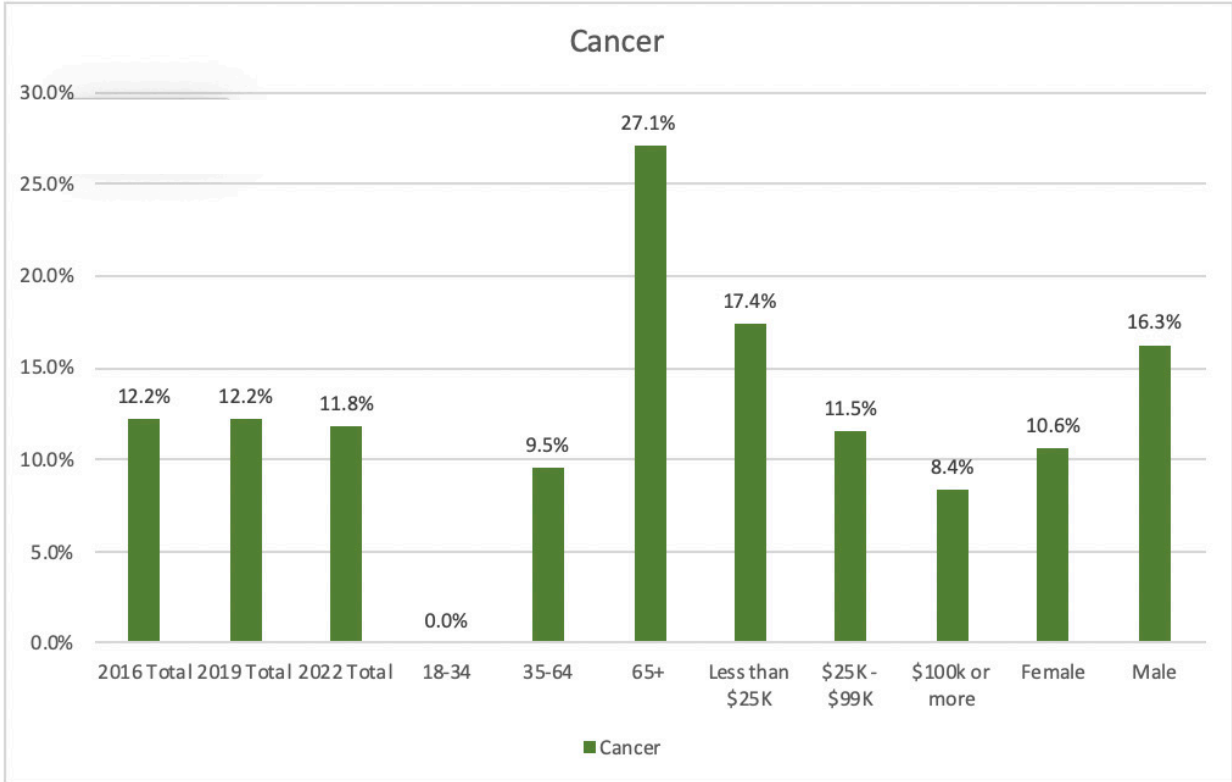
Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Outcomes: Obesity and Diabetes

Key Findings:

• 16% of public survey respondents reported having diabetes.

• 37.9% of survey respondents reported being overweight or obese, while 35.8% of survey respondents reporting not exercising at least 30 minutes or more per week.
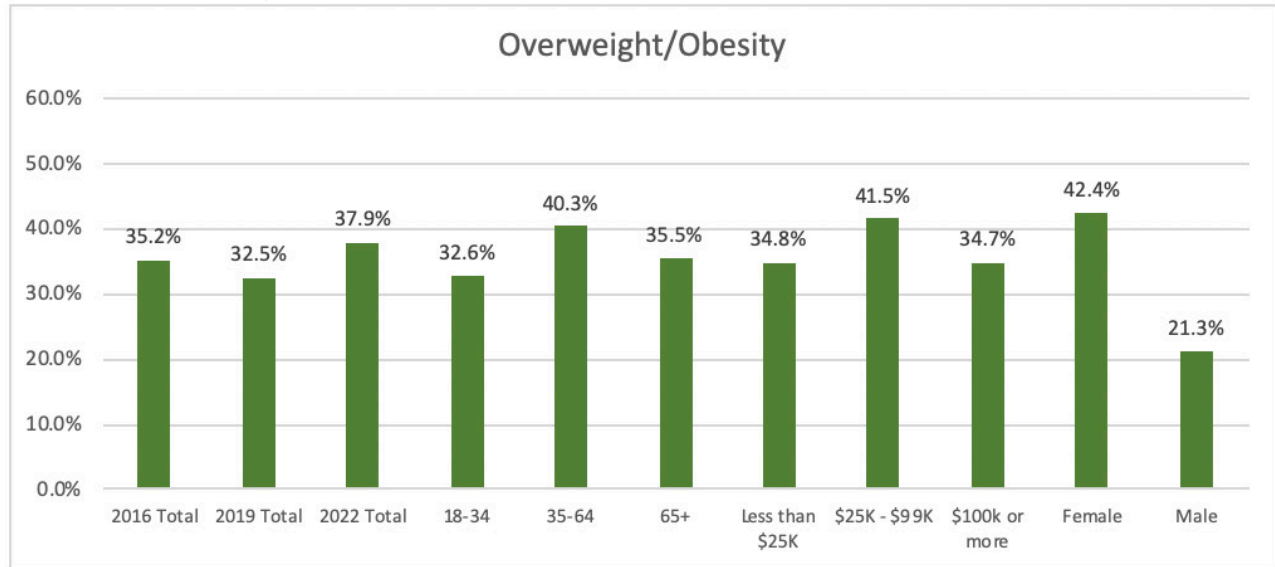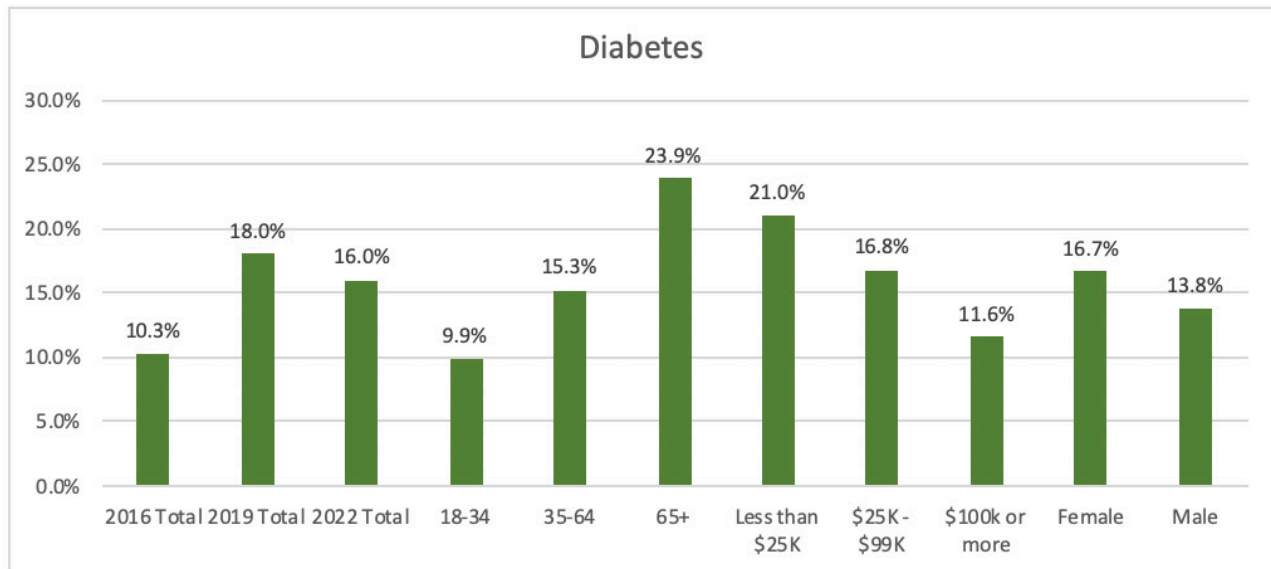
Table 59: Overweight/Obesity

Table 60: Diabetes

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.
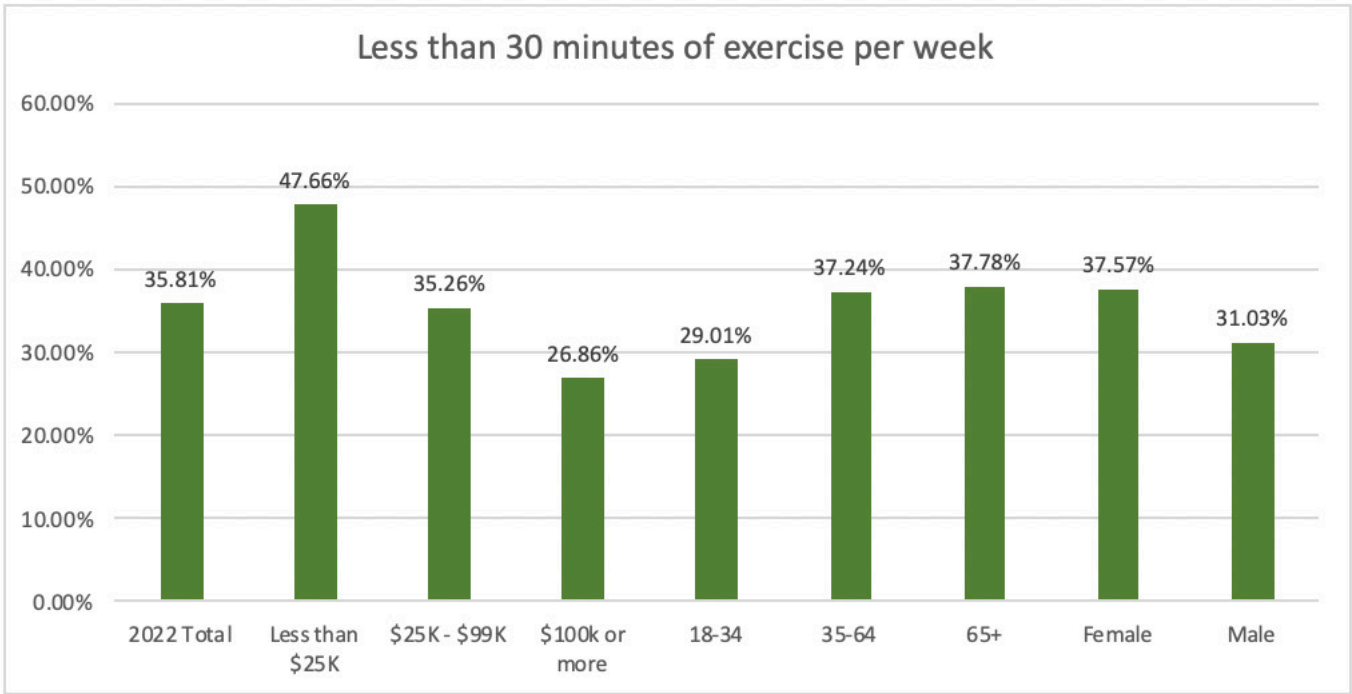
Less than 30 minutes of exercise per week
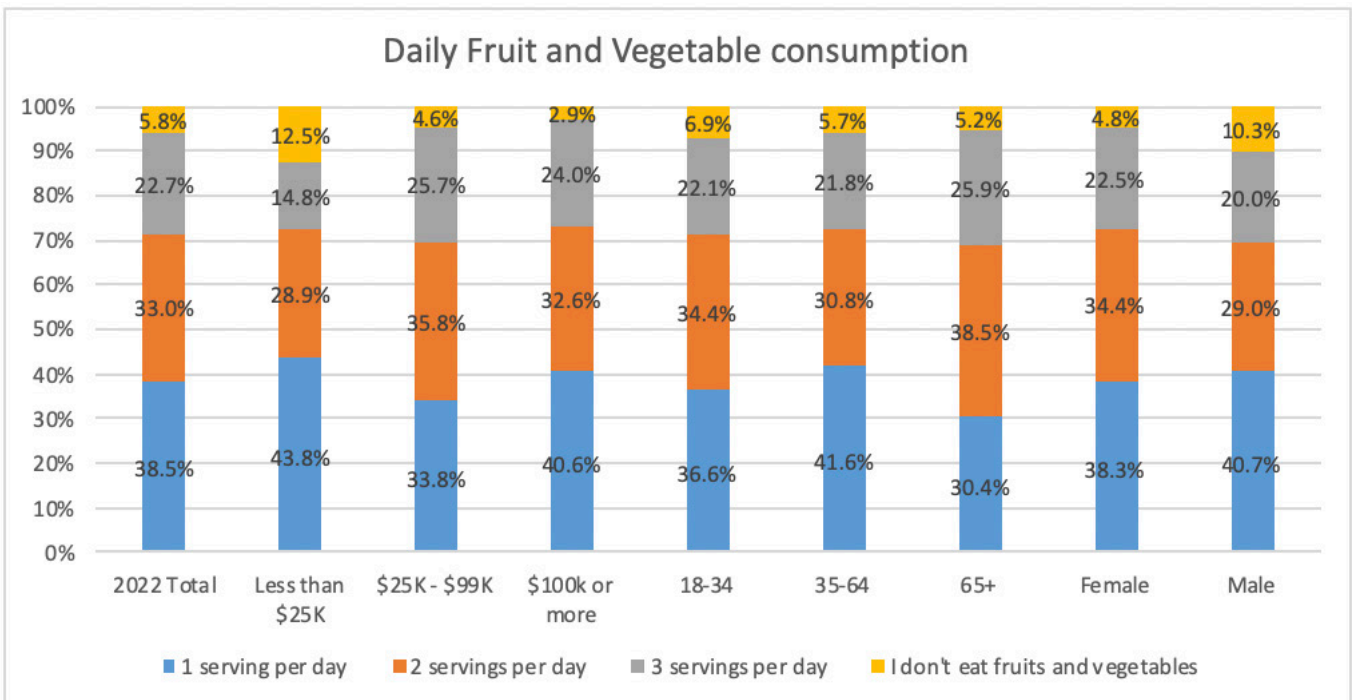
Category	Percentage
2022 Total	35.81%
Less than $25K	47.66%
$25K - $99K	35.26%
$100k or more	26.86%
18-34	29.01%
35-64	37.24%
65+	37.78%
Female	37.57%
Male	31.03%

Daily Fruit and Vegetable consumption

	2022 Total	Less than $25K	$25K - $99K	$100k or more	18-34	35-64	65+	Female	Male
I don't eat fruits and vegetables	5.8%	12.5%	4.6%	2.9%	6.9%	5.7%	5.2%	4.8%	10.3%
3 servings per day	22.7%	14.8%	25.7%	24.0%	22.1%	21.8%	25.9%	22.5%	20.0%
2 servings per day	33.0%	28.9%	35.8%	32.6%	34.4%	30.8%	38.5%	34.4%	29.0%
1 serving per day	38.5%	43.8%	33.8%	40.6%	36.6%	41.6%	30.4%	38.3%	40.7%

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Outcomes: Heart Health

Key Findings:

• Age is a factor on heart health, as those respondents 65 years or older reported experiencing high cholesterol or high blood pressure vs. those aged 30-64 and those less than 30 years of age.

• 5.5% of survey respondents reported having angina or heart disease.
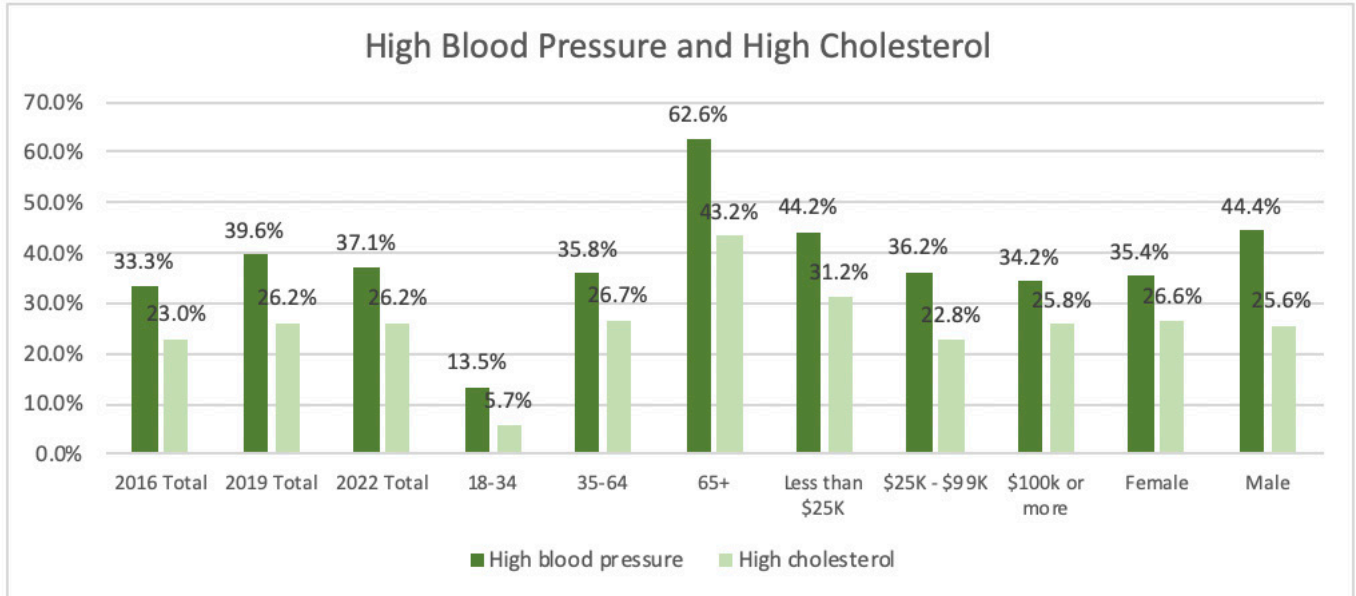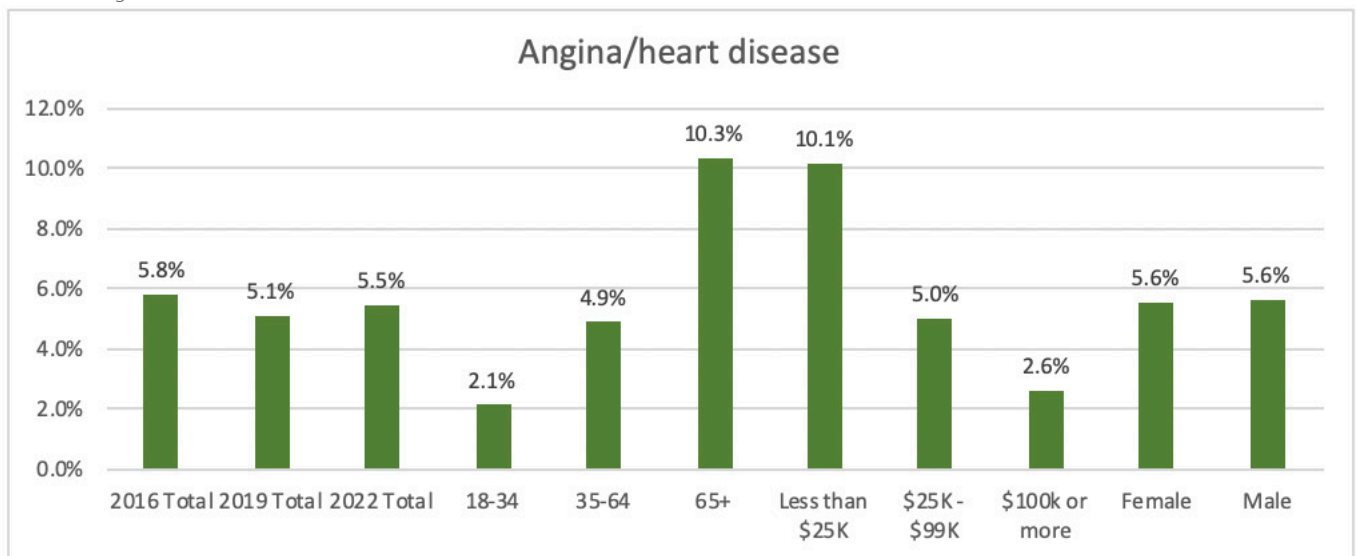
Table 63: High Blood Pressure and High Cholesterol

Table 64: Angina/Heart Disease

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.

Health Care Utilization

Key Findings: 75% of survey respondents reported visiting a family doctor in the past year; 64.2% of survey respondents reported visiting the dentist in the past year; and 46.9% of respondents reported visiting the eye doctor in the past year.
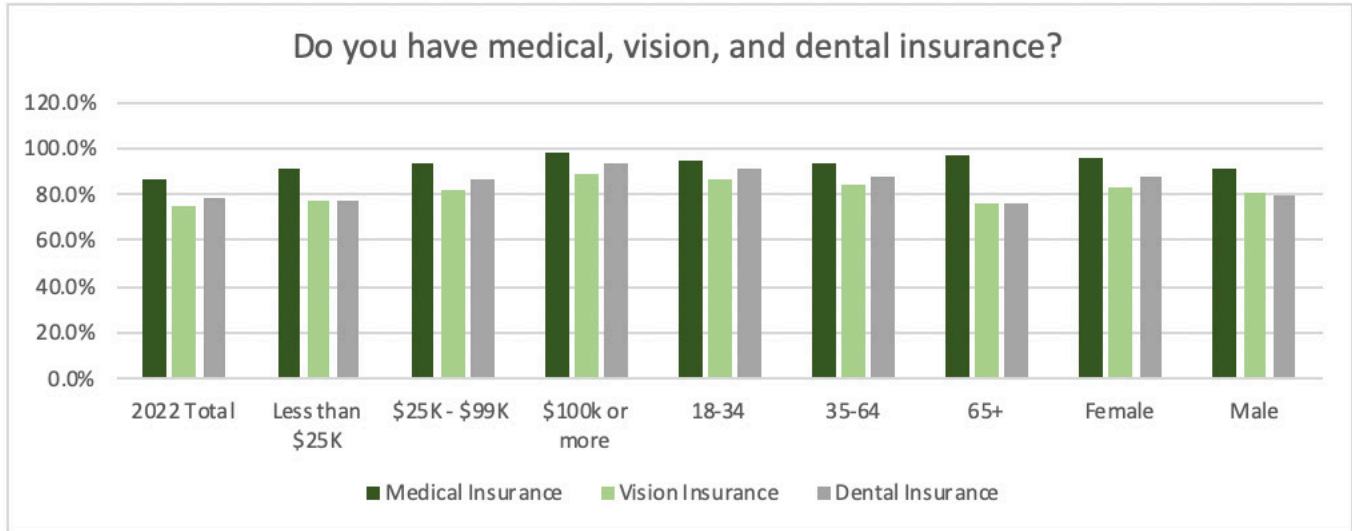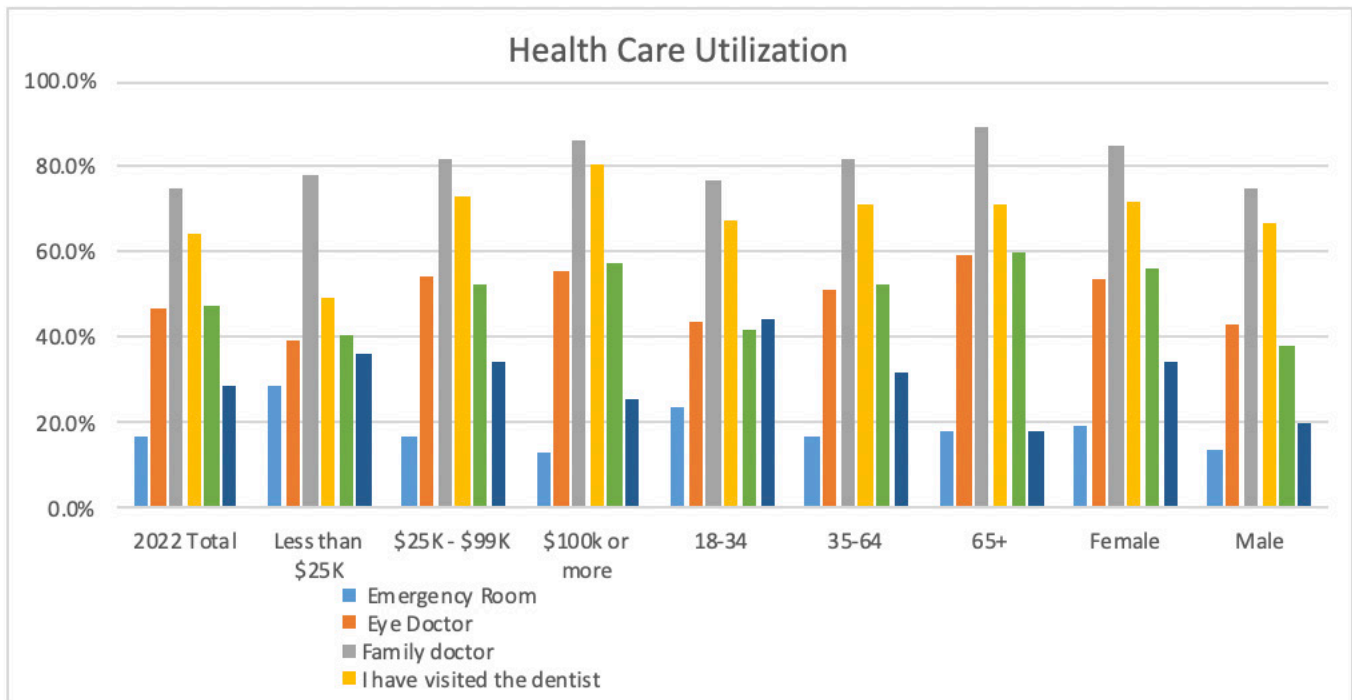
Table 65: Insurance

Table 66: Health Care Utilization

Please note: caution should be used when interpreting subgroup results, as the margin of error for any subgroup is higher than that of the overall survey.
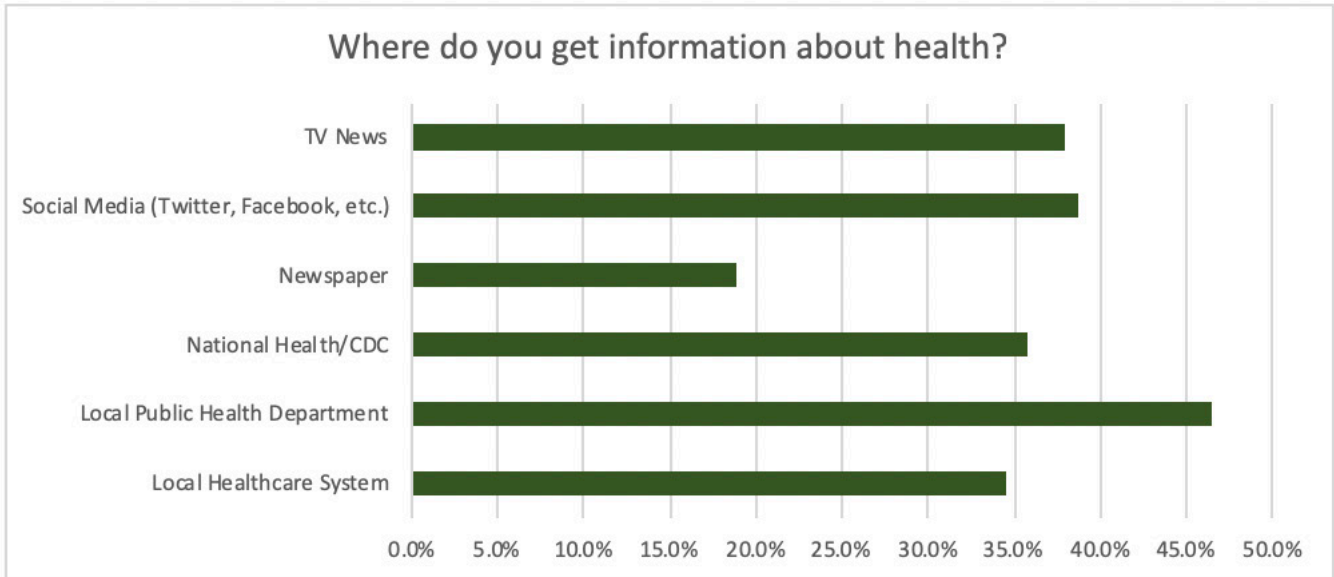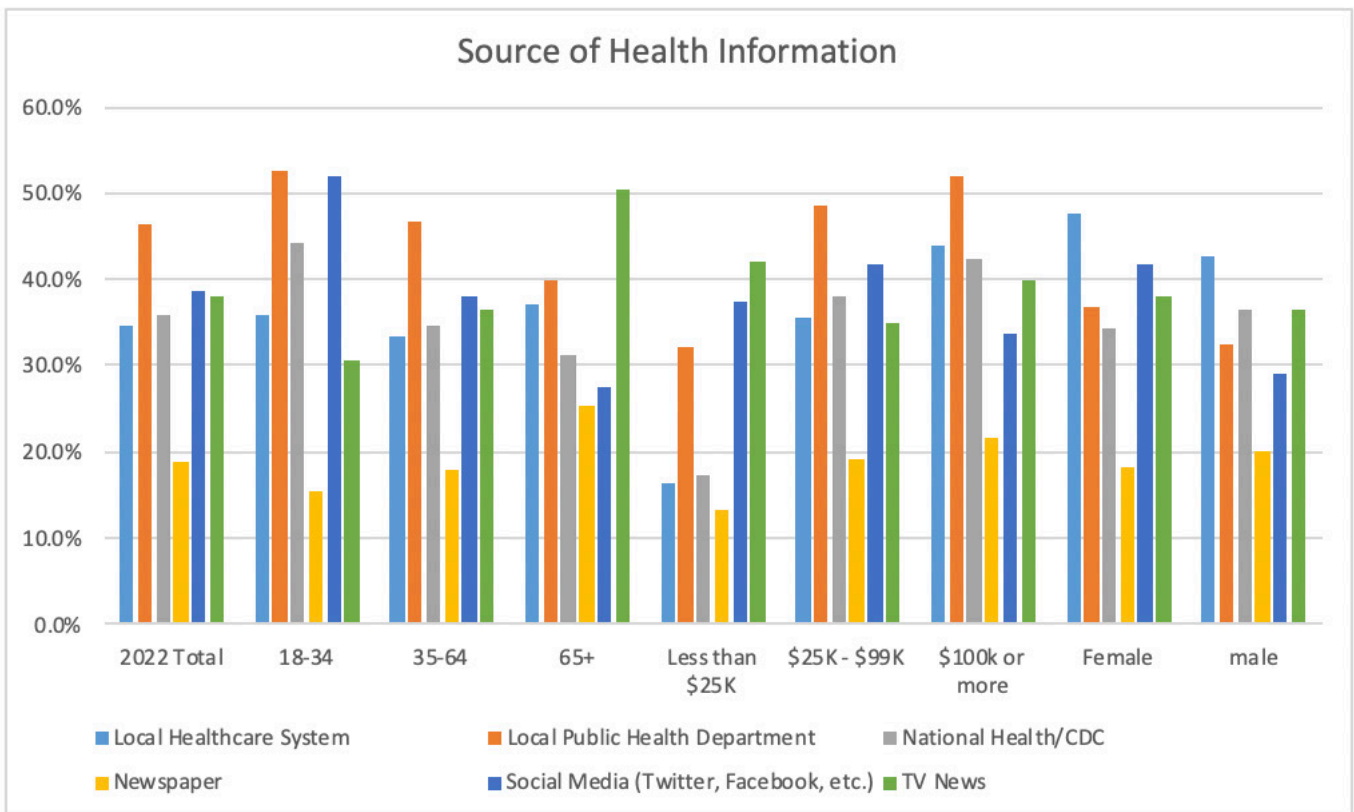
Table 67: Information About Health

Where do you get information about health?

Table 68: Source of Health Information

Source of Health Information

PUBLIC SURVEY HEALTH OUTCOMES AND BEHAVIORS CROSS TABULATION TABLES

Substance Use

Table below includes a list of health behaviors reported by survey respondents. Data is filtered by age, gender, and income.

Table 69: Substance Abuse

	Total Survey Responses	Age	Gender	Income
Do you consume alcohol?	49.1% of survey respondents said they have consumed alcohol. Total response count=701	52.2% of those 35-64 years of age consume alcohol vs. 49.6% of those 18-34 years of age consume alcohol and 38.5% of those 65+ years of age.	52.4% Males said they have consumed alcohol vs. 47.7% females	60.0% of respondents who make more than $100K income reported having consuming alcohol vs. 51.4% of those who make $25k-$99k and 33.6% of those who make less than $25K
Do you use tobacco or tobacco products?	18.0% of survey respondents said they currently smoke, vape, or dip Total response count=701	20.7% of those 35-64 years of age currently smoke, vape, or dip, vs. 19.1% 18-34 years of age, 8.1% 65+ years of age.	24.8% Males said they currently smoke, vape, or chew tobacco vs. 15.7% females	31.3% of respondents who make less than $25K said they currently smoke, vape, or dip. vs. 15.9% of respondents who make $25K-$99k and 11.4% who make more than $100k
Do you use marijuana?	12.6% of survey respondents said they have used recreational marijuana. Total response count=701	14.9% of survey respondents 35-64 years of age use marijuana vs. 13% of those 18-34 years of age and 4.4% of those 65+ years of age.	18.6% of survey respondents that are male said they have used recreational marijuana vs. 11.2% of females.	23.4% of those who make less than $25K use marijuana vs. 9.5% of those who make $25K-$99k and 11.4% of those who make more than $100k.

Health Outcomes

Table below includes a listing of health outcomes reported by survey respondents. Data is filtered by age, gender, and income.

Table 70: Health Outcomes

	Total Survey Responses	Age	Gender	Income
Cancer	11.8% of survey respondents have been told they have cancer. Total response count=768	27.1% of 65+ years of age reported having cancer vs. 9.5% of 35-64 years of age, 0.0% of those 18-34 years of age.	16.3% of males reported having cancer and 10.6% of females reported having cancer.	17.4% of respondents who make less than $25k income reported having cancer vs. 11.5% of those who make $25K - $99k and 8.4% of those who make more than $100K.
Asthma	14.5% of survey respondents have been told they have asthma. Total response count=768	16.3% of 35-64 years of age reported having asthma vs. 13.5% of those 18-34 years of age and 9.7% of those 65 years or older.	15.3% of females reported having asthma and 12.5% of males reported having asthma.	24.6% of respondents who make less than $25k income reported having asthma vs. 12.% of those who make $25K-$99k per year and 11.6% of those who make more than $100k per year.
Depression or Anxiety	41.7% of survey respondents have been told that they have depression or anxiety. Total response count=768	56.0% of those 18-34 years of age say they have depression or anxiety vs. 43.4% of 35-64 years of age, 23.2% of 65+ years of age	45.5% of females reported having depression or anxiety vs. 26.9% of males	55.8% of those who make Less than $25k income reported depression or anxiety vs. 42.8% of those who make $25k -$99k per year and 31.1% who make more than $100k per year.
High Blood Pressure	31.7% of survey respondents have been told they have high blood pressure. Total response count=768	62.6% of 65+ years of age respondents have been told they have high blood pressure vs. 35.8% of 35-64 years of age, 13.5% of 18-34 years of age.	44.4% of males reported having high blood pressure vs. 35.4% of females	44.2% of those who make less than $25K per year reported high blood pressure vs. 36.2% of those who make $25K - $99k per year and 34.2% who make more than $100k per year.
High Cholesterol	26.2% of survey respondents have been told they have high cholesterol. Total response count=768	43.2% of 65+ years of age respondents have been told they have high cholesterol vs. 26.7% of 35-64 years of age, 5.7% of those 18-34 years of age.	26.6% of females report having high cholesterol; 25.6% of males report having high cholesterol.	31.2% of those who make less than $25K per year reported high cholesterol vs. 25.8% of those who make more than $100K per year and 22.9% of those who make $25K to $99K per year.
Overweight / Obesity	32.5% of survey respondents have been told they are overweight or obese. Total response count=768	40.3% of 35-64 years of age reported being overweight or obese vs. 35.5% 65+ years of age, 32.6% 18-34 years of age	42.4% of females reported being overweight or obese vs. 21.3% males	41.5% of those who make $25K-$99K per year reported having obesity or overweight vs. 34.8% of those who make less than $25k per year and 34.7% who make more than $100k per year.
Diabetes	37.9% of survey respondents reported having diabetes (not during pregnancy). Total Response = 768	23.9% of those 65 years or older report having diabetes vs. 15.3% of those who are 35 -64 years of age and 9.9% of those 18-34 years of age.	16.8% of females report having diabetes and 13.8% males report having diabetes.	21.0% of those who make less than $25 k per year report having diabetes vs. 16.8% of those who make $25k to $99k per year and 11.6% of those who make more than $100k per year.
Angina/ Heart Disease	5.5% of respondents have been told they have angina or heart disease. Total response count=768	10.3% of those 65+ years of age reported having heart disease vs. 4.9% of those 35-64 years of age, 2.1% 18-34 years of age.	5.6% of males reported having heart disease and 5.6 % females	10.1% of those who make less than $25K per year reported having heart disease vs. 5.0% of those who make $25K-$99K per year and 2.6% who make $100k per year or more.

Public Survey Question Responses Table

More than 1053 surveys were attempted and collected from residents of Ross County. All survey respondents were anonymous. Only surveys from respondents who reside in Ross County were accepted. Responses from individuals less than 18 years of age were not accepted and were excluded in the final analysis as well as surveys that were incomplete. Data was prepared and cleaned to allow for analysis and a total of 768 surveys where then used for final analysis. Of the 768 completed surveys, 701 were fully completed. For some questions, the total number of responses were from a pool of 768 survey responses, and for other questions, only 701 responses could be used as some information was not completed by the person completing the survey. Additionally, some subgroup categories had too few responses to be considered for final analysis.

Table 71: Public Survey

Question category	Total survey responses	Number of responses by age subgroup			Number of responses by sex subgroup		Number of responses by Income subgroup		
Health Outcomes (asthma, diabetes, obesity, cancer, high blood pressure, cholesterol, Mental Health, Community Perceptions, Housing.	Total number of survey responses used = 768	18-34	35-65	65+	Male	Female	Less than $25,000 income	$25,000 - $99,000	$100,000 or more income
		141	472	155	160	594	138	381	190
Health Behaviors (tobacco, alcohol, marijuana use) traumatic events, healthcare utilization, health insurance, exercise, fruit and vegetable consumption, information about health.	Total number of survey responses used = 701	18-34	35-65	65+	Male	Female	Less than $25,000 income	$25,000 - $99,000	$100,000 or more income
		131	435	135	145	543	128	346	175

Conclusions and Next Steps

As health outcomes and factors in Ross County, Ohio have not changed much 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 infrastructure that drives positive health outcomes.

Next steps for the Partners for a Healthier Ross County will be to utilize this assessment to update, expand, and improve upon its 2019 community health improvement plan. Following the MAPP 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.

From the community input and review of secondary data, priority health needs to focus on are child safety, tobacco and vaping prevention, social vulnerability, substance use, mental health, and general nutrition/fitness.
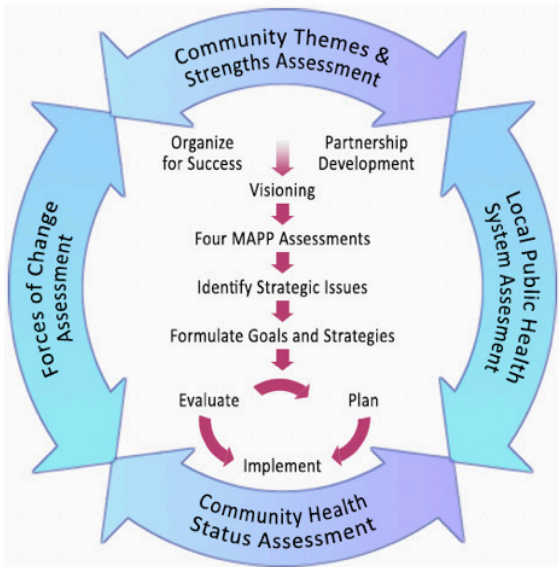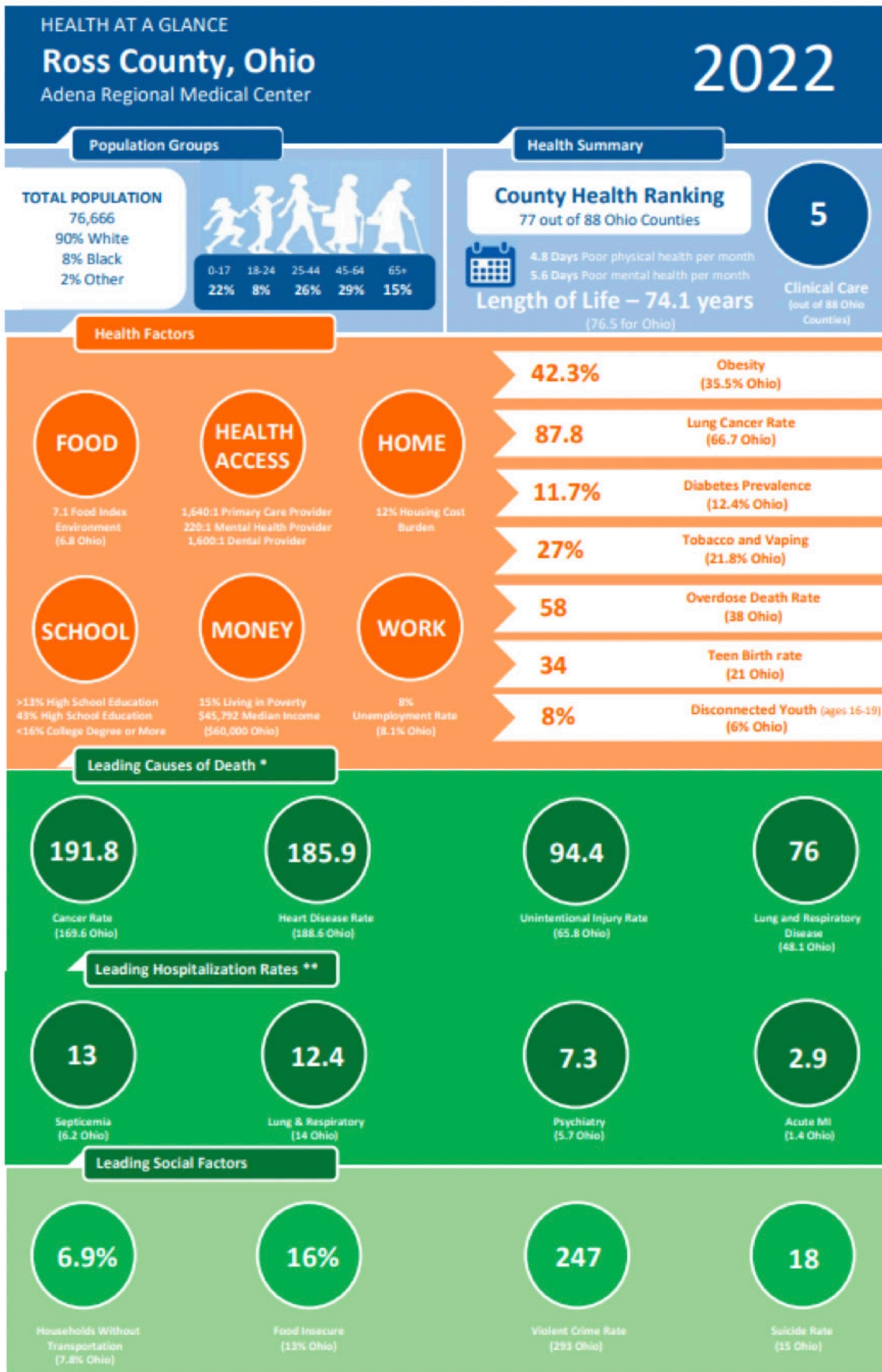

Figure 21: Mobilizing Action Through Planning and Partnership (MAPP)

Figure 22: Top Health Needs - 2022

HEALTH AT A GLANCE
Ross County, Ohio
Adena Regional Medical Center

2022

Population Groups

TOTAL POPULATION
76,666
90% White
8% Black
2% Other

0-17	18-24	25-44	45-64	65+
22%	8%	26%	29%	15%

Health Summary

County Health Ranking
77 out of 88 Ohio Counties

5

4.8 Days Poor physical health per month
5.6 Days Poor mental health per month
Length of Life – 74.1 years
(76.5 for Ohio)

Clinical Care
(out of 88 Ohio Counties)

Health Factors

FOOD
7.1 Food Index Environment
(6.8 Ohio)

HEALTH ACCESS
1,640:1 Primary Care Provider
220:1 Mental Health Provider
1,600:1 Dental Provider

HOME
12% Housing Cost Burden

SCHOOL
>13% High School Education
43% High School Education
<16% College Degree or More

MONEY
15% Living in Poverty
$45,792 Median Income
($60,000 Ohio)

WORK
8% Unemployment Rate
(8.1% Ohio)

Value	Factor
42.3%	Obesity (35.5% Ohio)
87.8	Lung Cancer Rate (66.7 Ohio)
11.7%	Diabetes Prevalence (12.4% Ohio)
27%	Tobacco and Vaping (21.8% Ohio)
58	Overdose Death Rate (38 Ohio)
34	Teen Birth rate (21 Ohio)
8%	Disconnected Youth (ages 16-19) (6% Ohio)

Leading Causes of Death *

191.8 Cancer Rate (169.6 Ohio)

185.9 Heart Disease Rate (188.6 Ohio)

94.4 Unintentional Injury Rate (65.8 Ohio)

76 Lung and Respiratory Disease (48.1 Ohio)

Leading Hospitalization Rates **

13 Septicemia (6.2 Ohio)

12.4 Lung & Respiratory (14 Ohio)

7.3 Psychiatry (5.7 Ohio)

2.9 Acute MI (1.4 Ohio)

Leading Social Factors

6.9% Households Without Transportation (7.8% Ohio)

16% Food Insecure (13% Ohio)

247 Violent Crime Rate (293 Ohio)

18 Suicide Rate (15 Ohio)

*Rate per 100,000
**Rate 1,000
Source 1: ODH Public Health Data Warehouse, Lead Data, 2020
Source 2: Area Health Resource File, 2019, as compiled by County Health Rankings and Roadmaps, 2021

Partners for a Healthier Ross County

Appendix B: Reference of Figures