Columbiana County

2019-2022
Community Health Needs Assessment

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On behalf of the Columbiana County Health Partners (CCHP), we are pleased to present the 2019-2022 Columbiana County Community Health Needs Assessment. This community health needs assessment was conducted by the Columbiana County Health Partners and their contractor, The Hospital Council of Northwest Ohio (HCNO). HCNO has provided assistance with the development of the CHNA's primary data findings related to the 2018 Community Survey and the integration of some related secondary data sources into the final report. The Columbiana County Health Partners have provided assistance with the development of primary data findings from key stakeholders and focus groups (including vulnerable populations), and the collection and integration of additional secondary data to address data gaps into the final report, including identifying key data findings. The final report was written in collaboration with various social service organizations, hospitals and health departments within Columbiana County. The purpose of this endeavor was to collect data to illuminate the health and health behaviors of Columbiana County residents and then identify their health needs.

Collaboration among the partners was essential to align interests and coordinate resources with the goal of effectively promoting better health outcomes in Columbiana County by leveraging multiple perspectives, community relationships and areas of expertise. The members of the CCHP plan will use this data dynamically and over a continuum of the next three years to better serve the individuals within Columbiana County. This report was designed to assess the health status and needs of the community; identify factors that affect population health; determine the availability of existing resources that can be mobilized to improve health status; and facilitate the development of evidence-based, population-wide interventions and measurable outcomes. The full report is also offered as a resource to individuals and groups, who are interested in using the information to become better informed regarding health care and community agency decision-making.

The Columbiana County Health Needs Assessment would not have been possible without the help of all of the organizations who contributed financially and with in-kind support to complete this assessment. In addition, the possibility of this report relies heavily on the participation of individuals in our community, adults and youth; who committed to honestly responding to the surveys they have received each year from our various organizations. We are grateful for those individuals who are committed to the health of the community and take the time to share their health behaviors. Together, we can make a difference and achieve a healthier Columbiana County.

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Adoption: The 2019-2022 Columbiana County Health Needs Assessment was completed in May 2019 and is being presented for adoption to the various organizations involved in its development. Following completion of this approval process, the CHNA will be available on the following websites:

Columbiana County Health District
http://www.columbiana-health.org

Salem Regional Medical Center
http://www.salemregional.com/

East Liverpool City Hospital
http://www.elch.org/

Columbiana County Health Needs Assessment: EXECUTIVE SUMMARY

PURPOSE: The 2019 Columbiana County Community Health Needs Assessment (CHNA) was conducted by the Columbiana County Health Partners ("Partners") workgroup as a data-driven approach to describing the health status of Columbiana County residents, identifying contributing factors that impact health outcomes and prioritizing opportunities for health improvement.

This CHNA report is designed to help community members make informed decisions as they collaborate in the development and implementation of strategic initiatives and shared resources to improve the health of Columbiana County residents, including interventions designed to address social determinants of health, access and equity. The findings will also be used by the Partners as the foundation for developing and implementing a Community Health Improvement Plan (CHIP), which will include specific action plans for improving the community's health over the next three years from 2019-2022.

COLLABORATION & PARTNERSHIP: Members of the Columbiana County Health Partners have a proven history of collaborating to address community health needs, and have jointly completed three CHNAs together in 2010, 2013 and 2016. With the completion of Columbiana County's 2016 CHNA and CHIP, the workgroup moved into alignment with the state of Ohio's mandate by law (ORC3701.981) that all hospitals must collaborate with their local health departments on community health assessments and community health improvements plans. Compliance with this state mandate has continued into the completion of this 2019 CHNA and will be carried forward into the development of the 2019 CHIP.

In addition, hospitals and health departments are required to align with the Ohio State Health Assessment (SHA), including alignment of the CHNA process and timeline, by 2020. This alignment with Ohio's SHA was first achieved by the Partners during the completion of the 2016 Columbiana County CHNA and again in the 2019 CHNA.

- **Columbiana County Health Partners' Membership:** The 2019 Columbiana County Health Partners' collaborative workgroup is composed of the following organizations:

Akron Children's Hospital	East Liverpool City Health Department
Columbiana County Education Service Center	East Liverpool City Hospital
Columbiana County General Health District	Family and Children First Council
Columbiana County Mental Health and Recovery Services Board	Salem City Health Department
Community Action Agency of Columbiana County	Salem Regional Medical Center
Coordinated Action for School Health (CASH) Coalition	The Ohio State University- Extension

- Contractors/Vendors: The Columbiana County Health Partners contracted with the Hospital Council of Northwest Ohio (HCNO) to conduct the CHNA. HCNO has provided guidance with the health assessment process and assistance with the development of the CHNA's primary data findings related to the 2018 Community Survey and the integration of some related secondary data sources into the final report. The Columbiana County Health Partners have provided assistance with the development of primary data findings from key stakeholders and focus groups (including vulnerable populations), and the collection and integration of additional secondary data to address data gaps and provide decision-support for identifying key data findings.

COMPLIANCE WITH REQUIRED ELEMENTS
- Patient Protection and Affordable Care Act Requirements for Hospitals: The Patient Protection and Affordable Care Act, Public Law 111-148 (the "Affordable Care Act" or ACA), created section 501(r) requirements in Part V, Section B, adding new requirements beginning with the first tax year on or after March 23, 2012; which state that 501(c)(3) hospitals must conduct a CHNA at least once every three years in order to assess community need and annually file information by means of Schedule H (Form 990), regarding

progress toward addressing identified needs. Each hospital is then required to adopt an implementation strategy at least once every three years, based on the findings of the CHNA.

The Internal Revenue Service (IRS) is charged with enforcing these new requirements, and has issued guidance for hospitals to follow, which states that a CHNA report should include:
- The community served and how it was defined.
- The process and methods used to conduct the assessment, including the sources and dates of the data and other information used in the assessment and the analytical methods applied to identify community health needs.
- The information gaps that impact the ability to assess health needs.
- Collaborating hospitals and vendors used while conducting the CHNA.
- How input was received from persons who have expertise in public health and from persons who represent the broad interests of the community, including a description of when and how these persons were consulted.
- The prioritized community health needs, including a description of the process and criteria used in prioritizing the health needs.
- Existing health care facilities and other resources within the community available to meet the prioritized community health needs.

Note: This report will fulfill the CHNA requirements established by the ACA for the hospitals listed.

- Public Health Accreditation Board (PHAB) Requirements for Public Health Departments: Strong connections between health care providers, public health departments and community-based prevention organizations are critical for improving population health. In December 2013, to foster integrated population health planning activities, the Public Health Accreditation Board (PHAB) published its "Standards & Measures," requiring local health departments to complete a Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP) at least every five years via collaborative community partnerships. In 2016, Ohio enacted additional reporting requirements for tax-exempt hospitals and local health departments to submit their assessments and plans to the state by 2017; and further requires local health departments to apply for PHAB accreditation, which includes the submission of a community-driven CHA and CHIP.

PHAB standards require that a CHA include:
- The collaborative process used to identify and collect data and information.
- Description of the demographics of the population.
- Description of health issues and specific population groups with particular health issues and health disparities or inequities.
- Description of factors that contribute to the population's health challenges.
- Description of existing assets or resources to address health issues.
- Opportunity for the population at large to review drafts and contribute to the CHA.

In addition, PHAB highly recommends that national models of methodology are utilized in compiling CHAs. The 2019 Columbiana County CHNA/CHA was completed using the National Association of County and City Health Officials (NACCHO) Mobilizing Action through Partnerships and Planning (MAPP) process. MAPP is a community-driven planning process for improving community health. The prioritization phase of this process was facilitated by HCNO, in collaboration with the Columbiana County Health Partners.

Note: This report fulfills the PHAB requirements for the public health departments listed.

DEFINITION OF "COMMUNITY" & SERVICE AREA DETERMINATION: Columbiana County, Ohio

In accordance with IRS and Public Health Accreditation Board (PHAB) guidelines, the Columbiana County Health Partners' workgroup defined the CHNA's "community" as Columbiana County, Ohio; by geographic location based on the shared primary service area of the workgroup. Columbiana County includes the zip codes listed in the following table and as illustrated in the following map.

43920	East Liverpool	44413	East Palestine	44432	Lisbon	44460	Salem
43945	Salineville	44423	Hanoverton	44441	Negley	44490	Washingtonville
43968	Wellsville	44427	Kensington	44445	New Waterford	44625	East Rochester
44408	Columbiana	44431	Leetonia	44455	Rogers	44634	Homeworth
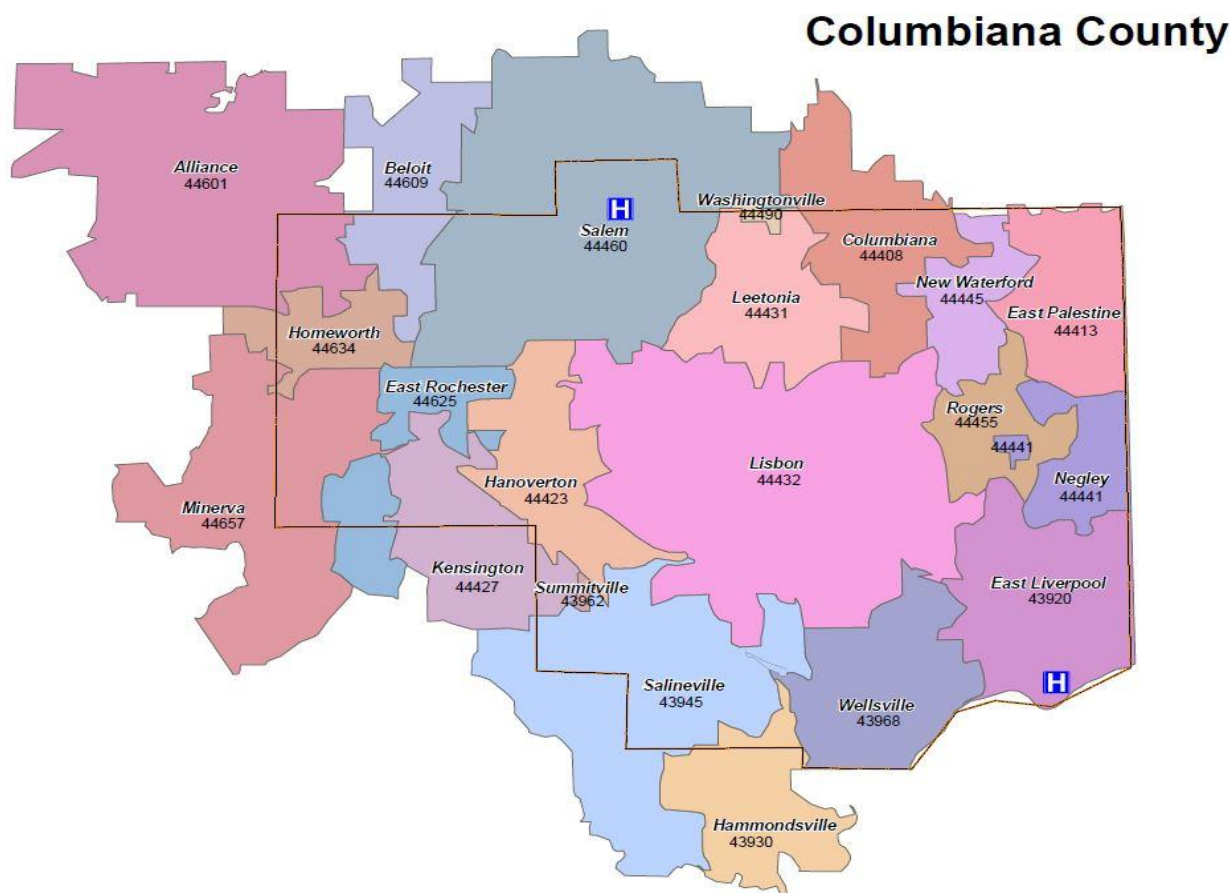
Columbiana County

♦ **Columbiana County Profile:** Located in northeastern Ohio, Columbiana County is one of Ohio's 32 Appalachian counties. Over half of the county's total population of 103,077 lives in unincorporated rural areas, with villages and towns some distance apart. The county has two, major geographic concentrations of development and population. The northern corridor between the city of Salem and village of East Palestine, (including the villages of Washingtonville, Leetonia, Columbiana and New Waterford and the four townships of Perry, Salem, Fairfield and Unity); extends along a 20-mile distance bordering Mahoning County to the north, and contains almost 48% of the county's population. The southern corridor extends for about 10 miles from the village of Wellsville to the city of East Liverpool, (including St. Clair Township) and contains 11% of the county's total population. The county shares an eastern border with Pennsylvania and a southern border with West Virginia.

- Age/Disability: Since 2010, the County's population has decreased slightly by over 4 percent. Compared to the State of Ohio, Columbiana County has a smaller proportion of children (under 18 years old=20.5% vs. Ohio=22.3%) and a higher proportion of older adults (65 years and older=28.2% vs. Ohio=16.7%). The overall disability status of the County's civilian, non-institutionalized population is 16.5%, of which 6.2% of those under 18 years and 74.5% of those 65 years and over have a disability.

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- Race/Ethnicity: According to the U.S. Census Bureau's 2017 ACE 1-year estimates, the County's percentage of the non-White population (4.8%) is significantly lower than Ohio's at 23.4%. However, the County has experienced a significant increase in residents, who do not speak English as their primary language. The 2017 U.S. Census estimates that there are 3,148 African Americans (3.1%) and 1,769 Hispanic or Latinos of any race (1.7%); however local workforce, social service and faith-based organizations estimate that there has been a 30% county population growth rate over the last 10 years for this respective ethnic group. Sampling estimates obtained from a third-party source through the Ohio Rural Immigrant Worker Project (IWP) indicate that the approximate amount is about 3,464 Hispanics, with a 775% growth rate projected from the past 10 years. Based on these estimates, Hispanics represent between 3-4% of the county's population and are identified as a rapidly growing and medically vulnerable population.

- Education/Income: The educational attainment of a high school diploma or higher is higher in Columbiana County (93%) compared to the State of Ohio at 85%; however, there is a significant disparity between those in the County having some college education (51%) compared to Ohio at 65%. Similarly, annual per capita income in the County ($24,758) is significantly lower than the State of Ohio ($31,117); and the percentage of Columbiana County residents living in poverty is 15.8%, compared to 15.4% in the State of Ohio. There is also a significant correlation between poverty and educational attainment in that Columbiana County residents with less than a high school education have a much higher poverty rate at 25.72%, compared to those with a high school education at 12.23%.
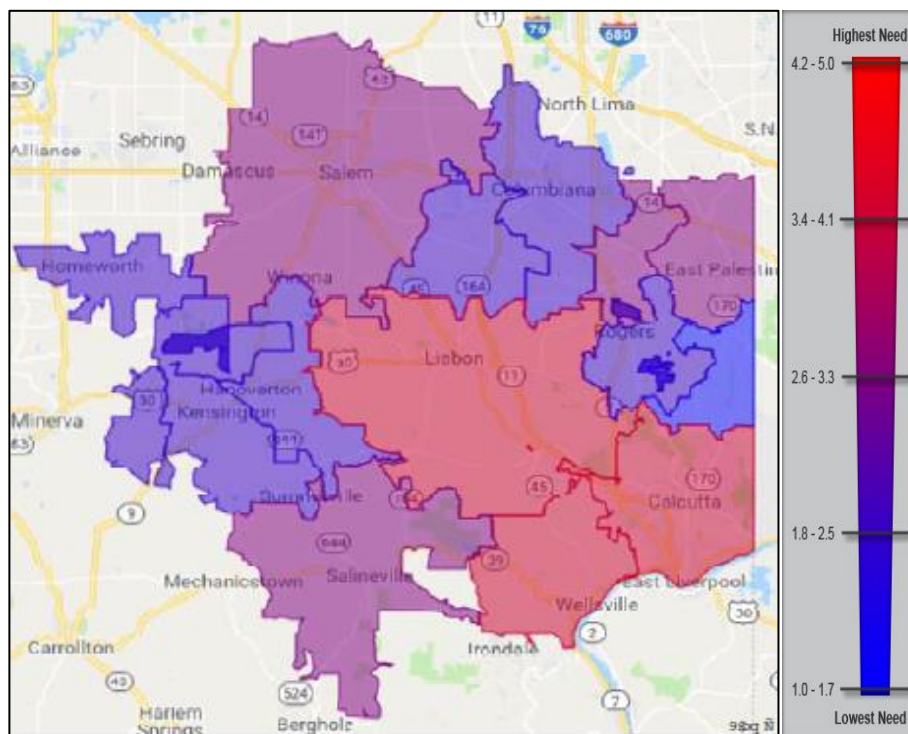
Because of these significant socioeconomic disadvantages, Columbiana County residents living in poverty have also been identified as a vulnerable population, and the 2018 community survey data has been broken down by income (less than $25,000 and greater than $25,000) to reflect this disparity. *(Demographic Data Source: U.S. Census Bureau, population estimate July 1, 2017)*

VULNERABLE POPULATIONS: According to the National Institutes of Health, vulnerable populations include those who are racial or ethnic minorities, children, elderly, socioeconomically disadvantaged, underinsured or those with certain medical conditions. Members of vulnerable populations often have health conditions that are exacerbated by unnecessarily inadequate health care.

Based on the demographics of Columbiana County's population and for the purposes of this CHNA, the Partners' workgroup has identified the vulnerable populations as being those living in poverty/socioeconomically disadvantaged, the Appalachian culture, children/youth, the elderly and those facing ethnic and literacy barriers.

- Community Need, Access and Vulnerable Populations: Dignity Health, a California-based hospital system, developed and published a Community Need Index™ (CNI) that measures barriers to health care access. The index is based on five social and economic indicators, which are typically experienced by vulnerable populations at higher levels and may contribute to increased health disparities and inequities:
- **Income Barrier:** The percentage of elders, children and single parents living in poverty
- **Cultural Barrier:** The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White
- **Education Barrier:** The percentage of the population without a high school diploma
- **Insurance Barrier:** The percentage of uninsured and unemployed residents
- **Housing Barrier:** The percentage of the population renting houses

A CNI score is calculated for each ZIP code. Scores range from "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0).
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- Columbiana County's overall CNI weighted average score is 2.8.

- Three of the 16 ZIP codes in Columbiana County scored in the second "highest need" category as follows:
44432-Lisbon
43920-East Liverpool
43968-Wellsville

(Source: http://cni.chw-interactive.org)
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SUMMARY OF PROCESS & METHODS

The Columbiana County Health Partners followed the process outlined by the National Association of County Health Officials (NACCHO)'s Mobilizing for Action through Planning and Partnerships (MAPP) to conduct the needs assessment and prioritize findings. MAPP is a community-driven strategic planning process for improving community health that helps prioritize public health issues and identify resources to address them. The following four MAPP phases were addressed in the development of the 2019-2022 CHNA as follows:

- MAPP Phase 1 (Organizing the Planning Process & Developing the Planning Partnership)

The Columbiana County Health Partners contracted with the Hospital Council of Northwest Ohio (HCNO) to provide overall project management and collect and analyze primary and secondary data. In addition, the Partners conducted primary and secondary data collection and analysis independent from HCNO, to more fully capture the needs of vulnerable populations and the broad community, and help fill identified data gaps to support informed decision-making.

- MAPP Phase 2 (Visioning and Values)

The Partners undertook a collaborative process to determine a shared mission and vision to guide the assessment and prioritization processes.

- **2019-2022 Mission**: To create a healthy place for all to live, work, and play by preventing disease in the community through partnership, encouraging people to make better choices, and promoting overall health and wellness.

- **2019-2022 CHNA Vision**: A safe community of healthy people.

- MAPP Phase 3 (Collecting & Analyzing Data)

The data assessment model followed best practices as outlined by the Association of Community Health Improvement and was also designed to ensure compliance with current Internal Revenue Service guidelines for charitable 501(c)(3) tax-exempt hospitals and National Public Health Department accreditation prerequisites.

- **Primary Data**: Primary qualitative data to reflect input from the broad community and vulnerable populations was collected through 377 written community surveys completed by individuals representing diverse constituent groups with this data gathered and analyzed by HCNO; and 34 stakeholder and focus group interviews, reflecting input from 115 participants with this data gathered and analyzed by the Partners' workgroup.

  - **Community Survey:** As a first step in the community survey design process, health education researchers from the University of Toledo and staff members from HCNO chose to derive the majority of the community survey items from the Behavioral Risk factor Surveillance System (BRFSS), due to the ability to compare local data with state and national data. The project coordinator from HCNO met with the Partners' workgroup to review banks of potential survey questions from the BRFSS survey and define the content, scope, and sequence of the survey.

  The sampling frame for the community survey consisted of adults ages 19 and over living in Columbiana County, with the target sample size of 382 adults needed to ensure a 95% confidence level, with a corresponding margin of error of 5%. Findings from the community survey responses are reflected within each respective topic area of the CHNA, and in the "Findings from Significant Data Indicators by Key Issue & Population At Risk" on pages 6-8.

  - Focus Groups and Stakeholder Interviews: Community leaders and key stakeholders were identified by the Partners as experts in a particular field related to their background experience or professional position; and/or those who understand the needs of a particular community/geographic region or under-represented group, including the medically underserved and vulnerable populations defined in the CHNA.

  The Association for Community Health Improvement's Toolkit was used as a best-practice guide for developing community-based participatory research through a collaborative approach to reflect the experiences and opinions of community stakeholders. A standardized interview question guide was then developed from a template utilized by other HCNO clients, and then used by the workgroup to conduct the interviews and facilitate focus group interviews with 115 participants from October-December 2018.

  Community participants represented in the focus group and stakeholder interviews included:

  - School Districts and Youth Services   - Hospital Case Managers
  - Juvenile Justice System   - Local Government Officials/ County Commissioners
  - Community Resource Centers   - Health and Human Service Providers
  - Food Pantries   - Mental Health and Recovery Service Providers
  - Senior Services & Home Health Providers   - Faith-Based Organizations Providing Assistance
  - Hispanic Community Members & Service Providers

  An analysis was conducted on the notes and transcripts of stakeholder interviews and community focus groups to identify and quantify themes that consistently emerged. Findings from this source of primary data were obtained regarding factors impacting social determinants of health, top health care issues and priorities, community strengths and resources, opportunities to increase access to health care resources, and how to improve community supports. Findings from the focus groups and stakeholder interviews are reflected within each respective topic area of the CHNA, and in the "Findings from Significant Data Indicators by Key Issue & Population At Risk" on pages 6-8.

  In addition to collecting and analyzing data from focus groups and stakeholder interviews, primary data input and synthesis of conclusions were also performed by the community representatives, who served on the Columbiana County Health Partners' workgroup.

- **Secondary Data:** HCNO collected secondary data from multiple websites, including county-level data, whenever possible. HCNO utilized sites such as the Behavioral Risk Factor Surveillance System (BRFSS), numerous CDC sites, U.S. Census data, and Healthy People 2020, among other national and local sources. The Partners collected additional epidemiological and population data to help

establish benchmarks for health indicators and conditions at the county, state and national levels; representing a wide range of factors that impact community health, such as mortality rates, environmental factors and health care access issues. Data sources included the County Health Rankings, Association for Community Health Improvement's Community Health Assessment Toolkit, Truven Health Analytics' Community Need Index, etc. (See Appendix: "Health Assessment Information Sources")

- **Data Gaps/Limitations:** As with any assessment, it is important to consider the findings in light of possible limitations. This CHNA relies on multiple data sources and community input gathered between the summer of 2018 and April 2019. A number of data limitations should be recognized when interpreting results, such as some data only exists at a county-wide or state level, which does not allow for assessing needs at a more granular level. In addition, secondary data measures community health in prior years and may not reflect current conditions. The impacts of recent public policy developments, changes in the economy and/or other community developments are not reflected in those data sets.

  The sampling frame for the adult community survey consisted of adults ages 19 and over living in Columbiana County, and the investigators conducted a power analysis to determine what sample size was needed to ensure a 95% confidence level, with a corresponding margin of error of 5%. A sample size of at least 382 adults was needed to ensure this level of confidence; however, the final survey results were compiled from 377 completed surveys, which reflected a high response rate but reduced the level of power and broadened the confidence interval to ± 5.04%. It should be noted that if any important differences existed between the respondents and non-respondents regarding the questions asked, this would represent a threat to the external validity of the results (the generalizability of the results to the entire County's adult population). It is also important to note that although several questions were asked using the same wording as the Centers for Disease Control and Prevention (CDC) questionnaire, the data collection method differed. The CDC data was collected using a set of questions from the total question bank, and participants were asked the questions over the telephone rather than a mailed survey. Lastly, caution should be used when interpreting sub-group results, as the margin of error for any sub-group is higher than that of the overall survey sample.

- **Findings from Other Needs Assessments:** Findings from other health needs assessments that were conducted in the region and in the state of Ohio were also reviewed by the Partners to help inform the development of this CHNA, including:

  - The 2013-2016 CHNA conducted by the Columbiana County Health Partners' workgroup.
  - The 2016 Akron General Medical Center CHNA, the Akron Children's Hospital CHNA and 2016 Mercy Health- Youngstown CHNA (all conducted by Kent State University); and the 2016 Aultman Hospital CHNA conducted by the Center for Marketing & Opinion Research.

  - Ohio's 2017-2019 State Health Improvement Plan (SHIP), as informed by the 2016 State Health Assessment (SHA). Ohio's 2016 SHA includes over 140 metrics, organized into data profiles, as well as information gathered through five regional forums, a review of local health department and hospital assessments and plans and key informant interviews. Following is a summary of the top 10 health issues identified locally, regionally and by key informants through Ohio's SHA forums, as identified on page 104-105 of Ohio's 2016 SHA.

  The interconnectedness of Ohio's greatest health challenges, along with the overall consistency of health priorities identified in this assessment, indicates many opportunities for collaboration between a wide variety of partners at and between the state and local level, including physical and behavioral health organizations and sectors beyond health. To view the 2016 Ohio State Health Assessment, please visit: https://odh.ohio.gov/wps/portal/gov/odh/about-us/sha-ship/media/ohio-2016-state-health-assessment

Top Ten Health Issues Identified in Ohio's 2016 State Health Assessment

	Top 10 health issues	
	Identified in local health department and hospital assessments/ plans	Identified in SHA regional forums
Mental health and addiction		
Mental health	X	X
Drug and alcohol abuse	X	X
Chronic disease		
Obesity	X	X
Cardiovascular disease	X	X
Diabetes	X	X
Cancer	X	
Chronic disease (unspecified)	X	
Maternal and infant health		
Maternal and infant health	X	
Health behaviors		
Tobacco	X	
Nutrition		X
Access to care		
Access to health care/ medical care	X	
Access to behavioral health care		X
Access to dental care		X
Social determinants of health		
Employment, poverty and income		X
Equity/disparities		X

Ohio's Universal Health Issues (2016):
According to the 2016 SHA, the following issues emerged in all regions of Ohio, including urban, suburban, Appalachian and non-Appalachian rural counties:
• Obesity
• Mental health
• Access to health care/medical care
• Drug and alcohol abuse

- **Findings from Significant Data Indicators:** Following is a summary of significant data indicators by key issue or concern, and the identified population at risk. An indicator is considered significant if it was found to vary materially from a benchmark statistic, such as an average value for the State of Ohio or the U.S.

Findings from Significant Data Indicators by Key Issue & Population At Risk	
Access to Care	**Pop. At Risk**
Ratio of the population to primary care providers (2015) *(Source: 2018 County Health Rankings)*	2,250:1
Ratio of the population to dentists (2016) *(Source: 2018 County Health Rankings)*	4,120:1
Ratio of the population to mental health providers (2017) *(Source: 2018 County Health Rankings)*	1,160:1
Adults who were uninsured *(Source: 2018 Columbiana County CHNA)*	10% Age: 19-29 (38%)
One of the most significant barriers to access involved the lack of transportation to local providers and even greater problems finding transportation to providers outside of the County *(Source: 2018 Columbiana County Stakeholders & Focus Groups)*	Vulnerable populations
The workforce shortage and local availability of providers, especially specialists, OB/GYNs, dental care and mental health providers; resulted in the need/choice to travel outside of Columbiana County; along with not having a local maternity unit and only very limited inpatient psychiatric services in the County. This access issue was identified across all forums by community survey participants, focus groups and key stakeholders *(Source: 2018 Columbiana Cty. Stakeholders & Focus Groups)*	Vulnerable populations
Stakeholder, focus groups and social service providers identified access barriers for certain ethnic groups, such as among the Hispanic (Guatemalan, Mexican) population; with more outreach, bi-lingual services and cultural competency needed by providers and social service organizations *(Source: 2018 Columbiana County Stakeholders & Focus Groups)*	Vulnerable populations

Obesity	Pop. At Risk
Adults who were overweight or obese *(Source: 2019 Columbiana County CHNA)*	76%
Columbiana County 3rd grade students classified as obese or overweight *(Source: 2016 Akron Children's Hospital Mahoning Valley Community Health Needs Assessment)*	35.8%
Ohio is 11th highest in nation for overweight & obese adults, 16th highest in nation 10-18-year olds *(Source: "The State of Obesity")*	All
Mental Health (Depression/Suicide)	**Pop. At Risk**
Suicide mortality averaged about 19 suicide deaths per year during the past 10 years *(Source: Ohio Department of Health, Ohio Public Health Data Warehouse)*	All
Youth who attempted suicide one or more times *(Source: 2018 Columbiana County Profiles of Student Life: Attitudes and Behaviors Survey)*	20% Youth
Youth who felt depressed most or all the time within last month *(Source: 2018 Col. Cty. Profiles of Student Life: Attitudes & Beh. Survey)*	26% Youth
Focus groups and stakeholders also identified concerns about the growing incidence of mental health issues among youth and the potential impact on family and community health status, especially related to a lack of mental health providers and limited youth mental health treatment options *(Source: 2018 Columbiana County Stakeholder and Focus Group Interviews)*	Youth/All
Drug Dependency/Use	**Pop. At Risk**
From 2014-2017, unintentional drug-related deaths more than doubled in Columbiana Cty. *(Source: Col. Cty. 2018 Coroner's Report)*	All
Heroin, methamphetamine and cocaine use have been steadily rising in the County as reported by law enforcement officials health and social service providers *(Source: 2018 Columbiana County Stakeholder and Focus Group Interviews)*	All
An overwhelming majority of focus group, stakeholder and community survey participants indicated that the need to address drug abuse issues is the single most significant community need; and drug addiction and substance abuse are key factors impacting the health and safety of Columbiana County residents *(Source: 2018 Columbiana County Stakeholders & Focus Groups)*	All
Accidental drug overdose deaths involving an opioid (2017) *(Source: Col. Cty. 2018 Coroner's Report)*	49.5%
There is growing concern expressed about the increasing perception among youth that vaping and marijuana use is a less risky behavior than smoking or other types of drug use *(Source: 2018 Columbiana County Stakeholder and Focus Group Interviews)*	Youth
Columbiana County average age-adjusted unintentional drug overdose death rate per 100,000 from 2012-2017 *(Source: Ohio Department of Health, 2017 Ohio Drug Overdose Data: General Findings)*	30.8
Number of felony drug cases in Columbiana County from January to June 2016 *(Source: Ohio State Highway Patrol, Felony Cases and Drug Arrests)*	34
Tobacco Use/Vaping	**Pop. At Risk**
Current smokers diagnosed with asthma *(Source: 2019 Columbiana County CHNA)*	22%
Percentage of adults who are current smokers (2016) *(Source: 2018 County Health Rankings)*	22%
From 2014-2017, the number of premature deaths because of smoking mothers has increased *(Source: Child Fatality Review Board)*	Infants
Columbiana County age-adjusted mortality rates for lung and bronchus cancer *(Source: Ohio Public Health Data Warehouse, 2015-2017)*	47.0/100,000 Males (59.0/100,000)
Columbiana County age-adjusted mortality rate for chronic lower respiratory disease *(Source: Ohio Pub. Health Data Warehouse, 2015-17)*	56.0/100,000
Cardiovascular Disease	**Pop. At Risk**
Myocardial Infarction is the number one leading cause of death in Columbiana County *(Source: 2018 Columbiana Cty. Coroner's Report)*	All
Male heart disease mortality is higher than female mortality in the County, based off age adjusted data, as well as coroner's reporting *(Source:2018 Columbiana County Coroner Data)*	Adult Males
Diagnosed with angina or coronary heart disease *(Source: 2019 Columbiana County CHNA)*	2% Age: 65+ (8%)
Diagnosed with high blood pressure *(Source: 2019 Columbiana County CHNA)*	37%

	Age: 65+ (58%); Income: <$25K (43%)
Diagnosed with high blood cholesterol *(Source: 2019 Columbiana County CHNA)*	41% Age: 65+ (61%); Income: <$25K (53%)
Cancer	**Pop. At Risk**
Incidence of lung and bronchus cancer *(Source: Ohio Cancer Incidence, Ohio Department of Health Public Health Data Warehouse, 2011-2015)*	506 cases
Incidence of breast cancer *(Source: Ohio Cancer Incidence, Ohio Department of Health Public Health Data Warehouse, 2011-2015)*	399 cases
Incidence of colon and rectum cancer *(Source: Ohio Cancer Incidence, Ohio Department of Health Public Health Data Warehouse, 2011-2015)*	335 cases
Incidence of prostate cancer *(Source: Ohio Cancer Incidence, Ohio Department of Health Public Health Data Warehouse, 2011-2015)*	333 cases
Columbiana County age-adjusted mortality rate for all cancers *(Source: Ohio Public Health Data Warehouse, 2015-2017)*	176.0/100,000
Diabetes	**Pop. At Risk**
Adults diagnosed with diabetes *(Source: 2019 Columbiana County CHNA)*	13% Income <$25K (26%)
Columbiana County adults diagnosed with diabetes were also: obese or overweight (86%), diagnosed with high blood cholesterol (72%), diagnosed with high blood pressure (68%) *(Source: 2019 Columbiana County CHNA)*	All
Obesity, high blood pressure, and high cholesterol are all considered major health concerns within the county and contribute to the diagnosis of diabetes and other chronic health conditions *(Source: 2019 Columbiana County Stakeholders& Focus Groups*	All
Trauma/Adverse Childhood Experiences (ACEs)	**Pop. At Risk**
Adults who experienced four or more ACEs (Adverse Childhood Experiences) in their lifetime *(Source: 2019 Columbiana County CHNA)*	13% Income: <$25K (18%)
Youth who reported they were physically abused *(Source: 2018 Col. Cty. Profiles of Student Life: Attitudes & Behaviors Survey)*	29%
Preventive Medicine	**Pop. At Risk**
Adults who had a flu vaccine in the past 12 months *(Source: 2019 Columbiana County CHNA)*	53% Age: 65+ (71%)
Adults who had a pneumonia vaccine in their lifetime *(Source: 2019 Columbiana County CHNA)*	33% Age: 65+ (73%)
Adults who had colorectal cancer screening in the past 5 years *(Source: 2019 Columbiana County CHNA)*	33%
Adults who had lung cancer screening in the past 3 years *(Source: 2019 Columbiana County CHNA)*	3%
Men who had a prostate-specific antigen (PSA) test in the past two years (age 40 and older) *(Source: 2019 Columbiana County CHNA)*	58%
Women who had a mammogram within the past two years (age 40 and older) *(Source: 2019 Columbiana County CHNA)*	73%
Women who had a Pap smear in past three years (age 21-65) *(Source: 2019 Columbiana County CHNA)*	69%
Intentional/Unintentional Injury	**Pop. At Risk**
The unintentional injury rate is higher for Columbiana County youth in terms of falls, vehicle-related injuries and overexertion/strenuous injuries *(Source: 2016 Akron Children's Hospital Mahoning Valley Community Health Needs Assessment)*	Youth
Columbiana County ranked 10th highest of 88 counties in 2016 for motor vehicle crash deaths (Source: 2017 County Health Rankings)	All

Asthma	Pop. At Risk
Adults diagnosed with asthma *(Source: 2019 Columbiana County CHNA)*	13% Income <$25K (23%)
Children diagnosed with asthma *(Source: 2016 Akron Children's Hospital Mahoning Valley Community Health Needs Assessment)*	19.9%
Columbiana County youth have a higher incidence of asthma than surrounding communities and the state of Ohio *(Source: 2016 Akron Children's Hospital Mahoning Valley CHNA)*	Youth

- MAPP Phase 4 (Identifying & Prioritizing Issues): The Partners used the data findings by key issue to identify, develop and prioritize a list of strategic health-related issues facing the community. This process included the development of a list of the most significant health issues identified during the CHNA process, which was used during a nominal objective voting process by workgroup members.

The Partners then completed a ranking exercise for each issue identified, giving a score to the three prioritization criteria of: (i) magnitude of problem, (ii) seriousness of consequence, and (iii) feasibility of correcting. Scores for each issue were compiled to yield an average score, which was used to rank order the final priorities. Based on the highest scores as ranked by the workgroup, the top eight CHNA issues were prioritized as:

Prioritization of Key CHNA Issues	Average Score
1. Chronic disease	26.4
2. Mental health/trauma	24.0
3. Drug dependency/abuse	23.7
4. Obesity	23.3
5. Preventive medicine	23.3
6. Access to care	22.4
7. Tobacco use/vaping	21.6
8. Youth unintentional/intentional injury	21.0

Following a discussion of the top eight 2019 CHNA issues, the Workgroup reviewed again the priority topics identified in Ohio's 2016 State Health Improvement Plan (SHIP), and noted that local community health improvement efforts need to align with at least two of the three following SHIP priority topics and their related health outcomes as listed within each respective topic area:

2016 Ohio's State Health Improvement Plan Priority Health Topics and Outcomes		
Mental Health and Addiction	**Chronic Disease**	**Maternal and Infant Health**
- Depression	- Heart disease	- Preterm births
- Suicide	- Diabetes	- Low birthweight
- Drug dependency/abuse	- Child asthma	- Infant mortality
- Drug overdose deaths		
Ohio's SHIP also calls for strategies focused on the cross-cutting factors of:		
- Social determinants of health		
- Public health system, prevention & health behaviors		
- Healthcare system and access		
- Equity strategies to decrease disparities for priority populations		

The Workgroup members then selected the top three CHNA priority topics to best align locally with the findings from the 2019 Columbiana County CHNA and Ohio's 2016 SHIP. Both the 2019 CHNA and SHIP identify access to health care, health disparities and equity issues as priorities; and focus on mental health and addiction and chronic disease as ways to improve community health. In addition, both highlight healthcare workforce needs as important to improving access to services.

Columbiana County's 2019-2022 Health Improvement Plan, to be developed by November 2019, will align with the two SHIP priority topics of: Mental Health and Addiction and Chronic Disease (with Obesity identified as a contributing factor to Chronic Disease), as follows:

Columbiana County 2019-2022 Columbiana County Health Needs Assessment's Three Priority Topics	Alignment with Ohio's 2016 SHIP Priority Topics
1. Chronic Disease/Obesity (includes heart disease, asthma, diabetes and cancer)	**X**
2. Mental Health and Addiction/Substance Use (includes trauma, suicide, depression, drug-related deaths & youth perception of drug use)	**X**
3. Access to Health Care (includes health screenings, vaccination, provider availability, transportation and insurance coverage)	**X- Alignment with 2016 SHIP's Cross-Cutting Factors**

COMMUNICATION OF PRELIMINARY FINDINGS: During April-May 2019, the Partners' workgroup shared the preliminary findings about the CHNA's 2019-2022 priority topics through several communication activities, including but not limited to: posting on Partner organizations' FaceBook pages and inviting public comment, presenting findings at a county-wide social service and education provider symposium on April 9, 2019, and presenting to the East Liverpool City Hospital's and Salem Regional Medical Center's managers and governing bodies for discussion and input.

EVALUATION OF 2016-2019 CHNA IMPACT: Collaboration is essential to success in order to leverage limited assets and coordinate the use of resources, leadership and action to work towards the common goal of improving population health. The community benefit initiatives and population health improvement activities conducted in response to the 2016 CHNA's findings by the respective Columbiana County Health Partners' organizations, have directly supported community-based population health planning objectives and community engagement; and were designed to address community issues (i.e. substance abuse), critical health issues and chronic disease (i.e. cancer, mental health, obesity, tobacco use, etc.), and health care equity (i.e. barriers to access, health disparities).

A comprehensive evaluation of these activities will be included in 2016-2019 Community Health Improvement Plan's (CHIP) overall evaluation report. The key outcomes from these collaborative efforts have included interventions to address a wide range of health determinants including access to healthcare, personal health behaviors, socioeconomic factors, and environmental factors; and the collaborative workgroup has strengthened its foundation for the future development of planning strategies to incorporate evidence-based interventions.
A summary of county-wide activities conducted since 2016 have included, but are not limited to:
- Increasing the number of community-based cancer screenings
- Providing community educational opportunities and screenings regarding chronic disease management for heart disease, stroke and diabetes
- Offering increased opportunities for physical fitness and healthy nutrition as obesity and chronic disease prevention tools
- Improving prenatal and pediatric care through breastfeeding and tobacco cessation education
- Proactively identifying youth risk behaviors and protective assets, and developing targeted interventions
- Reducing exposure to vaccine-preventable diseases
- Increasing community access to health care via reducing barriers for vulnerable populations

WRITTEN COMMENTS FROM 2016-2019: There were no written comments received for the prior CHNA dated 2016-2019.

ASSET RESOURCE INVENTORY: The Columbiana County Health Partners identified existing health care facilities and resources within the primary service area of Columbiana County and the region, which are available to respond to the significant health needs of the community. Resources included: assistance programs, assisted living, children's services, counseling and mental health services, drug and alcohol services, emergency assistance, food banks/pantries, free/low-cost clinics, home care, hospice, housing assistance, medical and dental care services, nutrition, recreation, senior services, shelters, support groups, transportation and women's health. This information was compiled from resource directories currently

utilized by area case managers, social service organizations and the respective Partners' organizations; and includes a listing of community and hospital-based services. (The full asset resource inventory is located in Appendix IX.)

HEALTH CARE ACCESS

Access to health care is defined in Ohio's 2016 State Health Improvement Plan as, "having timely use of comprehensive, integrated, and appropriate heath services to achieve the best outcomes." Lack of access to health care makes it difficult for people to get the health care they need, which can lead to poor quality of life, premature disability and death.

Columbiana County is identified as having disparities related to being an Appalachian county, with a high ratio of the population to primary care physicians, dentists and mental health providers. Significant barriers to health care access were identified consistently across the CHNA process, with environmental factors affecting Appalachian counties to a greater extent than they do in non-rural counties. According to Ohio's "Rural Health Care Access: Research Report" (January 2019), environmental factors can include location and availability of providers, the cost of services, lack of education, lack of health insurance and lack of transportation. Barriers to access lead to unmet health needs, delays in receiving appropriate care, inability to get preventive services, financial burdens and preventable hospitalizations.

Overall Access Data Indicator: Dignity Health, a California-based hospital system, developed and published a Community Need Index™ (CNI) that measures barriers to health care access. The index is based on five social and economic indicators:
• **Income Barrier:** The percentage of elders, children, and single parents living in poverty
• **Cultural Barrier:** The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White
• **Education Barrier:** The percentage of the population without a high school diploma
• **Insurance Barrier:** The percentage of uninsured and unemployed residents
• **Housing Barrier:** The percentage of the population renting houses

A CNI score is calculated for each ZIP code. Scores range from "Lowest Need" (1.0-1.7)   to "Highest Need" (4.2-5.0).
_____

- Columbiana County's overall CNI weighted average score is 2.8.

- Three of the 16 ZIP codes in Columbiana County scored in the second "highest need" category as follows:
44432-Lisbon
43920-East Liverpool
43968-Wellsville

(Source: http://cni.chw-interactive.org)
_____

Health Care Access: Health Care Coverage

Lack of health insurance coverage is a significant barrier to accessing needed health care. The uninsured are much less likely to have primary care providers than the insured, and they also are less likely to receive preventive care, dental care, chronic disease management and behavioral health services. In addition, those without insurance are often diagnosed at later and less treatable disease stages than those with insurance; and so they experience health disparities through worse health outcomes, lower quality of life and higher mortality rates.

Data Indicators: According to the 2018 County Health Rankings, 9% of Columbiana County's population under age 65 is without health insurance as compared to Ohio's uninsured rate of 8%.

According to findings in Ohio's 2019 Rural Health Care Access: Research Report for respondents from rural and Appalachian counties in Ohio, approximately 32.2% of Appalachian respondents were unable to pay their medical bills in the last 12 months, compared to 28.1% in Ohio overall. In addition, almost 8% of respondents said they were unable to pay household bills due to health care expenses, compared to 3% of Ohio's non-rural counties.

Findings from Community Survey (N=377)- Health Care Coverage

- Ninety percent (90%) of Columbiana County adults self-reported having health care coverage. Ten percent (10%) of adults reported being uninsured, increasing to 12% of those with incomes less than $25,000 and 38% of those under the age of 30.
-
- One-fifth (20%) of adults with children did not have health care coverage, compared to 6% of those who did not have children living in their household.
-
- The top 5 reasons uninsured adults gave for being without health care coverage were:
  1. They could not afford to pay the insurance premiums (33%)
  2. They lost their job or changed employers (30%)
  3. They became ineligible (19%)
  4. Spouse or parent lost job or changed employers (10%)
  5. They became separated or divorced (10%)

Note: Percentages do not equal 100% because respondents could select more than one reason

The following graph shows the percentages of Columbiana County adults who were uninsured. An example of how to interpret the information in the graph includes: 10% of all Columbiana County adults were uninsured, including 12% of adults with incomes less than $25,000, 6% of males and 16% of females. The pie chart shows sources of Columbiana County adults' health care coverage.

Uninsured Columbiana County Adults

Category	Percentage
Total	10%
Males	6%
Females	16%
19-29 Years	38%
30-64 Years	7%
65 & Over	3%
Income <$25K	12%
Income $25K Plus	10%
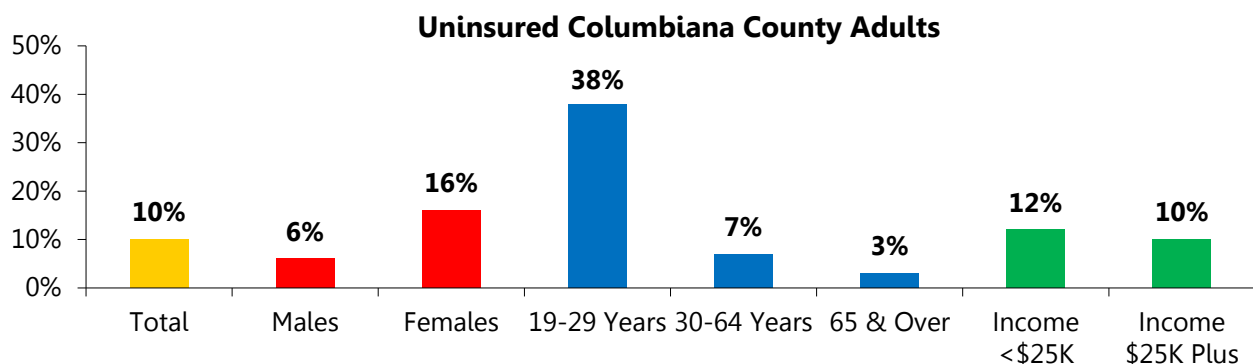
- For those self-reporting insurance coverage, the following types of health care coverage were used:
- - Employer (46%) - Multiple, including private sources (3%)

- - Medicare (20%) - Multiple, including governmental sources (3%)

- - Someone else's employer (10%) - Health Insurance Marketplace (2%)

- - Medicaid or medical assistance (9%) - Military, CHAMPUS, TriCare, CHAMPVA or the VA (1%)

- - Self-pay plan (5%)

- Columbiana County adults' health care coverage were self-reported as including: medical (93%), prescription coverage (88%), immunizations (73%), preventive health (69%), outpatient therapy (65%), dental (59%), vision/eyeglasses (58%), mental health (52%), durable medical equipment (38%), alcohol and drug treatment (35%), skilled nursing/assisted living (28%), home care (26%), hospice (19%), and transportation (18%).

Healthy People 2020
Access to Health Services (AHS)

Objective	Columbiana County 2018	Ohio 2017	U.S. 2016*	Healthy People 2020 Target
AHS-1.1: Persons under age of 65 years with health insurance	71% age 20-24 78% age 25-34 95% age 35-44 92% age 45-54 91% age 55-64	87% age 18-24 90% age 25-34 90% age 35-44 91% age 45-54 93% age 55-64	85% age 18-24 84% age 25-34 87% age 35-44 90% age 45-54 93% age 55-64	100%

*U.S. baseline is age-adjusted to the 2000 population standard
Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.
(Sources: Healthy People 2020 Objectives, 2016 BRFSS, 2017 BRFSS, 2018 Columbiana County Health Assessment)

Findings from Focus Groups & Key Stakeholders (N=115)- Health Care Coverage
A few of the focus group participants and stakeholder interviews identified low income and lack of insurance or underinsurance as primary barriers to accessing needed healthcare services. Those with employment and insurance were perceived to have reasonable access to health care services and thus generally have better health status. Those who are unemployed and/or lack insurance are perceived to find the lack of money to be a barrier and suffer diminished health status as a result.

Focus groups and stakeholders identified affordability, cost of insurance/deductibles/co-pays, underinsurance and insurance denials as being a significant barrier to accessing quality health care, along with access to affordable medication and the need for medication education. Poverty was identified as a contributing factor to health disparities in the community, with impoverished residents having fewer options for treatment and/or not having the time or resources to dedicate to preventive medicine, especially among vulnerable populations like families with young children, Hispanics and the elderly.

> **Summary of Key Findings- Health Care Coverage:**
> - Those without health care coverage in Columbiana County are 1 percent higher than Ohio. However, there is a greater disparity in lack of coverage and/or under insurance coverage among those living in poverty with incomes below $25,000, who are less than 30 years old and/or have children living in their households.
> - Of the 10% of community survey respondents reporting lack of insurance coverage, the primary reasons for not having coverage included they could not afford to pay the insurance premiums (33%), lost their job or changed employers (30%), or became ineligible (19%).
> - Focus groups and stakeholders indicated that coverage affordability, high cost of insurance/deductibles/co-pays/medications and insurance denials are all significant access barriers to people seeking care.

Health Care Access: Access and Utilization

Barriers to **accessing and using** health services lead to unmet health needs, delays in receiving appropriate care, inability to get preventive services, financial burdens and preventable hospitalizations.

Data Indicators: Findings from the 2019 County Health Rankings data showed that Columbiana County faces a significant barrier to accessing providers as indicated by the county's ratio of the population to primary care providers (2,250:1) being significantly higher than Ohio (1,300:1); the county's ratio of dentists (4,120:1) being considerably higher than Ohio (1,620:1), and the county's ratio of mental health providers (1,160:1) being considerably higher than Ohio (470:1).
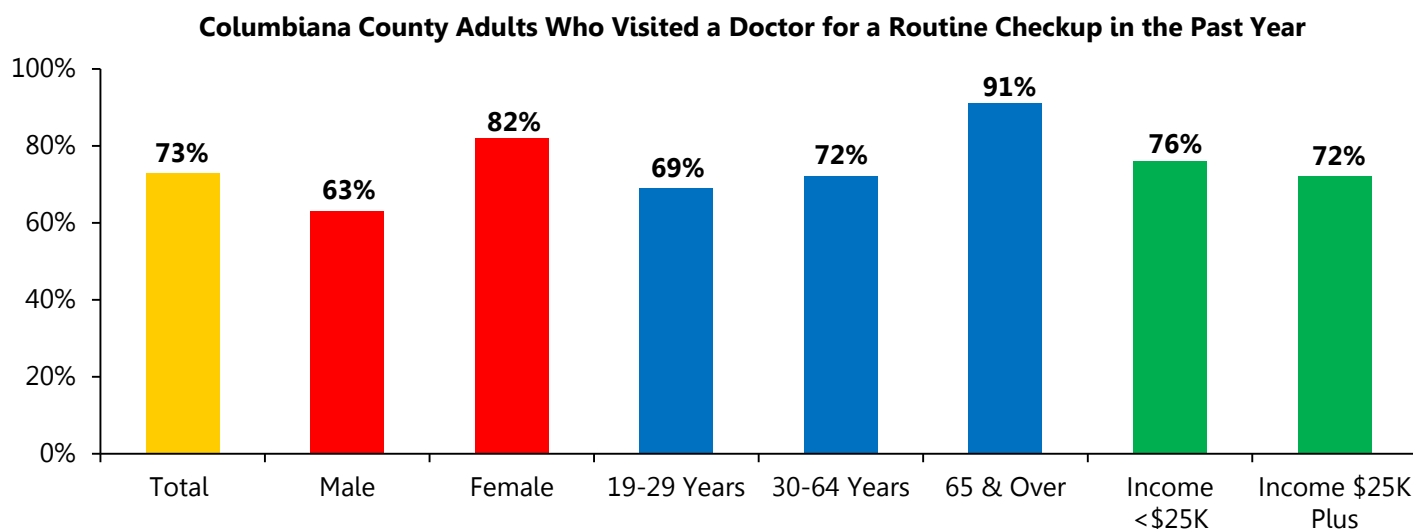
According to Ohio's 2019 Rural Health Care Access: Research Report, respondents from rural and Appalachian counties in Ohio are less likely to believe there are adequate health care services in their counties. In the report, specialty care and women's health services were identified as the most difficult to access; and more than 20% of Ohio's rural respondents travel 20 miles and 50 minutes to see a specilaist; while less than 5% of non-rural respondents travel that far for the same types of care. In addition, only 31.2% of rural respondents support using telemedicine as an alternative to improve access to care and only 24.3% support telemental health services.

Findings from Community Survey (N=377)- Access and Utilization

- Seventy-three percent (73%) of Columbiana County adults self-reported visiting a doctor for a routine checkup in the past year, increasing to 91% of those over the age of 65.

- Adults with health care coverage self-reported that they were more likely to have visited a doctor for a routine checkup in the past year (73%), compared to 65% of those without health care coverage.

- More than half (54%) of adults reported they had one person they thought of as their personal doctor or health care provider, 30% of adults had more than one person they thought of as their personal health care provider, and 16% did not have one at all.

- Columbiana County adults reported visiting the following places for health care services or advice: doctor's office (60%); multiple places, including a doctor's office (14%); urgent care center (7%); family and friends (4%); hospital emergency room (3%); multiple places, not including a doctor's office (3%); department of veteran's affairs (VA) (1%); internet (1%); chiropractor (1%); community health center (1%); mental health counseling center (1%); alternative therapies (<1%); telemedicine (<1%); and some other kind of place (1%). Three percent (3%) of adults indicated they had no usual place for health care services.

- The following barriers were listed by survey participants that might prevent Columbiana County adults from seeing a doctor if they were sick, injured, or needed some kind of health care: cost (32%), doctor would not take their insurance (15%), could not get time off work (12%), difficult to get an appointment (11%), hours not convenient (9%), worried they might find something wrong (8%), do not trust or believe doctors (5%), difficult to find/no transportation (4%), frightened of the procedure or doctor (3%), could not find child care (2%), and some other reason (4%).

- Sixty percent (60%) of adults self-reported that they went outside of Columbiana County for the following health care services in the past year:
  — Specialty care (25%)
  — Primary care (24%)
  — Dental services (20%)
  — Female health services (12%)
  — Cardiac care (9%)
  — Obstetrics/gynecology/NICU (8%)
  — Orthopedic care (8%)
  — Another service (8%)
  — Neurological services (7%)
  — Cancer care (6%)
  — Pediatric care (6%)
  — Addiction services (3%)
  — Pediatric therapies (2%)
  — Hospice/palliative care (2%)

- Fifty percent (50%) of adults self-reported going outside of Columbiana County for mental health services in the past year. Reasons for going outside Columbiana County for mental health services included: better quality program (6%), used to live there (2%), insurance restriction (2%), did not like local program (1%), word of mouth (1%), work there (1%), confidentiality/anonymity (1%), wait list too long (1%), and other reasons (6%).

- Columbiana County females self-reported the following as their usual source of services for female health concerns: private gynecologist (54%), general or family physician (21%), community health center (6%), family planning clinic (4%), health department clinic (2%), emergency room (1%) and some other kind of place (1%). Five percent (5%) had multiple sources, including a private gynecologist or family physician. Eight percent (8%) indicated they did not have a usual source of services for female health concerns.

The following graph shows the percentage of Columbiana County adults who had a routine check-up in the past year. An example of how to interpret the information on the first graph includes: 73% of all Columbiana County adults have had a routine check-up in the past year, including 82% of females and 91% of those 65 years and older.

Columbiana County Adults Who Visited a Doctor for a Routine Checkup in the Past Year

	Total	Male	Female	19-29 Years	30-64 Years	65 & Over	Income <$25K	Income $25K Plus
	73%	63%	82%	69%	72%	91%	76%	72%

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.

Community Survey: Columbiana County Adults Having Discussed Health Care Topics With Their Health Care Professional in the Past 12 Months

Health Care Topics	Total 2018
Family History	40%
Weight Control	36%
Immunizations	35%
Depression, Anxiety, or Emotional Problems	28%
Safe Use of Prescription Medication	24%
Tobacco Use	23%
Prostate-Specific Antigen (PSA) Test	16%
Bone Density	12%
Alternative Pain Therapy	10%
Falls	9%
Safe Use of Opiate-Based Pain Medication	8%
Alcohol Use	8%
Self-Testicular Exams	8%
Injury Prevention Such as Safety Belt Use, Helmet Use, or Smoke Detectors	7%

Sexually Transmitted Disease (STDs)	6%
Family Planning	5%
Illicit Drug Abuse	3%
Domestic Violence	3%
Firearm Safety	3%

Findings from Community Survey (N=377)- Availability of Services

- Columbiana County adults self-reported they had looked for the following programs: depression, anxiety or mental health (12%); assist in-care for the disabled (either in home or out of home) (5%); disability (4%); marital/family problems (3%); end-of-life/hospice care (3%); weight problems (2%); cancer support group/counseling (2%); tobacco cessation (2%); alcohol abuse (1%); drug abuse (1%); family planning (<1%); and detoxification of opiates/heroin (<1%). No adults reported they had looked for a program for gambling abuse or elder care.

The following table shows how many community survey participants in the survey looked for services and did or did not find the services they were looking for.

Columbiana County Adults Looking to Access Assistance Programs/Services

Types of Programs (% of all adults who looked for the programs Total respondents=377)	Columbiana County adults who have looked but have __NOT__ found a specific program	Columbiana County adults who have looked and have found a specific program
Depression, anxiety or some mental health problem (12% of all adults looked= 45 people)	31%	69%
Assist in-care for the disabled (either in home or out of home) (5% of all adults looked=19 people)	33%	67%
Disability (4% of all adults looked=15 people)	20%	80%
End-of-Life/Hospice Care (3% of all adults looked=11 people)	60%	40%
Marital/family problems (3% of all adults looked=11 people)	22%	78%
Weight problem (2% of all adults looked=8 people)	75%	25%
Cancer support group/counseling (2% of all adults looked=8 people)	75%	25%
Tobacco cessation (2% of all adults looked=8 people)	40%	60%
Alcohol abuse (1% of all adults looked=4 people)	50%	50%
Drug abuse (1% of all adults looked=4 people)	50%	50%
Detoxification for Opiates/Heroin (<1% of all adults looked= < 4 people)	0%	100%
Family planning (<1% of all adults looked= < 4 people)	0%	100%

Findings from Focus Groups & Key Stakeholders (N=115)- Access and Utilization

- One of the most significant barriers to access and the most frequently cited by focus groups and key stakeholders involved the lack of transportation to local providers and even greater difficulty finding transportation to providers outside of Columbiana County. The lack of transportation was also noted as negatively impacting access to prenatal care, especially since there is no maternity unit in Columbiana County and very limited access to OB/GYN providers within the County.
- Geographic disparities regarding the lack of a maternity/birthingcenter in the County; the lack of local providers, especially specialists, OB/GYNs, dental care and mental health providers were mentioned by several informants as negatively impacting access to preventive/routine/dental/mental health/maternity services. The difficulty in recruiting new providers to the area was also noted as causing workforce shortages and barriers to acces..
- The lack of inpatient psychiatric services was identified as a significant barrier to those needing intensive mental health treatment.
- Physicians not accepting new patients and/or not accepting new patients with low incomes or certain Medicare/Medicaid coverage plans was identified as a barrier to patients receiving timely/adequate care.
- Utilization of hospital Emergency Departments (ED) was listed as an expensive alternative for those who are not able to obtain access to primary care physicians and/or specialists. This issue was noted as causing an increase in the number of ED visits by those who are less acutely ill and resulting in overutilization of the higest cost treatment setting.
- Access disparities were identified for certain ethnic groups, such as among the Guatemalans, Mexicans and other Hispanics; and some interviewees suggested that more community outreach was needed by providers and social service workers. A lack of bilingual services and cultural competency in health care was noted as an issue in connecting Hispanic residents to needed health care services.

Summary of Key Findings- Access and Utilization:

- One of the most significant environmental factors and barriers to access cited by stakeholders and focus groups involved the lack of transportation to local providers and even greater problems finding transportation to providers outside Columbiana County. Transportation was also identified as a contributing factor to accessing prenatal care.
- Columbiana County faces a significant barrier to accessing providers as indicated by the county's ratio of the population to primary care providers (2,250:1) being significantly higher than Ohio (1,300:1); the county's ratio of dentists (4,120:1) being considerably higher than Ohio (1,620:1), and the county's ratio of mental health providers (1,160:1) being considerably higher than Ohio (470:1).
- The workforce shortage and local availability of providers, especially specialists, OB/GYNs, dental care and mental health providers; resulted in the need/choice to travel outside of Columbiana County for these services; along with not having a maternity unit and very limited inpatient psychiatric services in the County. This environmental issue was identified across all forums by community survey participants, focus groups and key stakeholders.
- Physicians not accepting new patients and/or not accepting new patients with low incomes of certain Medicare/Medicaid coverage plans was identified a barrier to patients receiving timely care, causing delays in treatment.
- Access disparities were identified for certain ethnic groups, such as among the Hispanic population; with more outreach, bi-lingual services and cultural competency needed by providers and social services.

Healthcare Access: Preventive Medicine

Preventive Medicine focuses on the health of individuals and communities and is the area of medicine that is primarily concerned with disease prevention. Its goal is to protect, promote, and maintain health and well-being and to prevent disease, disability, and death.

- Immunizations and Infectious Diseases: Pathogenic microorganisms, such as bacteria, viruses, parasites or fungi, cause infectious diseases, which can be spread, directly or indirectly, from one person to another. These diseases can be grouped in three categories: diseases which cause high levels of mortality; diseases which place on populations heavy burdens of disability; and diseases which owing to the rapid and unexpected nature of their spread can have serious global repercussions (World Health Organization).

Data Indicators: "Influenza hospitalization rate" is the number of hospitalizations per 100,000 residents due to influenza. The Ohio Department of Heath reports that the state rate of influenza hospitalizations was 140.43 in the 2017-2018 flu season and 75.07 in 2016-2017, compared to Columbiana County's influenza rates of 140.95 and 102.93 for the same flu seasons. *(Sexually transmitted infections are discussed in Health Behaviors: Sexual Behavior section.)*

Community Survey Results (N=377)- Immunizations:

• Over half (53%) of Columbiana County adults self-reported having a flu vaccine during the past 12 months, increasing to 71% of adults ages 65 and over.

• Columbiana County adults self-reported the following reasons for not getting the flu vaccine: did not think they needed it (18%), got sick from it (8%), didn't think it worked (8%), vaccine wasn't effective (4%), cost (3%), time (2%), insurance would not pay for it (1%), religious beliefs (1%), not available (<1%), transportation (<1%), other (18%).

• One-third (33%) of adults self-reported having pneumonia shot, increasing to 73% of those ages 65 and over.

• Columbiana County adults self-reported having the following vaccines:
—MMR (measles, mumps, rubella) in their lifetime (67%)
—Tetanus booster (including Tdap) in the past 10 years (61%)
—Chicken pox in their lifetime (51%)
—Hepatitis B in their lifetime (33%)
—Hepatitis A in their lifetime (21%)
—Zoster (shingles) vaccine in their lifetime (19%)
—Pertussis vaccine in the past 10 years (17%)
—Human papillomavirus (HPV) vaccine in their lifetime (7%)

• Eighty-nine percent (89%) of parents reported their child had received all recommended immunization shots. Reasons for not receiving all recommended immunization shots included the following: fear of immunizations (4%), did not think immunization was necessary (4%), religious beliefs (4%), fear of adverse side effects (3%), misconceptions about immunizations (3%), pre-existing health issues prevent them from using (3%), and other reasons (5%).

Adult Comparisons	Columbiana County 2018 survey	Ohio 2017 (BRFSS 2016)	U.S. 2017 (2016 BRFSS)
Had a flu shot within the past year (age 65 and older)	71%	63%	60%
Ever had a pneumonia vaccination (age 65 and older)	73%	76%	75%
Ever had a shingles or zoster vaccine	19%	29%	29%

The following graph shows the percentages of Columbiana County surveyed adults who received a flu vaccine within the past year. An example of how to interpret the information in the graph includes: 53% of all adults surveyed received the flu vaccine in the past year, including 71% of those ages ≥ 65 and 62% of those with incomes less than $25,000.

Columbiana County Adults Who Reported Receiving a Flu Vaccine Within Past Year
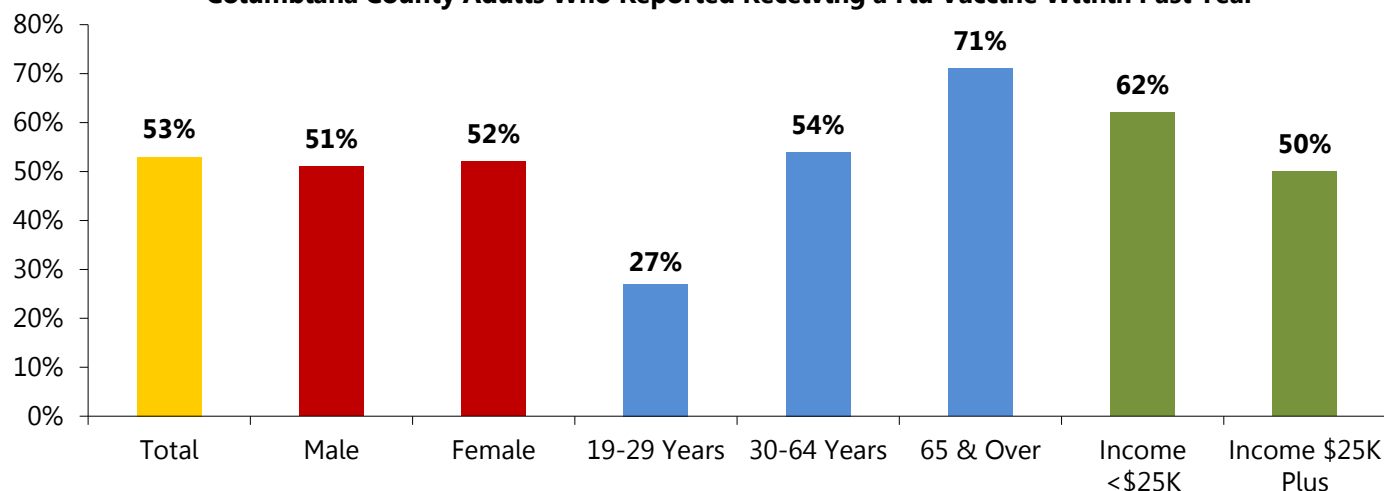
Note: Caution should be used when interpreting subgroup results as margin of error for any subgroup is higher than overall survey.

Immunization and Infectious Diseases (IID)

Objective	Columbiana County 2018 survey	Ohio 2017	U.S. 2017
IID-13.1: Increase the percentage of non-institutionalized high-risk adults aged 65 years and older who are vaccinated against pneumococcal disease	**73%**	**76%**	**75%**
IID-12.7: Increase the percentage of non-institutionalized high-risk adults aged 65 years and older who are vaccinated annually against seasonal influenza	**71%**	**63%**	**60%**
IID-14: Increase the percentage of adults who are vaccinated against zoster (shingles)	**19%**	**29%**	**29%**

Note: U.S. baseline is age-adjusted to the 2000 population standard (2017 BRFSS, 2018 Columbiana County Health Assessment)

Findings from Focus Groups and Key Stakeholders (N=115)- Immunizations:

Community members suggested that access to and compliance with receiving vaccinations for children could be improved by collaborating with the schools to provide immunizations on site. For those with developmental disabilities, there was a perception expressed that immunizations are being viewed as less important by the public.

- Preventive Health Screenings and Exams

Screenings use tests, physical examinations or other procedures to detect disease early in people who may not show symptoms. Healthy behaviors, such as cancer screenings and a healthy weight, can help reduce one's cancer risk and other adverse health conditions that can result in premature death, but these healthy behaviors are lower in some sub-populations, including low-income and minorities within Columbiana County.

Data Indicators: The 2018 Robert Wood Johnson Foundation (RWJF) County Health Rankings report mammography screening at 60% (2014 data) in Columbiana County as compared to the state average of 61%.

(Note: Cancer is discussed more fully in the "Chronic Disease: Cancer" section of this report and heart disease is discussed in the Chronic Disease: Cardiovascular section.)

Community Survey Results (N=377)-Overall Screenings

- Adults had the following screenings:
  — Vision in the past 2 years (38%)
  — Colorectal cancer in the past 5 years (33%)
  — Skin cancer in the past year (21%)
  — Oral cancer in the past year (19%)
  — Hearing in the past 2 years (13%)
  — Bone density in the past 2 years (12%)
  — Lung cancer in the past 3 years (8%)
  —

- Columbiana County adults indicated a doctor or health professional talked to them about following topics in the past year: family history (40%); weight control (36%); immunizations (35%); depression, anxiety or emotional problems (28%); safe use of prescription medication (24%); tobacco use (23%); prostate-specific antigen (PSA) test (16%); bone density (12%); alternative pain therapy (10%); falls (9%); alcohol use (8%); self-testicular exams (8%); safe use of opiate-based pain medication (8%); injury prevention such as safety belt use, helmet use or smoke detectors (7%); sexually transmitted diseases (STDs) (6%); family planning (5%); illicit drug abuse (3%); firearm safety (3%); and domestic violence (3%).

Note: Preventative Medicine Survey Data Gaps:
Columbiana County Health partners identified survey data gaps in Preventative Medicine where survey findings may not reflect actual screening activity of vulnerable populations due to concerns of limited survey responses from these populations.

Findings from Focus Groups and Key Stakeholders (N=115)- Screenings:
Participants felt that it is important to get screened, especially pertaining to cancer.

Healthcare Access: Preventative Medicine Key Findings
- Flu vaccine rates in Columbiana County exceed the state rate, but concerns remain regarding adequate vaccine usage for all available vaccines due to a declining perception of the need to be vaccinated by the general population.
- Community survey findings indicated that 73% of Columbiana County women over the age of 40 reported having a mammogram in the past two years, 46% of women had a clinical breast exam and 38% had a Pap smear to detect cancer of the cervix in the past year.
- Seven out of ten (71%) Columbiana County women reported on the community survey that they were overweight and obese.
- Over half (54%) of Columbiana County males over the age of 50 had a prostate-specific antigen (PSA) test in the past year and more than three quarters were overweight and obese (83%).
- Community survey findings showed that 63% of adults visited a dentist or dental clinic within past year, decreasing to 44% of those with incomes less than $25,000.
- Healthy behaviors, such as cancer screenings, healthy weight and access to dental care, can help reduce adverse health conditions that can result in premature death, but these healthy behaviors are lower in some vulnerable populations, including low-income and minorities within Columbiana County.

Health behaviors have been shown to have important roles in determining quality and length of life through their ability to influence various disease outcomes. In order for positive health outcomes to occur, people need to decrease health risk behaviors and increase health protection behaviors. According to research by the National Institutes of Health, at least five categories of behavior have been consistently found to correlate with increased morbidity and mortality: (1) consuming a diet high in calories, fat and sodium, and low in nutrients, (2) low levels of physical activity and high levels of sedentary activity, (3) smoking cigarettes, (4) abusing substances including alcohol, prescription and illicit drugs, and (5) engaging in risky sexual behaviors. It has been suggested that eliminating health risk behaviors would prevent 80% of heart disease, stroke, type 2 diabetes and 40% of cancers.

Health Behaviors: Health Status Perceptions

Research has shown that there is a link between the likelihood that a person will adopt a health behavior, based on the person's perception or belief about a personal threat of an illness or disease related to that behavior. Self-reported health status is also a general measure of health-related quality of life for a community. The following health status perceptions have been reported by the 377 participants in the 2018 community survey, the 2016 Behavioral Risk Factor Surveillance Survey and/or the 2018 County Health Rankings as indicated. It should also be noted that there are no focus group or stakeholder findings for this section.
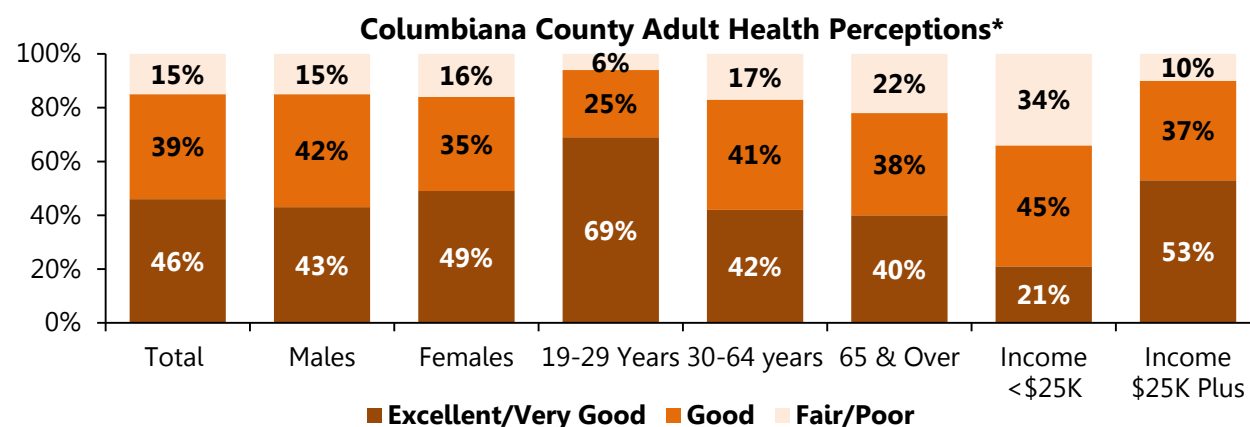
2019 County Health Ranking Indicator- Quality of Life (2016 Data)	Columbiana County	Top U.S.	Ohio
Percent of adults reporting poor or fair health	18%	12%	17%
Average poor physical health days in past 30 days	4.2 days	3.0	4.0

Data Trend: It should be noted that the 2016 Columbiana County CHNA included County Health Ranking data for the self-reporting of Fair/Poor Health at 15% of adults, compared to 18% of adults in the 2019 CHNA, indicating a 3% increase in the self-reporting of average poor physical health days.

Findings from Community Health Survey (N=377)- General Health Status

The following graph shows the percentage of Columbiana County adults who described their general health status as excellent/very good, good, and fair/poor. An example of how to interpret the information includes: 46% of all Columbiana County adults, 49% of females, and 53% of those with incomes more than $25,000 rated their health as excellent or very good.

Columbiana County Adult Health Perceptions*

	Total	Males	Females	19-29 Years	30-64 years	65 & Over	Income <$25K	Income $25K Plus
Fair/Poor	15%	15%	16%	6%	17%	22%	34%	10%
Good	39%	42%	35%	25%	41%	38%	45%	37%
Excellent/Very Good	46%	43%	49%	69%	42%	40%	21%	53%

■ Excellent/Very Good ■ Good ▫ Fair/Poor

Respondents were asked: "Would you say that in general your health is excellent, very good, good, fair or poor?" 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.

- Forty-six percent (46%) of Columbiana County adults rated their general health as excellent or very good. Columbiana County adults with higher incomes (53%) were most likely to rate their health as excellent or very good, compared to 21% of those with incomes less than $25,000.

- Fifteen percent (15%) of adults rated their general health as fair or poor, increasing to 34% of those with incomes less than $25,000.

- Columbiana County adults were most likely to rate their general health as fair or poor if they:
  - Had high blood pressure (56%)   - Had an annual household income under $25,000 (34%)
  - Had high blood cholesterol (51%)   - Were 65 years of age or older (22%)
  - Had been diagnosed with diabetes (36%)   - Were widowed (10%)

- Over one-quarter (29%) of adults reported that poor mental or physical health kept them from doing usual activities such as self-care, work or recreation.

Physical Health Status

- One-fourth (25%) of Columbiana County adults rated their physical health as not good on four or more days in the previous month.

- Columbiana County adults were most likely to rate their physical health as not good if they:
  — Had an annual household income under $25,000 (68%)
  — Were 65 years of age or older (56%)

The table below shows the percentage of adults with poor physical health in the past 30 days as compiled from the 2018 Community Survey.

Health Status	No Days	1-3 Days	4-5 Days	6-7 Days	8 or More Days
Physical Health Not Good in Past 30 Days*					
Males	48%	17%	10%	3%	14%
Females	53%	16%	7%	2%	14%
Total	50%	17%	8%	2%	15%

Totals may not equal 100% as some respondents answered, "Don't know".

Summary of Key Findings- Health Perceptions:
- Income and age were the two most significant factors impacting health perceptions. Columbiana County adults with higher incomes (53%) were most likely to rate their **general health** as excellent or very good, compared to 21% of those with incomes less than $25,000.
- Those who were most likely to rate their **physical health** as not good had an annual household income under $25,000 (68%) and/or were 65 years of age or older (56%)
- Columbiana County residents self-reported slightly higher rates of poor physical health in the last 30 days than Ohio and the nation.

Health Behaviors: Weight Status, Physical Activity & Nutrition

Weight: According to the CDC's *"The Health Effects of Overweight and Obesity,"* those who have obesity, compared to those with a normal or healthy weight, are at increased risk for many serious diseases and health conditions, including all causes of death (mortality); high blood pressure (hypertension); high LDL cholesterol, low HDL cholesterol, or high levels of triglycerides; type 2 diabetes; coronary heart disease; stroke; gallbladder disease; osteoarthritis; sleep apnea and breathing problems; some cancers (endometrial, breast, colon, kidney, gallbladder, and liver); low quality of life; mental illness; body pain and difficulty with physical functioning.

Regular physical activity reduces the risk for many diseases, helps to manage chronic conditions, helps control weight and strengthens muscles, bones and joints.

Nutrition: The availability of healthy, affordable foods contributes to a person's diet and reduces the risk of related chronic diseases. Conversely, a diet that's high in calories, lacking in fruits and vegetables, full of fast food, and laden with high-calorie beverages and oversized portions contributes to weight gain.

Data Indicators: According to "The State of Obesity," Ohio has the 11th highest adult obesity rate in the nation, and the sixteenth highest obesity rate for youth ages 10 to 17.

- Adult obesity rates in Columbiana County have been gradually increasing over the past three years as measured at 32.0% in the 2016 Columbiana County Needs Assessment and currently reported by the 2019 County Health Rankings to be 34.0%.

- Physical Activity: According to the 2019 County Health Ranking data, 27.0% of adults age 20 and over report no leisure time physical activity, compared to 25% in Ohio. The 2019 County Health Ranking data also shows that 79% of Columbiana County's population has adequate access to locations for physical activity, compared to 84% in Ohio.

- Nutrition: The Food Environment Index is another indicator that measures the quality of the food environment on a scale from zero to 10 (zero being the worst value in the nation, and 10 being the best). The two variables used to determine the measure are limited access to healthy foods (i.e., the percentage of the population who are low income and do not live close to a grocery store) & food insecurity (i.e., the percentage of the population who did not have access to a reliable source of food during the past year).

- The food environment index in Columbiana County is 7.4 and the food environment index in Ohio is 6.6.
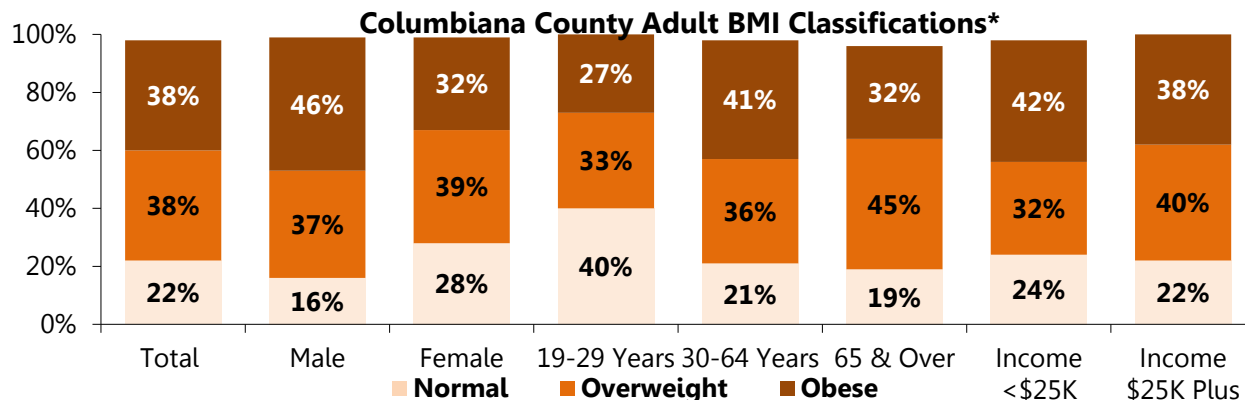
BEST ▬▬▬▬▬▬▬▬ WORST

(Source: USDA Food Environment Atlas, as compiled by County Health Rankings 2019)

According to Feeding America's 2016 Food Insecurity data, there are 15,280 food insecure people in Columbiana County, yielding a food insecurity rate of 14.5%.
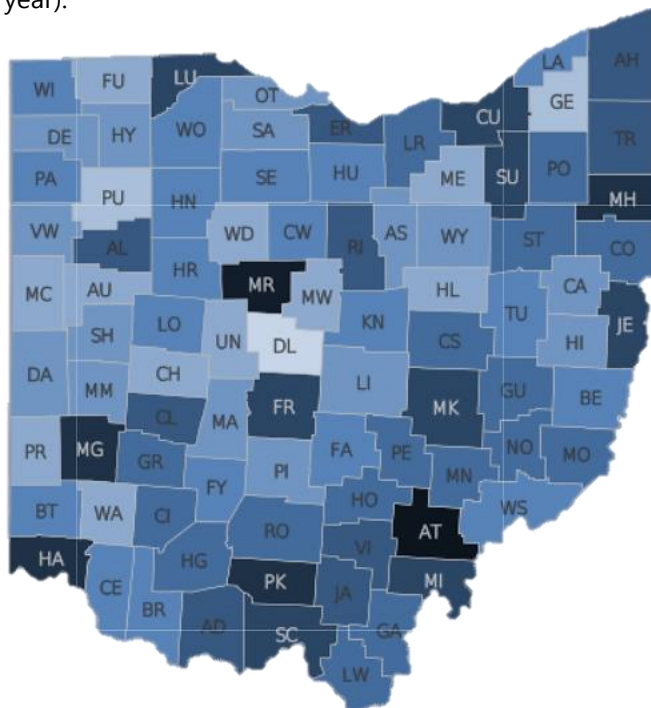
Findings from Community Survey (N=377)- Weight Status

According to the 377 participants in the community survey, the following graph shows the percentage of Columbiana County adults who are overweight or obese by body mass index (BMI). An example of how to interpret the information includes: 22% of all County adults were classified as normal weight, 38% were overweight, and 38% were obese.

Columbiana County Adult BMI Classifications*

Legend: Normal, Overweight, Obese

	Total	Male	Female	19-29 Years	30-64 Years	65 & Over	Income <$25K	Income $25K Plus
Obese	38%	46%	32%	27%	41%	32%	42%	38%
Overweight	38%	37%	39%	33%	36%	45%	32%	40%
Normal	22%	16%	28%	40%	21%	19%	24%	22%

*Percentages may not equal 100% due to the exclusion of data for those who were classified as underweight. 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.

- More than three-fourths (76%) of Columbiana County adults self-reported being either overweight (38%) or obese (38%) by body mass index (BMI), thus putting them at risk for developing preventable diseases.

- Two-fifths (40%) of adults were trying to lose weight, 32% were trying to maintain their current weight or keep from gaining weight, and 3% were trying to gain weight.

- Columbiana County adults did the following to lose weight or keep from gaining weight:
  — Ate less food, fewer calories, or foods low in fat (35%)
  — Exercised (35%)
  — Drank more water (32%)
  — Ate a low-carb diet (13%)
  — Smoked cigarettes (4%)
  — Used a weight loss program (2%)
  — Went without eating 24 or more hours (2%)
  — Took prescribed medications (1%)
  — Participated in a prescribed dietary or fitness program (1%)
  — Took diet pills, powders or liquids without a doctor's advice (1%)
  — Received health coaching (1%)

Findings from Community Survey (N=377)- Physical Activity

- Columbiana County adults self-reported spending an average of 2.7 hours watching TV, 1.4 hours on their cell phone, 0.9 hours on the computer/tablet (outside of work), and 0.1 hours playing video games on an average day of the week.

- Over half (57%) of adults self-reported engaging in some type of physical activity or exercise for at least 30 minutes 3 or more days per week; 31% exercised 5 or more days per week; and 22% were not participating in any physical activity in the past week, including 2% who were unable to exercise.

- Adults self-reported the following reasons for not exercising:
  — Time (24%)
  — Laziness (17%)
  — Lack of self-motivation or will power (16%)
  — Did not like to exercise (12%)
  — Weather (12%)
  — Pain or discomfort (12%)
  — Could not afford a gym membership (10%)
  — Poorly maintained/no sidewalks (9%)
  — No exercise partner (7%)
  — Ill or otherwise physically unable (6%)
  — Too expensive (3%)
  - Do not know what activity to do (1%)
  - Afraid of injury (1%)
  - Neighborhood safety (1%)
  - No child care (1%)
  - No walking, biking trails or parks (1%)
  - No gym available (1%)
  - Lack of opportunities for those with physical impairments or challenges (1%)
  - Doctor advised them not to exercise (<1%)

— Transportation (2%)

Findings from Community Survey (N=377)- Nutrition

The table below indicates the number of servings of fruit, vegetables, sugar-sweetened beverages, and caffeinated beverages Columbiana County adults self-reported as consumed daily.

	5 or more servings	3-4 servings	1-2 servings	0 servings
Fruit	1%	7%	74%	18%
Vegetables	2%	15%	75%	8%
Sugar-sweetened beverages	4%	10%	45%	41%
Caffeinated beverages	8%	24%	53%	15%

- Forty-four percent (44%) of adults self-reported eating between 1 to 2 servings of fruits and/or vegetables per day. Thirty-nine percent (39%) ate between 3 to 4 servings per day, and 12% ate 5 or more servings per day. Four percent (4%) of adults ate 0 servings of fruits and/or vegetables per day.

- Eighty-four percent (84%) of adults self-reported eating out in a restaurant or bringing home take-out in a typical week, 5% of whom did so for five or more meals.

- Adults self-reported the following barriers in consuming fruits and vegetables: too expensive (15%), do not like the taste (7%), no variety (3%), no access to fruits and vegetables (2%), do not know how to prepare (1%), stores do not take Electronic Benefit Transfer (EBT) (<1%), and transportation (<1%). Seventy-three percent (73%) of adults reported no barriers in consuming fruits and vegetables.

- Columbiana County adults self-reported the following reasons they chose the types of food they ate:
  — Taste/enjoyment (64%)
  — Cost (42%)
  — Healthiness of food (39%)
  — Ease of preparation/time (34%)
  — Food they were used to (30%)
  — What their family prefers (25%)
  — Nutritional content (22%)
  — Availability (20%)
  — Calorie content (20%)
  — If it is genetically modified (8%)
  — Artificial sweetener content (7%)
  — If it is organic (7%)
  — If it is gluten free (5%)
  — Other food sensitivities (5%)
  — If it is lactose free (3%)
  — Limitations due to dental issues (3%)
  — Availability of food at the food pantry (3%)
  — Health care provider's advice (2%)
  — Other reasons (5%)

Findings from Focus Groups & Key Stakeholders (N=115)- Obesity, Physical Activity & Nutrition

Many participants identified that a large portion of county residents are overweight, not exercising regularly and making poor dietary choices based on nutrition. Observations were made that families are often eating fast foods due to the demands of work and busy lifestyles and/or are eating large portion sizes. Key informants also stated that vulnerable populations such as the elderly and Hispanics may experience barriers to accessing healthy foods and may have gaps in knowledge about the importance of nutrition and physical activity. It was also suggested that Appalachian cultural behaviors impact poor health, such as eating high-fat, unhealthy foods and not valuing exercise In addition, people living in poorer communities may not have the money to eat healthier, more expensive foods and may lack affordable and accessible recreation opportunities.

When focus groups and key stakeholders were asked in two separate questions about their top health topics and top priorities to be addressed in Columbiana County, both groups identified obesity, physical activity and nutrition.

Summary of Key Findings- Weight Status, Physical Activity & Nutrition:

- More than three-fourths of Columbiana County adults were either overweight or obese by body mass index (BMI), thus putting them at risk for developing a variety of preventable diseases.
- Lack of exercise and/or physical activity is a contributing factor to poor health for about one-fourth of Columbiana County adults and it is perceived that residents may have a gap in knowledge and/or a lack of motivation to adopt this health behavior.
- The rate of food insecurity and lack of access to healthy foods is greater in Columbiana County than Ohio.
- Some of the biggest issues tied to poor nutrition include a lack of education/awareness (people don't know how to make healthy choices or know how to make changes), lack of access to healthy food, underlying economic issues that complicate a person's ability to make healthy choices, busy lifestyles and large portion sizes.
.Vulnerable populations impacted by poor nutrition include the elderly, Hispanics, economically disadvantaged and those with an Appalachian cultural perspective.

Health Behaviors: Tobacco Use

Tobacco use is a major cause of heart disease and cancer, the two leading causes of death in Columbiana County. According to the CDC, tobacco use is estimated to cause more than 30 percent of all cancer deaths in the U.S., including 80 percent of lung cancer deaths among men and women. For every person who dies because of smoking, at least 30 people live with a serious smoking-related illness, including diabetes, lung disease and chronic obstructive pulmonary disease (COPD). Smoking also increases the risk for tuberculosis, certain eye diseases, and problems of the immune system, including rheumatoid arthritis.

Secondhand smoke exposure contributes to approximately 41,000 deaths among non-smoking adults and 400 deaths in infants each year. Secondhand smoke causes stroke, lung cancer, and coronary heart disease in adults. Children who are exposed to secondhand smoke are at increased risk for sudden infant death syndrome, acute respiratory infections, middle ear disease, more severe asthma, respiratory symptoms, and slowed lung growth.

Data Indicators: Columbiana County residents have slightly higher rates of adult smoking and exposure to second-hand smoke than Ohio. In addition, Columbiana County's Child Fatality Review Board has identified the need to avoid smoking and drug use during pregnancy to prevent low birth weights and prematurity.

According to the 2018 County Health Rankings, the percentage of adults smoking in Columbiana County has remained relatively consistent, with approximately one in five adults (21.6%) smoking in 2016 and (22%) in 2018. However, data gaps occur in the ability to accurately measure the county-specific impact of smokeless tobacco and e-cigarettes (vaping), which is on the rise as observed by the significant increase in the number of vaping vendor locations and the increase in youth participating in this activity (See: Health Behaviors: Children & Youth).

The CDC reported in 2018 that e-cigarettes were the most commonly used tobacco product among youth within the past 30 days, by 4.9% of middle school students and 20.8% of high school students. Conversely, 2.8% of U.S. adults were current e-cigarette users and 58.8% were dual current smokers.

Data trends suggest that there is a perception among adults and youth that vaping is "safer" than tobacco use. For example, based on the Ohio Healthy Youths Environments Survey (OHYES!) of 7th- 12th grade students conducted by the Ohio Department of Education, Ohio Department of Health and the Ohio Mental Health and Addiction Services regarding health risk behaviors; 56.7% of Columbiana County students perceive a great risk associated with smoking 1+packs of tobacco per day and 25% believe there to be a moderate risk. The OHYES! Survey also indicated that 9.4% of Columbiana County students used an electronic vapor product within the last 30 days.

At this time, the long-term health effects of e-cigarettes are being researched but it is known that most e-cigarettes contain potentially harmful substances, including nicotine, which has known negative health effects, is highly addictive, toxic to developing fetuses, a health danger for pregnant women and can harm adolescent brain development, which continues into the early to mid-20s.

The following graph shows Columbiana County, Ohio, and U.S. age-adjusted mortality rates per 100,000 populations for lung and bronchus cancer in comparison with the Healthy People 2020 objective.

- Columbiana County's age-adjusted mortality rate for lung and bronchus cancer was equal to the Ohio rate and higher than the U.S. rate and the Healthy People 2020 target objective.
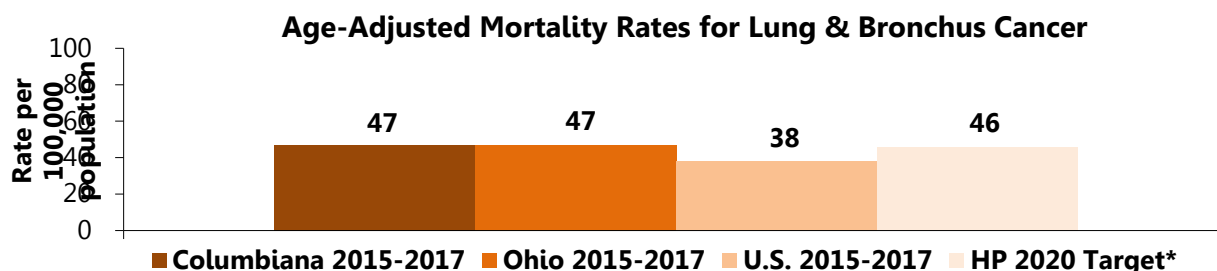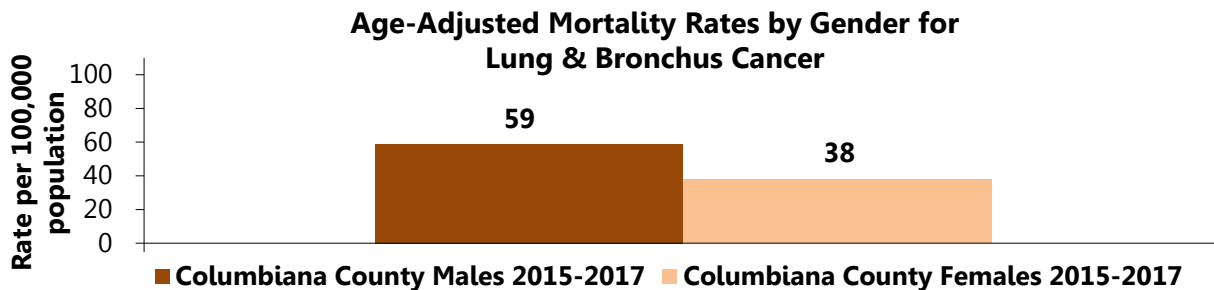
Age-Adjusted Mortality Rates for Lung & Bronchus Cancer

(Sources: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017 and Healthy People 2020)
*The Health People 2020 target objective only includes the age-adjusted lung cancer death rate.

The following graph shows the Columbiana County age-adjusted mortality rates for lung and bronchus cancer by gender. The graph shows:
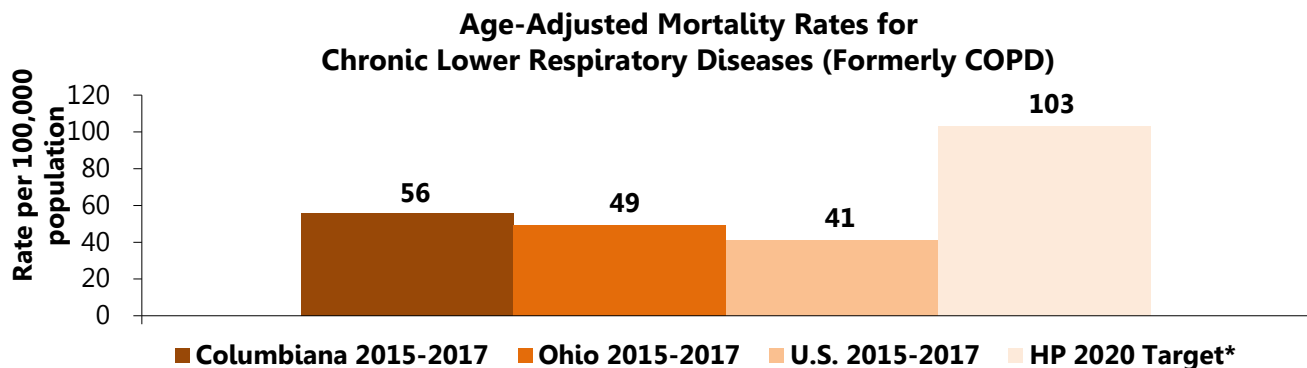
- Disparities exist by gender for Columbiana County lung and bronchus cancer age-adjusted mortality rates. The 2015-2017 Columbiana County male rate was substantially higher than the Columbiana County female rate.

Age-Adjusted Mortality Rates by Gender for Lung & Bronchus Cancer

	Males 2015-2017	Females 2015-2017
Rate	59	38

■ Columbiana County Males 2015-2017 ■ Columbiana County Females 2015-2017

(Sources: Ohio Public Health Data Warehouse, 2015-2017)

The following graph shows the Columbiana County, Ohio, and U.S. age-adjusted mortality rates per 100,000 populations for chronic lower respiratory diseases (formerly COPD)

- From 2015 to 2017, Columbiana County's age-adjusted mortality rate for chronic lower respiratory disease was higher than the Ohio and U.S. rate, but lower than the Healthy People 2020 target objective.

Age-Adjusted Mortality Rates for Chronic Lower Respiratory Diseases (Formerly COPD)

Columbiana 2015-2017	Ohio 2015-2017	U.S. 2015-2017	HP 2020 Target*
56	49	41	103

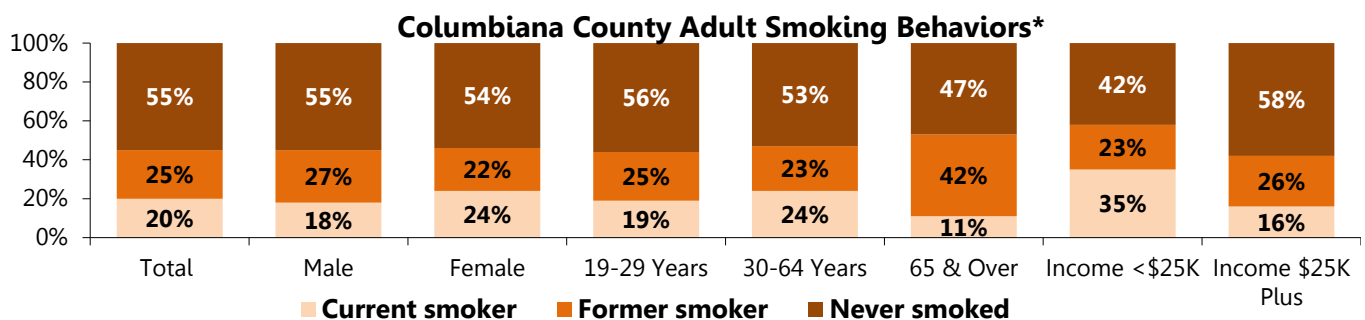■ Columbiana 2015-2017 ■ Ohio 2015-2017 ■ U.S. 2015-2017 ■ HP 2020 Target*

(Source: Ohio Public Health Data Warehouse 2015-2017, CDC Wonder 2015-2017, and Healthy People 2020)
*Healthy People 2020's target rate and the U.S. rate is for adults aged 45 years and older.

Findings from Community Survey (N=377)- Tobacco Use Behaviors

The following graph shows the percentage of Columbiana County adults' smoking bevahiors. An example of how to interpret the information includes: 20% of all Columbiana County adults were current smokers, 25% of all adults were former smokers, and 55% had never smoked.

Columbiana County Adult Smoking Behaviors*

	Total	Male	Female	19-29 Years	30-64 Years	65 & Over	Income <$25K	Income $25K Plus
Never smoked	55%	55%	54%	56%	53%	47%	42%	58%
Former smoker	25%	27%	22%	25%	23%	42%	23%	26%
Current smoker	20%	18%	24%	19%	24%	11%	35%	16%

■ Current smoker ■ Former smoker ■ Never smoked

*Respondents were asked: "Have you smoked at least 100 cigarettes in your entire life? If yes, do you now smoke cigarettes every day, some days or not at all?" 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.

- One-in-five (20%) Columbiana County adults were self-reported as current smokers (those who indicated smoking at least 100 cigarettes in their lifetime and currently smoked some or all days).

- One-quarter (25%) of adults indicated that they were former smokers (smoked 100 cigarettes in their lifetime and now do not smoke).

- Columbiana County adult smokers self-reported that they were more likely to have:
  - Incomes less than $25,000 (35%)
  - Been 30-64 years old (24%)
  - Been diagnosed with asthma (22%)
  - Rated their overall health as fair or poor (22%)
  - Been divorced (17%)

- Columbiana County adults self-reported used the following tobacco products in the past year: cigarettes (26%); chewing tobacco, snuff, dip, Betel quid (8%); cigars (6%); e-cigarettes/vape pens (6%); little cigars (6%); pouch (snus) (3%); cigarillos (3%); pipes (2%); and hookah (<1%). Ten percent (10%) of adults used more than one tobacco product in the past year.

- Sixty-one percent (61%) of current smokers used one of the following methods to quit smoking in the past year: cold turkey (42%), nicotine patch (18%), e-cigarette (11%), nicotine gum (11%), Chantix (8%), Wellbutrin (4%), hypnosis (4%), support groups (4%), and substitute behaviors (1%).

The table below shows the percentage of adults who are current or were smokers from the 2016 Behavioral Risk Factor Surveillance Survey as compiled by the 2018 County Health Ranking.

Adult Comparisons	Columbiana County 2018	Ohio 2017	U.S. 2017
Current smoker (currently smoke some or all days)	20%	21%	17%
Former smoker (smoked 100 cigarettes in lifetime and now do not smoke)	25%	24%	25%

Findings from Focus Groups and Key Stakeholders (N=115)- Tobacco Use

The School Nurses Focus Group and the Internal and Family Medicine residents at East Liverpool City Hospital identified tobacco education and smoking cessation as one of the county's top health priorities. Providers of children's and family services, such as Women's, Infants & Children, Head Start, Help Me Grown and BCMH each identified maternal smoking as a top health issue.

When focus groups and key stakeholders were asked in two separate questions about their top health topics and top priorities to be addressed in Columbiana County, both groups identified tobacco use.

Summary of Key Findings- Tobacco Use
- Tobacco use is the leading cause of preventable disease, disability, and death in the United States; and therefore the leading cause of preventable disease, disability and death in Columbiana County.
- Smokers are more likely than nonsmokers to develop heart disease, stroke, and lung cancer. Smoking causes diminished overall health, increased absenteeism from work, and increased health care utilization and cost.
- The rate of smoking among Columbiana County adults has stabilized over the past few years, but the use of e-cigarettes is increasing, especially among adolescents, as is the increase in vaping vendors.
- Key informants identified that there are significant negative health effects on pregnant women and children in Columbiana County related to secondhand smoke.

Health Behaviors: Substance Use

According to the World Health Organization, **substance abuse** refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Part I of this section will address drug use and Part II will address alcohol use.

Part I: Drug Use

Drug use is having an increasingly negative impact on Ohio and Columbiana County, especially related to accidental/unintentional injury deaths, higher causes of premature death, increased crime and social determinants of health. For example, according to the Ohio Department of Health, unintentional drug poisoning has become the leading cause of injury death in Ohio, surpassing motor vehicle crashes. Drug use is also dramatically impacting the welfare of area families and as reported in the Akron Beacon Journal, (February 27, 2019), Ohio was among the top five states with the biggest jumps in the rate of children entering foster care due to parental drug abuse

Data Indicators: According to the National Institute on Drug Abuse, Ohio is among the top five states with the highest rates of opioid-related overdose deaths. In 2017, there were 4,162 opioid-related overdose deaths in Ohio, representing 85.7% of all accidental overdose deaths. According to the Centers for Disease (CDC), as reported in its January 4, 2019 MMWR, the highest synthetic opioid-involved overdose death rates in 2017 occurred in West Virginia (37.4/100,000), followed by Ohio (32.4/100,000).

According to the Ohio Department of Health's 2017 Ohio Drug Overdose Report illicit fentanyl and related drugs like carfentanil continued to drive an increase in Ohio's 2017 unintentional overdose deaths, with 70.7 percent involving these drugs compared to 58.2 percent in 2016 and 37.9 percent in 2015. Carfentanil was involved in 29.4 percent of deaths attributed to fentanyl and related drugs in 2017. In addition, cocaine-related overdose deaths as well as deaths involving methamphetamine/other psychostimulants increased substantially in 2017, and many of these deaths also involved an opioid like fentanyl.

During this time period, there was a 31.6% decrease in the number of deaths that involved heroin. Anecdotally, Columbiana County community health providers expressed that methamphetamine and cocaine use have been steadily rising in Columbiana County.

The map to the right illustrates the average age-adjusted unintentional drug overdose death rate per 100,000 population, by county from 2012-2017.

*(Source: Ohio Department of Health, 2017 Ohio Drug Overdose Data: General Findings)*

Williams 11.4
Fulton 16.6
Lucas 28.4
Ottawa 16.7
Cuyahoga 28.5
Lake 30.0
Ashtabula 28.8
Geauga 21.1
Defiance 15.2
Henry 12.3
Wood 12.7
Sandusky 24.1
Erie 33.9
Lorain 32.5
Trumbull 42.0
Paulding
Seneca 18.9
Huron 28.4
Medina 17.1
Summit 31.6
Portage 21.2
Mahoning 30.3
Putnam 9.2
Hancock 19.5
Van Wert 18.4
Wyandot 8.9
Crawford 23.4
Ashland 5.7
Wayne 16.3
Stark 18.9
Columbiana 30.8
Allen 22.4
Hardin 20.4
Richland 32.7
Carroll 17.2
Mercer 12.0
Auglaize 11.0
Marion 36.7
Morrow 20.5
Holmes
Jefferson 31.9
Knox 17.0
Tuscarawas 13.2
Harrison 18.6
Logan 22.3
Union 10.4
Delaware 8.8
Coshocton 11.6
Shelby 25.4
Champaign 25.8
Licking 14.9
Guernsey 24.4
Belmont 23.4
Darke 33.7
Miami 26.1
Muskingum 13.4
Clark 45.9
Madison 23.1
Franklin 20.8
Fairfield 15.8
Perry 15.1
Noble
Monroe
Montgomery 56.5
Preble 39.7
Greene 25.5
Pickaway 18.8
Morgan 18.0
Washington 21.8
Fayette 45.7
Hocking 20.1
Butler 49.1
Warren 22.2
Clinton 44.8
Ross 36.3
Vinton 21.6
Athens 16.1
Meigs 21.9
Hamilton 36.4
Highland 22.7
Clermont 43.2
Pike 30.0
Jackson 29.6
Gallia 31.7
Brown 49.4
Adams 42.7
Scioto 40.6
Lawrence 32.5

The following graph shows the number of unintentional drug overdose deaths in Columbiana County from 2014-2017.

Columbiana County Number of Unintentional Drug Overdose Deaths, 2014-2017
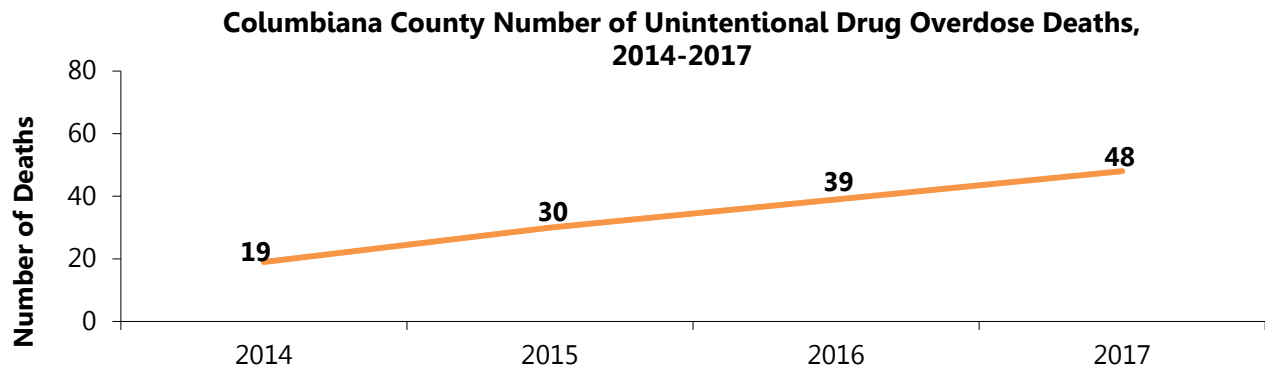
(Source for graphs: Ohio Public Health Data Warehouse, 2014-2017)

2017 Columbiana County Coroner's Report: Based on the 2017 Columbiana County Coroner's Report, 41 of 56 accidental deaths (73.2%) in the county were determined to be drug-related. Of these deaths, 71% were male and 29% were female. Trends noted from the 2015-2017 Columbiana County Coroner's Report showed that in 2015, 45.7% of male accidental deaths were drug related, compared to 70.0% in 2016 and 74.4% in 2017.

Columbiana County communities with more than one death by rank order of the decedent's hometown included: East Liverpool (8), Salem (6), Lisbon (6), Salineville (4), Columbiana (3), and Wellsville (3). Below is the distribution of ages of decedents in 2017 drug deaths.

Distribution of Ages of Drug Deaths in 2017
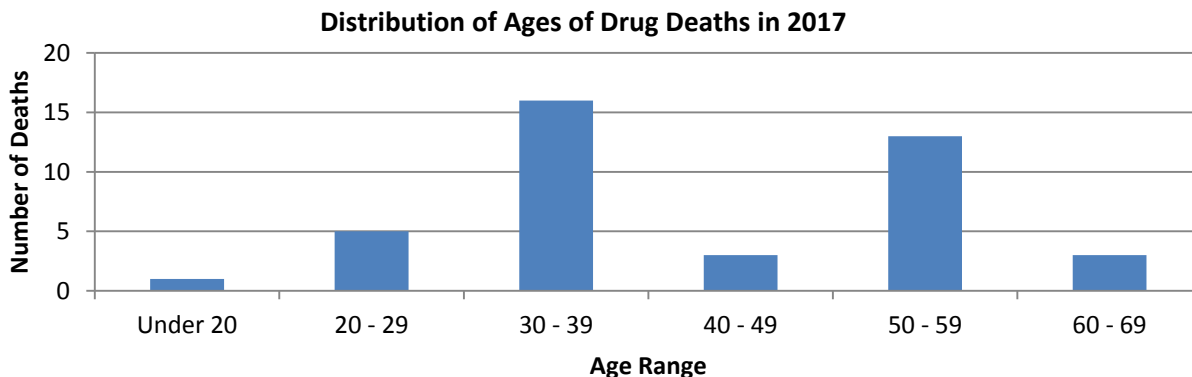
As seen in previous years, cocaine, fentanyl, morphine, heroin, and benzodiazepines are the most common drugs associated with accidental drug overdose deaths in Columbiana County. It should be noted that overdose deaths are most commonly associated with a lethal concoction of drugs. Therefore, toxicology test results can include positive findings for multiple different drugs.

2017 Prominent Drug Death Associated Drug	Number of Associated Deaths in Columbiana County
Cocaine	18
Fentanyl	17
Morphine	14
Gabapentin	13
THC	12
Benzodiazapine	11
Heroin	10
Hydrocodone	6
Tramadol	6

Note that 49.5% of the prominent drugs associated with accidental overdose deaths in 2017 involved an opioid.

According to the Ohio Department of Health's 2017 Ohio Drug Overdose Report, there has been a continued decline in the number of unintentional drug overdose deaths involving prescription opioids across the state. Coincidentally, there has also been a significant increase in the use of queries to the Ohio Automated Rx Reporting System (OARRS), Ohio's prescription drug monitoring program. In Columbiana County, the number of opiate and pain reliever doses per patient and per capita has decreased slightly, but at a rate less than the state.

Data Indicators:
The graph below shows Columbiana Cty. and Ohio opiate and pain reliever doses per patient and doses per capita.

Columbiana County and Ohio Number of Opiate and Pain Reliever Doses Per Patient
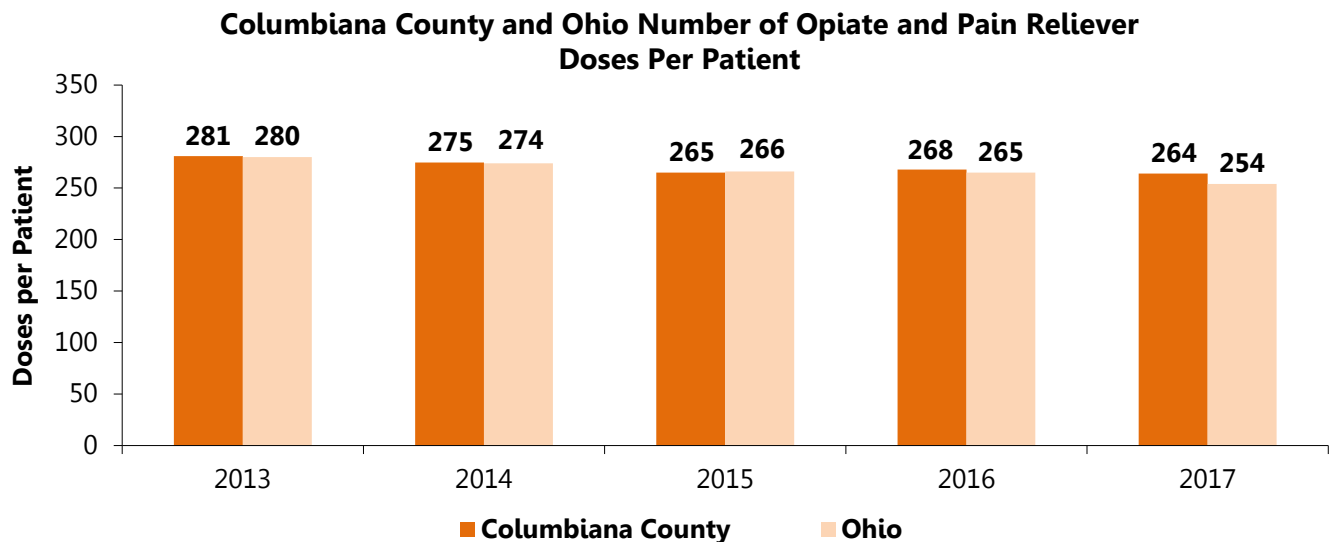
(Source for graphs: Ohio's Automated Rx Reporting System, 2013-2017, retrieved on 10/22/18)

- Marijuana Dispensaries: One medical marijuana dispensary and one approved medical marijuana grower have opened in East Liverpool as a result of the new Ohio law legalizing medical marijuana sales as of January 2019. The public health impact of legalized access to this drug is unknown at this time.

- Drug Use and Crime:
According to the National Institutes of Health, there is a close relationship between drug abuse and crime. Drug abusers commit crimes to pay for their drugs and many criminals are under the influence of drugs while committing crimes. Drug trafficking is another outcome of drug abuse. There is also a direct relationship between the level of drug abuse and the type of drug and committed crimes. With increased drug abuse, there is an increase in the crime delinquency rate and its intensity. Addicts are forced to commit crimes to acquire drugs since they typically don't have an income to fulfill their needs and frequently turn to illegal activities such as smuggling, drug dealing, theft and prostitution. Thus the cycle of poverty, addiction, and crime is repeated.

Ohio's crime statistics show an increase in total drug arrests as monitored through the Ohio State Highway Patrol (OSHP).

- OSHP troopers made 16,956 total drug arrests during 2018. Of these drug arrests, over one-quarter (4,732 or 27.9%) included one or more felony drug charges.

- In Columbiana County, there were 61 felony drug arrests during 2018, which is higher than all bordering counties, except Stark county=134.

Ohio State Highway Patrol Felony Drug Cases in 2018

OSHP felony cases by type[1]	
Homicide/Death	45
Robbery/Burglary	7
Larceny	686
Assault	2,170
False pretense[2]	185
Vice[3]	4,768
Property crimes	153
Other investigations	307
Total:	8,321

OSHP drug arrests	
Total drug arrests	16,956
Felony drug cases	4,732

OSHP drug seizures in grams	
Marijuana	2,181,948
Cocaine	229,521
Methamphetamine	194,682
Heroin	133,383

OSHP scheduled pill seizures	
Opiate	25,475
Stimulant	4,700
Depressant	8,210
Hallucinogen	736

Number of Felony Drug Arrests
- 200 to 341 (4)
- 100 to 199 (11)
- 50 to 99 (21)
- 1 to 49 (49)
- 0 (3)
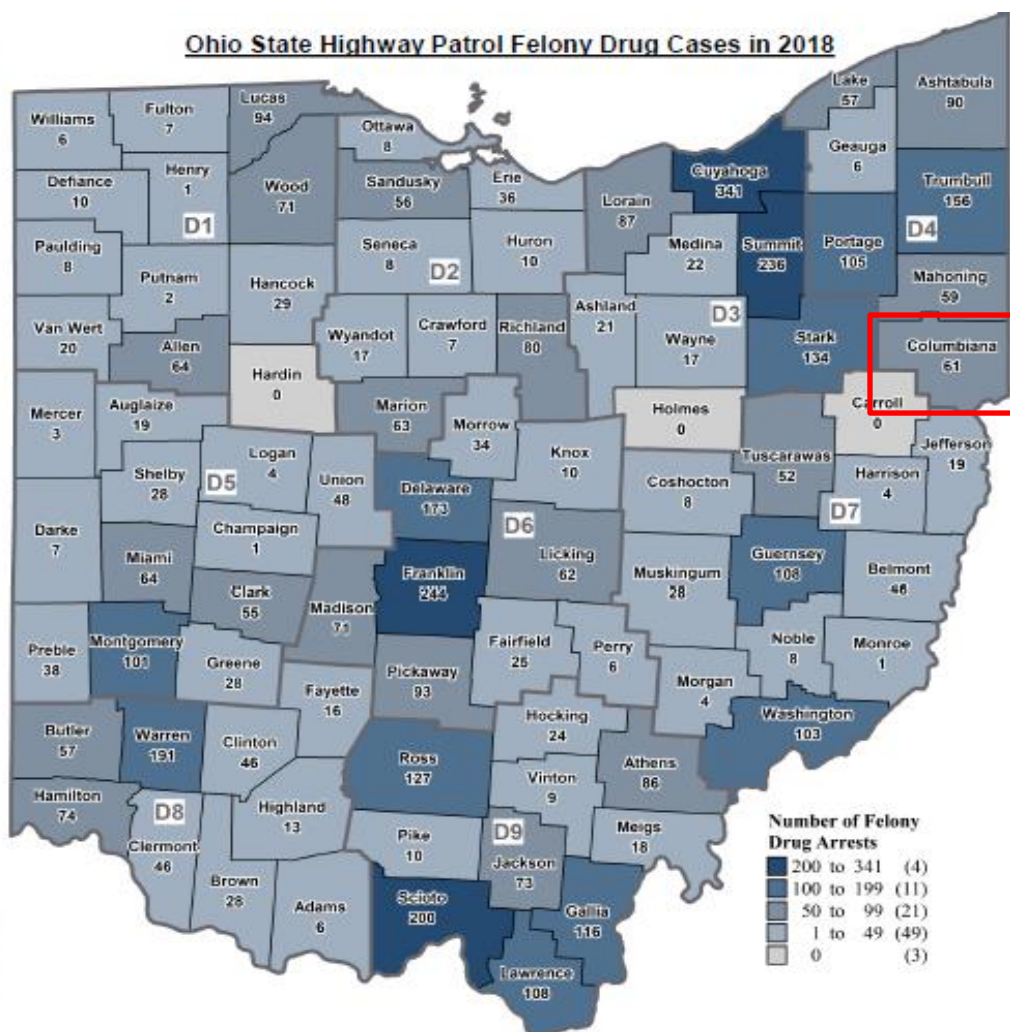
(Source: Ohio State Highway Patrol, Felony Cases and Drug Arrests, 2018)

Clients Seeking Substance Abuse Treatment: According to its published Annual Reports, in 2017, the Mental Health and Recovery Services Board and the Family Recovery Center provided substance use disorder treatment to 1,633 clients. In 2018, the same agencies provided substance use disorder treatment to 1,330 clients. Note the organizations changed their reporting indicators in 2018, so caution should be used when interpreting results.

Findings from Community Survey (N=377)- Drug Use

- Prescription Drug Misuse
- Seven percent (7%) of adults self-reported using medication not prescribed for them or taking more than prescribed to feel good or high and/or more active or alert during the past 6 months, increasing to 17% of those with incomes less than $25,000.

- Columbiana County adults who misused prescription medications obtained them from the following sources: primary care physician (74%), multiple doctors (15%), free from a friend or family member (13%), emergency room (ER) or urgent care doctor (11%), bought from a drug dealer (9%), bought from a friend or family member (9%), and stole from a friend or family member (2%).

- Marijuana and Other Drug Use
- Three percent (3%) of Columbiana County adults self-reported to using recreational marijuana or hashish in the past 6 months.

- Five percent (5%) of Columbiana County adults self-reported using other recreational drugs in the past six months such as cocaine, synthetic marijuana/K2, wax or oil with THC edibles, heroin, LSD, inhalants, Ecstasy, bath salts, and methamphetamines.

- As a result of using drugs, Columbiana County adults indicated they or a family member had:
  — Overdosed and required EMS/hospitalization (33%)
  — Legal problems (27%)
  — Failed a drug screen (27%)
  — Placed themselves in dangerous situations (27%)
  — Administered Narcan or nasal Naloxone (13%)
  — Regularly failed to fulfill obligations at work or home (10%)
  — Received Narcan or nasal Naloxone (10%)

- One percent (1%) of adults used a program or service to help with an alcohol or drug problem for themselves or a loved one. Reasons for not using such a program included the following:
  — Had not thought of it (1%)
  — Could not afford to go (1%)
  — Stigma of seeking drug services (1%)
  — Stigma of seeking alcohol services (1%)
  — Did not know how to find a program (1%)
  — Cannot get to the office or clinic (1%)
  — Did not have any openings/wait-listed (1%)
  — Insurance does not cover it (1%)
  — Did not want to miss work (1%)
  — Did not want to get in trouble (<1%)
  — Fear (<1%)

Findings from Focus Groups and Key Stakeholders (N=115)- Drug Use

Throughout the primary data collection process, a high majority of participants identified drug abuse issues as the single most significant community need and key factor impacting the health of Columbiana County residents. Every focus group and almost every stakeholder interview participant identified heroin, methamphetamines and/or opioid abuse as one of the top health concerns impacting the community. Other related issues mentioned included: the effects of drug use in the home, some children are caring for parents who are using drugs and are also facing trauma as a result, and increased rates of youth substance abuse, especially related to marijuana use and perceptions that there are minimal health consequences related to its use. In addition, community leaders stated that drug abuse is negatively affecting the overall safety of the community through increased break-ins, other drug-related crimes, accidents and accidental overdose deaths.

When focus groups and key stakeholders were asked in two separate questions about their top health topics and top priorities to be addressed in Columbiana County, both groups identified drug use as the single most significant issue.

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Drug Use- Summary of Key Findings:

- From 2014-2017, unintentional drug-related deaths have more than doubled.
- Heroin, methamphetamine and cocaine use have been steadily rising in Columbiana County.
- Nearly half of all 2017 accidental drug overdose deaths in Columbiana County involved an opioid.
- Opioid prescribing and opioid prescription-related deaths have been declining, but at a rate less than the state of Ohio.
- Drug-related crimes have been increasing in Columbiana County and are currently at a rate higher than most neighboring counties.
- An overwhelming majority of community survey, focus group and stakeholder participants indicated that the need to address drug abuse issues is the single most significant community need; and drug addiction and substance abuse are key factors impacting the health of Columbiana County residents.
- The impact of access to legalized medical marijuana has yet to be determined, but there is a growing trend in youth usage of marijuana and a related public perception that it has minimal health consequences.

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Substance Use: Part II- Alcohol Use

Alcohol Use: Unhealthy alcohol use includes any alcohol use that puts a person's health or safety at risk or causes other alcohol-related problems. It also includes binge drinking — a pattern of drinking where a male consumes five or more drinks within two hours or a female downs at least four drinks within two hours.

Data Indicators: In the US, 6.6% of the adult population reported heavy alcohol use, and one in four people reported at least one episode of binge drinking in the last 30 days. Data gaps exist in obtaining county-specific data regarding alcohol use; however, motor vehicle accident data obtained from 2017 police reports indicates that:

- Six percent (6%) of the total crashes in Columbiana County in 2017 were alcohol-related, compared to 4% for Ohio.

- Of the total number of alcohol-related crashes (106) in Columbiana County, 58% were property damage only, 39% were alcohol-related injuries, and 4% were fatal injuries.

2017	City of Salem	Columbiana County	Ohio
Total Crashes	197	1,775	303,285
Alcohol Impaired Drivers in Crashes	12	103	11,666
Alcohol-Related			
Property Damage Only (PDO)	7	61	6,733
Injury (non-fatal)	5	41	4,898
Fatal Injury	0	4	297
Total Alcohol-Related Crashes	12	106	11,928
Alcohol-Related Deaths	0	4	314

(Source: Ohio Department of Public Safety, Crash Statistics, Updated 6/12/18, Traffic Crash Facts)

2017 Alcohol-Impaired Driving Deaths:
Percentage of motor vehicle crash deaths with alcohol involvement.

The alcohol-impaired driving deaths in Columbiana County are 34% and is the same as Ohio at (34%).

BEST ▬▬▬▬▬▬▬▬ WORST

*Driving deaths are reported for the county of occurrence.
(Source: Fatality Analysis Reporting System, as compiled by County Health Rankings, 2018)
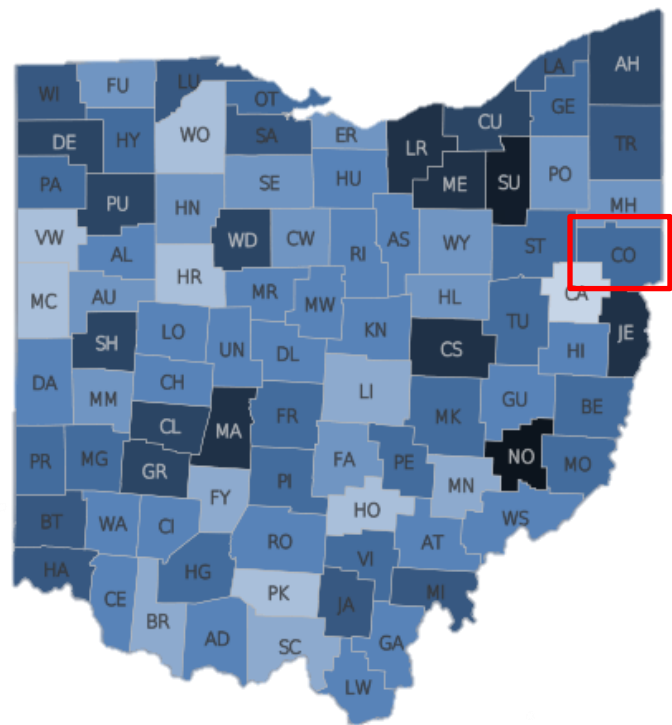
Findings from Community Survey (N=377)- Alcohol Use

- Fifty-nine percent (59%) of Columbiana County adults self-reported they had at least one alcoholic drink in the past month, increasing to 73% of those under the age of 30.

- Of those who drank, Columbiana County adults drank 4.1 drinks on average, increasing to 5.0 drinks for males.

- Nineteen percent (19%) of Columbiana County adults self-reported they had five or more alcoholic drinks (for males) or four or more drinks (for females) on an occasion in the last month and would be considered binge drinkers. Of those who drank in the past month, 37% had at least one episode of binge drinking.

- Six percent (6%) of adults self-reported driving after having perhaps too much to drink.

- Columbiana County adults experienced the following in the past six months:
  — Drove a vehicle or other equipment after having any alcoholic beverage (13%)
  — Drank more than they expected (9%)
  — Spent a lot of time drinking (4%)
  — Used prescription drugs while drinking (4%)
  — Drank more to get the same effect (3%)
  — Failed to fulfill duties at work, home, or school (2%)
  — Gave up other activities to drink (1%)
  — Tried to quit or cut down but could not (1%)
  — Continued to drink despite problems caused by drinking (1%)
  — Placed themselves or their family in harm (1%)
  — Had legal problems (1%)
  — Drank to ease withdrawal symptoms (1%)

- Columbiana County current drinkers indicated they drank alcohol for the following reasons: taste/enjoyment (35%), social events (32%), helped them relax/relieved stress (28%), like the way it made them feel (9%), normal/part of the culture (8%), social expectation (5%), their parents drank alcohol (4%), not much else to do (1%), and other reasons (3%).

The following graphs show the percentage of Columbiana County adults self-reporting consuming alcohol and the amount consumed on average. An example of how to interpret the information shown on the first graph includes: 39% of all Columbiana County adults did not drink alcohol, including 38% of Columbiana County males and 38% of females.

Columbiana County Average Number of Days Drinking Alcohol in the Past Month*
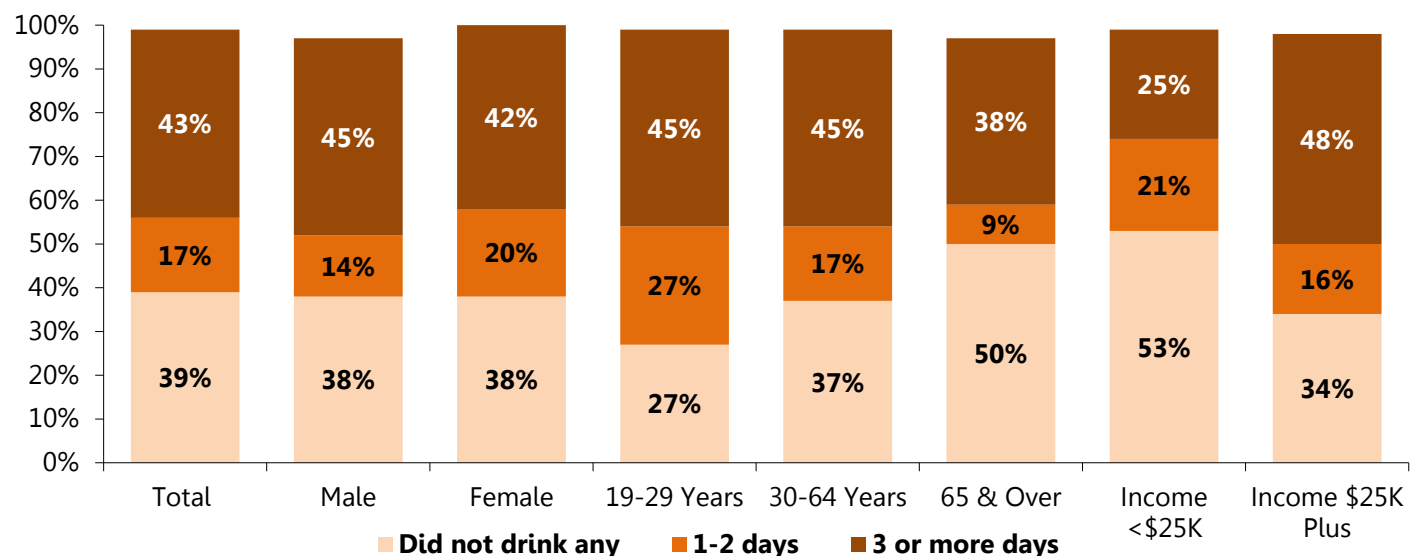
*Percentages may not equal 100% as some respondents answered, "Don't Know"

Columbiana County Adults Average Number of Drinks Consumed Per Drinking Occasion
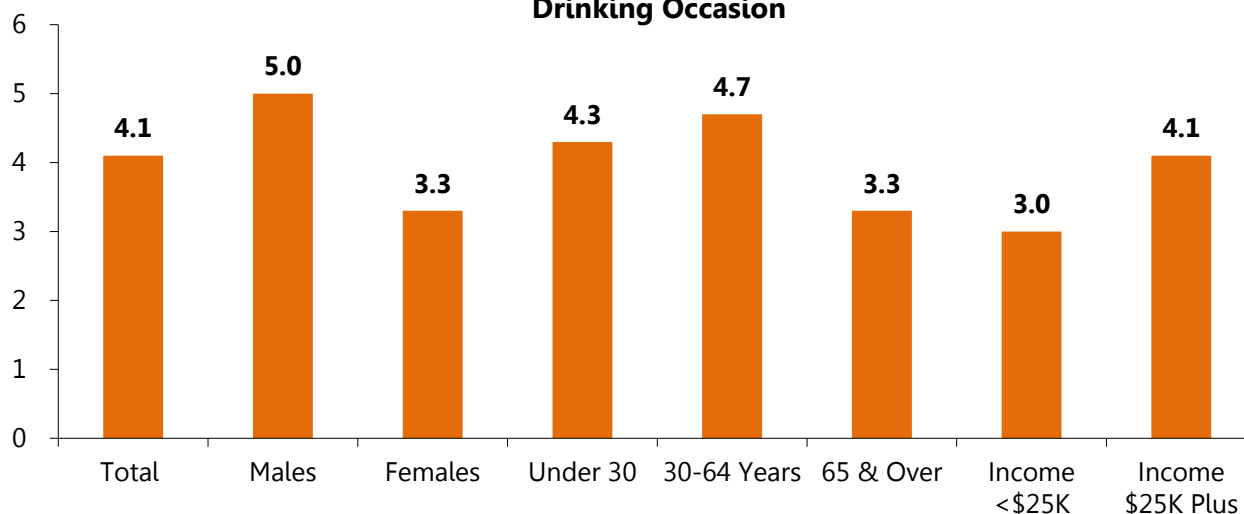
Chart showing average number of drinks consumed per drinking occasion:
- Total: 4.1
- Males: 5.0
- Females: 3.3
- Under 30: 4.3
- 30-64 Years: 4.7
- 65 & Over: 3.3
- Income <$25K: 3.0
- Income $25K Plus: 4.1

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

Adult Comparisons	Columbiana County 2017	Ohio 2017	U.S. 2017
Current drinker (had at least one drink of alcohol within the past 30 days)	59%	54%	55%
Binge drinker (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	19%	19%	17%
Drinking and driving (had driven after drinking too much)	6%	4%*	4%*

*2016 BRFSS

Findings from Focus Groups and Key Stakeholders (N=115)- Alcohol Use

Alcohol use was not identified as a top health concern by key stakeholders or focus group participants.

Alcohol Use- Summary of Key Findings:
- There are county-specific data gaps concerning alcohol use; however, based on findings from the 2016 Behavioral Risk Factor Surveillance Survey, Columbiana County has a 5% higher rate of current drinkers (those having at least one drink of alcohol within the past 30 days) compared to Ohio; and a 2% higher rate of drinking and driving than Ohio.
- Alcohol use was not identified as a top health need or priority by participants in the community survey, focus groups or key stakeholder interviews.

Health Behaviors: Mental Health

Mental Health refers to the mental well-being component included in the World Health Organization's (WHO) definition of health: "A state of complete physical, mental and social well-being, and not merely the absence of disease." Mental health is related to the promotion of well-being, the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders.

Impact of Mental illness: When mental health services are inaccessible to those in need, the impact is felt in all areas of the economy and society. Ohio's impact is measured as follows:
• Missed educational opportunities and failure in school (58% of children with mental illness do not graduate from high school.)
• Lost productivity and unemployment (Employees who are depressed are twice as likely to miss work and seven times more likely to be less productive on the job.)
• Increased crime and incarceration (More than half of Ohio's inmates have some type of mental illness; 12% are diagnosed with a severe mental illness. Most youth in juvenile justice facilities have a diagnosable mental disorder.)
• Inappropriate use of hospital emergency departments
• Premature death (In Ohio, more than 1,300 lives are lost to suicide each year.)

Data Indicators: Mental health is strongly linked to socioeconomic factors relevant to Columbiana County. Increasingly, youth and adults are self-reporting increased rates of depression and suicide-attempts, which are also addressed in the "Children and Youth" section of this report. Patients with anxiety, mood disorders and substance abuse are among East Liverpool City Hospital's and Salem Regional Medical Center's highest Emergency Department service users, and both Emergency Departments are observing an increase in the number of patients seeking treatment, who have suicide ideation. However, there are data gaps concerning an accurate reporting of suicide attempts among youth and adults, because many patients have co-morbidities and/or other complicating conditions, such as anxiety, mental illness or substance abuse.

2019 County Health Ranking Indicator- Quality of Life (2016 Data)	Columbiana County	Ohio.	Top U.S.
Average poor mental health days in past 30 days	4.2 days	4.3	3.1

Shortages of mental health workers, as indicated by the population ratios below, as well as a lack of treatment options especially related to inpatient management; were identified in the CHNA data collection process as significant limitations in addressing the county's mental health issues. Another underlying community theme that emerged was related to behavioral health issues concerning the link between mental health and addiction, as addressed in "Health Behaviors: Drug Use."
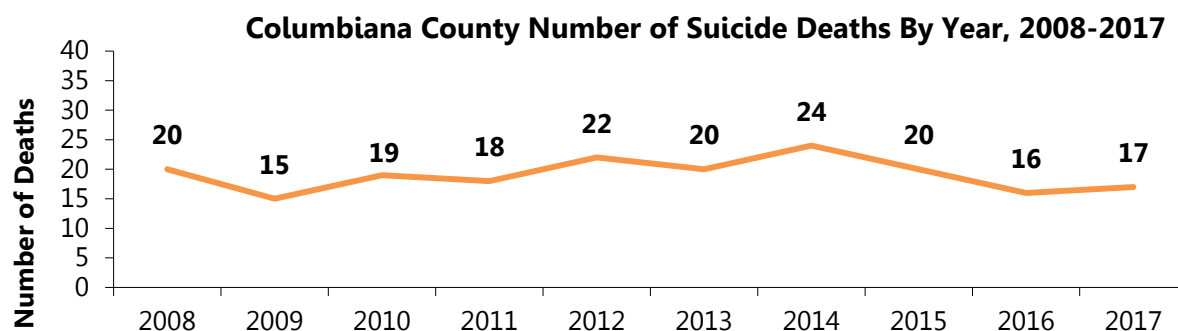
2019 County Health Ranking Indicator- Quality of Life (2016 Data)	Columbiana County	Ohio	US
Access to Behavioral Health Care: Ratio of population to mental health providers	1160:1	470:1	490:1

Age range
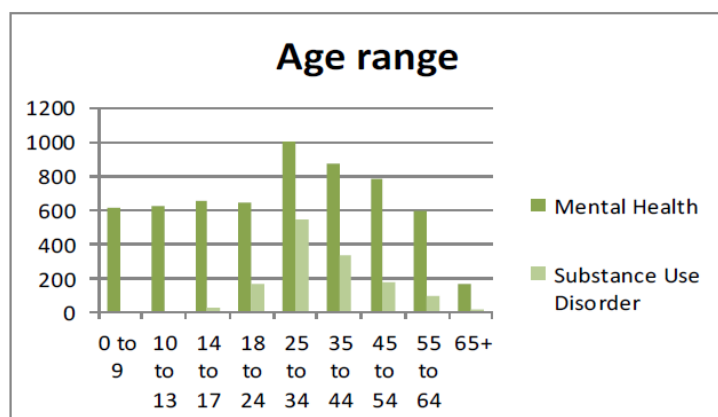
- Mental Health Services Utilization: According to the Columbiana County Mental Health and Recovery Services Board's 2018 Annual Report, a total of 5,907 people (4,030 adults and 1,877 children) received mental health treatment services in Columbiana County in FY18, representing almost 6% of the total population. Of those receiving mental health services, 55.6% were female and 44.3% were male. In addition of those treated, 1,330 people (1,311 adults and 19 children) received treatment for a substance use disorder.
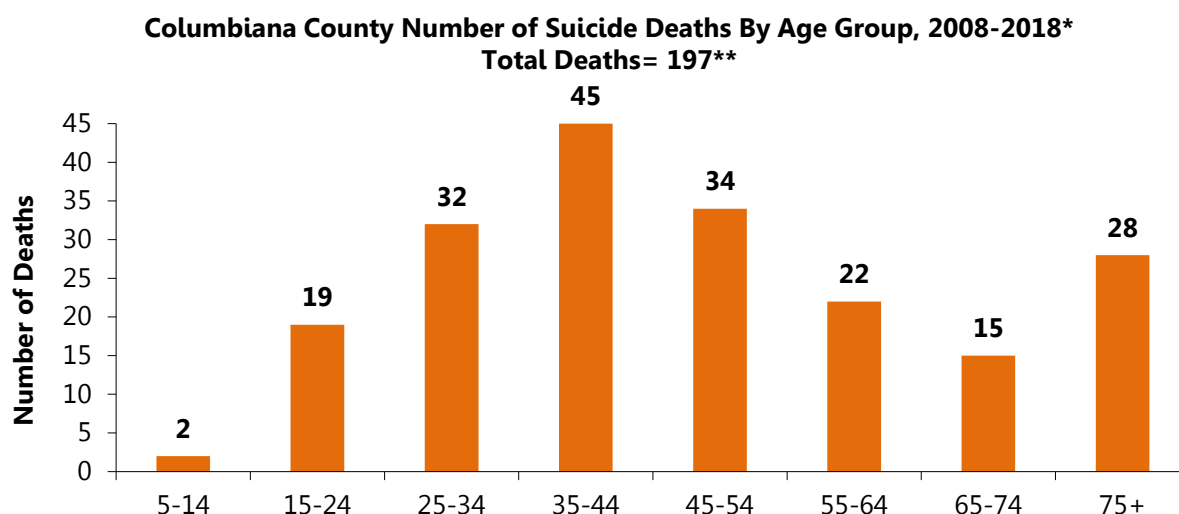
- Suicide Rates: The rate of suicide is increasing in the U.S., and has become the 10th leading cause of death, claiming more lives than traffic accidents and more than twice as many as homicides. In Columbiana County, there has been an average of 19 suicides per year for the past ten years.

Columbiana County Number of Suicide Deaths By Year, 2008-2017

Number of Deaths

- 2008: 20
- 2009: 15
- 2010: 19
- 2011: 18
- 2012: 22
- 2013: 20
- 2014: 24
- 2015: 20
- 2016: 16
- 2017: 17

(Graph Source: ODH, Ohio Public Health Data Warehouse, Mortality, Leading Causes of Death, updated 1/9/19)

It should also be noted that according to the Columbiana County Child Fatality Board Data, an average of one death by suicide has occurred from 2014-2018 in males under the age of 18. According to the Columbiana County Coroner's Report for 2018, 18 of 118 coroner's cases were suicides, with one-third occurring in the 30-39 age range and one-third occurring in the 80-89 age range. Gender is a significant variable, with victims of suicide being overwhelmingly male at 89.9% of the total; and the means of suicide was either by gunshot (N-12), hanging (N=5) or blunt force trauma (N=1). Anecdotally, it was noted that the number of suicide attempts was significantly higher among females, and that the means used did not involve a violent act.

Columbiana County Number of Suicide Deaths By Age Group, 2008-2018*
Total Deaths= 197**

Number of Deaths

- 5-14: 2
- 15-24: 19
- 25-34: 32
- 35-44: 45
- 45-54: 34
- 55-64: 22
- 65-74: 15
- 75+: 28

*Data for 2018 is partial and incomplete, and should be used with caution. **The age for three of the suicide deaths from 2008-2018 was unknown (Source: ODH, Ohio Public Health Data Warehouse, Mortality, Leading Causes of Death, updated 1/9/19)

Findings from Community Survey (N=377)- Mental Health

- About one-third (32%) of Columbiana County adults self-rated their mental health as not good on four or more days in the previous month.

- Columbiana County adults self-reported their mental health as not good on an average of 5.4 days in the previous month.

- Columbiana County adults were most likely to rate their mental health as not good if they:
  — Had an annual household income under $25,000 (65%)

— Were under the age of 30 (56%)

The table below shows the percentage of adults with poor mental health in the past 30 days, as self-reported in the 2018 Community Survey.

Health Status	No Days	1-3 Days	4-5 Days	6-7 Days	8 or More Days
Mental Health Not Good in Past 30 Days*					
Males	56%	14%	4%	1%	16%
Females	40%	10%	15%	1%	25%
Total	48%	12%	10%	1%	21%

Totals may not equal 100% as some respondents answered, "Don't know".

- In the past year, Columbiana County adults self-rated that they experienced the following almost every day for two weeks or more in a row:
  — Did not get enough rest or sleep (34%)
  — Had high stress (30%)
  — Felt worried, tense, or anxious (27%)
  — Felt sad, blue, or depressed (17%)
  — Stopped doing usual activities (12%)
  — Felt very healthy and full of energy (12%)
  — Had an unusual increase or loss of appetite (8%)

- Four percent (4%) of adults self-reported seriously considered attempting suicide, but no adults reported attempting suicide in the past year.

- Adults indicated they would do the following if they knew someone who was suicidal: talk to them (70%), try to calm them down (53%), call 911 (41%), call a crisis line (41%), take them to the ER (28%), call their spiritual leader (17%), call a friend (16%), text a crisis line (7%), and nothing (3%).

- Adults self-reported the following caused them anxiety, stress and depression:
  — Job stress (39%)
  — Financial stress (29%)
  — Death of a close family member or friend (21%)
  — Other stress at home (18%)
  — Poverty/no money (15%)
  — Family member is sick (15%)
  — Fighting in the home (14%)
  — Marital/dating relationships (12%)
  — Caring for a parent (10%)
  — Unemployment (4%)
  — Family member with a mental illness (4%)
  — Not having enough to eat (4%)
  — Divorce/separation (3%)
  — Not having a place to live (1%)
  — Not feeling safe at home (1%)
  — Not feeling safe in the community (1%)

- One in seven (14%) Columbiana County adults used a program or service for themselves or a loved one to help with depression, anxiety, or emotional problems. Reasons for not using such a program included the following:
  — Had not thought of it (7%)
  — Could not afford to go (5%)
  — Co-pay/deductible too high (5%)
  — Other priorities (4%)
  — Did not know how to find a program (4%)
  — Stigma of seeking mental health services (3%)
  — Fear (3%)
  — Took too long to get in to see a doctor (2%)
  — Transportation (1%)
  — Could not find a mental health doctor or provider (1%)
  — Could not get to the office/clinic (<1%)
  — Other reasons (5%)

- Almost three-fifths (59%) of adults indicated they did not need a program or service to help themselves or a loved one with depression, anxiety, or emotional problems.

- Columbiana County adults self-reported they or a family member were diagnosed with or treated for the following mental health issues in the past year:
  — Depression (25%)
  — Anxiety or emotional problems (24%)
  — An anxiety disorder (e.g., panic attacks, phobia, obsessive compulsive disorder) (19%)

- Alcohol and illicit drug abuse (7%)
- Post-traumatic stress disorder (PTSD) (6%)
- Autism spectrum (5%)
- Attention Deficit Disorder (ADD/ADHD) (5%)
- Bipolar Disorder (5%)
- Other trauma (4%)
- Developmental disability (cognitive/intellectual) (2%)
- Eating disorder (2%)
- Life-adjustment disorder/issue (1%)
- Psychotic disorder (e.g., schizophrenia, schizoaffective disorder) (1%)
- Problem gambling (1%)
- Some other mental health disorder (4%)

- Twenty-four percent (24%) of adults self-reported that they or a family member had taken medication for one or more mental health issues.

Findings from Focus Groups and Key Stakeholders (N=115)- Mental Health

Participants identified mental health issues as one of the top community needs and key factors impacting the health of the county. Case management staff at both hospitals in the county and other social service providers expressed significant health concerns that the mentally ill have access issues to receiving treatment options and there is a need to increase overall access to mental health providers. Columbiana County school nurses reported that some children are caring for parents who are either mentally ill and/or using drugs and are also facing trauma as a result, and mental health issues and lack of emotional support for students are a concern in the schools.

When focus groups and key stakeholders were asked in two separate questions about their top health topics and top priorities to be addressed in Columbiana County, both groups identified mental health as one of the most significant issues facing the community.

Mental Health- Summary of Key Findings:
- The need for mental health treatment and intervention continues to increase, especially for youth.
- The majority of community health leaders felt that people with mental illness are not being adequately served.
- The shortage of mental health providers negatively impacts access to mental health treatment options.
- A lack of personal resources related to available transportation, no/inadequate insurance and limited income/lack of money were identified during focus group interviews as top barriers that prevent Columbiana residents from seeking health care and the assistance they need for improved mental and physical health.
- Stigma associated with mental illness, lack of motivation and/or lack of awareness were also identified as barriers for clients seeking mental health services.

Health Behaviors: Sexual Behavior

Sexual behavior is the sexual activity of individuals that can be related to the transmission of sexually transmitted disease such as chlamydia, gonorrhea, HIV and pregnancy. Sexual activity and behaviors can have a significant impact on the overall health of a community due to the spread of acute infections and associated chronic issues affecting the long-term reproductive health of the community's population. Risky sexual behavior is associated with negative health outcomes of increased disease transmission, reproductive health complications and increased unintended pregnancies.

Data Indicators: The following graphs show the Columbiana County chlamydia and gonorrhea disease rates per 100,000 population and the number of chlamydia and gonorrhea disease cases. The graphs show:

- **Chlamydia:** Columbiana County chlamydia rates fluctuated from 2013 to 2017. The number of chlamydia cases in Columbiana County reached its lowest rate in 2016, but cases increased in 2017.

Chlamydia Annualized Disease Rates for Columbiana County and Ohio
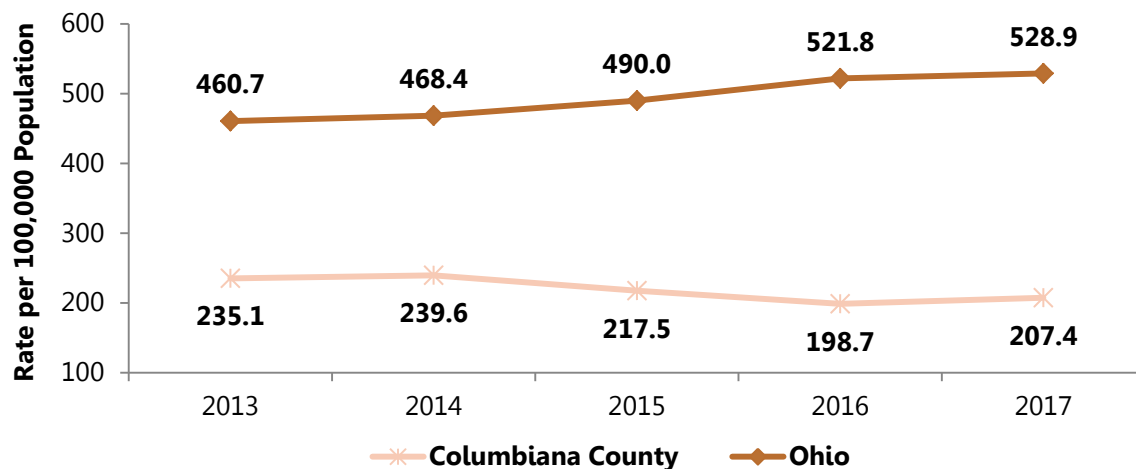
Annualized Count of Chlamydia Cases for Columbiana County
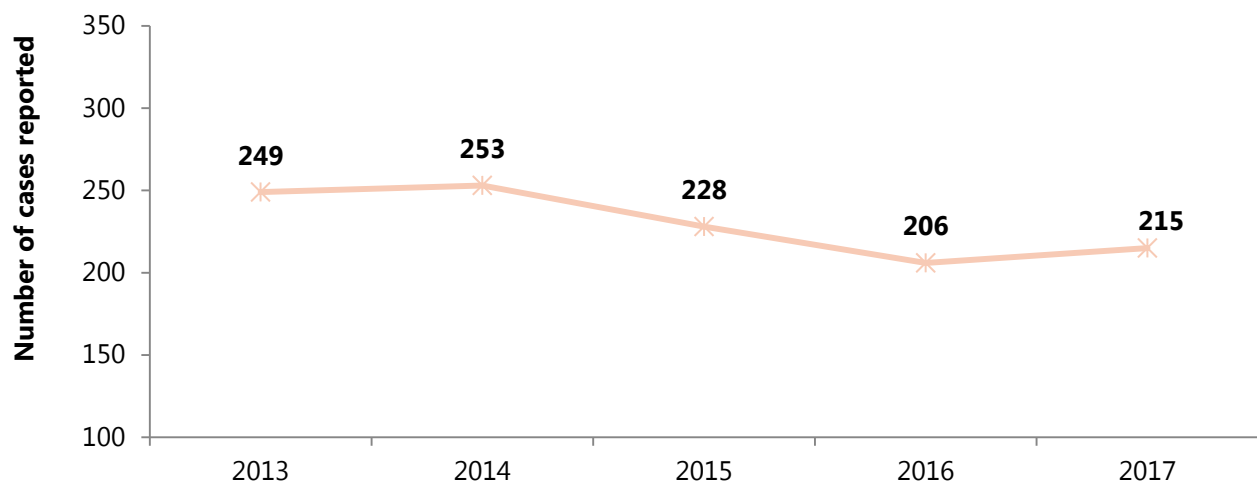
(Source for graphs: ODH, STD Surveillance, data reported through 5/7/17, updated on 5/29/18)

- **Gonorrhea**: Columbiana County gonorrhea rate fluctuated from 2013 to 2017. The number of gonorrhea cases in Columbiana County decreased from 2014 to 2016 and significantly increased from 2016-2017.

Gonorrhea Annualized Disease Rates for Columbiana County and Ohio

Annualized Count of Gonorrhea Cases for Columbiana County
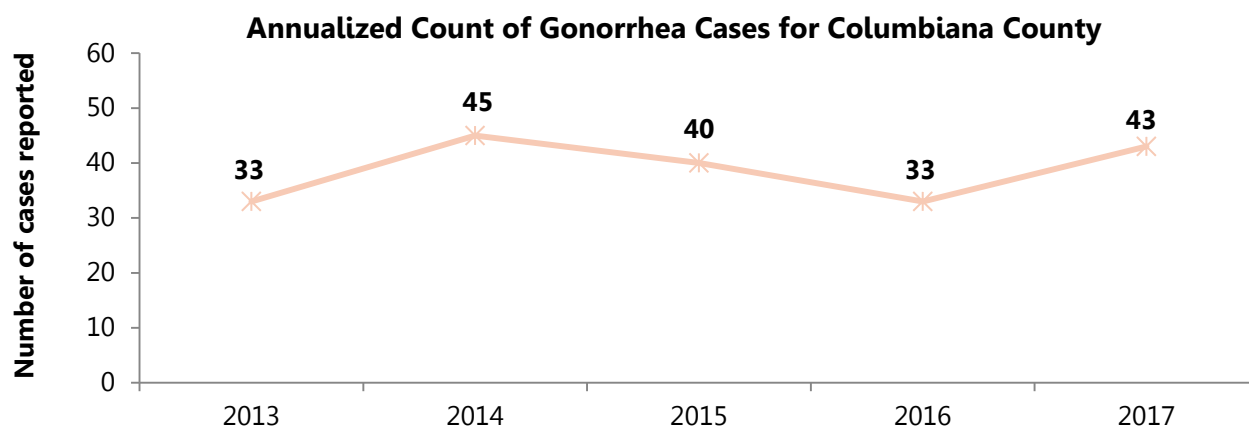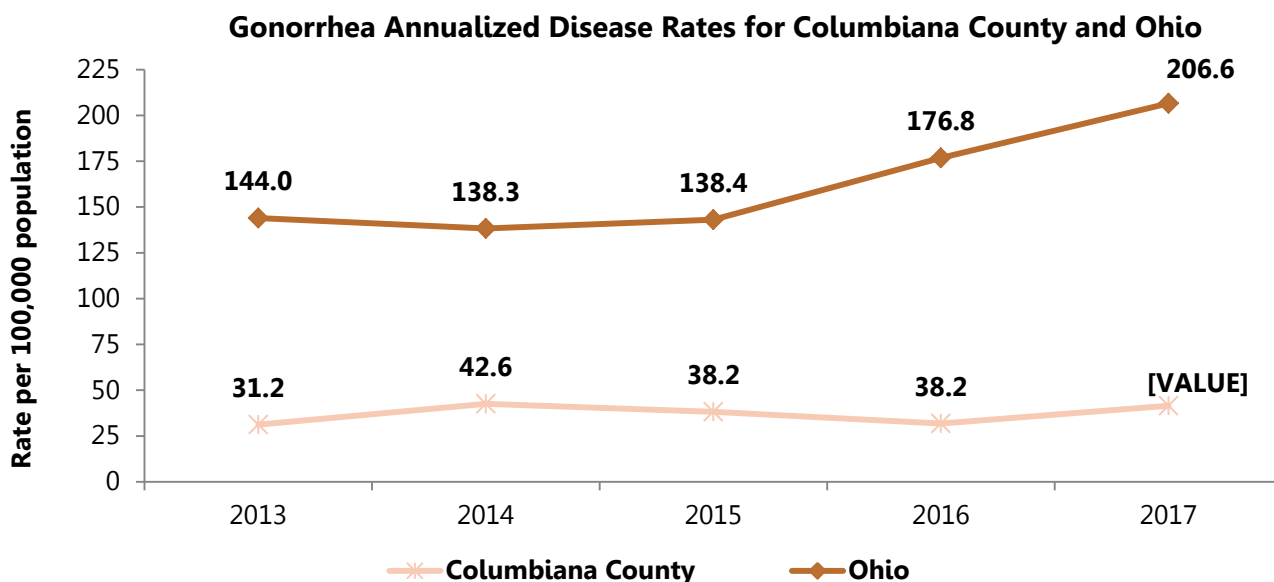
(Source for graphs: ODH, STD Surveillance, data reported through 5-7-17, updated on 5/30/18)

Pregnancy Outcomes

- From 2013-2017, there was an average of 5,359 live births/year in Columbiana Cty. (Includes adolescents & adults)

Columbiana County Total Live Births
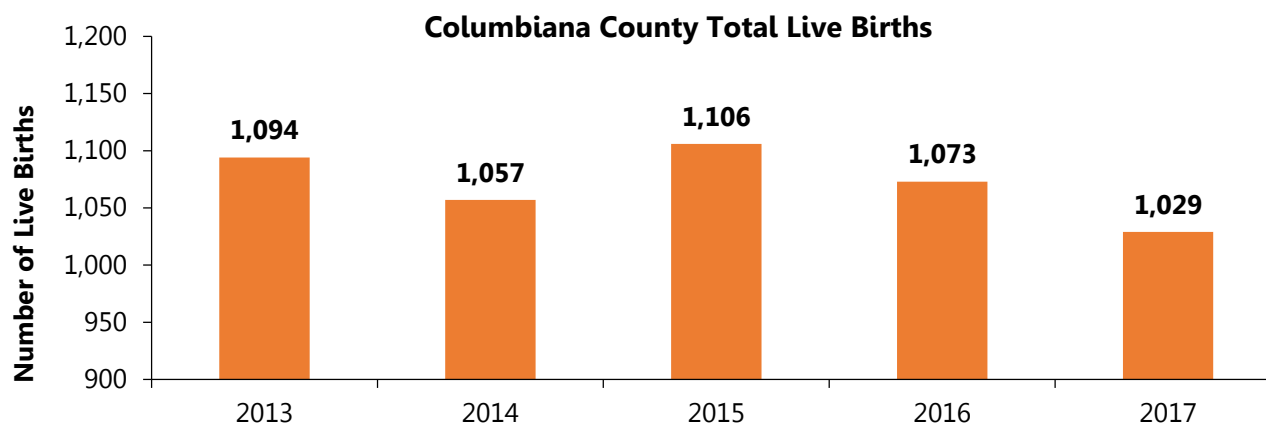
Findings from Community Survey (N=377)- Sexual Behavior

- Sixty-seven percent (67%) of Columbiana County adults self-reported having sexual intercourse in the past year.

- Two percent (2%) of adults self-reported they had intercourse with more than one partner in the past year, increasing to 6% of those with incomes less than $25,000.

- Columbiana County adults self-reported using the following methods of birth control: they or their partner were too old (17%); vasectomy (12%); tubes tied (9%); condoms (9%); hysterectomy (7%); withdrawal (7%); ovaries or testicles removed (4%); infertility (4%); IUD (1%); the rhythm method (1%); gay or lesbian (1%); contraceptive implants (1%); pills, all kinds (Ortho Tri-Cyclen) (1%); shots (Depo-Provera) (1%); contraceptive patch (1%); diaphragm, cervical ring or cap (1%); and emergency contraception (1%). Five percent (5%) of adults reported they and their partner were trying to get pregnant, and 3% reported they were currently pregnant.

- Seven percent (7%) Columbiana County adults self-reported not using any method of birth control.

- The following situations applied to Columbiana County adults as self-reported in the past year:
  — Had sex without a condom (37%)
  — Had anal sex without a condom (7%)
  — Tested for a sexually transmitted disease (STD) (5%)
  — Tested positive for HPV (2%)
  — Treated for a sexually transmitted disease (STD) (1%)
  — Tested positive for Hepatitis C (1%)
  — Had sexual activity with someone of the same gender (1%)
  — Were forced to have sex (1%)
  — Had sex with someone they did not know (<1%)

The following graph shows the number of sexual partners Columbiana County adults had in the past year. An example of how to interpret the information in the graph includes: 65% of all adults had one sexual partner in the past 12 months, and 2% had more than one.

Columbiana County Number of Sexual Partners in the Past Year*
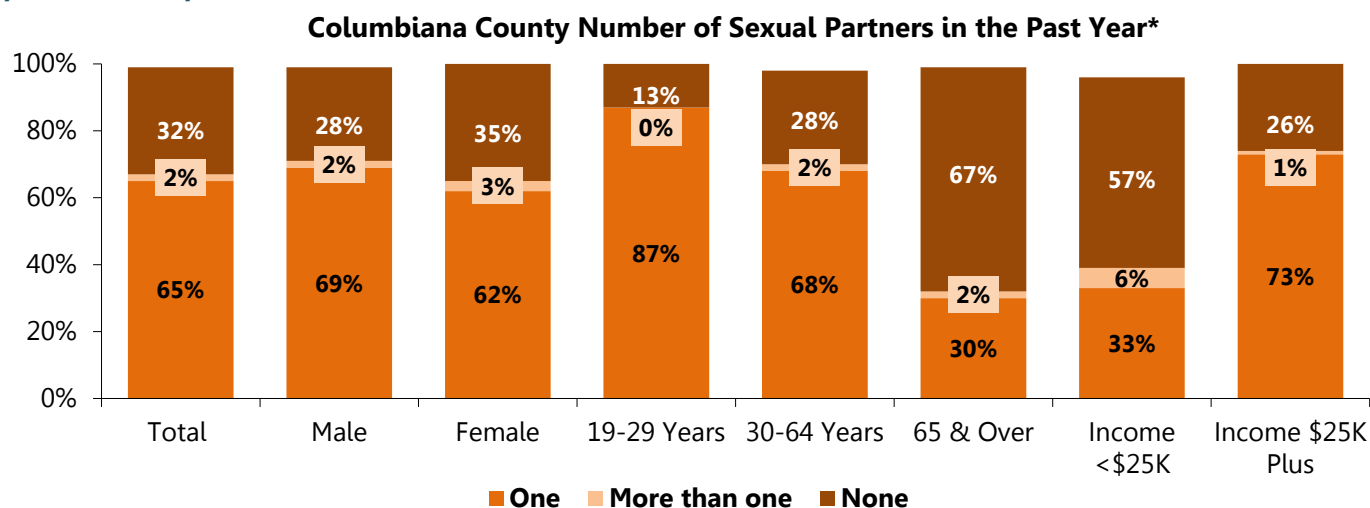
Respondents were asked: "During the past 12 months, with how many different people have you had sexual intercourse?"
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Sexual Behavior- Summary of Key Findings:
- Columbiana County rates of Chlamydia and Gonorrhea have fluctuated but remain relatively constant or have slightly declined from 2013-2017, while the State of Ohio's rates ave increased over the same period.
- Birth outcomes remain relatively constant as compared to the rate for the State of Ohio.
- Sixty-seven percent (67%) of Columbiana County adults self-reported having sexual intercourse in the past year. Survey respondents making less than $25,000 (6%) reported having sex with more than one partner at a rate three times higher than the general population surveyed (2%).

Health Behaviors: Intentional & Unintentional Injuries

Intentional injuries are injuries that occur with purposeful intent and include homicide, suicide, violent crimes and firearms. **Unintentional injuries** are those that occur without purposeful intent, and are a leading cause of death and disability. Unintentional injuries are the leading cause of death in the U.S. among people ages 1-34. While commonly referred to as "accidents", they are sometimes predictable and can be stopped if preventive measures are put into place.

Data Indicators: The data below is sourced from the Ohio Department of Health (ODH), unless noted:
- **Unintentional injury mortality** has been increasing in Columbiana County; and during the measurement period of 2009-2011, the age-adjusted death rate was 42.7 compared to Ohio at 41.1.
- The unintentional injury rate is higher for Columbiana County youth in terms of falls, vehicle-related injuries and overexertion/strenuous injuries.(See: *Maternal/Infant/Child/Adolescent Health* section)
- **Deaths due to Injury** were at 88/100,000 in Columbiana County for the measurement period of 2012-2016, showing an increased trend from 84/100,000 during the prior 2011-2015 measurement period.
- The number of County **deaths due to firearms** at 13/100,000 has held constant from 2011-2016.
- The County's **suicide age-adjusted death rate** of 15.8/100,000 is significantly higher than Ohio at 12/100,000 for the measurement period of 2009-2011. However, data from the Columbiana County Coroner's Office shows that suicide mortality has averaged about 19 suicide deaths per year during the past 10 years.
- According to the Columbiana County Coroner's Office, from 2014-2017, **unintentional drug-related deaths** have more than doubled.
- Columbiana County's number of **violent crime incidents** at 13.1/100,000 has held constant during the measurement period of 2012-2014.
- The County's number of **homicide deaths** remains at 4/100,000, which has held constant from 2009-2016. However, the most recent local data from 2017 was reported via the Columbiana County Coroner's report, which indicates there were three homicides in 2017. This translates to a rate of 2.91 homicides per 100,000 population, which is lower than the state of Ohio's rate of 7.5 and the national rate of 6.2 as reported by CDC's National Center for Health Statistics (homicide mortality by state) for 2017.
- According to the RWJF, the County was ranked 10th highest out of 88 counties in Ohio due to the 2016 rate of 99/100,000 **motor vehicle crash deaths.**
- The Ohio State Highway Patrol's data indicates that **seatbelt enforcement** activities reported in Columbiana County were 270 in the first quarter of 2019 versus 451 in calendar 2018.

Community Health Survey (N=377):
- Nearly three-fifths (58%) of Columbiana County adults reported keeping a firearm in or around their home. Eleven percent (11%) of adults reported that their firearms were unlocked and loaded.

The following graph shows the percentage of Columbiana County adults who reported having a firearm in or around the home. Examples of how to interpret information shown on the graph include: 58% of all Columbiana County adults had a firearm in or around the home, including 68% of males and 64% of those with incomes > than $25,000.
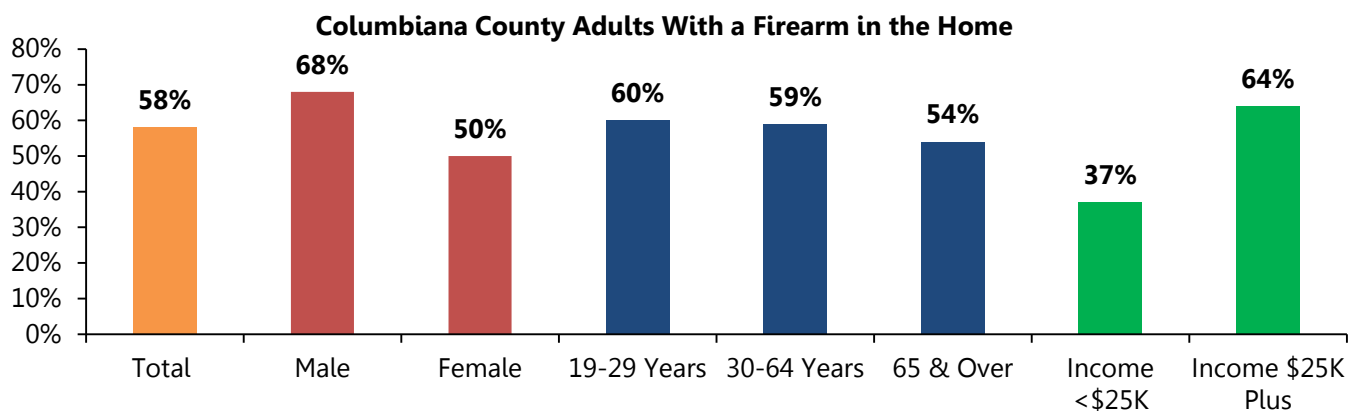
Columbiana County Adults With a Firearm in the Home

Total	Male	Female	19-29 Years	30-64 Years	65 & Over	Income <$25K	Income $25K Plus
58%	68%	50%	60%	59%	54%	37%	64%

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.

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- Columbiana County adults reported doing the following while driving:
- Eating (37%)
- Talking on hands-free cell phone (30%)
- Talking on hand-held cell phone (29%)
- Texting (12%)
- Not wearing a seatbelt (11%)
- Using internet on their cell phone (8%)
- Being under the influence of alcohol (2%)
- Being under the influence of prescription drugs (2%)
- Reading (1%)
- Being under the influence of recreational drugs (<1%)
- Other activities (such as applying makeup, shaving, etc.) (1%)

- Adults reported regularly using the following to reduce their risk of injury: seat belts (88%); smoke detectors (83%); sunscreen (56%); carbon monoxide detectors (53%); safety equipment at work (28%); car seat or booster seat for a child in the household (24%); safety equipment at home (24%); lifejackets (18%); bike helmets (9%); and motorcycle, ATV, or snowmobile helmets (9%).

Maternal, Infant, Child and Adolescent Health

The well-being of children determines the health of the next generation and can help predict future public health challenges for communities and the health care delivery system. This **healthy babies, children and adolescent** topic area addresses a wide range of health behaviors and indicators for children from birth to 18 years of age, that can affect the present and future health, wellness, and quality of life for Columbiana County residents.

Maternal and Infant Health

Maternal and Infant Health includes many factors that affect pregnancy and childbirth outcomes.

Data Indicators for Maternal and Infant Health: The following maternal and infant health data indicators were sourced from Akron Children's Hospital's 2016 CHNA and reflect that Columbiana County's rates were lower than Mahoning County's rates for most maternal-child health indicators. However, Columbiana County's rates were still higher than Ohio's and the U.S. in most instances.
- The teen birth rate is 35 births/1,000 females age 15-19, which is the same as the nation and very similar to Ohio's at 34/1,000.
- A little less than one-third (32.4%) of Columbiana County females did not obtain prenatal care during their first trimester versus 32.8% in Mahoning Cunty.
- The percent of Columbiana County infants with a low birth weight (below 5 pounds, 8 oz.) equalled 7.4%, which is significantly lower than 10.7% of infants in Mahoning County. The 7.4-7.5% low birth weight rate has held constant for many years.
- Columbiana County's infant death rate (infants who die before their first birth day) is 7.9/1,000, which is lower than Mahoning County's at 8.7/1,000.
- Columbiana County's neonatal abstinence syndrome rate at 19.9 live births/1,000 is significantly lower than Mahoning County's at 29.5/1,000.

Findings from Community Health Survey (N=377)- Maternal and Infant Health
- Sixteen percent (16%) of Columbiana County women reported being pregnant in the past 5 years.

- During their last pregnancy, Columbiana County women self-reported doing the following:
  — Had a prenatal appointment in the first 3 months (71%)
  — Took a multi-vitamin with folic acid during pregnancy (67%)
  — Took folic acid/prenatal vitamins (58%)
  — Took a multi-vitamin with folic acid pre-pregnancy (54%)
  — Took folic acid pre-pregnancy (42%)
  — Had a dental exam (38%)
  — Took folic acid during pregnancy (25%)
  — Experienced depression (13%)
  — Received WIC services (13%)

Findings from Focus Groups & Key Stakeholders (N=115)- Maternal and Infant Health
Participants in the stakeholder and focus group interviews expressed that they felt the lack of OB/GYN providers and no "local" birthing center in the county had a negative impact on access to prenatal care; especially in relationship to transportation being identified as one of the most significant barriers to accessing health care services. In addition, the lack of parenting skills among young families was noted and the need for parenting classes was identified. Many participants also mentioned their observation of increasingly non-traditional family structures related to children being raised by grandparents and/or extended family members due to parental substance use.

Chronic Disease: Children & Adolescents

Chronic Diseases monitored for the 2018 Columbiana County CHNA include pediatric asthma and diabetes, with data sourced from Akron Children's Hospital's 2016 CHNA.

Data Indicators for Chronic Disease:
- Columbiana County children have a significantly higher rate of asthma at 19.9% versus 17.3% in Mahoning County and 15.4% in Ohio.
- Columbiana County children have a significantly lower rate of Type 1 and 2 diabetes in children 0-18 at 0.9/1,000 versus Mahoning County at 1.5/1,000.

Findings from Community Health Survey (N=377)- Chronic Disease: No questions were asked in this category.

Findings from Focus Groups & Key Stakeholders- Chronic Disease: There were no findings noted.

Intentional & Unintentional Injuries: Children & Adolescents

Intentional and unintentional injuries occur when a child is harmed. However, intentional injuries include child abuse, neglect and suicide; while unintentional injuries may include falls, motor vehicle accidents and accidental deaths.

Data Indicators for Intentional and Unintentional Injuries:
The following intentional and unintentional injury data indicators were sourced from Akron Children's Hospital's 2016 CHNA:
- Columbiana County has the highest rate of childlen's injuries in the Mahoning Valley due to falls, vehicle-related injuries and overexerction/strenouous injuries; and the lowest rate for child abuse and neglect as follows:
- Falls= 50 injuries/1,000 Columbiana County, compared to 42.9/1,000 in Mahoning County.
- Overexertion & Strenuous Movements= 13.4 injuries/1,000 Columbiana County vs. 6.1/1,000 in Mahoning County.
- Vehicle-related Injuries= 14.5 injuries/1,000 Columbiana County vs. 13.6/1,000 in Mahoning County.
- According to the 2018 Columbiana County Search Institute's *Profiles of Student Life: Attitudes and Behaviors' Survey* (see next section), it should be noted that 29% of youth in 7th, 9th and 10th grade have reported being physically harmed by someone in their family or home.

Findings from Community Health Survey (N=377)- No questions were asked in this category.

Findings from Focus Groups & Key Stakeholders: A concern about child abuse and neglect was expressed by a small number of participants, which was tied to the growing substance abuse issue in the County. Participants also identified the concern about children caring for adult family members, who are unable to care for themselves due to substance use.

Mental Health & Developmental Assets: Children & Adolescents

The presence and/or absence of developmental assets in children can affect psychological and emotional development, school performance, family and peer relationships and overall mental and physical health.

Data Indicators for Mental Health: The following mental health data indicators were sourced from Akron Children's Hospital's 2016 CHNA and indicate that the Columbiana County rate of youth ages 0-18 with mental health problems at 5.9/1,000 was lower than Mahoning County at 8.3/1,000. However, 10.7% of Columbiana County children were estimated as not having mental health insurance, compared to 7.7% in Mahoning County and 10.4% in Ohio.

Data Findings for Youth Risk Factors and Protective Assets: Over the past 20 years, the Search Institue has surveyed over three million youth across the nation and developed a research-based framework of 40 developmental assets that are basic building blocks for human development. The 40 assets are organized into two primary categories with sub-groups as follows: External Assets (*Support, Empowerment, Boundaries and Expectations and Constructive Use of Time*) and Internal Assets (Commitment to Learning, Positive Values, Social Competencies and Positive Identity).

Through the Coordinated Action for School Health Coalition's (CASH) extensive efforts in obtaining trended county-wide youth survey data using the *Search Institute Profiles of Student Life: Attitudes and Behaviors*© survey instrument, the following section reflects the findings from the 2018 Columbiana County Developmental Asset Survey's aggregate report, as well as comparison data from previously conducted Developmental Asset surveys in Columbiana County.

Search Institute Survey Methodology: In 2018, 2,314 Columbiana County adolescents in 10 of 11 Columbiana County school districts, who were enrolled in grades 7, 9 and 10; participated in the Search Institute's *Profiles of Student Life: Attitudes and Behaviors' Survey* to assess the impact of 40 identified internal and external assets, which measure thriving indicators and risk-taking behaviors.

The survey is conducted every two years (even years), and the following data is from the most recent findings (fall, 2018) as compiled through the Search Institute in Minneapolis MN. The total sample of Columbiana County youth surveyed for the 2018 Developmental Asset Survey by grade was 7th grade=794, 9th grade=748, and 10th grade=754 students.

Participating students are administered an anonymous online survey of 160 questions during the school day at their respective school districts. To ensure complete anonymity, no student names or identifying numbers were used. Parents were notified of the survey administration and given the option of withdrawing students. Participating school districts received a summary report of individual district data, as well as a county aggregate report in January 2019; and the aggregated data was also shared in a community roll-out in April 2019.

2018 Columbiana Cty. Profiles of Student Life: Attitudes and Behaviors' Survey Findings:

Search Institute research has shown that the more assets a young person has, the less likely he/she will engage in harmful behaviors and be more likely to do well in school and become a productive adult. Columbiana County youth possessing 0-10 assets=12%, versus 8% having 31-40 assets. (See Appendix for more findings from the 2018 Columbiana County Search Institute survey results.)

2018 Columbiana County Youth

Key Finding:
92% of Columbiana County youth report having less than 30 Assets

Legend:
- 0–10 Assets
- 11–20 Assets
- 21–30 Assets
- 31–40 Assets

Pie chart values: 8%, 12%, 43%, 37%
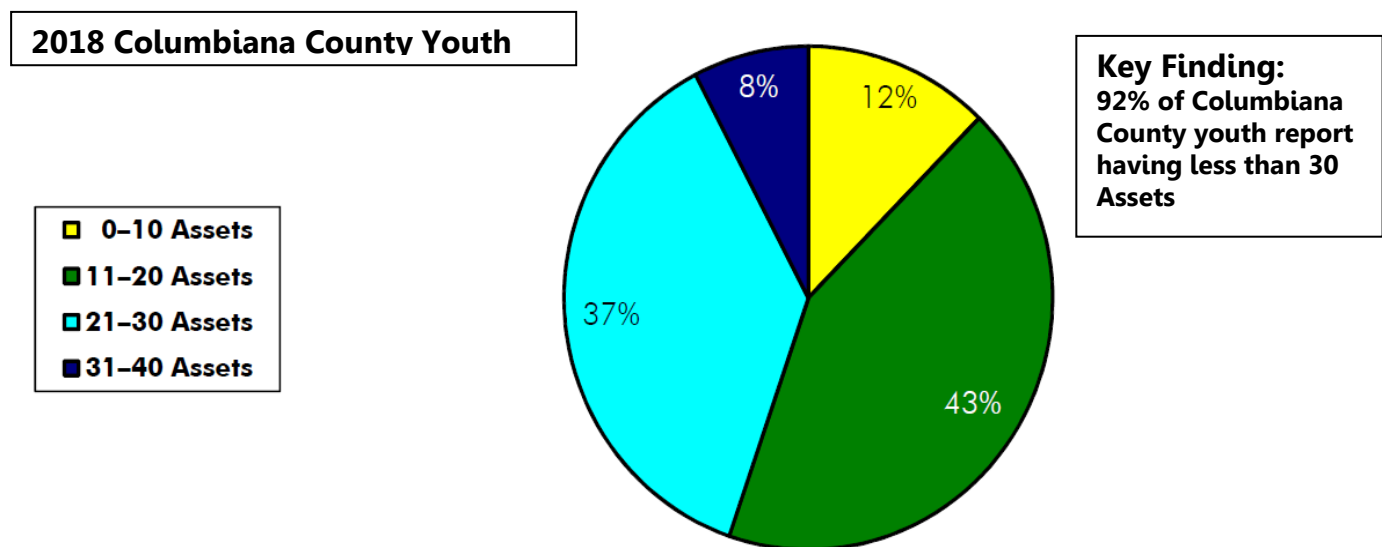
Graph and Table Source: *Search Institute Profiles of Student Life: Attitudes and Behaviors*, 2018. (Columbiana County Aggregate report)

Table 2. Percent of Your Youth Reporting External Assets

Category	Asset Name	Definition	Percent
Support	1. Family support	Family life provides high levels of love and support.	74
	2. Positive family communication	Young person and his or her parent(s) communicate positively, and young person is willing to seek parent(s') advice and counsel.	33
	3. Other adult relationships	Young person receives support from three or more nonparent adults.	50
	4. Caring neighborhood	Young person experiences caring neighbors.	34
	5. Caring school climate	School provides a caring, encouraging environment.	29
	6. Parent involvement in schooling	Parent(s) are actively involved in helping young person succeed in school.	33
Empowerment	7. Community values youth	Young person perceives that adults in the community value youth.	22
	8. Youth as resources	Young people are given useful roles in the community.	28
	9. Service to others	Young person serves in the community one hour or more per week.	52
	10. Safety	Young person feels safe at home, school, and in the neighborhood.	38
Boundaries and Expectations	11. Family boundaries	Family has clear rules and consequences, and monitors the young person's whereabouts.	59
	12. School boundaries	School provides clear rules and consequences.	62
	13. Neighborhood boundaries	Neighbors take responsibility for monitoring young people's behavior.	49
	14. Adult role models	Parent(s) and other adults model positive, responsible behavior.	32
	15. Positive peer influence	Young person's best friends model responsible behavior.	78
	16. High expectations	Both parent(s) and teachers encourage the young person to do well.	58
Constructive Use of Time	17. Creative activities	Young person spends three or more hours per week in lessons or practice in music, theater, or other arts.	16
	18. Youth programs	Young person spends three or more hours per week in sports, clubs, or organizations at school and/or in community organizations.	59
	19. Religious community	Young person spends one or more hours per week in activities in a religious institution.	41
	20. Time at home	Young person is out with friends "with nothing special to do" two or fewer nights per week.	66

Key Findings from External Assets Reported by Columbiana County Youth:

- Columbiana County youth report a decreased percentage (16%) of spending time throughout the week in creative activities.
- A notable low percentage (32%) of youth report parent(s) or other adults model positive, responsible behavior.
- 38% of youth report they feel safe at home, school, and in the neighborhood.
- 29% of youth report that school provides a caring, encouraging environment.
- A decreased rate for positive family communication is reported by youth at 33% stating that they communicate positively and seek advice or counsel from a parent.
- 22% of youth report their perception of adults in their community value youth.

Table 3. Percent of Your Youth Reporting Internal Assets

Category	Asset Name	Definition	Percent
Commitment to Learning	21. Achievement motivation	Young person is motivated to do well in school.	72
	22. School engagement	Young person is actively engaged in learning.	38
	23. Homework	Young person reports doing at least one hour of homework every school day.	29
	24. Bonding to school	Young person cares about his or her school.	66
	25. Reading for pleasure	Young person reads for pleasure three or more hours per week.	17
Positive Values	26. Caring	Young person places high value on helping other people.	65
	27. Equality and social justice	Young person places high value on promoting equality and reducing hunger and poverty.	67
	28. Integrity	Young person acts on convictions and stands up for his or her beliefs.	76
	29. Honesty	Young person tells the truth even when it is not easy.	74
	30. Responsibility	Young person accepts and takes personal responsibility.	76
	31. Restraint	Young person believes it is important not to be sexually active or to use alcohol or other drugs.	47
Social Competencies	32. Planning and decision-making	Young person knows how to plan ahead and make choices.	30
	33. Interpersonal competence	Young person has empathy, sensitivity, and friendship skills.	50
	34. Cultural competence	Young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds.	40
	35. Resistance skills	Young person can resist negative peer pressure and dangerous situations.	43
	36. Peaceful conflict resolution	Young person seeks to resolve conflict nonviolently.	42
Positive Identity	37. Personal power	Young person feels he or she has control over "things that happen to me."	33
	38. Self-esteem	Young person reports having a high self-esteem.	36
	39. Sense of purpose	Young person reports that "my life has a purpose."	49
	40. Positive view of personal future	Young person is optimistic about his or her personal future.	68

Source: *Search Institute Profiles of Student Life: Attitudes and Behaviors*, 2018. (Columbiana County Aggregate report)

Key Findings from Internal Assets Reported by Columbiana County Youth:

- 17% of youth report reading for pleasure under the commitment to learning category.
- In the category of Social Competencies, 30% of youth report they know how to plan ahead and make choices.
- Only 43% of youth report they resist negative peer pressure and avoid dangerous situations.
- A low percentage of youth (33%) report they feel as though they have a sense of personal power.
- A reportedly low percentage of youth (36%) provide an account of high self-esteem.

Key Findings from Youth Risk-Taking Behaviors Reported by Columbiana County Youth:

The following table shows a summary of mental health and substance abuse risk-taking behavior trends from 2011-2018, as shown in the Columbiana County Developmental Assets 2018 Survey Report.

Youth Variables	2011 (n=1,768)	2013 (n=2,306)	2015 (n=2,309)	2018 (2,314)
Eating Disorder				
Had engaged in bulimic or anorexic behavior	20%	17%	18%	24%
Depression				
Felt sad or depressed most or all of the time	20%	17%	19%	26%

in the last month				
Attempted Suicide				
Had attempted suicide one or more times	**16%**	**16%**	**17%**	**20%**
Alcohol				
Used alcohol one or more in the last 30 days	**25%**	**23%**	**21%**	**21%**
Got drunk once or more in the last two weeks	**20%**	**14%**	**14%**	**12%**
Tobacco				
Smoked cigarettes once or more in the last 30 days	**13%**	**11%**	**9%**	**6%**
Used smokeless tobacco once or more in the last 12 months	**16%**	**15%**	**11%**	**9%**
Inhalants				
Sniffed or inhaled substances to get high once or more in the last 12 months	**9%**	**8%**	**7%**	**6%**
Marijuana				
Used marijuana once or more in the last 12 months	**19%**	**10%**	**9%**	**7%**
Other Drug Use				
Used other illicit drugs once or more in the last 12 months	**6%**	**3%**	**2%***	**2%**
Driving and Alcohol				
Drove after drinking once or more in the last 12 months	**6%**	**5%**	**4%**	**3%**
Rode with a driver who had been drinking once or more in the last 12 months	**33%**	**33%**	**30%**	**24%**

- (Source: Columbiana County Developmental Assets 2018 Survey Report)
- *2015 data is specifies used heroin or other narcotics once or more in the last 12 months   N/A-Not Available

The following table shows a summary of additional risk-taking behaviors, as shown in the Columbiana County Developmental Assets 2018 Survey Report.

Table 14. Percent of Youth Reporting 15 Additional Risk-Taking Behaviors		Total Sample	Gender		Grade							
Category	**Definition**		**M**	**F**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Sexual Intercourse	Has had sexual intercourse one or more times	19	20	17		7		18	31			
Anti-Social Behavior	Shoplifted once or more in the last 12 months	12	13	10		10		12	12			
	Committed vandalism once or more in the last 12 months	10	13	6		9		9	11			
	Got into trouble with police once or more in the last 12 months	14	17	10		14		14	14			
Violence	Hit someone once or more in the last 12 months	29	38	19		31		29	27			
	Physically hurt someone once or more in the last 12 months	15	19	9		16		14	15			
	Used a weapon to get something from a person once or more in the last 12 months	3	4	2		2		4	4			
	Been in a group fight once or more in the last 12 months	17	20	13		20		15	16			
	Carried a weapon for protection once or more in the last 12 months	22	31	12		21		22	23			
	Threatened physical harm to someone once or more in the last 12 months	28	32	23		24		29	30			
School Truancy	Skipped school once or more in the last four weeks	28	28	29		28		25	32			
Gambling	Gambled once or more in the last 12 months	17	22	10		14		18	18			
Eating Disorder	Has engaged in bulimic or anorexic behavior	24	20	28		22		24	25			
Depression	Felt sad or depressed most or all of the time in the last month	26	17	34		22		27	29			
Attempted Suicide	Has attempted suicide one or more times	20	14	26		18		21	22			

Key Findings Related to Substance Use Risk Taking Factors:

- The percentage of 10th grade students reporting they have used alcohol once or more in the past 30 days is notably higher as compared to 9th grade reporting.
- Youth reporting attending drinking parties increases steadily between 7th and 10th grade.
- A significant percentage of youth (24%) have reportedly ridden with a driver who has been drinking.
- An increased percentage of 10th grade students report using marijuana or hashish once or more in the last 30 days as compared to 7th and 9th graders.
- Youth perception of marijuana use is perceived to be at a much lower risk as compared to alcohol, tobacco, and prescription drug use in the asset categories of 0-10, 11-20, and 21-30.
- Youth perception of regular alcohol use is reported at a much lower risk as compared to tobacco or prescription drug use.

Key Findings Related to Mental Health Issues:

- One-fifth of Columbiana County youth have reported attempted suicide. Specifically, a higher percentage of female youth (26%) as compared to male youth (14%). The rate of reporting suicide attempts has shown an increase from 7th grade to 10th grade.
- Reports of depression are significantly higher in youth females as compared to males. However, over one-fourth of youth report feeling sad all or most of the time. Depression rate reporting increases from 7th grade to 10th grade.
- 24% of youth reporting having engaged in anorexic or bulimic eating disorders between male and female reporting.
- Over one-fourth of Columbiana County youth have threatened someone with physical harm in the last month. Violence indicators show a greater disparity among male students.

Note: Additional Search Institute survey results can be found in the Appendix.

Findings from Community Health Survey (N=377)- Mental Health: No questions were asked in this category.

Findings from Focus Groups & Key Stakeholders- Mental Health: Concerns were expressed about the increased rates of mental health issues experienced by youth, especially related to depression and suicide and the lack of mental health providers and limited youth mental health treatment options. School nurses also expressed that social and emotional needs are more prevalent among all students than in the past. Focus group and stakeholder participants also voiced concerns about the unknown impact of vaping; and that youth are perceived as having a more favorable view of marijuana and vaping as less risky behaviors than other types of drug use or smoking.

Key Findings: Maternal, Infant, Child and Adolescent Health
- Columbiana County youth have a higher incidence of asthma than surrounding communities and the state of Ohio.
- The unintentional injury rate is also higher for Columbiana County youth in terms of falls, vehicle-related injuries and overexerction/strenouous injuries.
- The 2018 Columbiana County Developmental Asset Survey indicated an increased concern about high-risk behaviors surrounding adolescent substance use and the growing number of mental health issues; particularly related to a steady increase in youth reporting depression, suicide attempts and eating disorders.
- Approximately 1 in 5 Columbiana County youth have attempted suicide one or more times.
- Slightly over 1 in 4 Columbiana County youth report feeling depressed most or all of the time within the last month, with a gender disparity rate of 34% of females compared to 17% of males.
- Approximately 1 in 4 Columbiana County youth report having an eating disorder.
- Focus groups and stakeholders also identified concerns about the growing incidence of mental health issues among youth and the potential impact on family and community health status, especially related to a lack of mental health providers and limited youth mental health treatment options.
- There is a growing concern about the increasingly favorable perception of vaping and marijuana use as a less-risky behavior than smoking or other types of drug use.

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Chronic Disease

Chronic diseases are types of diseases that a person can live with for a prolonged period of time, and sometimes indefinitely. Those with a chronic disease usually need to see their doctors on a regular basis in order to monitor the disease progression and receive treatment. Chronic diseases identified as significant health needs in Columbiana County include: cardiovascular health (heart disease and stroke, high blood pressure and high cholesterol), cancer, arthritis, asthma and diabetes. Over half of all deaths in Columbiana County are attributable to chronic disease.

Columbiana County
Leading Causes of Death, 2015-2017
Total Deaths: 3,891

1. Heart Diseases (26% of all deaths)
2. Cancers (21%)
3. Chronic Lower Respiratory Diseases (7%)
4. Accidents, Unintentional Injuries (6%)
5. Stroke (5%)

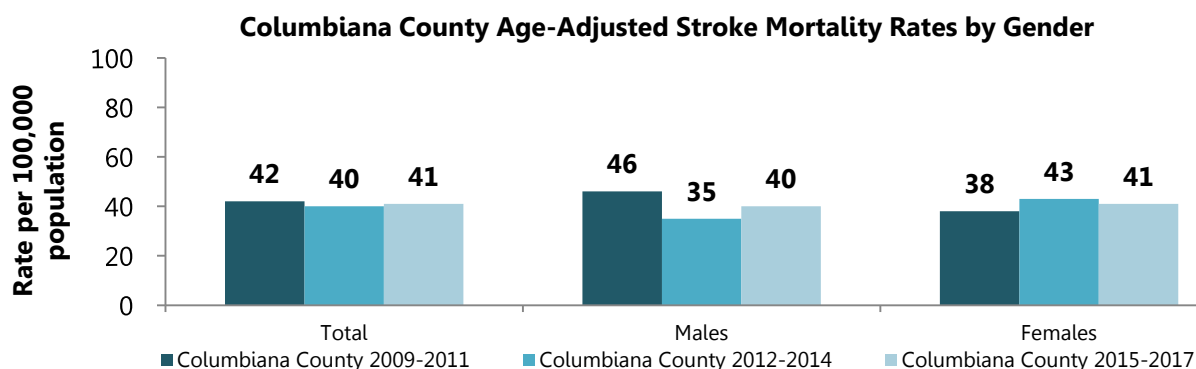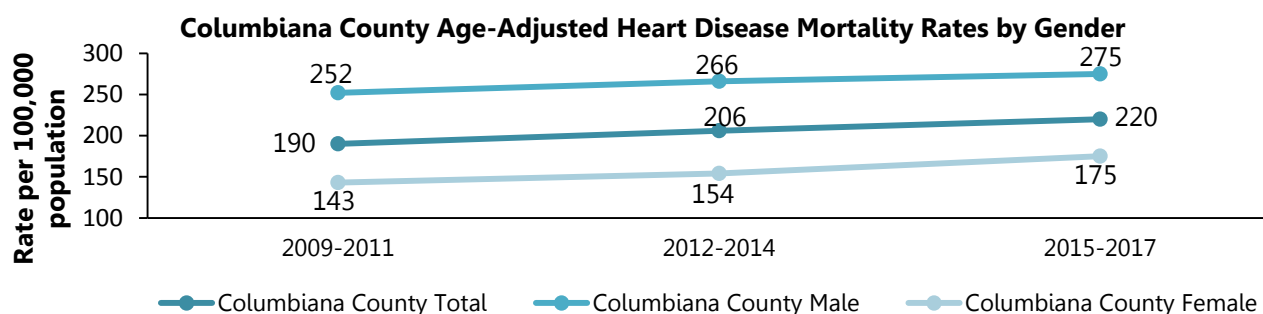*(Source: Ohio Public Health Data Warehouse, 2015-2017)*

Cardiovascular Health

Cardiovascular disease is a term that encompasses a range of diseases that involve the heart, capillaries, and veins throughout the human body. Acute Coronary Syndrome (ACS) is an umbrella term used to describe acute cardiac events such as heart attack or unstable angina. ACS can occur from chronic health conditions such as hypertension, high cholesterol, obesity, metabolic syndrome or uncontrolled diabetes mellitus. Heart attack and stroke are the most common cardiovascular diseases seen in the U.S. and fall as the number 1 and number 5 causes of death, respectively; both locally, statewide, and nationally. Risk factors for heart disease and stroke include genetics, unhealthy eating, poor chronic disease management and lack of physical activity. (Source: American Heart Association, 2018)

Data Indicators: "Heart Disease Mortality Rate" is the number of deaths due to heart disease per 100,000 population. Heart disease and stroke are particularly relevant for sub-populations, including low-income, underserved minorities, and older individuals within Columbiana County. Consistent with national trends, the coronary heart disease death rate was higher among men as compared to women, and increased with age. In parallel with mortality rates, the prevalence of those experiencing heart attacks or a stroke is much higher among specific sub-populations within Columbiana County, especially those with lower incomes and older individuals.
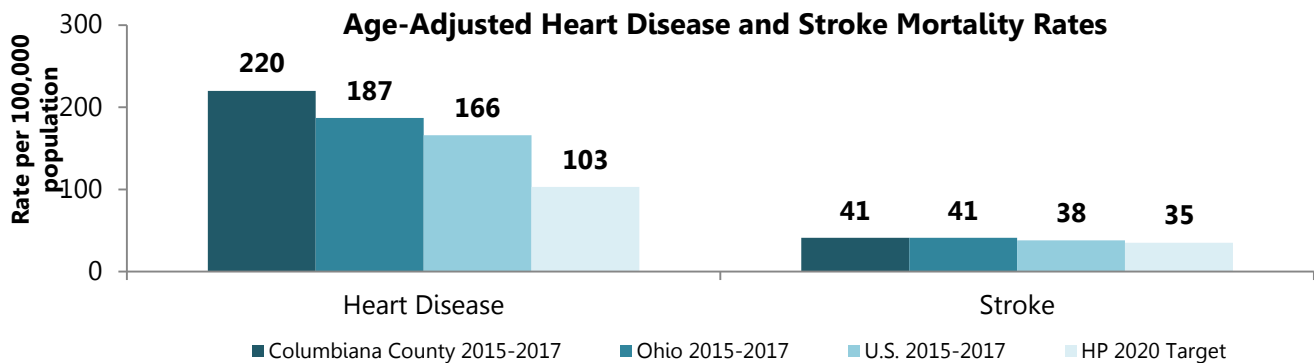
The following graphs show age-adjusted mortality rates/100,000 population for heart disease and stroke by gender.
(Source for graphs: Ohio Public Health Data Warehouse, 2009-2017)
- From 2009 to 2017, the total Columbiana County age adjusted heart disease mortality rate, as well as the male and female heart disease mortality rate, increased.
- From 2015 to 2017, the Columbiana County male stroke mortality rate increased, while the female stroke mortality rate decreased.

Columbiana County Age-Adjusted Heart Disease Mortality Rates by Gender

	2009-2011	2012-2014	2015-2017
Columbiana County Male	252	266	275
Columbiana County Total	190	206	220
Columbiana County Female	143	154	175

Rate per 100,000 population

Columbiana County Age-Adjusted Stroke Mortality Rates by Gender

	2009-2011	2012-2014	2015-2017
Total	42	40	41
Males	46	35	40
Females	38	43	41

Rate per 100,000 population

Columbiana County 2009-2011 Columbiana County 2012-2014 Columbiana County 2015-2017

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The following graph shows the age-adjusted mortality rates per 100,000 population for heart disease and stroke.
- When age differences are accounted for, statistics indicate that from 2015 to 2017, the Columbiana County heart disease mortality rate was higher than the Ohio rate, U.S. rate, and Healthy People 2020 target objective.
- The Columbiana County age-adjusted stroke mortality rate from 2015 to 2017 was equal to the Ohio rate, lower than the U.S. rate, and lower than the Healthy People 2020 target objective.

Age-Adjusted Heart Disease and Stroke Mortality Rates

Heart Disease: 220, 187, 166, 103
Stroke: 41, 41, 38, 35

Legend: ■ Columbiana County 2015-2017 ■ Ohio 2015-2017 ■ U.S. 2015-2017 ■ HP 2020 Target

(Source: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017, and Healthy People 2020)

2017 Columbiana County Coroner Report (N=60)- Immediate Causes of Natural Deaths

Immediate Cause	No. of Deaths
Myocardial Infarction	29
Intracoronary Thrombus	18
Hypertensive Type & Atherosclerotic Cardiovascular	4
Intracranial Bleed	2

Myocardial Infarction 2017 Deaths by Sex Columbiana County
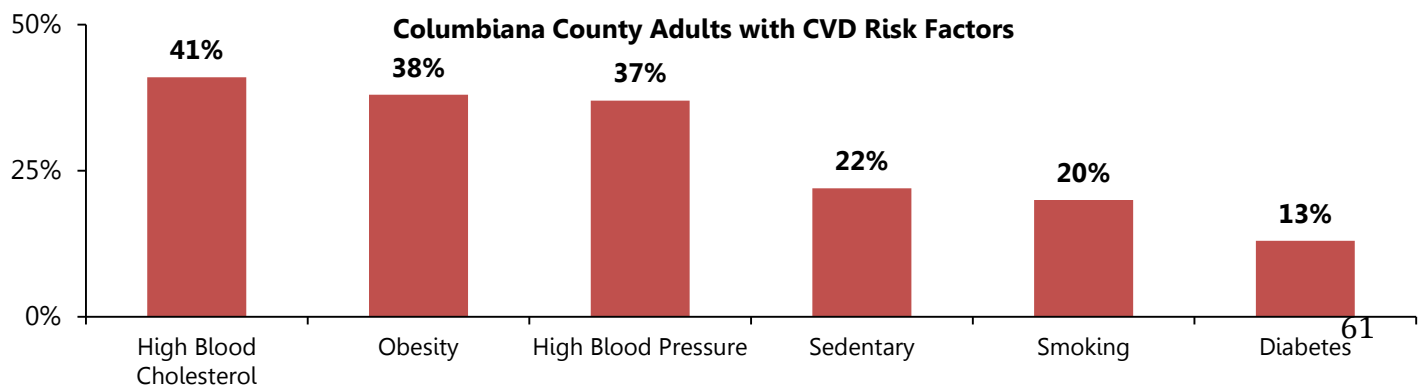
Male 76%, Female 24%
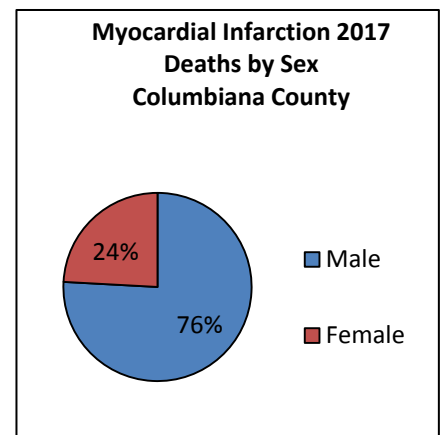
According to the 2017 Columbiana County Coroner's Report, it can be observed above that the most common immediate cause of natural death is due to myocardial infarction. Myocardial Infarction deaths make up a total of 48.3% of all natural occurring deaths. The youngest decedent was 38 years of age and the oldest was 88 years old. Only the top 4 immediate causes of death were reported. The chart to the right represents only myocardial infarction deaths when compared by sex of the decedent.

Note: Of 136 Columbiana County coroner's cases in 2017, 60 were ruled deaths by natural cause. It is important to note, the coroner's report can only include cases they were notified of. This data is limited by cases that were not reported or Columbiana County residents that died outside of the county. (Source: http://www.columbianacounty.org/coroner/coroner.htm)

## Findings from Community Survey (N=377)- Cardiovascular Disease

The following graph demonstrates the percentage of Columbiana County adults who self-reported major risk factors for developing cardiovascular disease (CVD).

Columbiana County Adults with CVD Risk Factors

High Blood Cholesterol: 41%
Obesity: 38%
High Blood Pressure: 37%
Sedentary: 22%
Smoking: 20%
Diabetes: 13%

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- As demonstrated in the previous bar graph, at least 1/3 of Columbiana County residents self-reported having major cardiac risk factor for developing cardiovascular disease.
- Compared to national and state BRFSS results below, Columbiana County has a higher incidence of diagnosis of high blood pressure and high cholesterol as evidenced by the community survey.
- Eighty-seven percent (87%) of adults had their blood pressure checked within the past year.
- Columbiana County adults diagnosed with high blood pressure were more likely to have:
  - Been ages 65 years or older (58%)   - Been classified as obese by body mass index (46%)
  - Incomes less than $25,000 (43%)   - Rated their overall health as fair or poor (24%)
- Over four-fifths (82%) of adults had their blood cholesterol checked within the past 5 years.
- Columbiana County adults with high blood cholesterol were more likely to have:
  - Been ages 65 years or older (61%)   - Incomes less than $25,000 (53%)
  - Been classified as obese by BMI (39%)   - Rated their overall health as fair or poor (19%)

| Adult Comparisons (Source: BRFSS Data)	Columbiana County 2018	Ohio 2017	U.S. 2017
Ever diagnosed with angina or coronary heart disease	2%	5%	4%
Ever diagnosed with a heart attack, or myocardial infarction	4%	6%	4%
Ever diagnosed with a stroke	2%	4%	3%
Had been told they had high blood pressure	37%	35%	32%
Had been told their blood cholesterol was high	41%	33%	33%
Had their blood cholesterol checked within the last five years	82%	85%	86%

The following graph shows the percentage of Columbiana County adults who self-reported surviving a heart attack or stroke in their lifetime by gender. An example of how to interpret the information includes: 5% of Columbiana County males survived a heart attack compared to 3% of females.

Columbiana County Adults Who Had Survived a Heart Attack or Stroke In Their Lifetime
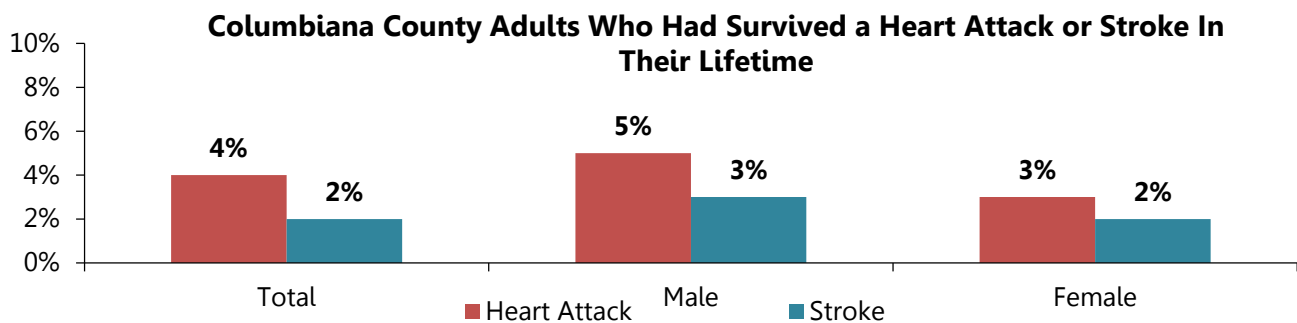
(Source: 2018 Columbiana County Health Assessment)
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

The following graphs show the number of Columbiana County adults who self-reported being diagnosed with high blood pressure and high blood cholesterol. An example of how to interpret the first graph is: 37% of all Columbiana County adults self-reported being diagnosed with high blood pressure including 58% of those 65 years and older.
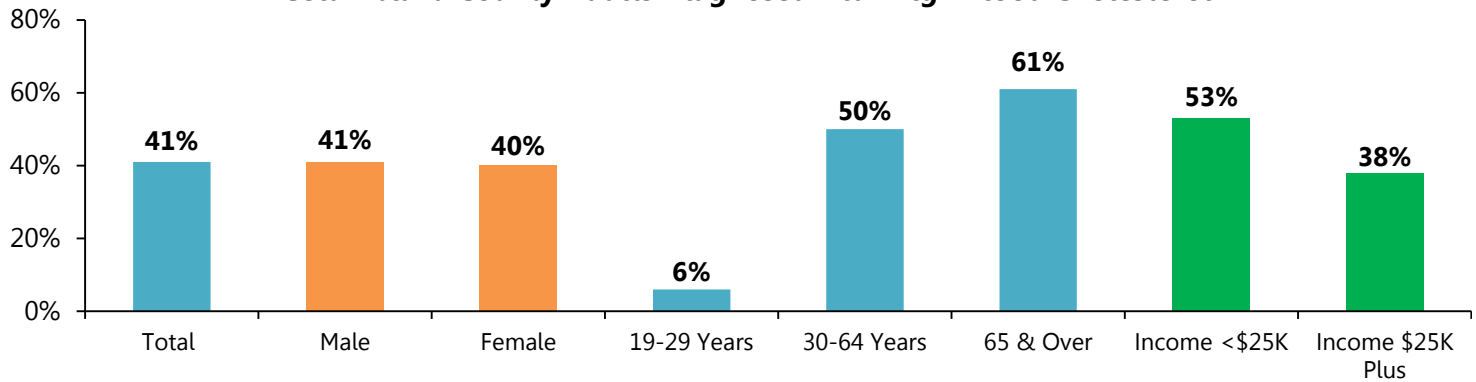
Columbiana County Adults Diagnosed with High Blood Pressure*
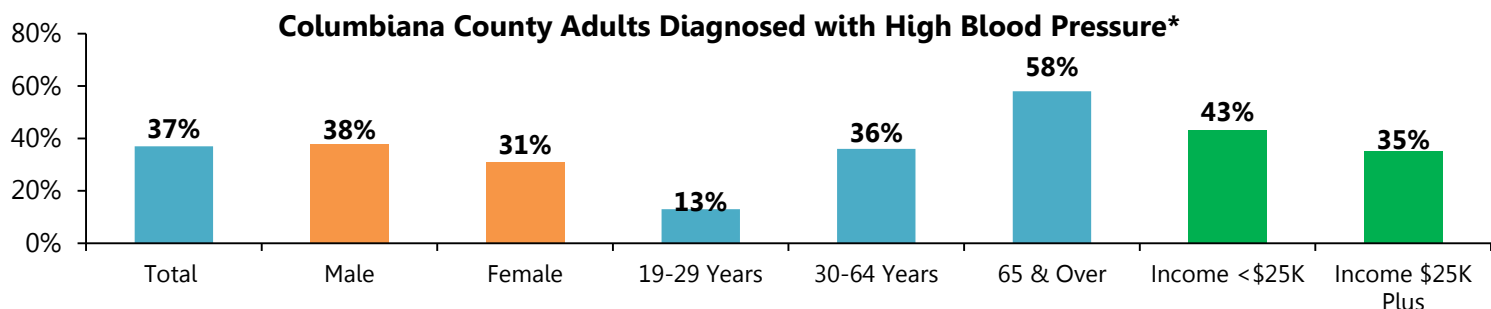
*Does not include respondents who indicated high blood pressure during pregnancy only.
Note: Caution should be used when interpreting subgroup results as margin of error for any subgroup is higher than that of the overall survey.

Columbiana County Adults Diagnosed with High Blood Cholesterol

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

Women's Heart Health:

In Columbiana County, female community survey respondents indicated that that they experienced the following known risk factors for cardiovascular diseases:

— 71% of women were overweight and obese (2017 BRFSS reported 64% for Ohio and 2016 BRFSS reported 59% for the U.S.)

— 40% were diagnosed with high blood cholesterol (2017 BRFSS reported 33% for Ohio and 2016 BRFSS reported 35% for the U.S.)

— 31% were diagnosed with high blood pressure (2017 BRFSS reported 33% for Ohio and 2016 BRFSS reported 30% for the U.S.)

— 24% of women were current smokers (2017 BRFSS reported 20% Ohio and 2016 BRFSS reported 14% U.S.)

— 10% were diagnosed with diabetes (2017 BRFSS reported 11% Ohio and 2016 BRFSS reported 11% U.S.)

Columbiana County Female Leading Causes of Death, 2015–2017 Total Female Deaths: 1,916	Ohio Female Leading Causes of Death, 2015–2017 Total Female Deaths: 180,539
1. Heart Diseases (25% of all deaths) 2. Cancers (20%) 3. Chronic Lower Respiratory Diseases (7%) 4. Stroke (6%) 5. Accidents, Unintentional Injuries (4%) *(Source: Ohio Public Health Data Warehouse, 2015-2017)*	1. Heart Diseases (22% of all deaths) 2. Cancers (20%) 3. Chronic Lower Respiratory Diseases (6%) 4. Stroke (6%) 5. Alzheimer's Disease (6%) *(Source: Ohio Public Health Data Warehouse, 2015-2017)*

Men's Heart Health:

In Columbiana County, male community survey respondents indicated that that they experienced the following known risk factors for cardiovascular diseases:

— 83% of men were overweight and obese (2017 BRFSS reported 72% Ohio and 2016 BRFSS reported 71% U.S.)

— 41% were diagnosed with high blood cholesterol (2017 BRFSS reported 34% Ohio and 2016 BRFSS reported 38% for U.S.)

— 38% were diagnosed with high blood pressure (2017 BRFSS reported 37% Ohio and 2016 BRFSS reported 34% for U.S.)

— 18% of men were current smokers (2017 BRFSS reported 22% Ohio and 2016 BRFSS reported 19% for U.S.)

— 15% had been diagnosed with diabetes (2017 BRFSS reported 11% Ohio and 2016 BRFSS reported 11% U.S.)

Columbiana County Male Leading Causes of Death, 2015–2017 Total Male Deaths: 1,975	Ohio Male Leading Causes of Death, 2015–2017 Total Male Deaths: 180,695
1. Heart Diseases (27% of all deaths) 2. Cancers (21%) 3. Accidents, Unintentional Injuries (8%) 4. Chronic Lower Respiratory Diseases (6%) 5. Stroke (4%) *(Source: Ohio Public Health Data Warehouse, 2015-2017)*	1. Heart Diseases (24% of all deaths) 2. Cancers (22%) 3. Accidents, Unintentional Injuries (8%) 4. Chronic Lower Respiratory Diseases (6%) 5. Stroke (4%) *(Source: Ohio Public Health Data Warehouse, 2015-2017)*

Objective	2018 Colum. Cty. Survey Baseline	2017 U.S. Baseline	Healthy People 2020 Target
HDS-5: Reduce proportion of adults with hypertension	37%	32% Adults age 18 and up	27%
HDS-6: Increase proportion of adults who had blood cholesterol checked within the preceding 5 years	82%	86% Adults age 18 and up	82%
HDS-7: Decrease proportion of adults with high total blood cholesterol (TBC)	41%	33% Adults age 20+ with TBC>240 mg/dl	14%

Note: All U.S. figures age-adjusted to 2000 population standard.
(Sources: 2018 Columbiana County Health Assessment, 2017 BRFSS, Healthy People 2020)

Findings from Focus Groups and Key Stakeholders (N=115)

Heart disease was identified as a top community need by the focus group participants, and chronic disease management was identified by stakeholders and focus group members as a "top 2" health topic for the community. Heart disease, obesity, and lack of physical activity programs were listed in the stakeholder meetings as top health priorities.

Cardiovascular Disease- Summary of Key Findings:
- Hypertension, hyperlipidemia, and obesity rank as the highest heart disease risk factors in Columbiana County as substantiated by survey data as well as secondary data resources. Compared to the 2016 Community Health Need's Assessment, cardiovascular disease and associating risk factors remain a high priority for the County. This falls in line with the Ohio State Health Improvement Plan's identification of Chronic Disease, as well as heart disease, listed as a priority health outcome.
- Those with an annual income <$25,000 and above age 65 had a significant increase in hypertension and hyperlipidemia diagnosis as compared to those with an income of >$25,000 in the community survey.
- Over 70% of women and 80% of men in Columbiana County self-reported being overweight or obese.
- Heart Disease mortality rates in Columbiana County are higher than state and national averages.
- Male heart disease mortality is higher than female heart disease mortality in the County based off age adjusted data, as well as the coroner's 2017 reporting.
- Stroke mortality rates in Columbiana County are equal to Ohio and lower than national averages, exceeding Healthy People 2020 goals.

Chronic Disease: Cancer

Cancer is a term that encompasses over 100 different diseases that share one common characteristic: The unregulated development and proliferation of abnormal cells. If cancer is left untreated, these abnormal cells may spread, or metastasize, to other parts of the body, interrupting organ function and placing the individual at risk of significant illness and death. (Source: National Cancer Institute, 2018)

The Ohio Public Health Data Warehouse indicates that from 2015-2017, cancers caused 21% (798 of 3,891) of all Columbiana County resident deaths. The largest percent (28%) of 2015-2017 cancer deaths were from lung and bronchus cancer (Source: Ohio Public Health Data Warehouse, 2015-2017).

Columbiana County Incidence of Cancer, 2011-2015
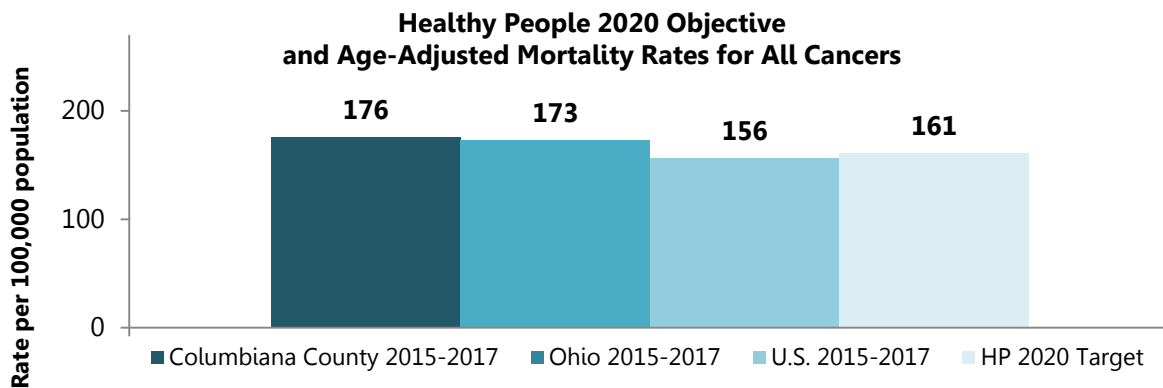(Source: Ohio Cancer Incidence Surveillance System, ODH Information Warehouse, Updated 3/22/18)

Types of Cancer	Number of Cases	% Total Incidence of Cancer	Age-Adjusted Rate
Lung and Bronchus	506	16%	66.7
Breast	399	13%	57.6
Colon and Rectum	335	11%	46.9
Prostate	333	11%	89.7
Other Sites/Types	251	8%	36.6
Bladder	175	6%	22.8
Melanoma of Skin	127	4%	18.8
Non-Hodgkins Lymphoma	113	4%	16
Kidney and Renal Pelvis	112	4%	15.6
Uterus	97	3%	26.9
Oral Cavity and Pharynx	85	3%	11.8
Pancreas	82	3%	10.9
Thyroid	79	3%	13.3
Leukemia	77	2%	11.4
Esophagus	49	2%	6.4
Stomach	46	1%	6.2
Ovary	44	1%	11.5
Liver and Intrahepatic Bile Duct	40	1%	5.3
Brain and Other CNS	37	1%	6
Larynx	34	1%	4.6
Multiple Myeloma	30	1%	4.1
Cervix	29	<1%	11.2
Hodgkins Lymphoma	18	<1%	3.4
Testis	13	<1%	5.2
Total	3,111	100%	434.2

**Cancer As % of Total Deaths in Columbiana County
by Gender, 2015-2017**
Source: Ohio Public Health Data Warehouse, 2015-2017)
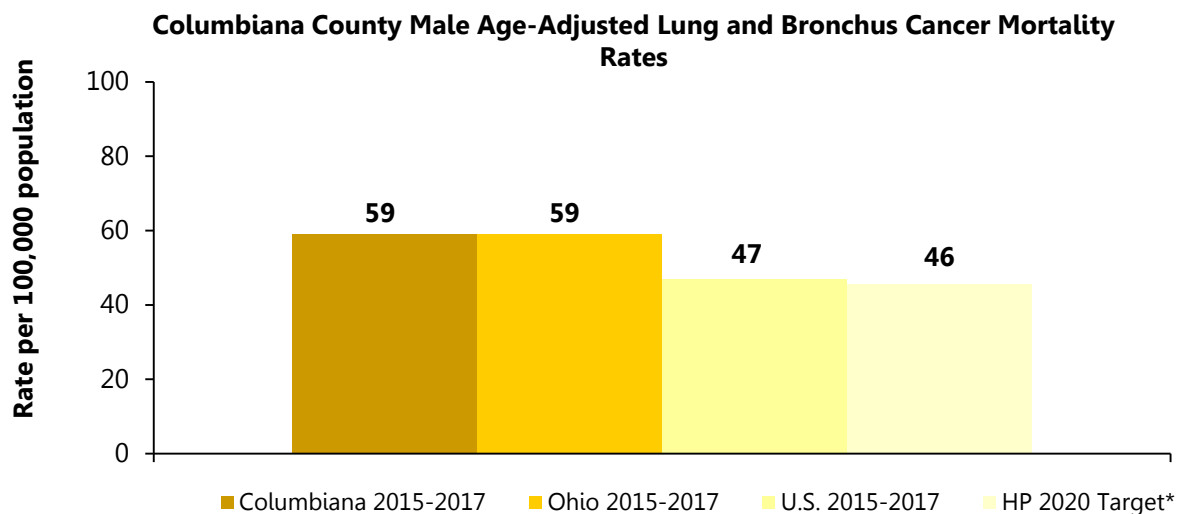
Male: **21%**
Female: **20%**
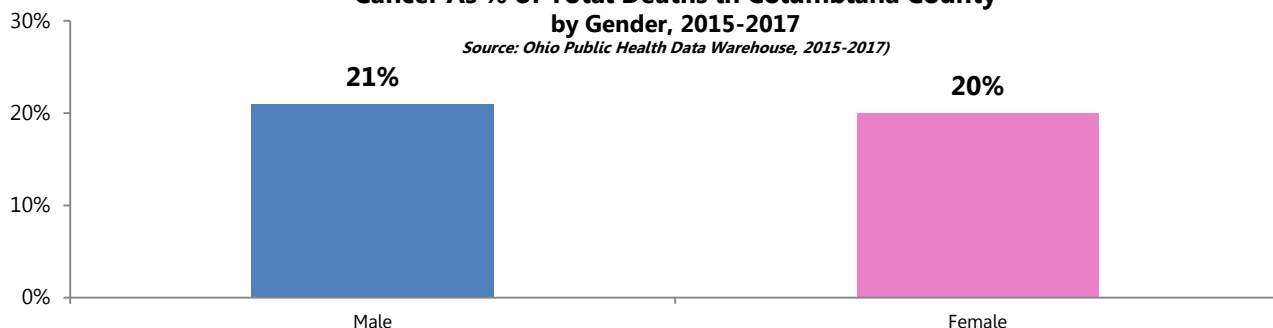
The following graph show the Columbiana County, Ohio and U.S. age-adjusted mortality rates (per 100,000 population, 2000 standard) for all types of cancer in comparison to the Healthy People 2020 objective and the percent of total cancer deaths in Columbiana County. When age differences are accounted for, Columbiana County had a higher cancer mortality rate at 176 deaths/100,000 than Ohio at 173,000/100,000, the U.S. at 156/100,000, and the Healthy People 2020 target objective of 161/100,000.
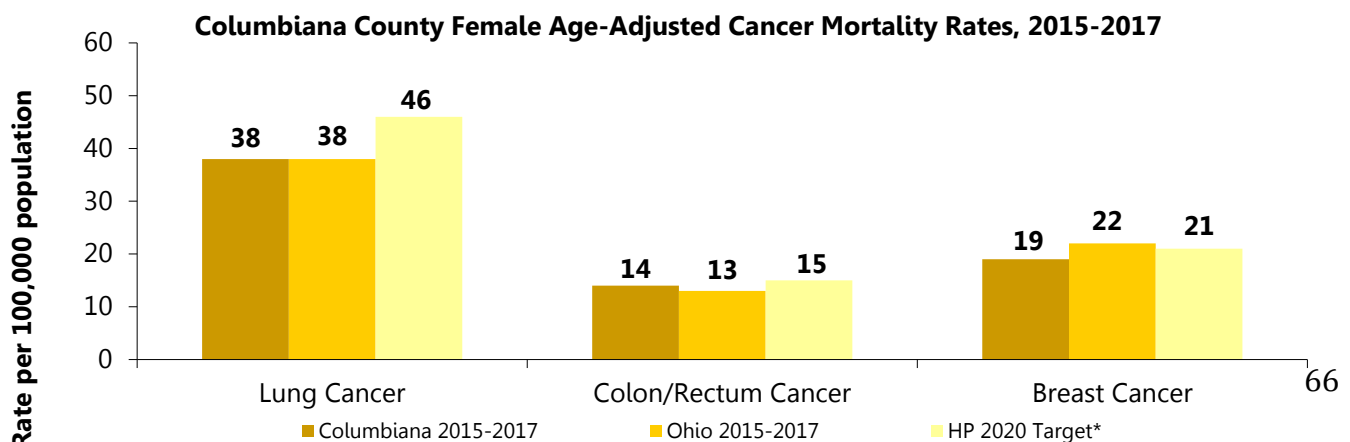
**Healthy People 2020 Objective
and Age-Adjusted Mortality Rates for All Cancers**

Rate per 100,000 population

- 176 Columbiana County 2015-2017
- 173 Ohio 2015-2017
- 156 U.S. 2015-2017
- 161 HP 2020 Target

(Source: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017, Healthy People 2020)

The following graph shows the Columbiana County, Ohio, and U.S. age-adjusted lung cancer mortality rates per 100,000 population for men with comparison to the Healthy People 2020 objective. From 2015 to 2017, the Columbiana County age-adjusted mortality rate for male lung cancer was equal to the Ohio rate but higher than the U.S. rate and the Healthy People 2020 objective.

Columbiana County Male Age-Adjusted Lung and Bronchus Cancer Mortality Rates

Rate per 100,000 population

- 59 Columbiana 2015-2017
- 59 Ohio 2015-2017
- 47 U.S. 2015-2017
- 46 HP 2020 Target*

Note: The Healthy People 2020 target rates are not gender specific
(Sources: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder 2015-2017, and Healthy People 2020)

The following graph shows the Columbiana County and Ohio age-adjusted cancer mortality rates per 100,000 population for women with comparison to Healthy People 2020 objectives.

Columbiana County Female Age-Adjusted Cancer Mortality Rates, 2015-2017

Rate per 100,000 population

Cancer	Columbiana 2015-2017	Ohio 2015-2017	HP 2020 Target*
Lung Cancer	38	38	46
Colon/Rectum Cancer	14	13	15
Breast Cancer	19	22	21

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Cancer Screenings: According to the Columbiana County Health Department Cancer Detection Clinic, from 2015-2018 there has been a decrease in the number of patients seen, as well as abnormal results from colorectal screenings, mammograms, pap tests and skin cancer screenings. While there has been a decrease in the number of PSA screenings, there has been an increase in the number of abnormal results.

Findings from Community Survey (N=377)- Cancer

About one-in-five (19%) Columbiana County adults self-reported being diagnosed with cancer at some point in their lives, increasing to 34% of those over the age of 65. Of those diagnosed with cancer, they reported the following types: other skin cancer (23%), prostate (22%), cervical (17%), breast (14%), melanoma (12%), testicular (11%), endometrial (7%), leukemia (6%), ovarian (3%), colon intestine (3%), head and neck (2%), non-Hodgkin's lymphoma (2%), bladder (1%), brain (1%), and other types of cancer (8%).
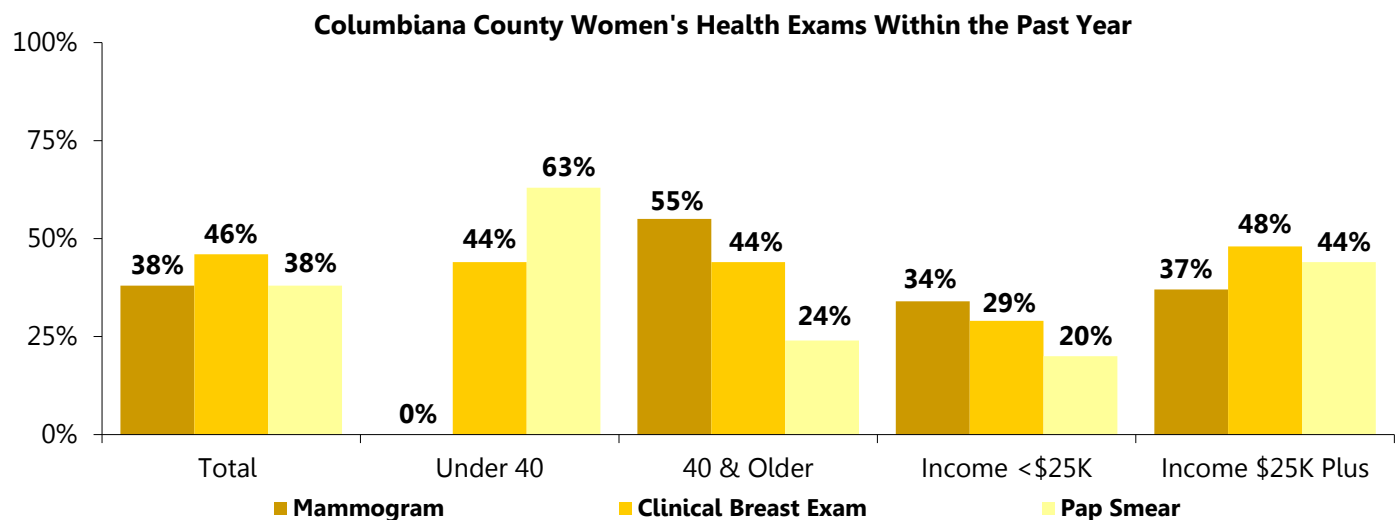
Adult Comparisons	Columbiana Cty. 2018	Ohio 2017	U.S. 2017
Ever been told they had skin cancer	7%[¥]	6%	6%
Ever been told they had other types of cancer (other than skin cancer)	11%	7%	7%

[¥]*Melanoma and other skin cancers are included for "diagnosed with skin cancer"*

Breast Cancer

- Over half (55%) of Columbiana County females over the age of 40 self-reported they had a mammogram in the past year.
- Forty-six percent (46%) of Columbiana County females reported having had a clinical breast examination in the past year.

The following graph shows the percentage of Columbiana County female adults who had various health exams in the past year. An example of how to interpret the information shown on the graph includes: 38% of Columbiana County females had a mammogram within the past year, 46% had a clinical breast exam, and 38% had a Pap smear.

Columbiana County Women's Health Exams Within the Past Year

	Mammogram	Clinical Breast Exam	Pap Smear
Total	38%	46%	38%
Under 40	0%	44%	63%
40 & Older	55%	44%	24%
Income <$25K	34%	29%	20%
Income $25K Plus	37%	48%	44%

Note: Caution should be used when interpreting subgroup results as margin of error for any subgroup is higher than overall survey.

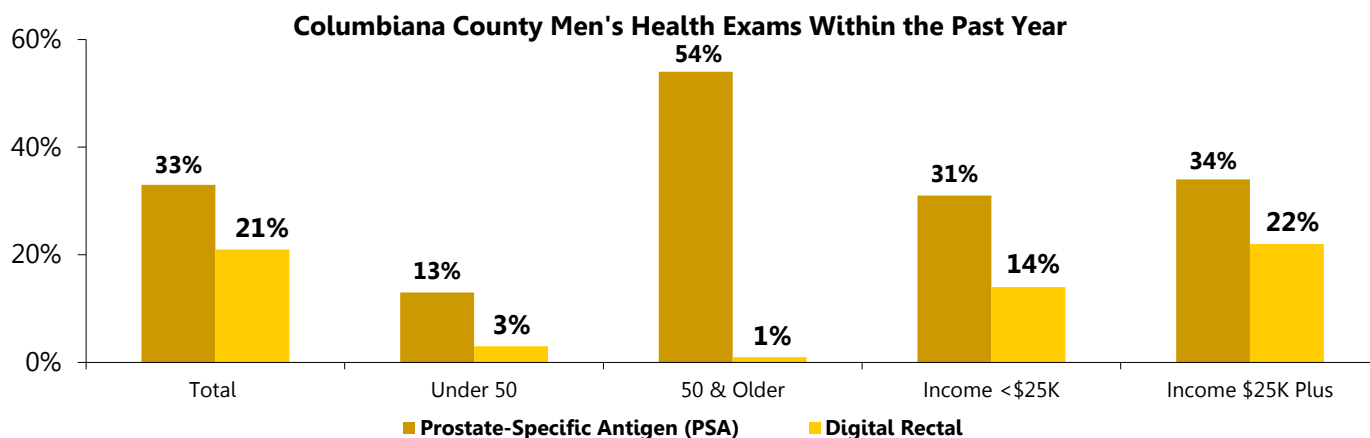| Adult Comparisons	Columbiana County 2018	Ohio 2017 *2016 BRFSS	U.S. 2017 *2016 BRFSS
Had a mammogram within past 2 years (age 40 & over)	73%	74%*	72%*
Had a Pap smear in the past three years (age 21-65)	69%	82%*	80%*

Prostate Cancer
- Almost three-quarters (72%) of males age 50 and over self-reported having a PSA test at some time in their life, and 54% had one in the past year.
- Sixty-eight percent (68%) of males age 40 and over self-reported having a PSA test at some time in their life, and 58% had one in the past two years.
- Forty-seven percent (47%) of Columbiana County males self-reported having a prostate-specific antigen (PSA) test at some time in their life, and 33% had one in the past year.
- Over half (53%) of men self-reported having a digital rectal exam in their lifetime, and 21% in the past year.

Adult Comparisons	Columbiana County 2018	Ohio 2017 *2016 BRFSS	U.S. 2017 *2016 BRFSS
Had PSA test within past two years (age 40 and older)	58%	39%*	40%*

The following graph shows the percentage of Columbiana County male adults that had various health exams in the past year. An example of how to interpret the information includes: 33% of Columbiana County males had a PSA test within the past year, and 21% had a digital rectal exam.

Columbiana County Men's Health Exams Within the Past Year

- Total: Prostate-Specific Antigen (PSA) 33%, Digital Rectal 21%
- Under 50: Prostate-Specific Antigen (PSA) 13%, Digital Rectal 3%
- 50 & Older: Prostate-Specific Antigen (PSA) 54%, Digital Rectal 1%
- Income <$25K: Prostate-Specific Antigen (PSA) 31%, Digital Rectal 14%
- Income $25K Plus: Prostate-Specific Antigen (PSA) 34%, Digital Rectal 22%

Note: Caution should be used when interpreting subgroup results as margin of error for any subgroup is higher than overall survey.

Colon and Rectal Cancers
- 33% of Columbiana County men self-reported they had a colorectal cancer screening in the past five years.

Findings from Focus Groups and Key Stakeholders (N=115)
Focus Group participants identified a high incidence of cancer in some communities as a factor impacting the overall health of the county. Multiple stakeholder/focus groups listed cancers of various types as a top health priority. While there was not any specific cancer identified as a top concern, there were discussions amongst the stakeholders regarding the increased prevalence of chronic disease, lack of proper nutrition, and increase in unhealthy habits (nutrition, smoking, substance abuse). These factors, including environmental concerns, were expressed by community members as potential contributing factors to the County's cancer incidence rate.

Cancer- Summary of Key Findings:
- Top four incidences of cancer in Columbiana County are Lung/Bronchus, Breast, Colon/Rectum, and Prostate according to ODH Data warehouse. Community survey respondents listed Skin, Prostate, Cervical and Breast as the most reported cancers. One in five adults reported cancer, with this incidence increasing over age 65.
- Columbiana County Cancer Detection Center stated a decrease in the number of cancer screenings, but as self-reported on the survey, 38% percent of women received a mammogram and pap smear, with clinical breast examination raising to 46%. Those with incomes less than $25,000 had lower incidence of cancer screenings. PSA screenings for men 40 and over were reported at 58% for survey takers.
- Lung cancer was reported as the leading cause of male and female cancer deaths in the county, with men having a higher mortality rate. Mortality rates per 100,000 population are equal to the state level, but higher than national rates and the Healthy People 2020 goals.
- Columbiana County's all cause, age adjusted mortality rates for cancer at 176/100,000 are above Healthy People 2020 guidelines, and higher than state and national levels.

Chronic Disease: Arthritis

Arthritis has been identified as the leading cause of disability in America, and encompasses a wide range of diseases that involve joint pain or joint disease. There are more than 100 types of arthritis, which include: degenerative (Osteoarthritis), inflammatory (Rheumatoid), infectious or metabolic. The condition of arthritis may also include, but is not limited to, other common conditions such as Degenerative Disc Disease and Fibromyalgia. (Source: Arthritis Foundation, 2018) Arthritis symptoms maybe moderate or severe and span all age groups. The symptoms of arthritis may get worse over time, and eventually cause permanent damage. Symptoms include: pain, stiffness, swelling, and decreased range of motion.

Data Indicators: According to the Arthritis Foundation's 2017 statistics for people aged 18 to 64, about one in three people (both men and women) have physician-diagnosed arthritis and/or report joint symptoms consistent with a diagnosis of arthritis. For people over 65, the numbers are much higher:
- More than one in two men may have arthritis.   - More than two in three women may have arthritis.

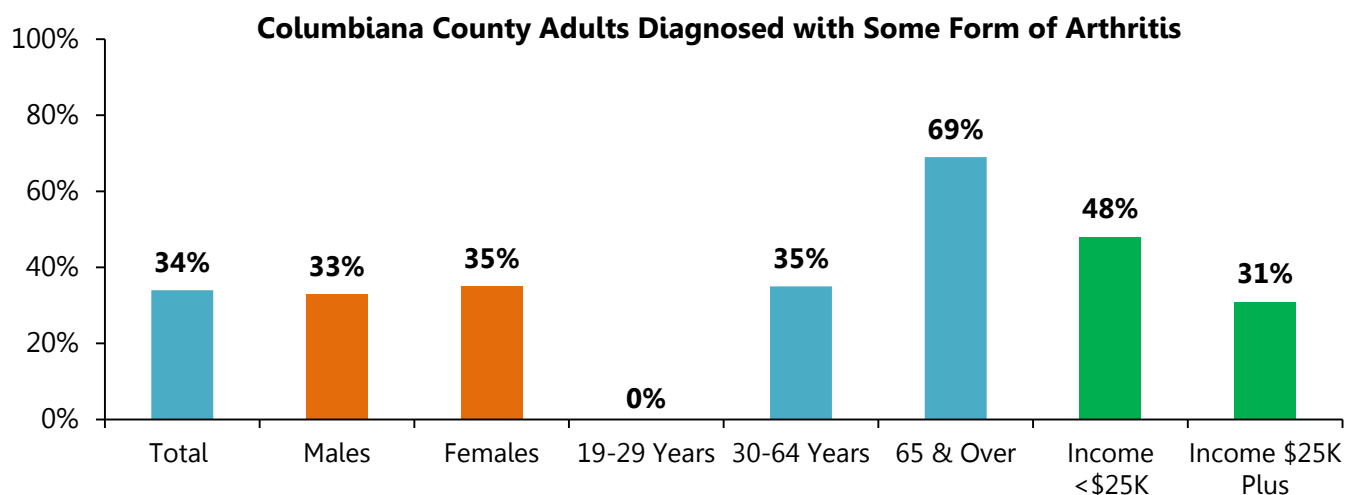Arthritis and Access to Care: - Only 7% of rheumatologists practice in rural areas, where 20% of the population lives. Incidence: Severe joint pain was higher among women (29%) and those who:
- Had fair or poor health (49%)   - Were obese (32%)   - Had heart disease (34%)
- Had diabetes (40.9%)   - Had serious psychological distress (56%)

Findings from Community Survey (N=377)- Arthritis

- More than two-fifths (42%) of Columbiana County adults self-reported that they were told by a doctor or other health professional that they had the following: some form of arthritis (34%), rheumatoid arthritis (5%), gout (3%), and fibromyalgia (5%).

- Seventy-six percent (76%) of adults diagnosed with arthritis self-reported they were overweight or obese.

- Nearly one-fourth (23%) of adults with arthritis rated their overall health as fair or poor.

The following graph shows the percentage of Columbiana County adults who were diagnosed with some form of arthritis. An example of how to interpret the information includes: 34% of adults were diagnosed with arthritis, including 69% of adults over the age of 65.

Columbiana County Adults Diagnosed with Some Form of Arthritis

Category	Percentage
Total	34%
Males	33%
Females	35%
19-29 Years	0%
30-64 Years	35%
65 & Over	69%
Income <$25K	48%
Income $25K Plus	31%

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.

Adult Comparisons (BRFSS Data)	Columbiana County 2018	Ohio 2017 (2016 BRFSS)	U.S. 2017 (2016 BRFSS)
Ever diagnosed with some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	34%*	29%	25%

Only includes those diagnosed with some form of arthritis

Findings from Focus Groups and Key Stakeholders (N=115): No significant findings or community needs were identified by these groups. While there was no specific mention of arthritic disease, what was mentioned was lack of access to specialists, healthy food, and physical activity resources as contributors to overall poor health and chronic disease morbidity. Other inflammatory triggers such as substance abuse and tobacco use were also listed as major concerns within the community.

Arthritis- Summary of Key Findings:
- Those age 65 years and over self-reported the highest incidence of arthritis diagnosis, as well those with an income less than $25,000.
- 76% of adults who reported an arthritic diagnosis were either obese or overweight.
- 34% of Columbiana County residents self-reported some form of diagnosis of arthritis. This is a higher rate of incidence in comparison to state and national levels, according to the Behavioral Risk Factor

Chronic Disease: Reactive Airway Disease & Asthma

People with **reactive airway disease** have bronchial tubes that overreact to some sort of irritant. The term is most commonly used to describe a person who is wheezing or having a bronchial spasm, but who has not yet been diagnosed with asthma. **Asthma** is a chronic lung disease characterized by inflammation, increased mucous production, and narrowing of the airways. Asthma can affect all ages and often causes recurring, chronic episodes. This is not a curable disease and often flares can lead to emergency department visits or frequent appointments with a healthcare provider. Asthma is a condition that when appropriately managed, can prevent ER visits or hospitalizations. (Source: National Heart, Lung, and Blood Institute-NHLBI, 2018)
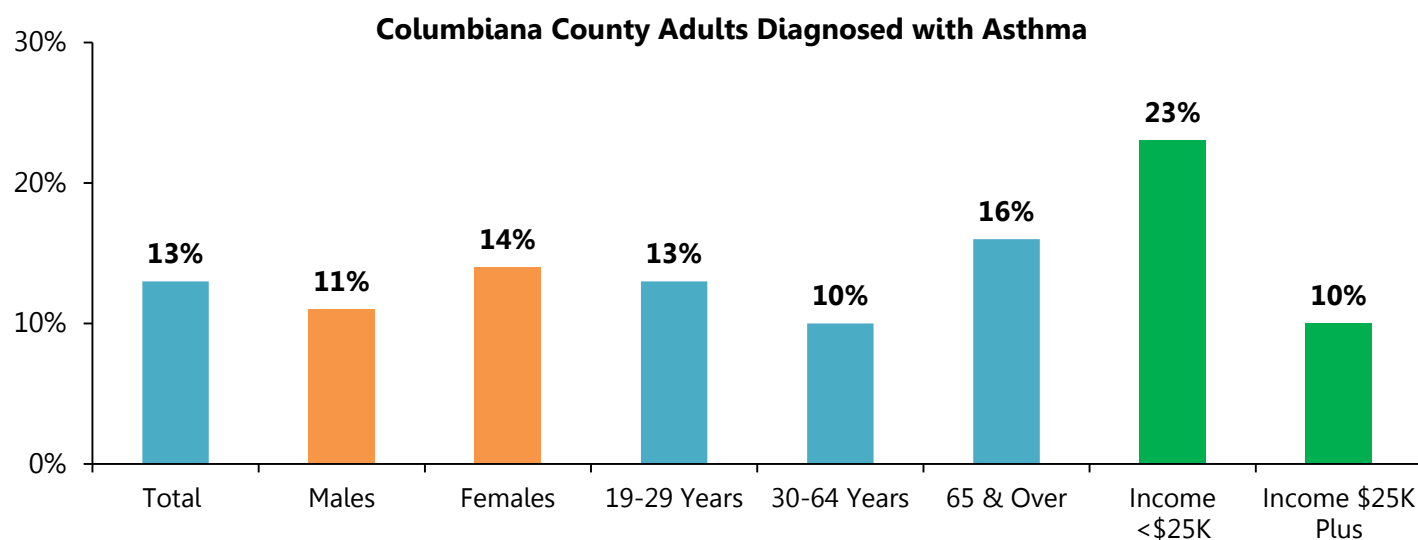
Data Indicators: Gaps in the implementation of clinical practice guidelines for asthma contribute to the ongoing problem of asthma-related health disparities among at-risk groups. According to the NHLBI, asthma is more common and more severe among children; women; low-income, inner-city residents; and African American and Puerto Rican communities. In general, these disadvantaged and at-risk populations experience above-average rates of emergency department visits, hospitalizations, and deaths that are much higher than differences in asthma prevalence would suggest. For example, the percentage of people with asthma taking daily medicine to control asthma is lower among Hispanics (23.2%) and African Americans (25.1%), than among Whites (35.1%).

In Columbiana County, chronic lower respiratory disease was the 3rd leading cause of death and the 4th leading cause of death in Ohio from 2015-2017. (Source: Ohio Public Health Data Warehouse, 2015-2017).

Findings from Community Survey (N=377)- Asthma and Reactive Airway Disease

- About one-in-eight (13%) Columbiana County adults self-reported being diagnosed with asthma, increasing to 23% of those with incomes less than $25,000.

- Over one-fifth (22%) of current smokers self-reported being diagnosed with asthma, compared to 10% of non-current smokers.

- Adults with asthma were more likely to rate their overall health as fair or poor (30%) and be overweight or obese (76%).
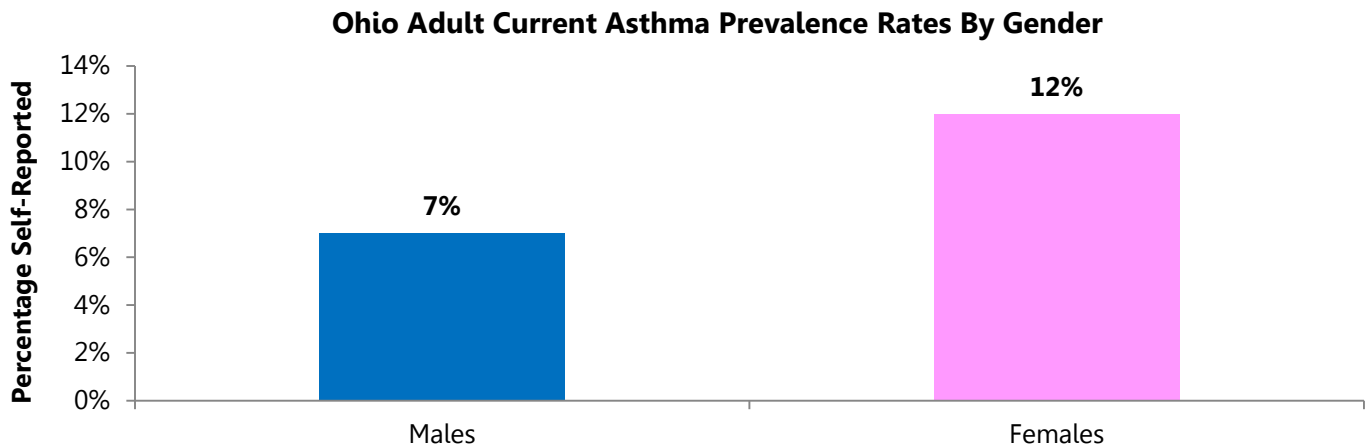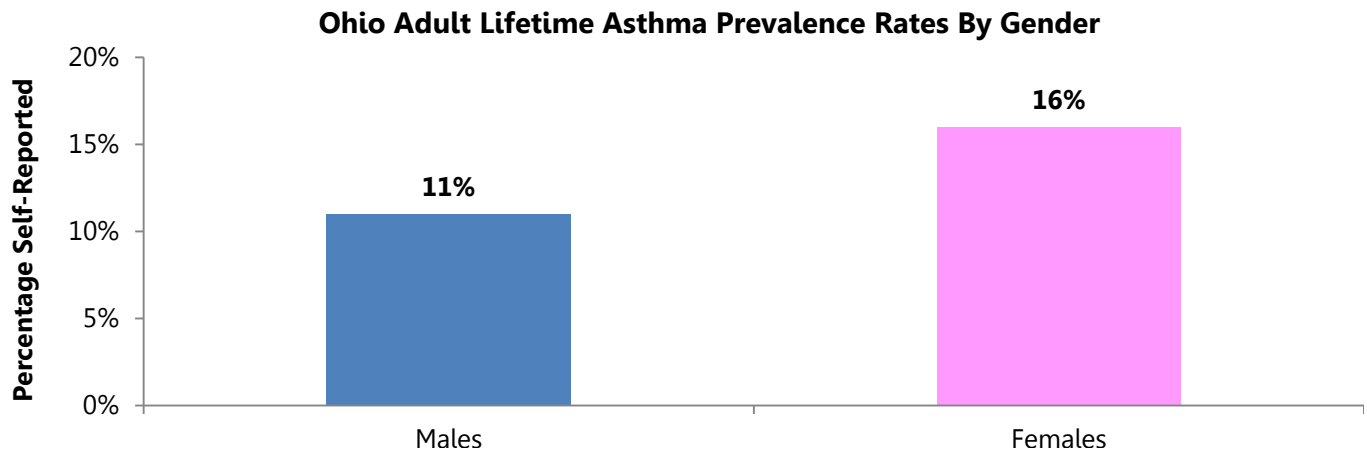
The following graph shows the percentage of Columbiana County adults who were self-reported they were diagnosed with asthma. An example of how to interpret the information includes: 13% of adults were diagnosed with asthma, including 23% of adults with incomes less than $25,000.

Columbiana County Adults Diagnosed with Asthma

Category	Percentage
Total	13%
Males	11%
Females	14%
19-29 Years	13%
30-64 Years	10%
65 & Over	16%
Income <$25K	23%
Income $25K Plus	10%

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.

Adult Comparisons (BRFSS Data)	Columbiana County 2018	Ohio 2017	U.S. 2017
Ever been told they have asthma	13%	14%	14%

The following graphs demonstrate the lifetime and current prevalence rates of asthma by gender in Ohio. (Source: 2017 BRFSS)

Ohio Adult Lifetime Asthma Prevalence Rates By Gender

Males: 11%
Females: 16%

(Y-axis: Percentage Self-Reported, 0% to 20%)

Ohio Adult Current Asthma Prevalence Rates By Gender

Males: 7%
Females: 12%

(Y-axis: Percentage Self-Reported, 0% to 14%)

Findings from Focus Groups and Key Stakeholders (N=115): No significant findings or community needs were identified by for reactive airway disease/asthma. However, community stakeholders identified that obesity and smoking were community concerns, and both of these conditions can increase the morbidity of asthma. Access to healthcare was also reported as a major health priority and those with asthma need constant and sometimes emergent healthcare access. Transportation and lack of specialists could be contributing factors to asthma morbidity as well as increased healthcare expenditure.

Asthma- Summary of Key Findings:
- 13% of adults self-reported having been diagnosed with asthma, increasing to 23% of those adults having an income of $25,000 or less.
- 22% of residents self-reported smoking while having the diagnosis of asthma, as well as 76% of those who self-reported an asthma diagnosis also reporting high BMI's.
- Females, children and Hispanics experience higher prevalence rates. In Columbiana County, female lifetime and current asthma prevalence rates are higher as reflected in the community survey. Refer to "Infant, Child and Adolescent Health" section for more information on Pediatric Asthma Rates for Columbiana County.

Chronic Disease: Diabetes Mellitus

Diabetes is characterized by the body's inability to properly produce the hormone insulin. This causes the body to have difficulty in properly processing food and can lead to metabolic abnormalities. Diabetes is a multi-factorial disease in which age, race, weight, sedentary lifestyle, genetics, and nutrition play crucial roles. (Source: American Diabetes Association, 2018)

Diabetes is usually considered to be a chronic condition and can be categorized as:
- Pre-diabetes: A condition in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes. Pre-diabetes places a person at increased risk for developing Type 2 diabetes, heart disease and stroke.
**- Type 1:** Most onset occurs in early life due to the body's inability to make insulin and the person becomes insulin dependent. The causes of type 1 are less known but involve genetics, environmental factors and the autoimmune system.
- Type 2: Most common among adults and caused by decreased sensitivity to insulin or decreased production.
- Gestational: Develops only during pregnancy and usually disappears upon delivery, but increases the risk that the mother will develop diabetes later.

Data Indicators: In the U.S., approximately 9.4% of the population has diabetes and it was the 7th leading cause of death in 2015. Diabetes affects the elderly and certain ethnic groups disproportionately: 25.2% of Americans age 65 and older, and 12.1% of Hispanics compared to 7.4% of non-Hispanic whites.
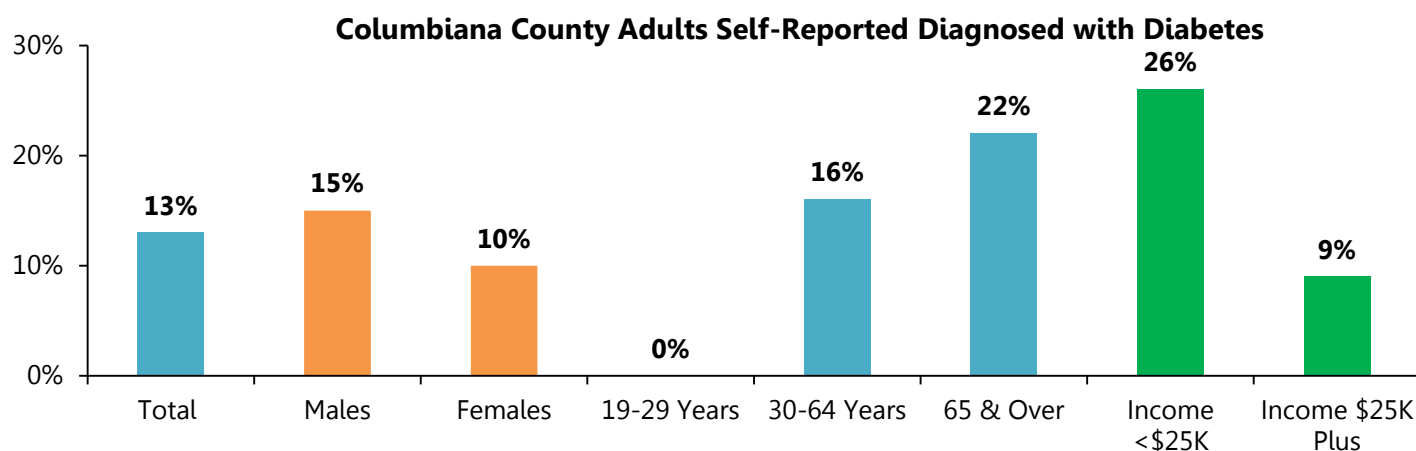
The following graph shows the Columbiana County, Ohio and U.S. age-adjusted mortality rates (per 100,000 population) for diabetes in comparison to the Healthy People 2020 objective. When age differences are accounted for, Columbiana County had a higher diabetes mortality rate than Ohio and the U.S., but a lower mortality rate than the Healthy People 2020 objective.

Healthy People 2020 Objective and Age-Adjusted Mortality Rates for Diabetes
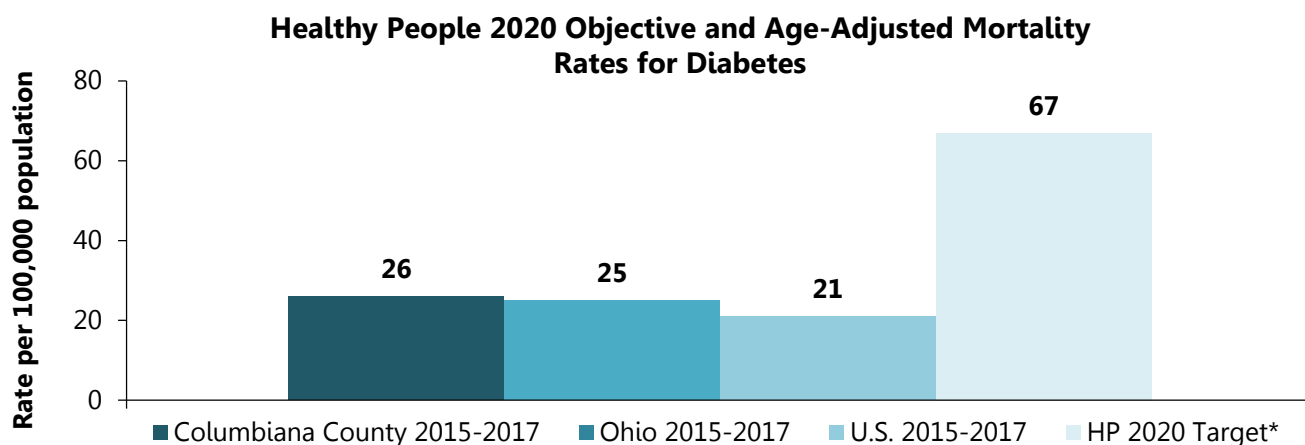
Note: The Healthy People 2020 rate is for all diabetes-related deaths
(Source: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017, Healthy People 2020)

Findings from Community Survey (N=377)- Diabetes

- Thirteen percent (13%) of Columbiana County adults self-reported being diagnosed with diabetes, increasing to 22% of those over the age of 65 and 26% of those with incomes less than $25,000.

- One-in-eleven (9%) adults self-reported as being diagnosed with pre-diabetes or borderline diabetes.

- Over two-fifths (45%) of adults with diabetes rated their health as fair or poor.

- Columbiana County adults diagnosed with diabetes self-reported they also had one or more of the following characteristics or conditions:
  — 86% were obese or overweight
  — 72% had been diagnosed with high blood cholesterol
  — 68% had been diagnosed with high blood pressure

Columbiana County Adults Self-Reported Diagnosed with Diabetes

	Percent
Total	13%
Males	15%
Females	10%
19-29 Years	0%
30-64 Years	16%
65 & Over	22%
Income <$25K	26%
Income $25K Plus	9%

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.

Adult Comparisons	Columbiana County 2018	Ohio 2017	U.S. 2017
Ever been told by a doctor they have diabetes (not pregnancy-related)	13%	11%	11%
Ever been diagnosed with pre-diabetes or borderline diabetes	9%	2%	2%

(Source: 2017 BRFSS)

Findings from Focus Groups and Key Stakeholders (N=115): Many focus group and stakeholders identified diabetes as a significant health concern for county residents. Participants also felt that in general, Hispanics/Latinos and African Americans/Blacks experience higher levels of diabetes. Diabetes was also listed as a priority concern for veterans. Focus groups and stakeholders felt that many members of the disproportionately impacted groups, such as the elderly, economically disadvantaged and African Americans/Blacks/Hispanics lack a solid understanding of the causes, symptoms and long term impacts of chronic diseases.

Diabetes Mellitus- Summary of Key Findings:
- 13% of Columbiana County residents self-reported a diagnosis of Diabetes Mellitus, with the incidence higher among ages 65 and older, as well as among those with an income of less than $25,000.
- High rates of obesity, high blood cholesterol and high blood pressure were self-reported among those admitting to a diagnosis of diabetes mellitus.
- In comparison to Healthy People 2020, diabetes mortality rates for the county are lower than the stated goal. However, Columbiana County mortality rates are higher than national and Ohio averages.
- Stakeholder and focus group interviews named obesity, poor nutrition, access to healthcare, transportation issues, and lack of physical activity as major health priorities and themes. Based on these interviews, the survey data may vastly under represent the true reflection of diabetes incidence in the county. Obesity, high blood pressure, and high cholesterol are all considered major health concerns within the County, and contribute to the diagnosis of diabetes.

Chronic Disease: Quality of Life

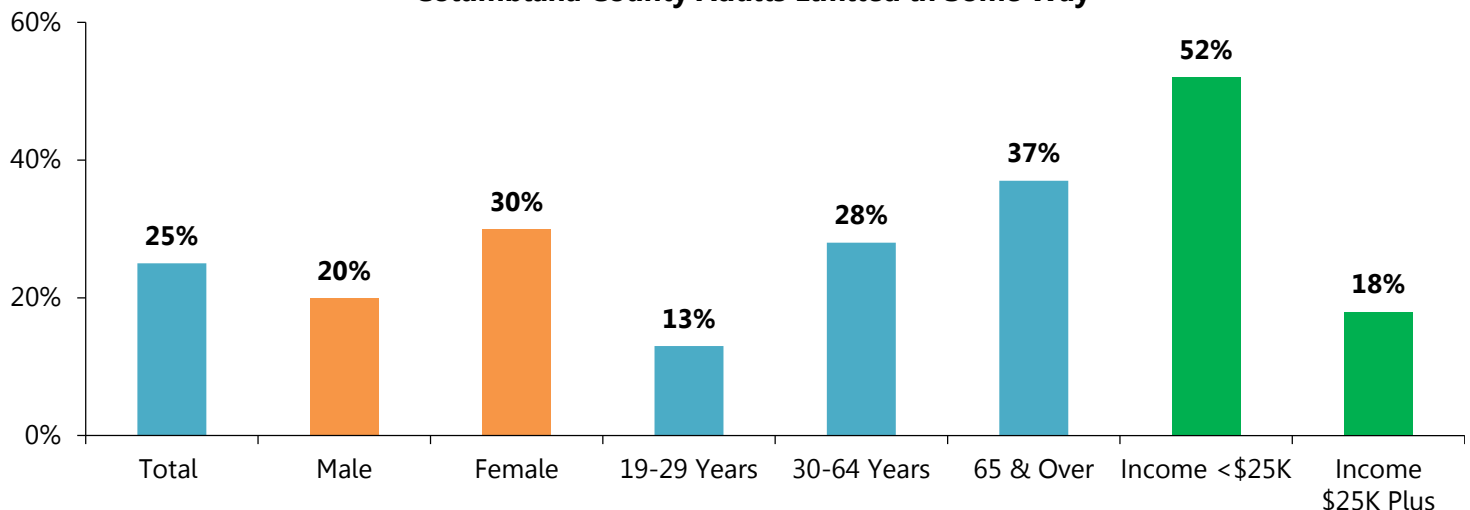## Findings from Community Survey (N=377)- Quality of Life

One-quarter (25%) of Columbiana County adults self-reported they were limited in some way because of a physical, mental or emotional problem. The most limiting health problems were listed as arthritis/rheumatism (37%); back or neck problems (32%); stress, depression, anxiety, or emotional problems (27%); chronic pain (23%); and walking problems (23%).

Impairments and Health Problems

- Nearly one-fifth (18%) of Columbiana County adults had fallen in the past year. Twelve percent (12%) of adults had fallen two or more times.

- One-quarter (25%) of Columbiana County adults were limited in some way because of a physical, mental or emotional problem. Adults were limited by physical (20%), emotional (7%), and mental (5%) problems.

- Among those who were limited, the following most limiting health problems or impairments were reported:
    - Arthritis/rheumatism (37%)
    - Back or neck problems (32%)
    - Stress, depression, anxiety, or emotional problems (27%)
    - Chronic pain (23%)
    - Walking problems (23%)
    - Chronic illness (e.g., diabetes, cancer, heart and stroke related problems, high blood pressure) (20%)
    - Sleep problems (20%)
    - Fitness level (17%)
    - Lung/breathing problems (17%)
    - Hearing problems (12%)
    - Eye/vision problems (11%)
    - Fractures, bone/joint injuries (10%)
    - Mental health illness/disorder (7%)
    - Dental problems (7%)
    - Memory loss (6%)
    - Confusion (3%)
    - Drug addiction (2%)
    - Substance dependency (2%)
    - Learning disability (1%)
    - Other impairment/problem (3%)

The following graphs show the percentage of Columbiana County adults self-reporting that were limited in some way and the most limiting health problems. An example of how to interpret the information includes: 25% of adults were limited in some way, including 37% of those 65 and older and 52% of those with incomes less than $25,000.

Columbiana County Adults Limited in Some Way

Total	Male	Female	19-29 Years	30-64 Years	65 & Over	Income <$25K	Income $25K Plus
25%	20%	30%	13%	28%	37%	52%	18%

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

| Adult Comparisons (2015 BRFSS Data)	Columbiana County 2018	Ohio 2017	U.S 2017
Limited in some way because of physical, mental, or emotional problem	25%	21%	21%

- Columbiana County adults were responsible for providing regular care or assistance to the following:
  — Multiple children (16%)
  — An elderly parent or loved one (11%)
  — A friend, family member or spouse with a health problem (9%)
  — Grandchildren (5%)
  — An adult child (4%)
  — A friend, family member or spouse with a mental health issue (4%)
  — Children with discipline issues (2%)
  — Someone with special needs (2%)
  — A friend, family member or spouse with dementia (2%)
  — Foster children (1%)
  — Children whose parent(s) use drugs and/or are unable to care for their child(ren) (<1%)
  — Children whose parent(s) lost custody due to other reasons (<1%)

- Columbiana County adults needed the following services or equipment in the past year:
  — Eyeglasses or vision (21%)
  — Help with routine needs (everyday household chores, doing necessary business) (5%)
  — Medical supplies (5%)
  — Pain management (4%)
  — Cane (4%)
  — Hearing aids or hearing care (4%)
  — Wheelchair (3%)
  — Walker (3%)
  — Help with personal care needs (eating, bathing, dressing, getting around the house) (3%)
  — Oxygen or respiratory support (3%)
  — Mobility aids or devices (2%)
  — Durable medical equipment (e.g., Kaiser-Wells or O.E. Meyer) (1%)
  — Wheelchair ramp (1%)
  — Special bed (1%)
  — Personal emergency response system (1%)
  — Communication aides or devices (<1%)

Healthy People 2020
Arthritis, Osteoporosis, and Chronic Back Conditions (AOCBC)

Objective	Columbiana County 2018	Healthy People 2020 Target
AOCBC-2: Reduce the proportion of adults with doctor-diagnosed arthritis who experience a limitation in activity due to arthritis or joint symptoms	37%	36%

The following graph shows the most limiting health problems self-reported for Columbiana County adults.

**Columbiana County Adult's Most Limiting Health Problems**
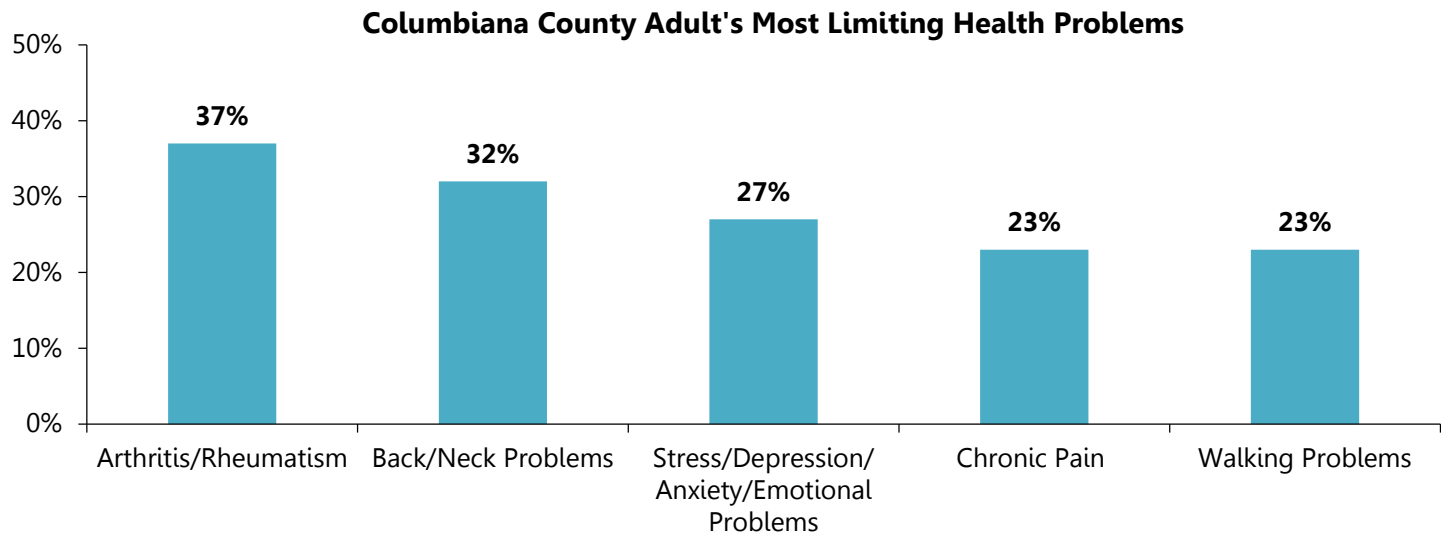
Findings from Focus Groups and Key Stakeholders (N=115): Quality of life was not directly mentioned during the focus group or stakeholder interviews. However, poverty, lack of education, lack of access to healthcare, substance abuse, obesity, mental health issues, and poor healthcare education were identified as key issues and are further defined in the "Social Determinants of Health" section. These factors can contribute to poor perceptions of health, and affect a person's ability to utilize appropriate resources to change their perceptions of health.

Quality of Life- Summary of Key Findings:
- 25% of community members responded they were limited in some way by physical, mental, or emotional problems.
- 1/5 of community adults reported falling in the past year, with more than half of those reporting more than one fall.
- Arthritis, back or neck problems, mental health issues, and chronic pain were named the top fourth limiting health problems by the survey.
- 25% of survey participants answered they are limited by emotional, mental, or physical problem. This is higher than national and state averages by 4%
- 16% of respondents stated they have to care for multiple children. <1 percent of respondents stated they were caring for children whose parents used drugs/unable to care for their children.
- Based of focus group/stakeholder answers, those caring for children due to drugs and non-traditional families (grandparents caring for children) maybe vastly under recognized or reported.

Social Conditions: Social Determinants of Health

Access to high-quality, affordable health care plays a significant role in the health of individuals. However, clinical care cannot address all of the factors that shape both health behaviors and health outcomes. According to the Robert Wood Johnson Foundation (RWJF), factors that influence how healthy residents are today are defined to be "health outcomes," while those that impact the future are considered to be "health factors."

County Health Rankings model © 2014 UWPHI
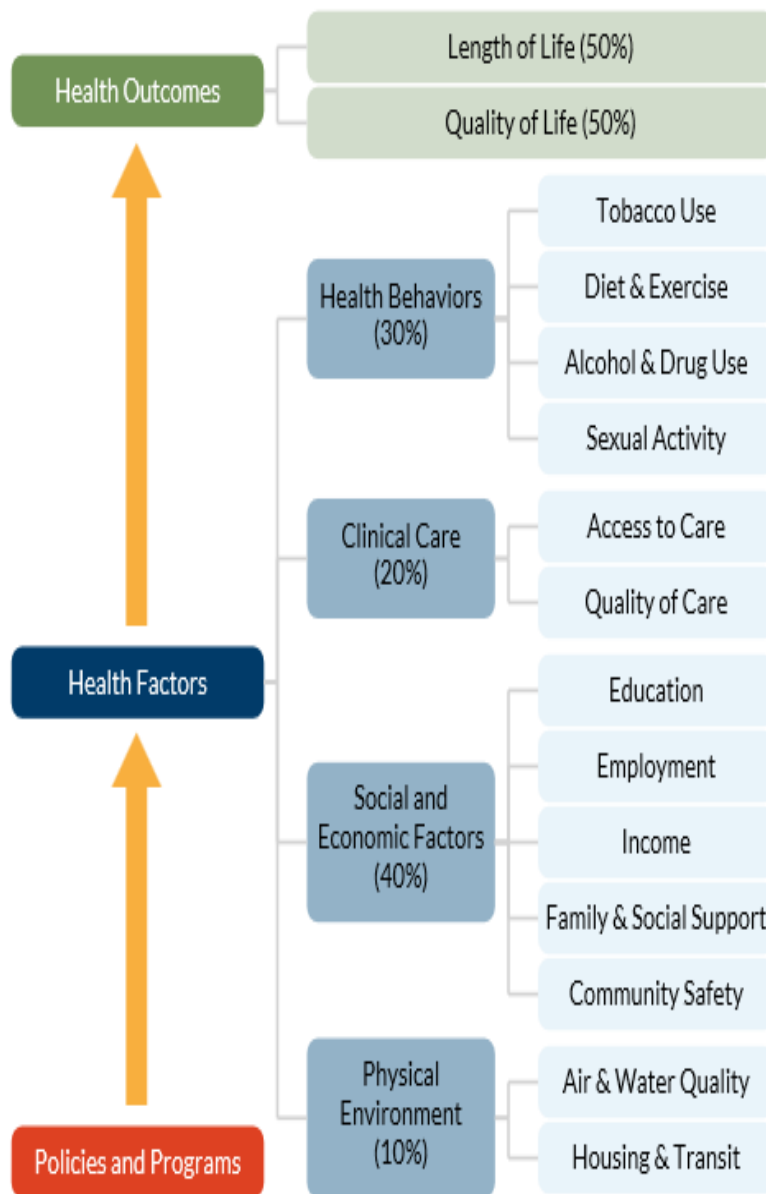
Understanding **social determinants of health,** such as economics, education and violence; can also lead to improvements in health outcomes and reductions in health disparities. The population health model published by the RWJF (left), in the 2019 "County Health Rankings and Roadmap," emphasizes the factors that, if improved, can help make communities healthier places to live, learn, work and play.

Data Indicators: According to the RWJF 2019 health rankings, Columbiana County ranks 59 out of Ohio's 88 counties for overall health outcomes, with length of life ranking 59 and quality of life ranking 62. Health factors are ranked 60, with health behaviors at 60, clinical care at 59, social and economic factors at 53, and physical environment at 71.

- Poverty and Economic Stability: The annual per capita income in the County ($24,758) is significantly lower than the State of Ohio ($31,117). The median household income in Columbiana County was $43,123, and the U.S. Census Bureau reports median income levels of $54,077 for Ohio and $60,336 for the U.S. *(Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, 2017).*

According to the website *WelfareInfo.org.*, the current percentage of Columbiana County residents living in poverty is 15.8%, compared to 15.4% in Ohio, and the county is ranked 55 in the state. The highest poverty rate by age occurs in children under 6, with approximately 1 in 4 living in poverty; followed by approximately 1 in 5 for those aged 6 to 11 years old and about 1 in 6 for those aged 12 to 17. The overall childhood poverty rate in Columbiana County is 24% compared to Ohio at 20%. *(Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, 2017).*

Dependency on food pantries and financial assistance for general daily needs is prevalent among Columbiana County residents. For example, the Community Action Agency reported serving 4,071 unduplicated clients from October 2016-March 25, 2019; which represented 10,704 unduplicated members in these families. In 2018, SNAP (Food Assistance) recipients averaged 14,902/month as compared to 15,817/month in 2017, Medicaid recipients averaged 23,068/month compared to 25,594/month in 2017 (a reduction of 9.9%) and OWF (Cash Assistance) averaged 632/month versus 701 in 2017 (a reduction of 9.4%). Of the 2018 OWF recipients, 613 are children and 19 are adults; and a high majority of the children are living with a caretaker relative.

Estimated Poverty Rates in Ohio by County (2013-2017)
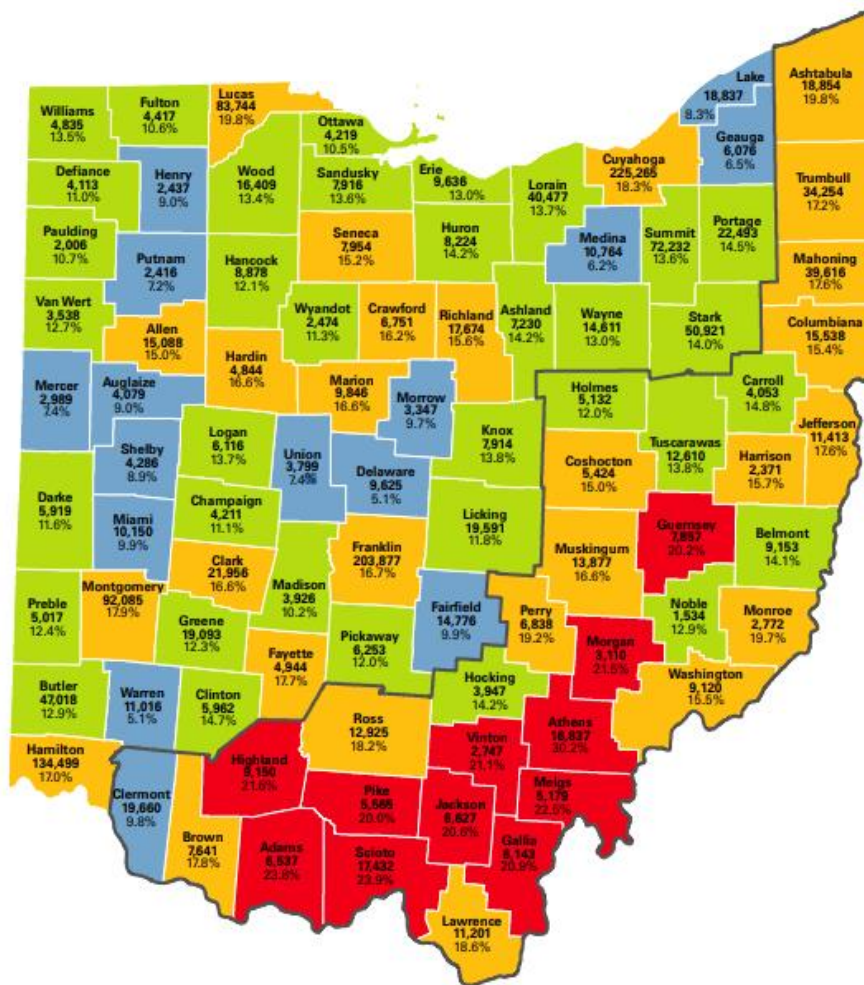

Percentage County Population in Poverty
- 5.1% - 9.9%
- 10.0% - 14.9%
- 15.0% - 19.9%
- 20.0% - 30.2%
- Appalachian Ohio

- The 2013 to 2017 American Community Survey 5-year estimates that approximately 1,683,890 Ohio residents, or 14.9% of the population, were in poverty.

- From 2013 to 2017, 15,538 or 15.4% of Columbiana County residents were in poverty.

(Source: 2013-2017 American Community Survey 5-year estimates, compiled by Ohio Development Services Agency, Office of Research, Ohio Poverty Report, February 2019)

- The unemployment rate for Columbiana County was 5.4% as of December 2018 and higher than the state of Ohio's at 4.6%. *(Source: Ohio Dept. of Job and Family Services, Office of Workforce Development, Bureau of Labor Market Information).*

- Education:

In addition, Columbiana County residents with less than a high school education have a much higher poverty rate at 25.72%, compared to those with a high school education at 12.23%.

Higher education levels and high school graduation rates also have an impact on the health and well-being of an individual, and there is a health disparity associated with lower educational levels attained. Those who do not finish high school are also more likely to lack the basic skills required to function in an increasingly advanced job market and society than those who graduate from high school.
In addition, adults with limited education levels are more likely to be unemployed, on government assistance, or involved in crime *(Healthy Communities Institute, 2014).*

Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	
Medical bills	Playgrounds			Stress	Quality of care
Support	Walkability	Higher education			
	Zip code / geography				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

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According to the 2019 RWJF data, Columbiana County's high school graduation rate has increased significantly to 93%, and is now higher than Ohio's at 85%. The percentage of adults, ages 25-44, with some post-secondary education, is much lower in Columbiana County (51%), compared to Ohio (65%), and the U.S. (64%).
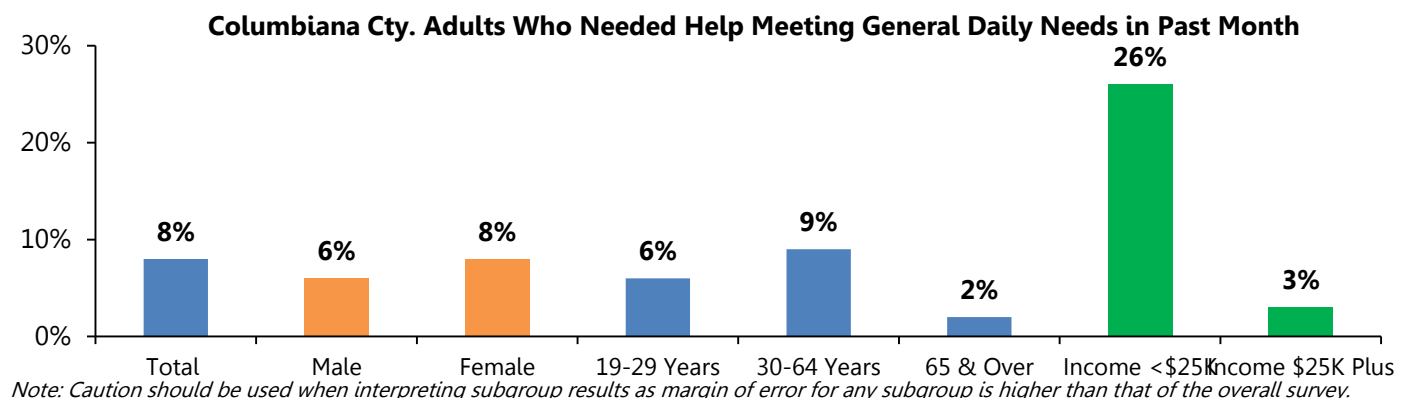
- Housing: There were 46,821 housing units. The owner-occupied housing unit rate was 73.4%. Rent in Columbiana County cost an average of $639 per month (Source: U.S. Census Bureau, American Community Survey, 2017).

Findings from Community Survey (N=377)- Social Det. of Health: Economic Stability

- About one-in-six (16%) adults self-reported experiencing at least one issue related to hunger/food insecurity in the past year. The issues experienced included: had to choose between paying bills and buying food (9%), worried food might run out (7%), went hungry/ate less to provide more food for their family (5%), loss of income led to food insecurity issues (4%), their food assistance was cut (4%), did not eat because they did not have enough money for food (3%).

- Seven percent (7%) of adults experienced more than one issue related to hunger/food insecurity in past year.

- About one-in-four (26%) adults with children self-reported experiencing at least one issue related to hunger/food insecurity, compared to 15% of those who did not have children living in their household.

- Eight percent (8%) of Columbiana County adults self-reported needing help meeting their general daily needs such as food, clothing, shelter, or paying for utility bills in the past 30 days.

- Forty-seven percent (47%) of adults self-reported less than thirty percent of their household income went to their housing. Twenty-four percent (24%) said thirty to fifty percent, and 16% said fifty percent or more of their income went to housing. Thirteen percent (13%) of adults did not know what percent of their income went to their housing.

- Eighty-two percent (82%) of adults self-reported they owned their home, 8% said they rented, and 10% of adults reported they had another arrangement.

- Columbiana County adults reported receiving assistance for the following in the past year:
  - Medicare (12%)
  - Food (11%)
  - Health care (10%)
  - Dental care (9%)
  - Prescription assistance (8%)
  - Mental illnesses including depression (6%)
  - Utilities (5%)
  - Home repair (4%)
  - Employment (3%)
  - Affordable child care (3%)
  - Legal aid services (2%)
  - Clothing (2%)
  - Transportation (2%)
  - Rent/mortgage (2%)
  - Drug or alcohol addiction (2%)
  - Diapers (1%)
  - Free tax preparation (1%)
  - Unplanned pregnancy (1%)
  - Credit counseling (<1%)
  - Septic/well repairs (<1%)

The graph below shows the percentage of Columbiana County adults who reported needing help to meet general daily needs such as food, clothing, shelter or paying utilities bills in the past 30 days. An example of how to interpret the graph includes: 8% of all adults reported needing help meeting general daily needs, including 26% of those with incomes <$25,000.

Columbiana Cty. Adults Who Needed Help Meeting General Daily Needs in Past Month

Total	Male	Female	19-29 Years	30-64 Years	65 & Over	Income <$25K	Income $25K Plus
8%	6%	8%	6%	9%	2%	26%	3%

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

*Columbiana County adults and their loved ones reported needing the following assistance in the past year:*

Type of Assistance	Needed Assistance	Received Assistance	Did Not Know Where to Look	Did not qualify for assistance
Dental care	28%	9%	4%	16%
Food	26%	11%	2%	13%
Health Care	26%	10%	2%	14%
Legal aid services	26%	2%	2%	12%
Medicare	26%	12%	2%	12%
Mental illness issues including depression	23%	6%	4%	12%
Prescription assistance	22%	8%	1%	13%
Utilities	22%	5%	3%	14%
Home repair	21%	4%	5%	14%
Affordable child care	20%	3%	1%	17%
Clothing	18%	2%	3%	14%
Transportation	18%	2%	3%	13%
Credit counseling	17%	<1%	3%	14%
Drug or alcohol addiction	17%	2%	3%	13%
Rent/mortgage	17%	2%	2%	13%
Diapers	16%	1%	1%	14%
Employment	16%	3%	2%	11%
Septic/well repairs	16%	<1%	4%	12%
Free tax preparation	14%	1%	2%	12%
Post incarceration transition issues	14%	0%	1%	13%
Unplanned pregnancy	14%	1%	1%	12%
Gambling addiction	12%	0%	1%	12%

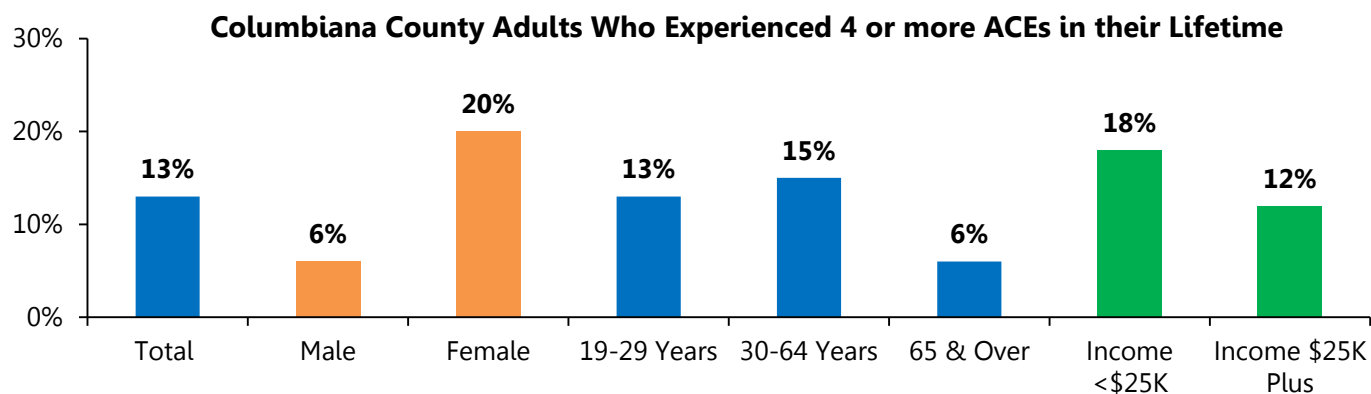## Findings from Community Survey (N=377)-Soc. Det. Health: Social & Community Context

- Columbiana County adults self-reported that they or a family member had the following literacy needs: learning computer skills (8%); reading and understanding instructions (3%); reading maps, signs, food ingredient labels, etc. (3%); and completing a job application (2%).

- Thirteen percent (13%) of Columbiana County adults self-reporting having the following transportation issues: no car (5%), suspended/no driver's license (4%), could not afford gas (4%), no public transportation available or accessible (3%), did not feel safe to drive (2%), no car insurance (2%), limited public transportation available or accessible (1%), disabled (2%) and other car issues/expenses (4%). Eight percent (8%) of adults reported they had more than one transportation issue.

- Adults self-reported that they engaged in some form of gambling at the following frequencies: daily (1%), weekly (4%), every few weeks (6%), monthly (2%), every few months (9%), and once or twice a year (29%). Forty-nine percent (49%) of adults reported they never engaged in gambling.

- Columbiana County adults self-reported experiencing the following in the past 12 months:
  — A close family member went to the hospital (42%)
  — Death of a family member or close friend (33%)
  — Had bills they could not pay (13%)

- — A decline in their own health (11%)
- — They were a caregiver (8%)
- — Someone in their household lost their job/had their hours reduced at work (8%)
- — Someone close to them had a problem with drinking or drugs (8%)
- — Moved to a new address (7%)
- — Household income was cut by 50% (5%)
- — Were threatened or abused by someone physically, emotionally, sexually, or verbally (5%)
- — Had someone homeless living with them or sleeping on their couch (3%)
- — Became separated or divorced (2%)
- — Their family was at risk of losing their home (2%)
- — Knew someone who lived in a hotel (1%)
- — Witnessed someone in their family being hit or slapped (1%)
- — Their child was threatened or abused by someone physically, emotionally, sexually, or verbally (1%)
- — Were homeless (1%)

- Columbiana County adults self-reported experiencing the following adverse childhood experiences (ACEs):
  - — Their parents became separated or were divorced (24%)
  - — Lived with someone who was a problem drinker or alcoholic (21%)
  - — A parent or adult in their home swore at, insulted, or put them down (17%)
  - — Lived with someone who was depressed, mentally ill, or suicidal (11%)
  - — Someone at least 5 years older than them or an adult touched them sexually (11%)
  - — A parent or adult in their home hit, beat, kicked, or physically hurt them (8%)
  - — Their parents or adults in their home slapped, hit, kicked, punched, or beat each other up (7%)
  - — Lived with someone who used illegal street drugs, or who abused prescription medications (6%)
  - — Their family did not look out for each other, feel close to each other, or support each other (5%)
  - — Someone at least 5 years older than them or an adult tried to make them touch them sexually (5%)
  - — Their parents were not married (4%)
  - — Lived with someone who served time or was sentenced to serve time in prison, jail or correctional facility (4%)
  - — Someone at least 5 years older than them or an adult forced them to have sex (2%)
  - — They didn't have enough to eat, had to wear dirty clothing, and had no one to protect them (1%)

- Thirteen percent (13%) of Columbiana County adults had four or more adverse child experiences (ACEs*) in their lifetime, increasing to 20% of females.

  Note: The ACEs Pyramid* represents the conceptual framework for the ACEs Study, which uncovered how adverse childhood experiences are strongly related to various risk factors for disease throughout the lifespan, according to the CDC.
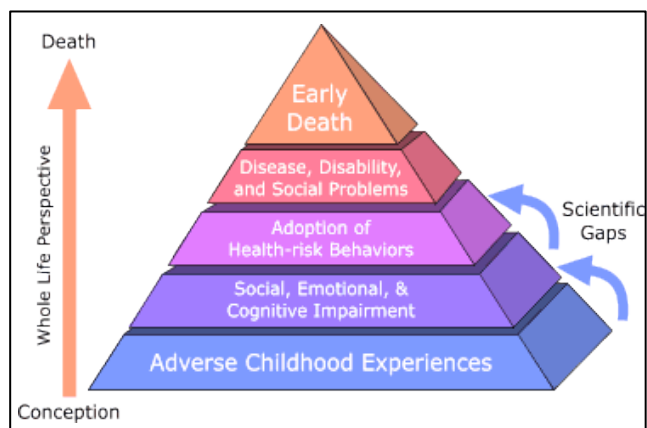
The graph below shows the percentage of Columbiana County adults who had experienced four or more adverse child experiences (ACEs) in their lifetime. An example of how to interpret the information on the graph includes: 13% of all adults had experienced four or more ACEs in their lifetime, including 20% of females and 18% of those with incomes less than $25,000.

Columbiana County Adults Who Experienced 4 or more ACEs in their Lifetime

Category	Percentage
Total	13%
Male	6%
Female	20%
19-29 Years	13%
30-64 Years	15%
65 & Over	6%
Income <$25K	18%
Income $25K Plus	12%

Note: Caution should be used when interpreting subgroup results as margin of error for any subgroup is higher than overall survey.

Community Survey: Behaviors of Columbiana County Adults
Experienced 4 or More ACEs vs. Did Not Experience Any ACEs

Adult Behaviors	Experienced 4 or More ACEs	Did Not Experience Any ACEs
Classified as overweight or obese by BMI	77%	76%
Current drinker (had at least one alcoholic beverage in the past month)	70%	59%
Current smoker (currently smoke on some or all days)	45%	12%
Contemplated suicide in the past 12 months	15%	2%
Medication misuse in the past 6 months	11%	7%
Used recreational drugs in the past 6 months	4%	2%

- Half (50%) of Columbiana County adults reported that someone in their immediate family had served in the military in the past 10 to 20 years.

- As a result of their military service, adults reported their immediate family members were affected by the following:
  — Post-traumatic stress disorder (PTSD) (10%)
  — Access to medical care at a VA facility (8%)
  — Problems getting VA benefits (6%)
  — Major health problems due to injury (5%)
  — Problems getting information on VA eligibility and applying (3%)
  — Marital problems (2%)
  — Access to medical care at a non-VA facility (2%)
  — Access to mental health treatment (1%)
  — Access to substance/drug abuse treatment (1%)
  — Cannot find or keep a job (1%)
  — Housing issues (1%)
  — Substance abuse/drug abuse/overdose (1%)
  — Eighty-three percent (83%) of adults reported their immediate family members did not have any problems listed

Findings from Community Survey (N=377)- SD of H: Neighborhood & Built Environment

- Just over one-fifth (22%) of Columbiana County adults reported that their neighborhood was extremely safe, 61% reported it to be quite safe, 12% reported it to be slightly safe, and 2% reported it to be not safe at all. Three percent (3%) reported that they did not know how safe from crime their neighborhood was.

- Adults supported the following community improvement initiatives:
  — More locally grown foods or farmer's markets (66%)
  — Safe roadways (56%)
  — Local agencies partnering with grocery stores to provide healthier low-cost food items (49%)
  — Neighborhood safety (44%)
  — Bike/walking trail accessibility or connectivity (38%)
  — New and/or updated parks (37%)
  — New and/or updated recreation centers (33%)
  — Community gardens (32%)
  — Sidewalk accessibility (30%)

Findings from Focus Groups & Key Stakeholders (N=115)- Social Determinants of Health

Stakeholders and focus group participants identified the following social determinants as negatively impacting their environment: poverty/generational poverty; ignorance/complacency/lack of motivation/Appalachian cultural orientation; low educational attainment; unemployment/lack of job opportunities; lack of adequate housing (low income, seniors, mental health) and landlords not taking care of their rentals so living conditions are sub-standard; lack of parenting skills; growing number of non-traditional families and need for support of kinship providers; aging population; and increasing drug activity and drug-related crime as social determinants contributing to community health needs.

Summary of Key Findings- Social Determinants of Health

- **Health Disparities**: Columbiana County's economic instability and higher poverty levels are significant barriers to accessing social and economic opportunities, healthy foods, adequate health care, safe neighborhoods, stable living conditions and good quality of life for Columbiana County residents. These factors significantly contribute to health disparities that are rooted in social and economic disadvantages.
- Lower rates of post-secondary education combined with the attitudes and beliefs of an Appalachian culture shape area resident's inability to engage in positive health behaviors and negatively impact health literacy.
- Environmental factors in the neighborhood and physical environment contribute to increased stress among area residents as indicated by high mental health needs; and lack of access to safe neighborhoods and outdoor recreational opportunities negatively affects health across the lifespan and may have multi-generational impacts.
- About one-in-six adults and one-in-four children reported experiencing at least one issue related to hunger/food insecurity in the past year. Stakeholders and focus groups noted a continued dependency by Columbiana County residents on financial assistance to meet general daily needs.

- **Impact on Vulnerable Populations**: Because of the combined effects of the previously identified socioeconomic factors and other social determinants of health, Columbiana County residents living in poverty have been identified as a vulnerable population, as well are those embedded in the Appalachian culture, those facing ethnic language and literacy barriers, the elderly who have limited financial resources and/or support systems and youth.

- **Positive Force for Change:** Many Columbiana County residents have fairly strong personal support systems and express a sense of community engagement with family and social organizations that have the potential of being a valuable community asset for change.

Social Conditions: Environmental Conditions

Environmental Conditions are a broad category of external risk factors that can negatively affect health outcomes. These include air and water quality, the presence of toxic substances, public health infrastructure, and community assets and deficits. Environmental conditions are especially important for children, since they can have a lasting impact on healthy physical and mental development; and adverse environmental conditions have a disproportionate impact on vulnerable populations.

Water Quality Data Indicator: "Drinking Water Violations" identified in the 2019 County Health Rankings indicates that Columbiana County had at least one community drinking water system violation during 2017, in which the population was potentially exposed to water that exceeded drinking water standards. These data are from The Safe Drinking Water Information System (SDWIS), as reported to the US EPA by the states.

Information from the Ohio EPA reported to the Columbiana County Health Partners that 5% of the 19 community water systems serving residents in Columbiana County had a bacteria water violation in 2018 and this violation was for monitoring and not water quality.
- 26% of the private wells serving homes in Columbiana County tested positive for total coliform bacteria during tests performed by the Columbiana County Health District's Real Estate Inspection program in 2018.
- 13% of the septic systems serving homes in Columbiana County failed to pass inspections (excludes inspection failures directly related to plumbing) performed by the Columbiana County Health District's Real Estate Inspection program in 2018.

Air Quality Data Indicator: Particulate matter, a measure of air quality, is the percentage of days with particulate matter that are 2.5 levels above the National Ambient Air Quality Standard of 35 micrograms per cubic meter, per year. The most recent county- and national-level data (2014) was collected from the 2019 County Health Rankings and shows that Columbiana County is equal to Ohio in average daily density of fine particulate matter in micrograms per cubic meter at 11.5, and close to the US rate at 11.4.

The Ohio EPA's November 2018 report on Ohio Air Quality 2017, which examines the network of 136 Ohio monitoring sites indicates no violations of the National Ambient Air Quality standards at the three network sites in East Liverpool of Columbiana County. The sites are monitored for 7 pollutants including particulate matter, Sulfur Dioxide, Carbon Monoxide, Ozone, Nitrogen Dioxide and air alerts. The Columbiana County sites tested at elevated levels for some parameters, but were not listed for violating NAAQ standards.

The statewide report did indicate NAAQ violations in Butler, Geauga, Franklin, Hamilton Lake and Warren Counties for Ozone and Cuyahoga County for Sulfur Dioxide, but none in Columbiana or adjoining counties.

Crime & Violence - Homicide Data Indicator: Homicide is the intentional and unlawful killing of one person by another person. The "Homicide Rate" is the rate of deaths due to homicide per 100,000 population. The most recent local data (2017) were reported via the Columbiana County Coroner's report which indicates three homicides in 2017 and translates to a rate of 2.91 homicides/100,000 population. The Columbiana County rate of 2.91 homicide deaths per 100,000 people is lower than the state of Ohio rate of 7.5/100,000 and the national rate of 6.2/100,000, as reported by CDC's National Center for Health Statistics (homicide mortality by state) for 2017.

Housing Costs Data Indicator: Local area housing costs determine whether residents are able to afford decent homes in their community. When the average wage in a community is not sufficient to afford the average rent, individuals and families are faced with spending a high proportion of their wages on housing, leaving little for health care needs, healthy foods, and other important items. The U.S. Census Bureau (2013-2017) reports Columbiana County has a median home value of $104, 300 and median rent costs of $643 compared to the state medians of $135,100 and $764. Where the local median household income is $45,498 and the state median household income is $52,407.

Columbiana County vs. Ohio
Income: 86.8% of average state income **Rent:** 84.1% of average state rental costs
Home Values: 77.2% of average state home value

Findings from Community Survey (N=377)- Environmental Conditions

- Fifty-nine percent (59%) of Columbiana County adults had a private water source for drinking water. Of those who had a private water source, 14% had it tested within the past year, and 27% had never had it tested. Over one-fifth (21%) of adults did not know the last time their water source had been tested.

- Three percent (3%) of adults reported that they had ever been treated for, suspected of, or diagnosed with Lyme disease in their lifetime and 2% reported their child had been treated for, suspected of or diagnosed with Lyme disease.

- Columbiana County adults thought the following threatened their health in the past year:
  — Insects (mosquitos, ticks, flies) (13%)
  — Mold (9%)
  — Rodents (mice or rats) (8%)
  — Moisture issues (7%)
  — Air quality (5%)
  — Unsafe water supply/wells (4%)
  — Temperature regulation (heating and air conditioning) (4%)
  — Agricultural chemicals (3%)
  — Lyme Disease (3%)
  — Fracking (3%)
  — Bed bugs (2%)
  — Chemicals found in household products (2%)
  — Plumbing problems (2%)
  — Cockroaches (1%)
  — Lice (1%)
  — Safety hazards (structural problems) (1%)
  — Radon (1%)
  — Asbestos (1%)
  — Sanitation issues (1%)
  — Lead paint (<1%)
  — Sewage/waste water problems (<1%)

Findings from Focus Groups and Key Stakeholders (N=115)

Environmental issues (air & water quality, gas lines, fracking and agricultural run-off) were listed as one of the top 10 community concerns related to health and safety. Air quality in East Liverpool was identified as a concern, as was environmental health by a few East Liverpool stakeholders. Other environmental issues mentioned fairly frequently included safety from crime, poor housing conditions and landlords not taking care of their properties, thus creating unsafe environments. Child safety was identified as a significant issue along with unsafe play areas for children, poor road conditions and poorly lit roads, violence and unsafe schools were also mentioned.

Summary of Key Findings- Environmental Conditions

- Drinking Water Violations identified in the 2019 County Health Rankings indicates that Columbiana County had at least one community drinking water system violation during 2017, in which the population was potentially exposed to water that exceeded drinking water standards.
- 26% of the private wells serving homes in Columbiana County tested positive for total coliform bacteria during tests performed by the Columbiana County Health District's Real Estate Inspection program in 2018, and 13% of septic systems failed to pass inspections.
- Columbiana County is equal to Ohio in average daily density of fine particulate matter in micrograms per cubic meter at 11.5, and close to the US rate at 11.4.
- The Columbiana County rate of 2.91 homicide deaths per 100,000 people is lower than the state of Ohio rate of 7.5/100,000 and the national rate of 6.2/100,000,
- Rental and housing costs as a percent of total income in Columbiana County are lower than the state and nation.
- Environmental issues (air & water quality, gas lines, fracking and agricultural run-off) were listed as one of the top 10 community concerns by focus groups and stakeholders related to health and safety.