

Sept. 23, 2019

Community Health Needs Assessment 2019-2021

King's Daughters Medical Center Ohio, Portsmouth, Ohio



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King's Daughters Medical Center Ohio

Community Health Needs Assessment

Reviewed and approved:

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- A. List of Organizations Providing Input into the CHNA
- B. PRC CHNA Report
- C. 2017-19 Implementation Plan FY18 Progress Report

Executive Summary

King's Daughters Medical Center Ohio (KDOH), located at 2001 Scioto Trail, Portsmouth, opened in February 2013. KDOH's primary service area is Scioto County, Ohio but serves surrounding counties in Ohio and Kentucky. KDOH provides a range of medical and surgical specialists including:

- Primary care
- Cardiology
- Cardiothoracic surgery (consultation)
- Gastroenterology
- General surgery
- Hematology/Oncology
- Infectious disease
- Nephrology
- Neurology/seizure specialist
- Orthopedics
- Otolaryngology (ENT)
- Physical medicine & rehabilitation
- Plastics & reconstructive surgery
- Podiatry
- Pulmonology
- Surgical breast oncology (consultation)
- Urology
- Vascular surgery

Services/facilities provided by King's Daughters Medical Center Ohio include 25 pre/post-op beds; 10 inpatient beds (including an ICU suite); four operating rooms; two endoscopy suites; one cystoscopy suite; sleep lab; 24/7/365 urgent care; imaging center, including MRI, CT, 3D mammography, and diagnostic x-ray; full-service lab; neurodiagnostics; and an ambulatory pharmacy (Coumadin clinic).

KDOH participated, with Southern Ohio Medical Center and other organizations, in a Professional Research Consultants, Inc. (PRC) directed Community Health Needs Assessment which covered Scioto and other neighboring counties in Kentucky and Ohio. The PRC assessment incorporated data from both quantitative and qualitative sources. Primary research included qualitative data gathered through the PRC Community Health Survey and Key Informant Survey. Secondary research included vital statistics and other existing health-related data; these quantitative components allow for trending and comparison to benchmark data at the state and national levels.

Primary data indicated the top health issues facing Scioto County are

- Heart disease
- Substance/alcohol abuse
- Obesity/overweight
- Tobacco/smoking
- Diabetes
- Mental health

- Nutrition/physical activity

Secondary data collected from local, state and national sources showed that the top issues impacting health are

- Heart disease
- Drug poisoning
- Obesity/overweight
- Diabetes
- Cancer

KDOH leadership met to choose the identified needs that the hospital has the resources to address. The final selection of issues to address includes:

- Heart disease
- Cancer prevention/early detection (including tobacco use)
- Obesity/nutrition

KDOH will work in partnership with the Scioto County Health Coalition and its members; other healthcare providers; educational institutions; government agencies and businesses to help provide services and resources to improve the health of Scioto County. Strategies to address these issues will be included in the 2020-21 Implementation Plan.

Facility Description:

King's Daughters Medical Center Ohio (KDOH) opened February 2013 and serves the people of Scioto and surrounding counties in Ohio and Kentucky. KDOH employs 150 people. Scioto County is the primary market for KDOH and is part of King's Daughters Health System. KDOH provides medical/surgical care in orthopedics, ear, nose and throat, urology and vascular as well as diagnosis and treatment of digestive diseases/endoscopic procedures. The medical center is equipped with a specially designed and dedicated urology procedure room. Primary care services are also available to patients at KDOH. Additional services at KDOH include:

- Four operating rooms
- Two endoscope suites
- One cystoscopy suite
- Sleep lab
- Physician offices
- 25 pre/post-operative beds
- 10 inpatient beds, including one ICU suite
- Imaging Center offering MRI, CT, 3-D mammography and X-ray services
- Full service laboratory
- Urgent Care services open 24/7

Description of Community Served:

Scioto County covers more than 610 square miles, with a population density of 130.3 people per square mile. The population is nearly evenly divided between urban and rural, with 54.28% rural and 45.72% urban. The largest city in Scioto County is Portsmouth with a population of 20,340 (US Census 2018). Other notable cities in Scioto County are Wheelersburg, Lucasville, and New Boston.

According to the US Census Bureau 2018 projections, Scioto County has 75,502 residents. Of the residents, 94.5% are white, 2.6% black, and 2.9% represent all other races. Of the population, 1.3% claim Hispanic/Latino ethnicity. Forty-nine percent of the population is male and 51% female.

There are 33 schools serving the county's children. According to the US Department of Education, 12,019 students were enrolled in Scioto County schools during the 2018-19 school year. Of these students, 67% qualified for the free and reduced meals program. (National Center for Education Statistics 2018-19). Sixteen percent of residents over the age of 24 have not graduated high school, compared to 10.2% in Ohio and 12.7% nationally. Nearly 15.2% of Scioto County residents have obtained an associate or higher degree, significantly below Ohio-27.2%, and the United States-30.9%.

According to the US Census Bureau, there are 30,204 households in Scioto County. The median age in the county is 39.8 years, with the median for males 39.4 and females 41.2 years. More than 16% of the population reports having some type of disability. In addition, veterans account for approximately 7% of the population over age 18.

Scioto County's poverty rate of 21.4% is higher than Ohio (14.0%) and the nation (12.3%). The median income for the county is \$38,978, which is well below the state (\$52,407) and nation (\$57,652). Per-capita income in the county is \$22,586; compared to \$29,011 for Ohio and \$31,177 for the United States. More than 5% of the county's population receives public assistance income, not including Social Security Income or noncash benefits such as food stamps, compared to Ohio-3.33% and the US-2.82%.

The US Census Bureau 2012-16 data shows that 90.1% of Scioto County residents have some form of health insurance, with 34.4% being enrolled to receive Medicaid benefits. The US Census, Small Area Health Insurance Estimates for 2016 shows that 9.9% of the county residents are uninsured, compared to 8.5% in Ohio and 11.7% nationwide. Of those uninsured, 7.6% are adults and 3.8% children. There are also more men (11.2%) than women (8.7%) uninsured.

Persons Representing the Broad Interests of the Community

The PRC process worked to assure that there was a broad involvement from the community in the assessment process through the use of the key informant and community surveys. The key informant survey included individuals from public health, business, non-profits, healthcare and others interested in the health of their community (attachment A: List of key informant survey participants). There were individuals from the public health departments in Scioto County, which represented the medically underserved, low-income and minority populations. In addition, multiple other non-profits also represented those that are underserved, low income or part of the minority community. These covered programs for the aged to those for young children/infants.

Description of Process and Methods Used

KDOH used the following steps in collecting and analyzing data for the purpose of the CHNA.

1. Collection and analysis of quantitative (secondary) data collected from county, state and federal data sources
2. Participated in the PRC Community Health Survey that analyzed qualitative (primary) data from community input
3. Combined results from all data collection methods to identify top health issues
4. Identified conditions that are measurable, prevalent, disproportionately impact vulnerable populations, reflect a countywide need and can be addressed by the hospital
5. Identified health drivers by reviewing the proposed Healthy People 2030 objectives, public health literature and other national CHNA resources to gather best practices and other recommendations to address the identified health needs

Primary Data Collection:

Primary data was collected through the PRC Community Health Survey (attachment B), which conducted a telephone survey contacting randomly through both land and cell phones and an electronic key informant survey.

Community Telephone Survey

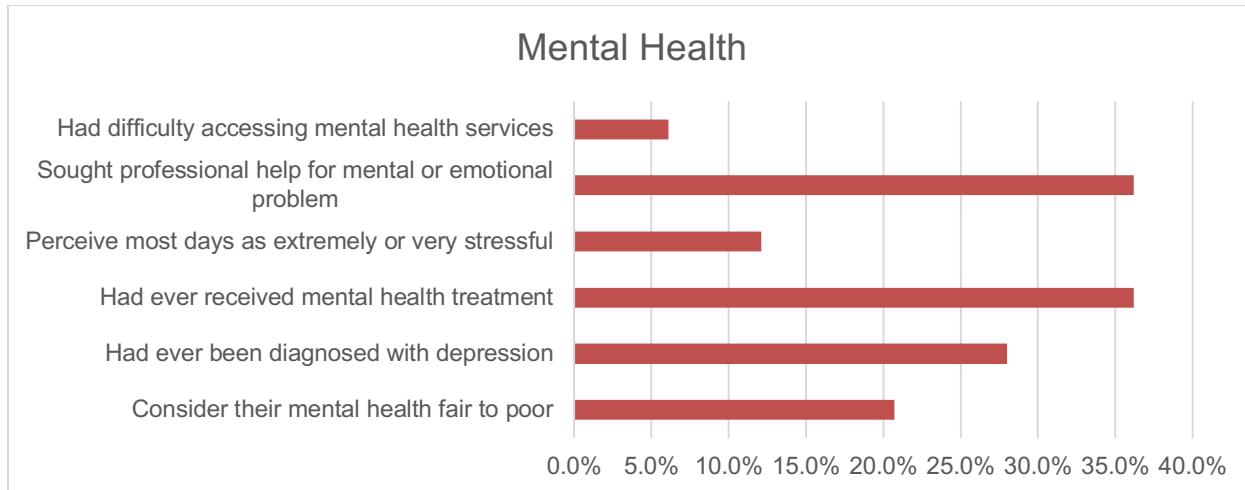
The phone survey covered Adams, Jackson and Scioto counties in Ohio and Greenup and Lewis counties in Kentucky. In Scioto County, there were approximately 600 participants in the phone interviews. The survey asked many of the same questions as the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System adult survey. The survey was divided into several health areas, including overall health status, mental health, health outcomes, healthy behaviors, obesity/overweight, substance abuse/alcohol/tobacco, and access to care.

Overall health status: The perception of health may have an impact on an individual's participation within the areas of family role, outdoors, work/education, and social life. Some areas that impact overall health status are disabling impairments or chronic conditions. Disabilities can be physical, mental or emotional. People with disabling impairments are more likely to engage in risky behaviors, not seek preventive screenings and have chronic conditions like high blood pressure and overweight/obesity. They are also more likely to have lower employment rates. The following charts show the respondents from Scioto County, unless otherwise indicated.

Overall Health Status Questions	Percent responding
Considered their general health fair to poor	28.0%
Had limited activity due to physical, mental or emotional health	31.3%

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community or society. Mental disorders are health conditions that are characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning. Mental disorders contribute to a host of problems that may include disability, pain, or death. Mental illness is the term that refers collectively to all diagnosable mental disorders. Mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases.

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery. The following graph shows the community responses to the mental health questions.

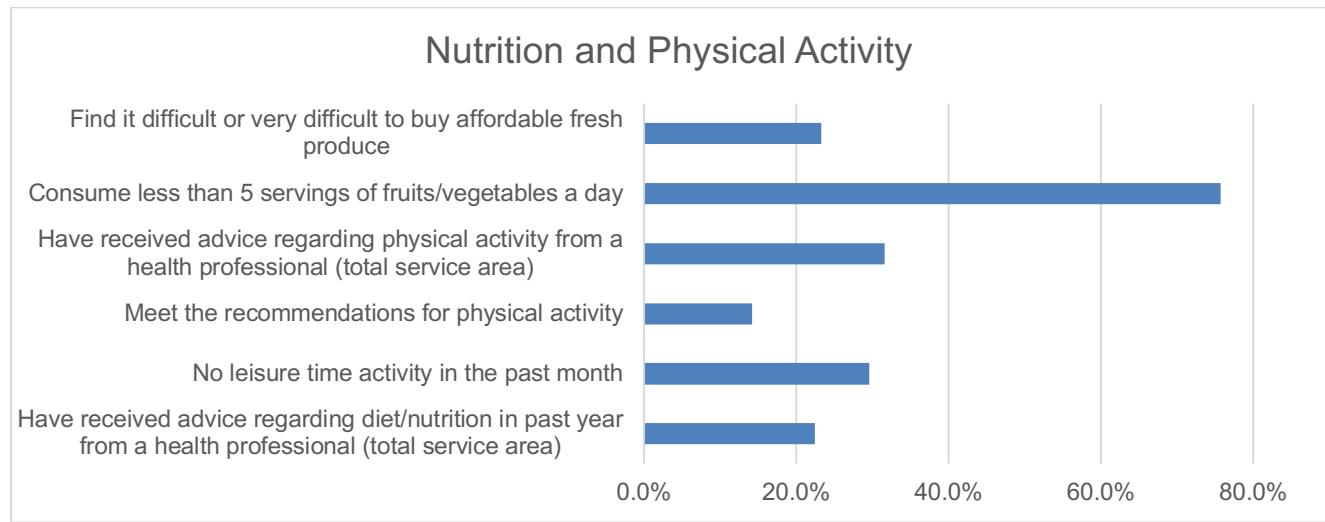


Health Outcomes: The community survey respondents were asked about their disease risk factors, disease, preventive health and other factors that can impact health and well-being. The following chart shows the responses to the health outcome questions.

Health Outcomes Questions	Percent responding
Had one or more risk factors for heart disease (overweight, smoking, physically inactive, or having high blood pressure or high cholesterol)	94.5%
Had ever been diagnosed with skin cancer	7.9%
Had ever been diagnosed with cancer other than skin	9.7%
Had a mammogram within the past 2 years, ages 50-74 years	71.7%
Had a pap smear in past 3 years, ages 21-65 years	66.6%
Had a colorectal screening, ages 50-75 years	69.0%
Currently have asthma	15.3%
Children with asthma	6.2%
Diagnosed with COPD	21.1%
Have fallen within the past year, age 45 and older	35.4%
Have experienced family violence, including hit, slapped, pushed, kicked or hurt in anyway	12.5%
Diagnosed with diabetes	22.8%
Had blood sugar test within past 3 years	65.1%
Diagnosed with kidney disease	7.8%
Prevalence of arthritis/rheumatism, age 50 and older	51.7%
Prevalence of osteoporosis, age 50 and older	15.3%
Prevalence of sciatica/chronic back pain	33.8%
Currently suffer from multiple chronic conditions	74.2%
Had a flu vaccine within past year, age 65 and older	64.0%
Had a pneumonia vaccine ever, age 65 and older	75.6%

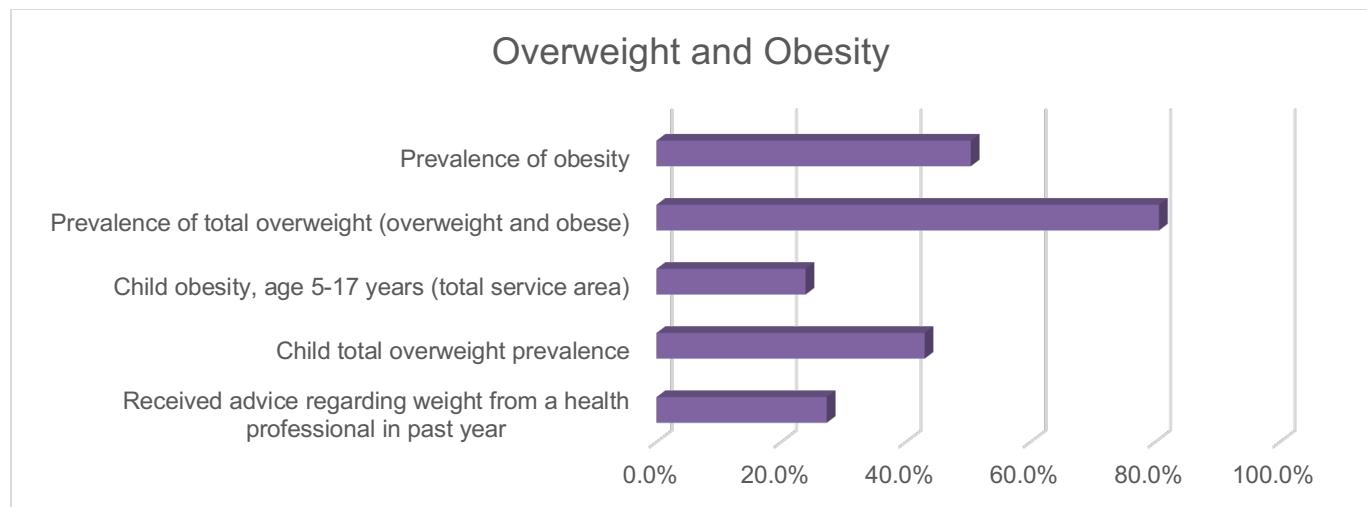
Healthy behaviors include eating healthy, being physically active, and avoiding tobacco use. These behaviors or lack thereof can have either a negative or positive impact on a person's health. Many things can impact a person's ability to live a healthy lifestyle, like access to health foods and safe places to be physically active. Health professionals also can have an impact on whether a person strives to live more healthily by providing

counseling and guidance on positive health behaviors. The following graph shows responses for nutrition and physical activity.



Overweight and Obesity: Weight is the result of many things working together—the lifestyle choices made, the environment, metabolism, and genes. According to the CDC, obesity is a serious concern because it is associated with poorer mental health outcomes, reduced quality of life, and the leading causes of death in the U.S. and worldwide, including diabetes, heart disease, stroke, and some types of cancer.

Childhood obesity is associated with a higher chance of premature death and disability in adulthood. Overweight and obese children are more likely to stay obese into adulthood and to develop noncommunicable diseases (NCDs) like diabetes and cardiovascular diseases at a younger age. For most NCDs resulting from obesity, the risks depend partly on the age of onset and on the duration of obesity. Obese children and adolescents suffer from both short-term and long-term health consequences.



Substance abuse/alcohol/tobacco: Substance abuse refers to the harmful or hazardous use of mood-altering substances, including alcohol and illicit drugs. People who abuse substances are likely to find themselves increasingly isolated from their families. Often they prefer associating with others who abuse substances or participate in some other form of antisocial activity. These associates support and reinforce each other's behavior. According to the Substance Abuse and Mental Health Services

Administration, mental health and substance use disorders affect people from all walks of life and all age groups. These illnesses are common, recurrent, and often serious, but they are treatable and many people do recover. Mental disorders involve changes in thinking, mood, and/or behavior. These disorders can affect how we relate to others and make choices. Reaching a level that can be formally diagnosed often depends on a reduction in a person's ability to function as a result of the disorder. Nearly 40% of the survey respondents reported being negatively impacted by substance abuse, either personally or through others.

Smoking is the leading preventable cause of death and disability. According to the CDC, for every person who dies because of smoking, at least 30 people live with a serious smoking-related illness. Smoking causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis. Smoking also increases 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 nonsmoking 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.

The following chart provides the survey results for substance abuse and smoking.

Health Behaviors	Percent responding
Alcohol use, excessive drinking	13.3%
Have driven after too much to drink in past month	0.4%
Illicit drug use in past month	5.3%
Life has been negatively impacted by substance abuse (self or someone else)	39.6%
Current smokers	25.3%
Exposed to environmental tobacco smoke at home	18.2%
Currently use vaping products	2.4%
Currently use smokeless tobacco products	5.9%

Access to Care: Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity. Access to care includes insurance coverage, health services, and timeliness of care. When considering access to health care, it is important to also include oral health care and obtaining necessary prescription drugs. Individuals need to be able to gain entry into the health care system (usually through insurance coverage); be able to access a convenient location where needed health care services are provided (geographic availability), and find a health care provider whom the patient trusts and can

communicate with and build a personal relationship). The following table shares respondents

Access to Care	Percent responding
Lack healthcare insurance coverage	3.6%
Experienced difficulty accessing healthcare services in past year	40.1%
Barriers to healthcare access:	
Getting an appointment when needed	12.8%
Cost of prescriptions	13.8%
Inconvenient office hours	14.6%
Cost of doctors visit	8.4%
Finding a doctor	9.3%
Transportation	9.6%
Language/culture	0.3%
Trouble accessing healthcare for children	1.3%
Have a specific source of healthcare	74.3%
Have visited a physician for checkup in past year	80.0%
Child visited a physician for checkup in past year	83.6%
Emergency room visited more than once in past year	18.5%
Have dental insurance	70.9%
Visited a dentist in past year	59.2%
Had an eye exam in past 2 years	58.8%
Perceive the local healthcare system as fair or poor	12.9%

The top issues identified through the community survey for Scioto county are :

- Heart disease (94.5% have one or more risk factor)
- Overweight/obesity (80.6% overweight/obese; 43% child obesity prevalence)
- Nutrition (75.7% do not get recommended daily amount of fruits/vegetables)
- Physical activity (70.4% no leisure time activity in past month)
- Arthritis/rheumatism (51.7% age 50+)
- Dental care (40.8% did not visit a dentist in the past year)
- Access to healthcare (40.1% had difficulty accessing healthcare services in past year)
- Substance abuse (39.6% life impacted negatively by substance abuse)
- Flu vaccine (36% no vaccine in past year, age 65+)
- Mental health (31.3% limited activity due to mental/emotional health; 20.7% fair-poor mental health status; 28% diagnosed depression; 36.2% mental health treatment)
- Sciatica/chronic back pain (33.8% with issues)
- Tobacco (25.3% current smokers; 18.2% exposed to second hand smoke)
- Diabetes prevalence (22.8% current diabetics)
- ER utilization (18.5% utilized the ER one or more times in the past year)
- Alcohol use/excessive drinking (13.3% in past month)

Key Informant Survey: The PRC conducted an electronic survey of key informants covering the same five counties as the community survey. There were 63 key informants participating in the online survey, which included physicians, public health representatives, other healthcare providers from the following organizations:

- Adams County Board of Developmental Disabilities
- Area Agency on Aging, District 7
- Beltone
- Community Action Organization (CAO) of Scioto County
- CAO Scioto County Head Start and Early Head Start
- Clay Local School District
- CAO Women, Infant and Child Program
- Compass Community Health
- Glockner Enterprises
- Minford Local School District
- Money Concepts Capital Financial Planning
- Portsmouth Area Chamber of Commerce
- Portsmouth City Health Department
- Portsmouth City Health Department Prevention Division
- Portsmouth City Schools
- Portsmouth-Scioto County Visitors Bureau
- Schmidt Family Restaurant Group
- Scioto County Career Technical Center
- Scioto County Career Technical Center Health Programs
- Scioto County Emergency Management Agency
- Scioto County Health Department
- Scioto Foundation
- Scioto Tech Shawnee State University
- SOMC Greenup Family Practice
- SOMC Vanceburg
- Southeastern Ohio Legal Services
- Southern Ohio Medical Center
- STAR, Inc.
- The Pavilion at Piketon
- The Potter's House Ministries, Inc.
- United Scioto Senior Activities, Inc.
- Western Local School District
- Wheelersburg Local Schools

Through this process, input was gathered from several individuals whose organizations work with low-income, minority, or other medically underserved populations. While the survey covered five counties in the two states, the data is relevant to Scioto County because more than three-quarters of respondents are either from Scioto County or serve Scioto County residents. The Key Informant Survey shows the following priorities were identified (rank order):

1. Substance abuse (64.3%)
2. Cancer (53.8%)
3. Heart disease and stroke (53.8%)
4. Tobacco use (53.8%)
5. Diabetes (50.0%)
6. Mental health (50.0%)
7. Nutrition, physical activity and weight (50.0%)
8. Family planning (28.6%)
9. Oral and dental health (28.6%)
10. Infant and child health (25.0%)
11. Respiratory diseases (25.0%)

Secondary Data Collection:

Secondary data is information collected by someone other than the user (data that is already available). Secondary data is essential in most studies due to resource constraints and the need to have past information for comparison purposes. In this report, the secondary data was collected through Community Commons, a website that houses the most recent statistical data from multiple sources and makes the data available to community organizations for use. The Community Commons site offers a

report format to collect the data specific to Community Health Need Assessment requirements. After the report was completed, the data was independently verified as most recent available.

These data are presented as analyzed by the companies or agencies mentioned, or were further analyzed by KDOH and their leadership and/or advisory committees for the purpose of this report.

Secondary Data:

As secondary data, KDOH looked at death (mortality), health outcomes (morbidity) and health behaviors from various sources. Causes of death and health outcome indicators provide important insights into the health of the population. Understanding about the physical environment, health outcomes and death data allows practitioners to better target interventions to help improve community health.

Physical Environment:

A community's health is affected by the physical environment. A safe, clean environment that provides access to healthy food and recreational opportunities is important to maintaining and improving community health. Scioto County has a relatively safe environment, with a violent crime rate of 152.4 per 100,000 population, which is nearly half that of Ohio (300.8) and more than half the rate of the nation (379.7).

Poor air quality can contribute to respiratory issue, including asthma, and to poor overall health. This indicator reports the percentage of days per year with Ozone (O₃) levels above the National Ambient Air Quality Standard of 75 parts per billion (ppb). Figures are calculated using data collected by monitoring stations and modeled to include census tracts where no monitoring stations exist. For Scioto County, the air quality is good with only 0.86% of days exceeding the standard, compared to Ohio 1.61% and the United States at 1.24%.

Access to healthy food and safe places to be physically active is very important to a healthy community. High numbers of fast food restaurants have been found to contribute to overweight and obesity. In Scioto County, the fast food rate per 100,000 population is 74.2, compared to Ohio at 80.6 and the nation at 77.1. Having access to food, especially healthy food can be measured by the number of grocery stores per 100,000 population. In Scioto County the food access rate is 16.4, compared to Ohio at 17.7 and the nation at 21.2.

Fitness facilities and safe places to be physically fit are important to the overall health and well-being of a community and its citizens. The number of recreation and fitness facilities is important because it encourages physical activity and other healthy behaviors. The recreation and physical fitness facility rate shows the availability of facilities per 100,000 population. For Scioto County the rate is 1.26, compared to Ohio's rate of 9.75 and the US rate of 11.0.

Clinical Care

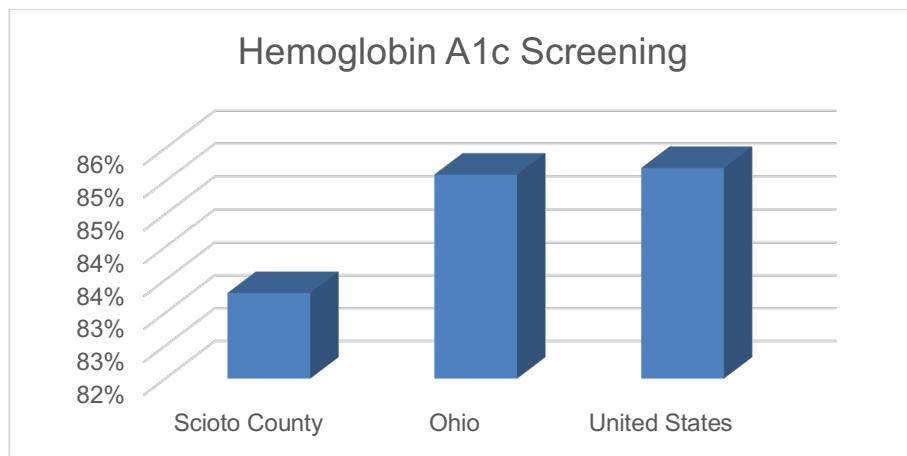
A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsurance, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access. Access to care includes dentists, mental health providers (including psychiatrists, psychologists, clinical social workers, and counselors that specialize in mental health care) and primary care providers. Primary care providers includes doctors classified as "primary care physicians" by the AMA including MDs and DOs in general family medicine, general practice, general internal medicine and general pediatrics. Physicians age 75 and over and physicians practicing sub-specialties within the listed specialties are excluded from the data reporting. Access to primary care is relevant because a shortage of health professionals contributes to access and health status issues. The following chart shows how Scioto County rate per 100,000 population compares to the state and nation.

Indicator	Scioto County	Ohio	United States
Access to dentist	32.5	59.1	65.6
Access to mental health provider	85.4	154.8	202.8
Access to primary care provider	55.7	93.1	87.8

Cancer screening utilization is relevant because engaging in preventive behaviors allows for early detection and treatment of cancer. Low screening numbers can highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing accessing to these services.

Indicator	Scioto County	Ohio	United States
Mammography screening (female Medicare enrollees age 67-69)	59.4%	61.2%	63.1%
Pap test (women 18 and older self-reported)	65.6%	78.7%	78.5%
Sigmoidoscopy or colonoscopy (age 50 and older)	46.7%	60.0%	61.3%

Diabetes management: In the report area, 1,225 Medicare enrollees with diabetes have had an annual exam out of 1,472 Medicare enrollees in the report area with diabetes, or 83.3%. This indicator is important because engaging in diabetes prevention allows for early detection and better treatment of the disease. This indicator reports the percentage of diabetic Medicare patients who have had a hemoglobin A1c (hA1c) test, a blood test which measures blood sugar levels, administered by a health care professional in the past year. The following chart compares Scioto County to Ohio and the nation.



In the county, 13.3% of adults, or 8,097 self-reported that they are not taking medication for their high blood pressure according to the CDC's Behavioral Risk Factor Surveillance System (2006-2010). This is relevant because engaging in preventive behaviors, like medication compliance, decreases the likelihood of developing future health problems. Scioto County is better than Ohio (19.8%) and the nation (21.7%) when it comes to high blood pressure management.

Consistent Primary Care: Having a consistent primary care provider is important for higher quality of care. Primary care offers the patient a single place where a broad array of health problems can get appropriate attention. A primary care provider guides the patient through the health system; provides referrals for services from other health professionals; facilitates an ongoing relationship between patients and clinicians; provides opportunities for disease prevention and health promotion and helps build bridges between personal health care services and patients' families. Scioto County has a high percentage of people without a consistent source of primary care with 21.0% compared to Ohio at 18.7% and the nation at 22.07%.

Health Professional Shortage Area: This indicator reports the percentage of the population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA), defined as having a shortage of primary medical care, dental or mental health professionals. A shortage of health professionals contributes to access and health status issues. Scioto County is 100% HPSA, compared to Ohio at 32.5% and the United States at 33.1%.

The preventable hospital events indicator reports the discharge rate (per 1,000 Medicare enrollees) for conditions that are ambulatory care sensitive (ACS). ACS conditions include pneumonia, dehydration, asthma, diabetes, and other conditions which could have been prevented if adequate primary care resources were available and accessed by those patients. According to the data, Scioto County (96.0) fares worse than Ohio (59.9) and the national (49.9).

Health Behaviors

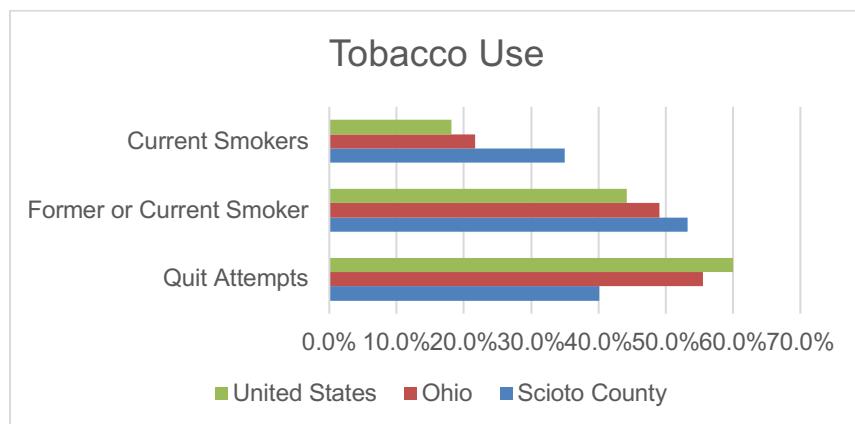
Health behaviors such as poor diet, a lack of exercise, and substance abuse contribute to poor health status. Unhealthy eating and lack of physical activity can lead to significant health issues like obesity and diabetes. Tobacco use contributes to a multitude of health issues including cancer, heart disease and COPD.

Fruit and vegetable intake is an important component of a healthy diet. Reduced fruit and vegetable consumption is linked to poor health and increased risk of noncommunicable diseases. According to the World Health Organization, an estimated 3.9 million deaths worldwide were attributable to inadequate fruit and vegetable consumption in 2017. Including fruits and vegetables as part of the daily diet may reduce the risk of some diseases including cardiovascular diseases and certain types of cancer. More limited evidence suggests that when consumed as part of a healthy diet low in fat, sugars and salt/sodium, fruits and vegetables may also help to prevent weight gain and reduce the risk of obesity, an independent risk factor for many diseases. In addition, fruits and vegetables are rich sources of vitamins and minerals, dietary fiber and a host of beneficial non-nutrient substances including plant sterols, flavonoids and other antioxidants and consuming a variety of fruits and vegetables helps to ensure an adequate intake of many of these essential nutrients. In Scioto County, 90.5% of the respondents to the Behavioral Risk Factor Surveillance System reports 2005-09 reporting inadequate fruit and vegetable consumption, compared to 78.5% for Ohio and 75.7% for the nation.

Physical inactivity is a major public health problem. The CDC's Behavioral Risk Surveillance System questionnaire asks "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" In Scioto County, 30.4% of adults age 20 and older reported they did not, compared to 24.3% for Ohio and 21.8% for the nation. Physical activity is important because current behaviors are determinants of future health and may indicate a cause of future significant health issues, such as obesity and poor cardiovascular health.

Tobacco use is a major public health issue. According to the report, *Tobacco, Nicotine and E-Cigarettes*, from the National Institute on Drug Abuse, updated January 2018, cigarette smoking harms nearly every organ in the body, and smoking is the leading preventable cause of premature death in the United States. Although rates of smoking have declined, it is estimated that it leads to about 480,000 deaths yearly. Smokers aged 60 and older have a twofold increase in mortality compared with those who have never smoked, dying an estimated six (6) years earlier. Quitting smoking results in immediate health benefits, and some or all of the reduced life expectancy can be recovered depending on the age a person quits. Although nicotine itself does not cause cancer, at least 69 chemicals in tobacco smoke are carcinogenic, and cigarette smoking accounts for at least 30 percent of all cancer deaths. The overall rates of death from cancer are twice as high among smokers as nonsmokers, with heavy smokers having a four times greater risk of death from cancer than nonsmokers.

In Scioto County, an estimated 20,723, or 33.9% (crude rate) of adults age 18 or older self-report currently smoking cigarettes some days or every day. This is relevant because tobacco use is linked to leading causes of death including cancer and cardiovascular disease. Current tobacco use is worse in Scioto County than in Ohio and the United States and quit attempts are much lower. Tobacco use among former and current smokers is greater than 50% as indicated in the following graph:



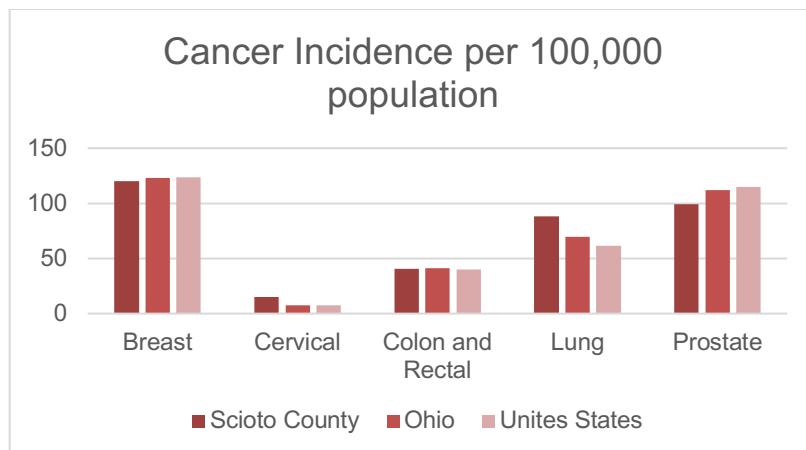
Sources: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, Department of Health & Human Services, Health Indicators Warehouse., 2005-09. Source geography: County; Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013. Source geography: County

Health Outcomes

Looking at morbidity and mortality rates allows assessment of linkages between social and behavioral determinants of health and outcomes. By comparing, for example, the prevalence of certain chronic diseases to indicators in other categories (e.g., poor diet and exercise) with outcomes (e.g., high rates of obesity and diabetes), various causal relationship may emerge, allowing a better understanding of how certain community health needs may be addressed.

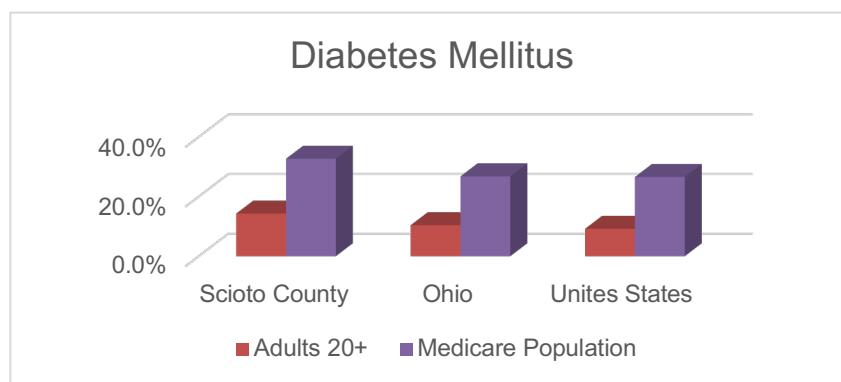
Asthma prevalence is not only a serious public health issue that has far reaching medical, economic, and psychosocial impact, but is also a personal health issue. The following chart reports the percentage of adults aged 18 and older who self-report that they have ever been told by a doctor, nurse, or other health professional that they had asthma. Scioto County's asthma prevalence (14%) is slightly higher than Ohio (13.8%) or the nation (13.4%).

Cancer incidence rates provide a picture of the estimated new cancer cases diagnosed each year, based on 100,000 population. Cancer puts a huge burden on the individual and the healthcare system. Scioto Countians fare much better than Ohio and the nation when it comes to breast, colon/rectal and prostate cancer incidence. The county rate of cervical cancer is more than twice the state and nation. There are also higher rates of lung cancer. The rate details are highlighted in the following chart.



While depression is not a normal part of the aging process, there is a strong likelihood of it occurring when other physical health conditions are present. Symptoms of clinical depression can be triggered by other chronic illnesses common in later life, such as Alzheimer's disease, Parkinson's disease, heart disease, cancer and arthritis. Depression among the Medicare population in Scioto County (22.4%) is higher than Ohio (18.5%) and the nation (16.7%), according to the Centers for Medicaid and Medicare Services.

Diabetes mellitus (DM) is a major public health problem worldwide. Persistently high blood glucose levels can lead to serious life-changing and life-threatening complications. Diabetes can be effectively managed when caught early. However, when left untreated, it can lead to potential complications that include heart disease, stroke, kidney damage, eye and nerve damage. This indicator is reported as the percentage of adults aged 20 and older and those in the Medicare population, who have ever been told by a doctor that they have diabetes. The high prevalence of diabetes may indicate an unhealthy lifestyle and puts individuals at risk for further health issues. DM is higher in Scioto County than in Ohio and the United States. The following chart shows the comparisons:



Heart disease is often used interchangeably with “cardiovascular disease.” It can be fatal and also lead to serious illness, disability, and lower quality of life. Heart disease is the leading cause of death in the United States. Heart disease describes a range of conditions that affect your heart including narrowed or blocked vessels that can lead to heart attack, angina or stroke. Diseases under the heart disease umbrella include blood vessel diseases, such as coronary artery disease; heart rhythm problems (arrhythmias); and heart defects you're born with (congenital heart defects), among others. Other heart conditions, such as those that affect your heart's muscle, valves or rhythm, also are considered forms of heart disease. The following chart shows the morbidity and mortality (age-adjusted per 100,000 population) of heart disease and associated conditions like high blood pressure and high cholesterol.

Indicator	Scioto County	Ohio	United States
Heart disease (adults 18 and older)	7.1%	5.1%	4.4%
Heart disease (Medicare population)	35.5%	27.2%	26.5%
High blood pressure (adults 18 and older)	33.2%	28.8%	28.2%
High blood pressure (Medicare population)	65.0%	57.0%	55.0%
High cholesterol (adults 18 and older)	43.5%	38.7%	38.5%
High cholesterol (Medicare population)	47.9%	46.1%	44.6%
Heart disease (rate per 100,000)	281.4	187.8	168.2
Coronary heart disease (rate per 100,000)	201.3	110.6	99.6

Sources: Centers for Disease Control and Prevention, National Vital Statistics System, 2006-12. Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2011-13. Centers for Medicare and Medicaid Services, 2015.

Infant mortality and low birth weight can be indicators of health disparities and other issues like access to care. Infant mortality is the rate of deaths to infants less than one year of age per 1,000 births. This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health. Low birth weight is the percentage of total births that are under 2500g at birth. Low birth weight is relevant because low birth weight infants are at high risk for health problems. The following table shows how Scioto County compares to Ohio and the nation.

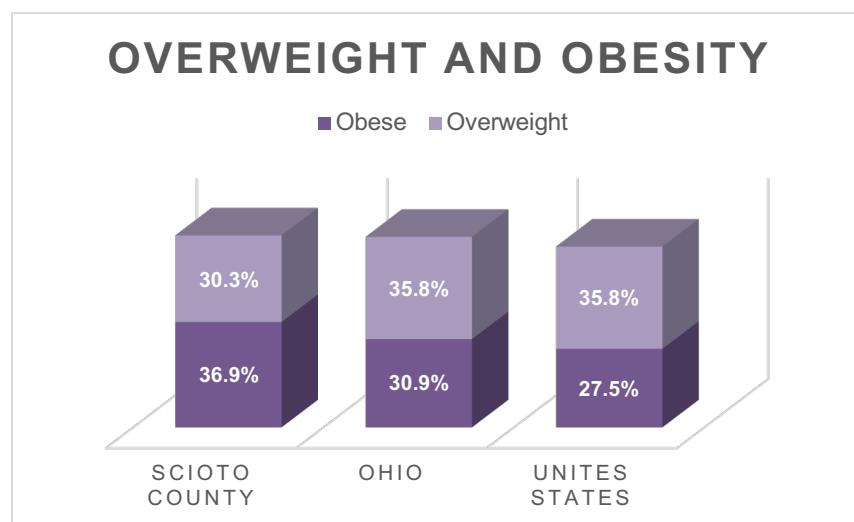
Indicator	Scioto County	Ohio	United States
Infant mortality	9.6	7.7	6.5
Low birth weight	9.0%	8.6%	8.2%

Community health status indicators like morbidity and mortality helps us look at health from the population and community level and that the focus spans from epidemiology and the prevention of infectious disease, to environmental health and protection from hazards, to health education and health promotion, to health administration and quality assurance. The following table provides the age adjusted rate per 100,000 population for some of the top causes.

Indicator	Scioto County	Ohio	United States
Cancer	196.6	177.3	160.9
Drug poisoning	34.6	26.7	15.6
Lung disease-other than cancer	82.6	49.0	41.3
Motor vehicle crashes	17.0	10.2	11.3
Stroke	38.8	40.5	36.9
Suicide	12.5	13.3	13.0
Unintentional injury	71.0	52.6	41.9

Premature death is measured through deaths that are unnecessary and preventable death. The measurement focuses on measuring deaths that occur before age 75 because these deaths are largely preventable, compared to deaths at older ages. Communities where many people die at young ages often face social and economic disadvantages that impact community well-being. Premature death can also be used to compare differences between populations or geographic areas and better understand risk factors for early deaths. Over the past decades in the U.S., the rates of premature death from all causes have declined as preventive services and government health policies have improved. However, significant variation in premature death rates remains a serious health equity concern. In Scioto County, the premature death rate (10,016) is much higher than Ohio (7,908) and the national rate (7,222).

Obesity (BMI >30) and overweight (BMI 25-29.9) pose a high public health risk. People who have obesity, compared to those with a normal or healthy weight, are at increased risk for many serious diseases and health conditions, including high blood pressure, high LDL cholesterol, type 2 diabetes, coronary heart disease, stroke, osteoarthritis and sleep apnea. In addition, obese individuals are at higher risk for some cancers, including breast, colon, endometrial, kidney, gallbladder and liver. The percent of obesity in Scioto County is higher than both states and the nation. The following graph provides detail about the obesity and overweight problem in the county.



Poor dental health is important because it indicates lack of access to dental care and/or social barriers to utilization of dental services. This indicator reports the percentage of adults age 18 and older who self-report that six or more of their permanent teeth have been removed due to tooth decay, gum disease, or infection. In Scioto County, 26.7% of adults report poor dental health, compared to 18.7% for Ohio and 15.7% for the nation.

Poor general health, as an indicator, is an important measure of general poor health status. Within Scioto County, 24.1% of adults age 18 and older self-report having poor or fair health in response to the question "Would you say that in general your health is excellent, very good, good, fair, or poor?" This is much worse than Ohio (15.3%) and the United States (15.7%).

Information Gaps:

While information gaps exist in the secondary data section of this report, please note that every effort was made to compensate for these gaps in the community and key informant surveys, and review of current research. This assessment seeks to address the community's health needs by evaluating the most current data available. However, published data inevitably lags behind due to publication and analysis logistics. For example, 2009-2013 averages were used for mortality rates to give the most recent and accurate data.

Existing Resources

The following organizations provide extensive resources to help support the health of the community.

- Area Agency on Aging, District 7
- CAO of Scioto County
- CAO Scioto County Head Start and Early Head Start
- Clay Local School District
- Community Action Org Women, Infant and Child Program
- Compass Community Health
- King's Daughters Ohio
- Minford Local School District
- Portsmouth Area Chamber of Commerce
- Portsmouth City Health Department
- Portsmouth City Health Department Prevention Division
- Portsmouth City Schools
- Portsmouth-Scioto County Visitors Bureau
- Scioto County Foundation Scioto County Career Technical Center
- Scioto County Emergency Management Agency
- Scioto County Health Department
- Scioto Tech Shawnee State University
- Southeastern Ohio Legal Services
- Southern Ohio Medical Center
- STAR, Inc.
- The Potter's House Ministries, Inc.
- United Scioto Senior Activities, Inc.
- Wheelersburg Local Schools

Community Assets Identified:

What assets or strategies exist in the community that contribute to health were identified through previous surveys conducted by KDOH. The following were identified:

- Health fairs, screenings and health education outreach
- Scioto County Health Coalition

- Healthy Bucks program at the Farmer's Market
- Billboards with health messages
- School outreach programs
- King's Daughters Ohio and Southern Ohio Medical Center outreach
- Southern Ohio Port Authority
- Exercise programs (some free)
- Smoking Cessation support groups
- Measuring outcomes
- Admitting and identifying need
- Coordination between agencies
- Access Scioto County
- Food backpack programs in schools
- Community events (i.e. 5k runs)
- Riverfront Revitalization
- Life Center group activities
- Social media
- Park services
- Community gardens
- Compass Health
- Bike routes
- Involved leaders – Coalition, non-profits, government, Shawnee State
- Preschool – high school education offering healthy food and physical fitness
- Veterans Affairs clinic
- Scioto County Foundation

Health Needs Identified:

The CHNA was conducted in 2019 in collaboration with the hospital's clinical and administrative leadership, representative staff from patient programs and clinical services, community stakeholders, and key leaders in the community. The purpose of this assessment is to identify existing and emerging healthcare needs of the local community so KDOH can develop and support meaningful and effective services for its patients and the community that meet local health needs and further the goals of the State and Federal health care agendas.

The review of secondary data was used to enhance the decision-making process. From the priorities identified by each group and review of the secondary data, the leadership team identified commonalities and grouped needs accordingly. At the conclusion of that process, the leadership team identified the top five priorities, which were reviewed and ranked by an interdisciplinary group of hospital leaders. An Implementation Plan was developed to address the prioritized needs.

Based on review of secondary data, the following health issues were identified:

Mortality rates higher than Ohio and the nation:

- Cancer
- Heart Disease
- Drug Poisoning
- Lung Disease (non-cancer)
- Motor Vehicle Crashes
- Stroke
- Infant Mortality
- Premature Death

Morbidity worse than Ohio or the nation:

- Asthma
- Cancer Incidence
- Colon Cancer
- Lung Cancer
- Cervical Cancer
- Depression
- Diabetes
- Heart Disease
- High Blood Pressure
- High Cholesterol
- Low Birth Rate
- Obesity/Overweight
- Poor Dental Care

Health behaviors contributing to poor health:

- Lack of physical activity
- Inadequate intake of fruits and vegetables
- Smoking tobacco

The following chart provides a quick look across all data sources. The chart was used to help determine the priority needs and establish goals and objectives for inclusion in the implementation plan. Top issues are bold to show common issues found across the various data sources.

Community Questionnaire	Key Informant Survey (rank order)	Morbidity	Mortality
Heart disease (94.5%) Overweight/obesity (80.6%) Nutrition (75.7%) Physical inactivity (70.4%) Arthritis/rheumatism (51.7%) Dental care (40.2%) Access to healthcare (40.1%) Substance abuse (39.6%) Flu vaccine (36%) Mental health (36.2%) Sciatica/chronic back pain (33.8%) Tobacco (25.3%) Diabetes prevalence (22.8%) ER utilization (18.5%) Alcohol use/excessive drinking (13.3%)	Substance abuse (64.3%) Cancer (53.8%) Heart disease and stroke (53.8%) Tobacco use (53.8%) Diabetes (50.0%) Mental health (50.0%) Nutrition, physical activity and weight (50.0%) Family planning (28.6%) Oral and dental health (28.6%) Infant and child health (25.0%) Respiratory diseases (25.0%)	Asthma Cancer Incidence Colon Cancer Lung Cancer Cervical Cancer Depression Diabetes Heart Disease High Blood Pressure High Cholesterol Low Birth Rate Obesity/Overweight Poor Dental Care	Cancer Heart Disease Drug Poisoning Lung Disease (other than cancer) Motor Vehicle Crashes Stroke Infant Mortality Premature Death

Health Needs Priorities:

The priority needs developed by KDOH are based on the survey findings; analysis of quantitative health and social indicators as presented in this community health needs assessment; the resources available within the communities served; and our experience working with KDOH patients and families. KDOH's CHNA is aligned with the efforts of other local agencies and takes into account Healthy People 2030 proposed priorities. The priorities identified by the CHNA and ratified by KDOH's leadership team are:

- Heart Disease
- Cancer Prevention/Early Detection (including tobacco use)
- Obesity/Nutrition

How Identified Needs are Currently Being Met

Heart Disease is currently being addressed through free community education and free and low-cost screening programs. This includes free healthy heart screenings that include total cholesterol, blood sugar, blood pressure and EKG screenings. Heart education programs include educating screening participants about their results and providing educational materials following their testing, and providing education regarding identifying the signs and symptoms of a heart attack. The hospital also provides low cost opportunities through blood profiles that include fasting lipid and triglyceride testing and vascular screenings. Individuals with abnormal results are encouraged to share their results with their healthcare provider.

Cancer Prevention/Early Detection (including tobacco use) are both part of the hospital's community education programming. The top cancers in the area have been the focus of both education and screening programs. These include skin, lung, breast and prostate cancers. The hospital and associated providers have held free skin and prostate cancer screenings. KDOH developed a program offering low-cost, low-dose CT scans for people at high risk for lung cancer. Educational programs also have been offered at community events to help people understand how to reduce their risk for cancer. Tobacco use has been tackled through education programs in schools and in the community. KDOH affiliated providers also make referrals to smoking cessation programs for those interested in quitting tobacco use.

Obesity/Nutrition are being undertaken through education and events. Nutrition education has been provided in schools and in the community. With a variety of program offerings, KDOH has been able to provide different touchpoints for nutrition education. In addition, KDOH has participated at the Farmer's Market, offering nutrition education and Healthy Bucks vouchers to purchase fresh fruits and vegetables. In addition, to tackle obesity, KDOH has sponsored numerous programs and events that promote being physically active.

Summary of 2017-19 Implementation Plan Progress

Health needs to be met:

- Obesity
- Tobacco/Smoking
- Cardiovascular Disease
- Diabetes Mellitus
- Cancer

How the strategies are being met:

Priority Area: Obesity

KDOH chose three goals to help impact obesity. The first, "promote health and reduce chronic disease risk through providing the knowledge and skills to increase the consumption of fruits and vegetables for healthful diets and achievement and maintenance of healthy body weights," focused strategies primarily on education. Nutrition education was provided in schools and at community events to help individuals

learn good nutrition practices. The strategies have been very successful in reaching a large number of people. The second goal, “improve health, fitness, and quality of life through daily physical activity,” focused on providing opportunities for people to become more physically active. KDOH sponsored multiple events allowing people to be physically active in a fun and safe environment. KDOH’s third goal was to “improve patient knowledge about the relationship between health and weight through screening, counseling and education in the healthcare setting. Working with affiliated healthcare providers, KDOH helped increase the number of patients that had BMI assessments and counseling if overweight and obese.

Priority Area: Tobacco/Smoking

KDOH chose to work on screening and referrals for patients that use tobacco products. The goal, “reduce illness, disability, and death related to tobacco use and secondhand smoke exposure,” helped providers focus on screening individuals for tobacco use and counsel them on the harmful effects of tobacco use. These individuals then were referred to a smoking cessation program to help them quit tobacco use.

Priority Area: Cardiovascular Disease

Cardiovascular disease is the number one killer of adults in the area. KDOH chose to address this priority through education and screening. The goal, “to reduce mortality and morbidity through early identification of heart disease by providing primary and secondary screening opportunities,” provided guidance to the strategies. Education was provided at community events on the prevention of heart disease and how to recognize the signs and symptoms of a heart attack. In addition, two types of screenings were offered. Mass free screenings were offered at community events like county fairs and festivals. These screenings included total cholesterol, blood sugar and blood pressure testing. Each participant was offered a copy of their results and were counseled on the implications of their numbers. In addition, KDOH offered low-cost blood profiles and vascular screenings. These low-cost tests provided a much more detailed look at the individual’s test results and patients were encouraged to share these results with their personal healthcare provider. The outreach for this priority was very successful.

Priority Area: Cancer

The focus on cancer was primarily early detection and education. The goal was to “improve mortality and morbidity due to cancer through screening and education” with a focus on skin, lung and prostate cancers. Free screening events were held for skin and prostate cancer and attendance was less than expected but still worth the effort. The lung cancer screenings included low-cost, low-dose CT scans and were limited to people that were high risk for lung cancer, mostly long-term smokers. These were the most successful, with an increasing number of participants each year.

Priority Area: Diabetes Mellitus

KDOH chose the goal to “reduce the disease and economic burden of diabetes mellitus (DM) and improve the quality of life for all persons who have, or are at risk for, DM. To address the goal, KDOH focused on education, glucose monitoring and screening. The

diabetes education, a clinical dietitian, provided education through patient interactions and through the diabetes support group. Free screenings were conducted throughout the community through county fairs, festivals and businesses. In addition, to assist those monitoring their diabetes, the A1c blood test was added to the hospital's low-cost blood profiles. These programs have been very successful.