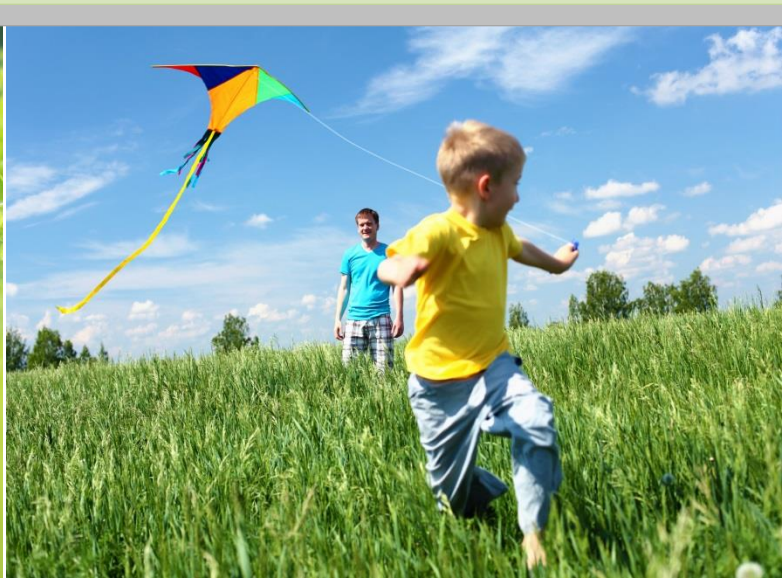
Southwest General Health Center

Community Health Needs Assessment Report 2016

Southwest General
Partnering with University Hospitals



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Executive Summary

A comprehensive community health needs assessment (CHNA) was initiated by Southwest General Health Center in February 2016 to fulfill its mission and goals. The CHNA serves the needs of community residents in Southwest General's service area which includes Cuyahoga, Lorain, and Medina counties.

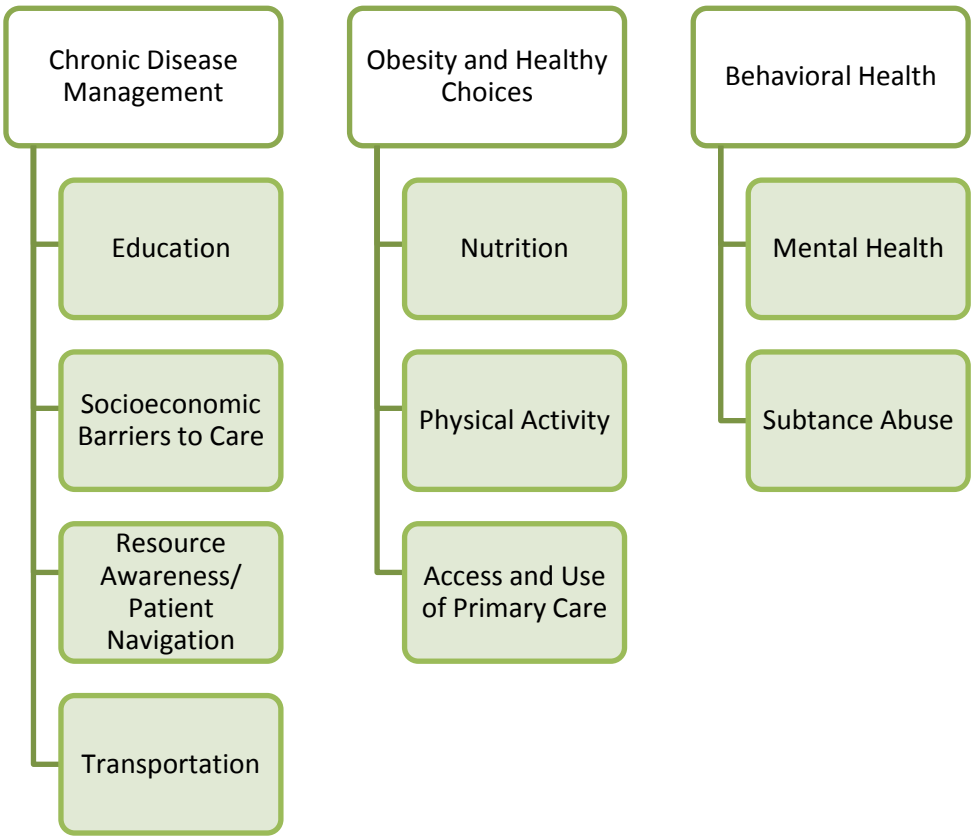
In conjunction with the overall health mission of Southwest General, aligning and providing better services, reducing the cost of care, eliminating health disparities, and better care coordination are the goals of the CHNA. Ultimately, as part of the health system's goals, it is important to improve the overall health of the residents in the community. Partnerships and community collaboration at the local and state level can offer and provide residents with continuous high-quality programs and services throughout the region, as Southwest General continues to lead and guide organizations and community groups to close gaps in health disparities.

In 2012-2013 Southwest General Health Center partnered with The Center for Health Affairs and The Hospital Council of Northwest Ohio to identify the health issues of community residents and to better understand the needs of their community. In 2016, Southwest General conducted their own assessment focusing specifically on their overall primary service area.

The 2016 CHNA process identified the health needs of residents within the service area, which also aligned with the overall health needs from the previous study. The specific project component pieces encompassed the collection of secondary data from local, state, and national resources, community stakeholder interviews, health provider surveys, and a community forum. A provider resource inventory was also part of the CHNA. The resource document highlights programs and services within the three counties. This interactive document is available on Southwest General's website.

Tripp Umbach and the internal working group identified three community health needs for Southwest General Health Center. The community needs are based on qualitative and quantitative data, particularly from secondary data and community forum feedback. The three community health need areas and key factors and considerations of each need can be found in Figure 1.

Figure 1. 2016 Community Health Needs for Southwest General Health Center



The implementation planning phase will outline a plan of action for how Southwest General Health Center will address the top three community health priorities over the next three years. Through measurable strategies and goals, efforts to ensure a positive impact on the health of the community will be tracked and reported.

Introduction

Southwest General Health Center, a 358-bed hospital located in Middleburg Heights, Ohio, contracted with Tripp Umbach to facilitate a comprehensive Community Health Needs Assessment (CHNA) beginning in February 2016. Southwest General Health Center is a non-profit hospital serving southwestern Cuyahoga, northern Medina and eastern Lorain counties. Founded in 1920 by residents of the surrounding communities, Southwest General has a rich history of community partnership and a deep commitment to the health and well-being of its residents.

With the enactment of the Patient Protection and Affordable Care Act (PPACA) on March 23, 2010, tax-exempt hospitals require community health needs assessments and implementation strategies, which are approaches and plans to actively improve the health of communities served by health systems. These strategies provide hospitals and health systems with the information they need to deliver community benefits that can be targeted to address the specific needs of their communities. Coordination and management strategies based upon the outcomes of a CHNA, and implementing strategies, can improve the impact of hospital community benefits.

To adhere to the requirements imposed by the IRS, tax-exempt hospitals and health systems must:

- Conduct a CHNA every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how it is addressing the needs identified in the CHNA.

The Department of the Treasury and the IRS require that a CHNA include:

1. A description of the community served by the hospital facility and how the description was determined.
2. A description of the process and methods used to conduct the assessment.
    - A description of the sources and dates of the data and other information used in the assessment, and the analytical methods applied to identify community health needs.
    - A description of information gaps that impact the hospital organization's ability to assess the health needs of the community served by the hospital facility.

- Identification of organizations that collaborated with the hospital/health system and an explanation of their qualifications.

3. A description of how the hospital organizations took into account input from persons who represent the broad interests of the community served by the hospital. In addition, the report must identify any individual providing input that has special knowledge of or expertise in public health. The report must also identify any individual providing input who is a "leader" or "representative" of populations.

4. A prioritized description of all of the community health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing such health needs.

5. A description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA.

6. A description of the needs identified that the hospital intends to address, the reasons those needs were selected, and the means by which the hospital will undertake to address the selected needs.[1]

Objectives and Methodology

Southwest General engaged Tripp Umbach to conduct a CHNA for the Southwest General Health Center. The CHNA process began February 18, 2016 with a kick-off meeting to an internal working group of hospital leaders. The internal working group was comprised of Southwest General leadership charged with working collaboratively with Tripp Umbach to assist in the completion of the CHNA.

This report fulfills the IRS requirements on tax-exempt hospitals and health systems.

The CHNA process undertaken by Southwest General, with project management and consultation by Tripp Umbach, included extensive input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of public health issues, data related to underserved, and vulnerable populations, and representatives of vulnerable populations served by the hospital. Tripp Umbach worked with leadership from Southwest General Health Center to oversee and accomplish the assessment with the goal of gaining a better understanding of the health needs of the region. Southwest General Health Center will make use of CHNA findings to address local health care concerns, as well as to function as a collaborator, working with regional agencies to help

[1] The outcomes from the CHNA will be addressed through an implementation-planning phase.

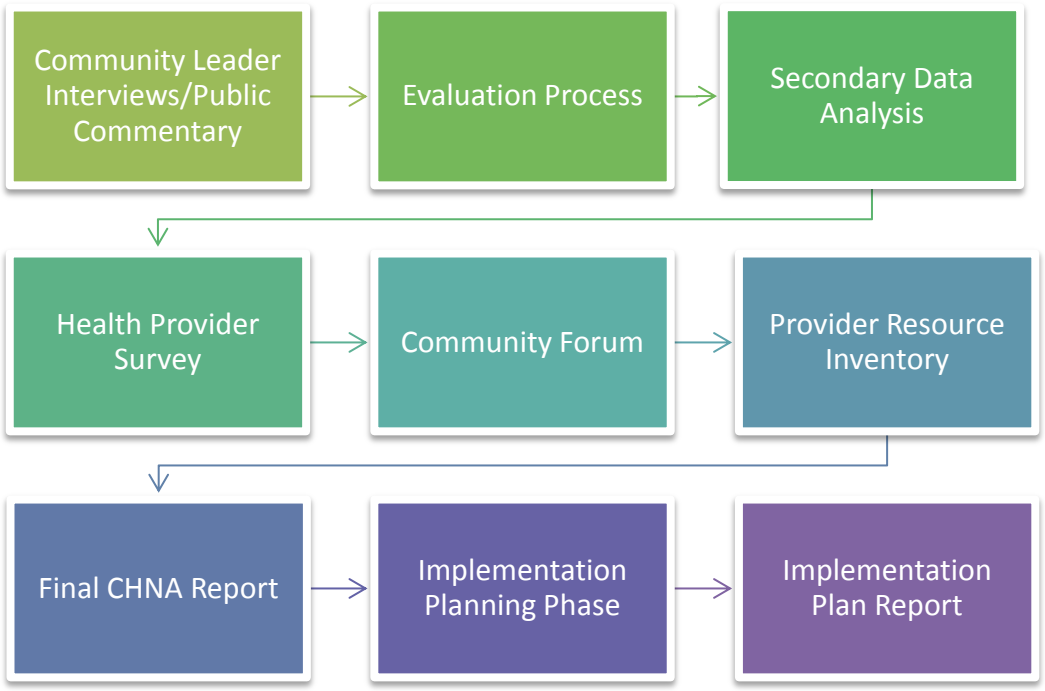
provide medical solutions to broader socioeconomic and education issues in Southwest General's overall service area.

The comprehensive CHNA identified community health needs for 2016. The project component pieces involved to determine the community health needs included (see Figure 2):

- Community leader interviews,
- Public commentary on the previous CHNA and implementation plan,
- Evaluation of implementation strategies from the 2013 CHNA,
- Secondary data analysis of health status and socioeconomic environmental factors related to health and well-being of residents,
- Health provider survey,
- Community forum at Southwest General Health Center,
- And lastly, a provider inventory of programs and services related to key identified needs.

The final CHNA report was developed based on data collection findings and prioritization of community health needs. Additional information regarding each component of the project, and the results, can be found in the Appendices section of this report.

Figure 2. CHNA Process



Community Definition and Profile

In 2016, a total of ten (10) ZIP codes were analyzed that comprise the study area for Southwest General Health Center.[2] The ten ZIP codes represented the community served by Southwest General as the hospital's primary ZIP code service area, or where approximately 80 percent of the hospital's inpatient population resides.

The ten ZIP codes fall into three counties in Ohio – Cuyahoga, Lorain, and Medina (See Table 1).

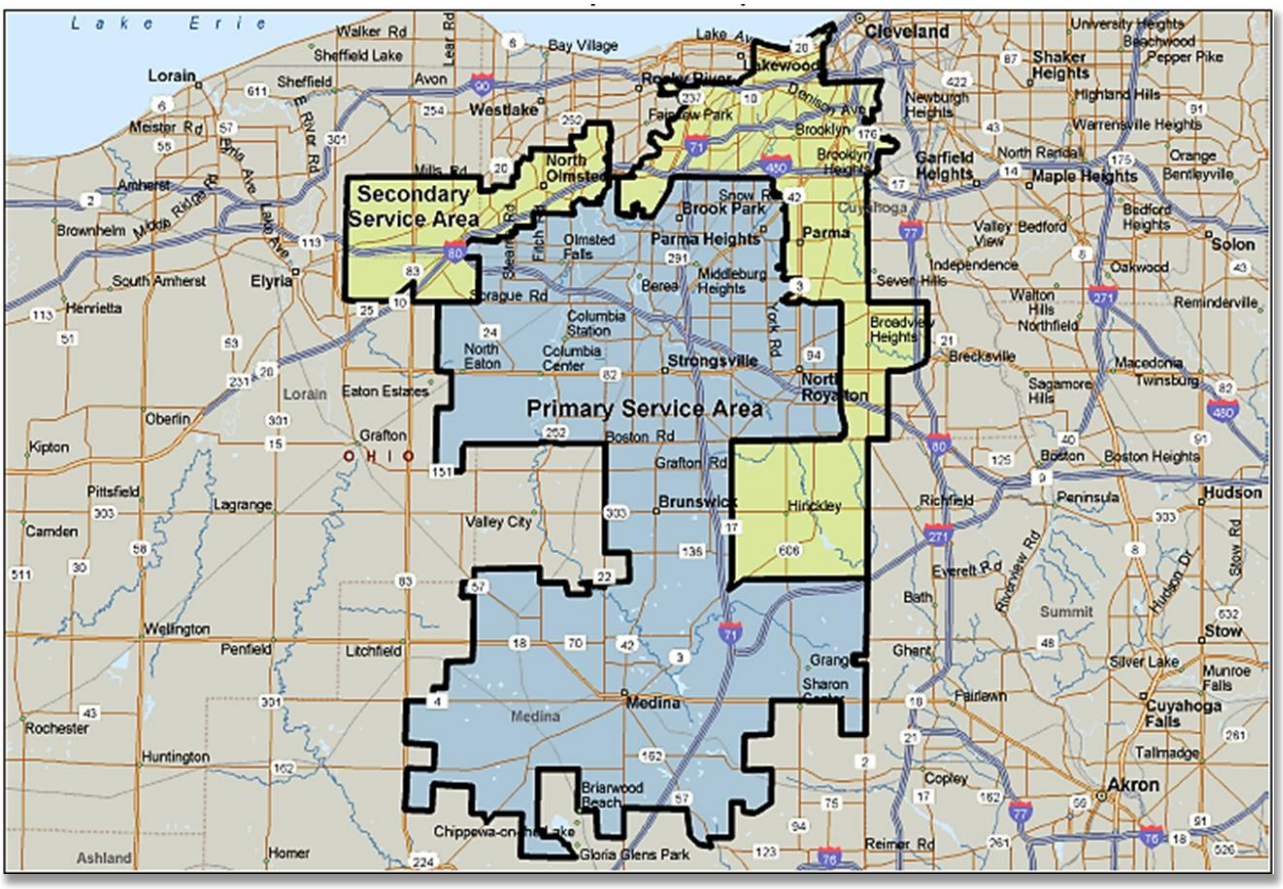
Table 1. Southwest General Primary Service Area ZIP Codes

ZIP Code	City	County
44017	Berea	Cuyahoga
44028	Columbia Station	Lorain
44130	Middleburg Heights	Cuyahoga
44133	North Royalton	Cuyahoga
44136	Strongsville	Cuyahoga
44138	Olmsted Falls	Cuyahoga
44142	Brook Park	Cuyahoga
44149	Strongsville	Cuyahoga
44212	Brunswick	Medina
44256	Medina	Medina

[2] Within the report, the reference "study area" refers to the ten primary area ZIP codes of Southwest General Health Center. The reference "overall study area" refers to Cuyahoga, Lorain, and Medina counties. The information within the report is specifically noted to the designated region it is referencing.

The following map depicts the primary ZIP code service area. Again, the primary service area encompasses ten ZIP codes across three counties in Ohio (See Map 1).[3]

Map 1: Southwest General Health Center Primary ZIP Code Service Area – 2016 Study Area Map



Source: Truven Health Analytics 2016

Total population in the Southwest General study area is projected to increase slightly over the next few years at a greater rate than the total population in Ohio. Medina County and Lorain County are expected to contribute to this population growth.

A review of population trends for the Southwest General study area shows that a population increase of 1.3 percent, or 4,040 residents, is expected overall in the ten ZIP code areas from

[3] Within the report, Tripp Umbach referenced the three counties as the Southwest General study area. Only when specified does the Southwest General study area encompass only the ten ZIP code areas.

2016 to 2021. Medina County and Lorain County are anticipated to experience population growth from 2016 to 2021 of 2.4 and 1.5 percent respectively, while Cuyahoga County is expected to experience population decline of 0.9 percent from 2016 to 2021 (See Table 2).[4]

Table 2. Southwest General Area Population Snapshot

	Cuyahoga County	Lorain County	Medina County	Southwest General Study Area	Ohio	U.S.
2016 Total Population	1,259,980	297,116	176,205	304,722	11,622,445	322,431,073
2021 Total Population	1,249,140	301,480	180,361	308,762	11,720,038	334,341,965
Population % Change 2016-2021	-0.9%	1.5%	2.4%	1.3%	0.8%	3.7%

Source: Truven Health Analytics 2016

Demographic data show that the Southwest General study area has a slightly greater female population than male population in 2016, and this trend is anticipated to continue through 2021.[5] Across the study area, the majority of residents are between the ages of 35 and 54. In addition, the senior population, or 55 and older, exceeds the population of residents age 18 to 34. This is consistent with state and national trends and is expected to continue to be the trend in 2021.

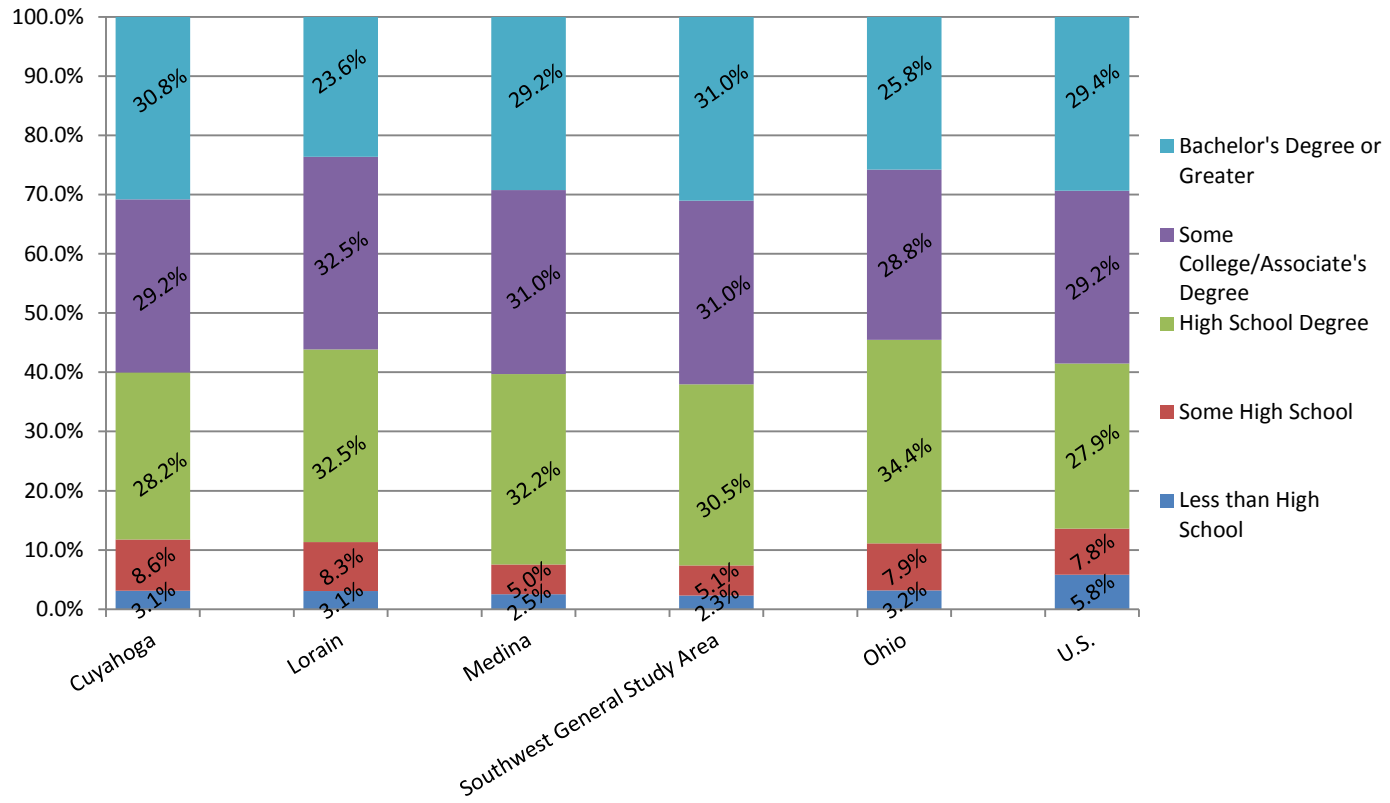
The data also reveal that the Southwest General study area is comprised mostly of White, Non-Hispanics.[6] This is a much greater percentage as compared to the state of Ohio (79.7 percent) and the nation (61.3 percent).

- Cuyahoga County's population is majority White Non-Hispanic residents (59.8 percent) followed by Black Non-Hispanic residents (29.3 percent).
- Lorain County's population is majority White Non-Hispanic residents (78.6 percent) followed by Hispanic residents (9.6 percent).
- Medina County has a population where a large majority of the residents are White, Non-Hispanic (93.6 percent) followed by Hispanic residents (2.2 percent).[7]

[4] Truven Health Analytics. 2016.
[5] For gender trends, "Southwest General Study Area" only includes the ten primary ZIP code areas.
[6] For race/ethnicity data, the "Southwest General Study Area" only includes the ten primary ZIP code areas.

Education and income levels can serve as important socioeconomic determinants of health. Those with higher education levels have the ability to better understand their health needs and navigate through the health care system, while higher income levels provide individuals with the ability to afford health care services. The counties and study area have higher levels of the population with some college and/or an associate's degree compared to the state of Ohio. The counties and study area have lower levels of the population with a high school degree compared to the state of Ohio. (See Figure 3).[8]

Figure 3. Educational Attainment[9]

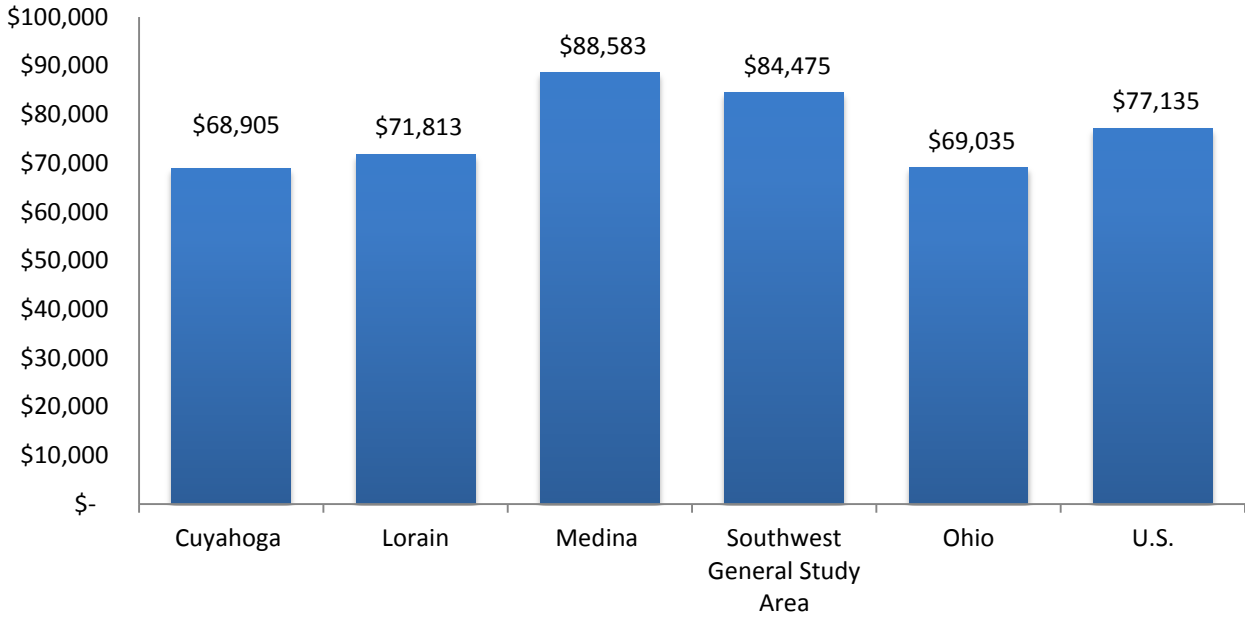


The Southwest General study area has a higher average household income compared to the state and U.S.[10] The study area has an average household income of $84,475, while Ohio has an average household income of $69,035 and the U.S. has an average household income of $77,135. Cuyahoga County and Lorain County have similar average household income levels,

[7] Truven Health Analytics, 2016.
[8] Truven Health Analytics, 2016.
[9] For education levels, the "Southwest General Study Area" includes only the ten ZIP code areas.
[10] For average household income, the "Southwest General Study Area" includes only the ten ZIP codes areas.

which are both notably lower than Medina County; Medina County's average household income significantly exceeds state and national levels. (See Figure 4).[11]

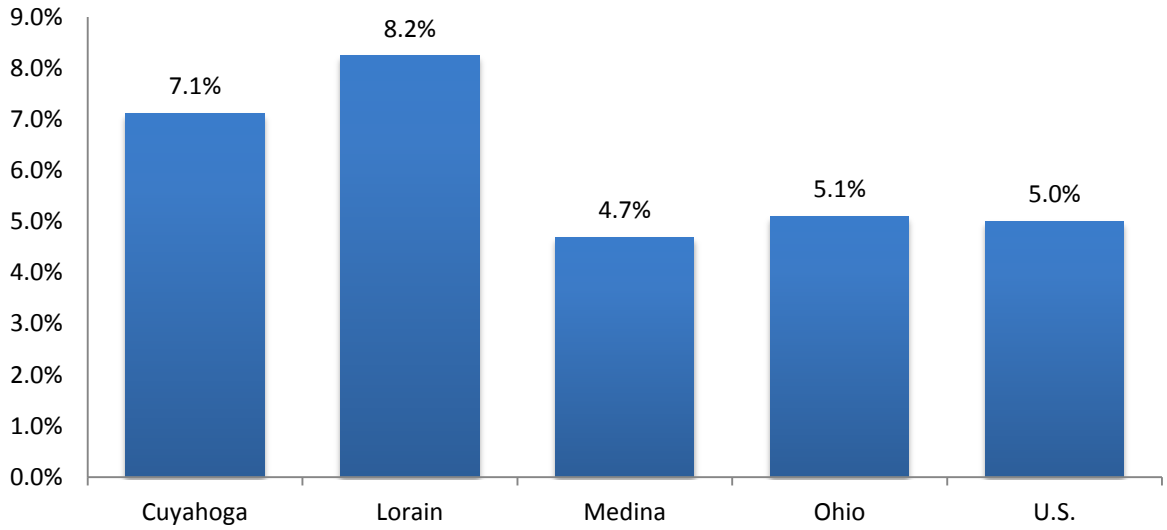
Figure 4. Average Household Income



Lorain County and Cuyahoga County have higher unemployment rates compared to Medina County; both counties recording a higher rate of unemployment when compared to the state of Ohio and the United States, according to the April 2016 report from the U.S. Department of Labor, Bureau of Labor Statistics. (See Figure 5).[12]

[11] Truven Health Analytics, 2016.
[12] U.S. Department of Labor, Bureau of Labor Statistics. April 2016.

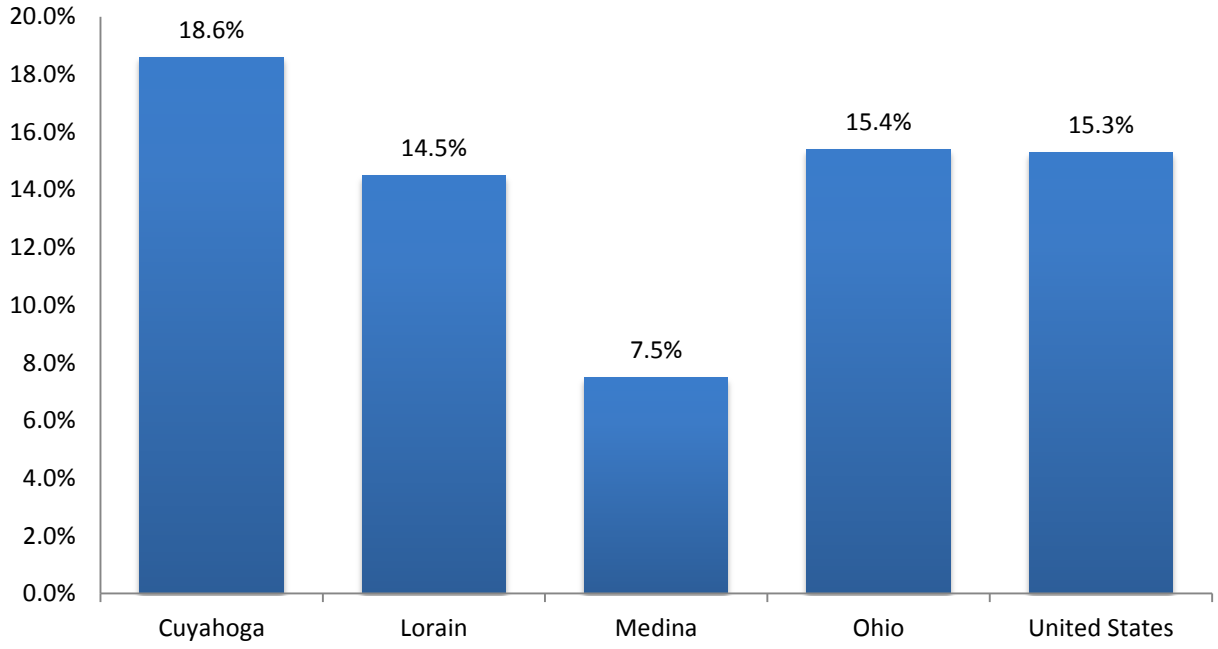
Figure 5. Unemployment Rate



Cuyahoga County has the highest percentage of residents living below 100 percent of the Federal Poverty Level (18.6 percent). The income guideline for living at 100 percent of the Federal Poverty Level for a household of four is $24,300; according to US Census Bureau, American Community Survey, 2010-14. (See Figure 6).[13]

[13] US Census Bureau. American Community Survey. 2010-14.

Figure 6. Percentage of Population Living in Poverty



Community Need Index (CNI) scores obtained by Truven Health Analytics also provides insight into socioeconomic conditions in relation to health care in the study area. The CNI data look at a variety of socioeconomic factors and conditions in terms of education, income, insurance, housing, and culture/language to determine which ZIP codes face the most significant socioeconomic barriers to accessing health care. CNI scores are ranked on a scale from 1.0 to 5.0, with a score of 1.0 indicating the least number of barriers and a score of 5.0 demonstrating the most barriers to accessing health care. While a score of 1.0 shows the least number of barriers, this does not mean that the ZIP code area has no barriers. The CNI provides greater ability to diagnose community needs as it explores ZIP code areas with significant barriers to health care access.

The CNI score for the Southwest General study area in 2016 was 2.1. A CNI score of 2.1 indicates a moderate number of barriers to accessing health care. The median for the scale is 3.0; the score for Southwest General is below the median. (See Table 3).

Table 3: Southwest General Study Area CNI Summary

County	2016 Population	Poverty 65+ %	Poverty Children %	Single w/ Children Poverty %	Limited English %	Minority percent %	No High School Diploma %	Unemployment percent %	Uninsured percent %	Rental percent %	Income Quintile	Cultural Rank	Education Rank	Insurance Rank	House Rank	2016 CNI Score	2015 CNI Score
Southwest General Study Area	304,722	6.2	8.0	21.8	1.0	9.8	7.6	6.7	2.3	22.3	2	3	2	1	3	**2.1**	**2.1**

Source: Truven Health Analytics 2016 *weighted average of total market

In continuing to review CNI information, it is important to look at whether a ZIP code area has improved in terms of CNI score from year to year. This helps to determine whether a region has worked to improve barriers to accessing health care. Looking at CNI scores between 2015 and 2016, four ZIP codes experienced a decrease in CNI score, indicating fewer barriers to accessing health care.

From 2015 to 2016, one ZIP code, Lorain, experienced a rise in CNI score, indicating greater socioeconomic barriers (See Table 4).

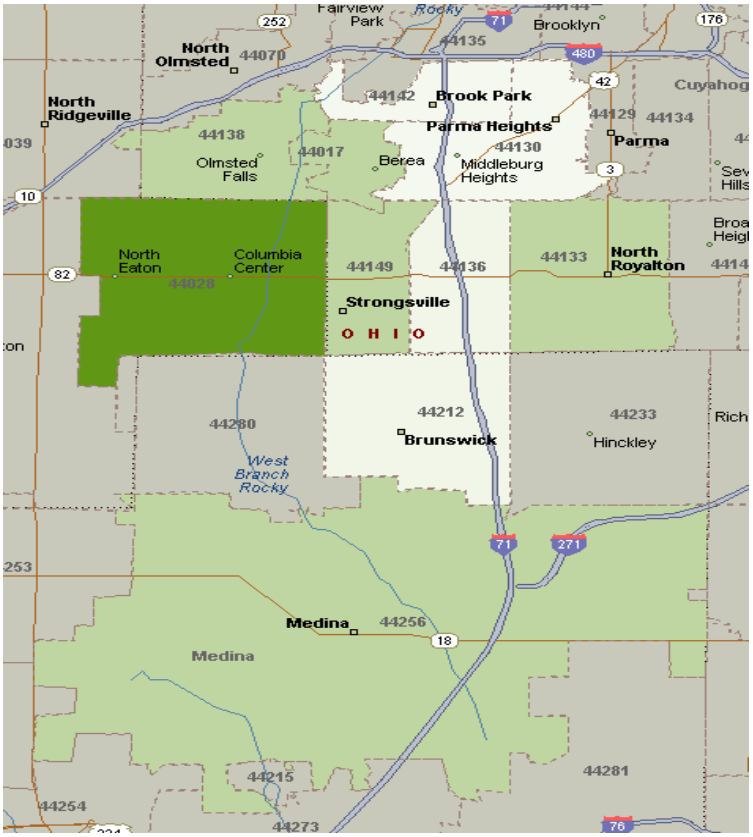
Table 4. Southwest General Study Area CNI Trends

Zip	County	Community Name	2016 CNI Score	2015 CNI Score	CNI Difference: 2015 to 2016
44130	Cuyahoga	Middleburg Heights	2.8	3.0	-0.2
44142	Cuyahoga	Brook Park	2.4	2.6	-0.2
44136	Cuyahoga	Strongsville	2.2	2.4	-0.2
44028	Lorain	Columbia Station	1.8	1.4	0.4
44212	Medina	Brunswick	1.8	2.0	-0.2

Source: Truven Health Analytics 2016 *weighted average of total market

The following map provides a geographic representation of the CNI scores in the Southwest General study area by ZIP code. ZIP codes that have higher socioeconomic barriers (5.0) are represented in dark green. As the socioeconomic barriers decrease, the coding color lightens. No ZIP code area in the study area has a CNI score below the median for the scale at 3.0 (See Map 2).

Map 2. CNI Scores by ZIP Code



Source: Truven Health Analytics 2016

CNI Scores by ZIP Code

5.0 Higher socioeconomic barriers

3.0

1.0 Lower socioeconomic

Key Community Health Needs

The health status of a community depends on many factors, including quality of health care, social and economic determinants, individual behaviors, heredity, education and the physical environment. Communities across the U.S. face numerous challenges and issues that negatively affect the overall health status of residents and hinder growth and development. In the Southwest General study area, three key community health issues and needs were identified:

- Chronic Disease Management
- Obesity and Healthy Choices
- Behavioral Health: Mental Health and Substance Abuse

Within each of the community health need areas, multiple factors must be considered. Health behaviors, education, and socioeconomic/environmental conditions greatly affect an individual's health status and ability to overcome health issues in the region. It is critical for health providers and community-based organizations to understand the regional health issues and be aware of what services and improvements are most needed.

Priority #1: Chronic Disease Management

Chronic diseases are typically defined as long-term diseases or conditions that require ongoing medical attention and have the ability to limit an individual's daily activities. As stated by the Centers for Disease Control and Prevention, chronic diseases and conditions—such as heart disease, stroke (risk of), cancer, type 2 diabetes, obesity, and arthritis—are among the most common, costly, and preventable of all health problems.[14] Health risk behaviors are unhealthy behaviors which can be changed. Health risk behaviors—such as lack of physical activity, poor nutrition or lack of exercise, tobacco use, and drinking too much alcohol—cause much of the illness, suffering, and early death related to chronic diseases and conditions.[15]

Chronic diseases currently account for most deaths in the United States and globally. As of 2012, about half of all adults in the United States—117 million people—had one or more chronic health conditions. One in four adults had two or more chronic health conditions.[16]

[14] Centers for Disease Control and Prevention. Chronic Disease Overview. http://www.cdc.gov/chronicdisease/overview/.
[15] Ibid.
[16] Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions among US adults: a 2012 update. Prev. Chronic Dis. 2014;11:130389. DOI:http://dx.doi.org/10.5888/pcd11.130389

Chronic diseases are responsible for seven out of every 10 deaths each year, and treating people with chronic diseases accounts for 86 percent of our nation's health care costs.[17]

Chronic disease management is an integrated care approach to managing chronic illnesses which includes screenings, check-ups, monitoring and coordinating treatment, and patient education.[18] It is the aftermath and recovery efforts which make it more difficult for patients to resume an active and productive lifestyle with proper treatment efforts. Chronic disease management in the state of Ohio should be a high priority focus area as the Health Policy Institute of Ohio (HPIO) ranked the state 40 out of the 51 states (including the District of Columbia) in the U.S. on a composite measure of public health in 2014. This public health ranking is based upon Ohio's overall health and wellbeing, health behaviors, and conditions and diseases. As it relates to chronic diseases, Ohio ranks among the worst in the country for cancer deaths (41st), cardiovascular deaths (37th), and diabetes rate (45th).[19] According to 2012 data from the Ohio Behavioral Risk Factor Surveillance System, Ohioans age 18 and older had a higher prevalence of coronary heart disease (5.4 percent), stroke (3.1 percent), diabetes (11.7 percent), cancer (6.6 percent), chronic obstructive pulmonary disease (COPD) (8.6 percent) and arthritis (30.0 percent) compared to U.S. adults.[20] It is no surprise that chronic diseases attribute to 62 percent of deaths in the state of Ohio, making it the leading cause of death in the state.[21]

As identified by the Ohio Department of Health, the state is experiencing increased rates of chronic illness due to the following behavioral risk factors: tobacco use, physical inactivity, poor nutrition, and alcohol use. As chronic diseases and risk factors of chronic disease are a concern, the state is taking measures to address the issue. In 2014, Ohio released a new chronic disease state plan, Ohio's Plan to Prevent and Reduce Chronic Disease: 2014-2018 (Chronic Disease Plan). This plan aims to address chronic disease in Ohio through the policies, systems, and environments that influence chronic disease outcomes and health behavior change. The four (4) approaches are:

1. Environmental Approaches - Making healthy behaviors easy and convenient for all Ohioans.
2. Health System Interventions - Improving the delivery and use of healthcare services in order to prevent disease, detect diseases earlier, and manage risk factors.

[17] Centers for Disease Control and Prevention. Preventing Chronic Disease. http://www.cdc.gov/chronicdisease/about/prevention.htm
[18] Chronic Disease Management. https://www.healthcare.gov/glossary/chronic-disease-management/. 2016.
[19] United Health Foundation, America's Health Rankings 2013 – State Data: Ohio [Online]. Retrieved from http://www.americashealthrankings.org/OH. Last accessed 9/17/2014.
[20] . 2012 Ohio Behavioral Risk Factor Surveillance System. Ohio Department of Health. 2014.
[21] Ohio Bureau of Vital Statistic. Ohio Department of Health. 2014.

3. Community-Clinical Linkages - Ensuring those with or at high risk for chronic diseases have access to community resources in order to best manage their disease or risk factors.
4. Data and Surveillance - Providing data to inform, prioritize, deliver and monitor programs and population health.

The Southwest General study area also warrants concern when it comes to high rates of chronic disease. The study area experiences similar rates of chronic health conditions as the state of Ohio, and in some instances, the study area has higher rates of chronic disease than the state. The rates of lung disease, heart disease, and cancer are higher in the study area when compared to state averages.[22]

According to the health provider survey, the most pressing health problems in the community are heart disease and stroke (42.9 percent), obesity (38.1 percent), and diabetes (33.3 percent). In order to properly prevent and manage chronic diseases, a strategic emphasis on education, understanding socioeconomic barriers, increasing resource awareness and patient navigation, as well as providing solutions for transportation, will play a large part in the prevention and management of the diseases.

Education

The first step in moving toward leading a healthy life and taking the steps necessary to properly manage health conditions is having the necessary health education. While it is known that education can lead to better jobs and higher incomes, notable studies show that better-educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. A study performed by the Robert Wood Johnson Foundation shows that an additional four years of education reduces a range of health risks; leading to decreased risk of heart disease by 2.2 percent, diabetes by 1.3 percent, and obesity by 5 percent.[23]

The Ohio 2013 Behavioral Risk Factor Surveillance System (BRFSS) Annual Report put forth by the Ohio Department of Health provides indicators that show a connection between education and health conditions. The report examines the rate of chronic conditions by the level of educational attainment of the population. In Ohio, the stroke incidence rate decreases as the level of educational attainment increases; 7.5 percent of adults with less than a high school

[22] Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. 2012

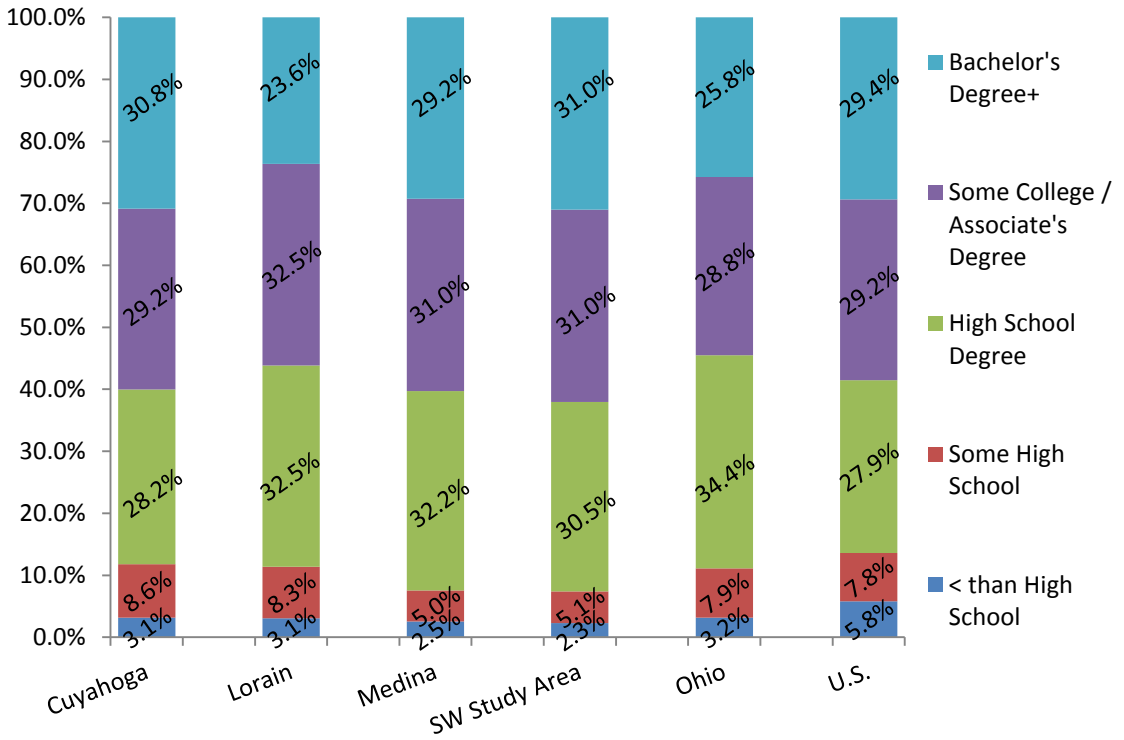
[23] "F as in Fat: How Obesity Threatens America's Future." Trust for America's Health. http://healthyamericans.org/assets/files/TFAH2012FasInFat18.pdf. 2012.

education have had a stroke, compared with 1.9 percent of college graduates.[24] The prevalence of heart disease, high blood pressure, and high cholesterol also follows the same trend for the residents of Ohio, decreasing in prevalence as the education level increases. These data provide a snapshot of the effect education can have on a person's health status.

Community leaders in the study area also recognize the connection between education and health status, as participants cited health education as a key component to managing health conditions and leading a healthy life. Secondary data results further demonstrate the connection between education, specifically education that focuses on an individual's health, and health outcomes.

Looking broadly at overall education, Lorain County has the lowest percentage of residents with a bachelor's degree or greater (23.6 percent), (See Figure 7).[25,26] At the same time, Lorain County has the highest rates of obesity (a top chronic disease risk factor), high blood pressure, asthma, lung disease, and lung cancer in the study area.

Figure 7. Educational Attainment[27]



[24] 2012 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2013.
[25] Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, 2012 via Community Commons.
[26] Truven Health Analytics. 2016.
[27] For education levels, the "Southwest General Study Area" includes only the ten ZIP code areas.

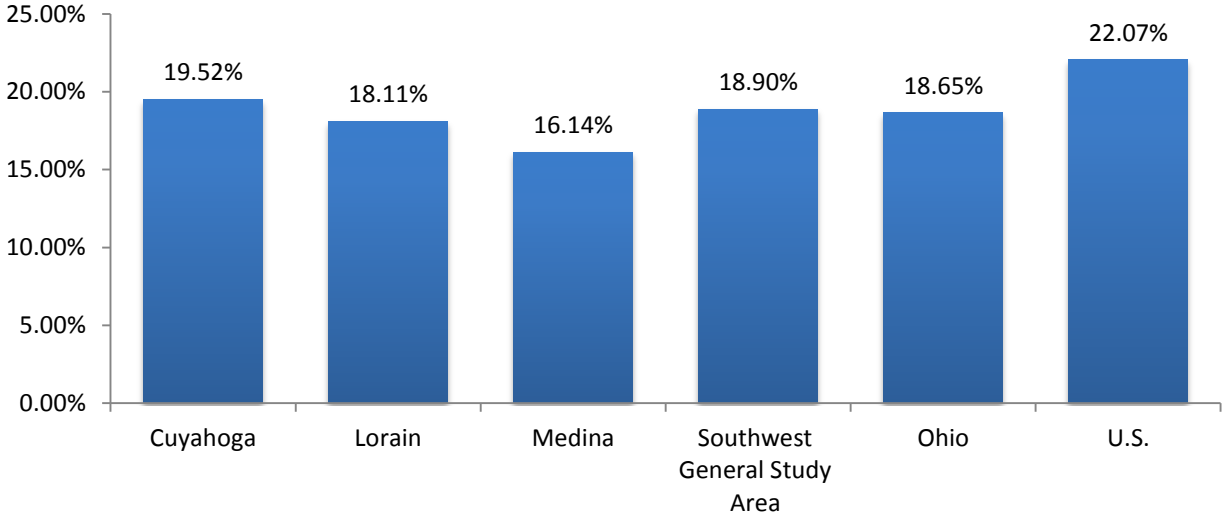
While Lorain County is worst in the study area in terms of having a high rate of a number of chronic diseases, residents in Cuyahoga County also experience a number of chronic health issues. However, in contrast to the education levels of the residents in Lorain County, Cuyahoga conversely represents an overall well-educated population, with a large percentage of residents having a bachelor's degree or greater. Although Cuyahoga County has an overall well-educated population, the region experiences higher rates of the following chronic conditions in comparison to the other counties in the Southwest General study area:

- Diabetes (10.0 percent)
- High Cholesterol (38.3 percent)
- Cancer – Breast, Colon, and Prostate (130.5 per 100,000 population; 43.8 per 100,000 population; and 151.1 per 100,000 population, respectively)
- Mortality Due to Cancer (188.2 per 100,000 population)
- Mortality Due to Heart Disease (205.8 per 100,000 population)

The high rates of chronic conditions in Cuyahoga County may be attributable to a lack of proper health education. This leaves the population unable to understand the steps they need to take to lead a healthy life and alleviate their risk of developing chronic conditions. One important step to maintaining a healthy lifestyle and receiving necessary health education is having a consistent source of care. Having a regular doctor or consistent source of care allows patients to gain a better understanding of their health conditions and take proper steps toward managing their health. In Cuyahoga County, a higher percentage of residents fail to have a consistent doctor or source of primary care in comparison to the other counties in the study area, as 19.5 percent of the population does not have a regular doctor (See Figure 8).[28]

[28] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Additional data analysis by CARES,. 2011-12. 2012 via Community Commons.

Figure 8. Percent Adults without Any Regular Doctor



By failing to have a regular doctor and source of health care, residents within Cuyahoga County may not understand the value of preventative measures which limit chronic diseases, such as exercise and proper nutrition. For example, community forum participants explained that even if individuals understand the value of healthy behaviors such as exercise and proper nutrition, the consistent and specific education regarding these health behaviors, such as what to eat, how much to eat, and how much to exercise is necessary in for residents to take proper steps in the prevention and management of chronic health conditions.

A result of the interviews with key community leaders was the consensus that providing frequent and consistent nutritional education, outreach, and community intervention is necessary to help combat risk factors that lead to the high rate of chronic diseases throughout the Southwest General Health Center study area, as well as to help patients who currently struggle with a chronic disease to take the proper steps to manage their conditions. Community leaders also noted the importance of collaboration among hospitals, schools, and local organizations to provide health educational tools.

With Cuyahoga County leading the study area, the state of Ohio, and the nation in heart disease, breast cancer, colon cancer, and prostate cancer, it is clear that a focus on health education is needed for residents in this county. Strategies to employ effective health education should be implemented throughout the study area, with specific focus in Lorain and Cuyahoga counties, to improve residents' ability to alleviate the risk of developing, as well as to manage chronic conditions.

Socioeconomic Barriers to Care

Socioeconomics play a large role in an individual's ability to receive health care and understand his or her health needs. As it relates to chronic health disease management, which requires ongoing care and many preventative measures, socioeconomic barriers can pose a challenge to effectively managing health conditions. In addition to education, other social and economic factors that can play a role in managing one's health are employment, income, and crime.

Socioeconomic conditions and an individual's ability to receive health care and manage health conditions are oftentimes interrelated. For example, an individual employed with a steady income has a greater ability to obtain insurance and receive health care screenings that, in turn, allow for the management of chronic conditions.

Community leaders recognize the importance of socioeconomics in receiving health care and cited poor socioeconomic conditions as significant barriers to health in the study area. Health providers understand the role of socioeconomics in obtaining health treatments and managing conditions, as health provider survey respondents reported the following socioeconomic factors as the top three barriers to accessing care in the community: 1) high out of pocket costs/high deductibles (72.7 percent); 2) no insurance coverage (68.1 percent); and 3) transportation (13.8 percent).

The 2016 County Health Rankings report ranks the counties in the state of Ohio in terms of a number of categories that provide a picture of the overall health status of a county and its residents, including social and economic factors. In terms of social and economic factors, Cuyahoga County ranks the worst in the study area, with a ranking of 79 out of 88 counties. Lorain County ranks 52 out of 88, while Medina County fares very well in the Social & Economic Factors category with a ranking of seven out of 88. The Social & Economic factors category is determined by inputs such as the level of educational attainment, unemployment rate, level of poverty, income inequality, and rate of violent crime (See Table 5).

Table 5. Ohio County Health Rankings 2016[29]

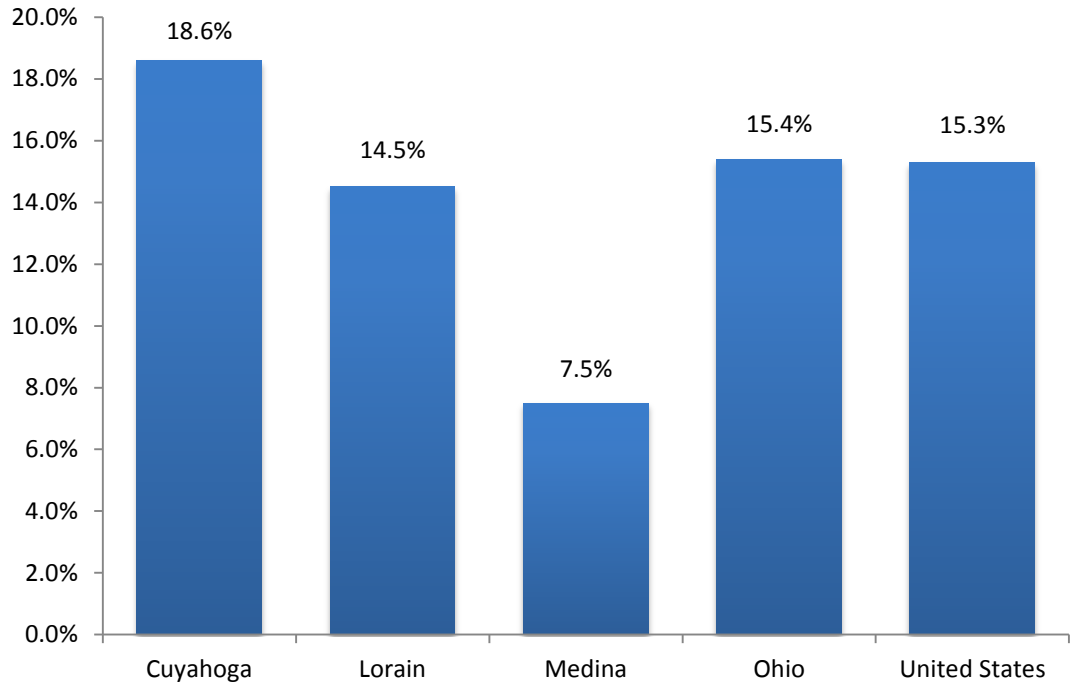
Ohio (Rankings out of 88)	Social & Economic Factors 2016
Cuyahoga	79
Lorain	52
Medina	7

Source: County Health Rankings, Ohio Health County Rankings 2016

Looking more in depth at some social and economic factors considered in the County Health Rankings, data support the ranking determination for Cuyahoga County. Unemployment, income, and poverty are important socioeconomic factors in accessing health, as individuals who are unemployed and living in poverty may lack insurance and the financial means to pay out-of-pocket for health services. While the state of Ohio has enacted Medicaid expansion, which gives more underserved residents the ability to obtain health insurance, it can still be increasingly difficult for residents who are not financially well off to access health care coverage and treatments to manage their chronic conditions. Currently, Cuyahoga County has the highest percentage of residents living below 100 percent of the Federal Poverty Level (18.6 percent) (see Figure 9) in the study area; this percentage is also higher than the state and the nation.[30]

[29] Numbers in red indicate a bottom 10 ranking. Numbers in green indicate a top 10 ranking. A lower number signifies a better ranking, while a higher number signifies a poorer ranking.
[30] US Census Bureau, American Community Survey, 2010-14.

Figure 9. Percentage of Population living in Poverty



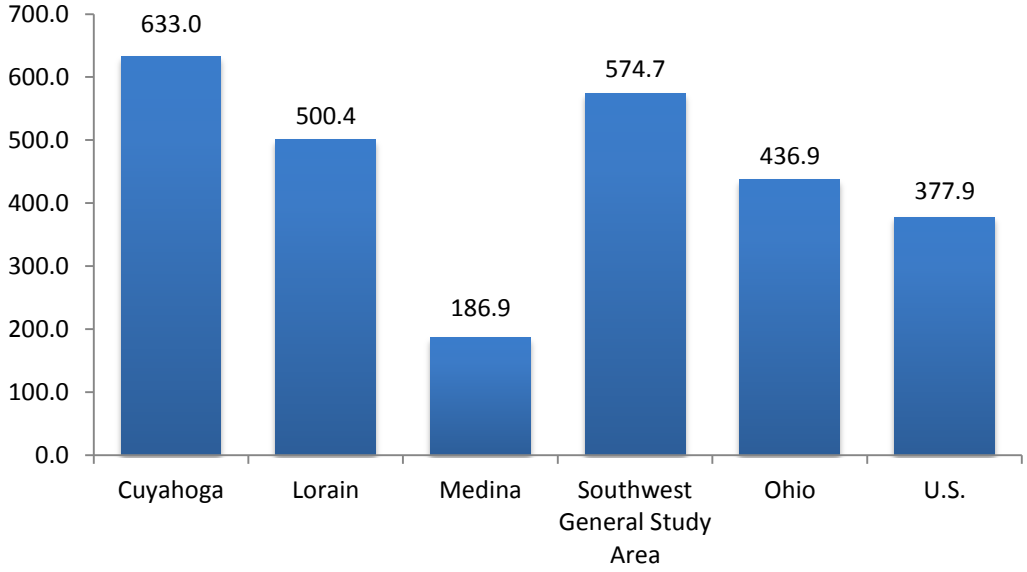
In addition, poor housing conditions also serve as barriers to properly managing chronic conditions. Having a safe, clean, and healthy housing environment is important to an individual's daily health. The housing market in the Cleveland area is still sluggish, despite slight improvements since the recession. Housing prices and housing vacancies are both issues for Cleveland families today. "Census data tell us the average American has the majority of their net worth tied up in the equity of their home," said Jim Rokakis, a former Cuyahoga County treasurer. Residents who have finances tied up in housing may not want to spend additional monies on health care.[31]

Housing issues are prominent in Cuyahoga County, and may have a link to the health status of the county. Cuyahoga County reports the highest rate of HUD-Assisted housing units (633 per 10,000 housing units), overcrowded housing (1.47 percent), substandard housing (35.4 percent), and vacant housing (13.7 percent) out of the counties in the Southwest General Health Center study area.[32] (See Figure 10).

[31] Jarboe, Michelle. "Cleveland-area house prices are rising, but recovery is uneven at best." March 21, 2016. http://www.cleveland.com/business/index.ssf/2016/03/cleveland-area_house_prices_ar.html

[32] US Department of Housing and Urban Development, 2015 via Community Commons.

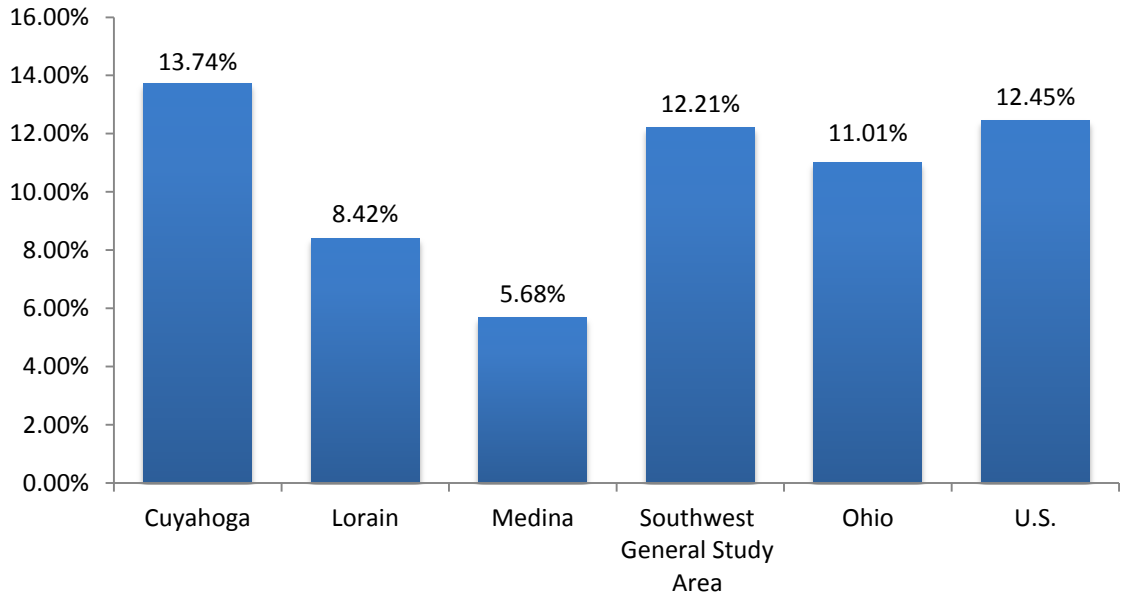
Figure 10. HUD-Assisted Housing Units, per 100,000 Population



The numbers of abandoned and blighted properties that exist in Cuyahoga County are significant when compared to Lorain and Medina, which is contributing to increased crime and also depressing the housing stock that exists in the area. (See Figure 11).[33]

[33] US Census Bureau. American Community Survey. 2010-14.

Figure 11. Vacant Housing Units

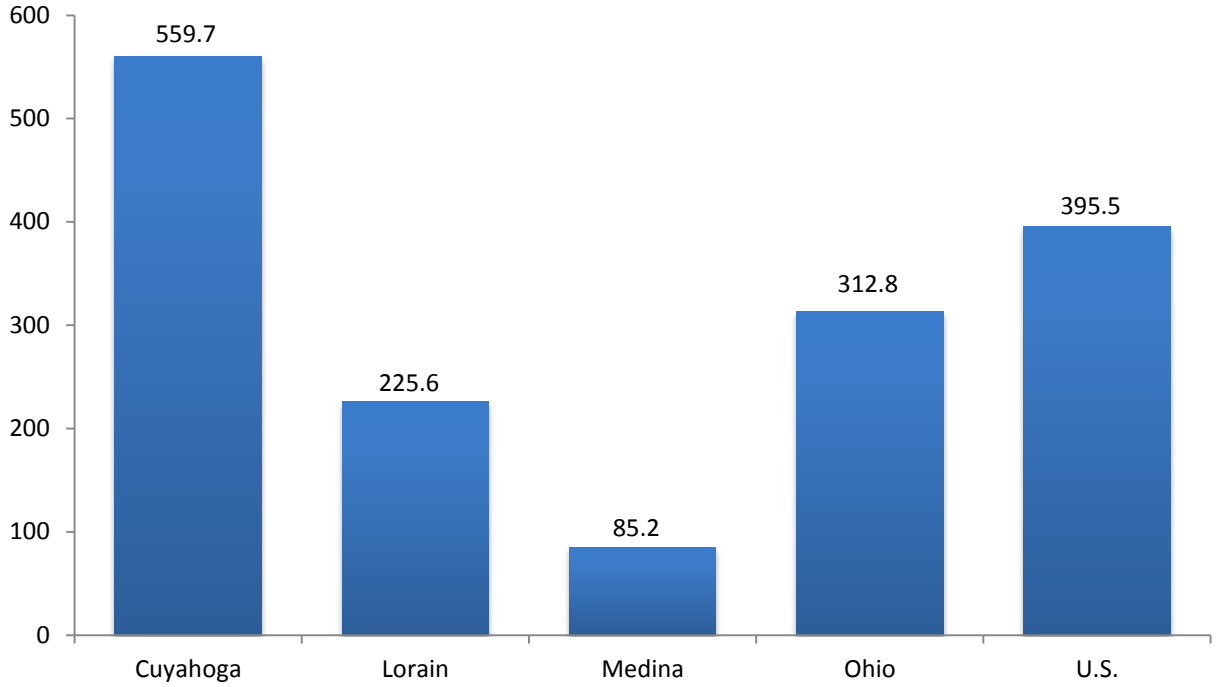


The chronic stress associated with living in unsafe neighborhoods can accelerate aging and harm health. Unsafe neighborhoods can cause anxiety, depression, and stress, and are linked to higher rates of pre-term births and low birthweight babies, even when income is accounted for. Fear of violence can keep people indoors, away from neighbors, exercise, and health resources. Companies may be less willing to invest in unsafe neighborhoods, making jobs harder to find.[34]

Notable studies have shown more aggressive behavior, alcohol and tobacco use, and sexual risk-taking can occur in unsafe environments; all of which are contributing health factors to chronic disease. Cuyahoga County reports a high violent crime rate in the study area with 559.7 violent crimes per 100,000 population. This is significantly higher than the state (312.8) and national rates (395.5) (See Figure 12).[35]

[34] County Health Rankings. http://www.countyhealthrankings.org/our-approach/health-factors/community-safety. 2016.
[35] Federal Bureau of Investigation, FBI Uniform Crime Reports, 2010-12 via Community Commons.

Figure 12. Violent Crime



As providers look for ways to improve chronic disease management in the community, it is imperative that providers understand the significance of poor socioeconomic factors in preventing residents from taking control of their health and accessing needed health resources. Residents in Cuyahoga County, in particular, face a number of socioeconomic challenges to receiving the health care necessary to manage their health conditions. Providers should find ways to provide health services, resources, education, and outreach services to the underserved in the community in order to help mitigate the chronic disease issues in the study area.

Resource Awareness/Patient Navigation

Chronic disease management is heavily reliant on the appropriate use and frequency of necessary medical care in order to prevent and treat chronic illnesses. In order to access necessary health care services, residents must have an understanding of the health care resources available as the first step in obtaining care. Furthermore, it is essential to have a health care provider who can also assist the patient in navigating the health care system. Once a patient can enter appropriately into the health system, his or her primary care provider

should be able to assist in navigating the patient through the appropriate channels and means of specialty care to manage chronic conditions that typically require specialty care treatment.

Community leaders and community forum participants believe that recent changes within the health care landscape, such as health system mergers and new insurance plans, are playing large factors in making it difficult for patients to understand how to access health care services. Community forum participants recognize the lack of resource awareness and education in the Southwest General study area as a challenge to residents accessing care to manage chronic conditions. Provider survey results showed that the fourth largest reason for patients not accessing care is inability to navigate the health care system.

Community leaders stated the need for the communication of available resources in the region. A comprehensive provider inventory, consistently maintained as the health care landscape continues to change, would allow community members to have a greater understanding of available services and allow providers an understanding of available referral locations.

Transportation

Convenient and available transportation options are necessary for health care consumers to access care that is critical in managing chronic health conditions. In addition, transportation challenges can limit one's ability to travel to work, access grocery stores and exercise facilities, and travel to any additional services that can improve an individual's overall health and wellbeing. Residents who do not have their own means of transportation can be dependent on family, friends, and also the public transportation system. Those who are reliant on others for their transportation needs may find it more difficult to access necessary health resources.

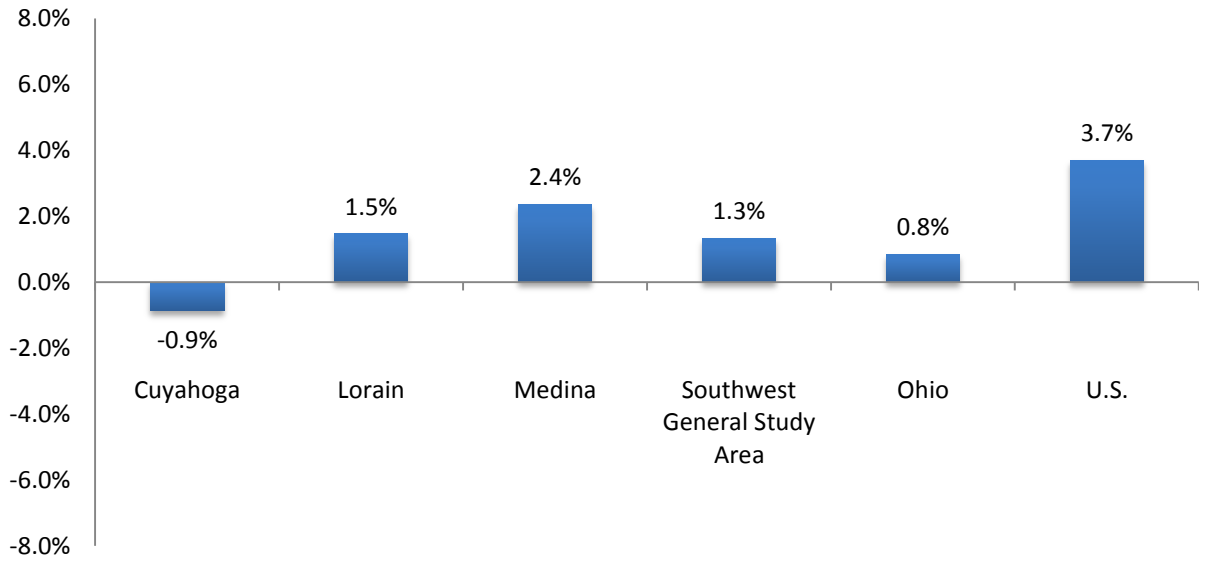
Primary data collected from community forum participants noted transportation as a significant barrier in receiving consistent access to health care, specifically for those who rely on public transportation to travel to doctor's appointments, tests, and other clinical services. Community leaders cite the lack of public transportation infrastructure in the area as a prohibiting factor in health care access. This is especially true for elderly residents, disabled residents, and those who are living in poverty. It is important for health care providers to recognize transportation limitations in the region and look to find solutions to providing transportation services to residents in need.

Community leaders have identified that there is a demand for accessible public transportation; however, funding and support to create new or expand existing offerings are currently unavailable. With these significant transportation issues, it is increasingly difficult for residents to travel to receive all types of necessary care; primary, specialty, and preventative services that are critical to managing chronic health conditions.

In addition to transportation solutions, alternative methods of care delivery using outreach, community-based delivery, and technology techniques should be highly considered for community residents who do no have their own form of transportation. The use of health care delivery methods such as home care, telemedicine, and mobile-based clinics are within care delivery methods that should be considered.

The need for improved transportation methods and other health care delivery options will become increasingly important as the population in the Southwest General study area is anticipated to increase. Residents of the central cities have recently migrated to lower density suburbs on the metropolitan fringe, and people from more rural areas moved into the metro region.[36] This population shift to suburban locations, such as the Southwest General study area, is causing pressure on physical infrastructure and an increased demand for transportation systems. The study area overall is expected to have a 1.3 percent increase in population from 2016 to 2021, which is a growth rate greater than the state of Ohio (See Figure 13).

Figure 13: Population Change



Source: Truven Health Analytics

Southwest General is continually looking for solutions to alleviate the transportation barrier to accessing health care. Community forum participants recognized that Southwest General is

[36]"Ohio Statewide Transit Needs Study." Ohio Department of Transportation. 2013. https://www.dot.state.oh.us/Divisions/Planning/Transit/TransitNeedsStudy/Documents/DemographicTrendAnalysis.pdf

currently providing a transportation van for patients who have issues traveling to their appointments. With a growing and aging population, a focus on transportation to reduce health concerns should be considered. Southwest General and other health providers should continue to look for transportation solutions so that transportation no longer serves as a barrier to residents accessing the necessary resources to manage chronic conditions. In order to serve residents who face transportation issues, Southwest General should continue to provide transportation services to health care providers and also expand available services to patients at home.

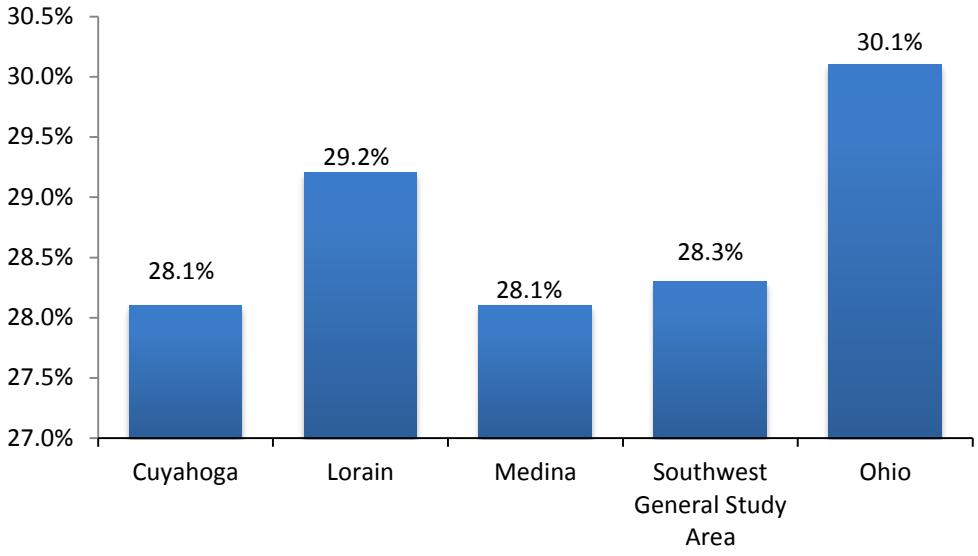
Priority #2: Obesity and Healthy Choices

Obesity is a major health issue that affects residents in communities across the U.S. More than one-third (37.7 percent) of adults in the U.S. are obese, and the rate of obesity has more than doubled since the 1970s.[37] Adults are not the only ones affected by obesity, as one in six children and adolescents in the U.S. are obese.[38] Obesity is also a prevalent issue in the state of Ohio; the state had the eighth highest obesity rate in the nation in 2014 with 32.6 percent of the population being obese.[39] Obesity (or Body Mass Index of 30 or over) is a particularly concerning issue because of the health problems and chronic diseases that often stem from obesity. The high rates of obesity in Ohio translate into high rates of obesity-related health problems, as the state ranked ninth in the nation for diabetes and 17th in the nation for hypertension.[40]

Obesity is deemed as a particularly concerning issue among community leaders and health providers in the Southwest General study area. During community leader interviews and the community forum, participants cited obesity as a top heath issue in the community. In addition, surveyed health providers listed obesity as one of the three most pressing health concerns in the community. Adult weight status was also examined as a health concern in the 2012 CHNA for Southwest General. The study area overall has a lower percentage of obese residents (28.3 percent) in comparison to the state of Ohio (30.1 percent) in 2012 , however, obesity rates are still high in the study area and obesity is considered a major community health need (See Figure 14).[41,42]

[37] "Obesity in the U.S." Food Research and Action Center. http://frac.org/initiatives/hunger-and-obesity/obesity-in-the-us/. 2016.
[38]"Obesity in the U.S." Food Research and Action Center. http://frac.org/initiatives/hunger-and-obesity/obesity-in-the-us/. 2016.
[39] "The State of Obesity in Ohio." The State of Obesity. http://stateofobesity.org/states/oh/. 2015.
[40] "The State of Obesity in Ohio." The State of Obesity. http://stateofobesity.org/states/oh/. 2015.
[41] Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. 2012. Accessed via Community Commons.

Figure 14. Percent Obese Adults



- Lorain County has a higher percentage of obese adults (29.2 percent) in comparison to Cuyahoga and Medina counties. This percentage is slightly below the percent of obese adults in the state.

One of the reasons that community leaders and providers view obesity as a top health need in the region is that many chronic diseases stem from obesity. The Southwest General study area has higher rates of heart disease, mortality due to heart disease, and mortality due to stroke in comparison to state and national rates.[43] As chronic disease management is also a top concern in the study area, it is critical that residents take the necessary steps to alleviate their risk of developing chronic diseases. Genetics play a role in a person's risk of becoming obese; however, an individual's health behaviors and choices have a significant effect on an individual's weight. Focusing on proper nutrition, which includes eating fresh fruits and vegetables, physical activity, and receiving consistent care from a primary care provider are key steps that individuals can take to reduce their risk of obesity. Health care providers should emphasize the importance of these health behaviors and promote healthier choices in the community as a means to combat obesity.

[42] The percentage of obese residents in Ohio differs from that reported in the paragraph above as the data in the graph is from 2012, while the information from the *State of Obesity* reflects 2014 data.
[43] Centers for Disease Control and Prevention. National Vital Statistics System. 2009-2013.

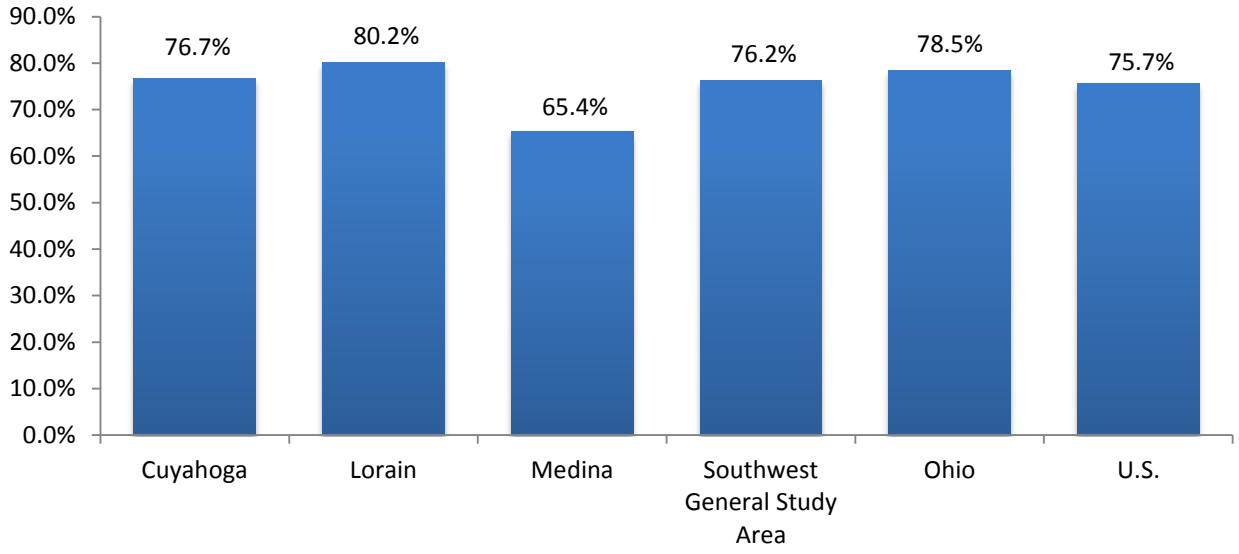
Nutrition

Both community leaders and health providers cited poor nutrition as an obesity risk factor. Surveyed health providers cited "poor eating habits" as the second most risky behavior among residents in the community. Healthy People 2020, a national promotional and disease prevention initiative, examines the importance of a healthy diet in combatting obesity and promoting general health. The Healthy People 2020 initiative set a goal of encouraging healthy diets through the development of a healthy eating plan, which includes the consumption of whole grains, fresh fruits and vegetables, low-fat or fat-free dairy, and lean meat, while at the same time limiting the intake of saturated and trans fats, cholesterol, sugars, and sodium.[44]

As set forth in the nutritional plan from Healthy People 2020, fruit and vegetable consumption is an important component of having a well-balanced diet. Unfortunately, proper fruit and vegetable consumption is lacking in the state of Ohio. Across the state of Ohio, 41.6 percent of residents cited consuming fruit less than one time day and 26.3 percent of adults cited consuming vegetables less than once daily.[45] Fruit and vegetable consumption is also lacking in the study area. Approximately 76.2 percent of residents in the study area have inadequate fruit/vegetable consumption, which is higher than the percentage across the U.S. (75.7 percent) (See Figure 15).[46]

[44] "Nutrition and Weight Status." Healthy People 2020. https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status.2014.
[45] "Ohio: State Nutrition, Physical Activity, and Obesity Profile." National Center for Chronic Disease Prevention and Health Promotion. 2015.
[46] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. 2005-2009. Accessed via Community Commons. Adequate fruit consumption is defined as five or more servings of fruits and vegetables a day.

Figure 15. Percent Adults with Inadequate Fruit/Vegetable Consumption

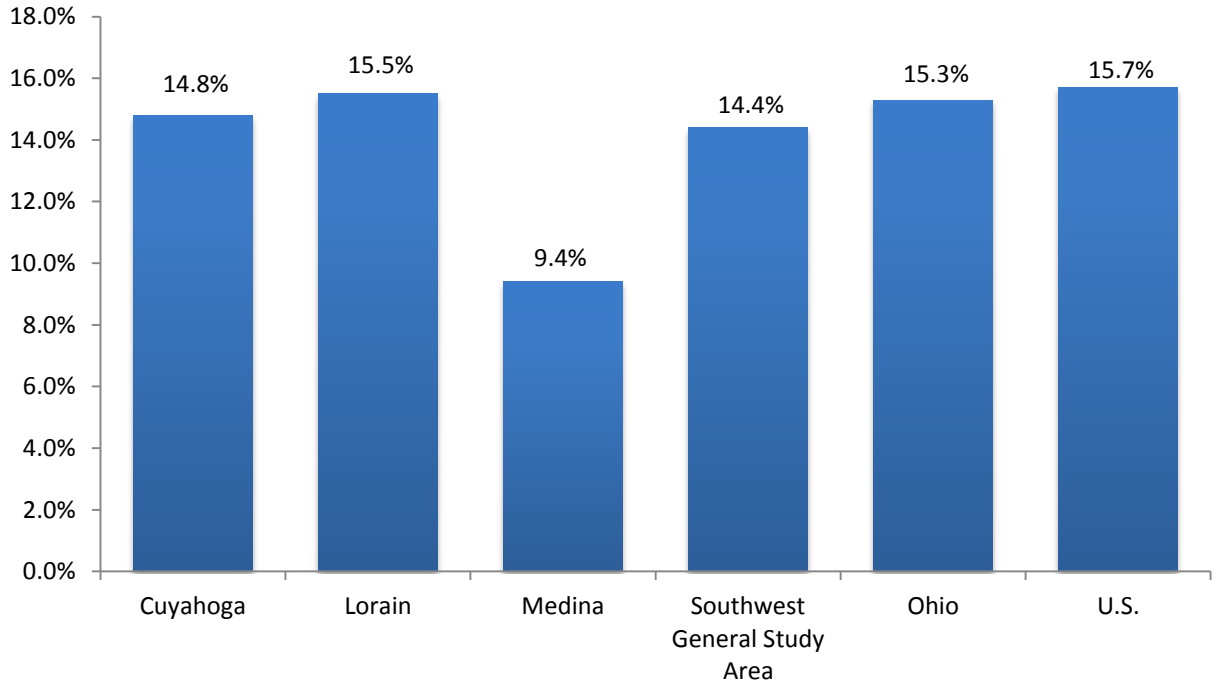


- Lorain County has the highest percentage of residents with inadequate fruit and vegetable consumption (80.2 percent) compared to the other counties in the study area. Lorain County also has the highest percent of obese adults in the study area at 29.2 percent.

Obesity and poor nutrition can oftentimes lead to overall health issues, and this is evident in the percent of adult residents who cite having poor or fair general health in the study area. Lorain County, which has the highest percentage of obese adults and highest percentage of inadequate fruit and vegetable consumption in the study area, also has a higher percentage of residents who cite having poor or fair general health when compared to the other counties in the study area at 15.5 percent (See Figure 16).[47]

[47] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. 2006-2012. Accessed via Community Commons.

Figure 16. Percent Adults with Poor or Fair General Health



While consumption of healthy foods is essential to proper nutrition and decreasing obesity, it can sometimes be difficult for residents to access fresh fruits and vegetables. Accessing healthy foods can be a challenge for low-income residents. Lorain County has the highest percentage of residents with inadequate fruit and vegetable consumption in the study area. At the same time, Lorain County has the highest percentage of the low-income population with low food access at 32.8 percent; this is significantly higher than the percentage of the low-income population with low food access in Ohio (24.9 percent) and the U.S. (23.6 percent).

In addition to socioeconomic barriers such as low food access, community leaders also recognize the role of health education in the community's obesity problem. While the study area has a high percentage of residents with a bachelor's degree or higher (31.0 percent), community leaders think that more nutritional education and outreach from health providers would help combat the obesity problem in the region.[48] Residents may not fully recognize the connection between their diet, obesity, and larger health issues, and nutritional education and outreach would help to provide this knowledge.

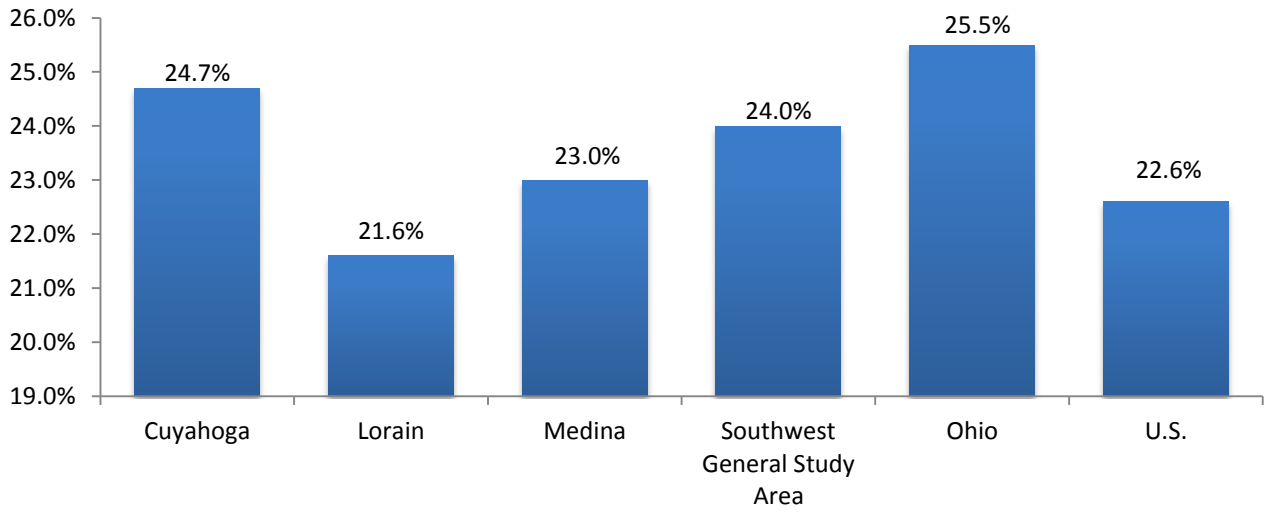
[48] Truven Health Analytics, 2016.

Physical Activity

Physical activity, in addition to proper nutrition, is also an important component to healthy living and weight management. In the U.S., physical inactivity is responsible for one in 10 deaths among adults.[49] Physical inactivity is an issue in the state of Ohio; the state ranked 14th in the nation in terms of physical inactivity in 2014.[50] In a 2015 survey conducted by the CDC, approximately 28.5 percent of adults in Ohio reported that in the previous month, they had not engaged in any type of physical activity. Physical inactivity is also a concern among adolescents. Over 74 percent of surveyed adolescents in Ohio reported failing to engage in physical activity for all seven days a week.[51]

Surveyed health providers revealed the concern for physical inactivity in the Southwest General study area, as health providers listed "physical inactivity" as the top risky behavior of residents in the study area. The overall study area has a higher percentage of residents who fail to engage in any type of leisure time physical activity when compared to the national rate, as 24 percent of study area residents do not engage in leisure time fitness. (See Figure 17).[52]

Figure 17. Percent Population with No Leisure Time Physical Activity



[49] Danaei G, Ding EL, Mozaffarian D, et al. The Preventable Causes of Death in the United States: Comparative Risk Assessment of Dietary, Lifestyle, and Metabolic Risk Factors. PLoS Med 6(4): e1000058. doi:10.1371/journal.pmed.1000058, 2009. Accessed via http://stateofobesity.org/physical-inactivity.

[50] "Physical Inactivity in the United States." The State of Obesity." http://stateofobesity.org/physical-inactivity/. 2014.

[51] "Ohio: State Nutrition, Physical Activity, and Obesity Profile." National Center for Chronic Disease Prevention and Health Promotion. 2015.

[52] Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, 2012. Accessed via Community Commons.

- Cuyahoga County has the highest percentage of residents who do not engage in leisure time physical activity (24.7 percent) in comparison to the other study area counties. This percentage is slightly below the percentage in Ohio (25.5 percent).
- While Lorain County has the highest percentage of obese adults and inadequate food consumption, the county has the lowest percentage of residents who fail to engage in leisure time physical activity at 21.6 percent.

Physical activity serves as a critical step toward leading a healthy life and improving overall health. During interviews, community leaders discussed that health providers and organizers should work to promote physical activity in the community and to promote affordable ways to engage in physical activity. Leaders see these as ways to increase activity levels and help create a healthier community.

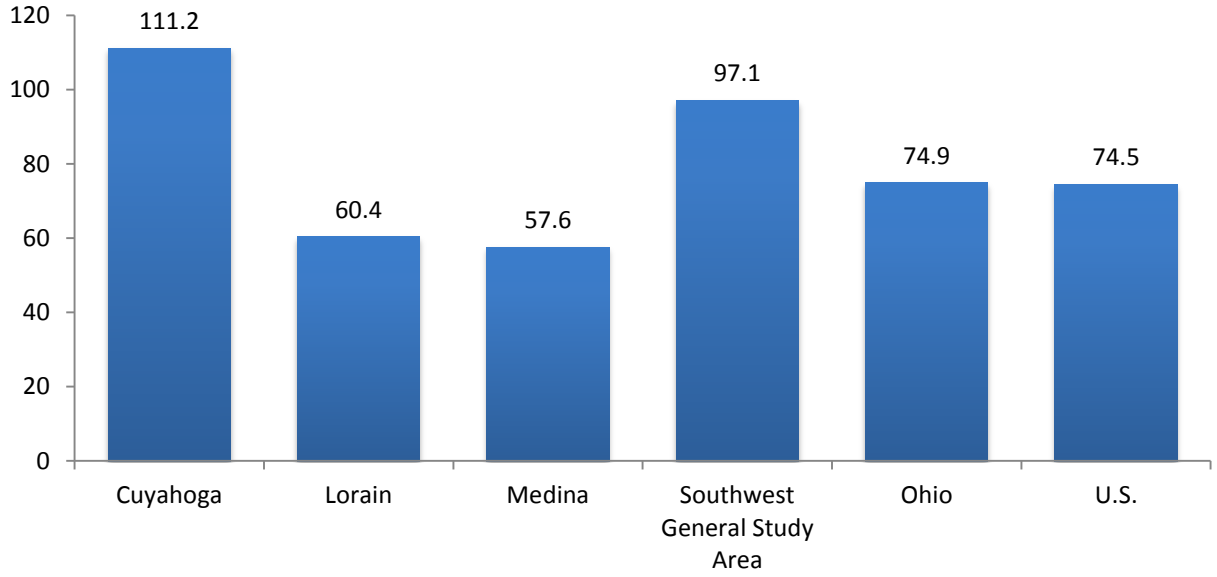
Access and Use of Primary Care

The ability to access primary care and maintain a consistent source of primary care is important to residents being able to manage their health, receive treatments, and take preventive care measures. Having and utilizing primary care services allows individuals who are dealing with obesity or conditions that stem from obesity to better understand their health conditions and work towards developing treatment plans. Across the U.S., a predicted shortage of as many as 90,000 physicians by 2025 will serve as an access issue that will make it more challenging for individuals to access care. In terms of primary care, it is anticipated that there will be a shortage of approximately 12,500 to 31,000 primary care physicians (PCPs) by 2025.[53]

The supply of primary care physicians is also a concern for counties in the study area, specifically in Lorain and Medina counties. In these counties within the Southwest General study area, the number of primary care physicians per 100,000 population is significantly lower than the rate in Ohio and U.S. (See Figure 18).[54]

[53] Berstein, Lenny. "U.S. faces 90,000 doctor shortage by 2025, medical association warns." The Washington Post. March 3, 2015.
[54] U.S. Department of Health & Human Services. Health Resources and Services Administration. 2012. Accessed via Community Commons.

Figure 18. Number of Primary Care Physicians (PCPs) per 100,000 Population

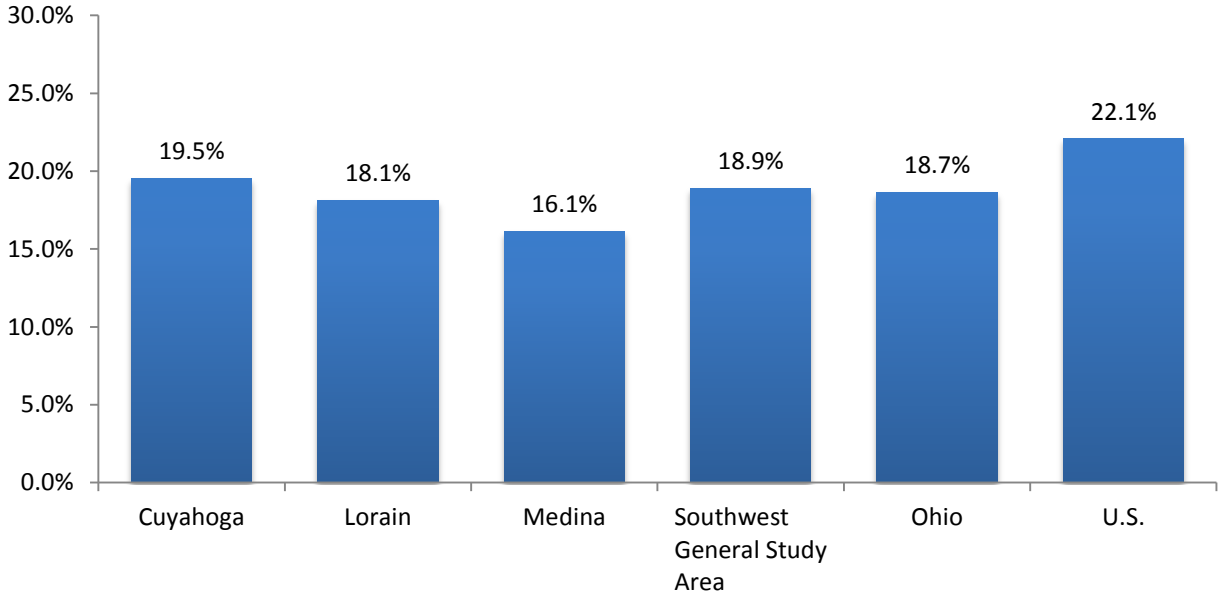


- Lorain (60.4) and Medina counties (57.6) have lower PCP rates per 100,000 population in comparison to Ohio and the U.S. On the other hand, Cuyahoga County has a significantly higher rate of PCPs than Ohio and the U.S. at 111.2 per 100,000 population.

While it is crucial that the supply of primary care physicians is sufficient to meet demand, having a consistent source of primary care also serves as an important piece to residents being able to manage their health care issues, including obesity. Having a consistent source of primary care allows residents dealing with obesity to have a provider who understands their condition, can provide education on healthy choices, and can help track progress. This allows patients to take the necessary steps toward making healthier choices and having treatment plans that are tailored to their specific needs. In the study area, approximately 18.9 percent of residents do not have a consistent source of primary care (See Figure 19).[55]

[55] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. 2011-2012. Accessed via Community Commons.

Figure 19. Percent Adults without a Consistent Source of Primary Care



- The study area has a slightly higher percentage of adults who do not have a consistent source of primary care (18.9 percent) than Ohio (18.7 percent).
- Despite having the highest rate of PCPs, Cuyahoga County has the highest percentage of adults who lack a consistent source of primary care (19.5 percent).

Residents in the study area should prioritize not only accessing care, but finding a consistent source of care in order to properly manage obesity issues and other health conditions. Health providers must recognize that shortages of providers, socioeconomic issues, public transportation limitations, insurance, and high costs of care also serve as barriers that prevent residents dealing with obesity from receiving the care and education they need to overcome this top community health concern.

Priority #3: Behavioral Health

Behavioral health, which includes mental health and substance abuse, affects families and individuals throughout the United States and is not immune to the Northeast Ohio region; as the number and cases of those diagnosed with mental illnesses or with substance abuse issues continue to rise. The growing national and local need for mental health services and substance abuse programs have not diminished. Genetics and socioeconomic factors play key roles in individuals who are diagnosed with a mental health problem and oftentimes societal factors increase the likelihood for one to engage in unhealthy life choices such as alcohol and drug use. According to the American Hospital Association, one in four Americans experiences a mental illness or substance abuse disorder each year, and the majority of those also have comorbid physical health conditions.[56]

Accessibility issues combined with a mental health provider shortage and inadequate insurance coverage are challenges and roadblocks to those seeking and needing behavioral health services. With a growing population, specifically in Lorain and Medina counties,[57] the demand for behavioral services will continue to grow. The previous CHNA and the 2016 CHNA key identified needs highlight the need for additional mental health and substance abuse services and programs locally.

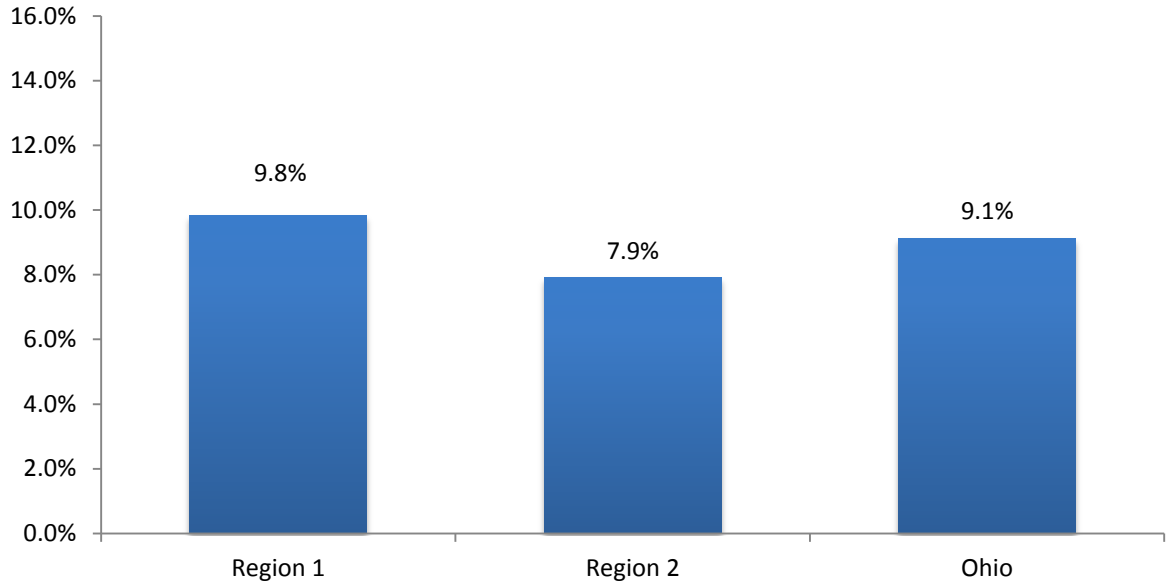
Substance Abuse

In addition to the growing behavioral health problems, there is an increased use of drugs and alcohol. Substance abuse is often intertwined with those who also have a mental health illness. The Substance Abuse and Mental Health Services Administration (SAMHSA) reported in their 2013 National Drug Use and Health Survey that 24.6 million residents 12 years or older were current illicit drug users.[58] Marijuana is the most commonly used drug in the U.S. with 19.8 million users in 2013 compared to 14.5 million in 2007.[59] In addition, more than one-half of Americans aged 12 or older were current alcohol users in 2013.[60] In 2013, 22.7 million individuals aged 12 or older needed treatment for an illicit drug or alcohol problem; however, only 2.5 million received treatment in a specialty facility.[61]

[56] American Hospital Association: http://www.aha.org/advocacy-issues/initiatives/behavioral/index.shtml
[57] Truven Health Analytics projects Lorain County growing by 1.5% and Medina projected to grow by 2.4% in years 2016-2021.
[58] The Substance Abuse and Mental Health Services Administration: www.samhsa.gov/data/sites/default/files/NSDUH-SR200-RecoveryMonth-2014/NSDUH-SR200-RecoveryMonth-2014.htm
[59] Ibid.
[60] Ibid.
[61] Ibid.

Secondary data from the 2010-2012 National Survey on Drug Use and Health (NSDUH) reported that 9.8 percent of residents in Region 1 (which includes Cuyahoga and Lorain counties) reported illicit drug use in the past month of taking the survey. Region 1 has a higher estimated rate of illicit drug use when compared to the state (9.8 percent versus 9.1 percent). According to the NSDUH Substate Estimates of Substance Abuse and Mental Disorders, illicit drugs include: marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically (See Figure 20).

Figure 20. Illicit Drug Use in Past Month (from 2010-2012 survey)



Region Definitions:

- Region 1: Includes Cuyahoga and Lorain County
- Region 2: Includes Medina

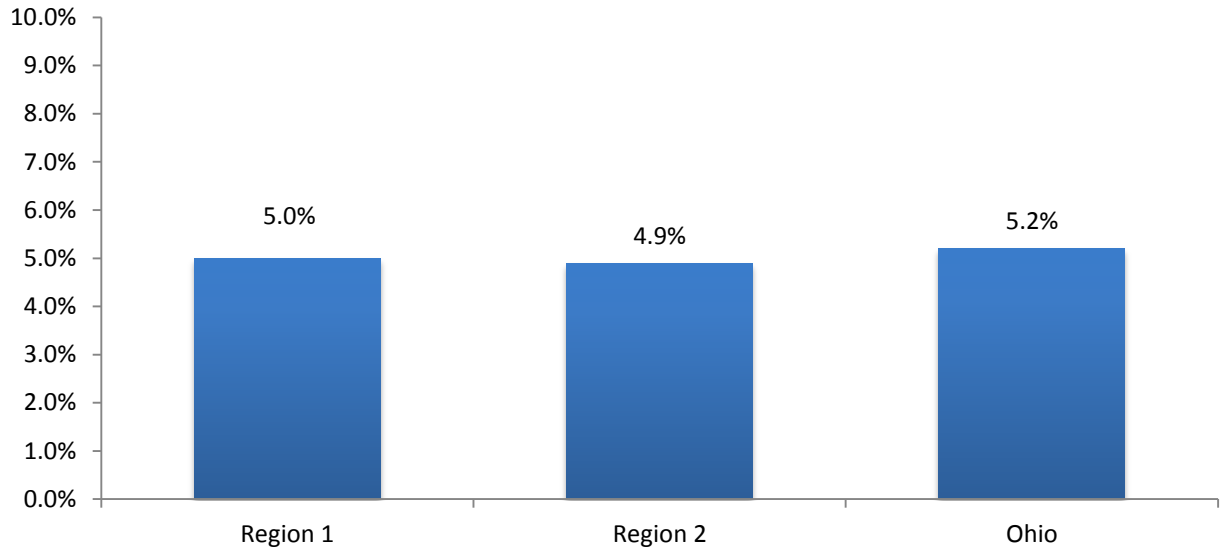
When exploring information related to substance use, the illegal use of prescription medicine is often present. While prescription drugs are typically used responsibly by many; an estimated 52 million people (20 percent of those aged 12 and older) have used prescription drugs for nonmedical reasons at least once in their lifetime.[62] Illegal use of prescription drugs is often represented by young people. In fact, the National Institute on Drug Abuse's (NIDA) Monitoring the Future (MTF) survey found that about 1 in 12 high school seniors reported past-year nonmedical use of the prescription pain reliever Vicodin in 2010, and 1 in 20 reported abusing

[62] National Institute on Drug Abuse: www.drugabuse.gov/publications/research-reports/prescription-drugs/director.

OxyContin—making these medications among the most commonly abused drugs by adolescents.[63]

Looking at regional data, information reveals that nonmedical use of pain relievers in the past year in Region 1 (Cuyahoga and Lorain County) was 5.0 percent; this percentage was slightly lower when compared to Ohio (5.2 percent) (See Figure 21).

Figure 21. Nonmedical Use of Pain Relievers in the Past Year



Region Definitions:

- Region 1: Includes Cuyahoga and Lorain County
- Region 2: Includes Medina

Reviewing primary data, community leaders reiterated the growing substance abuse problem within the overall service area. Specifically, opioid and heroin abuse was cited as an emerging and growing issue. Ohio recorded the second-highest number of drug overdose deaths nationwide in 2014 as reported by the Centers for Disease Control and Prevention.[64] Addiction, according to community leaders, is common among teens, and recovery support with health education should be a primary community goal to prevent teens from engaging in poor health behaviors.

[63] Ibid.
[64] Centers for Disease Control and Prevention. National Vital Statistics System, Mortality file.2013-2014.

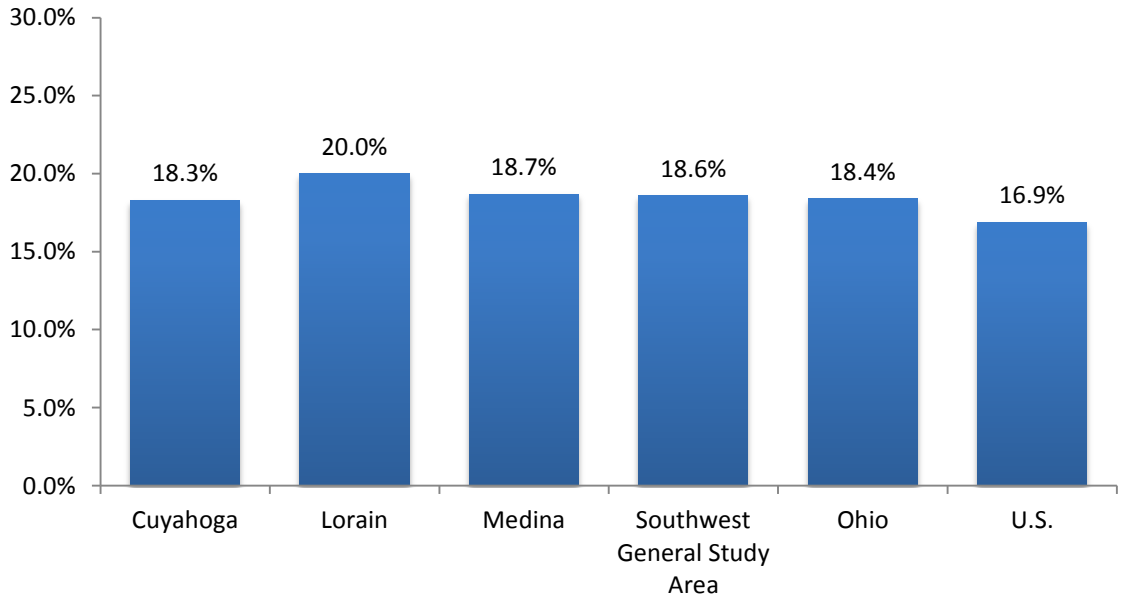
Limited health services and health care coverage combined with insufficient numbers of health providers are additional accessibility barriers prohibiting residents from seeking care. It is clear that the system is overburdened due to the demand for programs outweighing the supply.

Another type of substance abuse is the excessive use of alcohol; which can cause major health problems including cirrhosis of the liver and injuries from automobile accidents. Researchers have linked alcohol consumption to many chronic diseases and conditions.

Given the ease and availability of alcohol in the area, data at the regional level from the Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System revealed more Lorain County residents (20.0 percent) reported the highest rate of excessive alcohol use in the study area when compared to residents in Ohio and the U.S.

The report area, which encompasses all three counties, reported a similar percentage of adults drinking excessively when compared to the state (18.6 percent vs. 18.4 percent, respectively). As defined by the CDC, excessive alcohol use is defined as two or more drinks per day on average for men and one or more drinks per day on average for women. (See Figure 22).

Figure 22. Excessive Alcohol Use: Estimated Adults Drinking Excessively (Age-Adjusted)



Examining data related to drug use, the last few years has seen a significant spike in the use of opioids and subsequently, unintentional overdose due to opioid abuse. Unintentional overdoses due to all types of opioids reached a high of 2,020 deaths in 2014, accounting for 79.8 percent of all unintentional poisoning deaths (which included all other types of drugs and

alcohol). One drug, falling under the category of prescription opioids, is fentanyl, a drug up to 50 times more powerful than heroin.[65] Fentanyl is often used in conjunction with heroin (another opioid) and is responsible for an increasing number of drug overdoses in Ohio. In 2013, there were 84 fentanyl-related overdoses in Ohio. This number skyrocketed nearly 500 percent the following year, totaling 502 deaths in 2014 (See Table 6).

Table 6: Unintentional drug overdoses by type of drug, 2003-2014[66]

Drug Category	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	% of 2014 deaths
All opioids*	296	429	489	551	631	735	783	979	1,163	1,272	1,539	2,020	79.8%
Prescription opioids**	221	319	388	462	508	546	550	694	795	697	726	1,170	46.2%
Heroin	87	124	131	117	146	233	283	338	431	680	983	1,196	47.3%
Benzodiazepines	38	69	90	121	133	154	211	300	376	311	328	420	16.6%
Cocaine	140	221	223	317	287	252	220	213	309	326	405	517	20.4%
Alcohol	40	38	58	89	135	181	173	195	226	282	304	383	15.1%
Methadone	55	116	144	161	176	170	169	155	156	123	112	103	4.1%
Hallucinogens	7	8	8	10	13	14	9	26	31	31	43	49	1.9%
Barbiturates	5	3	5	3	7	3	5	13	11	6	10	6	0.2%
Other / unspecified drugs only***	154	256	289	378	453	475	396	343	376	389	319	274	11%
Multiple Drug Involvement								888	980	1,016	1,014	1,321	
Total unintentional poisoning deaths	658	904	1,020	1,261	1,351	1,475	1,423	1,544	1,772	1,914	2,110	2,531	
Crude annual death rate per 100,000	5.7	7.9	8.9	11.0	11.7	12.8	12.3	13.4	15.3	16.6	18.2	21.8	

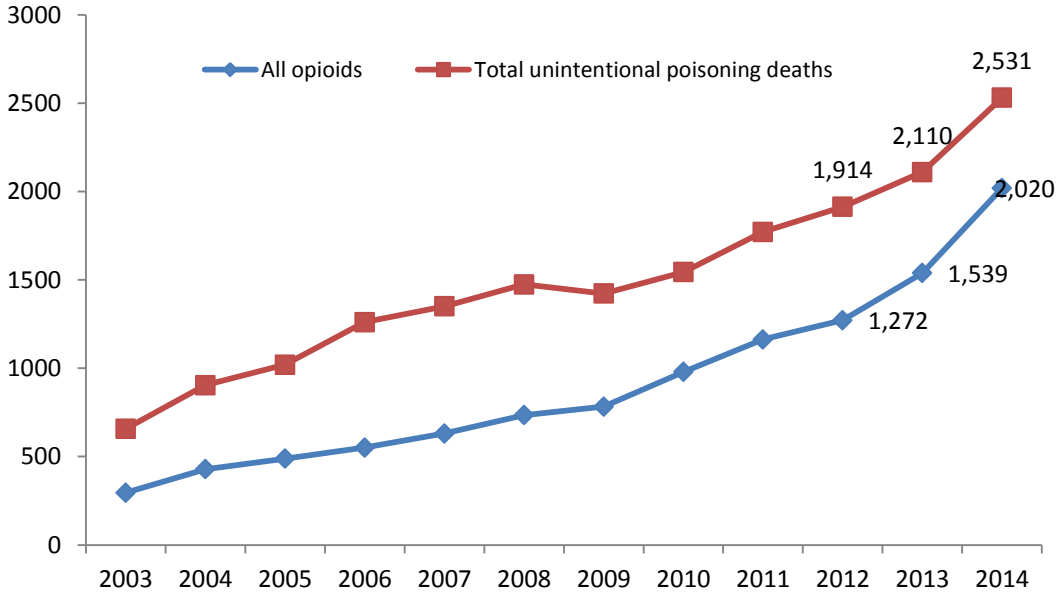
[65] Alan Johnson, *Columbus Dispatch*, http://www.dispatch.com/content/stories/local/2016/05/03/fentanyl-causing-new-wave-of-overdose-deaths-in-ohio.html, May 3, 2016

[66] 2014 Ohio Drug Overdose Data, General Findings, http://www.healthy.ohio.gov/~/media/HealthyOhio/ASSETS/Files/injury%20prevention/2014%20Ohio%20Final%20Overdose%20Report%202.pdf

- In 2003, unintentional opioid deaths accounted for 45.0 percent of total unintentional poisonings. This number increased to 66.5 percent by 2012, then increased again in both 2013 and 2014 to 72.9 percent and 79.8 percent, respectively.

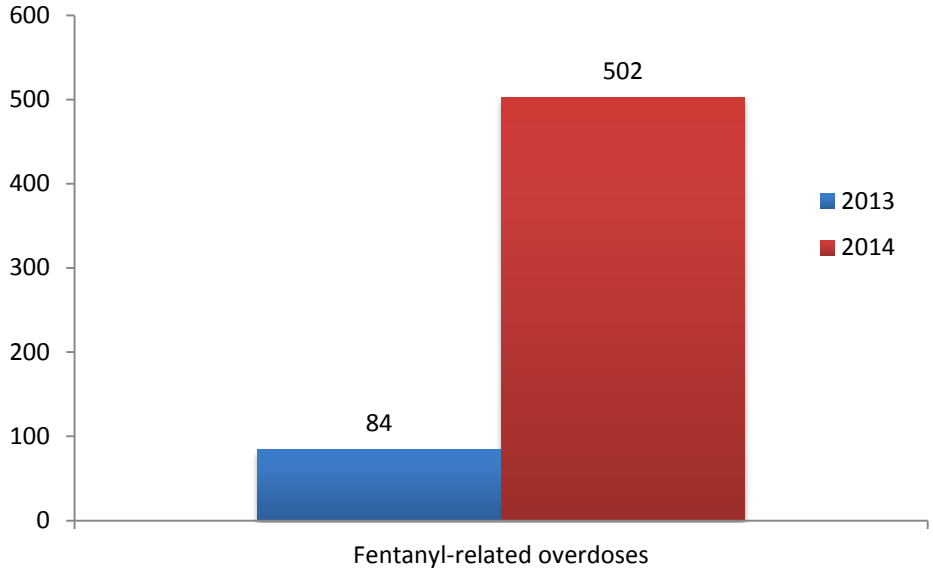
As seen from the above chart and graphic below, the rate of unintentional poisoning deaths due to opioids has been increasing at a faster rate than the overall number of deaths from unintentional poisoning, which includes other types of drugs and alcohol (See Figure 23).

Figure 23: Trends in Opioid Overdoses, 2003-2014[67]



[67] Ibid.

Figure 24: Fentanyl-related deaths, Ohio[68]



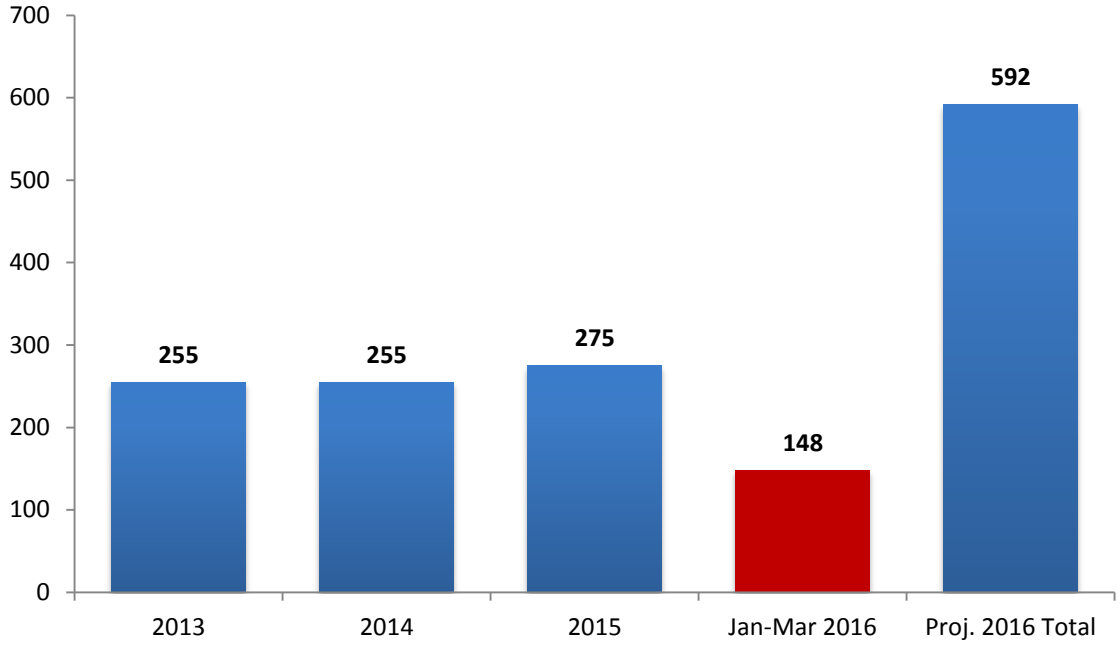
- Fentanyl-related overdoses in Ohio increased from 84 deaths in 2013 to 502 deaths in 2014 – a nearly 500% increase (See Figure 24).

Within Ohio, fentanyl and other opioid abuse poses a serious problem in many medium-sized metropolitan areas. In just the first three months of 2016, Cuyahoga County saw 148 overdose deaths resulting from heroin, fentanyl, or a combination of the two. Based on that figure, overdose deaths were projected to reach 592 for the county by year's end – more than doubling the number from 2015. (See Figure 25).

Fentanyl also poses a significant problem for other counties in the study area. A CDC report published earlier this year recommended targeting eight counties in particular that had a serious fentanyl problem (Cuyahoga was included). Although Lorain and Medina were not included in these recommendations, both counties ranked in the top 13 out of 88 counties in fentanyl-related deaths in 2014 (Lorain-9th; Medina-13th). In addition to posing a threat to Ohio as a whole, fentanyl and other opioids pose a serious threat to the three counties in the study area – especially Cuyahoga (See Table 7).

[68] National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (CDC), http://www.dispatch.com/content/downloads/2016/03/Ohio-EpiAid-Report.pdf

Figure 25: Drug Overdose Deaths, Cuyahoga County[69]



- In just the first three months of 2016, Cuyahoga County saw 148 deaths from overdose by heroin, fentanyl, or a combination of the two. Based on this statistic, overdose deaths were predicted to reach 592 by years end, a 115 percent increase from the previous year's total of 275. (See Figure 25)

[69] Alan Johnson, *The Columbus Dispatch*, http://www.dispatch.com/content/stories/local/2016/05/03/fentanyl-causing-new-wave-of-overdose-deaths-in-ohio.html, May 3, 2016

Table 7: Fentanyl-related Overdoses by County, 2014[70]

County Name	Number of Fatal Fentanyl-related Overdoses	Rank (out of 88 counties)
Cuyahoga	33	5
Lorain	15	9
Medina	8	13

- A recent CDC report released in March 2016 recommended focusing on eight counties in Ohio due to a surge in fentanyl-related overdoses. One of the counties mentioned was Cuyahoga, which ranked 5th in Ohio with 33 fentanyl-related overdoses in 2014. Notably, Lorain and Medina also rank relatively high, at 9th and 13th, respectively.

Behavioral health disorders, which include mental illness and substance abuse, can lead to physical and emotional issues if left undiagnosed. Residents dealing with behavioral health issues need access to adequate services and resources as well as navigation and education regarding the illnesses. It is imperative that communities continue to address the growing crisis many face. Continued collaboration and partnerships with community organizations, early education and health information on prevention and services can assist underserved residents and ultimately close the gap for those in need.

Mental Health

Mental health includes our emotional, psychological, and social well-being.[71] Identified throughout the 2016 CHNA are many factors connected to mental health. Notable studies have reported that if mental illnesses run in the family it is often passed down generationally; thus, future family members are more likely to develop a condition. However, an individual with a genetic predisposition to the illness will respond differently according to the environment in which they live and in some cases may never develop a condition. Exposure to stress from abuse or a traumatic event can trigger a mental health illness due to their high susceptibility.

Socioeconomic factors are linked to mental health illnesses. Living in poverty, poor education and lack of employment opportunities are factors which can elevate one's stress level, thereby producing a mental health issue. Primary and secondary data suggest that accessibility,

[70] National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (CDC), http://www.dispatch.com/content/downloads/2016/03/Ohio-EpiAid-Report.pdf
[71] Mental Health Government: https://www.mentalhealth.gov/basics/what-is-mental-health/

provider shortages, and overall engagement in poor health behaviors (alcohol and drug use) highlight the limited resources focusing on behavioral health.

Access to mental health providers can ensure that community residents have direct access to care and treatment; creating a pathway to a healthier life. SAMHSA cited that good behavioral health is essential to good overall health. Treatment and preventative measures allow individuals to recover from a mental health crisis.

In 2014, an estimated 9.8 million adults aged 18 and older in the United States had a serious mental illness, 1.7 million of which were aged 18 to 25. Also, 15.7 million adults (aged 18 or older) and 2.8 million youth (aged 12 to 17) had a major depressive episode during the past year.[72]

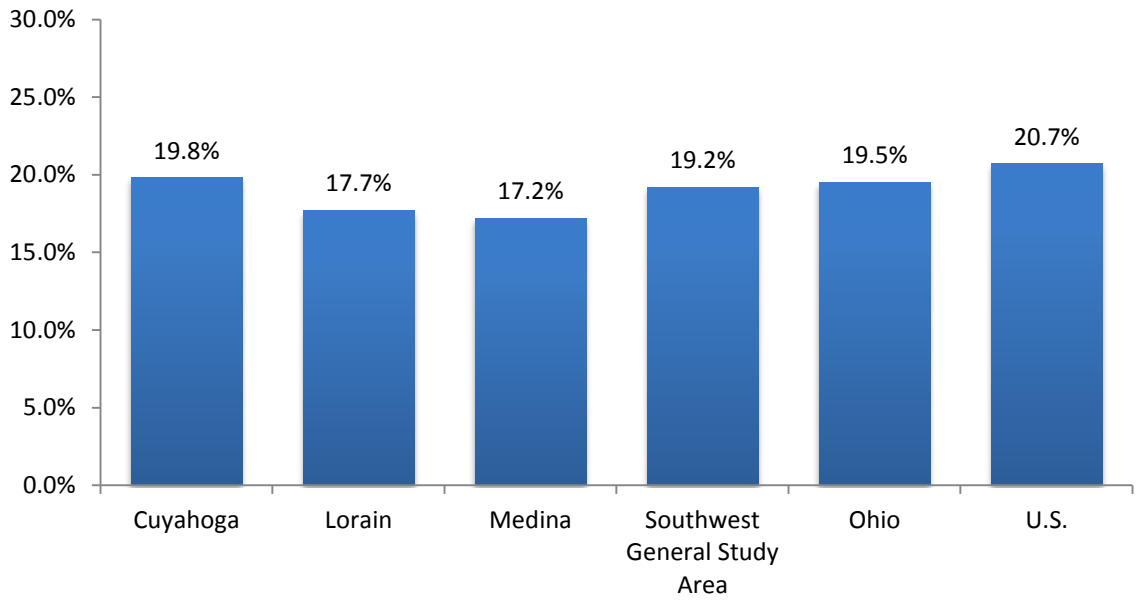
Mental health illnesses are among the top conditions that cause disability and carry a high burden of disease in the United States, resulting in significant costs to families, employers, and publicly funded health systems. By 2020, mental and substance use disorders will surpass all physical diseases as a major cause of disability worldwide. In addition, drug and alcohol use can lead to other chronic diseases such as diabetes and heart disease.[73]

According to the National Alliance on Mental Health Illness (NAMI), approximately 61.5 million Americans experience mental illness in a given year; roughly 13.6 million Americans live with a serious mental illness such as schizophrenia, major depression or bipolar disorder.[74] Approximately 60 percent of adults and almost one-half of youth ages 8 to 15 with a mental illness received no mental health services in the previous year.[75] The number of Americans afflicted with the disease is staggering and these numbers are a reflection of the lack of mental health providers in the U.S. The Department of Health and Human Services reports that almost 91 million adults live in areas where shortages of mental health professionals make obtaining treatment difficult.[76]

[72] Substance Abuse and Mental Health Service Administration: www.samhsa.gov/prevention
[73] Ibid.
[74] National Alliance on Mental Illness: www2.nami.org/factsheets/mentalillness_factsheet.pdf
[75] Ibid.
[76] Fields, Gary. "For the mentally ill, finding treatment grows harder." The Wall Street Journal. The Wall Street Journal. January 16, 2014. www.wsj.com/articles/SB10001424052702304281004579218204163263142.

Looking from a regional perspective, the Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System reported that 19.8 percent of Cuyahoga residents aged 18 and older reported lack of social or emotional support, compared to 17.7 percent in Lorain County and 17.2 percent in Median County. (See Figure 26).

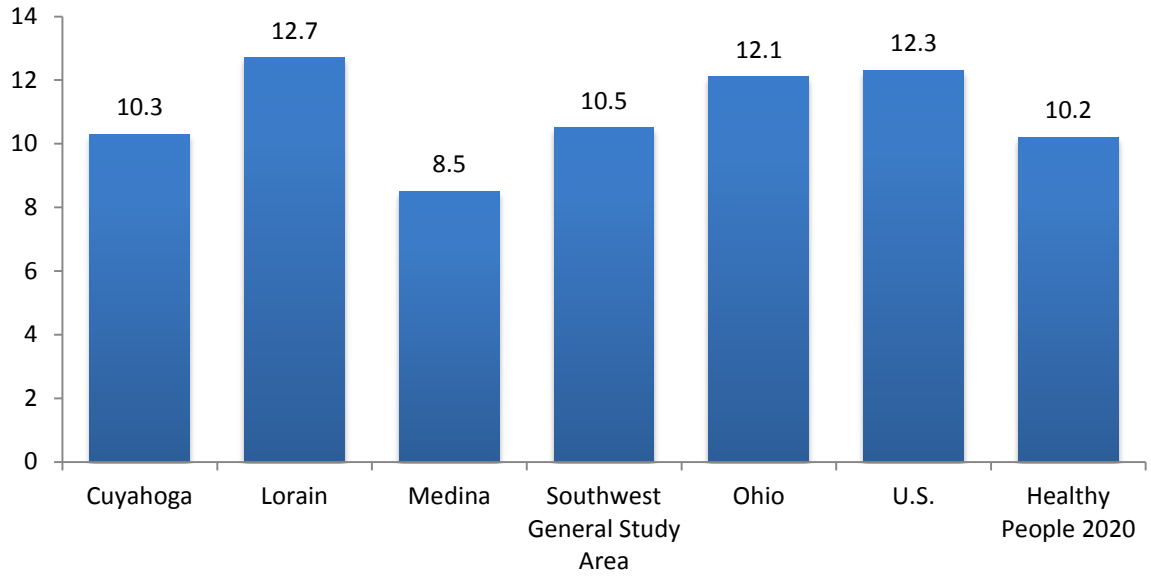
Figure 26: Lack of Social or Emotional Support (Percent Adults without Adequate Social / Emotional Support (Age-Adjusted)



Additional information collected shows residents in Lorain County having the highest rates of age-adjusted mortality due to suicide for the study area at 12.7 per 100,000 in population; this rate is slightly higher than the state (12.1) and national rate (12.3).

Healthy People 2020 is a national health promotion and disease prevention initiative which brings together many individuals and agencies to improve the health of all Americans, eliminate disparities in health, and improve years and quality of healthy life. The goal that the agency set forth is for mortality due to suicide to be less than or equal to 10.2 per 100,000 population. All counties within the study area, with the exception of Medina (8.5) are reporting rates higher than this goal (See Figure 27).

Figure 27. Suicide, Age-Adjusted Death Rate (Per 100,000 Population)



From literature review and health education information, community residents who commit suicide are severely depressed with a sense of hopelessness; knowing the pain of existence is often too much to face. Residents who faced such bleakness oftentimes believe there are limited solutions to their problems. Suicide is a public health concern which can be prevented.

According to the health provider survey, 81.0 percent of survey respondents reported that the most significant behavioral health issue in their community is mood disorders (e.g. depression, bipolar, cyclothymia) followed by anxiety disorders (61.9 percent).

In reviewing information collected from community leaders, it was reported that Southwest General Health Center is a behavioral health hub within the Northeast Ohio region. However, community leaders reported that a shortage of counseling, child psychiatric services, geriatric psychiatric services, and other behavioral health specialists are still lacking in the area. The lack of specialty behavioral health providers creates significant challenges for patient referral.

Community leaders acknowledged the need to overcome the stigma and embarrassment of mental illness. Often times, individuals are hesitant to seek help due to the social stigma attached to the disease.

It was cited that residents who struggle with a mental health illness may not be aware of available local services nor be aware of the health coverage they are allocated. Assistance with care navigation combined with health education and information on existing mental and

behavioral treatment services would stem further problems related to mental health and ultimately provide treatment options to those in need.

While mental health services and treatment plans are available in some communities, care coordination and partnering with existing service organizations have become more important to offset costs and reduce duplicate programs, as funding and state assistance will further reduce and place strain on existing services. Dedicated to the community it serves, Southwest General's Oakview Behavioral Health Center aims to provide the highest quality care for those suffering from substance abuse or a mental health illness. Staffed by well-trained physicians, psychiatrists, nurses, counselors, social workers and therapists, Oakview Behavioral Health Center is one facility trying to meet the needs of thousands seeking behavioral health care.

Conclusion and Recommendations

With the completion of the 2016 CHNA, Southwest General Health Center will look to develop goals and strategies for the CHNA implementation phase. In the implementation phase, Southwest General will leverage its strengths, resources, community relations and community outreach efforts to find ways to address the health needs identified in the 2016 CHNA. The comprehensive CHNA provides insight into the most pressing health needs and service gaps in the study area, and the implementation planning phase will develop goals, strategies, and metrics that will allow Southwest General to work toward addressing the most pressing needs in the community and improve the overall health and well-being of community residents.

Southwest General understands that the CHNA document is not the last step in the assessment phase, but rather the first step in an ongoing evaluation process. Communication and continuous planning efforts are vital throughout the next few years. Southwest General will inform residents, community groups, leaders, and other community organizations and stakeholders of CHNA findings and the strides taken to address the CHNA needs to best serve the community.

In the assessment process, common themes and issues arose throughout the completion of each project component. The data collected from the overall assessment included feedback and input from community leaders, health providers, and those who work with some of the most underserved, vulnerable populations in the region. The information collected provides Southwest General leadership with a framework to begin evaluating, identifying, and addressing gaps in services and care, which will ultimately help provide solutions for individuals living in the community.

In developing goals and strategies during the implementation phase, Southwest General will look to solidify and reinforce relationships with community partners, as well as create new relationships. Collaborating with other organizations in the community and building off one another's strengths and resources will be key in finding the best solutions to tackle the community's health needs.

The key community health needs identified by Tripp Umbach and Southwest General leadership are:

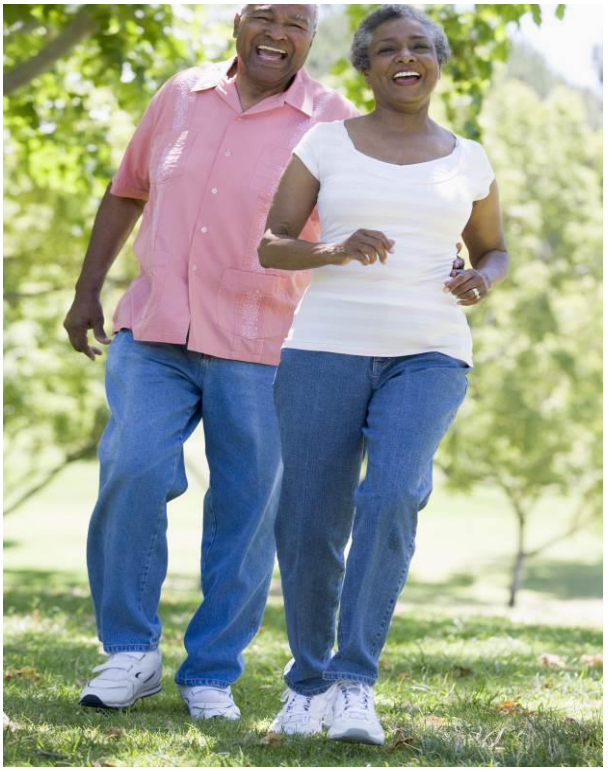
- Chronic Disease Management (education, socioeconomic barriers to care, crime, resource awareness/patient navigation, transportation)
- Obesity and Healthy Choices (nutrition, physical activity, access and use of primary care)
- Behavioral Health (substance abuse and mental health)

The presentation of primary and secondary data at the community forum provided community leaders with an abundance of information on health issues, gaps, and disparities in the community. The collection and presentation of data enabled community leaders to identify key community health needs in the study area. It is important for Southwest General leadership and community leaders to understand that the CHNA is one step toward improving the health and well-being of community residents.

Implementation strategies should take into consideration the higher need areas that exist in regions that have greater difficulties in obtaining and accessing services. Tripp Umbach recommends the following actions be taken by Southwest General over the next several months.

Recommended Action Steps:

- Communicate the results of the CHNA process to staff, providers, leadership, boards, community stakeholders and the community as a whole.
- Use the inventory of available resources in the community to explore additional partnerships and collaborations for developing implementation goals and strategies.
- Implement a community engagement strategy to build upon the resources that already exist in the community, including committed community leaders that have been engaged in the CHNA process.
- Generate specific goals, strategies, and metrics to address the top identified needs in the study area and develop a comprehensive implementation plan.
- Involve community leaders in providing expert knowledge on ways to strategically address key community health needs.
- Consistently evaluate goals and strategies as they are being implemented in the community to see where and when adjustments need to be made in order to most effectively address community health needs.



APPENDIX

Appendix A: Project Mission

- Understand and plan for the current and future health needs of the communities included in the Southwest General overall service area.
- Identify the top health needs of the communities served by the Southwest General Health Center, develop a deeper understanding of these needs, and identify community health priorities.
- Identify resources and regional opportunities to increase access to services and improve the health and well-being of the population, specifically the vulnerable and underserved population.

Appendix B: Primary Data

Primary Data Collection

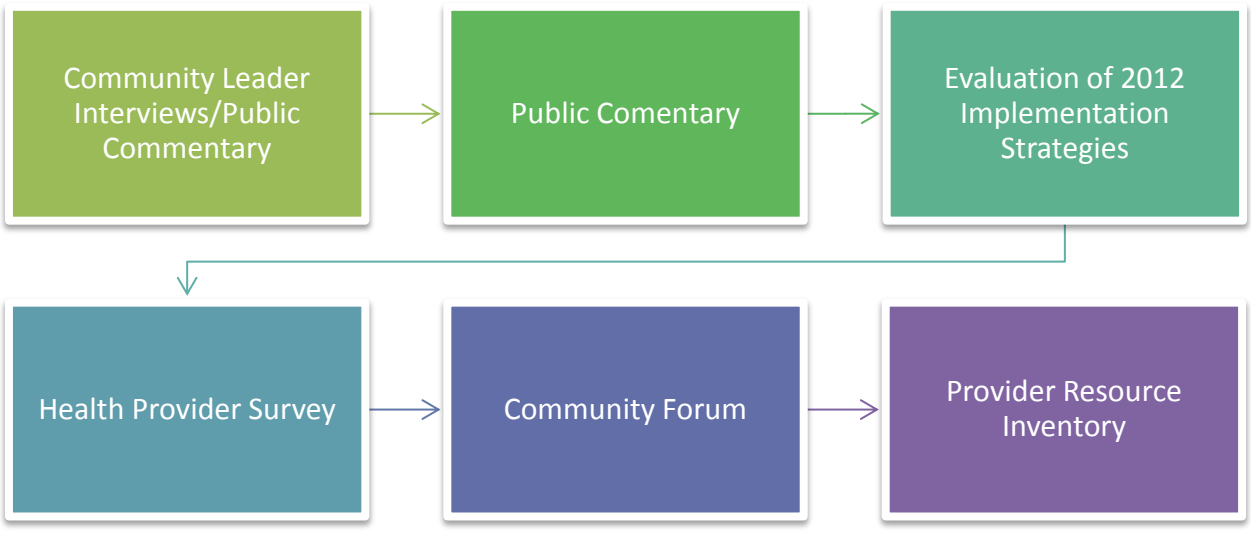
A comprehensive community-wide CHNA process was completed for Southwest General Health Center. The CHNA process brought together hospital leadership and key community leaders from health and human service agencies, government, community-based organizations, and educational institutions to evaluate the needs of the community. The 2016 assessment included primary data collection that incorporated public commentary surveys, community leader interviews, a health provider survey, provider resource inventory, and a community forum.

An in-depth review of primary and secondary data at the community forum led to the identification and prioritization of community health needs. Southwest General Health Center will examine and develop strategic actions through an implementation phase that will highlight, discuss and identify ways the hospital will work to address the needs of the communities it serves.

Tripp Umbach directed, managed, and worked closely with leadership from Southwest General Health Center to collect, analyze, review, and discuss the results of the CHNA.

The flow chart below outlines the process of each primary data collection phase in the CHNA (See Figure 28).

Figure 28: Primary Data Collection Process



Community Leader Interviews

As part of the CHNA phase, telephone interviews were completed with community stakeholders to better understand the changing community health environment. Community stakeholder interviews were conducted during the months of March and April 2016.

Community stakeholders targeted for interviews encompassed a wide variety of professional backgrounds including: 1) public health expertise; 2) professionals with access to community health related data; and 3) representatives of underserved populations. The interviews offered community stakeholders an opportunity to provide feedback on the needs of the community, secondary data resources, and other information relevant to the study.

Tripp Umbach worked closely with Southwest General Health Center to identify community leaders important to the community needs process. Working group leaders introduced Tripp Umbach by email to define the stakeholders' roles in the CHNA process. The email also introduced the project and conveyed the importance of the CHNA for the community. A Tripp Umbach consultant conducted each interview; the interviews lasted approximately 30 to 60 minutes in duration. Each community stakeholder was asked the same set of questions, as developed by Tripp Umbach and reviewed by the working group leadership at Southwest General. The interviews provided a platform for stakeholders to identify health issues and concerns affecting residents in the overall service area, as well as ways to address those concerns.

The qualitative data collected from community stakeholders are the opinions, perceptions and insights of those who were interviewed as part of the CHNA process. A total of five community leaders from a diverse representation of community-based organizations and agencies in the Southwest General study area participated in the interviews.

The common themes from the Southwest General Health Center stakeholder interviews were (in no particular order):

1) Behavioral Health (mental health, substance abuse)
2) Obesity (nutrition, physical activity, chronic diseases)
3) Health Education
4) Access to Care (with particular focus on mental health providers)
5) Barriers to Health (transportation, high insurance deductibles)
6) Resource awareness

7) Patient Navigation (care coordination)

8) Geriatric care

Public Commentary

As part of the community health needs assessment (CHNA), Tripp Umbach solicited public comments related to the 2012 CHNA and Implementation Plan completed on behalf of Southwest General Health Center.

Request for public comments offered community residents, hospital personnel, and committee members who were identified community leaders within the 2016 CHNA process, the opportunity to react to the methods, findings, and subsequent actions taken as a result of the CHNA and planning process. The following is a summary of the community's feedback regarding the 2012 CHNA and Implementation Plan for Southwest General Health Center.

The 2012 CHNA included a composition of secondary data, community surveys, community leader interviews, and the identification and prioritization of community needs. The CHNA was performed in collaboration with The Center for Health Affairs and The Hospital Council of Northwest Ohio and included feedback from the community, local organizations and agencies from the region.

Community leaders who were included in the 2016 CHNA interview process were asked to respond to a questionnaire developed by Tripp Umbach and approved by Southwest General Health Center. The collection period for the public comments began March 2016 and continued through early April 2016. In total, 22 interviews were performed which included the collected and analyzed public commentary for Southwest General Health Center.

Public Comments:

- When asked if the assessment "included input from community members or organizations," 62.0 percent of survey commenters reported that it did; 0.0 percent reported that it did not; and the remaining 38.0 percent did not know.

- 25.0 percent of respondents reported that the assessment did not exclude any community members or organizations that should have been involved in the assessment, while 69.0 percent did not know and 6.0 percent reported that a community member/organization was excluded.
    - The survey respondent who selected that a community organization was excluded in the assessment did not choose to state any specific community members or

organizations that should have been involved in the assessment. The respondent did state that they perceived the scope to be too narrow, and they were happy to be included within the 2016 CHNA process.

- In response to the question "Are there needs in the community related to health (e.g., physical health, mental health, medical services, dental services, etc.) that were not represented in the CHNA," 6.0 percent responded that some community needs were not represented, including preventative screening for diseases, mental health, and physical activity. Survey respondents believe these needs/barriers related to health are experienced by adults with increased risk for heart disease and cancer, lower socioeconomic groups, children, and the homeless. 25.0 percent of respondents said that no needs related to community health were missing, and the remaining 69.0 percent did not know if needs were missing or not.

- Over half of survey respondents (56.0 percent) indicated that the Implementation Plan was directly related to the needs identified in the CHNA, and the remaining 44.0 percent did not know if the implementation plan was directly related to the needs identified in the CHNA.

According to respondents, the CHNA and the Implementation Plan benefited them and their community in the following ways (in no specific order):

- Provided the community a tool to design where hospital organizations fit into the community and how hospitals can best support the community they serve.

- Allowed for the hospital system to meet the needs of the community confidently through measuring and subsequently tracking health data.

Additional feedback on the CHNA/Implementation Plan:

- A respondent advised Southwest General to ensure adequate communication of the data and findings of the 2016 community needs assessment is pursued in order to educate community members on the existing priority community health needs.

- To guarantee the effectiveness of the CHNA, the hospital leadership team must be highly involved in putting together the implementation plan to ensure strategic clarity.

Evaluation of 2012 Implementation Strategies

Representatives from Southwest General Health Center who have worked over the last three years to develop and implement strategies for addressing health needs and issues in the study area evaluated the effectiveness of the strategies created in terms of meeting goals and combatting health problems in the community. In the 2012 CHNA, cardiovascular health, mental health and chemical dependency, cancer, and prescription assistance were at the forefront of identified health issues and needs. Southwest General leadership developed goals and strategies for each identified concern in terms of providing awareness, education, and accessibility to services.

Tripp Umbach received 2012 CHNA implementation plan status and outcome summary assessments provided by hospital leaders. Tripp Umbach provided the Southwest General working group with an implementation planning evaluation matrix to use for 2016 implementation planning. The purpose of the evaluation process is to evaluate the effectiveness of the 2012 CHNA and implementation plan strategies, including each of the four identified priorities: cardiovascular health, mental health and chemical dependency, cancer, and prescription assistance. The table below reflects input from hospital leadership on the problem statement for each priority, strategies developed to address each, and the metrics to determine strategy effectiveness to assess how well each strategy has performed.

Table 8: Implementation Plan Status/Outcome Summary

Priority 1: Cardiovascular Health	Priority 2: Mental Health and Chemical Dependency	Priority 3: Cancer	Priority 4: Prescription Assistance
Problem Statement:	**Problem Statement**	**Problem Statement**	**Problem Statement**
Southwest General's Community Health Needs Assessment indicated that on average 30% of adults in the geographic overall service area had one or more of the risk factors associated with cardiovascular disease. The risk factors include high blood pressure, high blood cholesterol, obesity and tobacco	Mental health and chemical dependency issues affect a person's ability to function on a day to day basis. Stigma associated with these issues impact a person's ability to seek help. Southwest General's CHNA highlighted that on average 20% of adults and adolescents in the hospital's overall service area reported	Cancer was the second leading cause of death for adults in Cuyahoga and Lorain Counties and the leading cause of death for adults in Medina County from 2006-2008. There is a continued need to provide education related to screening and prevention of certain types of cancer. The needs assessment	The high cost of obtaining prescription medications is a deterrent for patients when making a decision to fill medications to address their health care condition. Southwest General's Community Health Needs Assessment showed that, on average, 8% of adults did not obtain need

use.	issues related to mental illness (depression, anxiety, suicide) and alcohol and/or drug use	highlighted lung cancer, breast cancer, colon and rectal cancer and prostate cancer.	medications due to cost.
Strategy	**Strategy**	**Strategy**	**Strategy**
1.1 Expand Southwest General's Healthy Heart and Grey Matters (stroke screening) programs 1.2 Investigate developing and implementing the evidenced based Chronic Disease Self-Management Program (CDSMP) a. Increase access of Southwest General's smoking cessation program to local businesses, patients and community residents b. Develop and implement programming to promote healthy weight management c. Decrease 30 day readmission rate for patients with cardiovascular disease	2.1 Investigate partnering with Recovery Resources to develop and implement an outpatient dual diagnosis program. 2.2 Increase access to mentally ill patients with no or limited health care coverage 2.3 Promote Oakview Behavioral Health Services to community residents, local organization/agencies and schools 2.4 Develop a pilot program to address and increase mental health and chemical dependency services within the Berea School System 2.5 Improve the intake and assessment process for mentally and chemically dependent patients in the emergency room 2.6 Increase the knowledge of health care workers regarding the needs of mentally ill and chemically dependent patients	3.1 Expand Seidman Cancer Center's community outreach efforts to increase prevention and screening outcomes. 3.2 Introduce preventative education within the Berea School System	4.1 Coordinate prescription assistance programming to meet patient needs across the continuum of care.

Metrics	Metrics	Metrics	Metrics
• Participation level in Cuyahoga County Health Dept.(HIP-C) • Participation in smoking cessation classes • Interest level of fitness programs for youths • Participation in screenings at community events	• Number of developed strategies to increase access for mentally ill patients • Parent participation in education programs for youths • Number of schools involved and are participating • Number of open psychiatric beds	• Number of attendees at screening events • Survival rate • Number of new cancer cases	• Number of cases needing assistance • Participation in access projects
Status (Rating Scale 1/5)	**Status (Rating Scale 1/5)**	**Status (Rating Scale 1/5)**	**Status (Rating Scale 1/5)**
4	**3**	**5**	**5**

Rating Scale:

1=Poor

2=Fair

3=Good

4=Very Good

5=Excellent

Health Provider Survey

A health provider survey was created to collect thoughts and opinions of the health providers' community regarding the care and services they provide. The survey was an online survey and there were 22 respondents. Southwest General Health Center sent emails to their health providers requesting survey participation.

The health provider survey was available online via Survey Monkey from 5/1/2016 - 5/14/2016.

Demographics:

- More than half of survey respondents live in ZIP code 44130 (55.0 percent); while only one lives in ZIP code 44017 (4.5 percent)
- More than half of survey respondents are male (70.0 percent); while 25.0 percent are female.
- More than one-third of survey respondents (35.0 percent) are between the ages of 55-64 years old.
- Close to one-third of survey respondents (30.0 percent) plan on retiring in 11-15 years; 10.0 percent plan on retiring in less than 5 years.
- Half of survey respondents are expecting to retire in either 5-10 years (25.0 percent) or 15 or more years (25.0 percent).
- Close to three-fourths of survey respondents are White/Caucasian (70.0 percent); while 10.0 percent are Asian, 5.0 percent Hispanic/Latino/Spanish, and 5.0 percent identify as other.
- The majority of survey respondents are married (80.0 percent); while 5.0 percent of health providers are divorced, and 5.0 percent were never married.
- Almost all of the survey respondents have a medical degree (95.0 percent); while 5.0 percent prefer not to say.
- Close to half of survey respondents (45.0 percent) have an annual household income of $200,000 or more.

Online Survey Results:

- Of the health providers who provide care, 41.0 percent of survey respondents volunteer their health services to people in the community.
- Of those respondents who volunteer, more than three-fourths (88.9 percent) of survey respondents volunteer 1-5 hours per month; while 11.1 percent volunteer 11-15 hours per month.
- 100 percent of survey respondents reported that the care that is provided at their main facility is “very good” or “good”.

- More than one-half of survey respondents (63.6 percent) rated the community where they provide services or care as “very healthy” or “healthy”.

- Almost all of survey respondents “strongly agree” or “agree” there are high quality health care programs and services (90.9 percent), and the community where they provide services/care is a safe place to live (90.9 percent).

- Close to three-fourths (68.2 percent) reported there are ample employment opportunities overall and 59.1 percent reported that they “strongly agree” or “agree” that there are ample human and social services available.

- The top three responses from survey participants reported that out of pocket costs/high deductibles (72.73 percent), no insurance coverage (68.18 percent), and no transportation (13.82 percent), being able to navigate the health care system (13.82 percent) and lack of mental health facilities (13.82 percent) as the biggest barriers for community residents receiving care.

- None of the survey respondents perceive cultural differences as a barrier to people not receiving care.

- The top three most pressing health problems in the community according to survey respondents are heart disease and stroke (42.9 percent), obesity (38.1 percent) tied with aging problems such as arthritis, hearing/vision loss (38.1 percent), and diabetes (33.3 percent).

- According to survey participants, lack of exercise (66.67 percent), poor eating habits (57.14 percent), and alcohol abuse (47.62 percent) are the top risky behaviors in the community where they provide care/services.

- Over three-quarters of survey respondents (81.0 percent) reported mood disorders as the most significant behavioral health issue in the community they serve.

- Anxiety disorders (61.9 percent), and dementia (38.1 percent), were additional significant behavioral health issues in the community where survey respondents provide care/services.

- Only 10.0 percent of survey respondents reported that 81 percent-100 percent of their patient population is compliant with their treatment plan after they sought services from a health provider.

- Top reasons why survey respondents believe their overall patient population is noncompliant to their treatment plan include: high cost of care/medications (65.0

percent), personal reasons (60.0 percent), and patients believe they will be healthy without a treatment plan.

- More than half of survey respondents (65.0 percent) have adequate interpreter services at the main facility where they provide care while 20.0 percent of survey respondents reported needing interpreter services 1-5 times a week.

Community Forum

A regional community planning forum was held on May 17, 2016 at Southwest General Health Center. The community planning forum involved 35 community leaders representing various community organizations, health and human services agencies, health institutions, and additional community agencies from Southwest General Health Center. Community participants were invited by members of Southwest General Health Center to attend the three-hour community forum facilitated by Tripp Umbach.

Tripp Umbach presented the results from secondary data analysis, community leader interviews, and public commentary and used these findings to engage community participants in a group discussion. Participants broke into groups to determine and identify issues that are most prevalent and widespread in their respective hospital communities. Finally, the breakout groups were charged with creating ways to resolve their community's identified problems through innovative solutions in order to form a healthier community.

The following list identified community health needs based upon input collected from Southwest General Health Center forum participants. They are listed in order of mention.[77]

Identified Key Community Needs:

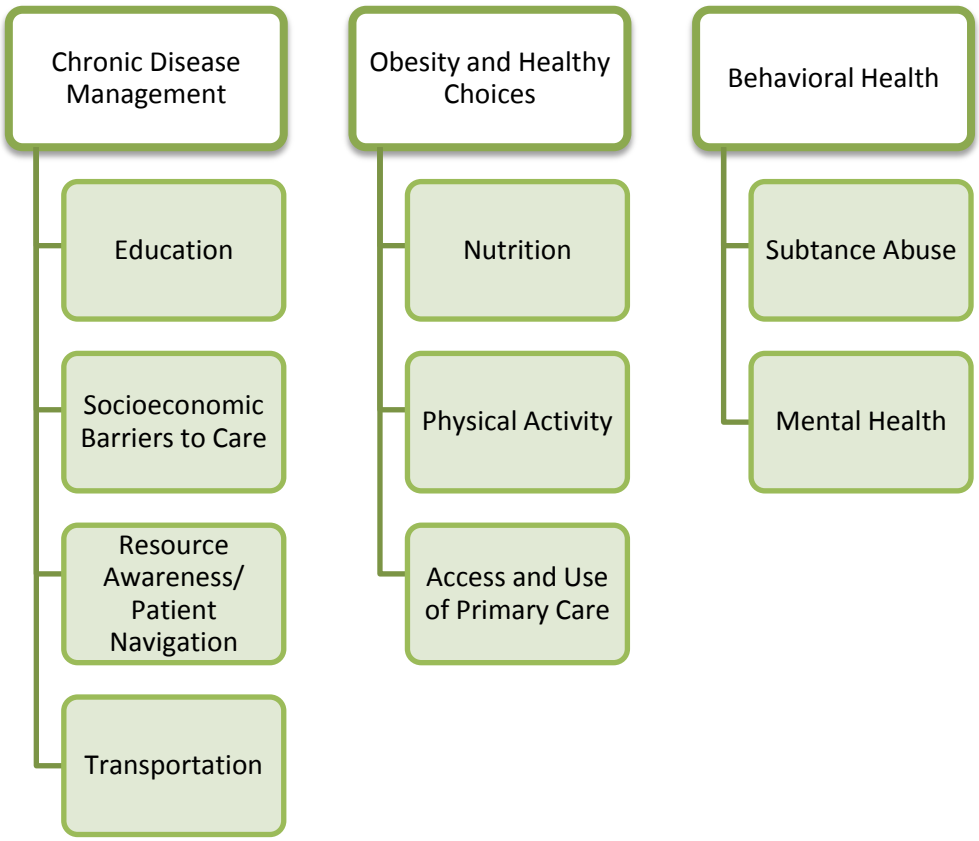
1. Chronic Health Conditions (7)
2. Knowledge and Use of Resources (5)
3. Behavioral Health and Substance Abuse (4)
4. Education (4)
5. Obesity and Healthy Choices (3)
6. Socioeconomic Barriers to Care (3)

[77] The number in parenthesis indicates the number of individuals that identified the listed community need (e.g., if two community leaders mentioned the need, a (2) is shown).

7. Transportation (2)

Upon the collection and review of all primary and secondary data, community forum public input, and discussions with the CHNA working group and project leadership, three identified community health needs came to the forefront (See Figure 29). Included in each community health need priority are additional factors and challenges that account for the health needs.

Figure 29: Key Community Health Needs



Provider Resource Inventory

An inventory of programs and services available in the region was developed by Tripp Umbach. The provider inventory highlights available programs and services within Southwest General Health Center's overall service area. The inventory identifies the range of organizations and agencies in the community that are serving the various target populations within each of the priority needs. The inventory provides program descriptions and collects information about the potential for coordinating community activities and creating linkages among agencies.

An interactive link of the provider resource inventory will be made available on Southwest General Health Center's website.

Implementation Planning

With the completion of the community health needs assessment, an implementation phase will begin with the onset of implementation planning sessions facilitated by Tripp Umbach. The planning sessions will engage hospital and community leadership in the community health implementation planning process, allowing for the development of attainable strategies and goals that address health needs and concerns. The planning process will ultimately result in the development of an implementation plan that will meet system and IRS standards.

Appendix C: Secondary Data Analysis

Tripp Umbach collected and analyzed secondary data from multiple sources, including Truven Health Analytics, U.S. Census Bureau, Community Commons, County Health Rankings, Substance Abuse and Mental Health Services Administration, Centers for Disease Control and Prevention (CDC), Ohio Department of Health, etc.

The secondary data profile includes information from multiple health, social and demographics sources. Tripp Umbach used secondary data sources to compile information related to disease prevalence, socioeconomic factors and health behaviors. Where applicable, data were benchmarked against state and national trends. Community Need Index data from Truven Health Analytics provided a ZIP code level perspective to pinpoint specific areas of socioeconomic/health needs.

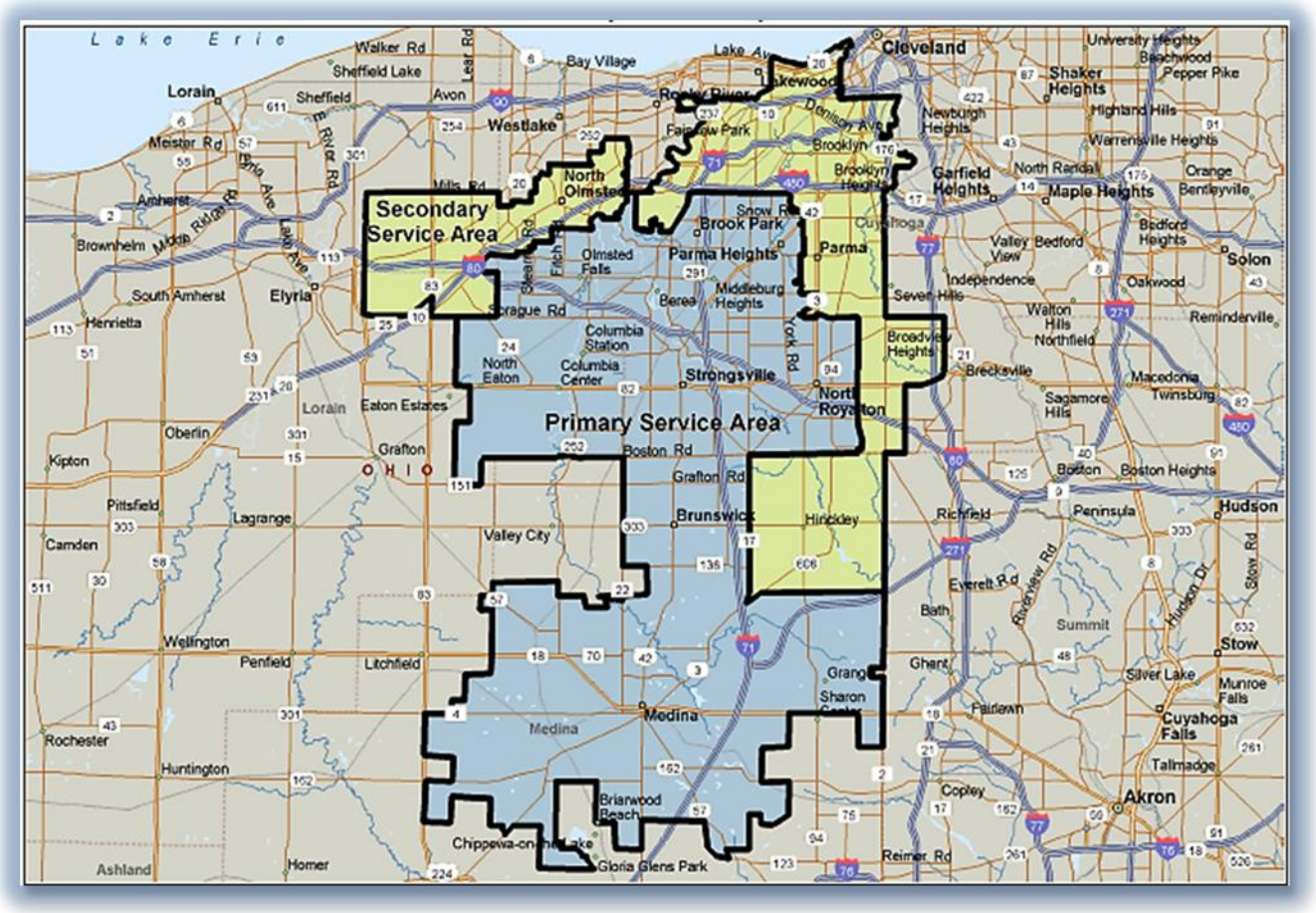
The secondary data profile includes a comprehensive overview of health and social conditions in the region. Secondary data were used to provide important information, insight, and knowledge into a broad range of health and social issues. Below are areas of concern or key research categories that were analyzed as part of the secondary data:

- Population and Demographics
- Social and Economic Factors
- Access to Care/Clinical Care
- Community Need Index (CNI)
- County Health Rankings
- Health Outcomes
- Obesity, Nutrition, and Physical Activity
- Chronic Conditions
- Cancer
- Behavioral Health – Mental Health and Substance Abuse

In 2016, a total of ten ZIP code areas were analyzed for Southwest General Health Center. The ten ZIP codes represent the community served by Southwest General Health Center as the hospital's primary ZIP code service area, or where approximately 80 percent of the hospital's patient population resides. The ten ZIP codes fall into three (3) counties in Ohio – Cuyahoga, Lorain, and Medina counties.

The following map geographically depicts the Southwest General Health Center study area; the communities shaded in blue are included within the study area (See Map 3).

Map 3: Southwest General Study Area - 2016 Study Area Map



Source: Truven Health Analytics 2016

Key Secondary Data Findings

The following information presents the key data findings from the secondary data analysis:

Demographics/Social and Economic Factors

- A slight decrease in population in Cuyahoga County is expected (-0.9 percent), compared to an increase in population in Lorain County (+1.5 percent) and Medina County (+2.4 percent). The rate at which population growth is occurring in the study

area (+1.3 percent) differs from the national trend, which indicates an expected 3.7 percent increase in U.S. population by the year 2021.

- The majority of residents in the study area are between the ages of 35 and 54. There is a larger senior population (55 and older) in the study area than a younger population of 18 to 34. This is consistent with state and national trends and is expected to continue to be the trend in 2021.
- The study area population includes a large majority of White Non-Hispanic residents (90.4 percent), which is a much greater percentage as compared to the state of Ohio (79.7 percent) and the nation (61.3 percent).
- The counties and study area have higher levels of the population with some college/associate's degree (Cuyahoga – 29.2 percent, Lorain – 32.5 percent, Medina – 31.0 percent, Southwest General Study Area – 31.0 percent) compared to the state (28.8 percent).
- The study area has higher average household income levels ($84,475) than the average income levels for both Ohio ($69,035) and the nation ($77,135).
- In 2016, Medina County and the Southwest General Study Area have low percentages of household earnings with less than $15K (5.6 percent and 6.6 percent respectively). These percentages are much lower than the state averages (13.3 percent) and the nation (12.3 percent).

Access to Health Care

- Access to care and resources are key to residents being able to receive necessary health care. Access to care issues exist in the study area.
- Access to Primary Care within Cuyahoga, Lorain, and Medina counties has improved from 2002 to 2011; growing from 113.04 to 128.31 primary care physicians per 100,000 of the population.
    - Lorain and Medina counties have markedly lower access than Cuyahoga County, the state, and the nation.
- Cuyahoga County has a higher percentage of adults who do not have a regular doctor (19.52 percent) as compared to the state of Ohio and the three county study area.
- Access to Mental Health Providers within the study area is higher than the state of Ohio. This is highly influenced by the rate of providers within Cuyahoga County; 162.7 providers versus 94.4 per 100,000 population in the state.

    - Lorain County and Medina County have significantly lower levels of access compared to the study area, the state, and the nation.

- Lorain and Medina counties have significantly lower rates of dentists per 100,000 populations than Cuyahoga County, the study area, the state, and the nation.
    - Lorain County has the highest percentage of adults who had no dental exam within the past year (28.6 percent).
- Lorain and Medina counties report lower percentages of residents receiving a sigmoidoscopy or colonoscopy in comparison to the study area. Medina County represents the lowest percentage, with rates below state and national averages.
- Within the study area, Lorain County reports the highest rate of adult residents with high blood pressure who are not taking their medication. This rate of 24.7 percent is above both state and national averages.

Community Need Index (CNI)[78]

- The CNI score for the Southwest General study area in 2016 was 2.06. A CNI score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need. A CNI score of 2.06 indicates a medium number of barriers to accessing health care (See Appendix C for CNI background information).

[78] Truven Health Analytics, 2016.

Table 9: Community Health Index Scores by ZIP Code

ZIP Code	County	Community Name	Income Quintile	Culture Quintile	Education Quintile	Insurance Rank	Housing Quintile	2016 CNI Score	2015 CNI Score	CNI Difference: 2015 to 2016
44017	Cuyahoga	Berea	3	3	2	2	4	2.8	2.8	0.0
44028	Lorain	Columbia Station	2	2	3	1	1	1.8	1.4	0.4
44130	Cuyahoga	Middleburg Heights	2	3	2	2	5	2.8	3.0	-0.2
44133	Cuyahoga	North Royalton	1	2	1	1	4	1.8	1.8	0.0
44136	Cuyahoga	Strongsville	2	3	1	1	4	2.2	2.4	-0.2
44138	Cuyahoga	Olmsted Falls	1	3	1	1	3	1.8	1.8	0.0
44142	Cuyahoga	Brook Park	2	3	3	2	2	2.4	2.6	-0.2
44149	Cuyahoga	Strongsville	1	3	1	1	1	1.4	1.4	0.0
44212	Medina	Brunswick	1	2	2	1	3	1.8	2.0	-0.2
44256	Medina	Medina	2	2	1	1	3	1.8	1.8	0.0

- ZIP Codes 44017 (Berea) and 44130 (Middleburg Heights) in Cuyahoga County have the highest CNI score in the study area with a score of 2.8; indicating the highest barriers to accessing health care within the study area.
- ZIP Codes 44028 (Columbia Station) was the only city within the study area that saw a move toward more barriers to accessing health care from 2015 to 2016, shifting from a score of 1.4 to 1.8.

County Health Rankings[79]

Table 10. Ohio County Health Rankings 2016[80]

Ohio (Rankings Out of 88)	Health Outcomes 2016	Health Outcomes 2012	Health Behaviors 2016	Health Behaviors 2012	Length of Life 2016	Length of Life 2012	Quality of Life 2016	Quality of Life 2012
Cuyahoga	64	65	53	53	54	60	73	69
Lorain	30	28	41	33	30	24	33	39
Medina	5	3	5	4	4	4	5	6
Ohio (Rankings Out of 88)	**Health Outcomes 2016**	**Health Outcomes 2012**	**Health Behaviors 2016**	**Health Behaviors 2012**	**Length of Life 2016**	**Length of Life 2012**	**Quality of Life 2016**	**Quality of Life 2012**
Cuyahoga	39	17	5	7	79	79	61	82
Lorain	20	41	29	37	52	46	77	21
Medina	5	3	6	9	7	6	79	14

Source: County Health Rankings

- Cuyahoga ranks in the bottom 10 for the state of Ohio for Social and Economic Factors in both 2012 and 2016; with the rank unchanged during the trending time period from 2012 to 2016. Cuyahoga ranked in the bottom 10 for the state of Ohio for Physical Environment in 2012, however has significantly improved in 2016.
- Medina County ranks in the top 10 for the state of Ohio in almost every category, with the exception of Physical Environment
- Clinical Care rankings for all three counties in the study area have improved from 2012 to 2016.
- Cuyahoga County ranks in the bottom 30 percent of the state of Ohio for Health Outcomes, Quality of Life, Social and Economic Factors, and Physical Environment.

[79] County Health Rankings, 2016.
[80] Numbers in red indicate a bottom 10 ranking. Numbers in green indicate a top 10 ranking. A lower number signifies a better ranking, while a higher number signifies a poorer ranking.

- Lorain County health rankings have improved for Quality of Life, Health Behaviors, and Clinical Care; yet significantly worsened in Health Factors and Physical Environment.
- Medina County remains highly ranked within the state of Ohio for health demographics, with the exception of Physical Environment.

Obesity and Chronic Conditions[81]

- Lorain County has the highest percent of adults with a BMI over 30.0. Demonstrating the link between obesity and diabetes, Lorain County and Cuyahoga County have higher rates of diabetes than the national diagnoses rate (9.1 percent).
- Cuyahoga County represents high levels of obesity within the study area, which may influence high cholesterol percentages. Cuyahoga County has the highest percentage of adults with high cholesterol (38.25 percent) as compared to the study area.
- Lorain County has the highest population of adults with high blood pressure (31.2 percent), which is higher than the state (28.8 percent) and the national average (28.16 percent).
- The study area represents a higher rate of adults with heart disease than in Ohio and the nation. Medina County has the highest rate of heart disease in the study area, the state, and the nation; while Cuyahoga County has the highest heart disease mortality rate per 100,000 population in the study area, the state, and the nation.
- Lorain County has the highest rate of mortality due to lung disease in the study area (59.8 per 100,000 population). This is higher than the rate in the state of Ohio (42.2), as well as the nation (42.2).
- The study area reported that the stroke mortality rate is lower than both the state (47.7) and nation (37.9), at a rate of 35.7 per 100,000 population.
- The study area represents similar percentages of poor dental health as compared to the state (18.7 percent), but represents high rates of poor dental health in comparison to the nation (15.7 percent).

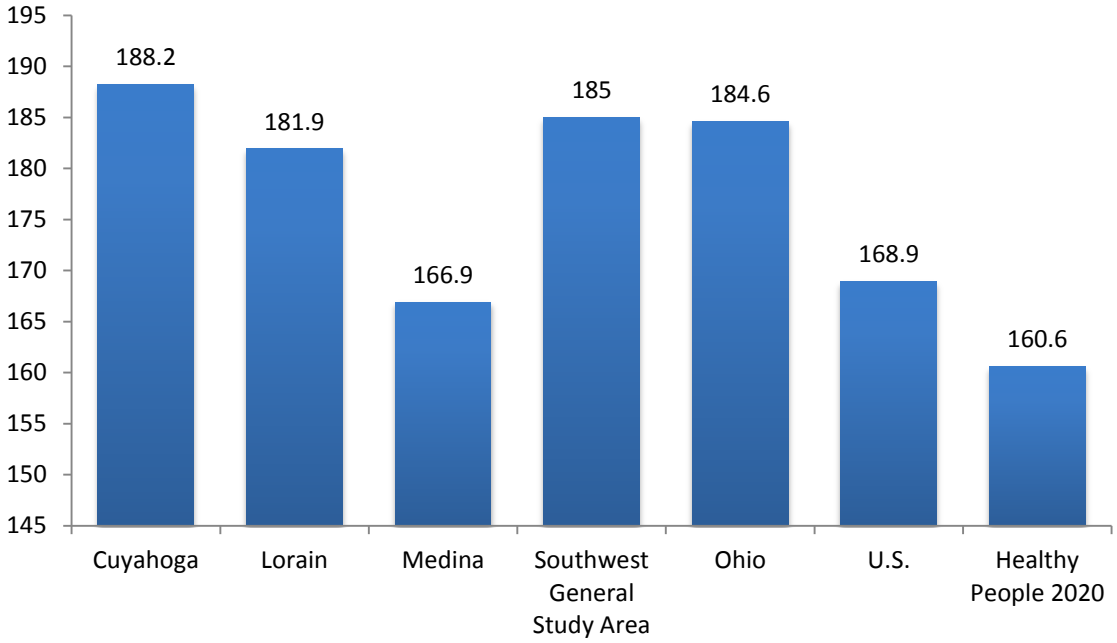
[81] Centers for Disease Control and Prevention.

Cancer[82]

- Cuyahoga County has a higher cancer mortality rate per 100,000 population (188.2) as compared to the study area (185), the state (184.6) and the nation (160.9). Lorain County has a lower cancer mortality rate (166.9) in comparison to the study area and the state of Ohio (184.6)
    - The Healthy People 2020 goal is for mortality due to cancer to be less than or equal to 160.6 per 100,000 populations; the average study area rate and state rates higher than this goal.
- Cuyahoga County and Medina County have similar breast cancer rates at 130.5 and 129.1 per 100,000 population. The rates for these counties are above the state (120.5) and national (123.0) rate.
- Cuyahoga County has a higher colon and rectal cancer incidence rate in the study area with 43.8 cases per 100,000 in population. This is slightly higher than the state (43.0), as well as the national rate (41.9).
    - The study area reports a higher rate of colon and rectal cancer incidence in comparison to the Healthy People 2020 goal of less than 39.70 per 100,000 population.
    - Lorain County has the highest rate of lung cancer in the study area (72.2 per 100,000 population). This is higher than the study area (69.8), the state (71.6) and national (63.7) rates.
- Cuyahoga County (151.1) has a higher rate of prostate cancer in the study area per 100,000 population; this is higher than the study area (147.5), the state (127.1) and nation (131.7).

[82] National Institutes of Health, National Cancer Institute, State Cancer Profiles. 2008-2012. Accessed via Community Commons.

Figure 30. Cancer Mortality Rate Per 100,000 Population

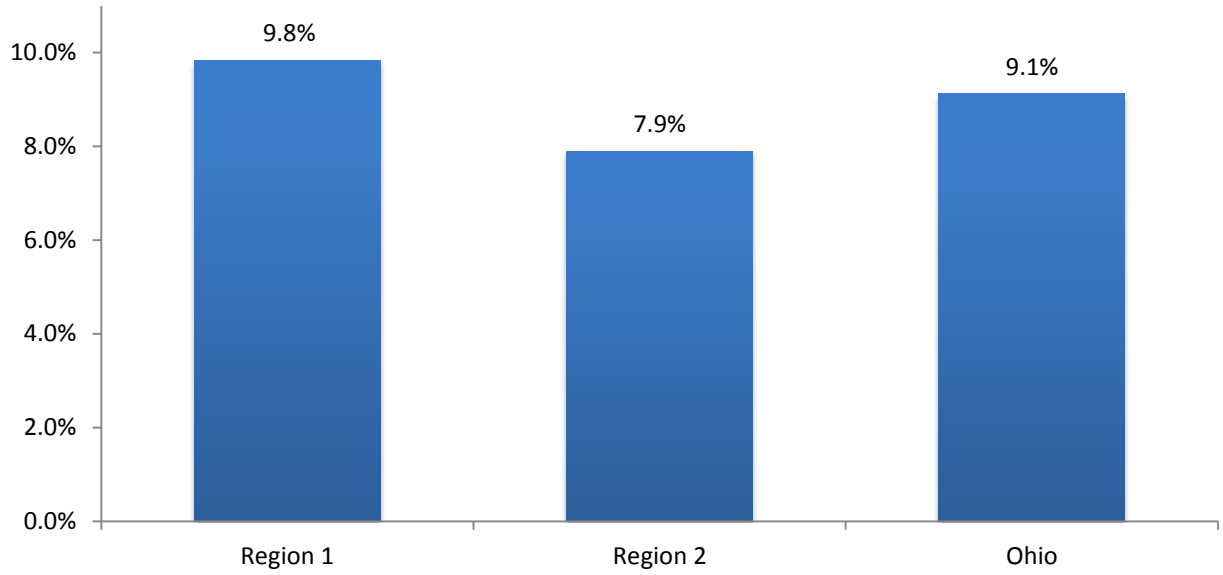


Behavioral Health

- Cuyahoga County exhibits the highest rate of residents with a lack of social or emotional support at 19.8 percent of the population; this is slightly higher than the report area (19.2 percent) and state (19.5 percent) norms.
- Lorain County reports the highest rates of age-adjusted mortality due to suicide for the study area at 12.7 per 100,000 in population; this rate is slightly higher than the state (12.1) and national rate (12.3). The Healthy People 2020 goal is for mortality due to suicide to be less than or equal to 10.2 per 100,000 population. All counties within the study area, with the exception of Medina (8.5) are reporting rates higher than this goal.
- Lorain County reports the highest rate of excessive alcohol use in the study area at 20 percent; which exceeds both state and national averages. Lorain County has the highest level of access to liquor stores in the study area (8.3), while Medina County has the lowest level of access (3.38)
- Lorain County reports the highest percent of adults smoking cigarettes within the study area (22.7 percent), and also has the highest percentage of residents with lung cancer and lung disease.

- Access to Mental Health Providers within Lorain County (61.9) and Medina County (82.9) are both significantly lower levels of access as compared to the report area (137.2), the state (94.4), and the nation (134.1).
- The Ohio region which includes Cuyahoga County and Lorain County has higher estimated rates of illicit drug use than compared to the state (9.8 percent versus 9.1 percent).

Figure 31. Illicit Drug Use Reported in the Past Month (from 2010-2012 survey)[83]



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2010, 2011, and 2012 (2010 Data – Revised March 2012).

*Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically.

Region Definitions:

- *Region 1: Includes Cuyahoga and Lorain County*
- *Region 2: Includes Medina*

[83] NSDUH Substate Estimates of Substance Abuse and Mental Disorders, 2010-2012

Appendix D: Southwest General Health Center

General Description of Southwest General Health Center

Southwest General is a 358-bed, non-profit hospital serving southwestern Cuyahoga, northern Medina and eastern Lorain counties. Founded in 1920 by residents of the surrounding communities, Southwest General has a rich history of community partnership and a deep commitment to the health and wellbeing of the residents.

History of Southwest General Health Center

Southwest General was founded in 1920, after local residents raised $100,000 in 10 days to build a 32-bed hospital in Berea, following a post-World War I flu epidemic. During the flu epidemic many area residents died while being transported to the nearest Cleveland hospital. Convinced of the need for a local hospital, citizens of the southwest Cleveland area rallied to raise the dollars to open a “Community Hospital”.

In 1975 Southwest General relocated to its current location, a 22-acre site in neighboring Middleburg Heights. The present location was constructed in part using funds from a self-imposed tax levy, supported by six communities in Southwest General's overall service area, called our primary communities. Over the years since inception, Southwest General has completed seven additions and two name changes, and is in the process of renovating all semi-private rooms to private rooms. Additionally, Southwest General has several off-site locations, including a free standing surgery center, full service Emergency Room, 10-bed Residential Hospice Center, a premier medically integrated fitness center, plus medical offices and outpatient services. In 2012, the hospital embarked on its largest and most recent expansion project that included a new Emergency Department, parking garage, helipad and patient bed tower.

The communities served by Southwest General include the cities of Berea, Brookpark, Middleburg Heights, Columbia Township, Olmsted Falls, and Strongsville, North Royalton, Medina, Brunswick, Parma and Parma Heights. Other communities in Cuyahoga, Lorain and Median counties are also served.

In 2014, we had 14,236 inpatient admissions accounting for 60,738 patient days. This does not include Skilled Nursing days, Acute Rehab, Mental Health Unit, Geropsychiatry Unit, or Newborn days. Southwest General’s mission statement is: Health is our business, Quality is our focus, and Compassion is our way, which epitomizes our dedication to improving the health of our communities. We have repeatedly been awarded quality awards by notable quality groups such as the Centers for Medicaid and Medicare (CMS) Top 97 hospitals for Joint Replacements,

the Joint Commission's Top Performer on Key Quality Measures, and The Leapfrog Group's "A" rating for excellence in Patient Safety to list a few.

Southwest General Mission Statement

Health is our business, Quality is our focus, and Compassion is our way, which epitomizes our dedication to improving the health of our communities

Community Benefit Focus at Southwest General Health Center

Community Benefit is central to the mission of Southwest General, represented by $18,475,000 in 2014. We believe good health is a fundamental aspiration of all people and we recognize that promotion of good health extends beyond the doctor's office and the hospital. Like our approach to medicine, our work in the community takes a prevention-focused, evidence-based approach. Key programs include:

Southwest General Programs:

- ***Community Nurse and Transition Coach RN Program:*** Health screenings and educational programs are provided to community members of all ages. Services are provided in convenient neighborhood locations such as recreation and senior centers, libraries and local meeting places. Transition Coach RN program provides home visits and telephone support for 30 days post discharge for high risk patients in the community.
- ***Emergency Medical Services (EMS):*** Emergency Medical Services are provided at convention center functions, fairs and other community events.
- ***EMS Education Program:*** Certification education for paramedics, Emergency Medical Technicians (EMTs) and 9-1-1 dispatchers, including educational requirements to maintain certification for the state of Ohio and National Registry; accreditation for Homeland Security and County Training Academy for Citizens Emergency Response Training as well as American Heart Association accreditation to provide Basic Life Support, Advanced Cardiac Life Support, Pediatric Advanced Life Support and Internal Trauma Life Support courses for professionals and community members. Education is provided at the hospital, community venues and local fire stations.
- ***EMS Medical Control:*** Emergency Medical Technicians (EMTs) must function under the direction of a medical director/physician. They follow written patient care protocols and "act" on behalf of the physician in the field. Southwest General provides medical control for the following departments: Cleveland Hopkins Int'l Airport, Burke Lakefront Airport, Berea Fire, NASA Glenn Research Center at Lewis Field, Brunswick Fire/Dispatchers,

Brunswick Hills Twp. Fire, Columbia Twp. Fire, Brook Park Fire, Middleburg Hts. Fire, Strongsville Fire/Dispatchers, and Olmsted Falls Fire.

- ***Health Connection:*** Free physician referral and health information phone service, staffed by a registered nurse.
- ***Medication Disposal Program:*** Allows residents to drop off unused medication at Southwest General for appropriate disposal, keeping water sources cleaner.
- ***School Health Program:*** Provides school nurses for the Berea City School District (3 cities). Nurses provide basic first aid, medication assistance, control of communicable diseases and state-mandated health screenings.
- ***Sponsorships/Donation:*** Southwest General proudly supports United Way, the American Heart Association, and the American Cancer Society's Relay for Life, and many other local and national organizations involved in community health and wellness activities.
- ***Van Transportation:*** Free van transportation is provided for residents of Berea, Brook Park, Columbia Township, Middleburg Heights, Olmsted Falls, Strongsville and Brunswick who are unable to provide their own transportation to doctor appointments, tests and other clinical services at Southwest General's Main Campus and off-site buildings.

Appendix E: Truven Health Analytics

Truven Health Analytics: Community Needs Index (CNI) Overview

Not-for-profit and community-based health systems have long considered a community's needs to be a core component of their mission of service to local communities. While specific initiatives designed to address health disparities vary across local communities (e.g., outreach to migrant farm workers, asthma programs for inner city children, etc.), the need to prioritize and effectively distribute hospital resources is a common thread among all providers.

Given the increased transparency of hospital operations (quality report cards, financial disclosures, etc.), community benefit efforts need to become increasingly strategic and targeted in order to illustrate to a variety of audiences how specific programs have been designed and developed. While local community needs assessments will always play a central role in this process, they are often voluminous, difficult to communicate, and may lack necessary qualitative and statistical justification for choosing specific communities as having the "greatest need."

Because of such challenges, Dignity Health and Truven Health jointly developed a Community Need Index (CNI) in 2004 to assist in the process of gathering vital socioeconomic factors in the community. The CNI is strongly linked to variations in community health care needs and is a strong indicator of a community's demand for various health care services.

Based on a wide array of demographic and economic statistics, the CNI provides a score for every populated ZIP code in the United States on a scale of 1.0 to 5.0. The CNI should be shared with community partners and used to justify grants or resource allocations for community initiatives.

Methodology

The CNI score is an average of five different barrier scores that measure various socioeconomic indicators of each community using the source data. The five barriers are listed below, along with the individual statistics that are analyzed for each barrier. The following barriers, and the statistics that comprise them, were carefully chosen and tested individually by both Dignity Health and Truven Health:

1. Income Barrier

- Percentage of households below poverty line, with head of household aged 65 or older
- Percentage of families, with children under age 18, below poverty line

- Percentage of single female-headed families, with children under age 18, below poverty line

2. Cultural Barrier

- Percentage of population that is a minority (including Hispanic ethnicity)
- Percentage of population, over age 5, that speaks English poorly or not at all

3. Education Barrier

- Percentage of population, over age 25, without a high school diploma

4. Insurance Barrier

- Percentage of population in the labor force, age 16 or older, without employment
- Percentage of population without health insurance

5. Housing Barrier

- Percentage of households renting their home

Every populated ZIP code in the United States is assigned a barrier score of 1, 2, 3, 4, or 5 depending upon the ZIP national rank (quintile). A score of 1 represents the lowest rank nationally for the statistics listed, while a score of 5 indicates the highest rank nationally. For example, ZIP codes that score a 1 for the Education Barrier contain highly educated populations; ZIP codes with a score of 5 have a very small percentage of high school graduates.

For the two barriers with only one statistic each (education and housing), Truven Health used only the single statistic listed to calculate the barrier score. For the three barriers with more than one component statistic (income, cultural and insurance), Truven Health analyzed the variation and contribution of each statistic for its barrier; Truven Health then weighted each component statistic appropriately when calculating the barrier score.

Once each ZIP code is assigned its barrier scores from 1 to 5, all five barrier scores for each ZIP code are averaged together to yield the CNI score. Each of the five barrier scores receives equal weight (20 percent each) in the CNI score. An overall score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need.

Data Sources

- 2016 Demographic Data, The Nielsen Company
- 2016 Poverty Data, The Nielsen Company
- 2016 Insurance Coverage Estimates, Truven Health Analytics

Applications and Caveats

- CNI scores are not calculated for non-populated ZIP codes. These include such areas as national parks, public spaces, post office boxes and large unoccupied buildings.
- CNI scores for ZIP codes with small populations (especially less than 100 people) may be less accurate. This is due to the fact that the sample of respondents to the 2010 census is too small to provide accurate statistics for such ZIP codes.

Appendix F: Community Leader Interviewees

Tripp Umbach completed twenty-two (22) interviews with community stakeholders to gain a deeper understanding of community health needs from organizations, agencies and government officials that are knowledgeable of health issues from their day-to-day interactions with populations in greatest need. Interviews provided information about the community's health status, risk factors, service utilizations, and community resource needs, as well as gaps and service suggestions.

Listed below are the 22 community stakeholders and their respective organizations

Table 11: Community Stakeholders

Name	Organization	Community Leader Role
Cheryl Kanetsky	Alzheimer's Association: Cleveland Area Chapter	Vice President
Kristin Hurst	American Cancer Society	Health Systems Manager, Hospitals
Joanna Rohrer	Berea City School District: Cities of Brook Park, Berea, and Middleburg Heights	RN, School Health Specialist III
Cindy Schultz	Chairman, Southwest General Health Center Board	Chairman
Lisa Bruening	Director of Pupil Services Berea City School District: Cities of Berea, Brook Park, Middleburg Heights, and Olmsted Falls	Director of Pupil Services Berea City School District
Rebecca Rak	City of Brunswick	Brunswick Family Assistance Coalition (FACT)
Wayne Brassell	City of Columbia Station	Trustee Southwest Community Health System
Alan Budney	City of Middleburg Hts	Trustee, Southwest Community Health System
Brett Hazard	City of Olmsted Falls	Vice Chairman, Southwest Community Health Foundation
Kathy Sazima	City of Strongsville, Ehrnfelt Senior Care	Nurse Coordinator
Terry Allan	Cuyahoga County Board of Health	Member
Evelyn Czyz	Medina County Drug Abuse Commission	Committee member
Marsha Blanks	NAMI Greater Cleveland	Program Director
Gloria Tews	NAMI Medina County	Program Director
Kimberly Corrigan	Pearlview Care Center and Brunswick Sr. Center	Administrator

Deborah Harwood	Southwest General Hospital Leaders	Oncology Director of Seidman Cancer Center
Dr. Mark Panigutti	Southwest General Hospital Leaders	Current Medical Staff President
Michael Waggoner	Southwest General Hospital Leaders	Behavioral Health Director
Robin Szeles	Southwest General Hospital Leaders	Heart and Vascular Director
Mayor Tom Perciak	Strongsville City Council	Strongsville, Ohio
John Garrity	The Alcohol, Drug Addiction and Mental Health Services Board of Cuyahoga County	Chief Quality Officer
Dr. Cindy Zelis	University Hospital System	Southwest Trustee Board and UH system leader

Appendix G: Community Forum Participants

Tripp Umbach held a regional community forum on May 17, 2016 for Southwest General Health Center. The forum was hosted on-site Southwest General Health Center. The forum allowed for community leaders to identify and prioritize needs for the respective hospital regions, as well as develop proposed solutions for combatting health issues.

The listings below are the community leaders that attended the community forum on May 17, 2016.

Table 12: Community Forum Participants

Name	Organization
Al Matyas	Southwest General
Anita Ferut	Hanson House TBI Clubhouse
Becky Elder	Berea City Schools / Southwest General
Bob Ciesick	Southwest General
Dan Zawadzski	Southern Hills Nursing Home
Darcie Drake	Southwest General
Deb Borowske	Southwest General
Deborah Harwood	Southwest General
Donna Casey	Altenheim Senior Living
Dottie Welch	Altenheim Senior Living
Dr. Ramesh Gundapanini	Southwest General Palliative Service
Frank Conway	Fifth Third Bank
Gloria Tews	NAMI Medina County
Jacelin Hauwisheild	Southwest General EMS
JoAnn Boggs	Hanson House TBI Clubhouse
Kathy Sazima	City of Strongsville
Kelly Linson	Southwest General
Kimberly Corrigan	Pearlview Care Center & Brunswick Senior Center
Kirsten Hurst	American Cancer Society
Lamont King	Peoples Community Church
Laurie Pfahler	Southwest General Community Nurse
Lee Mahar	Riverview Pointe
Marti Bauschka	Southwest General
Mary Ann Freas	Southwest General
Maureen Rizzo	Riverview Pointe

Michael Waggoner	Southwest General
Nancy Udelson	Alzheimer's Association - Cleveland Area Chapter
Patricia Jansma	Community Member
Paul Psota	Altenheim Senior Living
Rebecca Rak	City of Brunswick Police
Rev Leroy McCreary	North End Foundation
Robyn Szeles	Southwest General
Steve Bossart	Southwest General
Steve Kilo	City of Strongsville
Susan Scheutzow	Community Member

Appendix H: Working Group Members

The following leaders from Southwest General Working Group served as the working group for the duration of the 2016 CHNA. The working group provided input, feedback, and advice on the overall CHNA process, in particular with the identification and prioritization of health needs in the region. Below are the Southwest General working group members.

Working Group Members:

1. Debbie Borowske, Director, Post-Acute Services, Southwest General
2. Deb Harwood, Director, Oncology Services, Southwest General
3. Dolores Gearhart, Clinical Manager, Southwest General
4. Kelly Linson, Vice President and Chief Accounting Officer, Southwest General
5. Michael Waggoner, Director, Behavioral Health Services, Southwest General
6. Robyn Szeles, Director, Heart & Vascular Institute, Southwest General

Appendix I: Tripp Umbach

Consultants

Southwest General contracted with Tripp Umbach, a private health care consulting firm headquartered in Pittsburgh, Pennsylvania to complete a community health needs assessment (CHNA). Tripp Umbach has worked with more than 200 communities in all 50 states. In fact, more than one in five Americans lives in a community where our firm has worked in the past 25 years.

From community needs assessment protocols to fulfilling the new Patient Protection and Affordable Care Act (PPACA) IRS 990 requirements, Tripp Umbach has turned needs assessments into practical action plans with sound implementation strategies, evaluation processes and funding recommendations for hundreds of communities. Tripp Umbach has helped more than 75 hospitals meet their IRS 990 requirements.

Changes introduced as a result of the PPACA have placed an increased level of importance on population health and well-being and on collaborative efforts between providers, public health agencies and community organizations to improve the overall health of communities.