Cleveland Clinic
Rehabilitation Hospital
In affiliation with Select Medical

Edwin Shaw

Community Health Needs Assessment

2019

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EXECUTIVE SUMMARY

Introduction

This Community Health Needs Assessment (CHNA) was conducted by Cleveland Clinic Rehabilitation Hospital – Edwin Shaw ("Edwin Shaw" or "the hospital") to identify significant community health needs and to inform development of an Implementation Strategy to address current needs.

Since its beginning in the early 1900's as the Springfield Lake Tuberculosis Sanitarium, Edwin Shaw has provided programs and services to meet the rehabilitation needs of those in the community with physical disabilities or chemical dependency issues. In 2015, Edwin Shaw became a member of the Cleveland Clinic, bringing additional resources to the community served by ESRI as well as making a number of highly specialized, Cleveland Clinic-based services more easily accessible to that community.

On November 7, 2017, the new 60-bed Cleveland Clinic Edwin Shaw Rehabilitation Hospital opened in Bath Township, Ohio. The hospital is operated through a joint venture between Cleveland Clinic and Select Medical. Patients of the existing Edwin Shaw facility in Cuyahoga Falls were transferred to the new hospital. Additional information on the hospital and its services is available at: https://my.clevelandclinic.org/locations/rehabilitation-hospital.

The hospital is a joint venture between Cleveland Clinic health system and Select Medical. The hospital is part of the Cleveland Clinic health system, which includes an academic medical center near downtown Cleveland, eleven regional hospitals in northeast Ohio, a children's hospital, a children's rehabilitation hospital, five southeast Florida hospitals, and a number of other facilities and services across Ohio, Florida, and Nevada. Additional information about Cleveland Clinic is available at: https://my.clevelandclinic.org/.

Select Medical is one of the largest providers of post-acute care, operating 100 critical illness recovery hospitals in 28 states, 28 rehabilitation hospitals in 12 states and 1,695 outpatient rehabilitation clinics in 37 states and the District of Columbia. Additionally, Select Medical's joint venture subsidiary Concentra operates 526 occupational health centers in 41 states. Concentra also provides contract services at employer worksites and Department of Veterans Affairs community-based outpatient clinics. At June 30, 2019, Select Medical had operations in 47 states and the District of Columbia. Additional information about Select Medical is available at: https://www.selectmedical.com/.

Each Cleveland Clinic hospital supports a tripartite mission of patient care, research, and education. Research is conducted at and in collaboration with all Cleveland Clinic hospitals. Through research, Cleveland Clinic has advanced knowledge and improved community health for all its communities, from local to national, and across the world. This allows patients to access the latest techniques and to enroll in research trials no matter where they access care in the health system. Through education, Cleveland Clinic helps to train health professionals who are needed and who provide access to health care across Ohio and the United States.

Cleveland Clinic facilities are dedicated to the communities they serve. Each facility conducts a CHNA in order to understand and plan for the current and future health needs of residents and patients in the communities it serves. The CHNAs inform the development of strategies designed to improve community health, including initiatives designed to address social determinants of health.

These assessments are conducted using widely accepted methodologies to identify the significant health needs of a specific community. The assessments also are conducted to comply with federal and state laws and regulations.

Community Definition

For purposes of this report, Edwin Shaw's community is defined as 44 ZIP codes that comprise Summit and Medina counties, Ohio, that accounted for 74 percent of the hospital's recent inpatient volumes. The community was defined by considering the geographic origins of the hospital's discharges in calendar year 2017 and the hospital's principal functions as a rehabilitation hospital. The total population of Edwin Shaw's community in 2017 was approximately 724,000.

The following map portrays the community served by Edwin Shaw.

Significant Community Health Needs

Edwin Shaw's significant community health needs as determined by analyses of quantitative and qualitative data are:

- Access to Affordable Health Care
- Chronic Disease Prevention and Management
- Socioeconomic Concerns

Significant Community Health Needs: Discussion

Access to Affordable Health Care

Access to affordable health care is challenging for some residents, particularly to primary care, mental health, dental care, addiction treatment services, and pain management services. Access barriers include cost, poverty, inadequate transportation, a lack of awareness regarding available services, and an undersupply of providers (mental health professionals, dentists, primary care physicians). The supply of providers in Medina County is below Ohio averages for each of these types of health professionals (Sources: Exhibit 25, key stakeholder interviews).

Eight community ZIP codes (home to 93,000 persons) have been identified as comparatively high need by the Dignity Health Community Need Index™. In these ZIP codes, 46 percent of residents are Black, and the poverty rate is 35 percent (over twice the Summit County average). Admissions for ambulatory care sensitive conditions in these ZIP codes have been comparatively high (Sources: Exhibits 23, 31).

Federally-designated Medically Underserved Areas (MUAs), Primary Care Health Professional Shortage Areas (HPSAs), and Dental Care HPSAs are present. The Edwin Shaw community and Ohio as a whole need more health care professionals to meet current and future access needs.[1] (Sources: Exhibits 33, 34, 35, other assessments, key stakeholder interviews).

Chronic Disease Prevention and Management

Chronic diseases, including addiction and mental health, heart disease, hypertension, obesity, diabetes, COPD, and others are prevalent in the community served by the hospital.

Drug abuse, particularly the abuse of opioids, is a primary concern of individuals interviewed for this CHNA. Perceived over-prescribing of prescription drugs, poverty, and mental health problems were cited as contributing factors. Deaths due to "accidental poisoning by and exposure to drugs and other biological substances" have been increasing across Ohio, and in Summit County have been significantly above average (Sources: Exhibit 27, other assessments, key stakeholder interviews).

Summit and Medina counties rank poorly for "percent of driving deaths with alcohol involvement," compared to Ohio, national, and peer-county averages.

Ohio's State Health Assessment and local health department assessments identify addressing alcohol abuse as a priority. (Sources: Exhibit 26, other assessments).

Mental health also was identified by interviewees as a significant concern. Depression, suicide, hopelessness, and isolation (particularly among elderly residents and those exposed to traumas early in life) are perceived to be increasing in severity. Rates of depression have been highest in lower-income ZIP codes. Access to mental health care is challenging due to cost, insurance benefit limits, and an undersupply of psychiatrists.

The Ohio SHIP and local health department assessments for Summit and Medina counties all identified mental health as a priority issue. These assessments cite the need for additional services, early identification of mental health risks, and greater awareness of existing programs. (Sources: Exhibits 25, 26, 27, key stakeholder interviews, other assessments).

The CDC, Cleveland Clinic, and other organizations have identified many chronic diseases as contributors to stroke, a primary cause for the need of rehabilitation services. These conditions include high cholesterol, high blood pressure, diabetes, and obesity (Source: other assessments).

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[1] Petterson, Stephen M; Cai, Angela; Moore, Miranda; Bazemore, Andrew. State-level projections of primary care workforce, 2010-2030. September 2013, Robert Graham Center, Washington, D.C.

The community benchmarks poorly for hypertensive heart disease mortality. Higher diabetes and heart disease rates are observed in lower-income communities. Addressing heart (or cardiovascular) disease was identified as a priority by the Ohio SHIP and the Medina County Community Health Improvement Plan. (Sources: Exhibits 27, 30, 31, other assessments, key stakeholder interviews).

Key stakeholders also identified obesity as a persistent and worsening problem, driven by physical inactivity and poor nutrition. Poor nutrition results from the higher cost of fresh and healthy food, the presence of food deserts, and a lack of time and knowledge about how to prepare healthy meals. Physical inactivity is worsened by a lack of safe places to exercise, time, and education regarding the importance of remaining active.

In Summit and Medina counties, the percent of adults obese (Body Mass Index greater than 30) has been above the national average. The Ohio SHIP and local health department assessments consistently identify obesity and diabetes (and reducing physical inactivity and enhancing nutrition) as priorities. (Sources: Exhibit 25, other assessments).

Key stakeholders emphasized the importance of changing unhealthy behaviors. Exercise, nutrition, and tobacco cessation programs are needed. Health education and literacy programs also are needed.

Smoking rates are comparatively high. The Ohio SHIP emphasizes the need for Ohioans to consume healthy food, reduce physical inactivity, reduce adult smoking, and reduce youth all-tobacco use. According to the local health assessments, health behaviors that need attention include tobacco use and physical inactivity. (Sources: Exhibit 26, other assessments, key stakeholder interviews).

Edwin Shaw's 65+ population is projected to grow much faster than other age groups. Providing an effective continuum of care for seniors will be challenging. Elderly residents are at greater risk for falls, food insecurity, transportation issues, and unsafe or inadequate housing. Social isolation contributes to poor physical and mental health conditions. Falls contribute to Traumatic Brain Injuries and to the need for rehabilitation services. (Sources: Exhibit 8, key stakeholder interviews, other assessments).

Socioeconomic Concerns

Key stakeholders also identified poverty and other social determinants of health as significant concerns. Poverty has significant implications for health, including the ability for households to access health services, afford basic needs, and benefit from prevention initiatives. Problems with housing, educational achievement, and access to workforce training opportunities also contribute to poor health.

Adverse Childhood Experiences (ACEs) increasingly are recognized as problematic in Ohio and the nation. ACEs refer to all types of abuse, neglect, and other traumas experienced by children. According to the CDC, ACEs have been linked to risky healthy behaviors, chronic health

conditions, low life potential, and premature death.[2] America's Health Rankings indicates that Ohio ranks 43rd nationally for ACEs (a composite indicator that includes: socioeconomic hardship, divorce/parental separation, lived with someone who had an alcohol or drug problem, victim or witness of neighborhood violence, lived with someone was mentally ill or suicidal, domestic violence witness, parent served time in jail, treated or judged unfairly due to race/ethnicity, and death of a parent).[3]

Nearly 47 percent of rented households have been designated as "rent burdened," a level slightly above the Ohio average (46.7 percent). In six lower-income ZIP codes, over 60 percent of these households devote more than 30 percent of household income to rent (Source: Exhibit 19).

Summit and Medina counties have had a lower poverty rate than Ohio and the U.S. Across both counties served by Edwin Shaw, poverty rates for Black and Hispanic (or Latino) populations have been well above rates for Whites. Substantial variation in poverty rates is present across the community. (Sources: Exhibits 13, 14, 23).

Social determinants of health are particularly problematic in Summit County, including poverty, unemployment, affordable housing, crime, and income ratio. Low income area and food deserts are present throughout Summit County (Sources: Exhibits 15, 16, 18, 19, 25, 32, key stakeholder interviews, other assessments).

In recent years, several Cleveland Clinic hospitals have experienced increases in emergency room encounters by homeless patients.

The Ohio SHIP establishes social determinants of health as a "cross-cutting factor" and emphasizes the need to increase third grade reading proficiency, reduce school absenteeism, address burdens associated with high cost housing, and reduce secondhand smoke exposure for children. The Summit County CHIP emphasizes how social determinants of health impact health, including neighborhood, occupation, education, race/ethnicity, culture, socioeconomic status, and income (Sources: other assessments).

[2] https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/aboutace.html
[3] https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/ACEs/state/OH

DATA AND ANALYSIS

Definition of Community Assessed

This section identifies the community that was assessed by Edwin Shaw. The community was defined by considering the geographic origins of the hospital's discharges in calendar year 2017. The definition also considered the hospital's principal functions as a rehabilitation hospital.

On that basis, Edwin Shaw's community is defined as 44 ZIP codes in Summit and Medina counties, Ohio. These ZIP codes accounted for 74 percent of the hospital's recent inpatient volumes (**Exhibit 1**).

Exhibit 1: Edwin Shaw Inpatient Discharges by County, 2017

County	Discharges	Percent Discharges
Summit County	509	55.8%
Medina County	167	18.3%
Community ZIP Codes	**676**	74.0%
All Other ZIP Codes	237	26.0%
All ZIP Codes	913	100.0%

Source: Analysis of Cleveland Clinic Discharge Data, 2018.

The community includes the 44 ZIP codes that make up Summit and Medina counties. The total population of this community in 2017 was approximately 724,000 persons (**Exhibit 2**).

Exhibit 2: Community Population, 2017

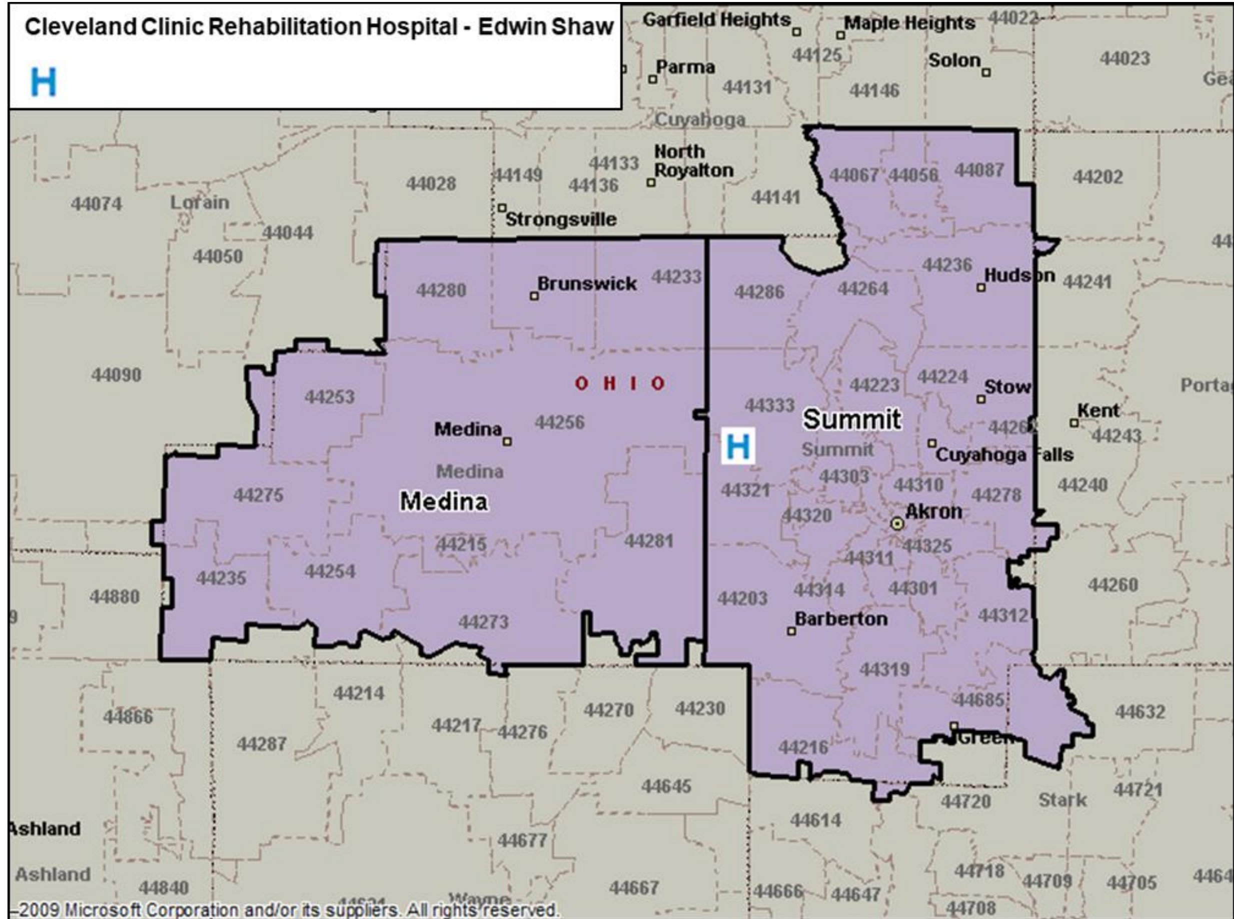
ZIP Code	County	City/Town	Total Population 2017	Percent of Total Population 2017
44256	Medina	Medina	64,301	8.9%
44212	Medina	Brunswick	44,344	6.1%
44203	Summit	Barberton	40,803	5.6%
44224	Summit	Stow	39,873	5.5%
44312	Summit	Akron	32,924	4.5%
44281	Medina	Wadsworth	31,490	4.3%
44221	Summit	Cuyahoga Falls	29,301	4.0%
44685	Summit	Uniontown	28,885	4.0%
44236	Summit	Hudson	25,025	3.5%
44313	Summit	Akron	24,591	3.4%
44319	Summit	Akron	22,509	3.1%
44310	Summit	Akron	22,320	3.1%
44306	Summit	Akron	21,981	3.0%
44087	Summit	Twinsburg	21,787	3.0%
44305	Summit	Akron	21,293	2.9%
44067	Summit	Northfield	20,881	2.9%
44320	Summit	Akron	19,483	2.7%
44333	Summit	Akron	18,697	2.6%
44223	Summit	Cuyahoga Falls	18,513	2.6%
44314	Summit	Akron	18,143	2.5%
44278	Summit	Tallmadge	17,960	2.5%
44321	Summit	Akron	16,391	2.3%
44301	Summit	Akron	14,639	2.0%
44056	Summit	Macedonia	12,171	1.7%
44216	Summit	Clinton	9,521	1.3%
44311	Summit	Akron	8,758	1.2%
44307	Summit	Akron	8,147	1.1%
44233	Medina	Hinckley	7,964	1.1%
44303	Summit	Akron	7,232	1.0%
44273	Medina	Seville	6,744	0.9%
44286	Summit	Richfield	6,064	0.8%
44304	Summit	Akron	5,891	0.8%
44280	Medina	Valley City	5,358	0.7%
44302	Summit	Akron	5,094	0.7%
44262	Summit	Munroe Falls	4,982	0.7%
44254	Medina	Lodi	4,680	0.6%
44253	Medina	Litchfield	3,401	0.5%
44275	Medina	Spencer	3,298	0.5%
44264	Summit	Peninsula	2,589	0.4%
44215	Medina	Chippewa Lake	2,031	0.3%
44235	Medina	Homerville	1,703	0.2%
44308	Summit	Akron	1,319	0.2%
44251	Medina	Westfield Center	856	0.1%
44325	Summit	Akron	-	0.0%
Community Total			**723,937**	**100.0%**

Source: Truven Market Expert, 2018.

The hospital is located in Copley, Ohio (ZIP code 44321).

The map in **Exhibit 3** portrays the ZIP codes that comprise the Edwin Shaw community.

Exhibit 3: Edwin Shaw Community



Source: Microsoft MapPoint and Cleveland Clinic, 2018.

Secondary Data Summary

The following section summarizes principal findings from the secondary data analysis. *See* Appendix B for more detailed information.

Demographics

Population characteristics and trends directly influence community health needs. The total population in the Edwin Shaw community is expected to increase 0.8 percent from 2017 to 2022. However, the population 65 years of age and older is anticipated to grow by 15.1percent during that time. This development should contribute to growing need for health services, since older individuals typically need and use more services than younger persons.

Edwin Shaw serves a geographic area that includes 44 ZIP codes that comprise Summit and Medina counties. Substantial variation in demographic characteristics (e.g., race/ethnicity and income levels) exists across this area.

In 2017, over 70 percent of the population in two ZIP codes was Black. These ZIP codes, located in Summit County, also are associated with comparatively high poverty rates and comparatively poor health status. In 16 ZIP codes, the percent of the population Black was under two percent.

Economic Indicators

On average, people living in low-income households are less healthy than those living in more prosperous areas. According to the U.S. Census, in the 2012-2016 period, approximately 15.1 percent of people in the U.S. were living in poverty. Poverty rates in Summit County (14.3 percent) and Medina County (6.6 percent) have been below the national average.

Across both counties in the community, poverty rates for Black and for Hispanic (or Latino) residents have been higher than rates for Whites. For example, in Summit County the rate for Black residents was 32.9 percent. For Whites, it was 10.2 percent.

A number of low-income census tracts can be found in Edwin Shaw's community, particularly in Summit County. Most of these same areas are where over 50 percent of households are "rent burdened."

After several years of improvement, between 2015 and 2017, unemployment rates in Summit and Medina counties increased. In 2017, rates in both counties were above national averages.

Notably, crime rates in Summit County have been above Ohio averages for multiple types of crime, including property crime, murder, rape, burglary, and larceny. Crime rates in Medina County have been below Ohio averages for all offenses.

Ohio was among the U.S. states that expanded Medicaid eligibility pursuant to the Patient Protection and Affordable Care Act (ACA, 2010). On average, approximately three percent of those living in the community served by Edwin Shaw were uninsured in 2017.

Community Need Index™

Dignity Health, a California-based hospital system, developed and published a *Community Need Index*™ (CNI) that measures barriers to health care access. The index is based on five social and economic indicators:

- The percentage of elders, children, and single parents living in poverty
- The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White
- The percentage of the population without a high school diploma
- The percentage of uninsured and unemployed residents

- The percentage of the population renting houses

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

Eight of the 44 ZIP codes in the Edwin Shaw community (all located in Summit County) scored in the "highest need" category. 14 other ZIP codes scored in the "lowest need" category.

Other Local Health Status and Access Indicators

In the 2018 *County Health Rankings* and for overall health outcomes, Summit County ranked 46th (out of 88 counties) and Medina County ranked 4th.

These overall rankings are derived from 42 measures that themselves are grouped into several categories such as "health behaviors," and "social & economic factors."

- In 2018, Summit County ranked in the bottom 50th percentile among Ohio counties for 21 of the 42 indicators assessed. Of those, eleven were in the bottom quartile, including low birthweight births, alcohol-impaired driving deaths, sexually transmitted infections, high school graduation rates, violent crime rates, and others.

- In Medina County, seven of the 42 indicators ranked in the bottom 50th percentile among Ohio counties. Of those, five were in the bottom quartile, including excessive drinking, alcohol-impaired driving deaths, social associations, percent driving alone to work, and percent with a long commute who drive alone.

- Both counties ranked in the bottom quartile for alcohol-impaired driving deaths and the percent of adults with drive alone to work.

The 2018 *County Health Rankings* shows that each county has unique community health issues. However, a few are present across the community, including:

- Percent of driving deaths with alcohol involvement
- Ratio of population to mental health providers
- Air pollution (average daily PM2.5)
- Percent of adults who drive alone to work

Community Health Status Indicators ("CHSI") compares indicators for each county with those for peer counties across the United States. Each county is compared to 30 to 35 of its peers. Peers are selected based on a number of socioeconomic characteristics, such as population size, population density, percent elderly, and poverty rates.

The counties served by Edwin Shaw benchmark most poorly for:

- Years of potential life lost rate
- Low birth weight births

- Percent of adults who smoke
- Percent of adults obese
- Percent of adults physically inactive
- Percent excessive drinking
- Percent of driving deaths alcohol-impaired
- Preventable hospitalizations rate
- Percent receiving HbA1c (diabetes) screening
- Unemployment
- Income ratio
- Social associations rate
- Air pollution (average daily PM2.5)
- Percent of adults who drive alone to work

Mortality statistics published by the Ohio Department of Health show how deaths due to "accidental poisoning by and exposure to drugs and other biological substances" have been increasing across the state. At 57.8 per 100,000, the 2016 mortality rate in Summit County was well over the Ohio average (36.8 per 100,000).

Medina County had a higher than average age-adjusted incidence rate for cancer compared to the Ohio average.

The Centers for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS) provides self-reported data on many health behaviors and conditions. According to BRFSS, ZIP codes served by Edwin Shaw compared favorably for all conditions to Ohio averages.

Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions ("ACSCs") include thirteen health conditions (also referred to as "PQIs") "for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease."[4] Among these conditions are: diabetes, perforated appendixes, chronic obstructive pulmonary disease ("COPD"), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

ACSC rates in Edwin community ZIP codes have exceeded Ohio averages for low birth weight births, perforated appendix, and urinary tract infection.

Food Deserts

The U.S. Department of Agriculture's Economic Research Service identifies census tracts that are considered "food deserts" because they include lower-income persons without supermarkets or large grocery stores nearby. Several community census tracts have been designated as food deserts, particularly in Summit County.

[4] Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

Medically Underserved Areas and Populations

Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice." The index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over. Areas with a score of 62 or less are considered "medically underserved." Several census tracts in Summit and Medina counties have been designated as medically underserved.

Health Professional Shortage Areas

A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary medical care, dental care, or mental health care professionals is found to be present. Several census tracts in Summit County have been designated as primary care and dental care HPSAs.

Relevant Findings of Other CHNAs

In recent years, the Ohio Department of Health and local health departments in Summit and Medina counties conducted Community Health Assessments and developed State or Community Health Improvement Plans (SHIP or CHIP). This CHNA also has integrated the findings of that work.

The issues most frequently identified as *significant* in these other assessments are:

- Drug addiction and abuse
- Mental health
- Social determinants of health
- Maternal and child health (including infant mortality)
- Prevalence (and need to manage) chronic diseases
- Obesity and diabetes
- Access to primary care and prevention services
- Health disparities

The Edwin Shaw CHNA also has identified the above issues as *significant,* in part because this CHNA considered findings from these other assessments as an important factor in the prioritization process. The Edwin Shaw CHNA places more emphasis on health needs of a growing seniors population and includes more information on preventable hospital admissions.

Significant Indicators

Exhibit 4 presents many of the indicators discussed in the above secondary data summary. An indicator is considered *significant* if was found to vary materially from a benchmark statistic (e.g., an average value for the State of Ohio or for the United States). For example, 50 percent of Summit County's driving deaths have involved alcohol; the average for Ohio was 34 percent. The last column of the **Exhibit 4** identifies where more information regarding the data sources can be found.

The benchmarks include Ohio averages, national averages, and in some cases averages for "peer counties" from across the United States. In the *Community Health Status Indicators* analysis, community counties' peers were selected because they are similar in terms of population density, household incomes, and related characteristics. Benchmarks were selected based on judgements regarding how best to assess each data source.

Exhibit 4: Significant Indicators

Indicator	Area	Value	Benchmark		Exhibit
			Value	Area	
65+ Population change, 2017-2022	Community ZIP codes	15.1%	0.8%	Total Community Population	8
Poverty rate, Black, 2012-2016	Summit County	32.9%	10.2%	Summit County, White	14
Poverty rate, 2012-2016	"Highest Need" ZIP codes	35.3%	5.0%	"Lowest Need" ZIP codes	23
% of Population Black, 2017	"Highest Need" ZIP codes	46.0%	2.1%	"Lowest Need" ZIP codes	23
Unemployment rate	Summit County	5.1%	4.4%	United States	17
Percent of households rent burdened	Community ZIP codes	46.8%	46.7%	Ohio	20
Percent of births low birthweight	Summit County	9.3%	8.0%	United States	25
PQI: Low birth weight births	Community ZIP codes	53	18	Ohio	31
Percent of adults that report a BMI >= 30	Summit County	31.2%	28.0%	United States	25
	Medina County	31.6%	28.0%	United States	25
Percent of adults that smoke	Summit County	19.5%	17.8%	Peer Counties	26
	Medina County	17.3%	15.2%	Peer Counties	26
Binge drinking percent	Medina County	19.7%	18.0%	United States	25
Percent driving deaths w/alcohol involvement	Summit County	50.0%	29.0%	United States	25
	Medina County	46.7%	29.0%	United States	25
Mortality rate for accidental poisoning by drugs and other substances per 100,000	Summit County	57.8	36.8	Ohio	27
Population per primary care physician	Medina County	1,633	1,320	United States	25
Population per dentist	Medina County	1,947	1,480	United States	25
Population per mental health provider	Medina County	900	470	United States	25
Preventable admissions (for ambulatory care sensitive conditions) per 1,000 Medicare enrollees	Summit County	55.0	44.9	Peer Counties	26
	Medina County	51.1	44.5	Peer Counties	26
Mortality rate for suicide by firearm per 100,000	Medina County	9.4	7.4	Ohio	27
Cancer incidence rate per 100,000	Medina County	472	462	Ohio	29
Average Daily PM 2.5 (Particulate Matter, a measure of air pollution)	Summit County	12.3	8.7	United States	25
	Medina County	11.7	8.7	United States	25

Source: Verité Analysis.

Primary Data Summary

Primary data were gathered by conducting interviews with key stakeholders (*See* Appendix C for additional information on those providing input). Twenty (20) interviews were conducted with individuals regarding significant community health needs in the community served by Edwin Shaw and why such needs are present.

Interviewees most frequently identified the following community health issues as significant concerns.

- **Poverty and other social determinants of health** were identified as a significant concern. Interviewees stated that poverty has significant implications for health, including the ability for households to access health services, afford basic needs, and benefit from prevention initiatives.
    - **Housing** is an issue, with many community residents unable to find housing that is both affordable and safe. Low income and elderly populations were identified as especially vulnerable. Poor housing contributes to lead exposure and falling risks, among other health problems.
    - Problems with **educational achievement** and access to **workforce training** opportunities reduce employment prospects and increase poverty rates.
    - **Health services** are expensive, particularly for lower-income, uninsured individuals.
- **Mental health** was identified by many as a significant concern. Depression, suicide, hopelessness, and isolation (particularly among elderly residents and those exposed to traumas early in life) are perceived to be increasing in severity. Access to mental health care is challenging due to cost (and limited benefits) and an undersupply of psychiatrists and other providers.
- **Violence** was identified as a concern in the community and as a contributor to a variety of other health issues, in particular to mental health. Additionally, interviewees believed there was a lack of physical activity in neighborhoods experiencing violence as residents felt unsafe to be active near home.
- **Substance abuse and addiction**, particularly the abuse of opioids, was a primary concern of many interviewees. Perceived over-prescribing of prescription drugs, poverty and economic insecurity, and mental health problems were cited as contributing factors.
    - While problems with opioids were mentioned most frequently, several interviewees stated that misuse of other drugs (primarily methamphetamines) is on the rise. They emphasized that underlying addiction is the real problem.
    - **Alcohol abuse** was also considered a significant need in the community and often overlooked due to issues with other substances.

- **Obesity** was identified as growing problem, driven by ongoing difficulties with physical inactivity and poor nutrition.
    - Many are not eating healthy foods due to the higher costs of fresh and healthy options, food deserts that create access problems, a lack of knowledge about healthy cooking, and a lack of time (particularly for people working several jobs) to prepare meals.
    - Contributors to physical inactivity include a lack of safe places to exercise, a lack of time, and a lack of education regarding the importance of remaining active.
- The prevalence of and need to manage **chronic conditions** were identified as significant needs, specifically: diabetes, hypertension, and cardiovascular diseases. Obesity (and its contributing factors) is considered a primary contributor to these conditions.
- **Transportation** was identified as a barrier to maintaining good health. Few public transportation options are available, and many neighborhoods are not serviced at all. Transportation affects access to health care services, healthy foods, and employment opportunities. Low-income and elderly residents were identified as groups that had the largest unmet transportation needs.
- Many identified a need for more **localized, community-based health clinics and programs**. While the region has many hospitals and physician groups, these entities "do not have a great connection with the community." Health systems need to improve their local presence, building up connections with local stakeholders and communities.
    - **Collaboration** between health organizations and community partners needs to be enhanced. While collaboration recently appears to have improved, interviewees stated that beneficial opportunities remain that would contribute to improved access to (and less duplication of) services.
- Interviewees stated that community needs more **health education** and better understanding of the health care system. Community residents are unsure about where and how they can access certain services. Questions about insurance coverage and more generally how to achieve a healthy life are prevalent. Prevention initiatives are needed by many. A **need for preventive health and education** around healthy lifestyles is also needed by many. Additionally, the need for **better referral mechanisms and a continuum of care** was discussed by several interviewees.
- **Health disparities** are present – particularly for infant mortality rates and the prevalence of chronic conditions. Low-income, Black, and Hispanic (or Latino) residents were specifically identified as groups with disproportionately poor health outcomes.
    - Health care services need to be more culturally competent. Language and cultural barriers make it challenging for providers to improve the health of many residents.

- Growth in the **seniors population** and the ability to age in place are significant concerns. Elderly residents are at greater risk for falls, food insecurity, transportation issues, and unsafe or inadequate housing. **Isolation** contributes to poor physical and mental health conditions.

- While the region has numerous health care providers, interviewees expressed concerns about **access to care**.

    - Cost of care, insurance gaps, waitlists, and providers not accepting Medicaid and other insurances were thought to be primary contributors.

- **Smoking and tobacco usage** remain a concern and are recognized as contributing to many health problems and diseases. Many cited vaping and use of e-cigarettes as growing concerns.

- A **need for more pain management programs**, particularly those that do not involve the use of opioids, is needed in the community, both to treat chronic disease or conditions and also to prevent future issues around substance abuse.

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

This section identifies other facilities and resources available in the community served by Edwin Shaw that are available to address community health needs.

Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) are established to promote access to ambulatory care in areas designated as "medically underserved." These clinics provide primary care, mental health, and dental services for lower-income members of the community. FQHCs receive enhanced reimbursement for Medicaid and Medicare services and most also receive federal grant funds under Section 330 of the Public Health Service Act. There currently are ten FQHC sites operating in the Edwin Shaw community (**Exhibit 5**).

Exhibit 5: Federally Qualified Health Centers, 2018

County	ZIP Code	Site Name	City	Address
Summit	44304	Asian Services In Action	Akron	730 Carroll St
Summit	44306	AxessPointe Community Health Center/Akron	Akron	1400 S Arlington St Unit 38
Summit	44203	AxessPointe Community Health Center/Barberton	Barberton	390 Robinson Ave Ste E
Summit	44308	AxessPointe Community Health Center/Portage Path	Akron	340 S Broadway St
Summit	44311	AxessPointe Pharmacy – Broadway	Akron	676 S Broadway St Ste 105
Summit	44311	AxessPointe/Akron General Broadway WH-IM	Akron	676 S Broadway St
Summit	44311	Community Support Services	Akron	150 Cross St
Summit	44304	ICHC Akron	Akron	468 E Market St Ste C
Medina	44256	Medina County Health Department (FQHC Look-Alike)	Medina	4800 Ledgewood Drive
Summit	44310	SBHC North High School	Akron	985 Gorge Blvd

Source: HRSA, 2018.

Data published by HRSA indicate that in 2017, FQHCs served approximately 12 percent of uninsured, Edwin Shaw community residents and 10 percent of the community's Medicaid recipients.[5] In Ohio, FQHCs served about 15 percent of both population groups. Nationally, FQHCs served 22 percent of uninsured individuals and 18 percent of Medicaid recipients. These percentages ranged from 6 percent (Nevada) to 40 percent (Washington State).

Hospitals

Exhibit 6 presents information on hospital facilities located in the Edwin Shaw community.

[5] HRSA refers to these statistics as FQHC "penetration rates."

Exhibit 6: Hospitals, 2018

ZIP Code	County	City/Town	Hospital Name	Address
44308	Summit	Akron	Akron Children's Hospital	1 Perkins Square
44307	Summit	Akron	Akron General Medical Center	1 Akron General Avenue
44236	Summit	Hudson	Assurance Health Hudson LLC	6260 Hudson Crossing Pkwy
44310	Summit	Akron	Crystal Clinic Orthopaedic Center	444 North Main Street
44254	Medina	Lodi	Lodi Community Hospital	225 Elyria Street
44256	Medina	Medina	Medina Hospital	1000 East Washington Street
44067	Summit	Northfield	Northcoast Behavioral Healthcare Northfield Campus	1756 Sagamore Road
44308	Summit	Akron	Select Specialty Hospital-Akron	200 East Market Street
44304	Summit	Akron	Summa Health System	525 East Market Street
44304	Summit	Akron	Summa Rehab Hospital	29 North Adams Street
44223	Summit	Cuyahoga Falls	Summa Western Reserve Hospital	1900 23rd Street

Source: Ohio Department of Health, 2019.

Other Community Resources

A wide range of agencies, coalitions, and organizations that provide health and social services is available in the region served by Edwin Shaw. United Way 2-1-1 Ohio maintains a large, online database to help refer individuals in need to health and human services in Ohio. This is a service of the Ohio Department of Social Services and is provided in partnership with the Council of Community Services, The Planning Council, and United Way chapters in Cleveland. United Way 2-1-1 Ohio contains information on organizations and resources in the following categories:

- Donations and Volunteering
- Education, Recreation, and the Arts
- Employment and Income Support
- Family Support and Parenting
- Food, Clothing, and Household Items
- Health Care
- Housing and Utilities
- Legal Services and Financial Management
- Mental Health and Counseling
- Municipal and Community Services
- Substance Abuse and Other Addictions

Additional information about these resources is available at: http://www.211oh.org/.

IMPACT EVALUATION

Regulations that apply to CHNAs conducted by tax-exempt hospitals require CHNA reports to include "an evaluation of the impact of any actions that were taken, since the hospital facility finished conducting its immediately preceding CHNA, to address the significant health needs identified in the hospital facility's prior CHNA(s)."

Edwin Shaw is a new hospital facility and this is the first CHNA conducted by the hospital. Data regarding the impact of various services and programs identified during a previous CHNA process therefore were not gathered.

Edwin Shaw looks forward to describing the impact of these and other actions that address community health needs in its 2022 CHNA report.

APPENDIX A – OBJECTIVES AND METHODOLOGY

Regulatory Requirements

Federal law requires that tax-exempt hospital facilities conduct a CHNA every three years and adopt an Implementation Strategy that addresses significant community health needs.[6] In conducting a CHNA, each tax-exempt hospital facility must:

- Define the community it serves;
- Assess the health needs of that community;
- Solicit and take into account input from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health;
- Document the CHNA in a written report that is adopted for the hospital facility by an authorized body of the facility; and,
- Make the CHNA report widely available to the public.

The CHNA report must include certain information including, but not limited to:

- A description of the community and how it was defined,
- A description of the methodology used to determine the health needs of the community, and
- A prioritized list of the community's health needs.

Ohio law[7] requires local health departments (LHDs) and tax-exempt hospitals to submit their Community Health Improvement Plans and Implementation Strategy reports to the Ohio Department of Health (the department). Beginning January 1, 2020, Ohio law also requires LHDs and tax-exempt hospitals to complete assessments and plans "in alignment on a three-year interval established by the department." Specific methods and approaches for achieving "alignment" are evolving.

Methodology

CHNAs seek to identify significant health needs for particular geographic areas and populations by focusing on the following questions:

- ***Who*** in the community is most vulnerable in terms of health status or access to care?
- ***What*** are the unique health status and/or access needs for these populations?
- ***Where*** do these people live in the community?
- ***Why*** are these problems present?

[6] Internal Revenue Code, Section 501(r).
[7] ORC 3701.981

The focus on ***who*** is most vulnerable and ***where*** they live is important to identifying groups experiencing health inequities and disparities. Understanding ***why*** these issues are present is challenging, but is important to designing effective community health improvement initiatives. The question of ***how*** each hospital can address significant community health needs is the subject of the separate Implementation Strategy.

Federal regulations allow hospital facilities to define the community they serve based on "all of the relevant facts and circumstances," including the "geographic location" served by the hospital facility, "target populations served" (e.g., children, women, or the aged), and/or the hospital facility's principal functions (e.g., focus on a particular specialty area or targeted disease)."[8] Accordingly, the community definition considered the geographic origins of the hospital's patients and also the hospital's mission, target populations, principal functions, and strategies.

This assessment was conducted by Verité Healthcare Consulting, LLC. *See* Appendix A for consultant qualifications.

Data from multiple sources were gathered and assessed, including secondary data[9] published by others and primary data obtained through community input. *See* Appendix B. Input from the community was received through key informant interviews. These informants represented the broad interests of the community and included individuals with special knowledge of or expertise in public health. *See* Appendix C. Considering a wide array of information is important when assessing community health needs to ensure the assessment captures a wide range of facts and perspectives and to increase confidence that significant community health needs have been identified accurately and objectively.

Certain community health needs were determined to be "significant" if they were identified as problematic in at least two of the following three data sources: (1) the most recently available secondary data regarding the community's health, (2) recent assessments developed by the State of Ohio and local health departments, and (3) input from the key informants who participated in the interview process.

In addition, data was gathered to evaluate the impact of various services and programs identified in the previous CHNA process. *See* Appendix D.

Collaborating Organizations

For this assessment, Edwin Shaw collaborated with the following Cleveland Clinic and Cleveland Clinic – Select Medical hospitals: Main Campus, Cleveland Clinic Children's, Cleveland Clinic Children's Hospital for Rehabilitation, Avon, Akron General, , Euclid, Fairview, Hillcrest, Lodi, Lutheran, Marymount, Medina, South Pointe, Union, Cleveland Clinic Florida, Select Specialty Hospital – Cleveland Fairhill, Select Specialty Hospital – Cleveland Gateway, Regency Hospital of Cleveland East, and Regency Hospital of Cleveland West. These

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[8] 501(r) Final Rule, 2014.

[9] "Secondary data" refers to data published by others, for example the U.S. Census and the Ohio Department of Health. "Primary data" refers to data observed or collected from first-hand experience, for example by conducting interviews.

facilities collaborated by gathering and assessing community health data together and relying on shared methodologies, report formats, and staff to manage the CHNA process.

Data Sources

Community health needs were identified by collecting and analyzing data from multiple sources. Statistics for numerous community health status, health care access, and related indicators were analyzed, including data provided by local, state, and federal government agencies, local community service organizations, and Cleveland Clinic. Comparisons to benchmarks were made where possible. Findings from recent assessments of the community's health needs conducted by other organizations (e.g., local health departments) were reviewed as well.

Input from 20 persons representing the broad interests of the community was taken into account through key informant interviews. Interviewees included: individuals with special knowledge of or expertise in public health; local public health departments; agencies with current data or information about the health and social needs of the community; representatives of social service organizations; and leaders, representatives, and members of medically underserved, low-income, and minority populations.

The Cleveland Clinic health system posts CHNA reports online at www.clevelandclinic.org/CHNAReports and makes an email address (chna@ccf.org) available for purposes of receiving comments and questions. No written comments have yet been received on CHNA reports.

Information Gaps

This CHNA relies on multiple data sources and community input gathered between July 2018 and January 2019. A number of data limitations should be recognized when interpreting results. For example, some data (e.g., County Health Rankings, Community Health Status Indicators, and others) exist only at a county-wide level of detail. Those data sources do not allow assessing health needs at a more granular level of detail, such as by ZIP code or census tract.

Secondary data upon which this assessment relies measure community health in prior years and may not reflect current conditions. The impacts of recent public policy developments, changes in the economy, and other community developments are not yet reflected in those data sets.

The findings of this CHNA may differ from those of others that assessed this community. Differences in data sources, geographic areas assessed (e.g., hospital service areas versus counties or cities), interview questions, and prioritization processes can contribute to differences in findings.

Consultant Qualifications

Verité Healthcare Consulting, LLC (Verité) was founded in May 2006 and is located in Arlington, Virginia. The firm serves clients throughout the United States as a resource that helps hospitals conduct Community Health Needs Assessments and develop Implementation Strategies

to address significant health needs. Verité has conducted more than 60 needs assessments for hospitals, health systems, and community partnerships nationally since 2010.

The firm also helps hospitals, hospital associations, and policy makers with community benefit reporting, program infrastructure, compliance, and community benefit-related policy and guidelines development. Verité is a recognized national thought leader in community benefit and Community Health Needs Assessments.

APPENDIX B – SECONDARY DATA ASSESSMENT

This section presents an assessment of secondary data regarding health needs in the Edwin Shaw community. Edwin Shaw's community is comprised of 44 ZIP codes in Summit and Medina counties, Ohio.

Demographics

Exhibit 7: Percent Change in Community Population by ZIP Code, 2017-2022

County	City/Town	ZIP Code	Estimated Population 2017	Projected Population 2022	Percent Change 2017 - 2022
Summit	Akron	44321	16,391	17,183	4.8%
Summit	Macedonia	44056	12,171	12,594	3.5%
Summit	Twinsburg	44087	21,787	22,493	3.2%
Medina	Valley City	44280	5,358	5,515	2.9%
Medina	Medina	44256	64,301	66,089	2.8%
Summit	Uniontown	44685	28,885	29,655	2.7%
Medina	Wadsworth	44281	31,490	32,299	2.6%
Summit	Richfield	44286	6,064	6,202	2.3%
Summit	Northfield	44067	20,881	21,325	2.1%
Medina	Brunswick	44212	44,344	45,113	1.7%
Summit	Stow	44224	39,873	40,555	1.7%
Medina	Hinckley	44233	7,964	8,080	1.5%
Summit	Tallmadge	44278	17,960	18,146	1.0%
Summit	Akron	44308	1,319	1,331	0.9%
Summit	Clinton	44216	9,521	9,603	0.9%
Summit	Akron	44304	5,891	5,932	0.7%
Summit	Cuyahoga Falls	44223	18,513	18,619	0.6%
Summit	Peninsula	44264	2,589	2,603	0.5%
Summit	Akron	44311	8,758	8,802	0.5%
Summit	Akron	44313	24,591	24,679	0.4%
Summit	Hudson	44236	25,025	25,094	0.3%
Summit	Akron	44333	18,697	18,725	0.1%
Medina	Seville	44273	6,744	6,752	0.1%
Medina	Westfield Center	44251	856	855	-0.1%
Summit	Akron	44319	22,509	22,477	-0.1%
Summit	Akron	44312	32,924	32,858	-0.2%
Summit	Barberton	44203	40,803	40,676	-0.3%
Summit	Akron	44307	8,147	8,110	-0.5%
Summit	Cuyahoga Falls	44221	29,301	29,154	-0.5%
Summit	Akron	44310	22,320	22,183	-0.6%
Medina	Litchfield	44253	3,401	3,379	-0.6%
Summit	Munroe Falls	44262	4,982	4,947	-0.7%
Medina	Homerville	44235	1,703	1,690	-0.8%
Medina	Spencer	44275	3,298	3,268	-0.9%
Medina	Lodi	44254	4,680	4,627	-1.1%
Summit	Akron	44303	7,232	7,144	-1.2%
Summit	Akron	44306	21,981	21,713	-1.2%
Medina	Chippewa Lake	44215	2,031	2,001	-1.5%
Summit	Akron	44320	19,483	19,193	-1.5%
Summit	Akron	44314	18,143	17,872	-1.5%
Summit	Akron	44301	14,639	14,395	-1.7%
Summit	Akron	44305	21,293	20,904	-1.8%
Summit	Akron	44302	5,094	4,959	-2.7%
Summit	Akron	44325	-	-	N/A
Community Total			**723,937**	**729,794**	**0.8%**

Source: Truven Market Expert, 2018.

Description

Exhibit 7 portrays the estimated population by ZIP code in 2017 and projected to 2022.

Observations

- Between 2017 and 2022, 23 of 44 ZIP codes are projected to increase in population. The total community population is expected to increase by 0.8 percent.

- The population in ZIP code 44321 (where the hospital is located) is expected to increase by 4.8 percent, the highest expected growth of any community ZIP code.

Exhibit 8: Percent Change in Population by Age/Sex Cohort, 2017-2022

Age/Sex Cohort	Estimated Population 2017	Projected Population 2022	Percent Change 2017 - 2022
0 - 17	156,386	150,892	-3.5%
Female 18 - 34	75,347	75,811	0.6%
Male 18 - 34	76,813	78,534	2.2%
35 - 64	290,894	281,244	-3.3%
65+	124,497	143,313	15.1%
Community Total	**723,937**	**729,794**	**0.8%**

Source: Truven Market Expert, 2018.

Description

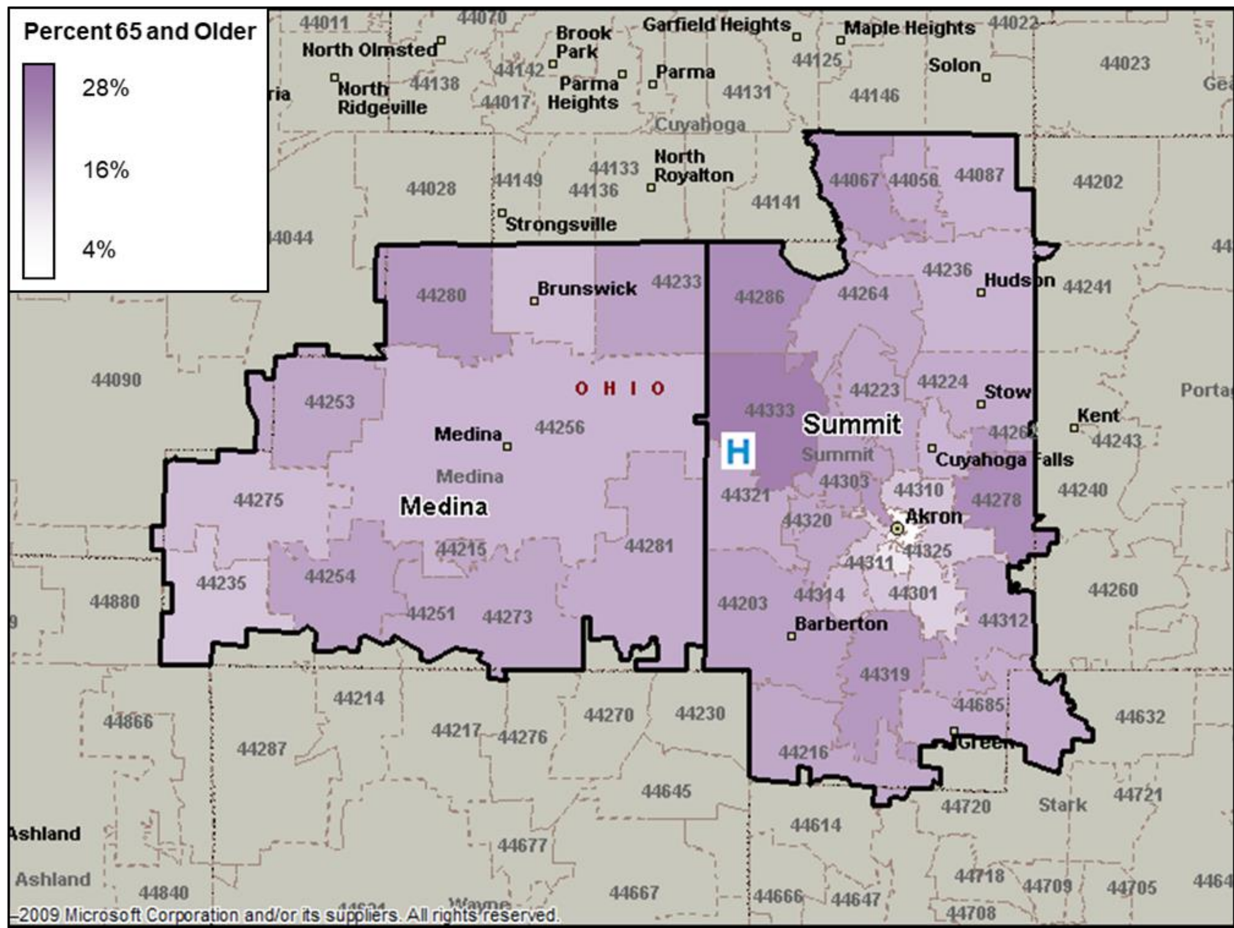
Exhibit 8 shows the community's population for certain age and sex cohorts in 2017, with projections to 2022.

Observations

- While the total community population is expected to increase 0.8 percent between 2017 and 2022, the number of persons aged 65 years and older is projected to increase by 15.1percent.

- The growth of older populations is likely to lead to growing need for health services, since on an overall per-capita basis, older individuals typically need and use more services than younger persons.

Exhibit 9: Percent of Population Aged 65+ by ZIP Code, 2017



Source: Truven Market Expert, 2018, and Microsoft MapPoint.

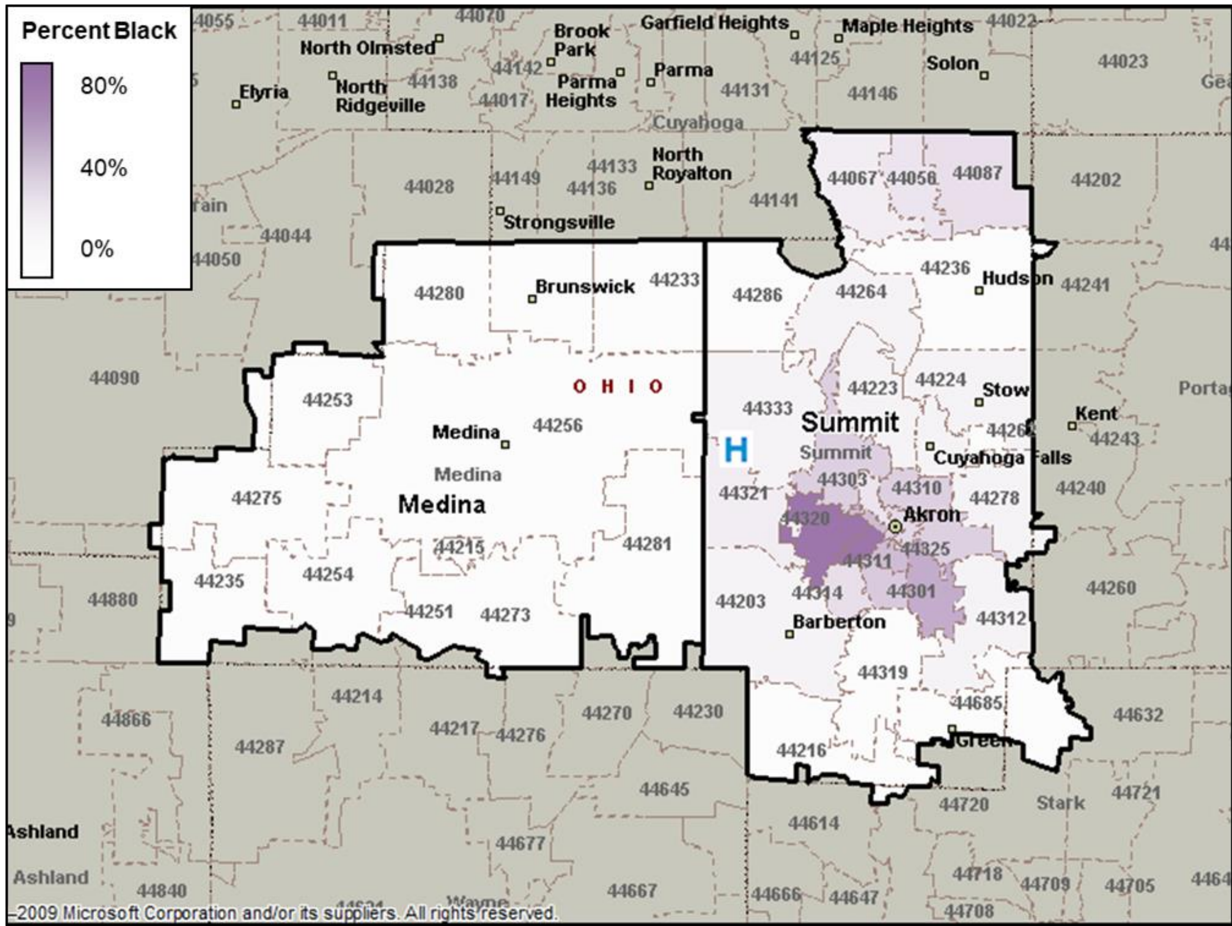
Description

Exhibit 9 portrays the percent of the population 65 years of age and older by ZIP code.

Observations

- Medina County ZIP code 44251 and Summit County ZIP codes 44333, 44286, and 44278 have the highest proportions of the population 65 years of age and older (each over 22 percent).

Exhibit 10: Percent of Population - Black, 2017



Source: Truven Market Expert, 2018, and Microsoft MapPoint.

Description

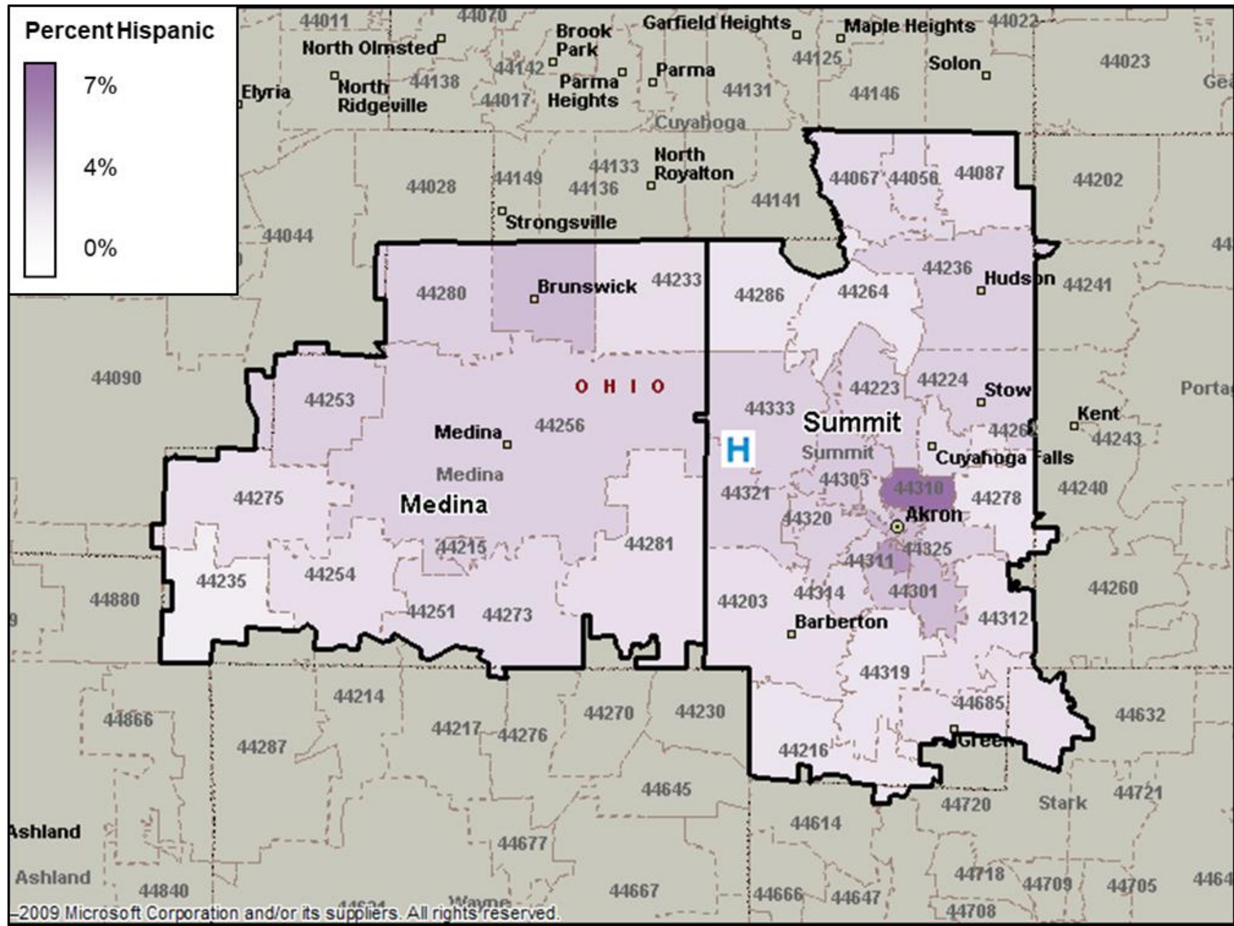
Exhibit 10 portrays locations where the percentages of the population that are Black were highest in 2017.

Observations

- In two Summit County ZIP codes, over 70 percent of residents were Black (44307 and 44320).

- In 2017, the percentage of residents who are Black was under two percent in 16 ZIP codes.

Exhibit 11: Percent of Population – Hispanic (or Latino), 2017



Source: Truven Market Expert, 2018, and Microsoft MapPoint.

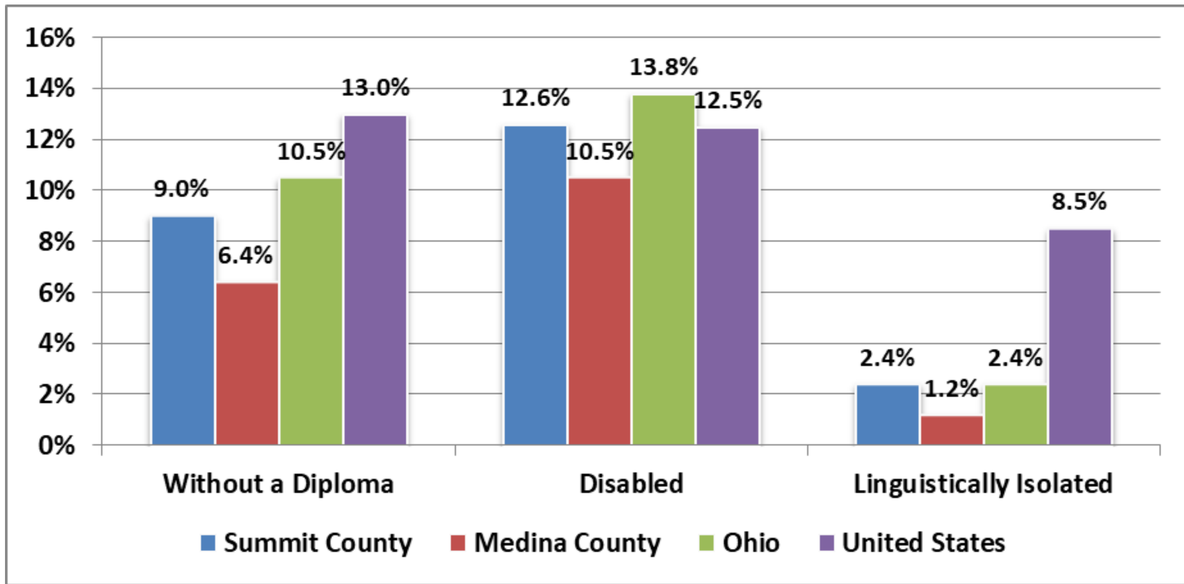
Description

Exhibit 11 portrays locations where the percentages of the population that are Hispanic (or Latino) were highest in 2017.

Observations

- The percentage of residents that are Hispanic (or Latino) was highest in Summit County ZIP codes 44310 (6.9 percent) and 44311 (4.8 percent).
- No other community ZIP code was over four percent.

Exhibit 12: Other Socioeconomic Indicators, 2012-2016



Source: U.S. Census, ACS 5-Year Estimates, 2017.

Description

Exhibit 12 portrays the percent of the population (aged 25 years and above) without a high school diploma, with a disability, and linguistically isolated, by county.

Observations

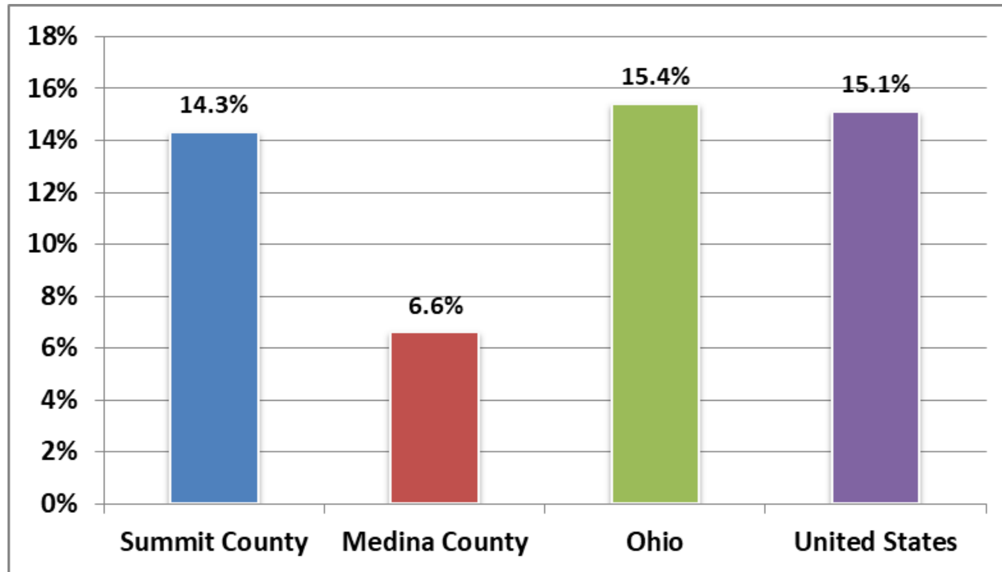
- The percentage of residents aged 25 years and older without a high school diploma in Summit and Medina counties has been lower than the Ohio average.
- Summit and Medina counties had a lower percentage of the population with a disability compared to Ohio averages.
- Compared to Ohio (but not to the United States), Summit County had an equal proportion of the population that is linguistically isolated. Linguistic isolation is defined as residents who speak a language other than English and speak English less than "very well."

Economic indicators

The following economic indicators with implications for health were assessed: (1) people in poverty; (2) unemployment rate; (3) insurance status; and (4) crime.

People in Poverty

Exhibit 13: Percent of People in Poverty, 2012-2016



Source: U.S. Census, ACS 5-Year Estimates, 2017.

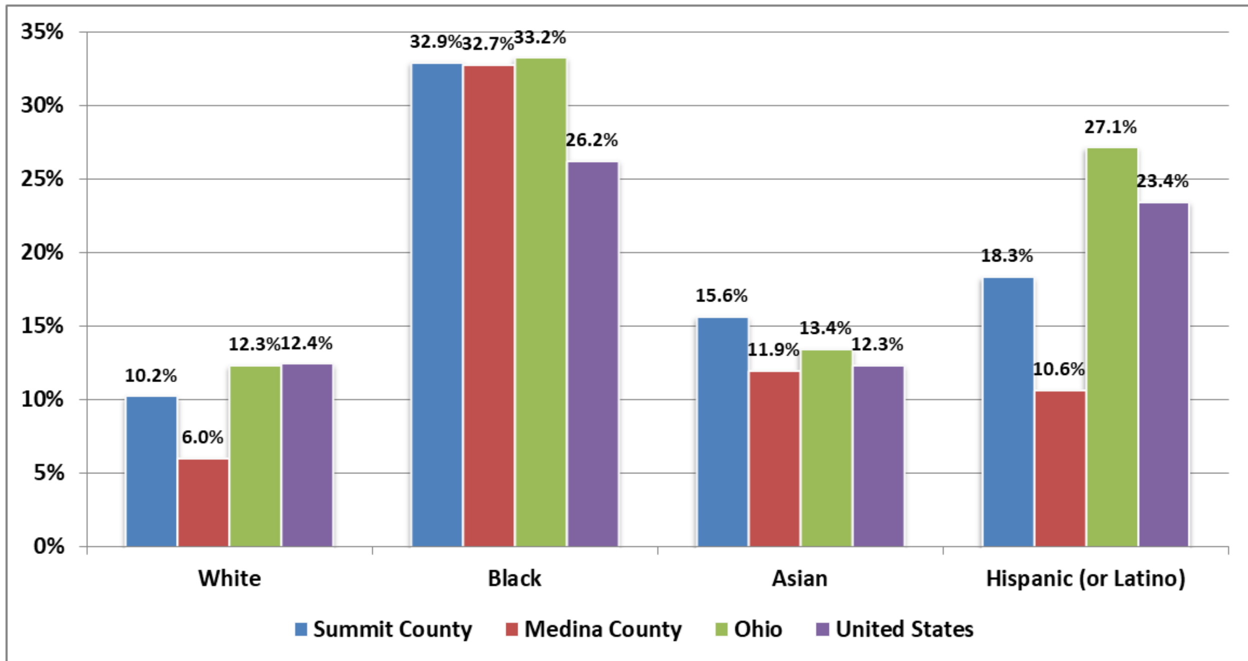
Description

Exhibit 13 portrays poverty rates by county.

Observations

- The poverty rates in Summit and Medina counties were lower than Ohio and national averages throughout 2012-2016.

Exhibit 14: Poverty Rates by Race and Ethnicity, 2012-2016



Source: U.S. Census, ACS 5-Year Estimates, 2017.

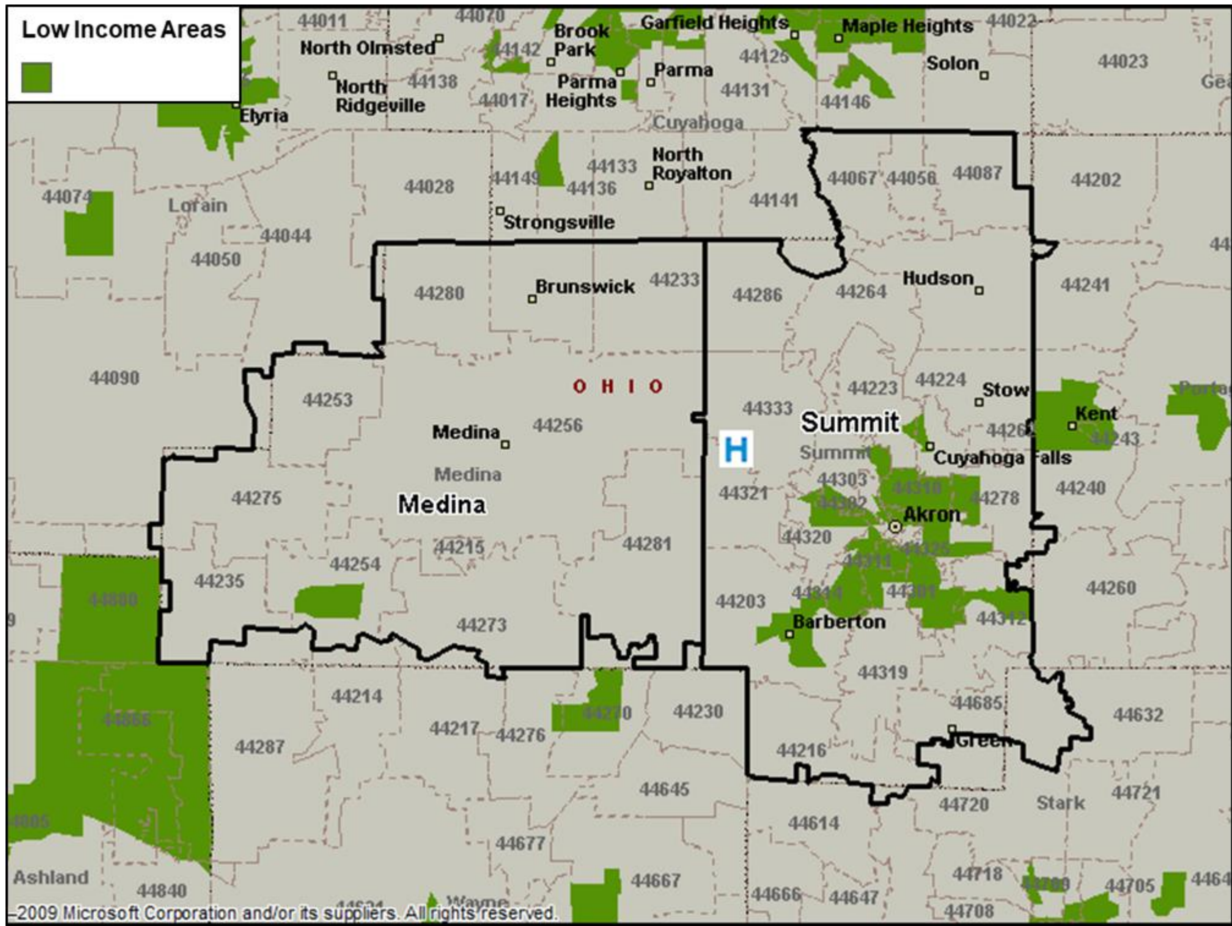
Description

Exhibit 14 portrays poverty rates by race and ethnicity.

Observations

- Poverty rates have been higher for Black and Hispanic (or Latino) residents than for Whites.
- The poverty rates for Black residents in Summit and Medina counties have been higher than poverty rates for Black individuals across the United States.

Exhibit 15: Low Income Census Tracts, 2017



Source: US Department of Agriculture Economic Research Service, ESRI, 2017.

Description

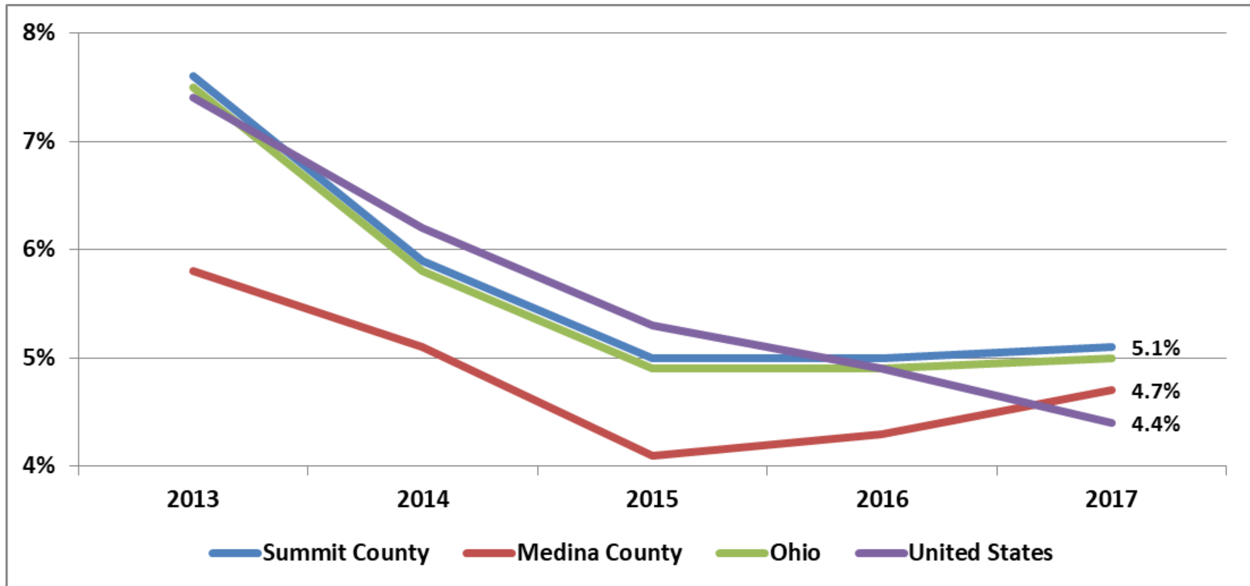
Exhibit 15 portrays the location of federally-designated low income census tracts.

Observations

- Low income census tracts have been present in the community, particularly in Summit County.

Unemployment

Exhibit 16: Unemployment Rates, 2013-2017



Source: Bureau of Labor Statistics, 2018.

Description

Exhibit 16 shows unemployment rates for 2013 through 2017 by county, with Ohio and national rates for comparison.

Observations

- Between 2012 and 2015, unemployment rates at the local, state, and national levels declined significantly. Between 2015 and 2017, unemployment rates increased slightly in both Summit and Medina counties.
- Rates in Summit and Medina counties were above the U.S. average in 2017.

Insurance Status

Exhibit 17: Percent of the Population without Health Insurance, 2017-2022

County	City/Town	ZIP Code	Total Population 2017	Percent Uninsured 2017	Total Population 2022	Percent Uninsured 2022
Summit	Akron	44304	5,891	9.2%	5,932	7.7%
Summit	Akron	44311	8,758	8.9%	8,802	7.6%
Summit	Akron	44307	8,147	8.2%	8,110	7.3%
Summit	Akron	44308	1,319	7.8%	1,331	6.8%
Summit	Akron	44306	21,981	6.8%	21,713	5.9%
Summit	Akron	44302	5,094	6.7%	4,959	5.5%
Summit	Akron	44320	19,483	6.2%	19,193	5.4%
Summit	Akron	44310	22,320	5.6%	22,183	4.7%
Summit	Akron	44314	18,143	5.5%	17,872	4.6%
Summit	Akron	44305	21,293	5.3%	20,904	4.5%
Summit	Akron	44303	7,232	4.9%	7,144	4.0%
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Summit	Akron	44319	22,509	2.9%	22,477	2.5%
Summit	Uniontown	44685	28,885	2.5%	29,655	2.3%
Medina	Homerville	44235	1,703	2.4%	1,690	2.2%
Summit	Stow	44224	39,873	2.3%	40,555	2.0%
Medina	Chippewa Lake	44215	2,031	2.3%	2,001	2.0%
Summit	Northfield	44067	20,881	2.3%	21,325	2.0%
Summit	Twinsburg	44087	21,787	2.3%	22,493	2.0%
Summit	Akron	44333	18,697	2.1%	18,725	1.8%
Medina	Wadsworth	44281	31,490	2.0%	32,299	1.8%
Summit	Munroe Falls	44262	4,982	2.0%	4,947	1.7%
Summit	Clinton	44216	9,521	2.0%	9,603	1.7%
Medina	Spencer	44275	3,298	1.9%	3,268	1.7%
Medina	Brunswick	44212	44,344	1.8%	45,113	1.6%
Summit	Richfield	44286	6,064	1.8%	6,202	1.6%
Medina	Medina	44256	64,301	1.8%	66,089	1.6%
Medina	Seville	44273	6,744	1.7%	6,752	1.5%
Summit	Hudson	44236	25,025	1.7%	25,094	1.6%
Summit	Akron	44321	16,391	1.7%	17,183	1.5%
Summit	Peninsula	44264	2,589	1.7%	2,603	1.5%
Medina	Valley City	44280	5,358	1.5%	5,515	1.3%
Medina	Hinckley	44233	7,964	1.4%	8,080	1.3%
Medina	Westfield Center	44251	856	1.3%	855	1.2%
Summit	Macedonia	44056	12,171	1.3%	12,594	1.1%
Medina	Litchfield	44253	3,401	1.2%	3,379	1.0%
Summit	Akron	44325	-	N/A	-	N/A
	Community Total		**723,937**	**3.4%**	**729,794**	**2.9%**

Source: Truven Market Expert, 2018.

Description

Exhibit 17 presents the estimated percent of population in community ZIP codes without health insurance (uninsured) – in 2017 and with projections to 2022.

Observations

- In 2017, the highest "uninsurance rates" were in Summit County ZIP codes in the City of Akron.
- Subsequent to the ACA's passage, a June 2012 Supreme Court ruling provided states with discretion regarding whether or not to expand Medicaid eligibility. Ohio was one of the states that expanded Medicaid. Across the United States, uninsurance rates have fallen most in states that decided to expand Medicaid.[10]

[10] See: http://hrms.urban.org/briefs/Increase-in-Medicaid-under-the-ACA-reduces-uninsurance.html

Crime Rates

Exhibit 18: Crime Rates by Type and Jurisdiction, Per 100,000, 2016

Crime	Summit County	Medina County	Ohio
Violent Crime	300.0	47.0	**305.9**
Property Crime	2,825.9	682.1	**2,537.4**
Murder	6.8	1.7	**5.9**
Rape	59.7	9.2	**47.4**
Robbery	93.0	1.7	**111.1**
Aggravated Assault	140.4	34.4	**141.5**
Burglary	644.5	93.4	**573.5**
Larceny	2,008.0	577.9	**1,789.7**
Motor Vehicle Theft	173.4	10.9	**174.2**
Arson	22.7	2.9	**23.4**

Source: FBI, 2017.

Description

Exhibit 18 provides crime statistics. Light grey shading indicates rates that were higher (worse) than the Ohio average; dark grey shading indicates rates that were more than 50 percent higher than the Ohio average.

Observations

- 2016 crime rates in Summit County were higher than the Ohio averages for property crime, murder, rape, burglary, and larceny.
- Medina County rates were below Ohio averages for all crime types.

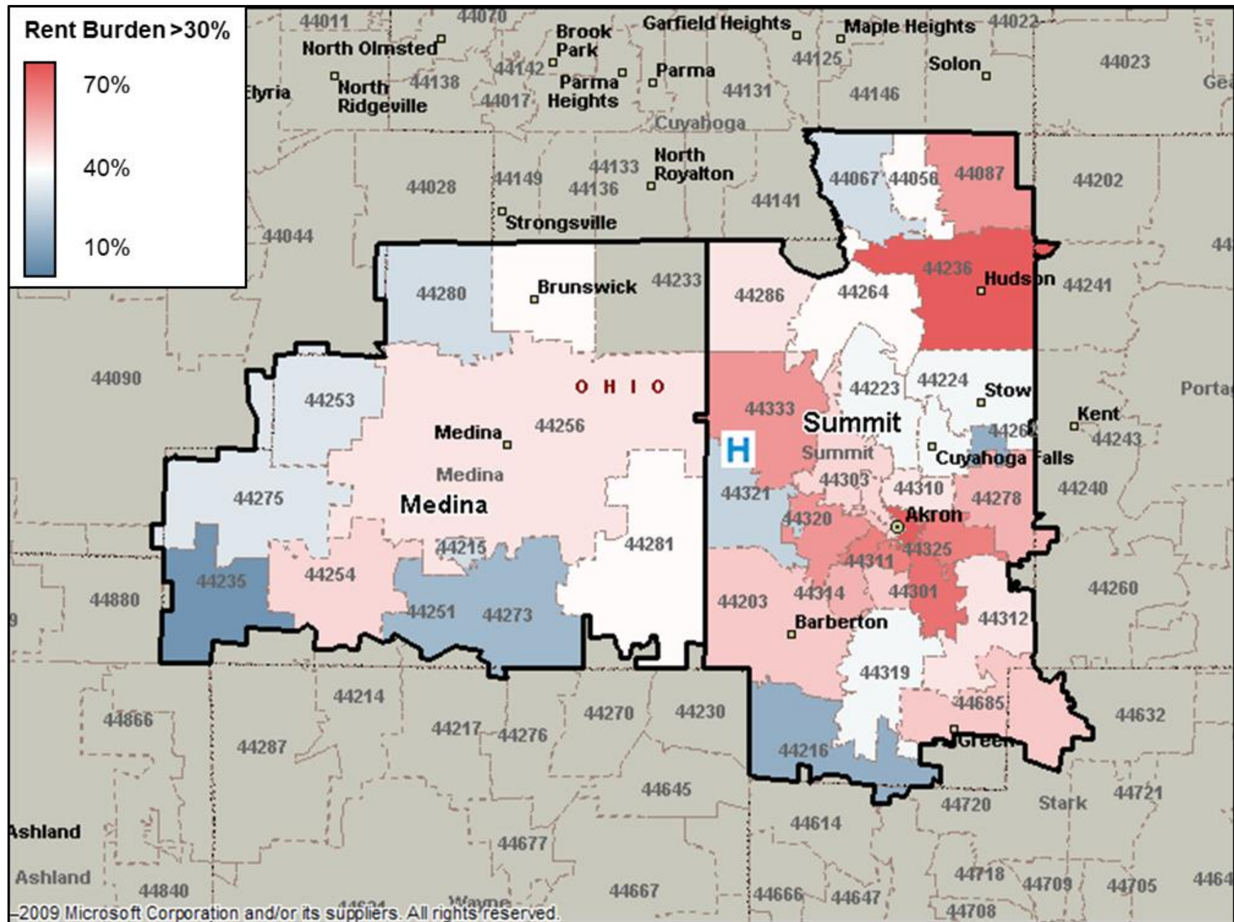
Housing Affordability

Exhibit 19: Percent of Rented Households Rent Burdened, 2013-2017

County	City/Town	ZIP Code	Occupied Units Paying Rent	Households Paying >30%	Rent Burden > 30% of Income
Summit	Hudson	44236	1,128	752	66.7%
Summit	Akron	44304	1,195	791	66.2%
Summit	Akron	44306	4,431	2,808	63.4%
Summit	Akron	44307	2,009	1,236	61.5%
Summit	Akron	44311	2,147	1,312	61.1%
Summit	Akron	44305	3,672	2,224	60.6%
Summit	Twinsburg	44087	2,236	1,278	57.2%
Summit	Akron	44320	3,377	1,924	57.0%
Summit	Akron	44333	1,501	849	56.6%
Summit	Tallmadge	44278	1,515	776	51.2%
Summit	Akron	44314	3,792	1,926	50.8%
Summit	Barberton	44203	4,559	2,237	49.1%
Summit	Akron	44301	2,559	1,233	48.2%
Summit	Akron	44302	1,479	707	47.8%
Summit	Uniontown	44685	1,638	781	47.7%
Summit	Akron	44308	281	133	47.3%
Summit	Akron	44303	1,360	628	46.2%
Summit	Akron	44313	4,827	2,199	45.6%
Medina	Lodi	44254	566	256	45.2%
Summit	Akron	44310	5,413	2,354	43.5%
Summit	Richfield	44286	137	59	43.1%
Summit	Akron	44312	3,418	1,458	42.7%
Medina	Medina	44256	4,843	2,052	42.4%
Summit	Macedonia	44056	278	114	41.0%
Medina	Wadsworth	44281	2,898	1,175	40.5%
Medina	Brunswick	44212	3,414	1,374	40.2%
Summit	Peninsula	44264	224	90	40.2%
Summit	Cuyahoga Falls	44223	1,473	561	38.1%
Summit	Akron	44319	2,213	841	38.0%
Summit	Cuyahoga Falls	44221	5,550	2,014	36.3%
Summit	Stow	44224	5,185	1,850	35.7%
Medina	Spencer	44275	174	60	34.5%
Medina	Litchfield	44253	86	29	33.7%
Medina	Valley City	44280	161	52	32.3%
Medina	Chippewa Lake	44215	124	39	31.5%
Summit	Northfield	44067	1,289	402	31.2%
Summit	Akron	44321	1,595	477	29.9%
Medina	Westfield Center	44251	34	10	29.4%
Medina	Seville	44273	353	82	23.2%
Summit	Clinton	44216	299	60	20.1%
Summit	Munroe Falls	44262	454	84	18.5%
Medina	Homerville	44235	45	6	13.3%
Medina	Hinckley	44233	-	-	N/A
Summit	Akron	44325	N/A	N/A	N/A
Community Total			**83,932**	**39,293**	**46.8%**
Ohio			1,453,379	678,101	46.7%
United States			39,799,272	20,138,321	50.6%

Source: U.S. Census, ACS 5-Year Estimates, 2018.

Exhibit 20: Map of Percent of Rented Households Rent Burdened, 2013-2017



Source: U.S. Census, ACS 5-Year Estimates, 2018.

Description

The U.S. Department of Housing and Urban Development ("HUD") has defined households that are "rent burdened" as those spending more than 30 percent of income on housing.[11] On that basis and based on data from the U.S. Census, Exhibits 19 and 20 portray the percentage of rented households in each ZIP code that are rent burdened.

Observations

As stated by the Federal Reserve, "households that have little income left after paying rent may not be able to afford other necessities, such as food, clothes, health care, and transportation."[12]

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[11] https://www.federalreserve.gov/econres/notes/feds-notes/assessing-the-severity-of-rent-burden-on-low-income-families-20171222.htm

[12] *Ibid.*

- Nearly 47 percent of households have been designated as “rent burdened,” a level slightly above the Ohio average.

- The percentage of rented households rent burdened was highest in ZIP codes where poverty rates and the Dignity Health Community Need Index^{TM} (CNI) also are above average (see next section for information on the CNI).

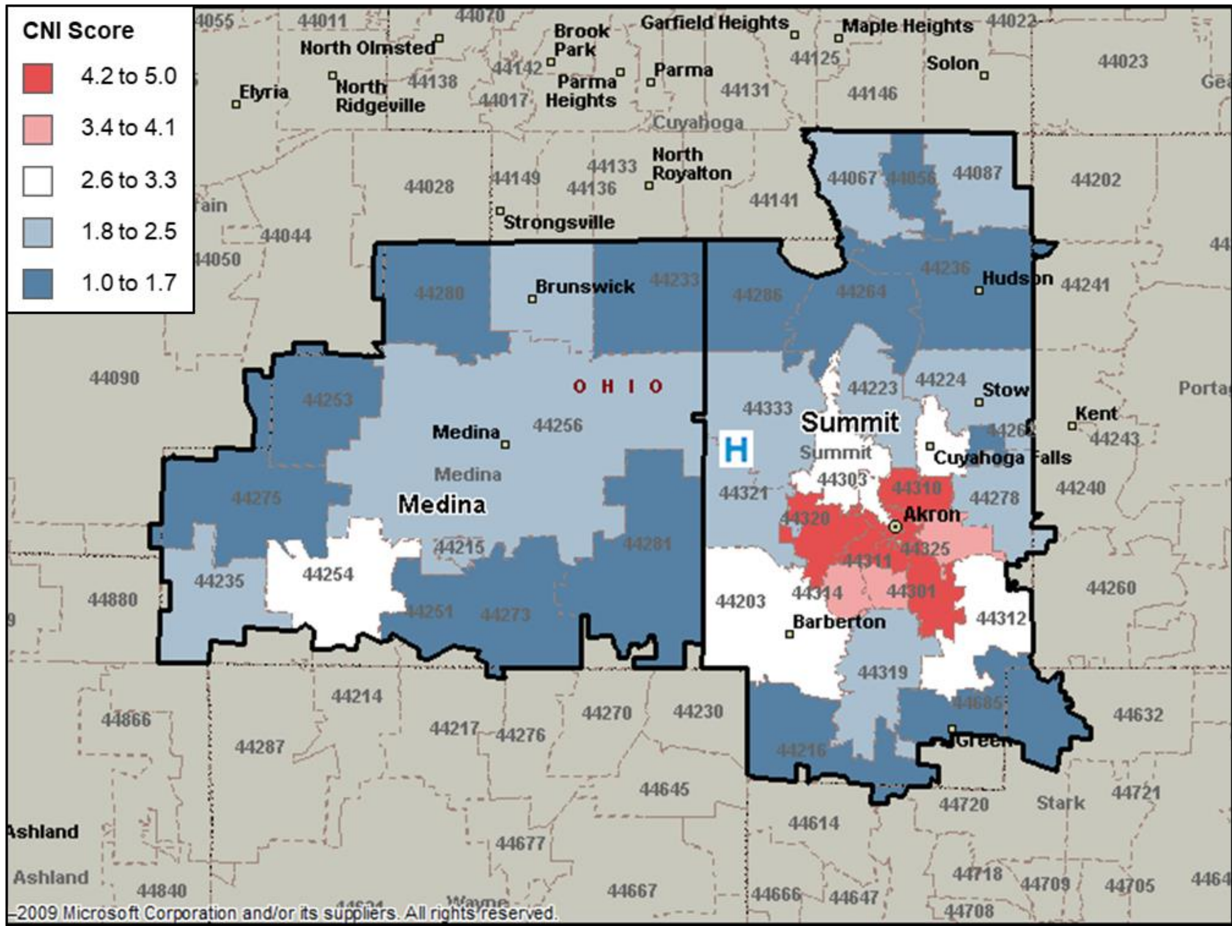
Dignity Health Community Need Index

Exhibit 21: Community Need Index^{TM} Score by ZIP Code, 2018

County	City/Town	ZIP Code	CNI Score
Summit	Akron	44307	5.0
Summit	Akron	44311	4.8
Summit	Akron	44302	4.6
Summit	Akron	44306	4.6
Summit	Akron	44308	4.6
Summit	Akron	44310	4.4
Summit	Akron	44304	4.2
Summit	Akron	44320	4.2
Summit	Akron	44314	4.0
Summit	Akron	44301	3.8
Summit	Akron	44305	3.8
Summit	Akron	44303	3.2
Summit	Akron	44313	3.0
Summit	Barberton	44203	2.8
Summit	Cuyahoga Falls	44221	2.6
Medina	Lodi	44254	2.6
Summit	Akron	44312	2.6
Summit	Cuyahoga Falls	44223	2.4
Summit	Twinsburg	44087	2.2
Summit	Stow	44224	2.2
Summit	Tallmadge	44278	2.2
Medina	Chippewa Lake	44215	2.0
Summit	Akron	44319	2.0
Summit	Akron	44321	2.0
Summit	Northfield	44067	1.8
Medina	Brunswick	44212	1.8
Medina	Homerville	44235	1.8
Medina	Medina	44256	1.8
Summit	Akron	44333	1.8
Summit	Macedonia	44056	1.6
Medina	Litchfield	44253	1.6
Summit	Munroe Falls	44262	1.6
Summit	Peninsula	44264	1.6
Medina	Wadsworth	44281	1.6
Summit	Uniontown	44685	1.6
Summit	Hudson	44236	1.4
Medina	Seville	44273	1.4
Medina	Spencer	44275	1.4
Medina	Valley City	44280	1.4
Summit	Clinton	44216	1.2
Medina	Hinckley	44233	1.2
Medina	Westfield Center	44251	1.2
Summit	Richfield	44286	1.2
Summit	Akron	44325	N/A
Community Average			**2.5**
Summit County Average			2.7
Medina County Average			1.7

Source: Dignity Health, 2018.

Exhibit 22: Community Need Index, 2018



Source: Microsoft MapPoint and Dignity Health, 2018.

Description

Exhibits 21 and 22 present the *Community Need Index™* (CNI) score for each ZIP code in the Edwin Shaw community. Higher scores (e.g., 4.2 to 5.0) indicate the highest levels of community need. The index is calibrated such that 3.0 represents a U.S.-wide median score.

Dignity Health, a California-based hospital system, developed and published the CNI as a way to assess barriers to health care access. The index, available for every ZIP code in the United States, is derived from five social and economic indicators:

- The percentage of elders, children, and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White;
- The percentage of the population without a high school diploma;
- The percentage of uninsured and unemployed residents; and
- The percentage of the population renting houses.

CNI scores are grouped into "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0) categories

Observations

- Eight of the 44 ZIP codes in the Edwin Shaw community (all located in Summit County) scored in the "highest need" category. 14 other ZIP codes scored in the "lowest need" category.

- At 2.5 the weighted average CNI score for the Edwin Shaw community is below the U.S. median of 3.0.

Exhibit 23: Statistics Arrayed by CNI Range

Indicators	Highest Need	<== CNI Range ==>			Lowest Need
	4.2-5.0	3.4-4.1	2.6-3.3	1.8-2.5	1.0-1.7
Demographic Characteristics					
ZIP Codes	8	3	6	12	14
Total Persons	92,993	54,075	139,531	288,990	148,348
Poverty Rate	35%	24%	12%	7%	5%
% African American	46%	22%	8%	5%	2%
BRFSS Indicators					
% Arthritis	25.8%	26.4%	24.8%	23.4%	21.6%
% Asthma	15.8%	14.3%	12.0%	10.1%	9.5%
% Depression	23.1%	22.2%	18.8%	16.7%	15.7%
% Diabetes	15.4%	15.5%	15.6%	14.3%	13.7%
% Heart Disease	10.1%	10.1%	11.3%	10.4%	10.2%
% Heart Failure	5.1%	5.0%	4.6%	3.9%	3.7%
PQI Rates					
COPD	904	861	740	486	391
Congestive Heart Failure	798	705	586	498	431
Diabetes long-term complications	157	165	97	81	77
Bacterial pneumonia	292	233	246	214	176
Dehydration	319	209	237	214	177
Diabetes short-term complications	113	97	71	41	61
Urinary tract infection	222	182	225	204	182
Hypertension	83	68	49	44	28
Low birth weight (per 1,000 births)	76	73	54	25	27
Young adult asthma	64	50	23	10	6
Lower-extremity amputation among patients with diabetes	54	61	21	23	21

Source: Verité Analysis.

Description

Exhibit 23 provides data for community ZIP codes arranged by CNI Score.

Observations

- ZIP codes found to be higher need are associated with higher rates of poverty, a higher proportion of the population Black, more problematic BRFSS indicators (e.g., rates of asthma and depression), and higher rates of admissions for Ambulatory Care Sensitive Conditions ("PQI rates" or "ACSCs").

Other Local Health Status and Access Indicators

This section assesses other health status and access indicators for the Edwin Shaw community. Data sources include:

(1) County Health Rankings
(2) Community Health Status Indicators, published by County Health Rankings
(3) Ohio Department of Health
(4) CDC's Behavioral Risk Factor Surveillance System.

Throughout this section, data and cells are highlighted if indicators are unfavorable because they exceed benchmarks (typically, Ohio averages). Where confidence interval data are available, cells are highlighted only if variances are unfavorable and statistically significant.

County Health Rankings

Exhibit 24: County Health Rankings, 2015 and 2018
(Light Grey Shading Denotes Bottom Half of Ohio Counties; Dark Grey Denotes Bottom Quartile)

Measure	Summit County		Medina County	
	2015	2018	2015	2018
Health Outcomes	42	46	4	4
Health Factors	36	44	3	5
Length of Life	40	44	4	5
Premature death	40	44	4	5
Quality of Life	53	52	5	4
Poor or fair health	30	20	4	2
Poor physical health days	32	39	7	2
Poor mental health days	26	22	13	2
Low birthweight	71	79	16	23
Health Behaviors	21	43	4	9
Adult smoking	14	27	4	8
Adult obesity	9	23	7	29
Food environment index	73	66	7	8
Physical inactivity	6	21	15	12
Access to exercise opportunities	1	5	8	8
Excessive drinking	41	47	34	79
Alcohol-impaired driving deaths	86	87	76	85
Sexually transmitted infections	80	79	18	6
Teen births	25	24	7	6
Clinical Care	24	14	5	5
Uninsured	38	40	4	6
Primary care physicians	6	7	29	24
Dentists	12	13	20	21
Mental health providers	11	12	24	37
Preventable hospital stays	38	29	49	17
Diabetes monitoring	69	67	13	33
Mammography screening	43	39	3	2
Social & Economic Factors	48	50	7	5
High school graduation	78	73	23	4
Some college	12	12	6	6
Unemployment	32	46	15	23
Children in poverty	38	50	3	4
Income inequality	80	78	8	11
Children in single-parent households	66	61	11	6
Social associations	60	59	75	76
Violent crime	80	81	47	6
Injury deaths	24	54	3	5
Physical Environment	82	81	70	62
Air pollution	75	84	67	64
Severe housing problems	71	72	33	31
Driving alone to work	81	68	79	80
Long commute - driving alone	36	35	79	74

Source: County Health Rankings, 2018.

Description

Exhibit 24 presents *County Health Rankings*, a University of Wisconsin Population Health Institute initiative funded by the Robert Wood Johnson Foundation that incorporates a variety of health status indicators into a system that ranks each county/city within each state in terms of "health factors" and "health outcomes." These health factors and outcomes are composite measures based on several variables grouped into the following categories: health behaviors, clinical care,[13] social and economic factors, and physical environment.[14] *County Health Rankings* is updated annually. *County Health Rankings 2018* relies on data from 2006 to 2017, with most data from 2011 to 2016.

The exhibit presents 2015 and 2018 rankings for each available indicator category. Rankings indicate how the county ranked in relation to all 88 counties in Ohio, with 1 indicating the most favorable rankings and 88 the least favorable. Light grey shading indicates rankings in the bottom half of Ohio counties; dark grey shading indicates rankings in bottom quartile of Ohio counties.

Observations

- In 2018, Summit County ranked in the bottom 50th percentile among Ohio counties for 21 of the 42 indicators assessed. Of those, eleven were in the bottom quartile, including low birthweight births, alcohol-impaired driving deaths, sexually transmitted infections, high school graduation rates, violent crime rates, and others.

- In Medina County, seven of the 42 indicators ranked in the bottom 50th percentile among Ohio counties. Of those, five were in the bottom quartile, including excessive drinking, alcohol-impaired driving deaths, social associations, percent driving alone to work, and percent with a long commute who drive alone.

- Both counties ranked in the bottom quartile for alcohol-impaired driving deaths and the percent of adults with drive alone to work.

[13] A composite measure of Access to Care, which examines the percent of the population without health insurance and ratio of population to primary care physicians, and Quality of Care, which examines the hospitalization rate for ambulatory care sensitive conditions, whether diabetic Medicare patients are receiving HbA1C screening, and percent of chronically ill Medicare enrollees in hospice care in the last 8 months of life.

[14] A composite measure that examines Environmental Quality, which measures the number of air pollution-particulate matter days and air pollution-ozone days, and Built Environment, which measures access to healthy foods and recreational facilities and the percent of restaurants that are fast food.

Exhibit 25: County Health Rankings Data Compared to Ohio and U.S. Averages, 2018
(Light Grey Shading Denotes Bottom Half of Ohio Counties; Dark Grey Denotes Bottom Quartile)

Indicator Category	Data	Summit County	Medina County	Ohio	United States
Health Outcomes					
Length of Life	Years of potential life lost before age 75 per 100,000 population	7,691	5,438	**7,734**	6,700
Quality of Life	Percent of adults reporting fair or poor health	15.2%	11.3%	**17.0%**	16.0%
	Average number of physically unhealthy days reported in past 30 days	3.8	3.0	**4.0**	3.7
	Average number of mentally unhealthy days reported in past 30 days	3.9	3.5	**4.3**	3.8
	Percent of live births with low birthweight (<2500 grams)	9.3%	7.0%	**8.6%**	8.0%
Health Factors					
Health Behaviors					
Adult Smoking	Percent of adults that report smoking >= 100 cigarettes and currently smoking	19.5%	17.3%	**22.5%**	17.0%
Adult Obesity	Percent of adults that report a BMI >= 30	31.2%	31.6%	**31.6%**	28.0%
Food Environment Index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	7.2	8.5	**6.6**	7.7
Physical Inactivity	Percent of adults aged 20 and over reporting no leisure-time physical activity	25.4%	24.3%	**25.7%**	23.0%
Access to Exercise Opportunities	Percent of population with adequate access to locations for physical activity	95.0%	93.2%	**84.7%**	83.0%
Excessive Drinking	Binge plus heavy drinking	17.9%	19.7%	**19.1%**	18.0%
Alcohol-Impaired Driving Deaths	Percent of driving deaths with alcohol involvement	50.0%	46.7%	**34.3%**	29.0%
STDs	Chlamydia rate per 100,000 population	495	172	**489**	479
Teen Births	Teen birth rate per 1,000 female population, ages 15-19	24.9	12.4	**27.6**	27.0
Clinical Care					
Uninsured	Percent of population under age 65 without health insurance	7.5%	6.0%	**7.7%**	11.0%
Primary Care Physicians	Ratio of population to primary care physicians	1,025:1	1,633:1	**1,307:1**	1,320:1
Dentists	Ratio of population to dentists	1,642:1	1,947:1	**1,656:1**	1,480:1
Mental Health Providers	Ratio of population to mental health providers	472:1	900:1	**561:1**	470:1
Preventable Hospital Stays	Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	55	51	**57**	49
Diabetes Screening	Percent of diabetic Medicare enrollees that receive HbA1c monitoring	83.0%	86.4%	**85.1%**	85.0%
Mammography Screening	Percent of female Medicare enrollees, ages 67-69, that receive mammography screening	60.5%	68.6%	**61.2%**	63.0%

Source: County Health Rankings, 2018.

Exhibit 25: County Health Rankings Data Compared to Ohio and U.S. Averages, 2018 (*continued*)
(Light Grey Shading Denotes Bottom Half of Ohio Counties; Dark Grey Denotes Bottom Quartile)

Indicator Category	Data	Summit County	Medina County	Ohio	United States
Health Factors					
Social & Economic Factors					
High School Graduation	Percent of ninth-grade cohort that graduates in four years	82.8%	95.8%	**81.2%**	83.0%
Some College	Percent of adults aged 25-44 years with some post-secondary education	67.2%	71.6%	**64.5%**	65.0%
Unemployment	Percent of population age 16+ unemployed but seeking work	5.0%	4.3%	**4.9%**	4.9%
Children in Poverty	Percent of children under age 18 in poverty	19.7%	8.1%	**20.4%**	20.0%
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	4.9	3.7	**4.8**	5.0
Children in Single-Parent Households	Percent of children that live in a household headed by single parent	36.1%	20.5%	**35.7%**	34.0%
Social Associations	Number of associations per 10,000 population	11.5	9.5	**11.3**	9.3
Violent Crime	Number of reported violent crime offenses per 100,000 population	378	50	**290**	380
Injury Deaths	Injury mortality per 100,000	78.7	53.1	**75.5**	65.0
Physical Environment					
Air Pollution	The average daily measure of fine particulate matter in micrograms per cubic meter (PM2.5) in a county	12.3	11.7	**11.3**	8.7
Severe Housing Problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities	14.9%	11.9%	**15.0%**	19.0%
Driving Alone to Work	Percent of the workforce that drives alone to work	86.5%	87.6%	**83.4%**	76.0%
Long Commute – Drive Alone	Among workers who commute in their car alone, the percent that commute more than 30 minutes	27.3%	43.7%	**30.0%**	35.0%

Source: County Health Rankings, 2018.

Description

Exhibit 25 provides data that underlie the County Health Rankings.[15] The exhibit also includes Ohio and national averages. Light grey shading highlights indicators found to be worse than the Ohio average; dark grey shading highlights indicators more than 50 percent worse than the Ohio average.

Observations

- The following indicators (presented alphabetically) compared particularly unfavorably:
  - Percent of driving deaths with alcohol involvement
  - Ratio of population to mental health providers
  - Air pollution (average daily PM2.5)
  - Percent of adults who drive alone to work

- In Exhibit 25, Medina County's ratio of population to mental health providers is more than 50 percent worse than the Ohio average.

- Ohio-wide indicators are worse than U.S. averages for virtually all of the indicators presented.

[15] County Health Rankings provides details about what each indicator measures, how it is defined, and data sources at http://www.countyhealthrankings.org/sites/default/files/resources/2013Measures_datasources_years.pdf

Community Health Status Indicators

Exhibit 26: Community Health Status Indicators, 2018
(Light Grey Shading Denotes Bottom Half of Peer Counties; Dark Grey Denotes Bottom Quartile)

Category	Indicator	Summit County	Medina County
Length of Life	Years of Potential Life Lost Rate		
Quality of Life	% Fair/Poor Health		
	Physically Unhealthy Days		
	Mentally Unhealthy Days		
	% Births - Low Birth Weight		
Health Behaviors	% Smokers		
	% Obese		
	Food Environment Index		
	% Physically Inactive		
	% With Access to Exercise Opportunities		
	% Excessive Drinking		
	% Driving Deaths Alcohol-Impaired		
	Chlamydia Rate		
	Teen Birth Rate		
Clinical Care	% Uninsured		
	Primary Care Physicians Rate		
	Dentist Rate		
	Mental Health Professionals Rate		
	Preventable Hosp. Rate		
	% Receiving HbA1c Screening		
	% Mammography Screening		
Social & Economic Factors	High School Graduation Rate		
	% Some College		
	% Unemployed		
	% Children in Poverty		
	Income Ratio		
	% Children in Single-Parent Households		
	Social Association Rate		
	Violent Crime Rate		
	Injury Death Rate		
Physical Environment	Average Daily PM2.5		
	% Severe Housing Problems		
	% Drive Alone to Work		
	% Long Commute - Drives Alone		

Source: Community Health Status Indicators, 2017.

Description

County Health Rankings has organized community health data for all 3,143 counties in the United States. Following a methodology developed by the Centers for Disease Control's *Community Health Status Indicators* Project (CHSI), County Health Rankings also publishes lists of "peer counties," so comparisons with peer counties in other states can be made. Each county in the U.S. is assigned 30 to 35 peer counties based on 19 variables including population size, population growth, population density, household income, unemployment, percent children, percent elderly, and poverty rates.

This *Community Health Status Indicators* analysis formerly was available from the CDC. Because comparisons with peer counties (rather than only counties in the same state) are meaningful, Verité Healthcare Consulting rebuilt the CHSI comparisons for this and other CHNAs.

Exhibit 26 compares Edwin Shaw community counties to their respective peer counties and highlights community health issues found to rank in the bottom half and bottom quartile of the counties included in the analysis. Light grey shading indicates rankings in the bottom half of peer counties; dark grey shading indicates rankings in the bottom quartile of peer counties.

Observations

- The CHSI data indicate that both counties served by Edwin Shaw compared unfavorably to their peers for the following indicators:
    - Years of potential life lost rate
    - Low birth weight births
    - Percent of adults who smoke
    - Percent of adults obese
    - Percent of adults physically inactive
    - Percent excessive drinking
    - Percent of driving deaths alcohol-impaired
    - Preventable hospitalizations rate
    - Percent receiving HbA1c (diabetes) screening
    - Unemployment
    - Income ratio
    - Social associations rate
    - Air pollution (average daily PM2.5)
    - Percent of adults who drive alone to work

Ohio Department of Health

Exhibit 27: Selected Causes of Death, Age-Adjusted Rates per 100,000 Population, 2016 (Light Grey Shading Denotes Indicators Worse than Ohio Average; Dark Grey Denotes Any Indicators More than 50 Percent Worse than Ohio Average)

Specific Causes of Death	Summit County	Medina County	Ohio
All Causes of Death	845.1	661.7	**832.3**
All other forms of chronic ischemic heart disease	47.8	46.2	**53.2**
Other chronic obstructive pulmonary disease	39.0	35.2	**43.7**
Organic dementia	41.3	40.5	**38.4**
Alzheimer's disease	37.5	22.0	**33.4**
Acute myocardial infarction	29.5	21.7	**32.1**
Accidental poisoning by and exposure to drugs and other biological substances	57.8	26.5	**36.8**
Diabetes mellitus	23.1	21.4	**24.6**
Conduction disorders and cardiac dysrhythmias	19.6	20.1	**20.2**
Congestive heart failure	18.8	25.3	**19.5**
Stroke, not specified as hemorrhage or infarction	15.9	11.0	**17.8**
Atherosclerotic cardiovascular disease	9.1	N/A	**15.4**
Renal failure	13.3	9.8	**15.1**
Septicemia	13.5	9.5	**13.7**
Pneumonia	10.0	5.8	**13.3**
All other diseases of nervous system	12.2	13.0	**12.3**
Hypertensive heart disease	21.3	10.1	**11.9**
All other diseases of respiratory system	10.7	10.5	**11.4**
Other cerebrovascular diseases and their sequelae	13.0	7.7	**10.4**
Parkinson's disease	7.9	9.4	**8.7**
Intentional self-harm (suicide) by discharge of firearms	7.0	9.4	**7.4**
Alcoholic liver disease	6.8	N/A	**5.1**
Unspecified fall	2.6	N/A	**4.7**

Source: Ohio Department of Health, 2017.

Description

The Ohio Department of Health maintains a database that includes county-level mortality rates and cancer incidence rates. Exhibit 27 provides age-adjusted mortality rates for selected causes of death in 2016.

Observations

- The following mortality rates compared particularly unfavorably to Ohio averages:
  - Organic dementia

- Accidental poisoning by and exposure to drugs and other biological substances
- Hypertensive heart disease

Exhibit 28: Age-Adjusted Cancer Mortality Rates per 100,000 Population, 2016 (Light Grey Shading Denotes Indicators Worse than Ohio Average; Dark Grey Denotes Any Indicators More than 50 Percent Worse than Ohio Average)

Cancer Site/Type	Summit County	Medina County	Ohio
All Cancer Types	170.1	144.3	**173.8**
Lung and Bronchus	42.8	35.6	**47.9**
Prostate	20.5	24.1	**19.8**
Other Sites/Types	20.6	15.4	**19.6**
Colon & Rectum	17.0	12.2	**15.5**
Breast	14.4	8.7	**12.0**
Pancreas	14.0	9.3	**11.5**
Ovary	7.5	14.8	**7.8**
Leukemia	6.9	5.4	**6.9**
Liver & Intrahepatic Bile Duct	4.9	4.8	**6.1**
Non-Hodgkins Lymphoma	6.3	5.0	**5.9**
Uterus	3.3	N/A	**5.2**
Esophagus	4.0	5.3	**5.1**
Bladder	3.7	5.9	**5.1**
Brain and Other CNS	4.9	N/A	**4.8**
Kidney & Renal Pelvis	2.9	N/A	**3.8**
Multiple Myeloma	2.9	N/A	**3.3**
Oral Cavity & Pharynx	2.8	N/A	**2.9**
Melanoma of Skin	1.7	N/A	**2.6**
Stomach	2.2	N/A	**2.5**
Larynx	1.8	N/A	**1.2**

Source: Ohio Department of Health, 2017.

Description

Exhibit 28 provides age-adjusted mortality rates for selected types of cancer in 2016.

Observations

- Medina County’s age-adjusted ovarian cancer rate was significantly higher than the Ohio average.
- Mortality rates for prostate cancer were higher than the state average in both community counties.

Exhibit 29: Age-Adjusted Cancer Incidence Rates per 100,000 Population, 2011-2015 (Light Grey Shading Denotes Indicators Worse than Ohio Average)

Cancer Site/Type	Summit County	Medina County	Ohio
All Cancer Types	451.0	471.9	**461.6**
Prostate	111.8	124.5	**108.0**
Lung and Bronchus	65.4	60.0	**69.3**
Breast	69.2	68.9	**68.0**
Colon & Rectum	37.0	39.9	**41.7**
Other Sites/Types	37.9	34.9	**36.4**
Uterus	26.9	27.4	**29.2**
Bladder	22.2	23.4	**21.9**
Melanoma of Skin	22.4	26.8	**21.7**
Non-Hodgkins Lymphoma	18.5	22.3	**19.0**
Kidney & Renal Pelvis	15.0	18.3	**16.8**
Thyroid	13.9	16.4	**14.8**
Pancreas	12.8	12.7	**12.7**
Leukemia	12.2	16.0	**12.2**
Oral Cavity & Pharynx	11.1	9.1	**11.7**
Ovary	10.6	13.5	**11.4**
Cervix	6.6	3.4	**7.6**
Brain and Other CNS	7.0	7.6	**6.9**
Liver & Intrahepatic Bile Duct	6.0	5.6	**6.7**
Stomach	6.0	6.5	**6.4**
Multiple Myeloma	5.4	5.4	**5.8**
Testis	6.3	8.5	**5.8**
Esophagus	5.4	4.4	**5.1**
Larynx	3.6	4.0	**4.1**
Hodgkins Lymphoma	2.7	3.6	**2.7**

Source: Ohio Department of Health, 2016.

Description

Exhibit 29 presents age-adjusted cancer incidence rates by county.

Observations

- The overall cancer incidence rate in Medina County was higher than the Ohio average.
- In both counties, incidence rates for prostate, breast, bladder, melanoma of skin, brain and other CNS, and testis cancers were above Ohio averages.

Behavioral Risk Factor Surveillance System

Exhibit 30: Behavioral Risk Factor Surveillance System, Chronic Conditions, 2017
(Light Grey Shading Denotes Indicators Worse than Ohio Average; Dark Grey Denotes Any Indicators More than 50 Percent Worse than Ohio Average)

County	City/Town	ZIP Code	Total Population 18+	% Arthritis	% Asthma	% Depression	% Diabetes	% Heart Disease	% Heart Failure	% High Blood Pressure	% High Cholesterol	% Adult Smoking	% COPD	% Back Pain
Summit	Macedonia	44056	10,362	18.5%	10.2%	16.2%	13.0%	11.0%	3.0%	29.3%	25.7%	18.9%	3.6%	24.9%
Summit	Northfield	44067	17,077	23.4%	8.7%	14.5%	13.5%	10.2%	3.3%	29.3%	25.2%	21.1%	5.1%	25.9%
Summit	Twinsburg	44087	16,921	24.3%	10.3%	18.2%	13.9%	10.8%	4.0%	29.9%	23.5%	23.2%	4.9%	29.4%
Summit	Barberton	44203	31,086	26.0%	11.2%	18.2%	15.8%	11.9%	4.8%	32.2%	26.6%	27.7%	6.7%	31.7%
Medina	Brunswick	44212	34,993	20.5%	10.7%	16.6%	14.7%	10.3%	3.5%	30.0%	24.3%	23.6%	4.6%	24.7%
Medina	Chippewa Lake	44215	1,055	24.2%	11.3%	19.3%	17.2%	10.8%	4.9%	31.2%	28.2%	34.7%	7.6%	33.7%
Summit	Clinton	44216	8,907	25.5%	7.7%	14.3%	13.0%	9.0%	3.1%	27.3%	24.2%	24.1%	6.0%	26.3%
Summit	Cuyahoga Falls	44221	23,328	24.7%	13.0%	19.5%	14.7%	10.8%	4.3%	32.2%	24.3%	29.0%	5.5%	32.8%
Summit	Cuyahoga Falls	44223	15,570	25.5%	11.2%	18.3%	14.4%	11.1%	4.9%	33.4%	26.1%	26.0%	5.3%	30.7%
Summit	Stow	44224	31,682	22.9%	10.4%	17.7%	14.7%	10.7%	3.9%	31.1%	24.1%	22.0%	3.9%	25.6%
Medina	Hinckley	44233	6,218	25.4%	9.1%	14.5%	12.7%	8.7%	3.2%	26.5%	24.9%	22.1%	4.8%	24.5%
Medina	Homerville	44235	1,169	22.2%	11.1%	18.4%	14.5%	11.5%	4.2%	30.4%	25.1%	27.5%	5.2%	26.3%
Summit	Hudson	44236	18,008	18.6%	9.7%	15.6%	11.7%	10.9%	2.8%	27.5%	26.4%	19.7%	3.1%	22.9%
Medina	Westfield Center	44251	1,248	24.9%	7.8%	15.5%	13.0%	8.0%	3.9%	27.5%	24.7%	19.8%	3.3%	26.4%
Medina	Litchfield	44253	2,635	23.1%	9.3%	16.9%	14.4%	10.1%	5.9%	30.4%	28.7%	27.2%	6.2%	34.7%
Medina	Lodi	44254	3,601	25.2%	12.5%	21.8%	16.6%	12.4%	6.7%	34.7%	26.9%	29.1%	6.8%	33.4%
Medina	Medina	44256	49,001	21.7%	10.9%	16.3%	13.9%	9.5%	3.7%	29.4%	24.4%	23.2%	4.5%	27.6%
Summit	Munroe Falls	44262	4,057	19.1%	10.0%	16.4%	14.9%	9.7%	3.8%	32.5%	24.1%	23.7%	3.4%	27.5%
Summit	Peninsula	44264	1,672	24.3%	7.7%	15.1%	12.5%	9.7%	3.3%	26.4%	23.9%	19.6%	3.2%	25.4%
Medina	Seville	44273	5,254	23.2%	10.9%	17.5%	15.3%	12.2%	5.0%	33.8%	26.8%	26.5%	6.0%	27.4%
Medina	Spencer	44275	3,694	23.1%	10.5%	18.0%	16.0%	12.7%	6.4%	34.2%	27.9%	27.3%	5.9%	31.0%
Summit	Tallmadge	44278	14,315	28.4%	9.2%	16.4%	15.1%	11.3%	4.7%	32.1%	26.5%	24.9%	6.2%	29.8%
Hospital Community			**568,561**	**23.8%**	**11.3%**	**18.0%**	**14.6%**	**10.5%**	**4.2%**	**30.4%**	**24.8%**	**25.7%**	**5.5%**	**29.6%**
Ohio Average			**9,044,061**	**24.2%**	**11.9%**	**19.2%**	**15.7%**	**10.7%**	**4.5%**	**31.8%**	**25.0%**	**27.5%**	**6.0%**	**31.1%**

Source: Truven Market Expert/Behavioral Risk Factor Surveillance System, 2018.

Exhibit 30: Behavioral Risk Factor Surveillance System, Chronic Conditions, 2017 (*continued*)
(Light Grey Shading Denotes Indicators Worse than Ohio Average; Dark Grey Denotes Any Indicators More than 50 Percent Worse than Ohio Average)

County	City/Town	ZIP Code	Total Population 18+	% Arthritis	% Asthma	% Depression	% Diabetes	% Heart Disease	% Heart Failure	% High Blood Pressure	% High Cholesterol	% Adult Smoking	% COPD	% Back Pain
Medina	Valley City	44280	4,439	22.8%	7.9%	14.7%	13.1%	7.9%	3.6%	27.7%	24.9%	20.9%	4.0%	25.6%
Medina	Wadsworth	44281	24,575	22.8%	10.9%	17.9%	14.7%	10.8%	4.4%	31.1%	24.6%	24.2%	5.0%	29.7%
Summit	Richfield	44286	5,284	26.7%	7.4%	14.5%	12.9%	8.3%	3.3%	25.7%	23.4%	21.2%	4.2%	27.3%
Summit	Akron	44301	10,322	24.8%	13.7%	22.9%	14.5%	9.7%	4.4%	31.9%	23.8%	32.5%	7.0%	36.3%
Summit	Akron	44302	4,920	21.1%	15.2%	19.0%	18.6%	10.6%	4.4%	28.3%	23.8%	30.3%	6.0%	33.8%
Summit	Akron	44303	6,440	25.9%	12.0%	17.4%	15.0%	12.8%	4.0%	32.9%	27.6%	24.2%	5.0%	28.4%
Summit	Akron	44304	4,021	19.9%	20.8%	26.1%	7.2%	6.2%	1.8%	22.2%	13.4%	26.0%	4.2%	27.3%
Summit	Akron	44305	15,954	27.4%	13.6%	22.1%	14.8%	10.0%	4.6%	31.2%	23.9%	32.9%	7.0%	35.6%
Summit	Akron	44306	14,428	26.6%	15.9%	24.6%	15.5%	10.2%	5.1%	31.5%	22.2%	32.8%	7.6%	37.9%
Summit	Akron	44307	6,227	27.5%	16.2%	25.1%	17.6%	11.2%	5.8%	29.8%	23.4%	32.4%	7.3%	38.3%
Summit	Akron	44308	1,254	27.5%	13.1%	17.6%	15.1%	12.6%	5.3%	16.4%	33.2%	42.1%	4.3%	29.4%
Summit	Akron	44310	15,794	27.7%	15.0%	23.0%	16.2%	10.1%	5.6%	30.2%	25.1%	33.4%	7.3%	35.9%
Summit	Akron	44311	8,378	17.2%	18.8%	26.4%	9.7%	8.8%	2.7%	23.6%	17.4%	30.6%	4.8%	31.7%
Summit	Akron	44312	26,682	26.2%	11.3%	19.2%	15.8%	11.1%	4.9%	33.0%	26.8%	28.8%	6.5%	32.6%
Summit	Akron	44313	19,260	20.5%	12.9%	18.3%	16.1%	10.5%	3.9%	31.1%	23.8%	23.8%	5.1%	28.1%
Summit	Akron	44314	14,109	26.5%	15.5%	21.9%	17.1%	10.6%	6.0%	30.6%	22.0%	31.8%	8.3%	36.7%
Summit	Akron	44319	17,000	26.2%	9.6%	17.0%	15.4%	9.8%	4.6%	31.6%	25.9%	25.3%	5.9%	29.5%
Summit	Akron	44320	14,425	28.8%	14.1%	19.9%	17.6%	10.9%	6.5%	32.6%	26.8%	30.7%	8.3%	33.6%
Summit	Akron	44321	12,846	24.4%	8.2%	15.4%	12.4%	11.1%	2.8%	25.8%	23.0%	23.3%	4.6%	27.8%
Summit	Akron	44333	15,868	25.5%	8.9%	15.2%	14.9%	10.9%	3.9%	30.3%	26.7%	20.4%	4.7%	26.4%
Summit	Uniontown	44685	24,482	20.0%	8.5%	13.5%	14.4%	9.5%	3.7%	30.3%	26.0%	24.2%	5.4%	27.6%
Summit	Akron	44325	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hospital Community			**568,561**	**23.8%**	**11.3%**	**18.0%**	**14.6%**	**10.5%**	**4.2%**	**30.4%**	**24.8%**	**25.7%**	**5.5%**	**29.6%**
Ohio Average			**9,044,061**	**24.2%**	**11.9%**	**19.2%**	**15.7%**	**10.7%**	**4.5%**	**31.8%**	**25.0%**	**27.5%**	**6.0%**	**31.1%**

Source: Truven Market Expert/Behavioral Risk Factor Surveillance System, 2018.

Description

The Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) gathers data through a telephone survey regarding health risk behaviors, healthcare access, and preventive health measures. Data are collected for the entire United States. Analysis of BRFSS data can identify localized health issues, trends, and health disparities, and can enable county, state, or nation-wide comparisons.

Exhibit 30 depicts BRFSS data for each ZIP code in the Edwin Shaw community and compared to the averages for Ohio.

Observations

- Edwin Shaw community averages for all conditions presented were better than the Ohio averages.

- Medina County ZIP code 44254 and Summit County ZIP code 44320 compared unfavorably to Ohio averages for all conditions.

Ambulatory Care Sensitive Conditions

Exhibit 31: Ratio of PQI Rates for Edwin Shaw Community and Ohio, 2017

Indicator	Community Averages	Ohio Averages	Ratio: Edwin Shaw / Ohio
Low Birth Weight	44.2	18.1	2.4
Perforated Appendix	645.8	594.7	1.1
Urinary Tract Infection	204.2	197.5	1.0
Dehydration	223.8	218.3	1.0
Congestive Heart Failure	553.8	584.2	0.9
Bacterial Pneumonia	223.6	238.4	0.9
Diabetes Short-Term Complications	64.0	70.1	0.9
Uncontrolled Diabetes	44.8	50.2	0.9
Chronic Obstructive Pulmonary Disease	583.9	695.6	0.8
Diabetes Long-Term Complications	98.8	120.2	0.8
Lower-Extremity Amputation Among Patients with Diabetes	28.7	36.3	0.8
Hypertension	48.6	71.6	0.7
Young Adult Asthma	23.7	35.7	0.7

Source: Cleveland Clinic, 2018.

Note: Rates are not age-sex adjusted. Perforated appendix rate calculated per 1,000; low birth weight calculated per 1,000 births.

Description

Exhibit 31 provides the ratio of ACSCs or PQI rates in the Edwin Shaw community to rates for Ohio as a whole. Conditions where the ratios are highest (meaning that the PQI rates in the community are the most above average) are presented first.

ACSCs are health “conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.”[16] As such, rates of hospitalization for these conditions can “provide insight into the quality of the health care system outside of the hospital,” including the accessibility and utilization of primary care, preventive care and health education. Among these conditions are: angina without procedure, diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

Disproportionately high rates of discharges for ACSC indicate potential problems with the availability or accessibility of ambulatory care and preventive services and can suggest areas for improvement in the health care system and ways to improve outcomes.

[16]Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

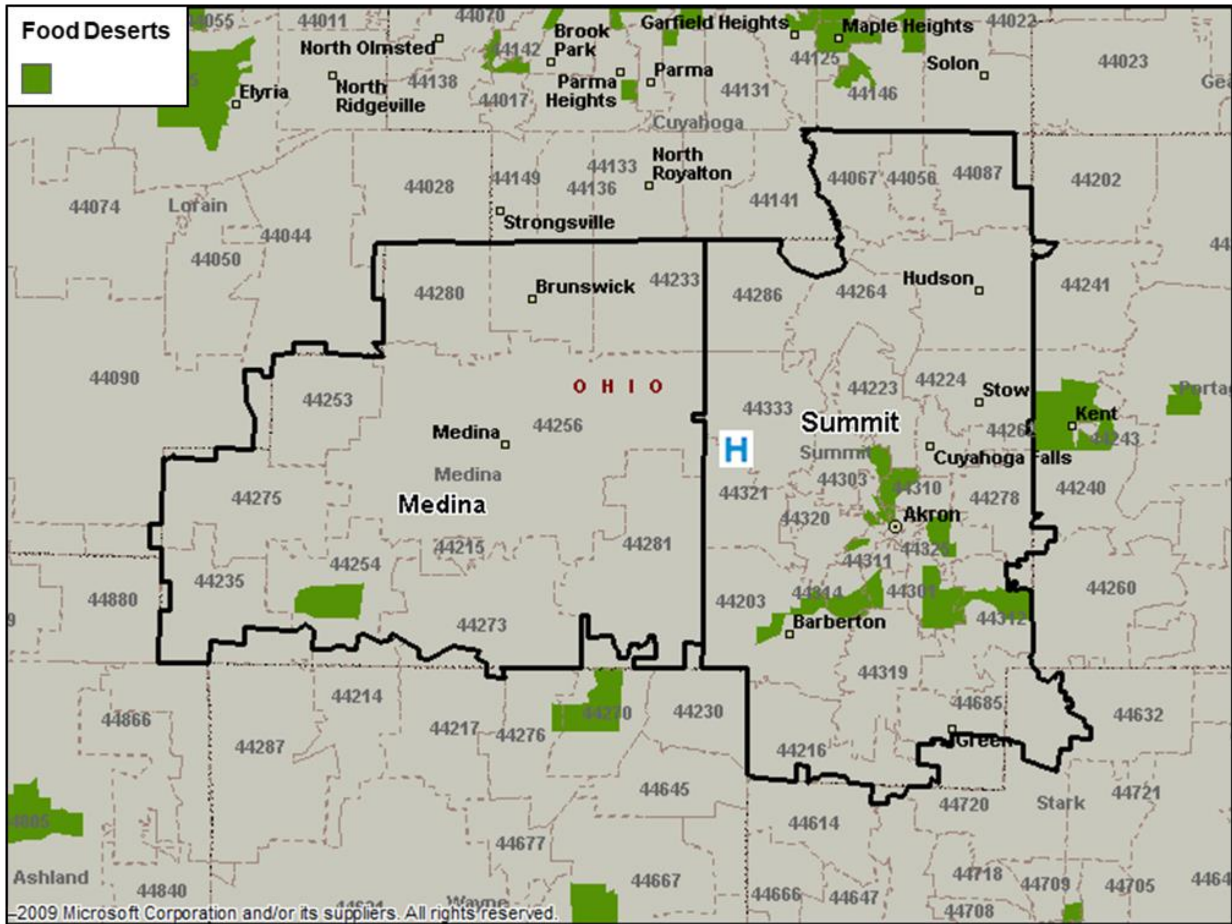
Observations

- The community ACSC rate for low birth weight births was more than double the Ohio average.

- Rates for perforated appendix, urinary tract infection, and dehydration were above the Ohio averages.

Food Deserts

Exhibit 32: Food Deserts, 2017



Source: Microsoft MapPoint and U.S. Department of Agriculture, 2017.

Description

Exhibit 32 shows the location of "food deserts" in the community.

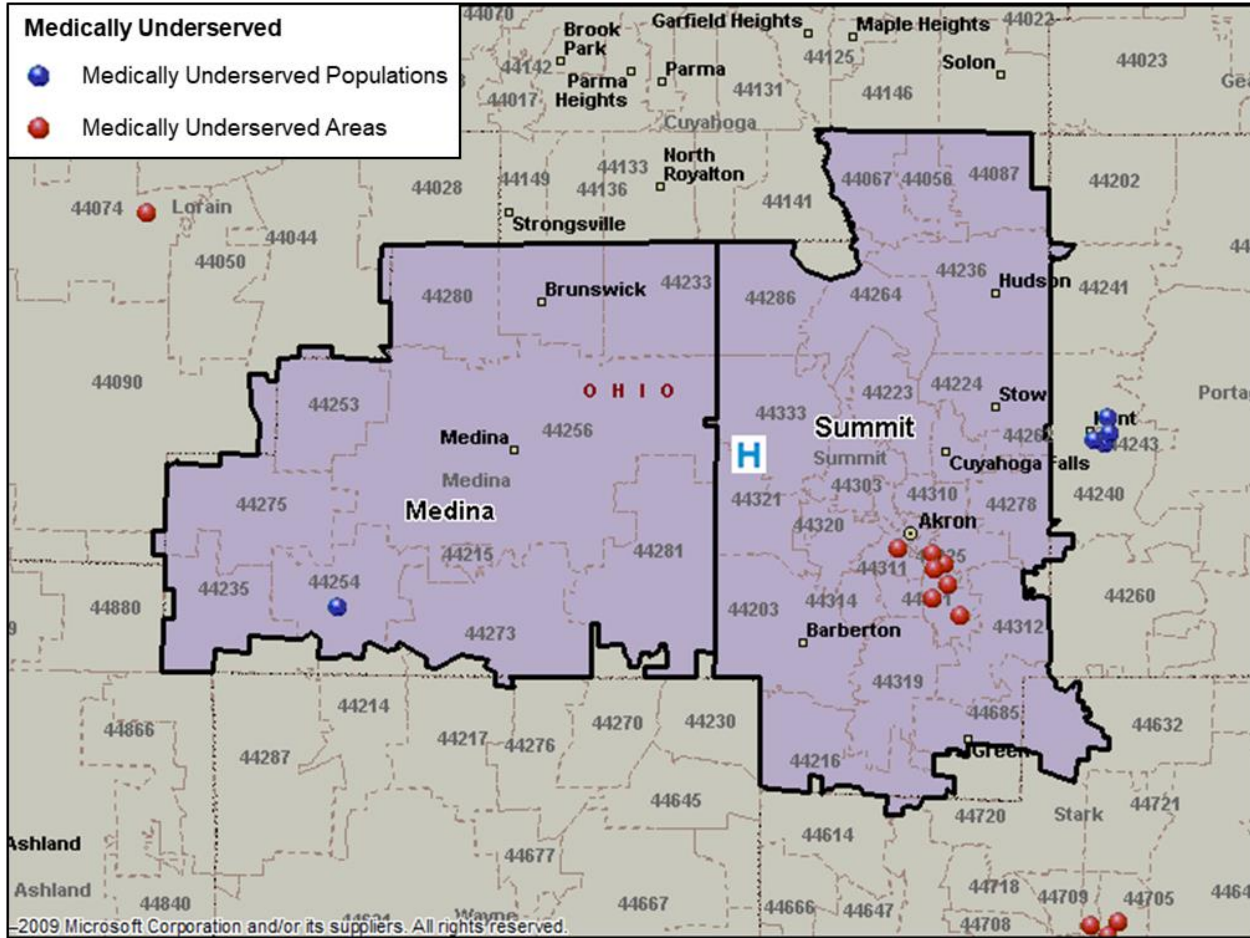
The U.S. Department of Agriculture's Economic Research Service defines urban food deserts as low-income areas more than one mile from a supermarket or large grocery store and rural food deserts as more than 10 miles from a supermarket or large grocery store. Many government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these areas.

Observations

- Several census tracts in Summit and Medina counties have been designated as food deserts.

Medically Underserved Areas and Populations

Exhibit 33: Medically Underserved Areas and Populations, 2018



Source: Microsoft MapPoint and HRSA, 2018.

Description

Exhibit 33 illustrates the location of Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) in the community.

Medically Underserved Areas and Populations (MUA/Ps) are designated by HRSA based on an "Index of Medical Underservice." The index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.[17] Areas with a score of 62 or less are considered "medically underserved."

Populations receiving MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. If a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP

[17] Heath Resources and Services Administration. See http://www.hrsa.gov/shortage/mua/index.html

designation if "unusual local conditions which are a barrier to access to or the availability of personal health services exist and are documented, and if such a designation is recommended by the chief executive officer and local officials of the state where the requested population resides."[18]

Observations

- Several census tracts have been designated as areas where Medically Underserved Areas are present, particularly in Summit County.
- Census tracts in Medina County have been designated as Medically Underserved Populations.

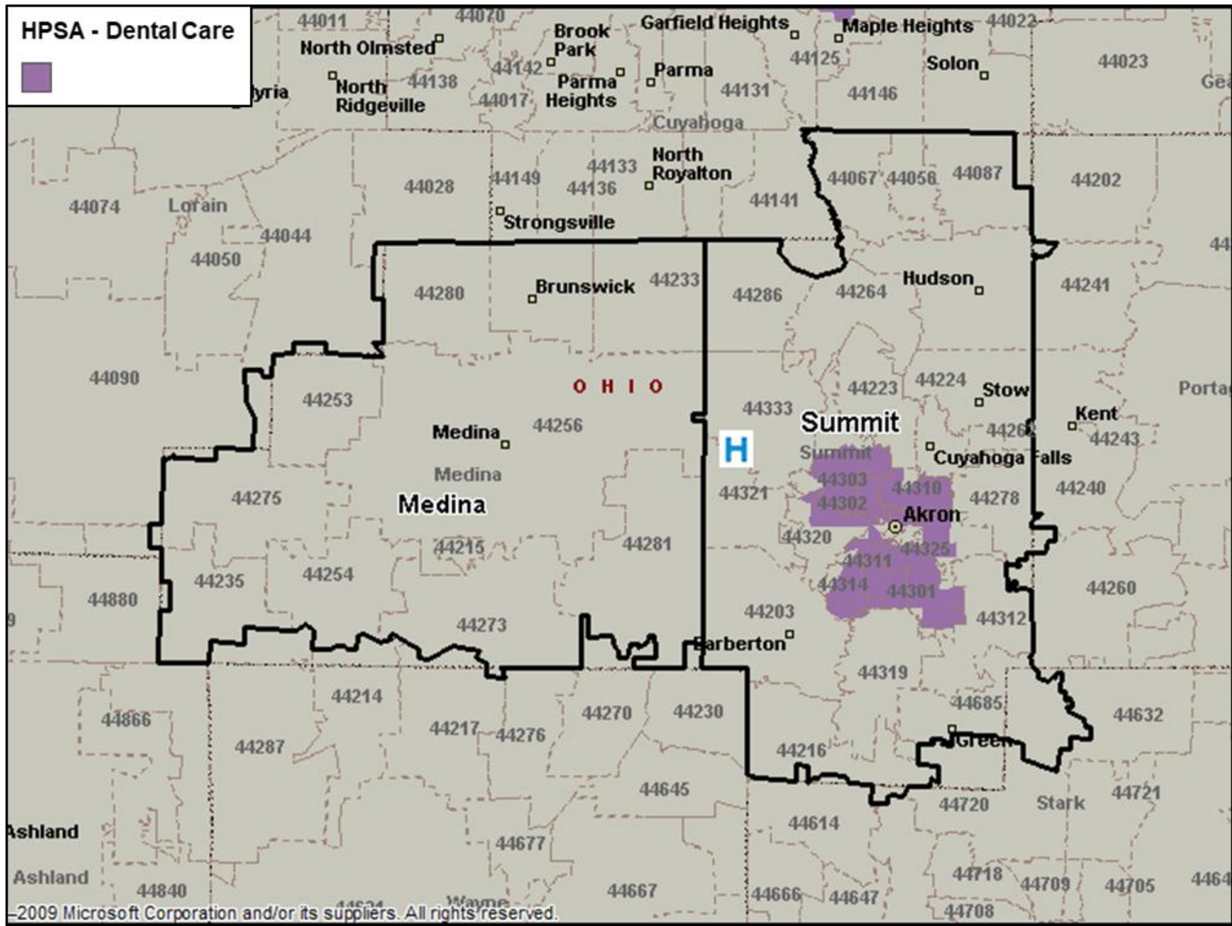
[18]*Ibid.*

Health Professional Shortage Areas

Exhibit 34: Primary Care Health Professional Shortage Areas, 2018

Source: Health Resources and Services Administration, 2018.

Exhibit 35: Dental Care Health Professional Shortage Areas, 2018



Source: Health Resources and Services Administration, 2018.

Description

Exhibits 34 and 35 show the locations of federally-designated primary care and dental care HPSA Census Tracts.

A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary medical care, dental care, or mental health care professionals is found to be present. In addition to areas and populations that can be designated as HPSAs, a health care facility can receive federal HPSA designation and an additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental, or mental health services.

HPSAs can be: "(1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility."[19]

Observations

- Census tracts in Summit County have been designated as primary care and dental care HPSAs.

[19] U.S. Health Resources and Services Administration, Bureau of Health Professionals. (n.d.). *Health Professional Shortage Area Designation Criteria*. Retrieved 2012, from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/index.html

Findings of Other Assessments

In recent years, the Ohio Department of Health and local health departments in Summit and Medina counties conducted Community Health Assessments and developed Health Improvement Plans. This section identifies community health priorities found in that work. This CHNA report considers those findings when *significant* community health needs are specified.

State Health Improvement Plan, 2017-2019

The Ohio Department of Health prepared a 2017-2019 State Health Improvement Plan (SHIP), informed by its State Health Assessment. The SHIP established two overall health outcomes (improving health status and reducing premature death) and ten priority outcomes organized into three "topics," as follows:

1. Mental Health and Addiction
    - Depression
    - Suicide
    - Drug dependency/abuse
    - Drug overdose deaths

2. Chronic Disease
    - Heart disease
    - Diabetes
    - Child asthma

3. Maternal and infant health
    - Preterm births
    - Low birth weight
    - Infant mortality

For each outcome, the plan calls for achieving equity for "priority populations" specified throughout the report, including low-income adults, Black (non-Hispanic males), and other specific groups.

The plan also addresses the outcomes through strategies focused on "cross-cutting factors," namely:

1. Social Determinants of Health, e.g.,
    - Increase third grade reading proficiency,
    - Reduce school absenteeism,
    - Address high housing cost burden, and
    - Reduce secondhand smoke exposure for children.

2. Public Health System, prevention and health behaviors, e.g.,
    - Consume healthy food,
    - Reduce physical inactivity,
    - Reduce adult smoking, and

- Reduce youth all-tobacco use.

3. Healthcare system and access, e.g.,
    - Reduce percent of adults who are uninsured,
    - Reduce percent of adults unable to see a doctor due to cost, and
    - Reduce primary care health professional shortage areas.

4. Equity strategies likely to decrease disparities for priority populations.

Summit County Community Health Improvement Plan 2017

Summit County Public Health and its community partners released Summit County's first Community Health Improvement Plan in 2011. According to the 2017 CHIP, the county continues to face evolving public health risks, including high infant mortality rates, significant chronic disease burden and the growing opiate epidemic.

Five priority areas were identified for the county in the 2017 CHIP:

1. Adolescent Health
2. Aging Population
3. Chronic Disease
4. Maternal and Infant Health
5. Mental Health and Addiction

The 2017 CHIP also identifies addressing social determinants of health (neighborhood, occupation, education, race/ethnicity, culture, socioeconomic status & income) as a major, cross-cutting priority.

The CHIP identifies a number of strategies designed to achieve improvements in the identified priority areas.

Medina County Community Health Improvement Plan, 2018-2020

A Community Health Improvement Plan ("CHIP") for Medina County was developed by Living Well Medina County, a collaboration of healthcare, government, education, business, nonprofit, and faith communities in Medina County, including the Medina County Health Department. Priority areas identified in the CHIP are as follows:

After conducting the 2017 Medina County Community Needs Assessment and engaging in a prioritization process, participants identified the following community health priority areas:[20]

1. Chronic disease, which includes:

    - Adult, youth, and child obesity
    - Adult diabetes

[20] Medina County Community Health Improvement Plan, page 26.

- Adult heart disease

2. Mental health and addiction, which includes:

   - Adult, youth, and child mental health
   - Adult and youth suicide
   - Adult and youth depression
   - Youth tobacco use
   - Youth alcohol use
   - Youth and child bullying

Preventing Falls among Older Adults

As the population in the community ages, the risk of falls among older adults also increases. According to the Ohio Department of Health, an older adult falls every minute on average in the state, resulting in three deaths daily, two hospitalizations each hour and an ED visit every six and one-half minutes. Falls are the leading cause of injury-related ED visits, hospitalizations, and deaths for Ohioans aged 65 and older, and the total lifetime costs of unintentional falls among those aged 65 years and older is estimated at nearly $2 billion.[21]

The Centers for Disease Control and Prevention has identified conditions that are most likely to contribute to falling. These risk factors include: lower body weakness, vitamin D deficiency, difficulties with walking and balance, use of medicines (such as tranquilizers, sedatives, or antidepressants), vision problems, foot pain or poor footwear, and home hazards and dangers (such as broken or uneven steps and throw rugs or clutter).[22]

To prevent falls, the CDC proposes the following steps to reduce risk factors:

1. Talk to your doctor to evaluate your risk for falling and review your medicines to see if any may contribute to fall risk factors (dizziness or sleepiness);
2. Do leg strength and balance exercises;
3. Have your eyes checked by an eye doctor at least once a year; and
4. Make your home safer by eliminating trip risks, adding grab bars inside bathing facilities, putting railings on both sides of the stairs, and making sure your home is well lit.

[21] https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/core-violence-injury-prevention-program/falls-among-older-adults
[22] https://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html

Preventing Stroke

Stroke is another condition that leads to the need for rehabilitation services. The Centers for Disease Control and Prevention has identified different strategies for stroke prevention, organized into healthy living habits and other medical conditions prevention.[23]

Healthy Living Habits

1. Healthy diet, as choosing healthy meal and snack options (eating foods low in saturated fats, trans fat, and cholesterol) can help prevent stroke;
2. Healthy weight, as being overweight or obese increases your risk;
3. Physical activity, helping you stay at a healthy weight and lowering your cholesterol and blood pressure levels;
4. No smoking; and
5. Limited Alcohol.

Other Medical Conditions Prevention

1. Check cholesterol, at least once every five years;
2. Control blood pressure;
3. Control diabetes;
4. Treat heart disease;
5. Comply with all medication regimes;
6. Continued dialogue with your doctor and health care team.

Cleveland Clinic has also studied stroke and its risk and prevention. Through this work, the Cleveland Clinic has identified the following stroke prevention strategies: [24]

- Control your blood pressure;
- Find out if you have heart disease (especially an irregular heartbeat known as atrial fibrillation, or AF);
- Do not smoke;
- Lower your cholesterol;
- Control your blood sugar levels if you have diabetes;
- Eat a healthy diet;
- Get regular exercise;
- Limit your alcohol use; and
- Control your weight.

[23] https://www.cdc.gov/stroke/medical_conditions.htm
[24] https://my.clevelandclinic.org/health/diseases/17519-stroke/prevention

Preventing Traumatic Brain Injuries (TBI)

Traumatic Brain Injuries (TBIs), caused by impact to the head that disrupts the normal function of the brain, lead to a substantial number of deaths and permanent disabilities annually. The Ohio Department of Health reports that in 2014, 2,327 people in Ohio died where TBI was reported as a cause of death, 6,768 were hospitalized with a TBI, and 111,757 were treated and released from emergency departments with a TBI.[25]

According to the Centers for Disease Control and Prevention, the number of TBI-related emergency department visits, hospitalizations, and deaths increased by 53 percent from 2006 to 2014. In 2014, an average of 155 people in the United States died each day from injuries that include a TBI.[26] The CDC prescribes several strategies for preventing traumatic brain injuries, including:

- Using seat belts every time you ride in a vehicle;
- Never driving while under the influence of alcohol or drugs;
- Wearing a helmet or headgear for a multitude of activities, including for: bike riding, motorcycle riding, snowmobile, scooter, all-terrain vehicle, contact sports (football, ice hockey, boxing, etc.), using in-line skate, skateboarding, riding a horse, skiing or snowboarding, and others;
- Preventing older adult falls; and
- Making homes and play areas safer for children (through installing window guards to prevent falling out windows, safety gates on stairways, and making playgrounds with soft material underneath).

[25] https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/violence-injury-prevention-program/media/specialemphasisreport_tbi_in_ohio_2014
[26] https://www.cdc.gov/traumaticbraininjury/get_the_facts.html

APPENDIX C – COMMUNITY INPUT PARTICIPANTS

Individuals from a wide variety of organizations and communities participated in the interview process (**Exhibit 36**).

Exhibit 36: Interviewee Organizational Affiliations

Organization	
American Heart Association	NAMI
Benjamin Rose Institute on Aging	Ohio Department of Health
Center for Community Solutions	Summit County ADM Board
Center for Health Affairs	Summit County Public Health
Fairhill Partners	The Catholic Health Association
Health Policy Institute of Ohio	The Centers (for families and children)
Kent State School of Public Health	The Gathering Place
Medina County ADAMH	United Cerebral Palsy
Medina County Department of Health	Western Reserve Area Agency on Aging

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Cleveland Clinic
Rehabilitation Hospital
In affiliation with Select Medical

Edwin Shaw

Implementation Strategy Report

2019

Cleveland Clinic Rehabilitation Hospital, Edwin Shaw
4389 Medina Road
Copley OH 44321

2019 Community Health Needs Assessment
Implementation Strategy for Years 2020 - 2022
As required by Internal Revenue Code § 501(r)(3)

Date Approved by Authorized Governing Body:	May 1, 2020
Authorized Governing Body:	The Board of Directors of Cleveland Clinic Rehabilitation Hospitals, LLC
Contact:	Cleveland Clinic chna@ccf.org

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Cleveland Clinic Rehabilitation Hospital, Edwin Shaw
2019 IMPLEMENTATION STRATEGY

I. INTRODUCTION AND PURPOSE

This written plan is intended to satisfy the requirements set forth in Internal Revenue Code Section 501(r)(3) regarding community health needs assessments and implementation strategies. The overall purpose of the implementation strategy process is to align the hospital's limited resources, program services and activities with the findings of the community health needs assessment ("CHNA").

A. Description of Hospital

Cleveland Clinic Rehabilitation Hospital – Edwin Shaw (Edwin Shaw Rehabilitation), a joint venture between Cleveland Clinic and Select Medical, is a 60-bed, adult inpatient rehabilitation hospital offering comprehensive rehabilitation treatment for patients with complex neurological, medical and musculoskeletal disabilities. As part of a continuum of care, Edwin Shaw Rehabilitation's goal is for each patient to reach his/her optimal level of physical, mental, and social functioning in the community.

Since its beginning in the early 1900's as the Springfield Lake Tuberculosis Sanitarium, Edwin Shaw Rehabilitation has provided programs and services to meet the rehabilitation needs of those in the community with physical disabilities or chemical dependency issues. In 2015, Edwin Shaw Rehabilitation became a member of the Cleveland Clinic, bringing additional resources to the community as well as making a number of highly specialized, Cleveland Clinic-based services more easily accessible. On November 7, 2017, the new 60-bed Cleveland Clinic Edwin Shaw Rehabilitation Hospital opened in Bath Township, Ohio. Patients of the existing Edwin Shaw facility in Cuyahoga Falls were transferred to the new hospital. Edwin Shaw Rehabilitation is operated through a joint venture between Cleveland Clinic and Select Medical.

At Edwin Shaw Rehabilitation, Cleveland Clinic physicians manage patients' complex medical needs, and around-the-clock Rehabilitation Nurses provide compassionate, evidence-based care to each patient. Physical, occupational, and speech therapists involve patients in an intensive and comprehensive treatment program for a minimum of three hours each day. Psychologists address cognitive, emotional, or behavioral issues. Case managers carefully coordinate the individual's stay and discharge plan. In addition, consulting services are available based on patient need.

Our unique combination of clinical expertise and education provided in a compassionate environment, serves patient needs while helping individuals and their families set goals and plan for the future. Additional information on the hospital and its services is available at: https://my.clevelandclinic.org/locations/rehabilitation-hospital.

II. COMMUNITY DEFINITION

For purposes of this report, Edwin Shaw Rehabilitation's community is defined as 44 ZIP codes that comprise Summit and Medina counties, Ohio, that accounted for 74 percent of the hospital's recent inpatient volumes. The community was defined by considering the geographic origins of the hospital's discharges in calendar year 2017 and the hospital's principal functions as a rehabilitation hospital. The total population of Edwin Shaw's community in 2017 was approximately 724,000.

III. HOW IMPLEMENTATION STRATEGY WAS DEVELOPED

This Implementation Strategy was developed by a team of members of senior leadership at Edwin Shaw Rehabilitation and Cleveland Clinic representing several departments of the organizations. Each year this team will review this Implementation Strategy to determine whether changes should be made to better address the health needs of its communities.

IV. SUMMARY OF THE COMMUNITY HEALTH NEEDS IDENTIFIED

Secondary data and key stakeholder interviews were reviewed to identify and analyze the needs identified by each source. The top health needs of the Edwin Shaw Rehabilitation community are those that are both supported by secondary data and raised by key stakeholders. Needs identified in the 2019 CHNA are listed below by category.

Needs the Hospital Will Address:

- Access to Affordable Healthcare
- Chronic Disease Prevention and Management

Needs the Hospital Will Not Address:

- Socioeconomic Concerns

See the 2019 CHNA for Cleveland Clinic Rehabilitation Hospital – Edwin Shaw at www.clevelandclinic.org/CHNAReports .

V. NEEDS HOSPITAL WILL ADDRESS

Access to Affordable Healthcare

Access to affordable healthcare was identified as a significant need in the 2019 CHNA for Edwin Shaw Rehabilitation. Access to care is challenging for some residents, particularly to primary care, mental health, dental care, addiction treatment services, and pain management services. Access barriers include cost, poverty, inadequate transportation, a lack of awareness regarding available services, and an undersupply of providers. Initiatives for 2020 – 2022 include:

Financial Assistance

Edwin Shaw Rehabilitation provides medically necessary services to all patients regardless of race, color, creed, gender, country of national origin, or ability to pay. Edwin Shaw Rehabilitation has a financial assistance policy that provides free or discounted care based on financial need. Financial assistance may also be provided to patients on a case-by-case basis under certain medical circumstances. The financial assistance policy can be found here: Edwin Shaw Rehabilitation Financial Assistance.

Awareness

The term "rehabilitation" is widely used to describe many different levels of care, which contributes to confusion among stakeholders. The rehabilitation offered at Edwin Shaw Rehabilitation is defined by licensure and regulatory requirements. For patients, confusion surrounding rehabilitation can be a barrier to accessing the right level of care at the right time. Edwin Shaw Rehabilitation will develop and share educational materials with patients, families, and providers to broaden community awareness and improve patients' ability to choose the most appropriate care setting.

How to Access Care

A key cornerstone of inpatient rehabilitation is the prevention of stroke and brain injury through patient and community education. Clinical staff serving the Brain Injury and Stroke Program teams at Edwin Shaw Rehabilitation will develop support groups and educational sessions for families and community residents. As part of this education and outreach, the hospital will provide information on post-acute care settings, how to access different levels of care, and community-based resources.

Chronic Disease Prevention and Management

Chronic disease prevention and the management of chronic disease were identified as needs within the 2019 CHNA for Edwin Shaw Rehabilitation. Chronic diseases, including addiction and mental health, heart disease, hypertension, obesity, diabetes, COPD, and others are prevalent in the community served by the hospital. Initiatives for 2020 – 2022 include:

- Each patient is followed by a physician's service throughout their stay at the rehabilitation hospital. Physicians educate patients on their overall healthcare and on potential risk factors that may affect their recovery. They also educate patients on their past medical history and how their existing conditions may be impacted by their new injury. There are consulting physicians including but not limited to cardiologists, pulmonologists, and nephrologists that are available for consultation regarding secondary diagnoses or complications related to the new injury/illness. Additionally, through Edwin Shaw Rehabilitation's linkage with Cleveland Clinic, patients have access to comprehensive diagnostic, medical, and surgical services.

- Physical and functional impairments may be exacerbated by obesity. To encourage weight loss, the clinical team, which includes the attending physician, therapy, and nursing teams, provide education and training to patients to increase mobility and activity. Discussions regarding healthy eating and interpretation of food labels may be initiated as part of the therapy care plan.

- Continuing education is routinely provided to nursing and pharmacy staff specific to diabetes medication and diabetic management.

- Depression and emotional changes are common following illness or injury. These occur as primary effects of the illness, as in the case of stroke, or as secondary reactions to new disabilities that may have commonly pre-existed the event.

    - Psychologists are capable of evaluation and psychotherapeutic treatment of a variety of disorders. The attending psychiatrist often will start pharmacological intervention with antidepressant medications, mood stabilizers, and anxiolytics. It is important to use medications that can improve recovery and to avoid and/or discontinue those medications that have been shown or hypothesized to impede recovery.
    - Therapists and nursing staff also provide emotional support, encouragement, and hope. It is also essential to use non-pharmacological techniques to help with these psychological disorders.
    - Recreational therapy is essential to help add some "downtime" to the rigors of the therapy schedule as well as to help patients realize and replicate common activities of daily living that will need to be performed after discharge.

Chronic Disease Prevention and Management (continued)

- Edwin Shaw Rehabilitation is committed to preventing deaths from opioid overdose by improving opioid prescribing practices, reducing exposure to opioids, and preventing misuse. The hospital has formalized an internal opioid management process for reviewing healthcare prescribing, data collection, and the use of non-pharmacologic treatment for pain.
    - Healthcare providers screen all patients for pain on admission and develop a pain management plan based on the patient's input, history, and desired goals.
    - Appropriate referrals to community programs, such as AA, NA, or mental health resources are delivered by case management and psychology staff.

- The population in Edwin Shaw Rehabilitation's community is expected to age. Providing an effective continuum of care, including rehabilitation services, for those over 65 years of age in the future will be challenging. Edwin Shaw Rehabilitation will leverage relationships with providers across the continuum of post-acute care in order to cross-refer, provide patient education, and support self-advocacy. Recognizing the health literacy needs of the community and the wide array of post-acute care options available, Edwin Shaw Rehabilitation has developed a large network of clinical liaisons throughout the community to assist elderly consumers in understanding their post-acute care options. The hospital offers facility tours and coordinates with our acute care case management partners.

- Falls represent a particular concern for our elderly populations. Edwin Shaw Rehabilitation has developed evidence-based falls prevention education for internal and external stakeholders including information on environmental modifications, balance exercises, and home safety assessments. In addition to focusing on falls prevention, the hospital also provides educational materials detailing how to reduce the likelihood of injury should a fall occur.

- Tobacco use is a risk factor for several medical conditions commonly treated in the inpatient rehabilitation setting. Smoking can also increase the risk of disease recurrence and presents a significant barrier to healthy living. Smoking cessation aligns well with Edwin Shaw Rehabilitation's goals for our patients. Since Edwin Shaw Rehabilitation is a smoke free campus, inpatients have a head start on smoking cessation following discharge. A smoking cessation program is more than just nicotine replacement therapy (NRT). Though NRT addresses the physiologic need for nicotine, the psychological need to smoke must also be of focus. Patients are more likely to succeed in quitting when they receive both pharmacologic therapy and counseling. A formalized smoking cessation program will be developed including resources and education that can be provided to patients during an inpatient rehabilitation stay. Patients will also be connected with organizations in the community for ongoing follow up and support. Low-cost or free smoking cessation resources will also be investigated.

VI. NEEDS HOSPITAL WILL NOT ADDRESS

Socioeconomic Concerns

The 2019 CHNA for Edwin Shaw Rehabilitation identified poverty and other social determinants of health as significant concerns. Poverty has significant implications for health, including the ability for households to access health services, afford basic needs, and benefit from prevention initiatives. Problems with housing, educational achievement, and access to workforce training opportunities also contribute to poor health.

Due to the specialized nature of the clinical care provided by Edwin Shaw Rehabilitation, and the facility's focus on serving patients requiring rehabilitation following an illness or injury, the facility has chosen not to address socioeconomic concerns at the community level within the 2020-2022 Implementation Strategy. Edwin Shaw Rehabilitation will rely on other governmental and/or nonprofit organizations within the community to commit resources to addressing broad socioeconomic concerns. Although Edwin Shaw Rehabilitation will not address this need directly, it does support governmental and other organizations in their efforts to impact poverty and other social determinants of health.

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