



Cleveland Clinic
Hillcrest Hospital

Community Health Needs Assessment

2019

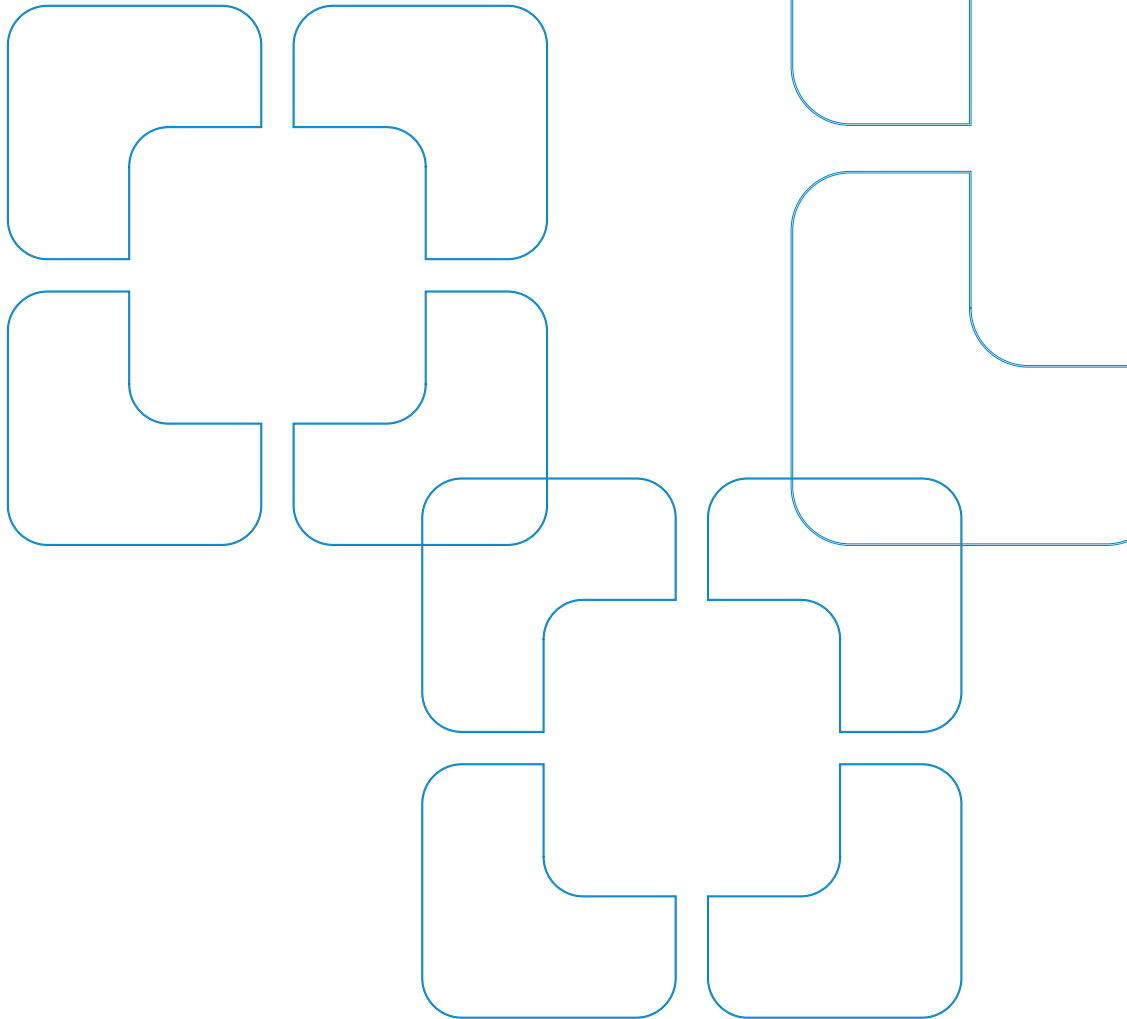


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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Introduction

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

Hillcrest is a 440 staffed bed hospital located in Mayfield Heights, Ohio. Hillcrest Hospital ranked within the Top 5 of Cleveland-area hospitals by U.S. News & World Report’s “Best Hospitals in Cleveland.” In addition, U.S. News & World Report recognized Hillcrest Hospital as high performing in nine adult specialties: Diabetes & Endocrinology, Ear, Nose & Throat, Gastroenterology & GI Surgery, Geriatrics, Nephrology, Neurology and Neurosurgery, Orthopedics, Pulmonology and Urology. Additional information on the hospital and its services is available at: http://my.clevelandclinic.org/locations_directions/Regional-Locations/Hillcresthospital.

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/>.

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.

Each Cleveland Clinic hospital also is dedicated to the communities it serves. Each Cleveland Clinic hospital 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.

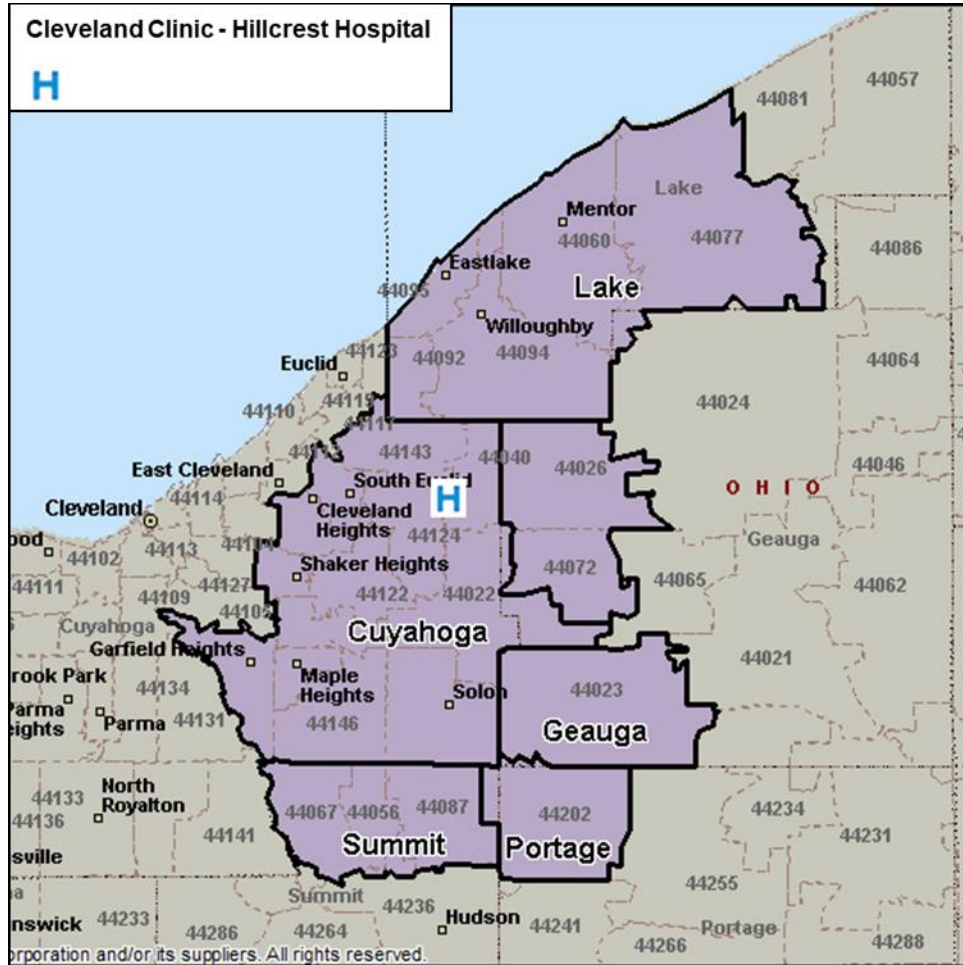
Community Definition

For purposes of this report, Hillcrest’s community is defined as 25 ZIP codes in Cuyahoga, Geauga, Lake, Portage, and Summit counties, Ohio, accounting for 73 percent of the hospital’s

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recent inpatient volumes. The community was defined by considering the geographic origins of the hospital's discharges in calendar year 2017. The total population of Hillcrest's community in 2017 was 666,081.

The following map portrays the community served by Hillcrest.



Significant Community Health Needs

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

- Access to Affordable Health Care
- Addiction and Mental Health
- Chronic Disease Prevention and Management
- Infant Mortality
- Medical Research and Health Professions Education
- Socioeconomic Concerns

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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, and addiction treatment services. Access barriers include cost, poverty, a lack of awareness regarding available services, an undersupply of providers, a lack of addiction treatment and dental services, and inadequate transportation.

Five community ZIP codes (home to 140,000 persons) have been identified as comparatively high need by the Dignity Health Community Need IndexTM. Admissions for ambulatory care sensitive conditions have been comparatively high.

Federally-designated Medically Underserved Areas (MUAs), Primary Care Health Professional Shortage Areas (HPSAs), and Dental Care HPSAs are present. The Hillcrest community and Ohio as a whole need more health care professionals to meet current and future access needs.¹ (Sources: Exhibits 4, 5, 22, 26, 38, 39, and 40, other assessments, key stakeholder interviews).

Addiction and Mental Health

Drug abuse, particularly the abuse of opioids, is a primary concern of many key stakeholder interviewees. 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 well above average.

The Ohio State Health Improvement Plan (SHIP) and assessments prepared by the health departments in Cuyahoga, Geauga, Lake, and Summit counties emphasize the need to address the growing opioid epidemic and to reduce drug overdose deaths. (Sources: Exhibit 27, key stakeholder interviews, other assessments).

Several counties rank poorly for “percent of driving deaths with alcohol involvement.” In four counties, mortality due to “alcohol liver disease” has been above the Ohio average.

Ohio’s State Health Assessment and local health department assessments identify addressing alcohol abuse as a priority, including Geauga County’s CHIP. (Sources: Exhibits 25, 26, and 27, 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.

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.

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The Ohio SHIP and local health department assessments for Cuyahoga, Geauga, Portage, and Summit counties all identify 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 9, 25, 26, key stakeholder interviews, other assessments).

Chronic Disease Prevention and Management

Chronic diseases, including heart disease, hypertension, obesity, diabetes, and others are prevalent in the Hillcrest community and across Ohio.

Heart disease and hypertension are leading causes of death. Hillcrest's community benchmarks poorly for the incidence of heart disease, high blood pressure, and high cholesterol, and for hospital admissions for hypertension and for congestive heart failure. Higher hypertension rates are observed in lower-income communities.

Key stakeholders identified hypertension and cardiovascular diseases as significant concerns. Addressing heart (or cardiovascular) disease was identified as a priority by the Ohio SHIP and the Cuyahoga County Community Health Assessment. (Sources: Exhibits 9, 27, 34, 36, key stakeholder interviews, other assessments).

Key stakeholders also identified obesity as a persistent and growing 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, 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 Hillcrest's community, per-capita admissions for "uncontrolled diabetes" have been 30 percent higher than the Ohio average.

The Ohio SHIP and local health department assessments consistently identify obesity and diabetes (and reducing physical inactivity and enhancing nutrition) as priorities. (Sources: key stakeholder interviews, other assessments).

Key stakeholders emphasized the importance of changing unhealthy behaviors. The demand for exercise, nutrition, and tobacco cessation programs has been identified, as have health education and literacy programs.

Smoking rates are comparatively high. The Ohio State 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 Cuyahoga County Community Health Assessment, health behaviors that need attention include: flu vaccination rates, tobacco use, and physical inactivity. (Sources: Exhibit 26, other assessments, key stakeholder interviews).

Hillcrest'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

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for falls, food insecurity, transportation issues, and unsafe or inadequate housing. Social isolation contributes to poor physical and mental health conditions.

Preventable admissions for Medicare beneficiaries living in the community are comparatively high. (Sources: Exhibits 9 and 26, key stakeholder interviews).

Infant Mortality

Cuyahoga and Summit counties compare unfavorably to Ohio averages for most maternal and child health indicators. The infant mortality rate in Cuyahoga County has been well above Ohio and U.S. averages. Rates have been particularly high for Black infants; key stakeholders frequently mentioned racial disparities as an important concern.

The Ohio SHIP established ten “priority outcomes,” three of which are addressing: preterm births, low birth weight, and infant mortality. The Summit County CHIP established “maternal and infant health” and reducing infant mortality as priorities. (Sources: Exhibits 31 and 32, other assessments).

Medical Research and Health Professions Education

More trained health professionals are needed locally, regionally and nationally. Research conducted by Cleveland Clinic has improved health for community members through advancements in new clinical techniques, devices, and treatment protocols in such areas as cancer, heart disease, and diabetes. More research can address these and other community health needs.

Socioeconomic Concerns

Key stakeholders 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

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>

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Almost 50 percent of rented households have been designated as “rent burdened,” a level above the Ohio average. In four lower-income ZIP codes, over 55 percent of these households devote more than 30 percent of household income to rent.

Cuyahoga County has had a higher poverty rate than Ohio and the U.S. Across all five counties served by Hillcrest, 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.

Social determinants of health are particularly problematic in Cuyahoga County, including poverty, unemployment, affordable housing, violent crime, and high-school graduation rates.

The Northeast Ohio Coalition for the Homeless has estimated that “there were about 23,000 people experiencing homelessness in 2018 in Cuyahoga County.”⁴ 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 Cuyahoga County CHIP emphasizes how poverty and income inequality contribute to poor health. (Sources: Exhibits 9, 14, 15, 16, 17, 19, 20, 21, 25, key stakeholder interviews, other assessments).

⁴ <https://www.neoch.org/2019-overview-of-the-numbers>

DATA AND ANALYSIS

Definition of Community Assessed

This section identifies the community that was assessed by Hillcrest. 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 mission, target populations, principal functions, and strategies.

On that basis, Hillcrest's community is defined as 25 ZIP codes in Cuyahoga, Geauga, Lake, Portage, and Summit counties, Ohio. These ZIP codes accounted for 73 percent of the hospital's recent inpatient volumes (**Exhibit 1**).

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Exhibit 1: Hillcrest Inpatient Discharges by ZIP Code, 2017

ZIP Code	County	City/Town	Discharges	Percent Discharges
44124	Cuyahoga	Cleveland	3,149	11.6%
44122	Cuyahoga	Beachwood	1,374	5.0%
44143	Cuyahoga	Cleveland	1,282	4.7%
44094	Lake	Willoughby	1,263	4.6%
44060	Lake	Mentor	1,209	4.4%
44121	Cuyahoga	Cleveland	1,079	4.0%
44118	Cuyahoga	Cleveland	1,070	3.9%
44139	Cuyahoga	Solon	891	3.3%
44095	Lake	Eastlake	760	2.8%
44023	Geauga	Chagrin Falls	726	2.7%
44077	Lake	Painesville	714	2.6%
44202	Portage	Aurora	643	2.4%
44026	Geauga	Chesterland	636	2.3%
44087	Summit	Twinsburg	633	2.3%
44022	Cuyahoga	Chagrin Falls	629	2.3%
44092	Lake	Wickliffe	591	2.2%
44146	Cuyahoga	Bedford	538	2.0%
44067	Summit	Northfield	459	1.7%
44128	Cuyahoga	Cleveland	430	1.6%
44120	Cuyahoga	Cleveland	401	1.5%
44056	Summit	Macedonia	381	1.4%
44125	Cuyahoga	Cleveland	359	1.3%
44137	Cuyahoga	Maple Heights	317	1.2%
44072	Geauga	Novelty	190	0.7%
44040	Cuyahoga	Gates Mills	189	0.7%
Community ZIP Codes			19,913	73.0%
All Other ZIP Codes			7,350	27.0%
All ZIP Codes			27,263	100.0%

Source: Analysis of Cleveland Clinic Discharge Data, 2018.

The community includes portions of Cuyahoga, Geauga, Lake, Portage, and Summit counties. The total population of this community in 2017 was approximately 666,000 persons (**Exhibit 2**).

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Exhibit 2: Community Population, 2017

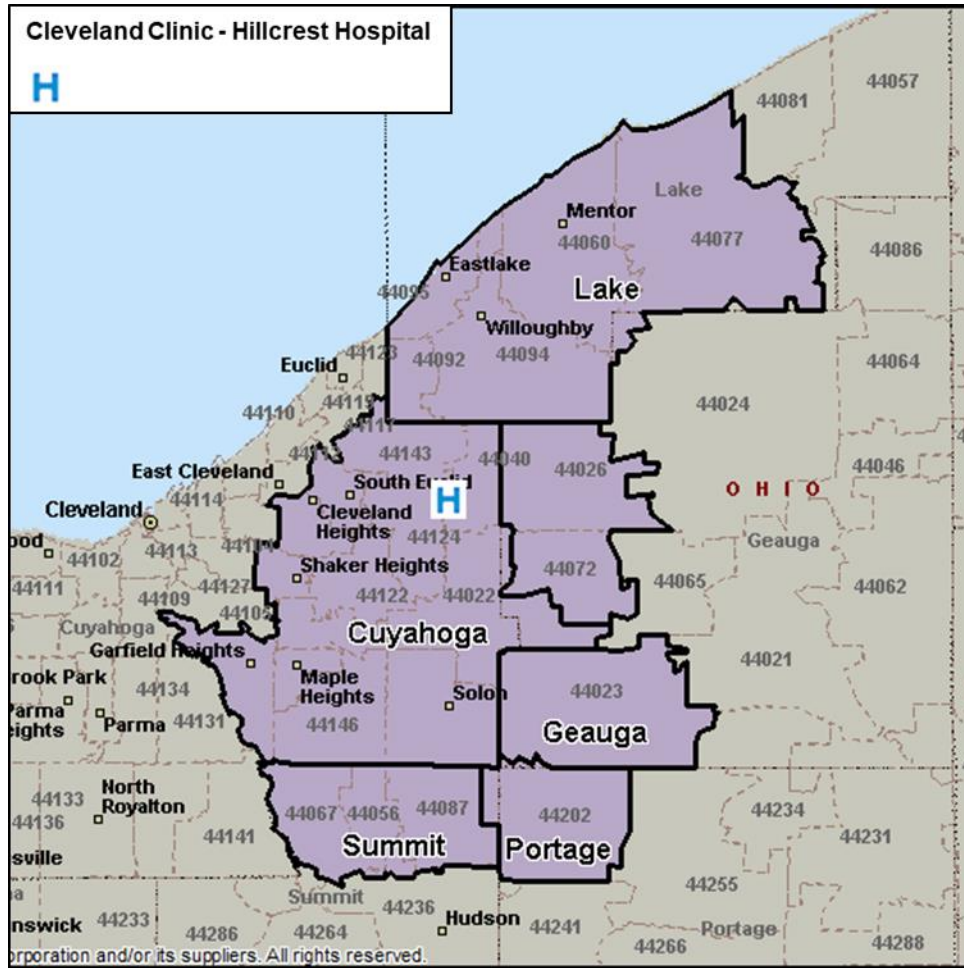
ZIP Code	County	City/Town	Total Population 2017	Percent of Total Population 2017
44060	Lake	Mentor	58,848	8.8%
44077	Lake	Painesville	58,455	8.8%
44118	Cuyahoga	Cleveland	39,364	5.9%
44124	Cuyahoga	Cleveland	38,246	5.7%
44094	Lake	Willoughby	36,188	5.4%
44120	Cuyahoga	Cleveland	35,517	5.3%
44122	Cuyahoga	Beachwood	34,331	5.2%
44095	Lake	Eastlake	32,289	4.8%
44121	Cuyahoga	Cleveland	32,090	4.8%
44146	Cuyahoga	Bedford	29,582	4.4%
44128	Cuyahoga	Cleveland	28,023	4.2%
44125	Cuyahoga	Cleveland	27,179	4.1%
44139	Cuyahoga	Solon	24,669	3.7%
44143	Cuyahoga	Cleveland	24,304	3.6%
44137	Cuyahoga	Maple Heights	22,349	3.4%
44087	Summit	Twinsburg	21,787	3.3%
44067	Summit	Northfield	20,881	3.1%
44202	Portage	Aurora	20,040	3.0%
44023	Geauga	Chagrin Falls	18,289	2.7%
44022	Cuyahoga	Chagrin Falls	16,604	2.5%
44092	Lake	Wickliffe	16,587	2.5%
44056	Summit	Macedonia	12,171	1.8%
44026	Geauga	Chesterland	11,004	1.7%
44072	Geauga	Novelty	4,316	0.6%
44040	Cuyahoga	Gates Mills	2,968	0.4%
Community Total			666,081	100.0%

Source: Truven Market Expert, 2018.

The hospital is located in Mayfield Heights, Cleveland, Ohio (ZIP code 44124).

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

Exhibit 3: Hillcrest 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 Hillcrest community is expected to remain relatively unchanged from 2017 to 2022. However, the population 65 years of age and older is anticipated to grow by 12.4 percent during that time. This development should contribute to a growing demand for health services, since older individuals typically need and use more services than younger persons.

Hillcrest serves a geographic area that includes 25 ZIP codes and portions of five Ohio counties. Substantial variation in demographic characteristics (e.g., race/ethnicity and income levels) exists across this area.

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In 2017, over 70 percent of the population in three ZIP codes was Black. These ZIP codes, all located in Cuyahoga County also are associated with comparatively high poverty rates and comparatively poor health status. In five ZIP codes (all located in Lake and Geauga counties), the percent of the Black population was under three 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. At 18.5 percent, Cuyahoga County's poverty rate was above average. Poverty rates in the other four counties served by Hillcrest have been below the national average.

Across all five counties, poverty rates for Black and for Hispanic (or Latino) residents have been higher than rates for Whites. For example, in Cuyahoga County the rate for Black residents was 33.3 percent. For Whites it was 11.1 percent.

A number of low-income census tracts can be found in Hillcrest's community (in Cuyahoga and Lake counties). 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 the counties served by Hillcrest increased. As of 2017, rates in Cuyahoga, Lake, and Summit counties were above Ohio and national averages.

Notably, crime rates in Cuyahoga County (and for some crimes also in Summit County) have been above Ohio averages.

Ohio was among the U.S. states that expanded Medicaid eligibility pursuant to the Patient Protection and Affordable Care Act (ACA, 2010). On average, less than four percent of those living in the community served by Hillcrest 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

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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).

Two of the 25 ZIP codes in the Hillcrest community, Cuyahoga County ZIP codes 44120 and 44128, scored in the “highest need” CNI category. Nine ZIP codes scored in the “lowest need” category.

As shown in **Exhibit 4**, ZIP codes found to be higher need are associated with higher rates of poverty, a higher proportion of the Black population, more problematic BRFSS indicators (e.g., rates of smoking and high blood pressure), and higher rates of admissions for ACSCs.

Exhibit 4: 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	2	3	4	7	9	
Total Persons	63,540	79,110	164,240	190,282	168,909	
Total for Poverty	62,219	79,355	157,305	186,235	167,899	
Poverty People	14,928	12,763	20,515	13,765	7,927	
Poverty Rate	24.0%	16.1%	13.0%	7.4%	4.7%	
% African American	81.2%	52.7%	27.7%	10.9%	4.3%	
BRFSS Indicators						
% Diabetes	20.6%	16.7%	14.9%	15.9%	13.4%	
% Asthma	13.1%	12.6%	11.2%	10.7%	10.4%	
% Depression	20.5%	19.6%	17.1%	17.3%	16.1%	
% High Blood Pressure	37.3%	32.5%	30.2%	31.9%	31.2%	
% High Cholesterol	27.1%	26.6%	24.6%	26.3%	26.1%	
% COPD	7.2%	7.2%	5.4%	5.3%	4.4%	
% Smoking	31.0%	29.8%	24.7%	23.0%	21.0%	
PQI Rates						
1	COPD	1,293	1,017	695	820	498
2	Congestive Heart Failure	1,298	927	659	697	544
3	Diabetes long-term complications	152	215	88	111	68
4	Bacterial pneumonia	278	278	239	282	236
5	Dehydration	477	403	278	309	217
6	Diabetes short-term complications	110	126	43	55	30
7	Urinary tract infection	280	234	234	318	209
8	Hypertension	228	118	84	77	49

Source: Verité Analysis.

DATA AND ANALYSIS

Local Health Status and Access Indicators

In the 2018 *County Health Rankings* and for overall health outcomes, Cuyahoga County ranked 60th (out of 88 counties). Geauga ranked 2nd, Lake ranked 13th, Portage ranked 31st, and Summit ranked 46th.

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, Cuyahoga County ranked in the bottom 50th percentile among Ohio counties for 28 of the 42 indicators assessed. Of those, 15 were in the bottom quartile, including quality of life, social and economic factors, physical environment, and various socioeconomic indicators.
- In Geauga County, nine indicators ranked in the bottom 50th percentile among Ohio Counties. Four of those were in the bottom quartile, including percent of adults uninsured, social associations rate, physical environment, and percent with a long commute who drive alone.
- In Lake County, nine indicators ranked in the bottom 50th percentile among Ohio Counties. Three of those were in the bottom quartile, including alcohol-impaired driving deaths, social associations rate, and percent driving alone to work.
- In Portage County, 16 indicators ranked in the bottom 50th percentile among Ohio Counties. Two were in the bottom quartile, including social associations rate and severe housing problems.
- In Summit County, 21 indicators ranked in the bottom 50th percentile among Ohio Counties. Eleven were in the bottom quartile, including low birth-weight births, alcohol-impaired driving deaths, sexually transmitted infections, high school graduation, violent crime, and others.

The 2018 *County Health Rankings* shows that each county has unique community health issues. However, a few appear consistently across the area served by Hillcrest, including:

- Excessive drinking and/or alcohol-impaired driving deaths,
- High-school graduation rates,
- A lack of “social associations,”
- Air pollution, and
- Severe housing problems.

Other issues are prevalent in multiple (three or more) counties, including low birth-weight births, the food environment, income inequality, and violent crime.

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.

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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 Hillcrest benchmark most poorly for:

- Percent of adults who smoke,
- Preventable admissions (for ambulatory care sensitive conditions) per 1,000 Medicare enrollees, and
- Average daily PM2.5 levels (Particulate Matter associated with air pollution).

Other issues also apply to multiple counties, including low birth-weight births, the food environment, percent of obese adults, percent physically inactive, percent of driving deaths due to alcohol-impairment, the supply of certain providers (primary care physicians, dentists, and mental health professionals), the percent of Medicare enrollees receiving screening for diabetes, income inequality, and unemployment rates.

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 of 36.8 and was above rates in the other four counties served by Hillcrest.

In Cuyahoga County, incidence rates for sexually transmitted diseases have been well above Ohio and U.S. averages.

Both Cuyahoga and Summit counties compare unfavorably to Ohio averages for most maternal and child health indicators. The overall infant mortality rate in Cuyahoga County has been above Ohio and U.S. averages. As documented by many, rates have been particularly high for Black infants across Ohio.

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, heart disease, high blood pressure, and high cholesterol have been more prevalent in ZIP codes served by Hillcrest than in other parts of Ohio.

Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (“ACSCs”) include thirteen health conditions (also referred to as Prevention Quality Indicators (“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.”⁵ Among these conditions are: diabetes, perforated appendixes, chronic obstructive pulmonary disease (“COPD”), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

⁵Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

DATA AND ANALYSIS

ACSC rates in Hillcrest community ZIP codes have exceeded Ohio averages for several conditions, with particularly high rates for young adult asthma, dehydration, urinary tract infections, uncontrolled diabetes, hypertension, and congestive heart failure.

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 census tracts within the Hillcrest community (parts of Cuyahoga and Lake counties) have been designated as food deserts.

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 Cuyahoga and Lake counties also 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 Cuyahoga and Lake counties have been designated as primary care HPSAs and as dental care HPSAs.

Relevant Findings of Other CHNAs

In recent years, the Ohio Department of Health and local health departments in Cuyahoga, Geauga, Portage, and Lake counties conducted Community Health Assessments and developed State or Community Health Improvement Plans (SHIP or CHIP). This CHNA also has considered 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
- Smoking and tobacco use
- Access to primary care services

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- Health disparities

The Hillcrest 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 Hillcrest CHNA places more emphasis on health needs of a growing senior population and includes more information on preventable hospital admissions.

Significant Indicators

Exhibit 5 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 a series of peer counties was 32 percent. The last column of the **Exhibit 5** 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 judgments regarding how best to assess each data source.

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Exhibit 5: Significant Indicators

Indicator	Area	Value	Benchmark		Exhibit
			Value	Area	
65+ Population change, 2017-2022	Community ZIP codes	12.4%	0.0%	Total Community Population	9
Poverty rate, 2012-2016	Cuyahoga County	18.5%	15.4%	Ohio	14
Poverty rate, 2012-2016	"Highest Need" ZIP codes	24.0%	4.7%	"Lowest Need" ZIP codes	4
% of Population Black, 2017	"Highest Need" ZIP codes	81.2%	4.3%	"Lowest Need" ZIP codes	4
Poverty rate, Black, 2012-2016	Cuyahoga County	33.3%	18.5%	Cuyahoga County, Total	15
Unemployment rate	Cuyahoga County	5.9%	4.4%	United States	17
Percent ninth-grade cohort graduates	Cuyahoga County	74.8%	83.0%	United States	25
Percent children in poverty	Cuyahoga County	26.4%	20.0%	United States	25
Percent of households with severe housing problems	Cuyahoga County	18.5%	15.0%	Ohio	25
Violent Crimes per 100,000	Cuyahoga County	695	306	Ohio	19
Years of potential life lost per 100,000	Cuyahoga County	8,037	7,734	Ohio	25
Percent live births with low birthweight	Cuyahoga County	10.6%	8.0%	United States	25
Infant mortality rate	Cuyahoga County	9.3	7.4	Ohio	32
Infant mortality rate, Black	Cuyahoga County	16.3	5.2	Cuyahoga County, White	32
Percent driving deaths w/alcohol involvement	Cuyahoga County	44.4%	26.6%	Peer Counties	26
	Summit County	50.0%	31.8%	Peer Counties	26
Mortality rate for accidental poisoning by drugs and other substances per 100,000	Summit County	57.8	36.8	Ohio	27
Chlamydia rate per 100,000	Cuyahoga County	720	479	United States	25
HIV rate per 100,000	Cuyahoga County	373.2	199.5	Ohio	30
Percent of adults that smoke	Cuyahoga County	20.6%	16.2%	Peer Counties	26
	Geauga County	15.7%	13.0%	Peer Counties	26
	Lake County	17.6%	15.5%	Peer Counties	26
	Portage County	20.4%	17.7%	Peer Counties	26
	Summit County	19.5%	17.2%	Peer Counties	26
Population per primary care provider	Portage County	2,459	1,307	Ohio	25
Population per dentist	Portage County	2,313	1,480	United States	25
Population per mental health provider	Lake County	676	470	United States	25
Preventable admissions (for ambulatory care sensitive conditions) per 1,000 Medicare enrollees	Cuyahoga County	53	49	Peer Counties	26
	Geauga County	61	43	Peer Counties	26
	Lake County	59	54	Peer Counties	26
	Portage County	62	54	Peer Counties	26
	Summit County	55	45	Peer Counties	26
PQI: Young adult asthma rate per 100,000	Community ZIP codes	52.4	35.7	Ohio	36
PQI: Uncontrolled diabetes per 100,000	Community ZIP codes	65.0	50.2	Ohio	36
PQI: Hypertension per 100,000	Community ZIP codes	90.5	71.6	Ohio	36
Average Daily PM 2.5 (Particulate Matter, a measure of air pollution)	Cuyahoga County	12.9	10.6	Peer Counties	26
	Geauga County	11.4	8.9	Peer Counties	26
	Lake County	10.7	9.4	Peer Counties	26
	Portage County	11.4	10.2	Peer Counties	26
	Summit County	12.3	10.0	Peer Counties	26

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*). Thirty-three (33) interviews were conducted with individuals regarding significant community health needs in the community served by Hillcrest and why such needs are present.

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

- **Poverty and other social determinants of health** were identified as serious concerns. 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.
 - Poverty contributes to **food insecurity** and the inability to afford healthy food.
 - **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.
- **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.
- **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.

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- The prevalence of and need to manage **chronic conditions** were identified as significant concerns, 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 the community needs more **health education** and better understanding of the health care system. Many 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. Many in the community demand prevention initiatives.
- **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 **senior 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.
 - Primary care, dental/oral health care, psychiatrists, and substance abuse treatment services were identified as particularly difficult to access.

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- **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.

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

This section identifies other facilities and resources available in the community served by Hillcrest 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 six FQHC sites operating in the Hillcrest community (**Exhibit 6**).

Exhibit 6: Federally Qualified Health Centers, 2018

County	ZIP Code	Site Name	City	Address
Lake	44077	207 South Broad St. - Admin	Painesville	462 Chardon St
Lake	44060	Community Health Centers of Greater Dayton - Call Center	Mentor	7232 Justin Way
Lake	44094	Community Health Services - Lima	Willoughby	38882 Mentor Ave
Cuyahoga	44122	Greater Cincinnati Behavioral Health Services	Beachwood	24200 Chagrin Blvd
Lake	44094	Hamilton Community Health Center	Willoughby	38879 Mentor Ave
Cuyahoga	44137	Head Start Site	Maple Heights	21100 Southgate Park Blvd

Source: HRSA, 2018.

Data published by HRSA indicate that in 2017, FQHCs served approximately 21 percent of uninsured, Hillcrest community residents and about 12 percent of the community’s Medicaid recipients.⁶ 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 7 presents information on hospital facilities located in the Hillcrest community.

⁶ HRSA refers to these statistics as FQHC “penetration rates.”

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

Exhibit 7: Hospitals, 2018

ZIP Code	County	City/Town	Hospital Name	Address
44122	Cuyahoga	Beachwood	Grace Hospital	20000 Harvard Road
44122	Cuyahoga	Beachwood	Highland Springs	4199 Mill Pond Drive
44124	Cuyahoga	Cleveland	Hillcrest Hospital	6780 Mayfield Road
44077	Lake	Painesville	Lake Health	7590 Auburn Road
44125	Cuyahoga	Cleveland	Marymount Hospital	12300 McCracken Road
44067	Summit	Northfield	Northcoast Behavioral Healthcare Northfield Campus	1756 Sagamore Road
44128	Cuyahoga	Cleveland	Regency Hospital Of Cleveland East	4200 Interchange Corporate Center Road
44120	Cuyahoga	Cleveland	Select Specialty Hospital- Cleveland Fairhill	11900 Fairhill Road
44122	Cuyahoga	Beachwood	South Pointe Hospital	20000 Harvard Road
44143	Cuyahoga	Cleveland	Uhhs Richmond Heights Hospital	27100 Chardon Road
44122	Cuyahoga	Beachwood	University Hospitals Ahuja Medical Center	3999 Richmond Road
44122	Cuyahoga	Beachwood	University Hospitals Rehabilitation Hospital	23333 Harvard Road
44094	Lake	Willoughby	Windsor Laurelwood Center For Behavioral Medicine	35900 Euclid Avenue

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 Hillcrest. 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/>.

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.⁷ 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 law⁸ 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?

⁷ Internal Revenue Code, Section 501(r).

⁸ ORC 3701.981

APPENDIX A – OBJECTIVES AND METHODOLOGY

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).⁹ 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 data¹⁰ 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, Hillcrest 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 facilities collaborated by

⁹ 501(r) Final Rule, 2014.

¹⁰ “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.

APPENDIX A – OBJECTIVES AND METHODOLOGY

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 33 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.

The community assessed by Hillcrest includes portions of five separate counties, including Cuyahoga, Geauga, Lake, Portage, and Summit counties. County-wide data for each of these counties should be assessed accordingly.

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.

APPENDIX A – OBJECTIVES AND METHODOLOGY

Consultant Qualifications

Verité Healthcare Consulting, LLC (Verité) was founded in May 2006 and is located in Alexandria, 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 Hillcrest community. Hillcrest’s community is comprised of 25 ZIP codes in Cuyahoga, Geauga, Lake, Portage, and Summit counties, Ohio.

Demographics

Exhibit 8: 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	Macedonia	44056	12,171	12,594	3.5%
Summit	Twinsburg	44087	21,787	22,493	3.2%
Portage	Aurora	44202	20,040	20,618	2.9%
Geauga	Chagrin Falls	44023	18,289	18,797	2.8%
Summit	Northfield	44067	20,881	21,325	2.1%
Lake	Painesville	44077	58,455	59,471	1.7%
Lake	Willoughby	44094	36,188	36,812	1.7%
Cuyahoga	Solon	44139	24,669	24,941	1.1%
Cuyahoga	Cleveland	44143	24,304	24,403	0.4%
Cuyahoga	Beachwood	44122	34,331	34,351	0.1%
Cuyahoga	Bedford	44146	29,582	29,488	-0.3%
Cuyahoga	Cleveland	44124	38,246	38,116	-0.3%
Cuyahoga	Chagrin Falls	44022	16,604	16,539	-0.4%
Lake	Wickliffe	44092	16,587	16,515	-0.4%
Geauga	Chesterland	44026	11,004	10,942	-0.6%
Lake	Mentor	44060	58,848	58,478	-0.6%
Geauga	Novelty	44072	4,316	4,288	-0.6%
Cuyahoga	Cleveland	44118	39,364	38,835	-1.3%
Cuyahoga	Maple Heights	44137	22,349	22,039	-1.4%
Cuyahoga	Cleveland	44121	32,090	31,635	-1.4%
Lake	Eastlake	44095	32,289	31,804	-1.5%
Cuyahoga	Gates Mills	44040	2,968	2,917	-1.7%
Cuyahoga	Cleveland	44128	28,023	27,523	-1.8%
Cuyahoga	Cleveland	44125	27,179	26,633	-2.0%
Cuyahoga	Cleveland	44120	35,517	34,621	-2.5%
Community Total			666,081	666,178	0.0%

Source: Truven Market Expert, 2018.

APPENDIX B – SECONDARY DATA ASSESSMENT

Description

Exhibit 8 portrays the estimated population by ZIP code in 2017 and projected to 2022.

Observations

- Between 2017 and 2022, 10 of the 25 ZIP codes in the community are projected to increase in population. In total, the community population is expected to remain relatively unchanged between 2017 and 2022.
- The population in ZIP code 44124 (where the hospital is located) is expected to decrease by 0.3 percent.

APPENDIX B – SECONDARY DATA ASSESSMENT

Exhibit 9: 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	137,052	130,316	-4.9%
Female 18 - 34	66,790	67,903	1.7%
Male 18 - 34	66,658	69,168	3.8%
35 - 64	265,229	252,292	-4.9%
65+	130,352	146,499	12.4%
Community Total	666,081	666,178	0.0%

Source: Truven Market Expert, 2018.

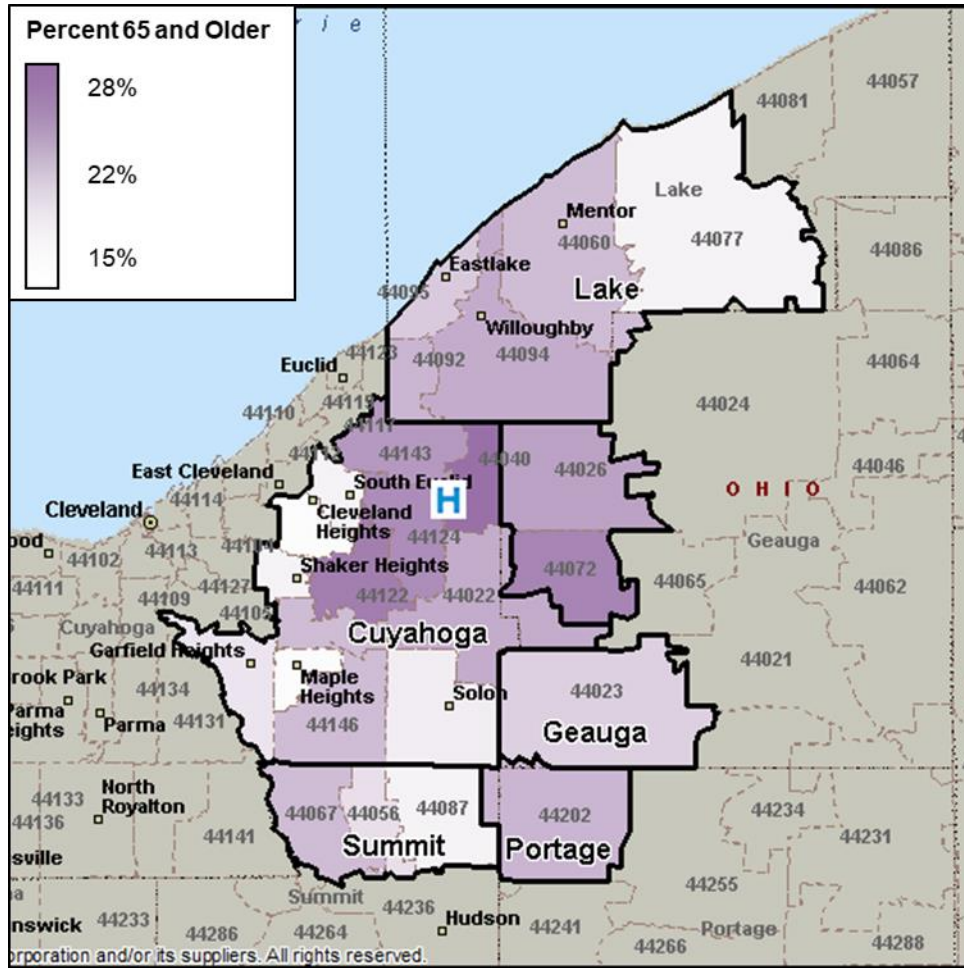
Description

Exhibit 9 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 remain relatively unchanged between 2017 and 2022, the number of persons aged 65 years and older is projected to increase by 12.4 percent.
- The growth of older populations is likely to lead to the growing need for health services, since on an overall per-capita basis, older individuals typically need and use more services than younger persons.

Exhibit 10: Percent of Population Aged 65+ by ZIP Code, 2017



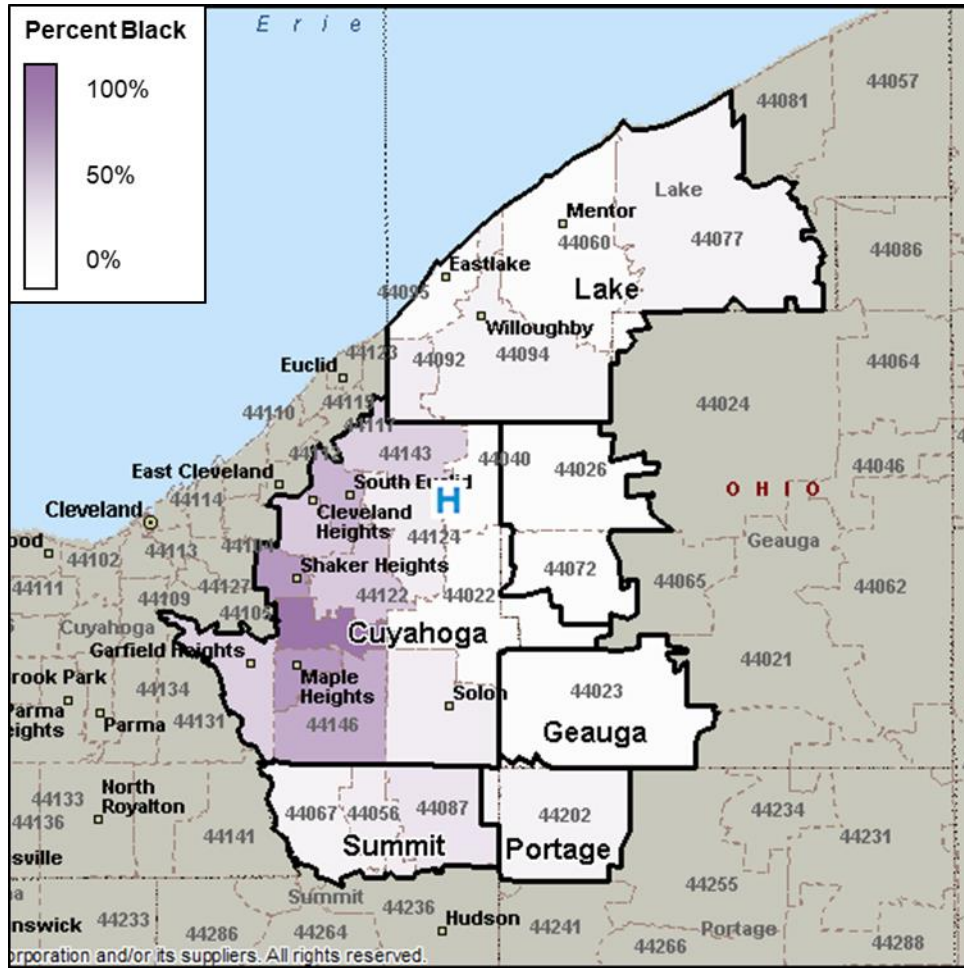
Description

Exhibit 10 portrays the percent of the population 65 years of age and older in the community by ZIP code.

Observations

- ZIP codes with the highest proportions of the population 65 years of age and older are located proximate to the hospital.

Exhibit 11: Percent of Population - Black, 2017



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

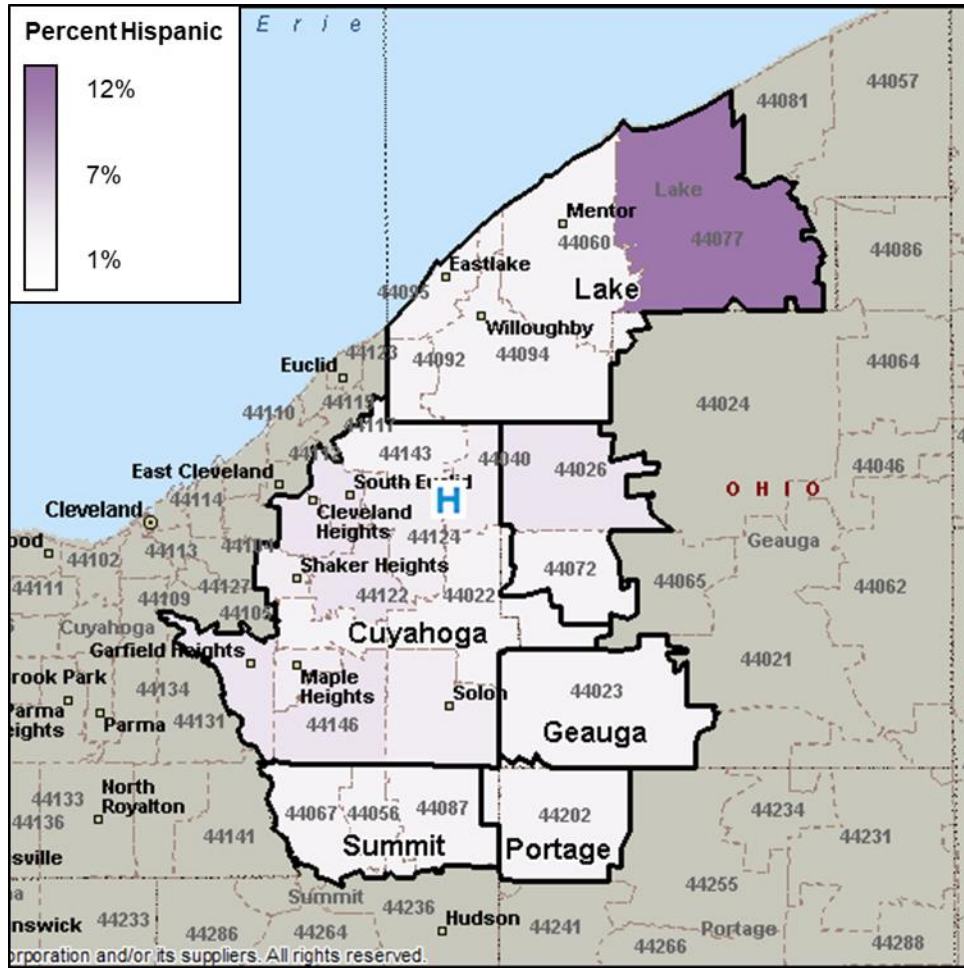
Description

Exhibit 11 portrays locations in the community where the percentages of the population that are Black were highest in 2017.

Observations

- In three ZIP codes, over 70 percent of residents were Black (44128, 44120, and 44137, all in Cuyahoga County).
- In 2017, the percentage of residents who are Black was under three percent in five ZIP codes (44095, 44072, 44060, 44040, and 44026, all in Lake and Geauga counties).

Exhibit 12: Percent of Population – Hispanic (or Latino), (2017)



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

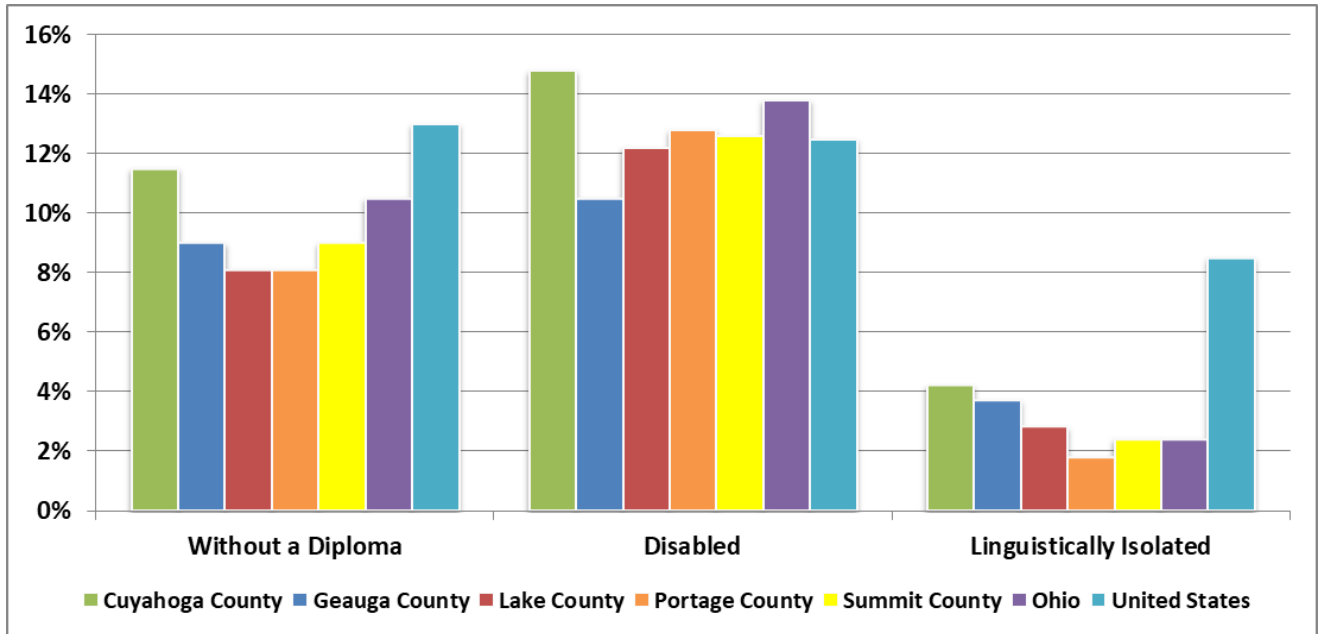
Description

Exhibit 12 portrays locations in the community 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 Lake County ZIP code 44077 (over 11 percent).

Exhibit 13: Other Socioeconomic Indicators, 2012-2016



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

Description

Exhibit 13 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

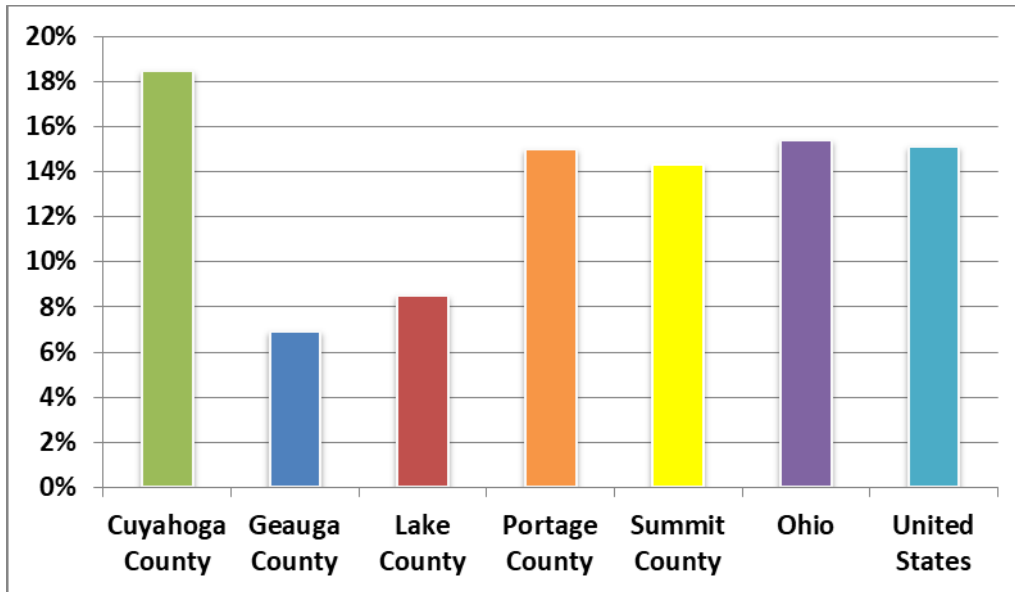
- Cuyahoga County’s percentage of residents aged 25 years and older without a high school diploma has been higher than the Ohio average.
- Cuyahoga County had a higher percentage of the population with a disability compared to Ohio and United States averages.
- Compared to Ohio (but not to the United States), Cuyahoga, Geauga, and Lake counties had a higher 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 14: Percent of People in Poverty, 2012-2016



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

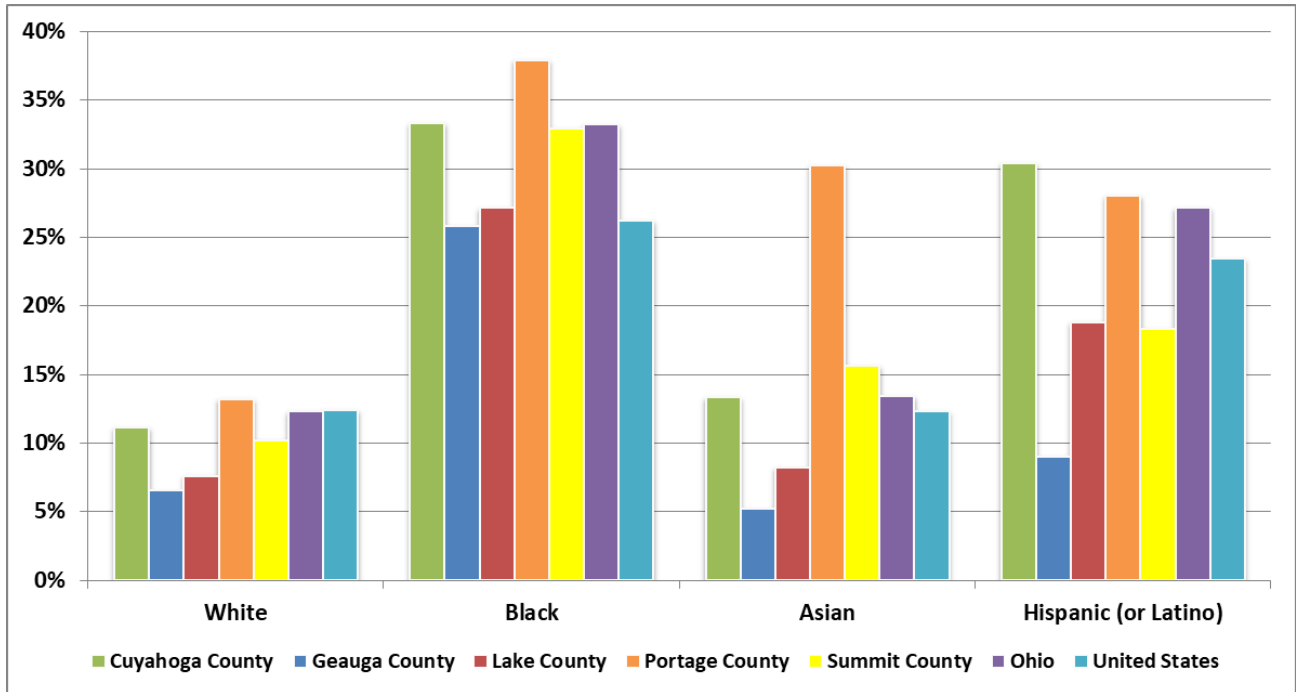
Description

Exhibit 14 portrays poverty rates by county.

Observations

- The poverty rate in Cuyahoga County was higher than Ohio and national averages throughout 2012-2016. Rates in all other counties were below the state average.

Exhibit 15: Poverty Rates by Race and Ethnicity, 2012-2016



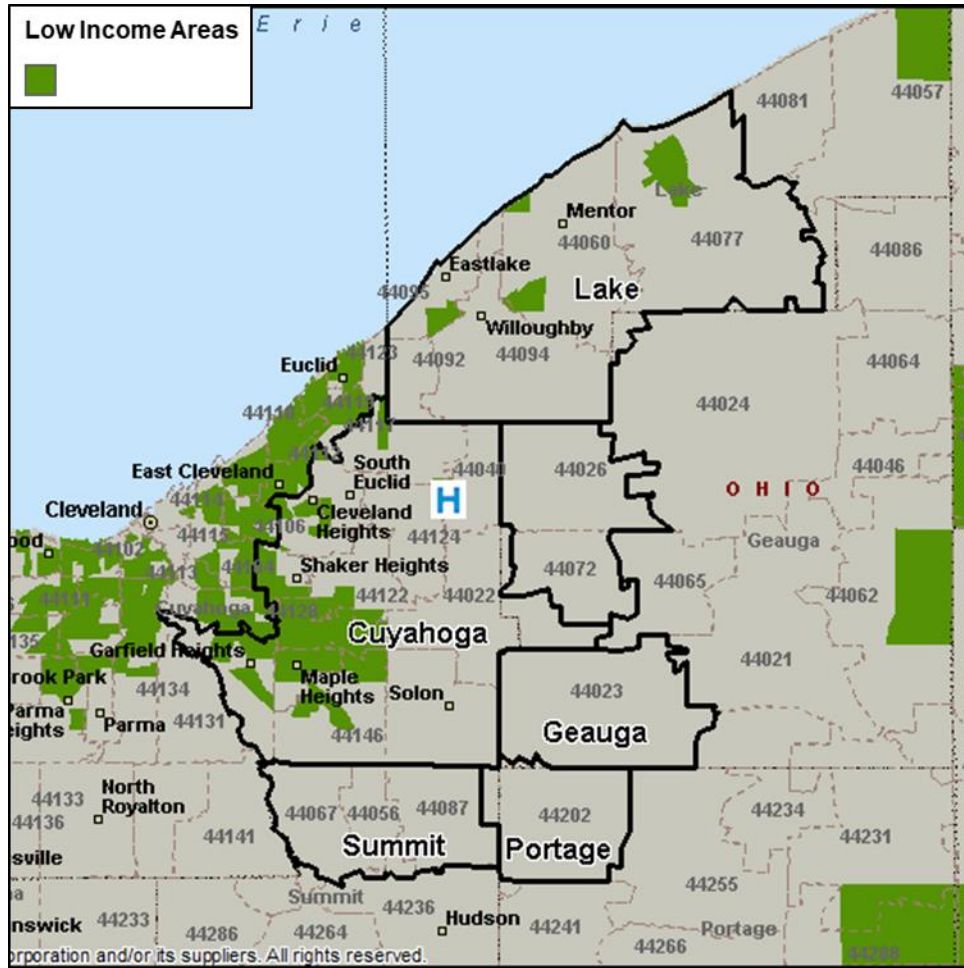
Description

Exhibit 15 portrays poverty rates by race and ethnicity.

Observations

- Poverty rates, in general, have been higher for Black and Hispanic (or Latino) residents than for Whites.
- The poverty rates for Black residents in Cuyahoga and Portage counties have been higher than poverty rates for Black individuals across Ohio and the United States.

Exhibit 16: Low Income Census Tracts, 2017



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

Description

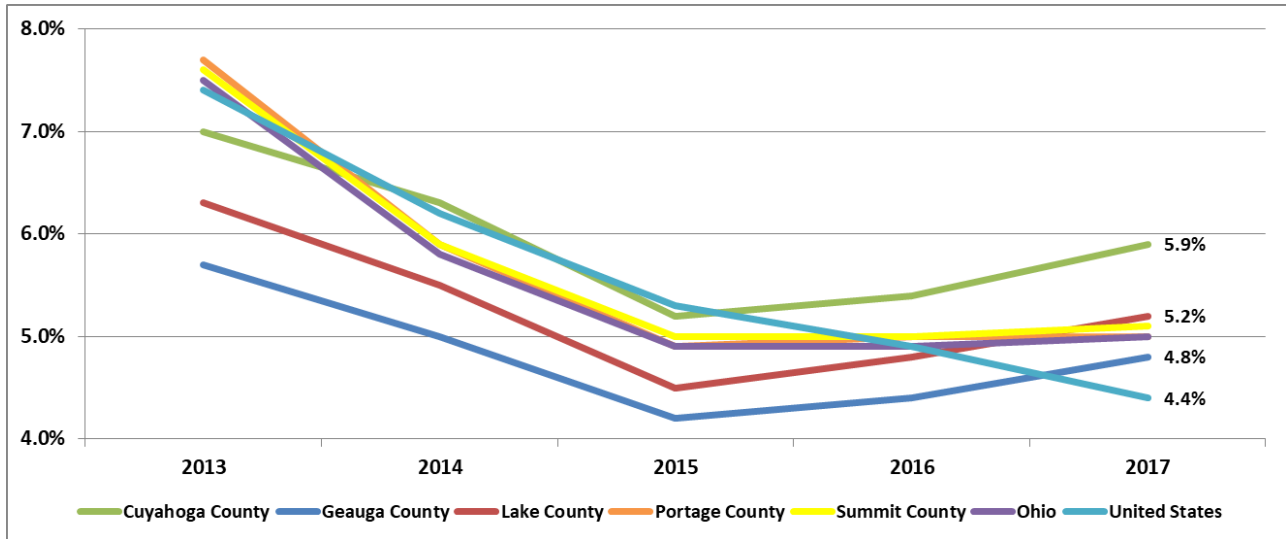
Exhibit 16 portrays the location of federally-designated low income census tracts.

Observations

- Low income census tracts have been present in Cuyahoga and Lake counties.

Unemployment

Exhibit 17: Unemployment Rates, 2013-2017



Source: Bureau of Labor Statistics, 2018.

Description

Exhibit 17 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 four of the five counties served by Hillcrest.
- Rates in Cuyahoga, Lake, and Summit counties were above Ohio and U.S. averages in 2017.

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Insurance Status

Exhibit 18: 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
Cuyahoga	Cleveland	44120	35,517	6.4%	34,621	5.6%
Cuyahoga	Cleveland	44128	28,023	5.7%	27,523	5.0%
Cuyahoga	Maple Heights	44137	22,349	5.4%	22,039	4.7%
Cuyahoga	Cleveland	44125	27,179	4.7%	26,633	4.1%
Cuyahoga	Bedford	44146	29,582	4.4%	29,488	3.7%
Cuyahoga	Cleveland	44118	39,364	4.2%	38,835	3.6%
Cuyahoga	Cleveland	44121	32,090	4.1%	31,635	3.5%
Cuyahoga	Cleveland	44143	24,304	3.4%	24,403	2.9%
Cuyahoga	Beachwood	44122	34,331	3.3%	34,351	2.9%
Cuyahoga	Cleveland	44124	38,246	3.2%	38,116	2.7%
Lake	Painesville	44077	58,455	3.0%	59,471	2.6%
Lake	Wickliffe	44092	16,587	2.7%	16,515	2.3%
Lake	Eastlake	44095	32,289	2.7%	31,804	2.3%
Lake	Willoughby	44094	36,188	2.4%	36,812	2.1%
Summit	Northfield	44067	20,881	2.3%	21,325	2.0%
Summit	Twinsburg	44087	21,787	2.3%	22,493	2.0%
Cuyahoga	Chagrin Falls	44022	16,604	2.2%	16,539	2.1%
Portage	Aurora	44202	20,040	2.2%	20,618	2.0%
Lake	Mentor	44060	58,848	2.2%	58,478	1.9%
Geauga	Novelty	44072	4,316	2.0%	4,288	1.8%
Geauga	Chesterland	44026	11,004	1.9%	10,942	1.7%
Cuyahoga	Gates Mills	44040	2,968	1.9%	2,917	1.7%
Geauga	Chagrin Falls	44023	18,289	1.8%	18,797	1.7%
Cuyahoga	Solon	44139	24,669	1.7%	24,941	1.5%
Summit	Macedonia	44056	12,171	1.3%	12,594	1.1%
Community Total			666,081	3.3%	666,178	2.9%

Source: Truven Market Expert, 2018.

Description

Exhibit 18 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 Cuyahoga County ZIP codes.

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- 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.¹¹

¹¹ See: <http://hrms.urban.org/briefs/Increase-in-Medicaid-under-the-ACA-reduces-uninsurance.html>

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Crime Rates

Exhibit 19: Crime Rates by Type and Jurisdiction, Per 100,000, 2016

Crime	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
Violent Crime	694.9	36.4	214.1	101.6	300.0	305.9
Property Crime	2,977.7	436.6	1,514.8	1,649.7	2,825.9	2,537.4
Murder	15.1	2.4	1.1	3.3	6.8	5.9
Rape	57.6	9.7	19.6	12.6	59.7	47.4
Robbery	327.7	3.6	31.6	25.2	93.0	111.1
Aggravated Assault	294.5	20.6	161.8	60.4	140.4	141.5
Burglary	753.6	69.1	217.9	304.1	644.5	573.5
Larceny	1,742.1	346.9	1,244.7	1,298.5	2,008.0	1,789.7
Motor Vehicle Theft	482.0	20.6	52.3	47.1	173.4	174.2
Arson	33.6	2.4	5.4	7.3	22.7	23.4

Source: FBI, 2017.

Description

Exhibit 19 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 Cuyahoga County were more than 50 percent higher than the Ohio averages for violent crime, murder, robbery, aggravated assault, and motor vehicle theft.
- Summit County had high rates of property crime, murder, rape, burglary, and larceny. Lake County had a high rate of aggravated assault.

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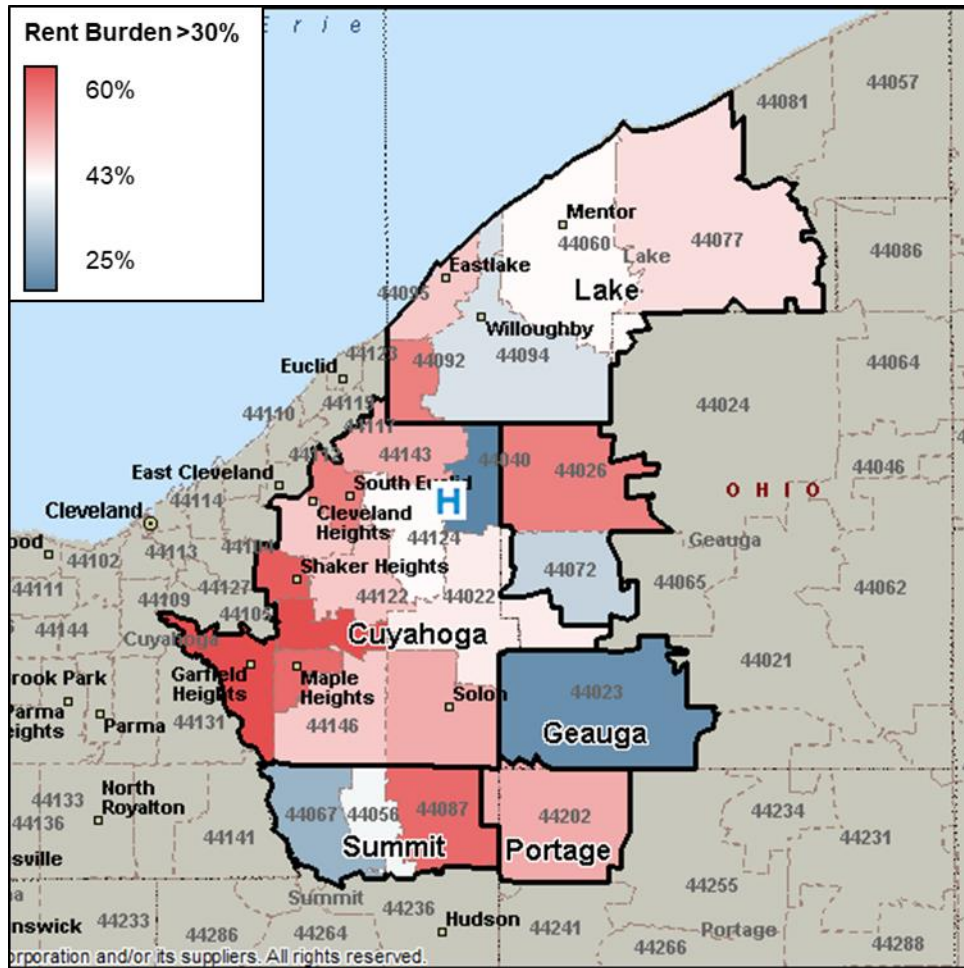
Housing Affordability

Exhibit 20: 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
Cuyahoga	Cleveland	44128	5,469	3,246	59.4%
Cuyahoga	Cleveland	44125	3,397	2,015	59.3%
Cuyahoga	Cleveland	44120	8,325	4,798	57.6%
Summit	Twinsburg	44087	2,236	1,278	57.2%
Cuyahoga	Maple Heights	44137	3,390	1,891	55.8%
Cuyahoga	Cleveland	44121	4,362	2,401	55.0%
Lake	Wickliffe	44092	2,090	1,150	55.0%
Geauga	Chesterland	44026	263	144	54.8%
Portage	Aurora	44202	1,271	649	51.1%
Cuyahoga	Cleveland	44143	2,778	1,397	50.3%
Cuyahoga	Solon	44139	1,417	704	49.7%
Cuyahoga	Bedford	44146	5,538	2,670	48.2%
Cuyahoga	Cleveland	44118	5,793	2,752	47.5%
Cuyahoga	Beachwood	44122	4,529	2,143	47.3%
Lake	Eastlake	44095	3,397	1,605	47.2%
Lake	Painesville	44077	5,741	2,587	45.1%
Cuyahoga	Chagrin Falls	44022	865	384	44.4%
Lake	Mentor	44060	3,984	1,683	42.2%
Cuyahoga	Cleveland	44124	5,540	2,333	42.1%
Summit	Macedonia	44056	278	114	41.0%
Lake	Willoughby	44094	5,513	2,132	38.7%
Geauga	Novelty	44072	183	67	36.6%
Summit	Northfield	44067	1,289	402	31.2%
Geauga	Chagrin Falls	44023	433	115	26.6%
Cuyahoga	Gates Mills	44040	27	7	25.9%
Community Total			78,108	38,667	49.5%
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 21: 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.¹² On that basis and based on data from the U.S. Census, Exhibits 20 and 21 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.”¹³

¹² <https://www.federalreserve.gov/econres/notes/feds-notes/assessing-the-severity-of-rent-burden-on-low-income-families-20171222.htm>

¹³ *Ibid.*

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- Almost 50 percent of households have been designated as “rent burdened,” a level 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™ (CNI) also are above average (see next section for information on the CNI).

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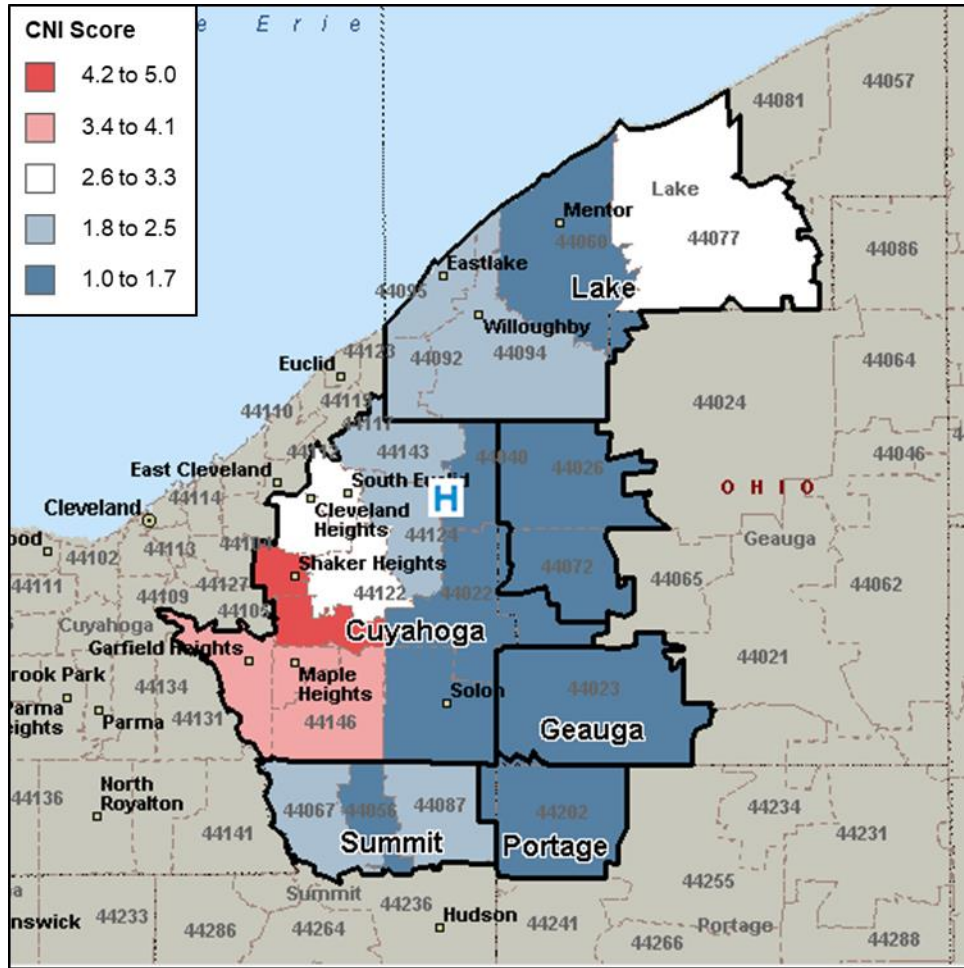
Dignity Health Community Need Index™

Exhibit 22: Community Need Index™ Score by ZIP Code, 2018

County	City/Town	ZIP Code	CNI Score
Cuyahoga	Cleveland	44120	4.4
Cuyahoga	Cleveland	44128	4.2
Cuyahoga	Maple Heights	44137	4.0
Cuyahoga	Bedford	44146	3.6
Cuyahoga	Cleveland	44125	3.4
Cuyahoga	Cleveland	44118	3.2
Lake	Painesville	44077	3.0
Cuyahoga	Cleveland	44121	3.0
Cuyahoga	Beachwood	44122	3.0
Lake	Willoughby	44094	2.4
Cuyahoga	Cleveland	44124	2.4
Summit	Twinsburg	44087	2.2
Lake	Wickliffe	44092	2.2
Lake	Eastlake	44095	2.2
Cuyahoga	Cleveland	44143	2.2
Summit	Northfield	44067	1.8
Summit	Macedonia	44056	1.6
Lake	Mentor	44060	1.6
Cuyahoga	Solon	44139	1.6
Portage	Aurora	44202	1.6
Geauga	Chesterland	44026	1.4
Cuyahoga	Gates Mills	44040	1.4
Cuyahoga	Chagrin Falls	44022	1.2
Geauga	Chagrin Falls	44023	1.2
Geauga	Novelty	44072	1.2
Hospital Community			2.6
Cuyahoga County Average			3.3
Geauga County Average			1.9
Lake County Average			2.3
Portage County Average			2.6
Summit County Average			2.7

Source: Dignity Health, 2018.

Exhibit 23: Community Need Index, 2018



Source: Microsoft MapPoint and Dignity Health, 2018.

Description

Exhibits 22 and 23 present the *Community Need Index*TM (CNI) score for each ZIP code in the Hillcrest 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.

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

Observations

- Two of the 25 ZIP codes in the Hillcrest community, Cuyahoga County ZIP codes 44120 and 44128, scored in the “highest need” category.
- At 2.6, the weighted average CNI score for the Hillcrest community is below the U.S. median of 3.0.

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Local Health Status and Access Indicators

This section assesses health status and access indicators for the Hillcrest 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.

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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	Cuyahoga County		Geauga County		Lake County		Portage County		Summit County	
	2015	2018	2015	2018	2015	2018	2015	2018	2015	2018
Health Outcomes	65	60	3	2	19	13	17	31	42	46
Health Factors	50	62	4	4	14	9	33	24	36	44
Length of Life	51	48	3	2	15	20	16	21	40	44
Premature death	51	48	3	2	15	20	16	21	40	44
Quality of Life	72	67	2	2	29	11	22	41	53	52
Poor or fair health	32	46	1	3	23	7	14	19	30	20
Poor physical health days	24	24	12	5	20	7	22	32	32	39
Poor mental health days	49	12	13	4	22	5	10	32	26	22
Low birthweight	87	88	5	6	36	37	31	59	71	79
Health Behaviors	36	49	3	2	9	6	28	16	21	43
Adult smoking	14	50	8	3	27	9	68	46	14	27
Adult obesity	9	12	3	12	1	3	13	10	9	23
Food environment index	75	71	3	4	28	27	46	56	73	66
Physical inactivity	23	12	17	43	4	16	21	27	6	21
Access to exercise opportunities	3	2	11	13	9	12	25	23	1	5
Excessive drinking	33	22	54	56	63	49	31	63	41	47
Alcohol-impaired driving deaths	67	79	9	49	42	68	10	23	86	87
Sexually transmitted infections	87	86	3	4	57	47	61	19	80	79
Teen births	51	47	1	1	10	12	5	4	25	24
Clinical Care	6	4	9	32	25	16	37	45	24	14
Uninsured	53	49	31	76	10	24	28	20	38	40
Primary care physicians	2	2	22	21	47	41	58	57	6	7
Dentists	1	1	32	35	8	7	42	36	12	13
Mental health providers	2	3	19	18	26	24	21	21	11	12
Preventable hospital stays	33	25	14	45	40	40	43	51	38	29
Diabetes monitoring	65	62	19	29	60	46	25	42	69	67
Mammography screening	8	18	16	9	18	7	36	58	43	39
Social & Economic Factors	78	79	8	7	15	25	28	29	48	50
High school graduation	85	83	26	16	50	60	42	52	78	73
Some college	8	9	16	18	13	14	20	15	12	12
Unemployment	51	52	13	26	25	36	36	43	32	46
Children in poverty	68	72	6	5	9	14	26	23	38	50
Income inequality	86	85	41	28	30	30	64	61	80	78
Children in single-parent households	88	86	3	3	31	27	44	34	66	61
Social associations	79	77	77	73	83	80	78	79	60	59
Violent crime	85	85	7	5	69	63	39	46	80	81
Injury deaths	31	47	14	17	17	39	4	15	24	54
Physical Environment	68	86	61	72	58	11	81	50	82	81
Air pollution	63	87	70	51	65	4	79	51	75	84
Severe housing problems	87	87	59	53	34	41	77	78	71	72
Driving alone to work	7	7	11	8	85	77	28	24	81	68
Long commute - driving alone	45	48	78	79	50	45	64	66	36	35

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,

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clinical care,¹⁴ social and economic factors, and physical environment.¹⁵ *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, Cuyahoga County ranked in the bottom 50th percentile among Ohio counties for 28 of the 42 indicators assessed. Of those, 15 were in the bottom quartile, including quality of life, social and economic factors, physical environment, and various socioeconomic indicators.
- In Geauga County, nine indicators ranked in the bottom 50th percentile among Ohio Counties. Four of those were in the bottom quartile, including percent of adults uninsured, social associations rate, physical environment, and percent with a long commute who drive alone.
- In Lake County, nine indicators ranked in the bottom 50th percentile among Ohio Counties. Three of those were in the bottom quartile, including alcohol-impaired driving deaths, social associations rate, and percent driving alone to work.
- In Portage County, 16 indicators ranked in the bottom 50th percentile among Ohio Counties. Two were in the bottom quartile, including social associations rate and severe housing problems.
- In Summit County, 21 indicators ranked in the bottom 50th percentile among Ohio Counties. Eleven were in the bottom quartile, including low birth-weight births, alcohol-impaired driving deaths, sexually transmitted infections, high school graduation, violent crime, and others.

¹⁴A 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.

¹⁵A 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.

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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	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio	United States
Health Outcomes								
Length of Life	Years of potential life lost before age 75 per 100,000 population	8,037	4,243	6,569	6,579	7,691	7,734	6,700
Quality of Life	Percent of adults reporting fair or poor health	16.4%	12.0%	12.8%	15.1%	15.2%	17.0%	16.0%
	Average number of physically unhealthy days reported in past 30 days	3.7	3.3	3.4	3.7	3.8	4.0	3.7
	Average number of mentally unhealthy days reported in past 30 days	3.7	3.6	3.6	3.9	3.9	4.3	3.8
	Percent of live births with low birthweight (<2500 grams)	10.6%	5.8%	7.4%	8.2%	9.3%	8.6%	8.0%
Health Factors								
Health Behaviors								
Adult Smoking	Percent of adults that report smoking >= 100 cigarettes and currently smoking	20.6%	15.7%	17.6%	20.4%	19.5%	22.5%	17.0%
Adult Obesity	Percent of adults that report a BMI >= 30	29.9%	29.9%	28.8%	29.8%	31.2%	31.6%	28.0%
Food Environment Index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	7.0	8.7	8.0	7.4	7.2	6.6	7.7
Physical Inactivity	Percent of adults aged 20 and over reporting no leisure-time physical activity	24.3%	27.5%	24.7%	26.0%	25.4%	25.7%	23.0%
Access to Exercise Opportunities	Percent of population with adequate access to locations for physical activity	96.1%	87.6%	88.7%	83.6%	95.0%	84.7%	83.0%
Excessive Drinking	Binge plus heavy drinking	16.8%	18.2%	17.9%	18.5%	17.9%	19.1%	18.0%
Alcohol-Impaired Driving Deaths	Percent of driving deaths with alcohol involvement	44.0%	33.3%	37.7%	27.9%	50.0%	34.3%	29.0%
STDs	Chlamydia rate per 100,000 population	720	162	277	208	495	489	479
Teen Births	Teen birth rate per 1,000 female population, ages 15-19	30.3	8.1	17.9	11.4	24.9	27.6	27.0
Clinical Care								
Uninsured	Percent of population under age 65 without health insurance	7.8%	9.1%	7.0%	6.9%	7.5%	7.7%	11.0%
Primary Care Physicians	Ratio of population to primary care physicians	898:1	1,448:1	2,142:1	2,459:1	1,025:1	1,307:1	1,320:1
Dentists	Ratio of population to dentists	979:1	2,294:1	1,465:1	2,313:1	1,642:1	1,656:1	1,480:1
Mental Health Providers	Ratio of population to mental health providers	356:1	547:1	676:1	645:1	472:1	561:1	470:1
Preventable Hospital Stays	Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	53	61	59	62	55	57	49
Diabetes Screening	Percent of diabetic Medicare enrollees that receive HbA1c monitoring	83.8%	86.9%	85.5%	85.8%	83.0%	85.1%	85.0%
Mammography Screening	Percent of female Medicare enrollees, ages 67-69, that receive mammography screening	64.7%	66.4%	67.6%	58.0%	60.5%	61.2%	63.0%

Source: County Health Rankings, 2018.

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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	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio	United States
Health Factors								
Social & Economic Factors								
High School Graduation	Percent of ninth-grade cohort that graduates in four years	74.8%	94.2%	87.3%	88.2%	82.8%	81.2%	83.0%
Some College	Percent of adults aged 25-44 years with some post-secondary education	68.7%	65.4%	67.0%	66.7%	67.2%	64.5%	65.0%
Unemployment	Percent of population age 16+ unemployed but seeking work	5.4%	4.4%	4.8%	5.0%	5.0%	4.9%	4.9%
Children in Poverty	Percent of children under age 18 in poverty	26.4%	8.3%	12.5%	15.0%	19.7%	20.4%	20.0%
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	5.6	4.0	4.0	4.5	4.9	4.8	5.0
Children in Single-Parent Households	Percent of children that live in a household headed by single parent	45.0%	15.4%	28.5%	30.6%	36.1%	35.7%	34.0%
Social Associations	Number of associations per 10,000 population	9.3	9.8	9.1	9.1	11.5	11.3	9.3
Violent Crime	Number of reported violent crime offenses per 100,000 population	589	43	174	105	378	290	380
Injury Deaths	Injury mortality per 100,000	76.4	59.8	71.8	59.7	78.7	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	12.9	11.4	10.7	11.4	12.3	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	18.5%	13.4%	12.6%	15.5%	14.9%	15.0%	19.0%
Driving Alone to Work	Percent of the workforce that drives alone to work	79.8%	80.3%	87.4%	83.6%	86.5%	83.4%	76.0%
Long Commute – Drive Alone	Among workers who commute in their car alone, the percent that commute more than 30 minutes	32.6%	46.1%	32.3%	37.5%	27.3%	30.0%	35.0%

Source: County Health Rankings, 2018.

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Description

Exhibit 25 provides data that underlie the County Health Rankings.¹⁶ 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 across at least three of the counties presented:
 - Air pollution (average daily measure of fine particulate matter PM2.5)
 - Percent of driving deaths with alcohol involvement
 - Percent of workforce that drives alone to work
 - Percent of workers with long commutes that commute more than 30 minutes
 - Preventable hospitalizations rate
 - Ratio of population to primary care physicians
 - Social associations rate
 - Unemployment rate
- In Exhibit 25, Cuyahoga County's crime rate is more than 50 percent worse than the Ohio average. The county's chlamydia rate is just under 50 percent above average.
- Ohio-wide indicators are worse than U.S. averages for virtually all of the indicators presented.

¹⁶ 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

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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	Cuyahoga County	Geauga County	Lake County	Portage County	Summit 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

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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 Hillcrest 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 at least three counties served by Hillcrest compared unfavorably to peers for the following indicators:
 - Percent low-birth weight births
 - Percent of adults who smoke
 - Percent of adults obese
 - Food environment index
 - Percent of adults physically inactive
 - Percent of driving deaths alcohol-impaired
 - Ratio of population to primary care physicians
 - Ratio of population to dentists
 - Ratio of population to mental health providers
 - Preventable hospitalizations rate
 - Percent of adults receiving diabetes screening
 - Percent unemployed
 - Income ratio
 - Social associations rate
 - Air pollution (average daily PM2.5)
 - Percent of adults who drive alone to work
 - Percent of those with long commutes who drive alone

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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	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
All Causes of Death	827.3	676.2	787.8	809.9	845.1	832.3
All other forms of chronic ischemic heart disease	52.3	50.7	65.1	63.7	47.8	53.2
Other chronic obstructive pulmonary disease	33.6	28.8	37.7	43.2	39.0	43.7
Organic dementia	46.5	50.2	46.5	30.4	41.3	38.4
Alzheimer's disease	20.5	23.8	31.1	28.8	37.5	33.4
Acute myocardial infarction	24.4	29.9	19.4	22.9	29.5	32.1
Accidental poisoning by and exposure to drugs and other biological substances	44.6	36.0	46.4	30.1	57.8	36.8
Diabetes mellitus	25.9	21.2	11.8	28.7	23.1	24.6
Conduction disorders and cardiac dysrhythmias	21.0	26.6	20.7	15.6	19.6	20.2
Congestive heart failure	17.8	14.1	18.9	22.0	18.8	19.5
Stroke, not specified as hemorrhage or infarction	16.1	9.6	15.6	15.0	15.9	17.8
Atherosclerotic cardiovascular disease	34.5	13.7	37.0	12.8	9.1	15.4
Renal failure	15.3	9.9	11.2	13.0	13.3	15.1
Septicemia	17.1	7.9	13.4	13.5	13.5	13.7
Pneumonia	9.3	15.8	11.9	14.0	10.0	13.3
All other diseases of nervous system	9.6	11.0	9.5	10.1	12.2	12.3
Hypertensive heart disease	15.0	N/A	8.6	10.4	21.3	11.9
All other diseases of respiratory system	8.3	N/A	6.7	7.7	10.7	11.4
Other cerebrovascular diseases and their sequelae	7.7	N/A	9.2	9.5	13.0	10.4
Parkinson's disease	6.9	10.6	6.3	8.7	7.9	8.7
Intentional self-harm (suicide) by discharge of firearms	6.2	N/A	6.4	8.6	7.0	7.4
Alcoholic liver disease	5.8	N/A	6.5	7.3	6.8	5.1
Unspecified fall	0.7	N/A	3.3	N/A	2.6	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 in the community:
 - Organic dementia
 - Accidental poisoning by and exposure to drugs and other biological substances
 - Conduction disorders and cardiac dysrhythmias
 - Atherosclerotic cardiovascular disease
 - Hypertensive heart disease
 - Alcohol liver disease

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**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	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
All Cancer Types	180.0	144.3	170.2	176.4	170.1	173.8
Lung and Bronchus	44.7	29.5	51.2	40.9	42.8	47.9
Prostate	23.2	21.1	19.3	12.8	20.5	19.8
Other Sites/Types	21.5	23.9	13.5	15.4	20.6	19.6
Colon & Rectum	14.5	6.8	14.6	18.7	17.0	15.5
Breast	12.7	9.5	10.8	14.7	14.4	12.0
Pancreas	13.1	13.1	9.3	11.8	14.0	11.5
Ovary	8.9	N/A	9.7	12.9	7.5	7.8
Leukemia	7.9	N/A	8.3	5.3	6.9	6.9
Liver & Intrahepatic Bile Duct	7.6	7.4	6.5	8.2	4.9	6.1
Non-Hodgkins Lymphoma	5.7	N/A	5.9	5.9	6.3	5.9
Uterus	6.9	N/A	N/A	N/A	3.3	5.2
Esophagus	4.7	N/A	4.6	7.4	4.0	5.1
Bladder	6.2	N/A	8.9	N/A	3.7	5.1
Brain and Other CNS	4.1	N/A	5.6	5.3	4.9	4.8
Kidney & Renal Pelvis	3.4	N/A	4.2	N/A	2.9	3.8
Multiple Myeloma	3.3	N/A	3.0	N/A	2.9	3.3
Oral Cavity & Pharynx	3.1	N/A	2.9	N/A	2.8	2.9
Melanoma of Skin	1.4	N/A	N/A	N/A	1.7	2.6
Stomach	4.1	N/A	N/A	N/A	2.2	2.5
Cervix	3.3	N/A	N/A	N/A	N/A	2.1
Larynx	1.0	N/A	N/A	N/A	1.8	1.2
Testis	N/A	N/A	N/A	N/A	N/A	0.4
Thyroid	0.8	N/A	N/A	N/A	N/A	0.4

Source: Ohio Department of Health, 2017.

Description

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

Observations

- Cuyahoga County’s age-adjusted stomach, cervix, and thyroid cancer mortality rates were significantly higher than the Ohio average.
- Cancer mortality rates for pancreas and liver and intrahepatic bile duct cancers were higher than the state average in four counties.

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**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	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
All Cancer Types	483.2	432.2	486.1	466.8	451.0	461.6
Prostate	131.7	99.2	100.9	113.1	111.8	108.0
Lung and Bronchus	65.6	48.3	70.4	67.1	65.4	69.3
Breast	73.1	68.5	74.7	65.9	69.2	68.0
Colon & Rectum	43.4	38.7	43.2	40.3	37.0	41.7
Other Sites/Types	39.5	31.0	39.5	37.2	37.9	36.4
Uterus	32.5	30.9	32.6	28.3	26.9	29.2
Bladder	20.9	18.1	26.5	25.7	22.2	21.9
Melanoma of Skin	16.8	24.3	23.2	25.2	22.4	21.7
Non-Hodgkins Lymphoma	20.1	25.8	20.9	19.6	18.5	19.0
Kidney & Renal Pelvis	16.9	12.5	18.4	13.2	15.0	16.8
Thyroid	16.4	19.4	18.4	14.7	13.9	14.8
Pancreas	13.8	13.9	12.4	13.6	12.8	12.7
Leukemia	12.7	12.2	14.0	13.5	12.2	12.2
Oral Cavity & Pharynx	11.1	11.8	11.8	12.2	11.1	11.7
Ovary	12.2	11.1	13.1	13.2	10.6	11.4
Cervix	6.6	4.7	4.8	6.6	6.6	7.6
Brain and Other CNS	6.7	6.3	8.2	8.5	7.0	6.9
Liver & Intrahepatic Bile Duct	8.9	5.3	5.7	6.1	6.0	6.7
Stomach	7.9	4.7	5.8	5.4	6.0	6.4
Multiple Myeloma	7.4	6.2	5.1	5.0	5.4	5.8
Testis	6.8	7.9	8.3	7.7	6.3	5.8
Esophagus	5.1	3.3	4.3	6.2	5.4	5.1
Larynx	4.3	2.4	3.3	3.1	3.6	4.1
Hodgkins Lymphoma	3.3	4.0	3.5	2.3	2.7	2.7

Source: Ohio Department of Health, 2016.

Description

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

Observations

- The overall cancer incidence rates in Cuyahoga, Lake, and Portage counties were higher than the Ohio average.
- The incidence rates for breast, other sites and types, melanoma, non-Hodgkin’s lymphoma, pancreas, and testis cancers were higher in at least four of the community counties compared to Ohio averages.

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Exhibit 30: Communicable Disease Incidence Rates per 100,000 Population, 2017
(Light Grey Shading Denotes Indicators Worse than Ohio Average; Dark Grey Denotes Any Indicators More than 50 Percent Worse than Ohio Average)

Indicator	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
Living with diagnosis of HIV infection (2016)	373.2	45.7	76.5	56.8	166.8	199.5
Gonorrhea	408.5	24.5	57.3	64.2	209.7	206.6
Chlamydia	884.8	166.9	303.1	335.3	587.6	528.9
Total Syphilis	29.8	1.1	6.1	8.6	14.8	16.4
Tuberculosis	2.2	-	0.4	1.2	0.6	1.3

Source: Ohio Department of Health, 2017.

Description

Exhibit 30 presents incidence rates for various communicable diseases in the community.

Observations

- Cuyahoga County rates for all indicators were more than 50 percent worse than Ohio averages.
- Summit County had comparatively high incidence of gonorrhea and chlamydia.

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Exhibit 31: Maternal and Child Health Indicators, 2014-2018
(Light Grey Shading Denotes Indicators Worse than Ohio Average)

Indicator	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
Low Birth Weight Percent	8.5%	5.2%	6.0%	6.8%	7.6%	7.2%
Very Low Birth Weight Percent	2.2%	0.9%	1.3%	1.5%	1.6%	1.6%
Births to Unmarried Mothers	51.7%	16.2%	35.9%	36.5%	42.9%	43.2%
Preterm Births Percent	9.5%	6.6%	7.7%	8.1%	8.7%	8.7%
Very Preterm Births Percent	2.5%	1.2%	1.5%	1.8%	1.9%	1.8%

Source: Ohio Department of Health, 2018.

Description

Exhibit 31 presents various maternal and infant health indicators.

Observations

- All Cuyahoga County indicators were worse than Ohio averages.
- Summit County also compared unfavorably for all indicators except births to unmarried mothers.

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**Exhibit 32: Infant Mortality Rates by County, 2010-2016 and for Ohio, 2016
(Light Grey Shading Denotes Indicators Worse than Ohio Average)**

Indicator	Cuyahoga County	Geauga County	Lake County	Portage County	Summit County	Ohio
Overall Infant Mortality Rate	9.3	4.5	4.3	5.7	7.4	7.4
Black Infant Mortality Rate	16.3	N/A	N/A	N/A	13.4	15.2
Hispanic Infant Mortality Rate	6.0	N/A	N/A	N/A	N/A	7.3
White Infant Mortality Rate	5.2	N/A	N/A	N/A	5.6	5.8

Source: County Health Rankings, 2018 and Ohio Department of Health, 2017 (for Ohio-wide averages).

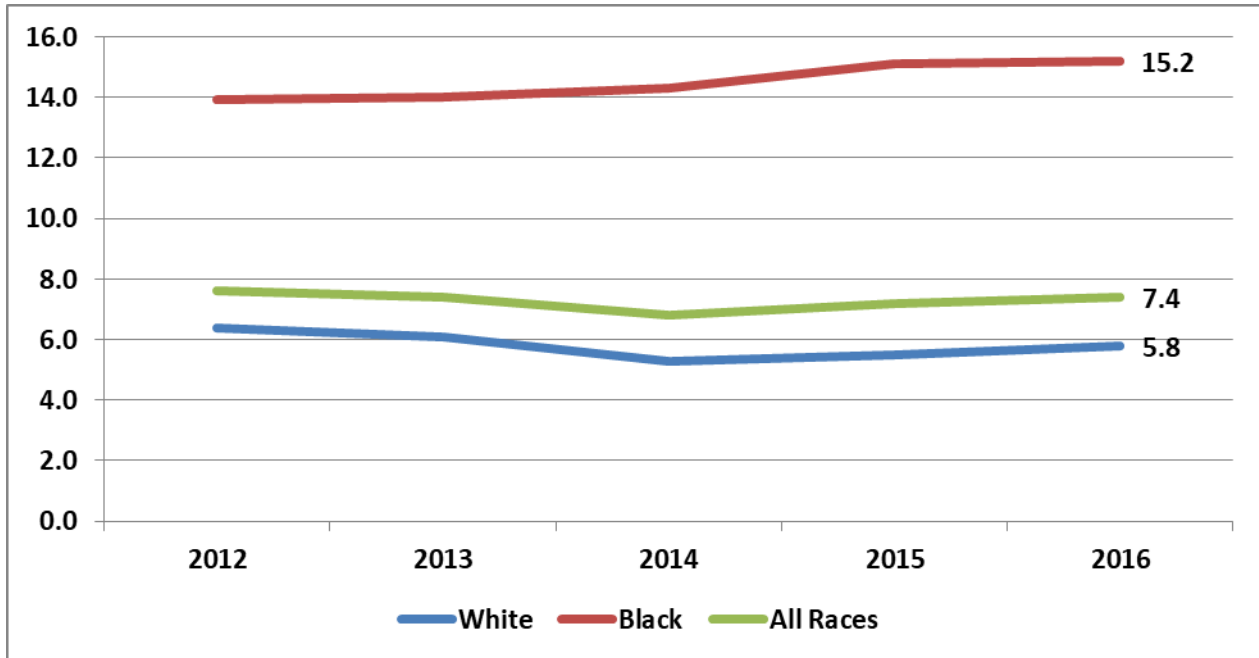
Description

Exhibit 32 presents infant mortality rates by race and ethnicity by county and for Ohio.

Observations

- The overall infant mortality rate and the Black infant mortality rate in Cuyahoga County were higher than the Ohio averages.
- As documented by many, infant mortality rates have been particularly high for Black infants across Ohio.

Exhibit 33: Infant Mortality Rates by Race, Ohio overall, 2012-2016



Source: Ohio Department of Health, 2018.

Description

Exhibit 33 presents infant mortality rates in Ohio by race for each year from 2012 to 2016.

Observations

- Infant mortality rates for Black infants in Ohio were consistently higher than rates for White infants and infants of all races.

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Behavioral Risk Factor Surveillance System

Exhibit 34: 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
Cuyahoga	Cleveland	44124	31,643	23.1%	11.0%	16.9%	16.6%	12.7%	4.5%	32.3%	27.5%	22.3%	5.1%	27.4%
Cuyahoga	Beachwood	44122	27,750	23.6%	11.1%	15.9%	18.1%	12.8%	4.2%	31.0%	29.3%	21.0%	5.6%	29.8%
Cuyahoga	Cleveland	44143	19,354	21.9%	11.4%	17.7%	16.2%	12.2%	3.8%	31.7%	26.0%	21.2%	4.5%	26.7%
Lake	Willoughby	44094	28,761	26.1%	10.2%	16.8%	16.1%	11.2%	4.8%	31.5%	27.2%	22.9%	5.2%	28.1%
Lake	Mentor	44060	47,032	22.0%	10.9%	17.2%	14.6%	11.1%	4.1%	33.8%	24.1%	22.4%	4.9%	26.3%
Cuyahoga	Cleveland	44121	25,637	17.6%	11.8%	18.1%	13.3%	8.8%	3.4%	29.3%	20.6%	27.6%	6.2%	26.5%
Cuyahoga	Cleveland	44118	28,841	19.9%	10.3%	15.6%	15.2%	11.3%	3.1%	28.7%	23.5%	25.3%	4.9%	30.1%
Cuyahoga	Solon	44139	18,499	21.9%	10.0%	16.4%	12.3%	9.5%	3.0%	28.7%	26.7%	21.0%	3.5%	23.7%
Lake	Eastlake	44095	26,161	25.2%	11.6%	18.7%	16.8%	11.7%	5.4%	33.4%	26.6%	26.1%	6.1%	30.5%
Geauga	Chagrin Falls	44023	14,582	17.2%	11.8%	15.9%	12.6%	8.7%	3.6%	30.6%	28.8%	20.4%	4.0%	21.7%
Lake	Painesville	44077	46,229	21.9%	11.5%	18.1%	13.8%	9.5%	3.7%	31.0%	24.6%	24.9%	5.2%	28.1%
Portage	Aurora	44202	15,432	20.0%	9.6%	14.6%	12.8%	10.6%	3.6%	29.9%	25.9%	21.7%	5.3%	25.7%
Geauga	Chesterland	44026	8,273	27.8%	7.5%	13.0%	13.0%	9.6%	3.2%	25.9%	27.7%	20.3%	4.6%	24.6%
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%
Cuyahoga	Chagrin Falls	44022	13,477	19.2%	10.8%	16.3%	13.1%	9.6%	3.8%	32.1%	29.2%	19.2%	3.9%	23.1%
Lake	Wickliffe	44092	14,062	23.8%	11.2%	18.0%	16.7%	13.1%	4.6%	34.3%	26.4%	24.2%	6.2%	29.1%
Cuyahoga	Bedford	44146	24,745	28.1%	12.3%	18.8%	17.0%	11.2%	5.4%	33.4%	26.7%	27.8%	7.1%	31.6%
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%
Cuyahoga	Cleveland	44128	21,270	30.1%	13.5%	21.2%	21.2%	11.3%	5.4%	36.6%	28.6%	32.0%	7.8%	32.7%
Cuyahoga	Cleveland	44120	28,209	26.3%	12.9%	20.0%	20.1%	9.0%	3.8%	37.8%	25.9%	30.2%	6.7%	32.7%
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%
Cuyahoga	Cleveland	44125	20,670	26.7%	12.2%	19.6%	17.4%	12.3%	4.1%	31.2%	26.9%	30.8%	7.0%	32.7%
Cuyahoga	Maple Heights	44137	17,350	28.2%	13.5%	20.7%	15.4%	10.0%	5.2%	32.8%	26.1%	31.3%	7.3%	34.3%
Geauga	Novelty	44072	2,771	25.2%	7.8%	15.4%	13.2%	8.1%	4.0%	27.8%	24.5%	19.2%	3.4%	25.9%
Cuyahoga	Gates Mills	44040	2,614	18.7%	11.2%	13.4%	13.0%	16.0%	3.2%	34.7%	24.1%	18.9%	4.8%	26.5%
Hospital Community			527,722	23.3%	11.2%	17.5%	15.6%	10.8%	4.1%	31.9%	25.9%	24.5%	5.5%	28.4%
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.

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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 34 depicts BRFSS data for each ZIP code in the Hillcrest community and compared to the averages for Ohio.

Observations

- Hillcrest community averages for heart disease, high blood pressure, and high cholesterol were worse than the Ohio averages.
- Cuyahoga County ZIP code 44128 compared unfavorably for all conditions to Ohio averages.

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Ambulatory Care Sensitive Conditions

Exhibit 35: PQI (ACSC) Rates per 100,000, 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	Diabetes Short-Term Complications	Perforated Appendix	Diabetes Long-Term Complications	Chronic Obstructive Pulmonary Disease	Hypertension	Congestive Heart Failure
Cuyahoga	Cleveland	44124	51	611	121	656	83	780
Cuyahoga	Beachwood	44122	43	615	105	562	119	941
Cuyahoga	Cleveland	44143	55	556	129	854	89	819
Lake	Willoughby	44094	64	381	101	838	54	648
Lake	Mentor	44060	38	517	73	838	63	657
Cuyahoga	Cleveland	44121	24	300	128	614	116	741
Cuyahoga	Cleveland	44118	53	900	60	500	100	489
Cuyahoga	Solon	44139	31	1,000	67	227	42	446
Lake	Eastlake	44095	77	579	115	1,137	73	703
Geauga	Chagrin Falls	44023	28	818	56	303	35	370
Lake	Painesville	44077	47	421	76	949	36	563
Portage	Aurora	44202	19	125	68	385	62	576
Geauga	Chesterland	44026	55	1,000	77	418	11	441
Summit	Twinsburg	44087	30	444	96	404	96	589
Cuyahoga	Chagrin Falls	44022	-	250	30	311	38	480
Lake	Wickliffe	44092	98	333	128	1,218	113	863
Cuyahoga	Bedford	44146	66	688	278	998	162	897
Summit	Northfield	44067	6	667	89	674	47	455
Cuyahoga	Cleveland	44128	119	455	251	1,438	228	1,652
Cuyahoga	Cleveland	44120	102	286	73	1,179	227	1,018
Summit	Macedonia	44056	42	600	104	402	52	550
Cuyahoga	Cleveland	44125	128	667	180	902	57	924
Cuyahoga	Maple Heights	44137	202	500	173	1,181	133	970
Geauga	Novelty	44072	-	1,000	111	218	28	554
Cuyahoga	Gates Mills	44040	40	-	40	105	80	637
Community Averages			59	536	111	768	91	733
Ohio Averages			70	595	120	696	72	584
United States Averages			69	351	102	481	49	322

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.

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Exhibit 35: PQI (ACSC) Rates per 100,000, 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	Low Birth Weight	Dehydration	Bacterial Pneumonia	Urinary Tract Infection	Uncontrolled Diabetes	Young Adult Asthma	Lower-Extremity Amputation Among Patients with Diabetes
Cuyahoga	Cleveland	44124	5	374	310	345	61	31	35
Cuyahoga	Beachwood	44122	10	420	300	347	69	52	54
Cuyahoga	Cleveland	44143	14	377	308	342	89	34	35
Lake	Willoughby	44094	23	302	265	363	47	66	13
Lake	Mentor	44060	12	244	213	307	52	21	21
Cuyahoga	Cleveland	44121	26	275	255	155	92	63	44
Cuyahoga	Cleveland	44118	13	246	186	216	70	47	7
Cuyahoga	Solon	44139	-	176	228	166	36	18	47
Lake	Eastlake	44095	-	292	254	334	104	60	27
Geauga	Chagrin Falls	44023	-	251	265	161	14	-	-
Lake	Painesville	44077	15	217	231	222	34	19	31
Portage	Aurora	44202	6	217	242	124	50	45	25
Geauga	Chesterland	44026	14	243	287	143	11	-	33
Summit	Twinsburg	44087	9	234	240	204	42	-	18
Cuyahoga	Chagrin Falls	44022	-	180	143	210	8	-	-
Lake	Wickliffe	44092	10	308	368	420	53	71	60
Cuyahoga	Bedford	44146	28	419	316	291	149	26	42
Summit	Northfield	44067	13	230	248	171	24	21	18
Cuyahoga	Cleveland	44128	21	580	351	361	151	198	105
Cuyahoga	Cleveland	44120	32	395	220	216	84	130	22
Summit	Macedonia	44056	8	166	332	135	21	-	52
Cuyahoga	Cleveland	44125	22	332	237	228	52	119	38
Cuyahoga	Maple Heights	44137	35	468	277	167	121	64	75
Geauga	Novelty	44072	-	194	277	138	-	116	-
Cuyahoga	Gates Mills	44040	-	159	398	120	-	-	-
Community Averages			15	305	259	257	65	52	33
Ohio Averages			18	218	238	198	50	36	36
United States Averages			-	130	250	156	13	41	17

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.

APPENDIX B – SECONDARY DATA ASSESSMENT

Description

Exhibit 35 provides 2017 PQI rates (per 100,000 persons) for ZIP codes in the Hillcrest community – with comparisons to Ohio averages.

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.”¹⁷ 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.

Observations

- The rates of admissions for ACSC in the Hillcrest community exceeded Ohio averages for eight conditions: chronic obstructive pulmonary disease, hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, uncontrolled diabetes, and young adult asthma.
- Within the community, ZIP codes 44092, 44146, 44128, 44125, and 44137 had significantly higher PQI rates for nearly every condition compared to the Ohio averages. These ZIP codes also have above average poverty rates.

¹⁷Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

APPENDIX B – SECONDARY DATA ASSESSMENT

Exhibit 36: Ratio of PQI Rates for Hillcrest Community and Ohio, 2017

Indicator	Community Averages	Ohio Averages	Ratio: Hillcrest / Ohio
Young Adult Asthma	52.4	35.7	1.5
Dehydration	305.5	218.3	1.4
Urinary Tract Infection	256.9	197.5	1.3
Uncontrolled Diabetes	65.0	50.2	1.3
Hypertension	90.5	71.6	1.3
Congestive Heart Failure	733.0	584.2	1.3
Chronic Obstructive Pulmonary Disease	768.2	695.6	1.1
Bacterial Pneumonia	259.3	238.4	1.1
Diabetes Long-Term Complications	111.1	120.2	0.9
Lower-Extremity Amputation Among Patients with Diabetes	33.3	36.3	0.9
Perforated Appendix	535.6	594.7	0.9
Low Birth Weight	15.3	18.1	0.8
Diabetes Short-Term Complications	59.2	70.1	0.8

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

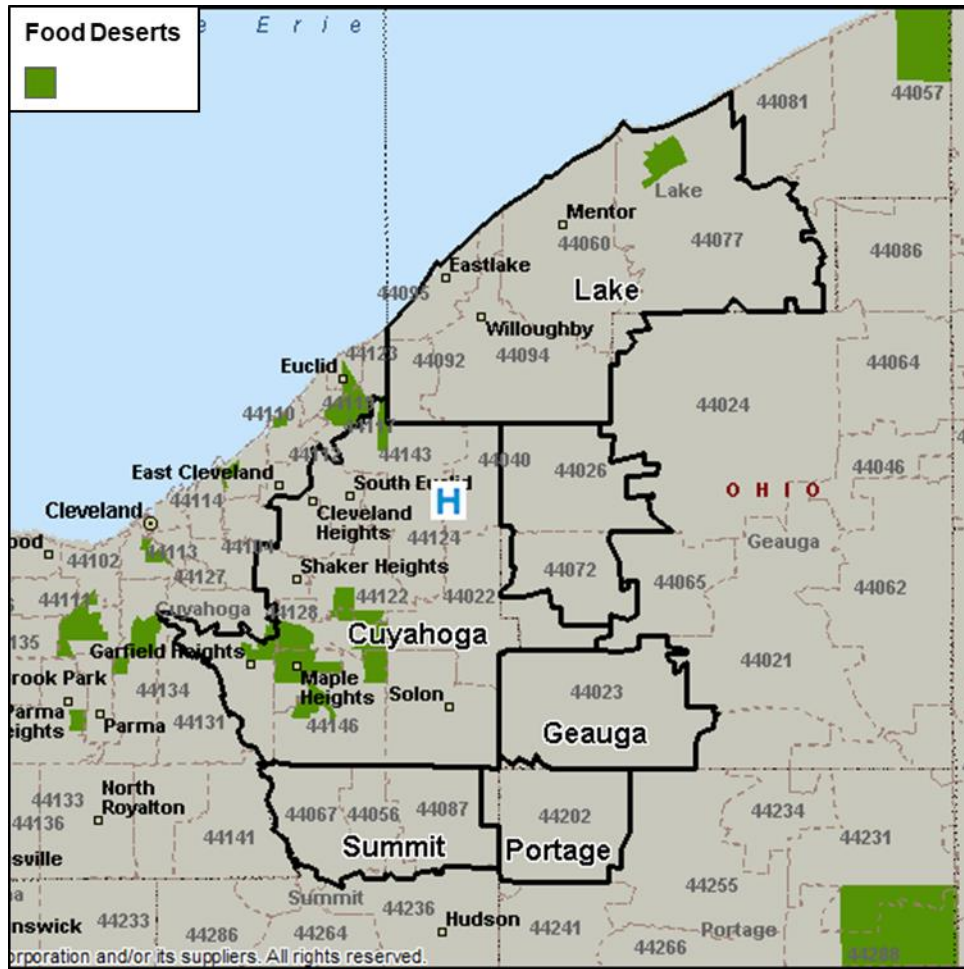
Exhibit 36 provides the ratio of PQI rates in the Hillcrest community compared to the Ohio averages. Conditions where the ratios are highest (meaning that the PQI rates in the community are the most above average) are presented first.

Observations

- In the community, ACSC rates for young adult asthma, dehydration, urinary tract infections, uncontrolled diabetes, hypertension, and congestive heart failure were above Ohio averages by 30 percent or more.

Food Deserts

Exhibit 37: Food Deserts, 2017



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

Description

Exhibit 37 shows the location of “food deserts” in the community.

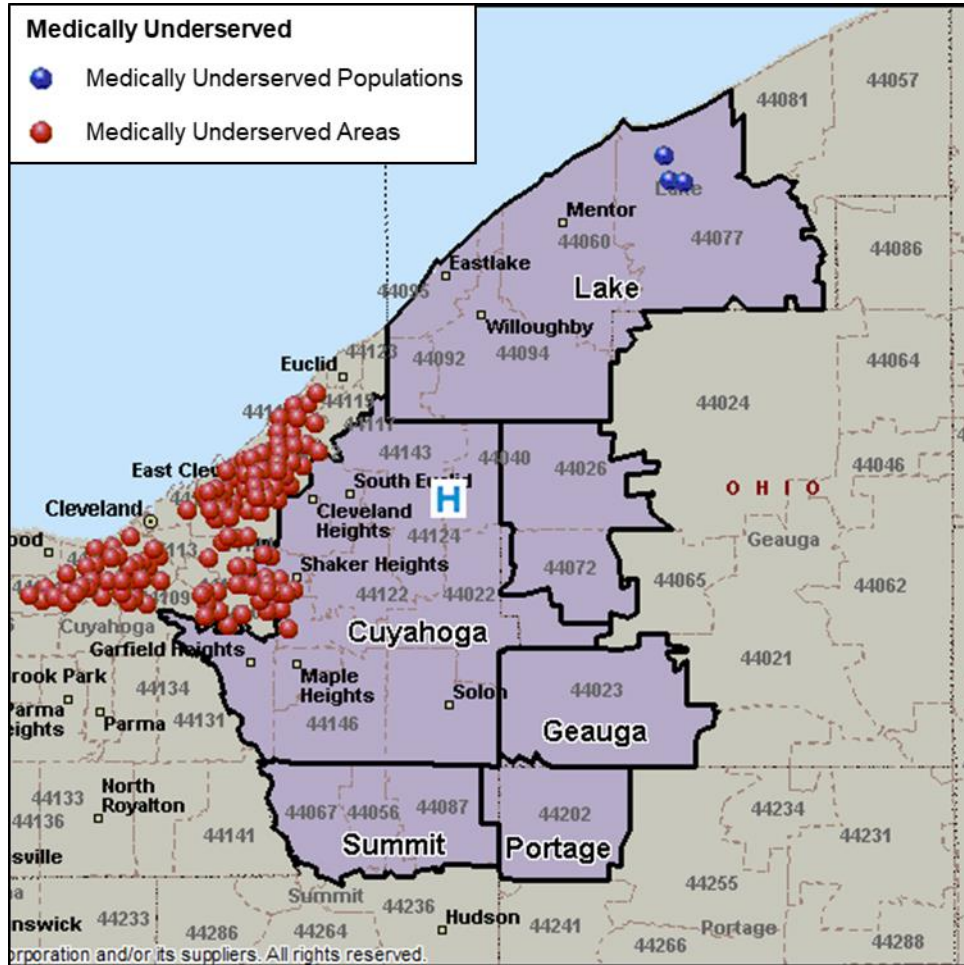
The U.S. Department of Agriculture’s Economic Research Service defines urban food deserts as low-income areas more than one mile from a supermarket or large grocery store and rural food deserts as more than 10 miles from a supermarket or large grocery store. Many government-led initiatives aim to increase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

Observations

- Several census tracts in in Cuyahoga and Lake counties have been designated as food deserts.

Medically Underserved Areas and Populations

Exhibit 38: Medically Underserved Areas and Populations, 2018



Source: Microsoft MapPoint and HRSA, 2018.

Description

Exhibit 38 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.¹⁸ 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

¹⁸ Heath Resources and Services Administration. See <http://www.hrsa.gov/shortage/mua/index.html>

APPENDIX B – SECONDARY DATA ASSESSMENT

group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP 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.”¹⁹

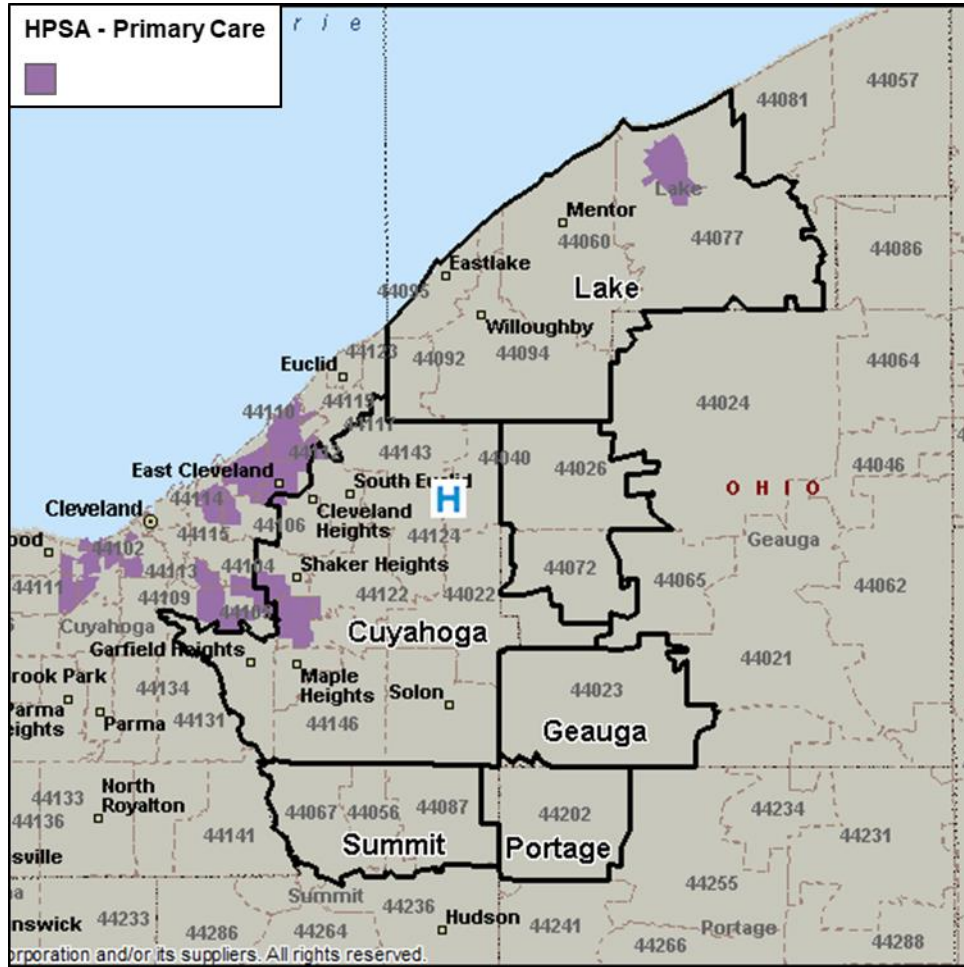
Observations

- There are several census tracts within the hospital’s community that have been designated as areas where Medically Underserved Areas and Populations are present. Medically Underserved Areas are present in Cuyahoga County and Medically Underserved Populations are present in Lake County.

¹⁹*Ibid.*

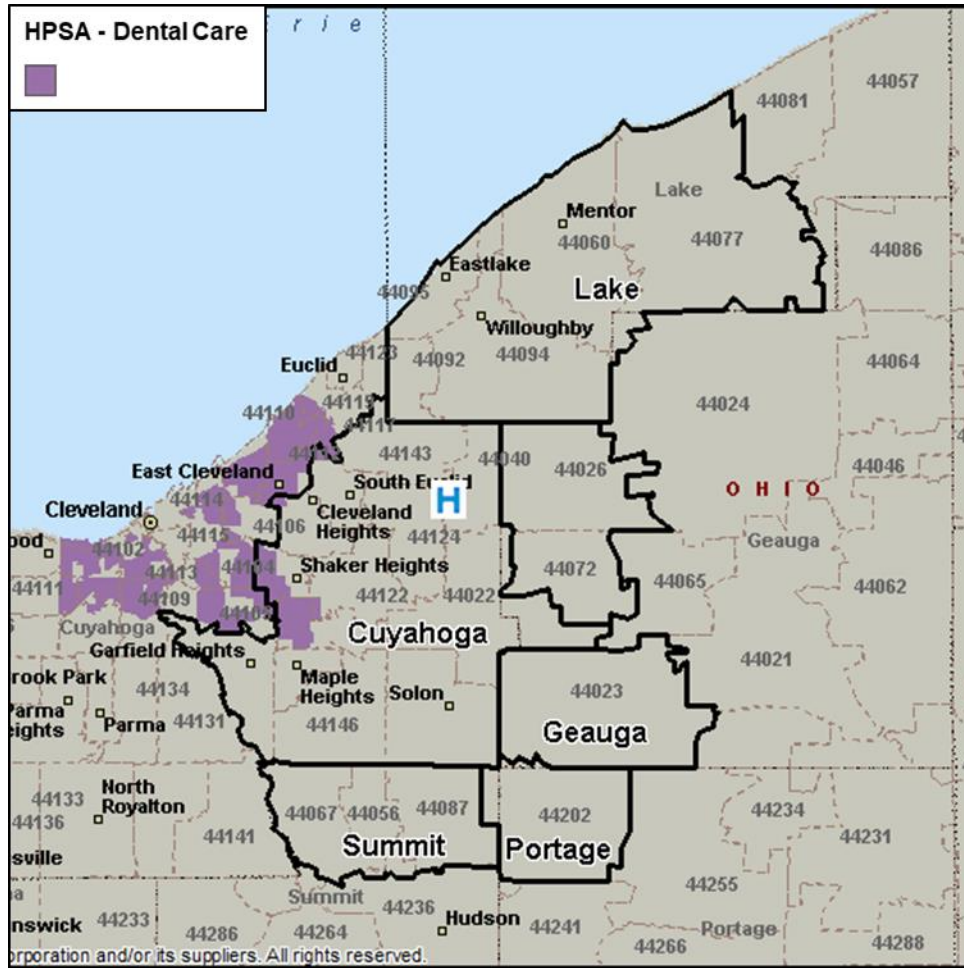
Health Professional Shortage Areas

Exhibit 39: Primary Care Health Professional Shortage Areas, 2018



Source: Health Resources and Services Administration, 2018.

Exhibit 40: Dental Care Health Professional Shortage Areas, 2018



Source: Health Resources and Services Administration, 2018.

Description

Exhibits 39 and 40 show the locations of federally-designated 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.

APPENDIX B – SECONDARY DATA ASSESSMENT

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.”²⁰

Observations

- Several census tracts in Cuyahoga and Lake counties have been designated as primary care HPSAs.
- Several census tracts have been designated as dental care HPSAs in Cuyahoga County.

²⁰ 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 Cuyahoga, Geauga, Portage, and Lake 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,

APPENDIX B – SECONDARY DATA ASSESSMENT

- 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.

Cuyahoga County Community Health Assessment 2018

A Community Health Assessment (“CHA”) for Cuyahoga County was developed through a collaboration between Case Western Reserve University School of Medicine, the Cleveland Department of Public Health, the Cuyahoga County Board of Health, the Health Improvement Partnership- Cuyahoga, The Center for Health Affairs, and University Hospitals. Data sources that informed the 2018 Cuyahoga County CHA include interviews from community stakeholders, existing community perceptions gathered by other organizations, and secondary data from national, state and local sources.

Thirteen “Top Health Needs” were identified in the Cuyahoga County CHA, as follows:

Quality of Life

1. Poverty
2. Food insecurity

Chronic Disease

3. Lead poisoning
4. Cardiovascular disease
5. Childhood asthma
6. Diabetes

Health Behaviors

7. Flu vaccination rates
8. Tobacco use/COPD
9. Lack of physical activity

Mental Health and Addiction

10. Suicide/mental health
11. Homicide/violence/safety
12. Opioids/substance use disorders

Maternal/Child Health

13. Infant mortality

Geauga County Community Health Improvement Plan

APPENDIX B – SECONDARY DATA ASSESSMENT

Over the years, several Community Health Status Assessments (“CHSA”) for Geauga County have been developed by the Partnership for a Healthy Geauga. Informed by those assessments, the Partnership developed a 2015-2017 Community Health Improvement Plan (“CHIP”).

The CHIP established three “Priority Health Issues” for Geauga County, and several “Target Impact Areas” for each:

- Increase access and awareness of mental health issues.
 - Increase the number of health care providers who screen for depression during office visits.
 - Increase early identification of mental health needs among youth.
 - Increase community awareness and education of mental health issues and services.
 - Increase the number of mental health care providers in Geauga County.
- Increase access and awareness and treatment options for substance abuse [including drugs, tobacco and alcohol].
 - Increase awareness of available substance abuse programs and services.
 - Increase awareness of risky behaviors and substance abuse trends for parents, guardians and community members.
 - Implement evidence-based prevention programs in elementary, middle and high schools.
 - Increase the number of health care providers screenings for alcohol and drug abuse.
 - Decrease exposure to secondhand smoke.
 - Implement a community-based comprehensive program to reduce alcohol abuse.
- Increase access to healthcare.
 - Increase public transportation.
 - Increase community education on health insurance opportunities and utilization.
 - Increase patient success at home.

APPENDIX B – SECONDARY DATA ASSESSMENT

Lake County Drug-Related Overdose Deaths: 2013 to 2017²¹

The Lake County General Health District assessed drug overdose deaths and vital statistics data to identify populations most at risk and to inform development of community-based overdose prevention initiatives.

The study found that those most at risk include:

- Males and those 25 to 54 years of age.
- Individuals who are single, never married, or divorced.
- Those working in labor, maintenance, and trade occupations.

The study also found that:

- The vast majority (and a growing proportion) of substances contributing to overdose deaths were either illicit, or a combination of illicit and prescription substances.
- Deaths attributed to prescription-only substances have declined.
- The shift towards increased illicit and illicit/prescription combinations warrants increased concern because potency, impacts of drug combinations, and substance awareness are variable.

Portage County Community Health Improvement Plan 2016-2019

Beginning in 2014 and continuing throughout 2015, Portage County Community Health Partners conducted community health assessments and also developed the Portage County Community Health Improvement Plan. The CHIP prioritized five health issues for the 2016-2019 time period.

1. Decrease Obesity
2. Increase Mental Health Services
3. Decrease Substance Abuse
4. Increase Access to Healthcare
5. Increase Injury Prevention

The CHIP, originally published in August 2016 and updated in December 2017, specified ten action steps for decreasing obesity, six for increasing mental health services, seven for decreasing substance abuse, four for increasing access to healthcare, and seven for increasing injury prevention.

²¹ Lake County CHA/CHIP

APPENDIX B – SECONDARY DATA ASSESSMENT

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.

APPENDIX C – COMMUNITY INPUT PARTICIPANTS

Individuals from a wide variety of organizations and communities participated in the interview process (**Exhibit 41**).

Exhibit 41: Interviewee Organizational Affiliations

Organization	
American Heart Association	Kent State School of Public Health
Benjamin Rose Institute on Aging	Lake County ADAMHS
Boys & Girls Clubs of Cleveland	Lake County Dept Health
Carmella Rose Health Foundation	NAMI
Center for Community Solutions	Ohio Department of Health
Center for Health Affairs	Summit County ADAMHS
City of Cleveland	Summit County Dept Health
City of Cleveland - Department of Public Health	The Catholic Health Association
Cleveland Foundation	The Centers (for families and children)
Cuyahoga County Board of Health	The Gathering Place
Cuyahoga Metropolitan Housing Authority	United Cerebral Palsy
Esperanza	United Way of Greater Cleveland
Fairhill Partners	United Way of Lake County
Greater Cleveland Food Bank	Western Reserve Area Agency on Aging
Health Policy Institute of Ohio	

APPENDIX D – IMPACT EVALUATION

Impact of Actions Taken Since the Last CHNA – Hillcrest Hospital

Cleveland Clinic Hillcrest Hospital uses evidence-based approaches in the delivery of healthcare services and educational outreach with the aim of achieving healthy outcomes for the community it serves. It undertakes periodic monitoring of its programs to measure and determine their effectiveness and ensure that best practices continue to be applied.

Given that the process for evaluating the impact of various services and programs on population health is longitudinal by nature, significant changes in health outcomes may not manifest for several community health needs assessment cycles. We continue to evaluate the cumulative impact.

Each identified health need and action items in our 2016 CHNA Implementation Strategy are described below with representative impacts.

1. Identified Need: Access to Affordable Care

Actions:

Hillcrest Hospital continues to provide medically necessary services to all patients regardless of race, color, creed, gender, country of national origin or ability to pay. Hillcrest Hospital has a financial assistance policy that is among the most generous in the region that covers both hospital services and physician services provided by physicians employed by the Cleveland Clinic.

Cleveland Clinic provides telephone and internet access to patients seeking to make appointments for primary, specialty and diagnostic services. Representatives are available 24/7 and can assist patients in identifying the next available or closest location for an appointment at all facilities within the Cleveland Clinic health system.

Highlighted Impacts:

In 2016 – 2018, Cleveland Clinic health system provided over \$286 million in financial assistance to its communities in Ohio, Florida, and Nevada.

Hillcrest Hospital continues to work to improve its scheduling and support service model to provide consistent experience, improve metrics, and increase efficiency including providing Internet scheduling, accelerating technology implementation and scheduling training.

In 2018, Cleveland Clinic health system provided 43,125 virtual visits to patients seeking care, a 75% increase from 2017.

2. Identified Need: Chronic Disease and Health Conditions

a. Cancer

Action:

The Cancer Center at Hillcrest Hospital continues to emphasize prevention, early detection, personalized aggressive treatment and customized cancer support. Preventive and educational services, as well as screening programs, continue to be provided to the community throughout the year, including on colon cancer, skin cancer and breast cancer.

Highlighted Impact:

Hillcrest provided health fair cancer screenings and community education classes for 308 community residents from 2016 - 2018.

b. Chemical Dependency

Action:

Cleveland Clinic hospitals continue to address community needs in the heroin and opioid epidemic by developing internal programs, educational modules, and treatment plans. We also continue to collaborate with external partners on strategies and policies that will positively impact this drug epidemic.

Highlighted Impacts:

In 2018, Cleveland Clinic hosted an Opioid Summit, titled “Opioids: A Crisis Still Facing Our Community,” for 300 community leaders, with the U.S. Attorney’s Office.

An eight-week Integrative Recovery Shared Medical Appointment program was developed jointly by the Cleveland Clinic Wellness Institute and the Alcohol and Drug Recovery Center in 2018. The new program is open to adults with 3 months to four years of sobriety and active within a 12-step recovery program.

In May 2017, Cleveland Clinic announced Naloxone would be available without a prescription at all Cleveland Clinic pharmacies in NE Ohio.

Community town halls with local health districts, police departments, and fire departments discussed the “triple threat,” of the epidemic: opiates, heroin, and fentanyl in Cleveland Clinic communities particularly hard-hit by the opiate epidemic. There were a total of 13 programs in 2017 and 2018, reaching over 865 attendees.

c. Diabetes

Action:

Hillcrest Hospital's Diabetes Clinic, located across the street from the hospital, continues to provide outpatient care and community wellness education programs to patients and community members on diabetes and disease management. The hospital also treats patients suffering from diabetes and any diabetic complications on an inpatient and outpatient basis.

APPENDIX D – IMPACT EVALUATION

Highlighted Impact:

Patients are seen in the outpatient Chronic Disease Center by nurses and dieticians to assist with compliance with diet and medications.

Diabetes education programs were provided at various community locations and local schools reaching over forty community members from 2016 - 2018.

d. Heart Disease

Action:

Hillcrest Hospital, renowned in cardiac medicine, continues to provide a certified Stroke Center and operates a Congestive Heart Failure Clinic. The hospital provides a wide range of clinical and wellness services to treat chronic heart-related diseases, including stroke, congestive heart failure, COPD, and hypertension, all of which are often more prevalent in the elderly populations.

Highlighted Impacts:

Community educational programs on heart related topics, including Protect Your Heart: Know Your Numbers, Hypertension 101, and Stroke 101, reached over 100 community members from 2016 through 2018.

e. Obesity

Action:

Cleveland Clinic's Bariatric and Metabolic Institute has expanded services at Hillcrest Hospital with a focus on addressing obesity with treatment strategies, research, and education, including surgery or a non-surgical medical weight loss treatment plan.

Highlighted Impact:

Hillcrest Hospital's Healthy Community Initiatives, *Come Cook With Us* education nutrition classes and fitness challenges in the community included over 300 community residents from 2016 – 2018.

f. Poor Birth Outcomes

Actions:

Cleveland Clinic hospitals continue to offer a wide range of clinical, wellness, and education services relating to women's health. Cleveland Clinic's Infant Mortality Task Force continues its educational programming and work to strengthen and foster collaborative opportunities with other organizations in an effort to improve birth outcomes.

Our continued community educational efforts in schools and neighborhoods focus on addressing risk factors that would improve poor birth outcomes.

APPENDIX D – IMPACT EVALUATION

Highlighted Impacts:

In 2016 Cleveland Clinic’s Infant Mortality Task Force became a founding partner of First Year Cleveland in Cuyahoga County and focused on priority areas of Racial Disparities, Prematurity and Safe Sleep.

Cleveland Clinic’s Centering Pregnancy programming, group pre-natal care for women, was started in four high-risk neighborhoods in 2017 and 2018, and provides Cleveland Clinic services for NE Ohio residents. Cleveland Clinic Centering locations include: Stephanie Tubbs Jones Health Center, Lakewood Family Health Center, Columbia Medical Office, and South Pointe Hospital.

Hillcrest Hospital offered Safe Sleep education to all its expectant families (2016 through 2018) in an effort to decrease incidence of infant mortality.

All newborn babies were screened once they are admitted to Postpartum for “safe sleep environments/cribs”. Those families identified at risk or do not have cribs were given the “Cribs For Kids” information.

Cleveland Clinic’s Outreach team hosted Community Baby Showers in high need neighborhoods to provide education on Safe Sleep and introduce resources and programs for families. Community Baby Showers reached over 2500 high-risk patients and families 2016 - 2018.

g. Poor Mental Health Status

Action:

Hillcrest Hospital continues to provide psychological consults for its inpatients and outpatient care for behavioral health needs. Hillcrest collaborates with other Cleveland Clinic hospitals to provide its patients with comprehensive behavioral health services and programs.

Highlighted Impact:

To address domestic violence needs, forensic nurses, or sexual assault nurse examiners (SANE), are available 24 hours a day, 7 days a week, to provide quality, trauma-informed, compassionate care to victims of sexual assault, domestic violence, elder abuse, and human trafficking. SANE nurses provide education in local high schools and universities on prevention of intimate partner violence.

h. Respiratory Diseases

Action:

Hillcrest Hospital continues to provide acute inpatient care, outpatient care, pulmonary rehabilitation and preventive education to patients with COPD and Adult Asthma. Community health education programs continue to be offered to the community on numerous topics for lung health and tobacco cessation.

APPENDIX D – IMPACT EVALUATION

Highlighted Impacts:

Tobacco cessation programs were provided in the Cleveland Clinic community and reached 100 residents from 2016 – 2018.

3. Identified Need: Health Professions Education and Medical Research

Health Professions Education

Actions: Cleveland Clinic operates one of the largest graduate medical education programs in the Midwest and one of the largest programs in the country. Cleveland Clinic sponsors a wide range of high quality medical education training through its Education Institute including accredited training programs for nurses and allied health professionals. Cleveland Clinic’s Education Institute oversees 247 residency and fellowship programs across the Cleveland Clinic Health System.

Hillcrest Hospital is a location for Cleveland Clinic and South Pointe residency-training programs, with approximately 300 residents rotating through each year. Hillcrest Hospital provides nurse training to students from several area nursing colleges.

In addition, the hospital provides a wide variety of allied health internships including: Anesthesiologist Assistant, Biomedical Engineering, Cardiac Ultrasound, CT/MRI, Echocardiography, Health Information Management, Histotechnology, Mammography Technologist, Nuclear Medicine Technologists, Occupational Therapy, Pharmacy, Phlebotomists, Physical Therapy, Physician Assistant, Respiratory Therapy, Social Work, Sonography, Speech-Language Pathology, and Surgical Technologists. Hillcrest Hospital Nursing Department also has a summer program for science interns.

Highlighted Impacts:

In 2018, Cleveland Clinic trained 1,517 residents and fellows, and 403 researchers as well as provided over 2,600 student rotations in 61 allied health education programs.

Hillcrest Hospital is a location for Cleveland Clinic and South Pointe residency-training programs, with approximately 300 residents rotating through each year.

Hillcrest Hospital serves as clinical site for Nursing students along with 21 other Allied Health professions.

Research

Actions:

Clinical trials and other clinical research activities continue to occur throughout the Cleveland Clinic health system including at the community hospitals. For example, patients at Hillcrest Hospital are involved in heart failure and anesthesia studies.

Highlighted Impacts:

Approximately 1,500 people work in 175 laboratories in 10 departments at Lerner Research Institute (LRI). In addition to basic discovery and translational research, Cleveland Clinic researchers and physicians had nearly 4,000 active projects involving human participants in 2017. At LRI, commercialization efforts led to 53 invention

APPENDIX D – IMPACT EVALUATION

disclosures, 20 new licenses, and 98 patents with the goal of accelerating advances in patient care.

The Cleveland Clinic Center for Populations Health Research was established in 2017 to help physicians and investigators leverage Cleveland Clinic’s patient population to generate insights about why certain groups of people or communities are more or less likely to be healthy, and how this can be transformed into community interventions that improve health outcomes at the population level.

Hillcrest Hospital’s comprehensive cancer center conducted more than 25 clinical trials involving several different cancer disease sites.

4. Identified Need: Healthcare for the Elderly

Actions:

Cleveland Clinic joined the Medicare Shared Savings Program in 2015 to form an Accountable Care Organization (ACO) which serves a population of Medicare fee-for-service beneficiaries in Northeast Ohio.

Cleveland Clinic’s Center for Geriatric Medicine assists elderly patients and their primary care physicians in the unique medical needs of aging patients. Geriatric services are designed to help preserve independence, maintain quality of life, and coordinate care among a multidisciplinary team of doctors, nurses, therapists, technicians, social workers, and other medical professionals to improve outcomes for older patients.

Cleveland Clinic's Center for Connected Care provides clinical programs designed to help patients with their post-hospital needs, including home care, hospice, mobile primary care physician services, home infusion pharmacy, and home respiratory therapy.

Highlighted Impacts:

Over the past three years our ACO managed 95,000 Medicare patients across Northeast Ohio and Florida.

In 2016 through 2018, Hillcrest Community Outreach provided nutrition, exercise, and financial planning classes to elderly residents, as described in the Wellness section, below.

5. Identified Need: Wellness

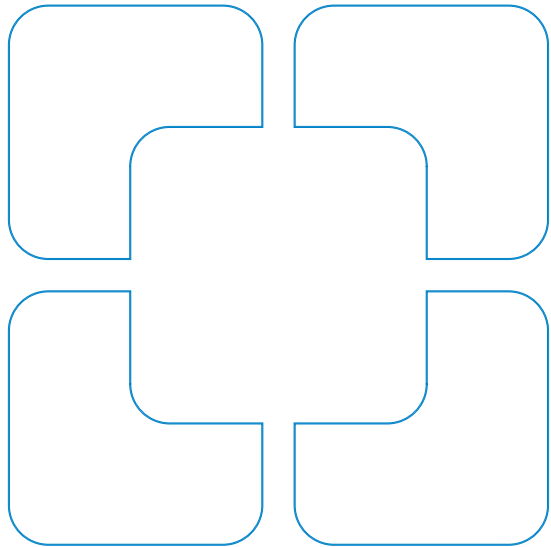
Action:

Hillcrest Hospital continues to offer outreach programs and community health talks focused on educating the community on healthy behavior choices, including exercise, healthcare navigation, stress management, nutrition, and tobacco cessation to promote health and wellness, increase access to healthcare resources, and reduce disease burden. Some of these programs are held in nursing homes and/or focused on seniors or geriatric care.

APPENDIX D – IMPACT EVALUATION

Highlighted Impact:

Hillcrest Hospital offered Healthy Community Initiatives, a community collaborative effort to increase healthy behaviors. In 2016 through 2018, classes in nutrition, physical activity, and life style management were provided to residents in Lyndhurst, Mayfield Heights, Mayfield Village, Highland Heights, Gates Mills, and Munson Township.



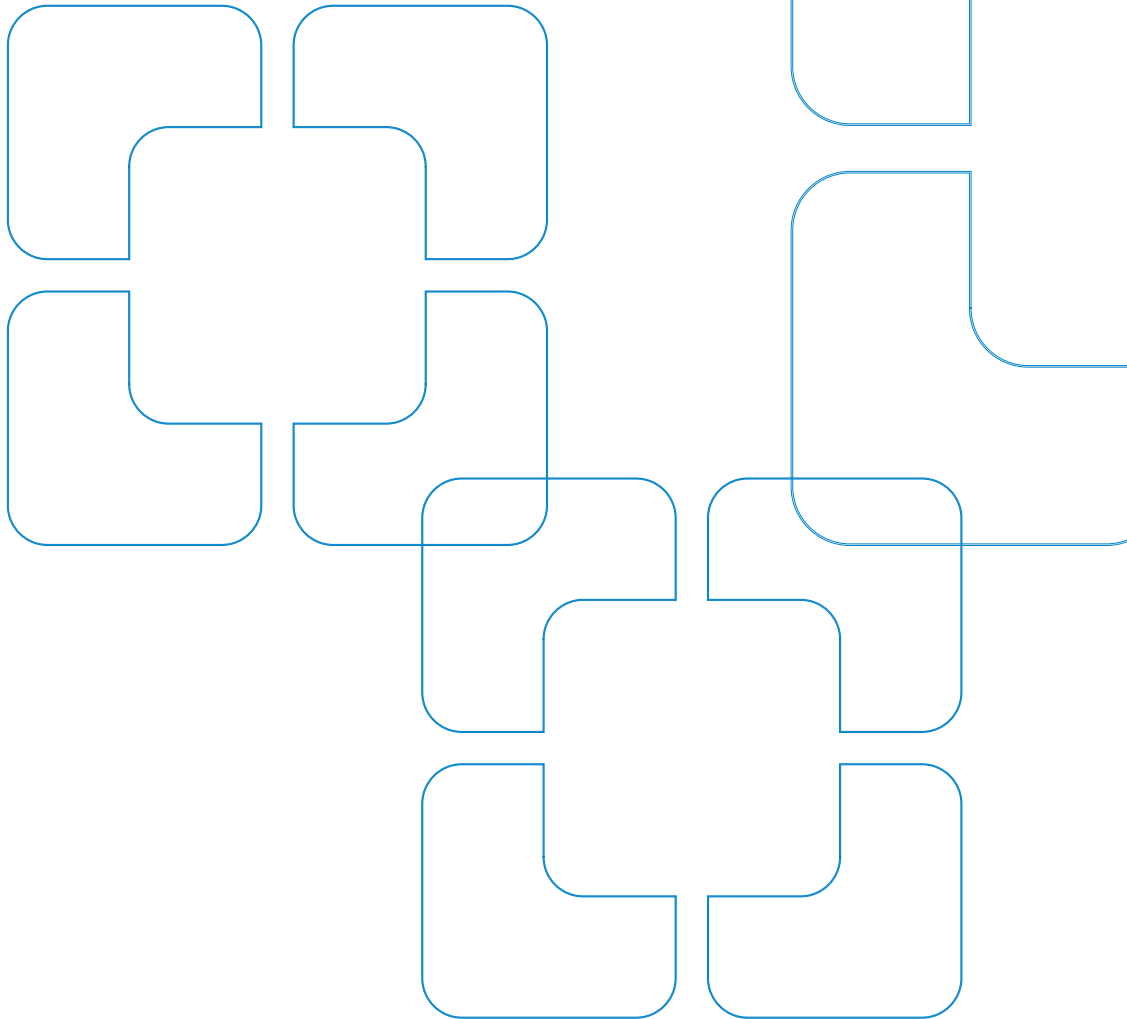
clevelandclinic.org/CHNAreports



Cleveland Clinic
Hillcrest Hospital

Implementation Strategy Report

2019



Hillcrest Hospital
6780 Mayfield Road
Mayfield Heights, Ohio 44124

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

Name and EIN of
Hospital Organization
Operating Hospital Facility: Cleveland Clinic Health System-East Region
34-0714593

Date Approved by
Authorized Governing Body: April 9, 2020

Contact: Cleveland Clinic
chna@ccf.org

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Hillcrest Hospital

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 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

Hillcrest is a 440 staffed bed hospital located in Mayfield Heights, Ohio. Hillcrest Hospital ranked within the Top 5 of Cleveland-area hospitals by U.S. News & World Report's "Best Hospitals in Cleveland." In addition, U.S. News & World Report recognized Hillcrest Hospital as high performing in nine adult specialties: Diabetes & Endocrinology, Ear, Nose & Throat, Gastroenterology & GI Surgery, Geriatrics, Nephrology, Neurology and Neurosurgery, Orthopedics, Pulmonology, and Urology. Additional information on the hospital and its services are available at http://my.clevelandclinic.org/locations_directions/Regional-Locations/Hillcresthospital.

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/>.

B. Hospital Mission

Hillcrest Hospital was formed in 1968 to provide health care services to its community. Hillcrest Hospital's mission is:

To provide better care for the sick, investigation of their problems and education of those who serve

II. COMMUNITY DEFINITION

For purposes of this report, Hillcrest's community is defined as 25 ZIP codes in Cuyahoga, Geauga, Lake, Portage, and Summit counties, Ohio, accounting for 73 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. The total population of Hillcrest's community in 2017 was 666,081.

Hillcrest Hospital is located within 21 miles of other Cleveland Clinic hospitals: Euclid, South Pointe, and Marymount. Because of this proximity, a portion of Hillcrest Hospital's community overlaps with those of the other hospitals. These hospitals work together with Beachwood, Twinsburg, Solon, Chagrin Falls, and Willoughby Family Health Centers as a part of the Cleveland Clinic health system to serve residents in Cleveland's eastern communities and suburbs.

III. HOW IMPLEMENTATION STRATEGY WAS DEVELOPED

This Implementation Strategy was developed by a team of members of senior leadership at Hillcrest Hospital and Cleveland Clinic representing several departments of the organization, including clinical administration, medical operations, nursing, finance, population health, and community relations. This team incorporated input from the hospital's community and local non-profit organizations to prioritize selected strategies and determine possible collaborations. Alignment with county Community Health Assessments (CHA) and Ohio's State Health Assessment (SHA) was also considered. Each year, senior leadership at Hillcrest Hospital and Cleveland Clinic 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

Hillcrest Hospital's significant community health needs as determined by analyses of quantitative and qualitative data include:

Community Health Initiatives

- Addiction and Mental Health
- Chronic Disease Prevention and Management
- Infant Mortality
- Socioeconomic Concerns

Other Identified Needs

- Access to Affordable Health Care
- Medical Research and Health Professions Education

See the 2019 Hillcrest Hospital CHNA for more information:

<https://my.clevelandclinic.org/locations/hillcrest-hospital/about/community-health>

V. NEEDS HOSPITAL WILL ADDRESS

A. Cleveland Clinic Community Health Initiatives

Each Cleveland Clinic hospital provides numerous services and programs in efforts to address the health needs of the community. Implementation of our services focuses on addressing structural factors important for community health, strengthening trust with residents and stakeholders, ensuring community voice in developing strategies, and evaluating our strategies and programs.

Strategies within the ISRs are included according to the prioritized list of needs developed during the 2019 CHNA. These hospital's community health initiatives combine Cleveland Clinic and local non-profit organizations resources in unified efforts to improve health and health equity for our community members, especially low-income, underserved, and vulnerable populations. Cleveland Clinic is currently undertaking a five-year community health strategy plan which may modify the initiatives in this report.

B. Hillcrest Hospital Implementation Strategy 2020-2022

The Implementation Strategy Report includes the priority community health needs identified during the 2019 Hillcrest Hospital CHNA and hospital-specific strategies to address those needs from 2020 through 2022.

Addiction and Mental Health

Hillcrest Hospital’s 2019 CHNA identified substance use disorders, mental health issues, and intimate partner violence as needs in the community. The 2020 - 2022 priority strategy will focus on the hospital’s efforts to decrease the abuse of and overdose from opioids. Initiatives include:

Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
<p>A Through Cleveland Clinic’s Opioid Awareness Center, provide intervention and treatment for substance abuse disorders to Cleveland Clinic caregivers and their family members</p>	<p>Increase the number of individuals with opioid addiction and dependence who seek treatment</p>
<p>B Through the Opioid Awareness Center, participation in the Northeast Ohio Hospital Opioid Consortium, and community-based classes and presentations, Cleveland Clinic will provide preventative education, create public service announcements, and share evidence-based practices</p>	<p>Reduce the number of individuals with opioid addiction and dependence</p>
<p>C In partnership with the Cleveland Clinic Pediatric Institute, engage Mayfield students in health education In partnership with K-12 Worldwide Classrooms, provide opioid-specific health education to students in the Hillcrest area</p>	<p>Reduce adolescent substance abuse, reduce adolescent smoking and vaping</p>
<p>D In partnership with the Geauga ADAMHS Board, provide an opioid community health education program</p>	<p>Reduce the number of individuals with opioid addiction and dependence, Increase the number of individuals with opioid addiction and dependence who seek treatment</p>
<p>E Cleveland Clinic will develop suicide and self-harm policies procedures and screening tools for patients in a variety of care settings</p>	<p>Reduce suicide rates</p>

Chronic Disease Prevention and Management

Hillcrest Hospital’s 2019 CHNA identified chronic disease and other health conditions as prevalent in the community (ex. heart disease, cancer, diabetes, respiratory diseases, obesity). Prevention and management of chronic disease were selected with the goal to increase healthy behaviors in nutrition, physical activity, and tobacco cessation. Initiatives include:

Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
<p>A Improve management of chronic conditions through Chronic Care Clinics employing a specialized model of care</p>	<p>Improve quality of life, decrease rates of complication, and improve treatment adherence for chronic disease patients</p>
<p>B Through a partnership with the City of Mayfield Heights, support the city’s Employee Wellness Initiative with biometric screenings and health education</p>	<p>Improve early detection, improve chronic disease self-management</p>
<p>C In collaboration with the Community Partnership on Aging, provide health promotion programs for older adults</p>	<p>Improve health literacy</p>
<p>D Through the Healthy Communities Initiative (HCI), partner to fund programs designed to improve health outcomes in four core areas: physical activity, nutrition, smoking, and lifestyle management</p>	<p>Decrease smoking, improve physical activity, improve nutrition</p>

Infant Mortality

Hillcrest Hospital’s 2019 CHNA identified the infant mortality rate in Cuyahoga County as well above Ohio and U.S. averages. Rates have been particularly high for Black infants. Addressing infant mortality causes and decreasing its prevalence was selected as a prioritized strategy. Initiatives include:

Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
<p>A Provide expanded evidence-based health education to expecting mothers and families, including <i>Daddy Boot Camp</i> courses at South Pointe Hospital</p>	<p>Improve the number of mothers who receive adequate prenatal care, improve breastfeeding rates, reduce SIDS rates, improve parenting skills</p>
<p>B Participate in <i>First Year Cleveland</i>, the Cuyahoga County Infant Mortality Task Force to gather data, align programs, and coordinate a systemic approach to improving infant mortality</p>	<p>Reduce infant mortality inequity, improve the preterm birth rate, decrease sleep-related infant deaths</p>
<p>C Expand capacity to offer the <i>Centering Pregnancy</i> group prenatal care model to expecting mothers and market the program to community members</p>	<p>Improve the preterm birth rate, increase pregnancy spacing, reduce preterm birth inequity</p>
<p>D Outreach events like Community Baby Showers provide health information to families in specific high-risk geographical areas and encourage enrollment in supportive evidence-based programs</p>	<p>Improve the number of mothers who receive adequate prenatal care</p>
<p>E Provide safe sleep education for all families within childbirth classes and the Hillcrest Hospital Family Maternity Center Through partnerships with <i>Cribs for Kids</i> and the <i>Fatherhood Initiative</i>, provide cribs or pack & play cribs to families in need</p>	<p>Reduce SIDS rates</p>
<p>F Partner with the Cleveland Metropolitan Housing Authority to offer an Infant Mortality Awareness and Prevention Program</p>	<p>Reduce infant mortality inequity</p>

Socioeconomic Concerns

Hillcrest Hospital’s 2019 CHNA demonstrated that health needs are multifaceted, involving medical as well as socioeconomic concerns. The assessment identified poverty, health equity, trauma, and other social determinants of health as significant concerns. Poverty has substantial 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. The Centers for Disease Control and Prevention define social determinants of health as the “circumstances in which people are born, grow up, live, work and age that affect their health outcome.”

Hillcrest Hospital is committed to promoting health equity and healthy behaviors in our communities. The hospital addresses socioeconomic concerns through a variety of services and initiatives including cross-sector health and economic improvement collaborations, local hiring for hospital workforce, local supplies sourcing, mentoring of community residents, in-kind donation of time and sponsorships, anchor institution commitment, and caregiver training for inclusion and diversity. The socioeconomic initiatives highlighted for 2020 – 2022 include:

Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
<p>A Implement a system-wide social determinants screening tool for patients to identify needs such as alcohol abuse, depression, financial strain, food insecurity, intimate partner violence, and stress</p>	<p>Connect patients with substance abuse treatment, mental health treatment, and assistance with basic needs; reduce trauma and harm associated with violence</p>
<p>B Explore a common community referral data platform to coordinate services and ensure optimal communication</p>	<p>Improve active referrals to community-based organizations, non-profits, and other healthcare facilities; track referral outcomes</p>
<p>C Pilot patient navigation programming within a partnership pathway HUB model using community health workers and/or the co-location of community organizations with hospital facilities</p>	<p>Ensure connection to medical, social, and behavioral services; Improve health equity</p>
<p>D Participate in the Robert Wood Johnson Foundation (RWJF) <i>Cross-Sector Innovation Initiative Project</i> in Cuyahoga County which aims to impact structural racism across various sectors</p>	<p>Improve health equity, improve trust in providers</p>

Socioeconomic Concerns (continued)

Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
<p>E Sponsor and participate in <i>Say Yes to Education Cleveland</i>, a consortium focused on increasing education levels, fostering population growth, improving college access and spurring economic growth</p>	<p>Increase the number of individuals with a living wage, increase the number of individuals with employer-sponsored health insurance</p>
<p>F Provide workforce development and training opportunities for youth K-12 in clinical and non-clinical areas, empowering Northeast Ohio's next generation of leaders</p>	<p>Increase diversity within the healthcare workforce, improve trust in providers, improve local provider shortages</p>
<p>G Provide transportation on a space-available basis to 1) patients within 5 miles of the Stephanie Tubbs Jones Health Center and Marymount, Euclid, Lutheran, and South Pointe Hospitals and 2) radiation oncology patients within 25 miles of Cleveland Clinic Main Campus, Hillcrest, and Fairview Hospitals</p>	<p>Prevent missed appointments, increase preventative and well-visit attendance, improve treatment adherence</p>

V. OTHER IDENTIFIED NEEDS

In addition to the community health needs identified in the CHNA, the hospital's 2019 CHNA also identified the needs of Access to Affordable Healthcare and Medical Research and Professions Education.

Access to Affordable Health Care

Access to affordable health care is challenging for some residents, particularly to primary care, mental health, dental care, and addiction treatment services. Access barriers are many and include cost, poverty, inadequate transportation, a lack of awareness regarding available services, and an undersupply of providers. Cleveland Clinic continues to evaluate methods to improve patient access to care.

All Cleveland Clinic hospitals will continue to provide medically necessary services to all patients regardless of race, color, creed, gender, country of national origin, or ability to pay. [Cleveland Clinic Financial Assistance](#). Initiatives include:

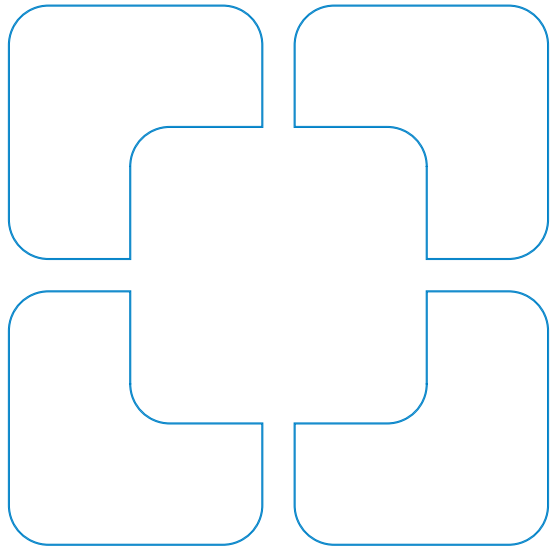
Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
A Patient Financial Advocates assist patients in evaluating eligibility for financial assistance or public health insurance programs	Increase the proportion of eligible individuals who are enrolled in various assistance programs
B Provide parking vouchers to Emergency Department patients on campuses where parking fees are assessed	Reduce patient costs associated with emergency care
C Provide walk-in care at Express Care Clinics and offer evening and weekend hours	Improve the number of patients who receive the right level of care
D Utilizing medically secure online and mobile platforms, connect patients with Cleveland Clinic providers for telehealth and virtual visits	Overcome geographical and transportation barriers, improve access to specialized care

Medical Research and Health Professions Education

Cleveland Clinic cares for our communities by discovering tomorrow’s treatments and educating future caregivers. Cures for disease and provision of quality health care are part of Cleveland Clinic’s mission. Cleveland Clinic has been named among America’s best employers for diversity by *Forbes* magazine for three years running. The diversity of our caregivers is a key strength that helps us better serve patients, each other, and our communities. We are committed to enhancing the diversity of our teams to deepen these connections. Initiatives include:

Initiatives Including Collaborations and Resources Allocated	Anticipated Impacts
<p>A Through medical research, advance clinical techniques, devices, and treatment protocols in the areas of cancer, heart disease, diabetes, and others</p>	<p>Improve treatment efficacy, reduced morbidity and mortality</p>
<p>B Through population health research, inform clinical interventions, healthcare policy, and community partnerships</p>	<p>Inform health policy at the local, state, and national levels, improve clinical protocols, create cost-savings, improve population health outcomes</p>
<p>C Sponsor high-quality medical education training programs for physicians, nurses, and allied health professionals</p>	<p>Reduce provider shortages</p>

For more information regarding Cleveland Clinic Community Health Needs Assessments and Implementations Strategy Reports, please visit www.clevelandclinic.org/CHNARReports or contact CHNA@ccf.org .



clevelandclinic.org/CHNAreports