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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Introduction

This Community Health Needs Assessment (CHNA) was conducted by Cleveland Clinic Fairview Hospital ("Fairview" or "the hospital") to identify significant community health needs, to inform development of an Implementation Strategy to address current needs and to evaluate the impact of ongoing efforts to address previously identified community needs.

Fairview Hospital is a community hospital with 451 licensed beds. Fairview is a fully accredited hospital by The Joint Commission, with a certified Level II Trauma Center. Cleveland Clinic Cancer Center at Fairview Hospital Moll Pavilion, located directly across the street from the main building, is part of the Integrated Network Cancer Program and has been awarded the Outstanding Achievement Award by the American College of Surgeons, Commission on Cancer. Additional information on the hospital and its services is available at: http://my.clevelandclinic.org/locations_directions/Regional-Locations/Fairview-hospital.

The hospital is part of the Cleveland Clinic health system, which includes an academic medical center, multiple regional hospitals, two children's hospitals, a rehabilitation hospital, a Florida hospital, and a number of other facilities and services across Northeast Ohio and Florida. Additional information about Cleveland Clinic is available at: https://my.clevelandclinic.org/.

Each Cleveland Clinic hospital is dedicated to the communities it serves. Cleveland Clinic hospitals verify the health needs of communities by performing periodic health needs assessments. These formal assessments are analyzed using widely accepted criteria to determine and measure the health needs of a specific community.

Community Definition

For purposes of this report, Fairview's community is defined as 20 ZIP codes in Cuyahoga and Lorain counties in Ohio comprising over 75 percent of the hospital's inpatient volumes. This area has comparatively unfavorable health status and socioeconomic indicators, particularly for minority residents. The total population of Fairview's community in 2015 was 452,963. The Fairview Community includes the City of Lakewood, ZIP 44107. A detailed report for the city of Lakewood is attached at Appendix A.

EXECUTIVE SUMMARY

The following map portrays the community served by Fairview.



Significant Community Health Needs

Six significant community health needs were identified through this assessment:

- 1. Access to Affordable Healthcare
- 2. Chronic Diseases and Other Health Conditions
- 3. Economic Development and Community Conditions
- 4. Health Professions Education and Research
- 5. Healthcare for the Elderly
- 6. Wellness

Based on an assessment of secondary data (a broad range of health status and access to care indicators) and of primary data (received through key stakeholder interviews), the following were identified as significant health needs in the community served by Fairview. The needs are presented below in alphabetical order, along with certain highlights regarding why each issue was identified as "significant."

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Access to Affordable Health Care

Access to basic health care is challenging for some segments of the Fairview community
who are unaware of how to access and use available services and who experience other
access barriers including cost and inadequate transportation. The Fairview community
has comparatively unfavorable socioeconomic indicators, particularly in medically
underserved areas. The recent election of the new president raises questions regarding
whether access improvements associated with the Affordable Care Act will be sustained.

Chronic Diseases and Other Health Conditions

 Chronic diseases and other health conditions including, in alphabetical order: cancer, chemical dependency, communicable diseases (including sexually transmitted infections), diabetes, heart disease, hypertension, obesity, poor birth outcomes, poor mental health status, and respiratory diseases were identified as prevalent in the Fairview community.

Economic Development and Community Conditions

• Several areas within the Fairview community lack adequate social services and experience high rates of poverty, unemployment, and crime.

Health Professions Education and Research

• There is a need for more trained health professionals in the community, particularly primary care physicians, mental health providers, and dentists. Research conducted by Cleveland Clinic, has improved health for community members through advancements in new clinical techniques, devices and treatment protocols in diseases and health conditions such as cancer, heart disease, diabetes, and others. There is a need for more research to address these and other community health needs.

Healthcare for the Elderly

• The elderly population in the Fairview community is expected to increase in the next five years and meeting the health and social service needs of the aging population is a significant issue.

Wellness

 Programs and activities that target behavioral health change were identified as needed in the Fairview community. Education and opportunities for residents regarding exercise, nutrition, and smoking cessation specifically were noted.

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. Each tax-exempt hospital facility must conduct a CHNA that identifies the most significant health needs in the hospital's community.

The regulations require that each hospital:

- Take into account input from persons representing the broad interests of the community, including those knowledgeable about public health issues, and
- Make the CHNA 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.

Tax-exempt hospital organizations also are required to report information about the CHNA process and about community benefits they provide on IRS Form 990, Schedule H. As described in the instructions to Schedule H, community benefits are programs or activities that provide treatment and/or promote health and healing as a response to identified community needs. Community benefit activities and programs also seek to achieve objectives, including:

- improving access to health services,
- enhancing public health,
- advancing increased general knowledge, and
- relief of a government burden to improve health.²

To be reported, community need for the activity or program must be established. Need can be established by conducting a Community Health Needs Assessment.

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?

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¹ Internal Revenue Code, Section 501(r).

² Instructions for IRS form 990 Schedule H, 2015.

OBJECTIVES AND METHODOLOGY

• Why are these problems present?

The question of *how* each hospital can address significant community health needs is the subject of the separate Implementation Strategy.

Methodology

Federal regulations that govern the CHNA process 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)." The community defined by Fairview accounts for over 75 percent of the hospital's 2014 inpatient discharges.

This assessment was conducted by Verité Healthcare Consulting, LLC. See Appendix B.

Secondary data from multiple sources were gathered and assessed. *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.

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 D.

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 other organizations, 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 E.

Collaborating Organizations

For this assessment, Fairview collaborated with the following Cleveland Clinic hospitals: Main Campus, Cleveland Clinic Children's, Akron General, Euclid, Hillcrest, Lodi, Lutheran, Marymount, Medina, South Pointe, Edwin Shaw Rehabilitation, and Cleveland Clinic Florida. Fairview also collaborated with Ashtabula County Medical Center and Glenbeigh.

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

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³ 501(r) Final Rule, 2014.

OBJECTIVES AND METHODOLOGY

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 23 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.

Information Gaps

This CHNA relies on multiple data sources and community input gathered between January 2016 and July 2016. A number of data limitations should be recognized when interpreting results. For example, some data (e.g., County Health Rankings, Community Health Status Indicators, Behavioral Risk Factors Surveillance System, and others) exist only at a county-wide level of detail. Those data sources do not allow assessing health needs at a more granular level of detail, such as by ZIP code or census tract.

Secondary data upon which this assessment relies measure community health in prior years. For example, the most recently available mortality data published by the Ohio Department of Health are from 2012. Others sources incorporate data from 2010. 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 conducted in the community. Differences in data sources, communities assessed (e.g., hospital service areas versus counties or cities), and prioritization processes can contribute to differences in findings.

Definition of Community Assessed

This section identifies the community that was assessed by Fairview. The community was defined by considering the geographic origins of the hospital's 2014 inpatient discharges.

On that basis, Fairview's community is comprised of 20 ZIP codes in Cuyahoga and Lorain counties (**Exhibit 1**) which in 2014 accounted for over 75 percent of its inpatient discharges.

Exhibit 1: Fairview Inpatient Discharges by ZIP Code, 2014

County	City	ZIP Code	Inpatient Cases (2014)	Percent of Total
Cuyahoga	Cleveland	44111	2,660	10.7%
Cuyahoga	Cleveland	44135	2,218	8.9%
Cuyahoga	North Olmsted	44070	1,611	6.5%
Cuyahoga	Rocky River	44116	1,119	4.5%
Cuyahoga	Lakewood	44107	1,344	5.4%
Cuyahoga	Cleveland	44102	1,172	4.7%
Cuyahoga	Cleveland	44126	1,130	4.5%
Cuyahoga	Westlake	44145	1,096	4.4%
Lorain	North Ridgeville	44039	876	3.5%
Cuyahoga	Olmsted Falls	44138	656	2.6%
Lorain	Avon Lake	44012	735	2.9%
Cuyahoga	Cleveland	44109	592	2.4%
Cuyahoga	Cleveland	44130	633	2.5%
Lorain	Avon	44011	627	2.5%
Cuyahoga	Bay Village	44140	583	2.3%
Cuyahoga	Brook Park	44142	425	1.7%
Cuyahoga	Cleveland	44144	449	1.8%
Cuyahoga	Cleveland	44134	342	1.4%
Cuyahoga	Cleveland	44129	309	1.2%
Cuyahoga	Berea	44017	307	1.2%
Subtotal			18,884	75.6%
Other Areas			6,082	24.4%
Total Discharges			24,966	100.0%

Source: Analysis of OHA Discharge Data, 2014.

The total population of this community in 2015 was approximately 594,000 persons (Exhibit 2).

Exhibit 2: Community Population, 2015

County	City	ZIP Code	Total Population 2015	Percent of Total Population 2015
Cuyahoga	Bay Village	44140	15,326	2.6%
Cuyahoga	Berea	44017	19,028	3.2%
Cuyahoga	Brook Park	44142	18,583	3.1%
Cuyahoga	Cleveland	44102	42,983	7.2%
Cuyahoga	Cleveland	44109	39,023	6.6%
Cuyahoga	Cleveland	44111	38,798	6.5%
Cuyahoga	Cleveland	44126	16,203	2.7%
Cuyahoga	Cleveland	44129	28,606	4.8%
Cuyahoga	Cleveland	44130	49,773	8.4%
Cuyahoga	Cleveland	44134	38,190	6.4%
Cuyahoga	Cleveland	44135	26,440	4.5%
Cuyahoga	Cleveland	44144	20,932	3.5%
Cuyahoga	Lakewood	44107	51,892	8.7%
Cuyahoga	North Olmsted	44070	32,418	5.5%
Cuyahoga	Olmsted Falls	44138	23,376	3.9%
Cuyahoga	Rocky River	44116	20,079	3.4%
Cuyahoga	Westlake	44145	32,983	5.6%
Lorain	Avon	44011	23,330	3.9%
Lorain	Avon Lake	44012	23,594	4.0%
Lorain	North Ridgeville	44039	31,940	5.4%
Community Total			593,497	100.0%

Source: Truven Market Expert, 2015.

The hospital is located in Cleveland, Ohio (ZIP code 44111). The map in **Exhibit 3** portrays the ZIP codes that comprise the Fairview community.

Fairview Hospital a k e E r i eCleve 44012 44140 Rocky River Westlake 44011 44145 Н 44109 44126 Lorain 44144 North Olmsted 44135 Cuyahoga Cuyahoga 44070 North Ridgeville 0 H I O Brook Park Parma 44138 44039 44130 44017 44129 North Royalton 44147 44028 44149 44136 44044 Strongsville 44233

Exhibit 3: Fairview Community

Source: Microsoft MapPoint and Cleveland Clinic, 2015.

Secondary Data Summary

The following section summarizes principal findings from the secondary data analysis. Appendix C provides more detailed information.

Demographics

Population characteristics and changes directly influence community health needs. The total population in the Fairview community is expected to remain relatively unchanged from 2015 to 2020. Between 2015 and 2020, 14 of the 20 ZIP codes in the Fairview community are projected to lose population. The populations in two Cleveland ZIP codes (44109 and 44102) are expected to decrease by approximately three percent.

While the total population is expected to decrease, the number of persons aged 65 years and older is projected to increase by 13.7 percent between 2015 and 2020. The growth of older populations is likely to lead to growing need for health services, since on an overall per-capita basis, older individuals typically need and use more services than younger persons.

In 2015, over 20 percent of the population in two ZIP codes on the eastern side of the community (44102 and 44135) was Black. In eight ZIP codes, this percentage was under 2 percent.

Cuyahoga County had a higher percentage of residents aged 25 years and older without a high school diploma than Ohio and United States averages. Compared to Ohio, Cuyahoga and Lorain counties had higher proportions of the population that are linguistically isolated.⁴

Economic Indicators

Many health needs have been associated with poverty. According to the U.S. Census, in 2014 approximately 15.9 percent of people in Ohio were living in poverty. At 18.5 percent, Cuyahoga County's poverty rate was higher than Ohio's poverty rate during that year. In Cuyahoga and Lorain counties, poverty rates have been comparatively high for Black and Hispanic (or Latino) residents. Low income census tracts are prevalent in the eastern portion of Fairview's community.

2014 crime rates in Cuyahoga County were well above Ohio averages.

The percentage of people uninsured has declined in recent years, due to two primary factors. First, between 2010 and 2015, unemployment rates at the local (Cuyahoga and Lake counties), state, and national level decreased significantly. Many receive health insurance coverage through their (or a family member's) employer. Second, in 2010 the Patient Protection and Affordable Care Act (ACA, 2010) was enacted, and Ohio was among the states that expanded Medicaid eligibility. In 2015, 18 out of the 20 ZIP codes in the Fairview community had

⁴ Linguistic isolation is defined as residents who speak a language other than English and speak English less than "very well."

uninsured rates below ten percent. By 2020, it is projected that this will increase to all of the 20 ZIP codes in the community.

Local Health Status and Access Indicators

In the 2016 *County Health Rankings*, Cuyahoga County ranked in the bottom 50th percentile among Ohio counties for 17 of the 27 indicators assessed. Of those 17 indicators ranking in the bottom 50th percentile, five of them ranked in the bottom quartile, including Quality of Life, Sexually Transmitted Infections, Social and Economic Factors, Inadequate Social Support, and Severe Housing Problems. Between 2013 and 2016, rankings for 13 indictors fell in Cuyahoga County.

Lorain County ranked in the bottom 50th percentile among Ohio counties for 9 of the 27 indicators assessed. Of those 9 indicators ranking in the bottom 50th percentile, four of them ranked in the bottom quartile, including Sexually Transmitted Infections, Inadequate Social Support, Physical Environment, and Severe Housing Problems. Between 2013 and 2016, rankings for 15 indicators fell in Lorain County. The following indicators underlying the rankings are comparatively unfavorable:

- Air pollution
- Average number of physically unhealthy days
- Binge and heavy drinking
- Chlamydia rate
- Diabetic screening
- Food environment index
- High school graduation rate
- Income inequality rate
- Percent of adults reporting fair or poor health
- Percent of adults with some post-secondary education
- Percent of children in poverty
- Percent of children living in a household headed by a single parent
- Percent of driving deaths with alcohol involvement
- Percent of households with severe housing problems
- Percent of live births with low birth weight
- Percent of the population unemployed
- Percent of the population without health insurance
- Percent of the workforce that drives to work alone
- Percent of workers with a long commute who drive alone
- Preventable hospital stays
- Social associations rate
- Teen birth rate
- Violent crime rate
- Years of potential life lost

In the 2015 *Community Health Status Indicators*, which compares community health indicators for each county with those for peers across the United States, the following indicators appear to be most significant:

- Mortality rates for Alzheimer's disease, cancer, chronic lower respiratory disease, and coronary heart disease
- Morbidity associated with Alzheimer's disease, gonorrhea, HIV, adult asthma, adult depression, and preterm births
- Rates of preventable hospitalizations for older adults
- The number of children living in single-parent households, high housing costs, poverty, and unemployment
- Annual average particulate matter concentration, housing stress, and living near highways

According to the Ohio Department of Health, age-adjusted mortality rates for heart disease, homicide, aortic aneurysm, HIV, and pedestrians killed in traffic collisions were all significantly higher in Cuyahoga County than the Ohio averages. In Lorain County, age-adjusted mortality rates for diabetes and motor vehicle collisions, including those with alcohol involvement, were also higher than the Ohio averages. Overall age-adjusted mortality and incidence rates for cancer in Cuyahoga County have been slightly above average.

Ohio Department of Health data also indicate that:

- The incidence of several communicable diseases has been particularly high in Cuyahoga County, including chlamydia, HIV, gonorrhea, and viral meningitis.
- Virtually all maternal and child health indicators (infant mortality rates, low birth weights, preterm births, and teen pregnancies) are comparatively problematic in Cuyahoga County.

Data from the Centers for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS) indicate comparatively high rates of asthma, obesity, COPD, and high blood pressure in several ZIP codes across the community.

Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (ACSCs) include fourteen health conditions we analyzed "for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease." 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.

We reviewed ACSC rates in the Fairview community for conditions and Fairview community rates have exceeded the Ohio averages for all but one condition (adult asthma). Rates for

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

congestive heart failure, angina without procedure, diabetes, hypertension, and urinary tract infection were particularly problematic.

Community Need Index

Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*TM (CNI) that measures barriers to health care access by county/city and ZIP code. 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

The CNI calculates a score for each ZIP code based on these indicators. Scores range from "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0).

The CNI indicates that three of the 20 ZIP codes in the Fairview community scored in the "highest need category." Cleveland ZIP code 44102 received a score of 5.0 – the highest score possible.

Food Deserts

The U.S. Department of Agriculture's Economic Research Service estimates the number of people in each census tract that live in a "food desert," defined as low-income areas more than one mile from a supermarket or large grocery store in urban areas and more than 10 miles from a supermarket or large grocery store in rural areas. Several locations within the Fairview community 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." There are approximately 27 census tracts in the hospital's community that 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. A number of census tracts have been designated to be HPSAs in the hospital's community – for primary care and for dental care.

Relevant Findings of Other CHNAs

The following community health needs were most frequently found to be significant in other, recently conducted community health needs assessments:

- Obesity
- Mental/Behavioral health
- Access to basic/primary health care
- Diabetes
- Cardiovascular/heart disease
- Tobacco use/smoking
- Drug/substance abuse
- Alcohol abuse and excessive drinking
- Elderly care/aging population
- Cancer
- Infant mortality (disparities)
- Access to dental care
- Access/lack of health insurance coverage
- Cost of care
- Poverty
- Transportation

The assessment prepared by the Cuyahoga County Health Improvement Partnership (2015) also highlighted issues with violence and health disparities/equity.

Primary Data Summary

The following community health issues were identified by interviewees as significant. The issues are presented based on the frequency with which they were mentioned.

Unhealthy Lifestyle and Related Conditions. Poor eating habits and physical inactivity were identified in nearly every interview as significant health concerns. Interviewees indicated that while both exercise facilities and affordable, healthy food options were accessible to the community, many residents lacked motivation to take advantage of these resources. Interviewees attributed the increasingly sedentary lifestyles of residents to job stress and a lack of time to exercise or prepare healthy meals. Unhealthy lifestyles are contributing to chronic disease in the community; obesity, diabetes/pre-diabetes, heart disease, and hypertension were the most often cited conditions. Interviewees expressed additional concern for the increasingly overweight youth population, stating that overweight children were likely to remain overweight as adults.

Access Issues. Interviewees cited the inability to access available resources as a barrier to improving community health outcomes. Lack of awareness of available services, lack of health insurance or of knowledge on its use, inadequate transportation, and providers not accepting Medicaid are some of the main barriers to access. Many interviewees indicated that social determinants of health were also a large barrier, and disproportionately affect the community's low socio-economic status groups, immigrant populations, those with language barriers, minority populations, elderly adults, and adolescents. Interviewees also stated that additional pediatric care services were needed in the community, particularly to address the needs of children with autism.

Substance Abuse. The abuse of prescription opiates and heroin were identified as significant health concerns by a majority of interviewees. While abuse was cited as a widespread issue, affecting individuals of every age and socioeconomic class, interviewees indicated that rates of abuse were increasing most rapidly among the adolescent population. Interviewees also stated that the increased presence of narcotics had resulted in higher rates of violence and crime in the community.

Conditions and Care of the Elderly. Aging well in the community was a top concern of many interviewees. With an aging population, many chronic conditions associated with elderly populations arose as areas of need. Interviewees also expressed concern for the rates of falls, Alzheimer's disease, and mental illness. The growth of this population means more resources will be needed, and respondents noted that there are not enough senior living facilities (especially for low-income seniors), a lack of providers accepting Medicare, challenges with transportation for seniors, and isolation among this population.

Mental Health and Access to Behavioral Health Services. A large majority of those interviewed identified poor mental health and challenges accessing behavioral health resources as a significant need in the community. A number of those interviewed mentioned that the stigma around mental health was negatively affecting the community. Groups that were identified as particularly prone to mental health concerns were adolescents, and those from low-

income families. Concerns were also raised regarding the type of mental health services that were accessible, including long-term mental health care, outpatient psychiatric care, and adolescent services. Long waiting lists for substance abuse rehabilitation centers were also brought up as a concern.

Smoking. Several interviewees identified smoking as a significant concern within the Fairview community. High smoking rates were attributed to a lack of motivation among community members to change their behavior in addition to a lack of smoking cessation programs. Lung cancer, asthma, and chronic obstructive pulmonary disease were cited as the primary consequences of the behavior.

Underutilization of Community Resources. Interviewees noted that an adequate number of health resources were present within the community, but that their utilization rates were very low. Transportation issues and limited and inconvenient hours of operation were among the most cited reasons for low participation rates. However, interviewees also believed that high levels of stress among the working class reduced their motivation and concern for wellness activities.

Communicable Diseases. The Fairview community was noted as having high rates of communicable diseases, including HIV/AIDS. Interviewees indicated that transmission of HIV was most likely to occur when needles were shared during intravenous drug use.

Cancer. Several interviewees identified cancer as a significant health concern within the Fairview community. While rates of all types of cancer were believed to be high, breast cancer was specifically mentioned as a top concern. Interviewees stated that many residents did not utilize available healthcare resources, including cancer screenings, which exacerbated the issue. Like many of the chronic diseases mentioned, cancer was viewed as a potentially preventable disease that could be avoided with behavior modification.

Prioritization Process

The following section highlights why certain community health needs were determined to be "significant." Needs were determined to be significant if they were identified as problematic by 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 other organizations (e.g., local Health Departments), and (3) the key informants who participated in the interview process.

Access to Affordable Health Care

Access to basic health care is challenging for some segments of the Fairview community who are unaware of how to access and use available services and who experience other access barriers including cost and inadequate transportation. The Fairview community has comparatively unfavorable socioeconomic indicators, particularly in medically underserved areas. The recent election of the new president raises questions regarding whether access improvements associated with the Affordable Care Act will be sustained.

- Federally-designated Medically Underserved Areas (MUAs) and Primary Care Health Professional Shortage Areas (HPSAs) are present in the community served by Fairview (Exhibits 33 and 34).
- Rates for ambulatory care sensitive conditions within the Fairview community were significantly higher than the Ohio averages (Exhibits 28 and 29). Disproportionately high rates 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.
- In Community Health Status Indicators (CHSI), Cuyahoga and Lorain counties rank poorly compared to peer counties for Older Adult Preventable Hospitalizations (Exhibit 21).
- Access to basic medical care was identified by nearly all interviewees as problematic. It
 was often cited that segments of the population rely excessively on emergency
 departments for primary care.

Chronic Diseases and Other Health Conditions

Chronic diseases and health conditions including, in alphabetical order, cancer, chemical dependency, communicable diseases (including sexually transmitted infections), diabetes, heart disease, hypertension, obesity, poor birth outcomes, poor mental health status, and respiratory diseases were identified as prevalent in the Fairview community.

Cancer

- O Data from the Ohio Department of Health indicate that Cuyahoga and Lorain counties had higher age-adjusted cancer incidence and mortality rates than the Ohio averages (Exhibits 23 and 24).
- O Several interviewees indicated that cancer was a significant concern in the Fairview community. Cancer was also identified as a significant concern in many other, recent health assessments.

• Chemical Dependency

- In County Health Rankings, Lorain County ranked 63rd out of 88 Ohio counties for Drug Overdose Deaths and Cuyahoga County ranked 52nd (**Exhibit 19**). Both counties compared unfavorably to Ohio for the percent of driving deaths with alcohol involvement (**Exhibit 20**).
- According to the 2014 Ohio Department of Health Drug Overdose Report, fentanyl drug seizures in the United States increased by 300 percent between 2013 and 2014. In 2014, fentanyl-related overdoses accounted for 19.9 percent of accidental overdoses, a significant rise from 4.0 percent in 2013. Additionally, the rate of heroin poisoning in Cuyahoga County was significantly higher than the Ohio average.
- O Abuse of opiates was cited as a significant health concern by many interviewees. More than half of the recent health assessments analyzed in this report identified chemical dependency as a significant health need.

• Communicable Diseases

- In County Health Rankings, Cuyahoga County and Lorain County ranked 87th and 71st, respectively, out of the 88 counties in Ohio for Sexually Transmitted Infections (Exhibit 19).
- According to the Ohio Department of Health, the age-adjusted mortality rate for HIV in Cuyahoga County was more than twice as high as the state average.
 Incidence rates for chlamydia, HIV, gonorrhea, and viral meningitis in Cuyahoga County were all significantly higher than the Ohio averages (Exhibits 22 and 25).
- o In Community Health Status Indicators, Cuyahoga and Lorain counties compared unfavorably to peer counties for gonorrhea rates. Lorain County also compared unfavorably to peer counties for morbidity related to HIV (Exhibit 21).

• Diabetes, Heart Disease, and Hypertension

- The age-adjusted mortality rate for Heart Disease in Cuyahoga County was significantly higher than the Ohio average (**Exhibit 22**).
- o ACSC rates for Congestive Heart Failure, Hypertension, Angina without Procedure, and Uncontrolled Diabetes were all significantly higher than the average ACSC rates in Ohio (Exhibit 29).
- In other, recent assessments, heart disease and diabetes were among the most frequently identified significant needs.

Obesity

o Federally-designated Food Deserts are present in the community served by Fairview (**Exhibit 32**). Lack of access to affordable healthy food options and high concentrations of fast food restaurants, may lead individuals (particularly those in lower socio-economic classes) to consume calorie dense, nutrient poor

- foods that lead to obesity. Chronic conditions such as hypertension and diabetes are much more prevalent among individuals who are obese.
- Interviewees indicated that health behaviors including poor eating habits and physical inactivity, which lead to obesity, were significant concerns in the Fairview community.

• Poor Birth Outcomes

- o In Community Health Status Indicators, Cuyahoga County benchmarked unfavorably to peer counties for Preterm Births (Exhibit 21).
- O Data from the Ohio Department of Health indicate that rates of infant mortality, low birth weights, and preterm births in Cuyahoga County have been significantly higher than the Ohio averages (**Exhibit 26**).
- o ACSC rates for Low Birth Weight were significantly higher than the Ohio average in the Fairview community (**Exhibit 28**).

• Poor Mental Health Status

- Cuyahoga County ranked 54th out of the 88 counties in Ohio for Frequent Mental Distress in County Health Rankings (Exhibit 19) and Lorain County compared unfavorably to peer counties for Older Adult Depression in Community Health Status Indicators (Exhibit 21).
- o Many interviewees identified mental illness, particularly among adolescent and senior populations, as a significant health concern. Interviewees stated that these populations often had trouble accessing mental health services and indicated that there was a positive correlation between mental and physical health.

• Respiratory Diseases

- In Community Health Status Indicators, Cuyahoga and Lorain counties benchmarked unfavorably to peer counties for Older Adult Asthma (Exhibit 21).
 Lorain County also benchmarked unfavorably for Chronic Lower Respiratory Disease Deaths.
- Behavioral Risk Factor Surveillance System data indicate that more than a third of ZIP codes in the Fairview community had higher rates of asthma than the average of the 21 counties in Northeast Ohio (Exhibit 27).

Economic Development and Community Conditions

Several areas within the Fairview community lack adequate social services and experience high rates of poverty, unemployment, crime, and adverse environmental conditions.

- Cuyahoga County has a higher poverty rate than both the Ohio and national averages (Exhibit 12).
 - Poverty rates among Black and Hispanic (or Latino) populations in Cuyahoga and Lorain counties are more than twice as high as the poverty rate of White residents.
 The poverty rate among Asian populations in Lorain County is also comparatively high (Exhibit 12).
 - o Federally-designated Low Income Areas are present in the community served by Fairview (**Exhibit 14**).
 - o In County Health Rankings, Cuyahoga County ranked 79th out of the 88 counties in Ohio for Social and Economic Factors, 59th for Unemployment, and 78th for

Inadequate Social Support. Lorain County ranked 52nd for Social and Economic Factors, 65th for Unemployment, and 70th for Inadequate Social Support (**Exhibit 19**).

- o According to the Community Need Index, three out of the 20 ZIP codes in Fairview's community scored in the "highest need category" (**Exhibit 30**).
- o A majority of interviewees identified economic and healthcare disparities among minority residents as significant community health issues.
- Crime rates in Cuyahoga County have been well above Ohio averages (Exhibit 18) and recent homicide rates have been nearly fifty percent higher than the Ohio average (Exhibit 22).
- In County Health Rankings, Lorain County ranked 77thth out of 88 counties in Physical Environment, 57th in Air Pollution, and 74th in Severe Housing Problems. Cuyahoga County ranked 61st in Physical Environment, 63rd in Air Pollution, and 87th in Severe Housing Problems (**Exhibit 19**).
- Other health assessments also identified transportation and environmental concerns as priorities.
- Interviewees identified a lack of transportation options as a significant barrier to good health in the community. This was especially true for low-income, elderly, and disabled residents.

Health Professions Education and Research

There is a need for more research to address these and other community health needs. 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 diseases and health conditions such as cancer, heart disease, and diabetes.

- Federally-designated Medically Underserved Areas and Primary Care and Dental Health Professional Shortage Areas are present in the community served by Fairview (**Exhibits 33 and 34**).
- A report conducted by the Robert Graham Center indicates that Ohio will need an
 additional 681 primary care physicians by 2030 (an eight percent increase) to maintain
 current levels of primary care access. Physicians nearing retirement age and increases in
 demand associated with increases in insurance coverage are expected to exacerbate this
 need.⁶
- Through research, Cleveland Clinic has advanced knowledge and improved community health for all its communities, from local to national, and across the world. Cleveland Clinic is involved in both basic research and clinical studies and seeks to translate discoveries into advanced treatments and cures for a variety of diseases and conditions. Cleveland Clinic's tripartite mission of patient care, research, and education facilitates bringing new therapies and treatments to patients and their providers, because Cleveland Clinic physicians provide quality clinical care closely integrated with the latest research

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⁶ 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.

and educational developments. Research is conducted at and in collaboration with all Cleveland Clinic hospitals. This allows patients to access the latest techniques and to enroll in research trials no matter where they access care in the health system.

Healthcare for the Elderly

The elderly population in the Fairview community is expected to increase in the next five years, and meeting the health and social service needs of the aging population is a significant issue.

- While the population in Fairview's community is projected to remain virtually unchanged between 2015 and 2020; the number of persons 65 years of age and older in the community is projected to increase by 13.7 percent over this period (**Exhibit 7**).
- In Community Health Status Indicators (CHSI), Cuyahoga and Lorain counties rank poorly compared to peer counties for Older Adult Preventable Hospitalizations. Lorain County also compared unfavorably to peer counties for Alzheimer's disease Deaths (Exhibit 21).
- Interviewees identified care of the elderly as a challenge in the community, including the need for more affordable healthcare and access to transportation. Concern was also raised about the number of seniors in the Fairview community suffering from mental illness.

Wellness

Programs and activities that target behavioral health change were identified as needed in the Fairview community. Education and opportunities for residents regarding exercise, nutrition, and smoking cessation specifically were noted.

- Federally-designated Food Deserts are present in the community served by Fairview (Exhibit 32). Lack of access to affordable healthy food options and high concentrations of fast food restaurants, may lead individuals (particularly those in lower socio-economic classes) to consume nutrient poor foods.
- Behavioral Risk Factor Surveillance System data show that 6 of the 20 ZIP codes in the Fairview community have significant percentages of residents who smoke compared to the average percent of the 21 counties in Northeast Ohio (**Exhibit 27**). Smoking was also identified as a significant concern by many interviewees.
- Interviewees indicated that there was a general lack of motivation among residents of the Fairview community to participate in activities that promoted health and wellness. Increased awareness of community resources and the importance of proper nutrition were noted as being needed.

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

This section identifies other facilities and resources available in the community served by Fairview 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 four FQHC sites operating in the Fairview community (**Exhibit 4**).

Exhibit 4: Federally Qualified Health Centers

Health Center	County	ZIP Code
Neighborhood Family Practice at Puritas	Cuyahoga	44135
Neighborhood Family Practice at West 117th	Cuyahoga	44111
Neighborhood Family Practice	Cuyahoga	44102
The Centers	Cuyahoga	44111

Source: Health Resources and Services Administration, 2016.

Hospitals

Exhibit 5 presents information on hospital facilities that operate in the community.

Exhibit 5: Hospitals

Hospital Name	Туре	Beds	ZIP Code	County
Fairview Hospital	General Hospital	488	44111	Cuyahoga
MetroHealth Medical Center- Main Campus	General Hospital	731	44109	Cuyahoga
Regency North Central Ohio- Cleveland West	Long-Term Acute Care	43	44130	Cuyahoga
Southwest General Health Center	General Hospital	358	44130	Cuyahoga
University Hospitals Parma Medical Center	General Hospital	332	44129	Cuyahoga
University Hospitals St. John Medical Center	General Hospital	221	44145	Cuyahoga
Cleveland Clinic Rehabilitation	Rehabilitation	60	44011	Lorain

Source: Ohio Hospital Association, 2016.

Other Community Resources

A wide range of agencies, coalitions, and organizations that provide health and social services is available in the region served by Fairview. 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

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

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/.

This Appendix contains a community health needs review that was conducted by the Cleveland Clinic to identify significant community health needs for the residents of Lakewood, OH. The Appendix is organized into the following sections:

- Introduction and Methodology
- Definition of the Community Assessed
- Summary of Community Health Needs
- Summary of Lakewood Community Health Data
- Summary of Cuyahoga County Health Data
- Summary of Community Input (Interviews)
- Profile of Available Community Resources
- Lakewood Community Health Data Exhibits

INTRODUCTION AND METHODOLOGY

This review was conducted as part of the 2016 Fairview CHNA, pursuant to the Master Agreement among the City of Lakewood, Lakewood Hospital Association, and the Cleveland Clinic dated as of December 21, 2015.

The vision of the parties to the Master Agreement is to invest in comprehensive outpatient-based health care services, wellness activities and outreach services for Lakewood that are rooted in population health management principles and supported by a comprehensive health system, the Cleveland Clinic health system.

While the Lakewood Family Health Center (FHC) is not yet fully operational, this first health needs report is a component of the Cleveland Clinic's ongoing monitoring process and evaluation of the health care needs of Lakewood residents as it operates the Lakewood Family Health Center (FHC).

Consistent with the methodology for the Fairview CHNA, secondary data from multiple sources were reviewed and assessed for the Lakewood community. Some data were available at a ZIP code level of detail. Other data were available at a county level of detail. Because Lakewood represents under five percent of the total population of Cuyahoga County, caution is advised when applying county-wide findings specifically to the Lakewood community. Input on community health needs also was received through key informant interviews, including those representing the City, community leaders, and those with special knowledge or expertise in public health.

DEFINITION OF THE COMMUNITY ASSESSED

For purposes of this review, the Lakewood community was defined as ZIP code 44107. Data from the Ohio Hospital Association indicate that Cleveland Clinic hospitals admit significant numbers of residents from Lakewood. For example,

- Over five percent (1,344) of Cleveland Clinic Fairview Hospital's total discharges in 2014 were from residents of ZIP code 44107; that ZIP code was in the top five (of 20 ZIP codes) in the hospital's community.
- Over five percent (415) of Cleveland Clinic Lutheran Hospital's total discharges in 2014 were from ZIP code 44107, making 44107 in the top three (of 23 ZIP codes) in the hospital's community.
- In addition, over 600 discharges for Cleveland Clinic Main Campus (including the Cleveland Clinic Children's Hospital) originated in ZIP code 44107.

Exhibit 1 portrays the location of ZIP code 44107 within Cuyahoga County.



Exhibit 1: Location of ZIP Code 44107 (Lakewood)

Source: Microsoft MapPoint and Cleveland Clinic, 2015.

In 2015, the total population of Lakewood was approximately 52,000 persons (**Exhibit 2**). Cuyahoga County was comprised of 1.3 million people, and northeast Ohio (a 21-county region) of 4.4 million people.

Exhibit 2: Community Population, 2015

Region	Estimated Population 2015
Lakewood (44107)	51,892
Cuyahoga County	1,262,784
Northeast Ohio	4,416,746

Source: Truven Market Expert, 2015.

SUMMARY OF COMMUNITY HEALTH NEEDS

Based on the following community health needs review, the following appear to be the most significant community health needs in Lakewood.

- Access to affordable healthcare
 - o Particularly for low-income residents and for the growing population 65 years of age and older.
- Economic Development and Community Conditions
 - o Socioeconomic concerns for a number of census tracts in Lakewood and in surrounding ZIP codes.
 - o County-wide problems with crime
- Chronic Diseases and Other Health Conditions
 - Comparatively high rates of diabetes, smoking, and asthma, and of preventable admissions for diabetes, chronic obstructive pulmonary disease, and congestive heart failure.
 - County-wide problems sexually transmitted diseases, maternal and child health, and cancer
- Health Professions Education
 - o The presence of nearby Health Professional Shortage Areas.

Many of these Lakewood-specific needs also were found by the CHNAs conducted by Cleveland Clinic Fairview Hospital, Cleveland Clinic Lutheran Hospital, and other Cleveland Clinic hospital facilities which include Lakewood within the communities they serve.

SUMMARY OF LAKEWOOD COMMUNITY HEALTH DATA

Community health data reviewed for Lakewood (ZIP code 44107 and associated census tracts) indicate the following:

• The total population in Lakewood is expected to decrease 0.2 percent from 2015 to 2020; however, the number of persons aged 65 years and older is projected to increase by over 20 percent during this time.

- At 16.2 percent, Lakewood's poverty rate was above the Ohio average but was lower than the rate for Cuyahoga County. Poverty rates in Lakewood, Cuyahoga County, and Ohio have been comparatively high for Black and Hispanic (or Latino) residents.
- A number of low-income census tracts are present in ZIP code 44107.
- In 2015, approximately 7.4 percent of Lakewood's population were uninsured. By 2020, it is projected that less than five percent of the population will be uninsured. This largely should occur due to continued impacts of health reform and favorable economic trends.
- Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*TM (CNI) that measures factors contributing to barriers to health care access by county/city and ZIP code on a scale of 1 to 5, with 5 representing the highest need. In Lakewood, the average CNI was 3.4, indicating that it was a "high need" area. Cuyahoga County as a whole also is considered "high need" based on its average CNI.
- 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. The BRFSS data show that compared to Northeast Ohio averages, Lakewood has comparatively high rates of diabetes, asthma, and smoking.
- The review included analyzing the frequency of hospital admissions for "ambulatory care sensitive conditions" (ACSCs). There are fourteen such 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." 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. Disproportionately high rates of discharges for ACSC indicate potential problems with the availability or accessibility of ambulatory care and preventive services and can suggest opportunities for improvement.

Lakewood ACSC rates are above the Ohio average for:

- o Diabetes long term complications, and uncontrolled diabetes.
- o Chronic Obstructive Pulmonary Disease.
- o Congestive Heart Failure.
- o Dehydration.
- o Bacterial Pneumonia.
- o Urinary Tract Infection.
- o Angina without Procedure.

⁷Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

- According to data available from the U.S. Department of Agriculture, no "food deserts" currently are present in Lakewood.
- As with Medically Underserved Areas, no Health Professional Shortage Areas (HPSAs) currently are present in ZIP code 44107; however, several exist just east of Lakewood both for primary care health professionals and for dentists.

Exhibits documenting the above findings are provided in the last section of this Appendix.

SUMMARY OF CUYAHOGA COUNTY HEALTH DATA

Community health data reviewed for Cuyahoga County indicate the following. As previously mentioned, because Lakewood represents under five percent of the total population of Cuyahoga County, caution is advised when applying county-wide findings specifically to the Lakewood community. Exhibits and additional detail regarding these data are available in the CHNA report for Cleveland Clinic Fairview Hospital.

- According to the U.S. Bureau of Labor Statistics, between 2010 and 2015, unemployment rates at the county, state, and national level decreased significantly. In 2015, the unemployment rate in Cuyahoga County was higher than both the state and national rates.
- According to the FBI, 2014 crime rates in Cuyahoga County were well above the Ohio average.
- According to County Health Rankings for 2016, Cuyahoga County ranked in the bottom 50th percentile among Ohio counties for 17 of the 27 indicators assessed. Of the 17 indicators, five ranked in the bottom quartile, including Quality of Life, Sexually Transmitted Infections, Social and Economic Factors, Inadequate Social Support, and Severe Housing Problems.

Data underlying the County Health Rankings indicate that the following community health indicators have been unfavorable for Cuyahoga County:

- o Air pollution
- o Average number of physically unhealthy days
- o Binge and heavy drinking
- o Chlamydia rate
- o Income inequality rate
- o Percent of adults reporting fair or poor health
- o Percent of children in poverty
- o Percent of children living in a household headed by a single parent
- o Percent of driving deaths with alcohol involvement

- o Percent of households with severe housing problems
- o Percent of live births with low birth weight
- o Percent of the population unemployed
- o Percent of the population without health insurance
- o Percent of workers with a long commute who drive alone
- Social associations rate
- Teen birth rate
- Violent crime rate
- Years of potential life lost
- The Centers for Disease Control publishes Community Health Status Indicators (CHSI), which benchmarks community health indicators for a given county against indicators for a set of peer counties. Peer counties share common characteristics, including demographics, population density, urban/rural status, and others. The CHSI data indicate that cancer and coronary heart disease mortality rates and morbidity associated with Alzheimer's disease, gonorrhea, adult asthma, and preterm births are comparatively high in Cuyahoga County, as are older adult preventable hospitalizations. Indicators for children in single-parent households and air quality also benchmark unfavorably.
- The Ohio Department of Health publishes a variety of county-level health indicators, along with comparisons to state-wide averages. According to these data:
 - In Cuyahoga County, age-adjusted mortality rates for heart disease, homicide, aortic aneurysm, HIV, and pedestrians killed in traffic collisions were all higher than the Ohio averages.
 - The age-adjusted stomach cancer mortality rate in Cuyahoga County was significantly higher than the Ohio average. Cancer mortality rates for breast, prostate, pancreas, uterus, liver and intrahepatic bile duct, multiple myeloma, oral cavity and pharynx, cervix, larynx, and testis cancer also were higher than the state averages.
 - O Incidence rates for prostate, breast, colon and rectum, uterus, Non-Hodgkin's Lymphoma, kidney and renal pelvis, thyroid, pancreas, leukemia, ovary, brain and other CNS, stomach, liver and intrahepatic bile duct, multiple myeloma, testis, esophagus, larynx, and Hodgkin's Lymphoma in Cuyahoga County have exceeded Ohio averages.
 - o Cuyahoga County has had comparatively high incidence rates of communicable diseases including chlamydia, HIV, gonorrhea, and viral meningitis.

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⁸ Cuyahoga peer counties include: Alexandria (VA), Allegheny (PA), Alameda (CA), Bexar (TX), Clark (NV), Dallas (TX), Davidson (TN), Denver (CO), Duval (FL), Erie (NY), Franklin (OH), Fulton (GA), Hamilton (OH), Harris (TX), Hartford (CT), Hennepin (MN), Hillsborough (FL), Jackson (MO), Jefferson (AL), Jefferson (KY), King (WA), Maricopa (AZ), Marion (IN), Mecklenburg (NC), Monroe (NY), Multnomah (OR), Oklahoma (OK), Orange (CA), Orange (FL), Pinellas (FL), Ramsey (MN), Richmond (NY), Riverside (CA), Sacramento (CA), Salt Lake (UT), San Diego (CA), San Francisco (CA), Santa Clara (CA), Tarrant (TX), Travis (TX), and Virginia Beach (VA). Additional information about peer counties is available at http://wwwn.cdc.gov/CommunityHealth/.

 A number of maternal and child health indicators have been unfavorable for Cuyahoga County, including: infant mortality rates, low birth weights, and preterm births.

SUMMARY OF COMMUNITY INPUT (INTERVIEWS)

Interviews were conducted with individuals knowledgeable about community health needs in Lakewood. Individuals from the following organizations were interviewed: Lakewood City Government, the Lakewood Fire Department, North Coast Health (Lakewood), and the Lakewood City Schools. These interviewees emphasized the following points as significant. The issues are presented based on the frequency with which they were mentioned.

Access to Care. Each cited a lack of access to certain healthcare services as a significant need in Lakewood, particularly for uninsured, underinsured, and immigrant populations. Lack of awareness of available services, certain insurance gaps, transportation, and providers not accepting Medicaid were identified as some of the principal access barriers. These individuals specifically mentioned primary care, dental care, vision, and specialty care services as being most challenging to access. They also indicated that high costs of medications and co-payments have made it difficult for many individuals to comply with follow-up care.

Chronic Conditions. Chronic conditions associated with obesity, including heart disease, hypertension, and diabetes were cited as problematic in Lakewood. Interviewees stated that obesity is widespread and is caused primarily by two factors: physical inactivity and poor nutrition. Although the city is very walkable, many Lakewood residents live sedentary lifestyles and do not focus on wellness. Physical inactivity among youth residents is particularly problematic and has resulted in an increased proportion of diabetic children in the community. Poor diets result from the high cost and inconvenience of accessing healthy food. The city also has a number of low-income households headed by a single parent. Many of these individuals work multiple jobs and are unable to purchase and prepare healthy meals.

Mental Health and Behavioral Health Services. Interviewees mentioned high rates of mental illness in Lakewood, particularly for low income populations. An abundance of affordable, single person rental units in Lakewood has attracted individuals with mental illness. High rates of depression, anxiety, bipolar disorder, and schizophrenia specifically were mentioned. Interviewees also stated mentally ill individuals tend to have comparatively high rates of chronic disease. Concerns also were raised about a need for additional mental health services, including long-term and outpatient psychiatric care. Long waiting lists for substance abuse rehabilitation services also were identified as problematic.

Transportation. Interviewees indicated that a number of low-income, senior, immigrant, and disabled Lakewood residents lack access to reliable transportation. Interviewees described this as a serious concern that creates barriers to individuals accessing important community health resources. Several expressed regret that the Lakewood's former shuttle service had been shut down in recent years. The city's bus line was described as inadequate.

Respiratory Diseases. Interviewees also identified respiratory diseases as a significant health concern in Lakewood. High rates of chronic obstructive pulmonary disease and asthma were attributed to high smoking rates and exposure to second-hand smoke. Within Lakewood schools, an increasing number of students require monitoring for severe cases of asthma.

Alcohol and Substance Abuse. Excessive drinking and abuse of heroin and prescription opioids were identified as serious health concerns in Lakewood. The issues were cited as being widespread and affecting individuals of all ages and socioeconomic status. However, interviewees identified correlations between poverty, unemployment, and chemical dependency. The city's current drug rehabilitation services lack the capacity to address these issues effectively.

Needs of the Elderly. Meeting the health needs of the senior population in Lakewood also was identified as a significant concern. As this population grows, the need for healthcare services will as well. In addition to heart disease, diabetes, and other chronic diseases, the elderly population suffers from high rates of Alzheimer's disease and injuries from falls. Lakewood was described as being a challenging place for seniors to live, as it lacks adequate senior living facilities and transportation services.

During the community health needs assessments conducted for Cleveland Clinic Fairview Hospital, Cleveland Clinic Lutheran Hospital, and other hospitals in the Cleveland Clinic Health System, interviewees identified a number of significant community health needs. These needs, which are more fully described, for example, in the Fairview CHNA include:

- Unhealthy Lifestyle and Related Conditions.
- Access to Care.
- Substance Abuse.
- Conditions and Care of the Elderly.
- Mental Health and Access to Behavioral Health Services.
- Smoking.
- Underutilization of Community Resources.
- Communicable Diseases.
- Cancer.

PROFILE OF AVAILABLE COMMUNITY RESOURCES

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

Hospitals

There are four hospitals most proximate to Lakewood, including two operated by Cleveland Clinic Health System.

Exhibit 3: Hospitals Proximate to ZIP Code 44107

Hospital Name	Туре	Beds	ZIP Code	County
Fairview Hospital	General Hospital	488	44111	Cuyahoga
Lutheran Hospital	General Hospital	203	44113	Cuyahoga
MetroHealth Medical Center- Main Campus	General Hospital	731	44109	Cuyahoga
University Hospitals St. John Medical Center	General Hospital	221	44145	Cuyahoga

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. While there currently are no FQHC sites operating in Lakewood, there are five FQHC sites nearby.

Exhibit 4: FQHCs Proximate to ZIP Code 44107

Health Center	County	ZIP Code
Clinic at Riverview Towers	Cuyahoga	44113
Neighborhood Family Practice at Tremont	Cuyahoga	44113
Neighborhood Family Practice at Puritas	Cuyahoga	44135
Neighborhood Family Practice at West 117th	Cuyahoga	44111
Neighborhood Family Practice	Cuyahoga	44102
The Centers	Cuyahoga	44111

Exhibit 5 portrays the locations of hospitals and FQHCs most proximate to Lakewood.

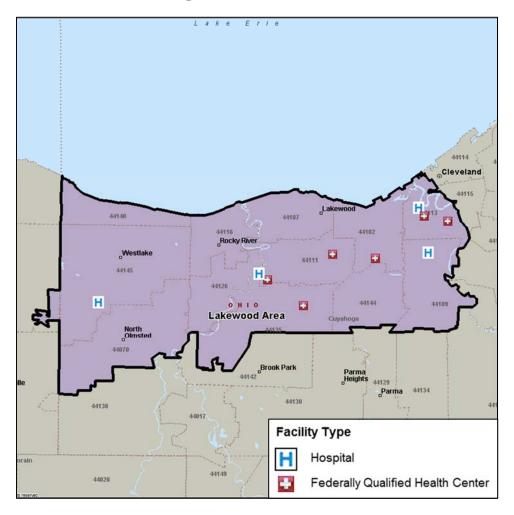


Exhibit 5: Hospitals Proximate to ZIP Code 44107

Other Community Resources

A wide range of agencies, coalitions, and organizations that provide health and social services is available in the region served by Lakewood. 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/.

LAKEWOOD COMMUNITY HEALTH DATA EXHIBITS

This section provides a number of tables and maps that include community health data for Lakewood, including certain benchmark data for Cuyahoga County, Northeast Ohio, and the state.

Demographics

Population characteristics and changes directly influence community health needs. The total population in Lakewood is expected to decrease 0.2 percent from 2015 to 2020 (**Exhibit 6**).

Exhibit 6: Percent Change in Community Population by Region

Region	Estimated Population 2015	Projected Population 2020	Percent Change 2015- 2020	
Lakewood (44107)	51,892	51,785	-0.2%	
Cuyahoga County	1,262,784	1,249,392	-1.1%	
Northeast Ohio	4,416,746	4,401,190	-0.4%	

Source: Truven Market Expert, 2015.

In percentage terms, the projected population decline for Lakewood is less than Cuyahoga County and Northeast Ohio.

Exhibit 7 shows Lakewood's population for certain age and sex cohorts in 2015, with projections to 2020.

Exhibit 7: Percent Change in Population by Age/Sex Cohort, 2015-2020

Age/Sex Cohort	Lakewood (44107) Estimated Population 2015	Lakewood (44107) Projected Population 2020	Lakewood (44107) Percent Change 2015-2020	Cuyahoga County Percent Change 2015-2020	Northeast Ohio Percent Change 2015-2020
0-17	10,136	10,067	-0.7%	-4.5%	-4.8%
Female 18-44	10,774	10,178	-5.5%	-2.0%	-0.7%
Male 18-44	10,920	10,224	-6.4%	-0.2%	0.6%
45-64	13,502	13,408	-0.7%	-6.5%	-5.5%
65+	6,560	7,908	20.5%	12.4%	13.0%
Total	51,892	51,785	-0.2%	-1.1%	-0.4%

Source: Truven Market Expert, 2015.

In Lakewood, the number of persons aged 65 years and older is projected to increase by over 20 percent between 2015 and 2020. All other age groups are expected to decrease in population. The 65 years of age and older age cohort also is expected to grow across Cuyahoga County and Northeast Ohio. The growth of older populations is likely to lead to growing need for health services, since on an overall per-capita basis, older individuals typically need and use more services than younger persons.

Exhibit 8 illustrates the racial composition of Lakewood, Cuyahoga County, and Northeast Ohio.

Exhibit 8: Percent of Population, by Race/Ethnicity, 2015

Region	Estimated Population 2015	% White	% Black	%Asian	%Hispanic	% All Others
Lakewood (44107)	51,892	83.2%	7.1%	2.1%	4.9%	2.7%
Cuyahoga County	1262784	60.2%	29.3%	2.9%	5.5%	2.2%
Northeast Ohio	4,416,746	78.8%	13.6%	1.6%	3.8%	2.1%

Source: Truven Market Expert, 2015.

Compared to Cuyahoga County and Northeast Ohio, Lakewood has had a lower proportion of Black residents. Lakewood also has had a lower proportion of Hispanic (or Latino) residents compared to Cuyahoga County.

People in Poverty

Many health needs have been associated with poverty. According to the U.S. Census, in 2014 approximately 15.9 percent of people in Ohio were living in poverty. At 16.2 percent, Lakewood's poverty rate was above the Ohio rate, but lower than the Cuyahoga County rate in 2014 (**Exhibit 9**).

19.0% 18.5% 18.5% 18.0% 17.5% 17.0% 16.5% 16.2% 15.9% 16.0% 15.6% 15.5% 15.0% 14.5% 14.0% Lakewood (44107) Ohio **United States** Cuyahoga County

Exhibit 9: Percent of People in Poverty, 2014

Source: U.S. Census, ACS 5-Year Estimates, 2010-2014.

Considerable variation in poverty rates has been present across racial and ethnic categories, in Lakewood, Cuyahoga County, and Ohio (Exhibit 10).

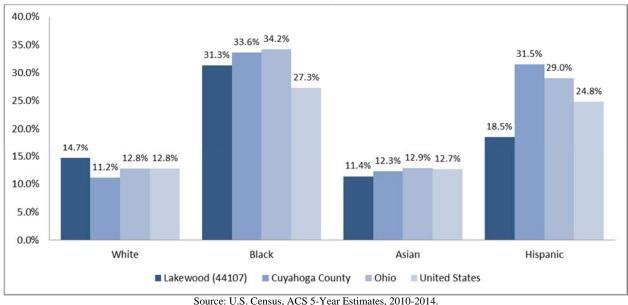


Exhibit 10: Poverty Rates by Race and Ethnicity, 2014

Poverty rates in Lakewood, Cuyahoga County, and Ohio have been comparatively high for Black and Hispanic (or Latino) residents. The poverty rate for White residents of Lakewood has exceeded Cuyahoga County, Ohio, and national rates.

Exhibit 11 portrays (in green shading) the locations of low income census tracts in and proximate to Lakewood. The U.S. Department of Agriculture defines "low income census

tracts" as areas where poverty rates are 20 percent or higher or where median family incomes are 80 percent or lower than within the metropolitan area.



Exhibit 11: Low Income Census Tracts

Source: US Department of Agriculture Economic Research Service, ESRI, 2015.

A number of low income census tracts have been present in ZIP code 44107.

Eligibility for the National School Lunch Program

Schools participating in the National School Lunch Program are eligible to receive financial assistance from the United States Department of Agriculture (USDA) to provide free or reduced-price meals to low-income students. Schools with 40 percent or more of their student body considered low-income are eligible for school-wide Title I funding, designed to ensure that that students have improved access to healthy food and thus meet grade-level proficiency standards.

Exhibit 12 illustrates the locations of the schools with at least 40 percent of the students eligible for free or reduced price lunch.

Lakewood

44107
Lakewood

44111

% Free/Reduced Lunch

80 to 100%

60 to 79%

Exhibit 12: Public Schools with over 40 Percent of Students Eligible for Free or Reduced-Price Lunches, School Year 2014-2015

Source: Ohio Department of Education, 2014.

40 to 59%

There are nine schools in Lakewood where at least 40 percent of students are eligible for free or reduced price lunches. At one school, over 80 percent of students are considered low-income.

Insurance Status

Exhibit 13 presents the estimated percent of population in Lakewood, Cuyahoga County, and Ohio who lack health insurance (uninsured).

Exhibit 13: Percent of the Population without Health Insurance, 2015-2020

Region	Total Population 2015	% Uninsured 2015	Total Population 2020	% Uninsured 2020
Lakewood (44107)	51,892	7.4%	51,785	4.6%
Cuyahoga County	1,262,784	7.0%	1,249,392	4.7%
Northeast Ohio	4,414,992	6.0%	4,399,142	4.1%

Source: Truven Market Expert, 2015.

In 2015, approximately 7.4 percent of Lakewood's population were uninsured. By 2020, it is projected that less than five percent of the population will be uninsured. This largely should occur due to continued impacts of health reform and favorable economic trends.

Ohio Medicaid Expansion

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. Medicaid expansion accounted for over 76 percent of Ohio's ACA enrollment and plans purchased through the federal healthcare.gov exchange accounted for about 24 percent.⁹

In Ohio, Medicaid primarily is available for low-income individuals, pregnant women, children, low-income elderly persons, and individuals with disabilities. With a network of more than 83,000 providers, the Ohio Department of Medicaid covers over 2.9 million Ohio residents. Across the United States, uninsured rates have fallen most in states that decided to expand Medicaid. Medicaid.

Dignity Health Community Need Index

Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*TM that measures barriers to health care access by county/city and ZIP code. 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; and
- The percentage of the population renting houses.

The *Community Need Index*TM calculates a score for each ZIP code based on these indicators. Scores range from "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0).

⁹ http://watchdog.org/237980/75percent-ohio-obamacare/

 $^{^{10}\} http://medicaid.ohio.gov/FOROHIOANS/WhoQualifies.aspx$

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

Exhibit 14 presents the *Community Need Index*TM (CNI) score of each ZIP code in the Lakewood community.

Exhibit 14: Community Need IndexTM Score by ZIP Code, 2015

Region	CNI Score
Lakewood (44107)	3.4
Cuyahoga County	3.4
Northeast Ohio	3.0

Source: Dignity Health, 2015.

In Lakewood, the average CNI was 3.4, indicating that it was a "high need" area. Cuyahoga County as a whole also is considered "high need" based on its average CNI.

Behavioral Risk Factor Surveillance System

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.

BRFSS data were assessed for ZIP code 44107 and compared to the averages for the 21 counties in Northeast Ohio (**Exhibit 15**).

Exhibit 15: Behavioral Risk Factor Surveillance System, Chronic Conditions, 2015 (Light grey shading indicates worse than the 21-County average)

Region	Total Population 18+2015	% Obese	% Back Pain	% Diabetes	% Asthma	% Depresssion	% High Blood Pressure	% High Cholesterol	%COPD	% Smoking
Lakewood (44107)	41,633	31.2%	23.6%	14.2%	11.9%	14.9%	24.7%	18.2%	4.7%	30.8%
Cuyahoga County	990,489	30.8%	23.0%	13.3%	11.4%	13.8%	30.6%	22.0%	4.5%	27.7%
21-County Average	3,454,621	31.7%	25.6%	14.0%	11.6%	15.1%	30.6%	24.1%	4.7%	27.5%

Source: Truven Market Expert/Behavioral Risk Factor Surveillance System, 2015.

Compared to 21-County averages, Lakewood has comparatively high rates of diabetes, asthma, and smoking.

Ambulatory Care Sensitive Conditions

This section examines the frequency of discharges for Ambulatory Care Sensitive Conditions (ACSCs, frequently referred to as Prevention Quality Indicators or PQIs) in the community.

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." 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.

Exhibit 16 provides 2014 PQI rates (per 100,000 persons) for Lakewood – with comparisons to Ohio averages. The PQI rates have not been age/sex-adjusted.

¹²Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

Exhibit 16: PQI (ACSC) Rates per 100,000, 2014 (Light grey shading indicates worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

PQI 5: PQI 1: **PQI 3:** PQI 2: **PQI 9:** Chronic **PQI 8:** Diabetes Diabetes Long-**PQI 7: Perforated Low Birth** Region Obstructive Congestive **Short-Term** Hypertension Term **Heart Failure** Weight **Appendix Pulmonary** Complications Complications Disease

129

175

135

119

785

927

692

609

30

76

53

53

591

559

485

424

52

78 66

61

Region	PQI 10: Dehydration	PQI 11: Bacterial Pneumonia	PQI 12: Urinary Tract Infection	PQI 13: Angina without Procedure	PQI 14: Uncontrolled Diabetes	PQI 15: Adult Asthma	PQI 16: Lower- Extremity Amputation Among Patients with Diabetes
Lakewood (44107)	117	206	149	21	25	11	7
Cuyahoga County	131	179	142	13	19	43	12
Northeast Ohio	125	187	131	11	14	37	10
Ohio	107	196	131	12	13	36	9

Source: Cleveland Clinic, 2014. Note: Rates are not age-sex adjusted.

Lakewood ACSC rates are above the Ohio average for:

91

118

95

95

33

37

35

37

- Diabetes long term complications, and uncontrolled diabetes.
- Chronic Obstructive Pulmonary Disease.
- Congestive Heart Failure.
- Dehydration.

Lakewood (44107)

Cuyahoga County

Northeast Ohio

Ohio

- Bacterial Pneumonia.
- Urinary Tract Infection.
- Angina without Procedure.

Exhibit 17 provides the ratio of PQI rates for Lakewood 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.

Exhibit 17: Ratio of PQI Rates for Lakewood and Ohio, 2014

Indicator	Lakewood (44107)	Ohio	Ratio: Lakewood/ Ohio
Uncontrolled Diabetes	25.3	13.2	1.9
Angina without Procedure	21.1	11.7	1.8
Congestive Heart Failure	590.7	423.8	1.4
Chronic Obstructive Pulmonary Disease	784.7	608.8	1.3
Urinary Tract Infection	148.8	131.5	1.1
Dehydration	117.4	107.2	1.1
Diabetes Long-Term Complications	129.3	118.8	1.1
Bacterial Pneumonia	205.7	196.2	1.0
Diabetes Short-Term Complications	91.0	94.7	1.0
Perforated Appendix	33.3	36.9	0.9
Low Birth Weight	52.1	61.4	0.8
Lower-Extremity Amputation Among Patients with Diabetes	7.2	8.9	0.8
Hypertension	29.5	52.6	0.6
Adult Asthma	11.1	36.0	0.3

Source: Cleveland Clinic, 2014. Note: Rates are not age-sex adjusted.

In Lakewood, ACSC rates for angina without procedure and uncontrolled diabetes were nearly twice as high as the Ohio averages. Admissions for the two most prevalent conditions – congestive heart failure and chronic obstructive pulmonary disease also have been well above average.

Food Deserts

The U.S. Department of Agriculture's Economic Research Service estimates the number of people in each census tract that live in a "food desert," defined as low-income areas more than one mile from a supermarket or large grocery store in urban areas and more than 10 miles from a supermarket or large grocery store in rural areas. Many government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these food deserts. According to the USDA, there are no food deserts located in Lakewood.

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.¹³ Areas with a score of 62 or less are considered "medically underserved."

11

¹³ Heath Resources and Services Administration. See http://www.hrsa.gov/shortage/mua/index.html

Populations receiving MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. If a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP 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."¹⁴

No census tracts in Lakewood have been designated as Medically Underserved Areas. However, a number of such areas are proximate to ZIP code 44107 (**Exhibit 18**).

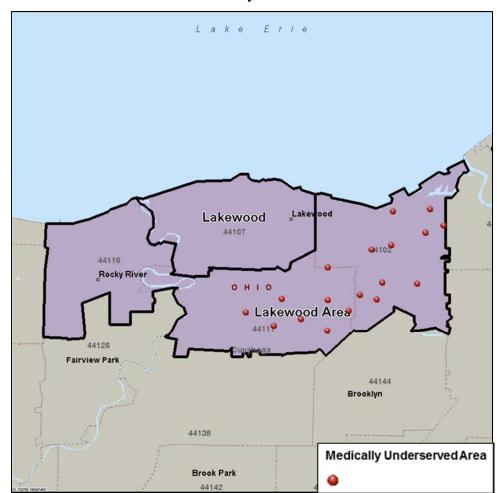


Exhibit 18: Medically Underserved Areas

Source: Microsoft MapPoint and HRSA, 2015.

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

 $^{^{14}}Ibid.$

be present. In addition to areas and populations that can be designated as HPSAs, a health care facility can receive federal HPSA designation and an additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental, or mental health services.

HPSAs can be: "(1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility." ¹⁵

As with Medically Underserved Areas, no HPSAs are present in ZIP code 44107; however, several are present just east of Lakewood – both for primary care health professionals and for dentists (**Exhibits 19 and 20**).

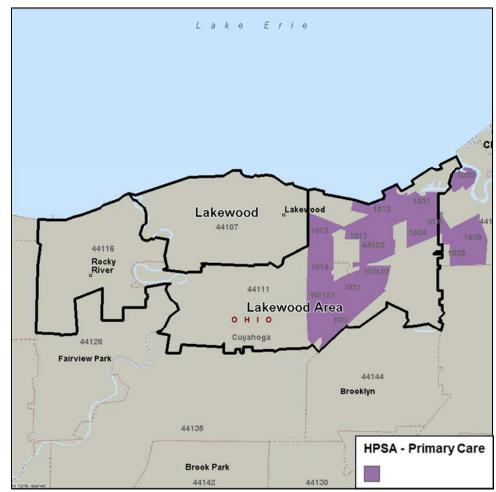


Exhibit 19: Primary Care Health Professional Shortage Areas

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Source: Health Resources and Services Administration, 2015.

¹⁵ 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

Exhibit 20: Dental Care Health Professional Shortage Areas

Source: Health Resources and Services Administration, 2015.

APPENDIX B – CONSULTANT QUALIFICATIONS

APPENDIX B - 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 health care providers conduct Community Health Needs Assessments and develop Implementation Strategies to address significant health needs. Verité has conducted more than 50 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.

This section presents an assessment of secondary data regarding health needs in the Fairview community.

Community Assessed

As mentioned previously and shown in **Exhibit 1**, Fairview's community is comprised of 20 ZIP codes in Cuyahoga and Lorain counties in Ohio.

Demographics

Population characteristics and changes directly influence community health needs. The total population in the Fairview community is expected to remain relatively unchanged from 2015 to 2020 (**Exhibit 6**).

Exhibit 6: Percent Change in Community Population by ZIP Code

County	City	ZIP Code	Estimated Population 2015	Projected Population 2020	Percent Change 2015-2020
Cuyahoga	Bay Village	44140	15,326	15,137	-1.2%
Cuyahoga	Berea	44017	19,028	18,972	-0.3%
Cuyahoga	Brook Park	44142	18,583	18,178	-2.2%
Cuyahoga	Cleveland	44102	42,983	41,674	-3.0%
Cuyahoga	Cleveland	44109	39,023	38,011	-2.6%
Cuyahoga	Cleveland	44111	38,798	37,939	-2.2%
Cuyahoga	Cleveland	44126	16,203	16,012	-1.2%
Cuyahoga	Cleveland	44129	28,606	28,283	-1.1%
Cuyahoga	Cleveland	44130	49,773	49,334	-0.9%
Cuyahoga	Cleveland	44134	38,190	37,694	-1.3%
Cuyahoga	Cleveland	44135	26,440	26,444	0.0%
Cuyahoga	Cleveland	44144	20,932	20,809	-0.6%
Cuyahoga	Lakewood	44107	51,892	51,785	-0.2%
Cuyahoga	North Olmsted	44070	32,418	32,052	-1.1%
Cuyahoga	Olmsted Falls	44138	23,376	24,310	4.0%
Cuyahoga	Rocky River	44116	20,079	19,938	-0.7%
Cuyahoga	Westlake	44145	32,983	33,389	1.2%
Lorain	Avon	44011	23,330	25,147	7.8%
Lorain	Avon Lake	44012	23,594	24,552	4.1%
Lorain	North Ridgeville	44039	31,940	33,748	5.7%
Community	Total	T M 1	593,497	593,408	0.0%

Source: Truven Market Expert, 2015.

Between 2015 and 2020, 14 of the 20 ZIP codes in the community are projected to decrease in population size. The populations in Lorain ZIP codes 44011 and 44039 are expected to increase by more than five percent.

Exhibit 7 shows the community's population for certain age and sex cohorts in 2015, with projections to 2020.

Exhibit 7: Percent Change in Population by Age/Sex Cohort, 2015-2020

Age/Sex Cohort	Estimated Population 2015	Projected Population 2020	Percent Change 2015-2020
0-17	129,872	126,681	-2.5%
Female 18-44	99,869	97,497	-2.4%
Male 18-44	99,168	97,080	-2.1%
45-64	166,497	160,630	-3.5%
65+	98,091	111,520	13.7%
Total	593,497	593,408	0.0%

Source: Truven Market Expert, 2015.

The number of persons aged 65 years and older is projected to increase by 13.7 percent between 2015 and 2020. All other age groups are expected to decrease in population. The growth of older populations is likely to lead to growing need for health services, since on an overall percapita basis, older individuals typically need and use more services than younger persons.

Exhibit 8 illustrates the percent of the population 65 years of age and older in the community by ZIP code.

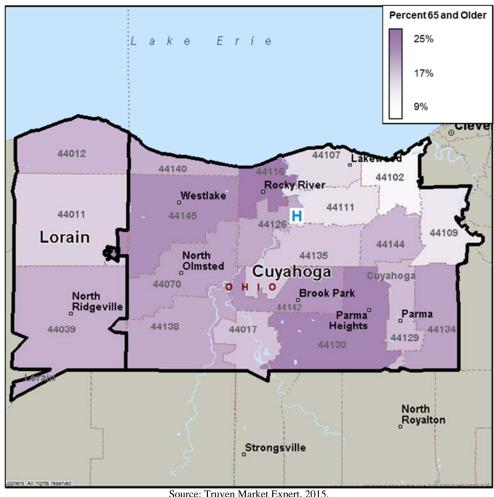


Exhibit 8: Percent of Population Aged 65+ by ZIP Code, 2015

Source: Truven Market Expert, 2015.

In the community, ZIP codes 44116, 44130, and 44145 had the highest proportions of residents 65 years of age and older.

Exhibits 9 and 10 show locations in the community where the percentages of the population that are Black and Hispanic (or Latino) were highest in 2015.

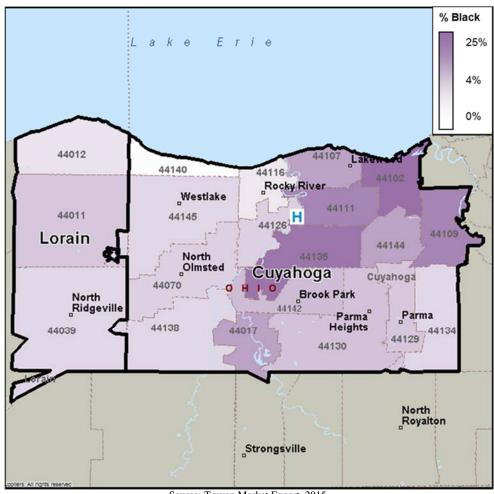


Exhibit 9: Percent of Population - Black, 2015

Source: Truven Market Expert, 2015.

Over twenty percent of residents of ZIP codes 44102 and 44135 were Black. Less than two percent of residents were Black in ZIP codes 44126, 44134, 44138, 44145, 44039, 44012, 44116, and 44140.

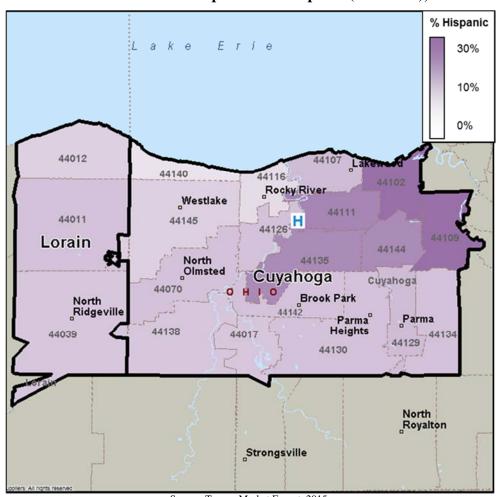


Exhibit 10: Percent of Population – Hispanic (or Latino), 2015

Source: Truven Market Expert, 2015.

The percentage of residents that are Hispanic (or Latino) was highest in ZIP codes 44102 and 44109.

Data regarding residents without a high school diploma, with a disability, and who are linguistically isolated are presented in **Exhibit 11** for Cuyahoga and Lake counties, Ohio, and the United States.

Exhibit 11: Other Socioeconomic Indicators, 2014

Measure	Cuyahoga County	Lorain County	Ohio	United States
Population 25+ without High School Diploma	12.1%	10.8%	11.2%	13.6%
Population with a Disability	14.3%	14.1%	13.5%	12.3%
Population Linguistically Isolated	4.1%	2.6%	2.4%	8.6%

Source: U.S. Census, ACS 5-Year Estimates, 2010-2014.

Exhibit 11 indicates that:

- Cuyahoga County had a higher percentage of residents aged 25 years and older without a high school diploma than the Ohio average.
- Cuyahoga and Lorain counties had a higher percentage of the population with a disability compared to Ohio and United States averages.
- Compared to Ohio, Cuyahoga and Lorain 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 categories of economic indicators with implications for health were assessed: (1) people in poverty; (2) unemployment rate; (3) insurance status; and (4) crime.

People in Poverty

Many health needs have been associated with poverty. According to the U.S. Census, in 2014 approximately 15.9 percent of people in Ohio were living in poverty. Cuyahoga County's poverty rate was higher than Ohio's poverty rate during that year (**Exhibit 12**).

20.0% 18.5% 18.0% 15.9% 15.6% 16.0% 14.6% 14.0% 12.0% 10.0% 8.0% 6.0% 4.0% 2.0% 0.0% Cuyahoga County **Lorain County** Ohio **United States**

Exhibit 12: Percent of People in Poverty, 2014

Source: U.S. Census, ACS 5-Year Estimates, 2010-2014.

Considerable variation in poverty rates is present across racial and ethnic categories, in Cuyahoga County, Lorain County, and Ohio (**Exhibit 13**).

45.0% 39.9% 40.0% 34.2% 33.6% 35.0% 31.5% 29.5% 29.0% 30.0% 27.3% 24.8% 25.0% 20.0% 17.4% 15.0% 12.8% 12.8% 12.9% 12.7% 12.3% 11.2% 11.1% 10.0% 5.0% 0.0% White Black Hispanic Asian ■ Lorain County Cuyahoga County Ohio United States

Exhibit 13: Poverty Rates by Race and Ethnicity, 2014

Source: U.S. Census, ACS 5-Year Estimates, 2010-2014.

Poverty rates in Cuyahoga and Lorain counties and Ohio have been comparatively high for Black residents. The poverty rates for Hispanic (or Latino) residents of Cuyahoga and Lorain counties exceeded the Ohio average. The poverty rate for Asian residents of Lorain County also exceeded the Ohio average.

Exhibit 14 portrays (in green shading) the locations of low income census tracts in the community. The U.S. Department of Agriculture defines "low income census tracts" as areas where poverty rates are 20 percent or higher or where median family incomes are 80 percent or lower than within the metropolitan area.



Exhibit 14: Low Income Census Tracts

Source: US Department of Agriculture Economic Research Service, ESRI, 2015.

Low income census tracts have been prevalent in Fairview's community, particularly in Cuyahoga County.

Eligibility for the National School Lunch Program

Schools participating in the National School Lunch Program are eligible to receive financial assistance from the United States Department of Agriculture (USDA) to provide free or reduced-price meals to low-income students. Schools with 40 percent or more of their student body receiving this assistance are eligible for school-wide Title I funding, designed to ensure that students meet grade-level proficiency standards.

Exhibit 15 illustrates the locations of the schools with at least 40 percent of the students eligible for free or reduced price lunch.

% Free/Reduced Lunch a k e Erie 80 to 100% 60 to 79% 40 to 59% 44012 44140 Rocky Ri er Westlake 44145 44011 Н Lorain North Olmsted Cuyahoga 44070 North Ridgeville OHIO rook Parma Park 44138 44130 44017 North 44147 Royalton 44028 44149 44136 44044 Strongsville 44233

Exhibit 15: Public Schools with over 40 Percent of Students Eligible for Free or Reduced-Price Lunches, School Year 2014-2015

Source: Ohio Department of Education, 2014.

There are 49 schools within the Fairview community where at least 40 percent of students are eligible for free or reduced price lunches.

Unemployment

Unemployment is problematic because many residents receive health insurance coverage through their (or a family member's) employer. If unemployment rises, access to employer based health insurance can decrease. **Exhibit 16** shows unemployment rates for 2010 through 2015 for Cuyahoga and Lorain counties, with Ohio and national rates for comparison.

12.0% 10.3% 10.0% 8.8% 8.9% 8.1% 7.1% ^{7.4%} 8.0% 7.5% 7.5% 7.4% 7.1% 6.2% 6.0% 5.5% 5.4% 5.3% 4.0% 2.0% 0.0% 2010 2011 2012 2014 2015 2013 ■ Lorain County ■ Ohio ■ United States ■ Cuyahoga County

Exhibit 16: Unemployment Rates, 2010-2015

Source: Bureau of Labor Statistics, 2010-2014.

Between 2010 and 2015, unemployment rates at the local (Cuyahoga and Lorain counties), state, and national level decreased significantly. In 2015, the unemployment rates in Cuyahoga and Lorain counties were higher than both the state and national rates.

Insurance Status

Exhibit 17 presents the estimated percent of populations in the Cuyahoga and Lorain counties without health insurance (uninsured), by ZIP code.

Exhibit 17: Percent of the Population without Health Insurance, 2015-2020

County	City	ZIP Code	Households	Total Population 2015	% Uninsured 2015	Total Population 2020	% Uninsured 2020
Cuyahoga	Bay Village	44140	6,137	15,326	2.8%	15,137	2.0%
Cuyahoga	Berea	44017	7,533	19,028	4.5%	18,972	3.0%
Cuyahoga	Brook Park	44142	7,680	18,583	4.9%	18,178	3.4%
Cuyahoga	Cleveland	44102	17,653	42,983	11.2%	41,674	7.3%
Cuyahoga	Cleveland	44109	16,137	39,023	10.0%	38,011	6.5%
Cuyahoga	Cleveland	44111	16,824	38,798	7.4%	37,939	4.7%
Cuyahoga	Cleveland	44126	7,388	16,203	4.8%	16,012	3.2%
Cuyahoga	Cleveland	44129	12,117	28,606	5.7%	28,283	3.7%
Cuyahoga	Cleveland	44130	22,642	49,773	5.2%	49,334	3.4%
Cuyahoga	Cleveland	44134	16,338	38,190	5.9%	37,694	3.9%
Cuyahoga	Cleveland	44135	11,253	26,440	7.6%	26,444	5.0%
Cuyahoga	Cleveland	44144	9,593	20,932	6.8%	20,809	4.4%
Cuyahoga	Lakewood	44107	25,768	51,892	7.4%	51,785	4.6%
Cuyahoga	North Olmsted	44070	13,772	32,418	4.0%	32,052	2.7%
Cuyahoga	Olmsted Falls	44138	9,408	23,376	4.3%	24,310	3.0%
Cuyahoga	Rocky River	44116	9,356	20,079	4.5%	19,938	3.1%
Cuyahoga	Westlake	44145	14,101	32,983	3.4%	33,389	2.4%
Lorain	Avon	44011	8,177	23,330	4.0%	25,147	2.9%
Lorain	Avon Lake	44012	9,402	23,594	4.4%	24,552	3.2%
Lorain	North Ridgeville	44039	12,471	31,940	3.1%	33,748	2.1%

Source: Truven Market Expert, 2015.

In 2015, nine out of the 20 ZIP codes in the Fairview community had uninsured rates above five percent. By 2020, it is projected that three of the 20 ZIP codes in the community will have uninsured rates above ten percent.

Ohio Medicaid Expansion

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. Medicaid expansion accounted for over 76 percent of Ohio's ACA enrollment and plans purchased through the federal healthcare.gov exchange accounted for about 24 percent.¹⁶

In Ohio, Medicaid primarily is available for low-income individuals, pregnant women, children, low-income elderly persons, and individuals with disabilities.¹⁷ With a network of more than 83,000 providers, the Ohio Department of Medicaid covers over 2.9 million Ohio residents.

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¹⁶ http://watchdog.org/237980/75percent-ohio-obamacare/

¹⁷ http://medicaid.ohio.gov/FOROHIOANS/WhoQualifies.aspx

Across the United States, uninsured rates have fallen most in states that decided to expand Medicaid. 18

The recent election of the new president raises questions regarding whether access improvements associated with the Affordable Care Act will be sustained.

Crime

Exhibit 18 provides certain crime statistics for Cuyahoga and Lorain counties and Ohio.

Exhibit 18: Crime Rates by Type and County, Per 100,000, 2014 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Crime	Cuyahoga County	Lorain County	Ohio
Violent Crime	613.3	201.9	278.4
Property Crime	3,141.8	2,350.7	2,880.8
Murder	6.4	3.1	4.4
Rape	48.8	28.0	36.2
Robbery	362.1	99.4	129.2
Aggravated Assault	196.1	71.4	126.1
Burglary	966.2	830.5	786.5
Larceny	1,720.5	1,459.0	1,921.8
Motor Vehicle Theft	455.1	61.2	172.5
Arson	32.5	22.4	21.1

Source: FBI, 2014.

2014 crime rates in Cuyahoga County were well above the Ohio average for all crimes except larceny. Crime rates in Lorain County were above the Ohio average for burglary and arson.

Local Health Status and Access Indicators

This section assesses health status and access indicators for the Fairview community. Data sources include: (1) County Health Rankings, (2) the Centers for Disease Control's (CDC) Community Health Status Indicators, (3) the Ohio Department of Health, and (4) the 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.

¹⁸ See: http://hrms.urban.org/briefs/Increase-in-Medicaid-under-the-ACA-reduces-uninsurance.html

County Health Rankings

County Health Rankings, a University of Wisconsin Population Health Institute initiative funded by the Robert Wood Johnson Foundation, incorporates a variety of health status indicators into a system that ranks each county/city within each state in terms of "health factors" and "health outcomes." These health factors and outcomes are composite measures based on several variables grouped into the following categories: health behaviors, clinical care, ¹⁹ social and economic factors, and physical environment. ²⁰ County Health Rankings is updated annually. County Health Rankings 2016 relies on data from 2006 to 2015, with most data from 2010 to 2013.

Exhibit 19 presents 2013 and 2016 rankings for each available indicator category. Rankings indicate how the county ranked in relation to all 88 counties in the Ohio, with 1 indicating the most favorable rankings and 88 the least favorable. The table also indicates if rankings fell between 2013 and 2016.

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¹⁹A 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.

²⁰A composite measure that examines Environmental Quality, which measures the number of air pollution-particulate matter days and air pollution-ozone days, and Built Environment, which measures access to healthy foods and recreational facilities and the percent of restaurants that are fast food.

Exhibit 19: County Health Rankings, 2013 and 2016 (Light grey shading indicates indicator in bottom half of Ohio counties; Dark grey shading indicates in bottom quartile of Ohio counties)

	Cuyahoga County			Lo	Lorain County			
	2013	2016	Rank Change	2013	2016	Rank Change		
Health Outcomes	67	64		29	30	\downarrow		
Health Factors	45	53	\downarrow	42	41			
Length of Life	58	54		24	30	\downarrow		
Quality of Life	76	73		30	33	\downarrow		
Frequent Physical Distress	N/A	63		N/A	31			
Frequent Mental Distress	N/A	54		N/A	31			
Drug Overdose Deaths	N/A	52		N/A	63			
Health Behaviors	15	39	\downarrow	38	20			
Adult Smoking	16	18	\downarrow	27	15			
Adult Obesity	7	9	\downarrow	54	21			
Excessive Drinking	51	64	\downarrow	55	39			
Sexually Transmitted Infections	55	87	\downarrow	31	71	\downarrow		
Teen Births	3	51	\downarrow	28	29	\downarrow		
Clinical Care	7	5		22	29	\downarrow		
Primary Care Physicians	1	2	\downarrow	24	26	\downarrow		
Dentists	56	1		9	28	\downarrow		
Mental Health Providers	3	1		25	36	\downarrow		
Preventable Hospital Stays	36	34		50	62	\downarrow		
Diabetic Screening	69	62		61	38			
Social & Economic Factors	76	79	\downarrow	46	52	\downarrow		
Some College	10	9		19	24	\rightarrow		
Unemployment	15	59	\downarrow	15	65	\downarrow		
Inadequate Social Support	39	78	\downarrow	30	70	\downarrow		
Injury Deaths	1	30	\downarrow	6	15	\downarrow		
Physical Environment	36	61	\downarrow	83	77			
Air Pollution	66	63		59	57			
Severe Housing Problems	N/A	87		N/A	74			

Source: County Health Rankings, 2016.

In 2016, Cuyahoga County ranked in the bottom 50th percentile among Ohio counties for 17 of the 27 indicators assessed. Of those 17 indicators ranking in the bottom 50th percentile, five of them ranked in the bottom quartile, including Quality of Life, Sexually Transmitted Infections, Social and Economic Factors, Inadequate Social Support, and Severe Housing Problems. Between 2013 and 2016, rankings for 13 indictors fell in Cuyahoga County. Lorain County ranked in the bottom 50th percentile among Ohio counties for 9 of the 27 indicators assessed. Of those 9 indicators ranking in the bottom 50th percentile, four of them ranked in the bottom quartile, including Sexually Transmitted Infections, Inadequate Social Support, Physical Environment, and Severe Housing Problems. Between 2013 and 2016, rankings for 15 indicators fell in Lorain County.

Exhibit 20 provides	s data for each	underlying in	dicator of the	composite	categories	in the (County
Health Rankings. ²¹	The exhibit al	so includes na	ational averag	ges.			

 $^{^{21}\} County\ Health\ Rankings\ provides\ details\ about\ what\ each\ indicator\ measures,\ how\ it\ is\ defined,\ and\ data\ sources\ at\ http://www.countyhealthrankings.org/sites/default/files/resources/2013Measures_datasources_years.pdf$

Exhibit 20: County Health Rankings Data Compared to Ohio and U.S. Averages, 2016 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Indicator Category	Data	Cuyahoga County	Lorain County	Ohio	U.S.		
Health Outcomes							
Length of Life	Years of potential life lost before age 75 per 100,000 population	7,907.7	7,011.6	7,533.6	7,700.0		
	Percent of adults reporting fair or poor health	16.5	14.8	16.0	16.0		
Quality of life	Average number of physically unhealthy days reported in past 30 days	3.9	3.6	3.8	3.7		
Quality of Life	Average number of mentally unhealthy days reported in past 30 days	4.0	3.9	4.0	3.7		
	Percent of live births with low birthweight (<2500 grams)	10.5	7.6	8.6	8.0		
	Health Factors						
Health Behaviors							
Adult Smoking	Percent of adults that report smoking >= 100 cigarettes and currently smoking	18.3	18.2	19.2	18.0		
Adult Obesity	Percent of adults that report a BMI >= 30	28.6	29.9	30.5	31.0		
Food Environment Index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	6.6	7.2	6.9	7.2		
Physical Inactivity	Percent of adults aged 20 and over reporting no leisure-time physical activity	25.6	22.5	26.3	28.0		
Access to Exercise Opportunities	Percent of population with adequate access to locations for physical activity	95.6	88.7	83.2	62.0		
Alcohol Impaired Driving Deaths	Percent of driving deaths with alcohol involvement	45.3	49.5	35.3	30.0		
Excessive Drinking	Binge plus heavy drinking	18.2	17.1	17.9	17.0		
STDs	Chlamydia rate per 100,000 population	792.4	346.0	460.2	287.7		
Teen Births	Teen birth rate per 1,000 female population, ages 15-19	37.7	32.9	34.4	40.0		
Clinical Care							
Uninsured	Percent of population under age 65 without health insurance	13.3	12.2	13.0	17.0		
Primary Care Physicians	Ratio of population to primary care physicians	879:1	1692:1	1296:1	1990:1		
Dentists	Ratio of population to dentists	1028:1	2173:1	1713:1	2590:1		
Mental Health Providers	Ratio of population to mental health providers	402:1	1004:1	642:1	1060:1		
Preventable Hospital Stays	Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	64.7	74.0	64.9	60.0		
Diabetic Screening	Percent of diabetic Medicare enrollees that receive HbA1c monitoring	83.9	85.8	84.9	85.0		
Mammography Screening	Percent of female Medicare enrollees, ages 67-69, that receive mammography screening	65.0	66.0	60.0	61.0		

Source: County Health Rankings, 2016.

Exhibit 20: County Health Rankings Data Compared to Ohio and U.S. Averages, 2016 (continued) (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Indicator Category	Data	Cuyahoga County	Lorain County	Ohio	U.S.
	Health Factors				
Social & Economic Factors					
High School Graduation	Percent of ninth-grade cohort that graduates in four years	75.8	85.8	82.7	86.0
Some College	Percent of adults aged 25-44 years with some post-secondary education	68.4	62.8	63.4	56.0
Unemployment	Percent of population age 16+ unemployed but seeking work	6.4	6.6	5.7	6.0
Children in poverty	Percent of children under age 18 in poverty	30.0	21.7	22.7	23.0
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	5.6	4.4	4.8	4.4
Children in single-parent households	Percent of children that live in a household headed by single parent	44.9	37.2	35.4	32.0
Social Associations	Number of associations per 10,000 population	9.2	10.1	11.4	13.0
Violent Crime	Number of reported violent crime offenses per 100,000 population	559.8	225.6	307.2	199.0
Injury Deaths	Injury mortality per 100,000	59.1	55.2	62.7	74.0
Physical Environment		-		•	
Air Pollution	The average daily measure of fine particulate matter in micrograms per cubic meter (PM2.5) in a county	13.6	13.6	13.5	11.9
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	18.9	15.6	15.2	14.0
Drive Alone to Work	Percent of the workforce that drives alone to work	80.1	84.9	83.5	80.0
Long Commute- Drive Alone	Among workers who commute in their car alone, the percent that commute more than 30 minutes	31.9	34.5	29.4	29.0

Source: County Health Rankings, 2016

Exhibit 20 highlights the following comparatively unfavorable indicators:

- Years of potential life lost
- Percent of adults reporting fair or poor health
- Average number of physically unhealthy days
- Percent of live births with low birth weight
- Food environment index
- Percent of driving deaths with alcohol involvement
- Binge and heavy drinking
- Chlamydia rate
- Teen birth rate
- Percent of the population without health insurance
- Preventable hospital stays
- Diabetic screening
- High school graduation rate
- Percent of adults with some post-secondary education
- Percent of the population unemployed
- Percent of children in poverty
- Income inequality rate
- Percent of children living in a household headed by a single parent
- Social associations rate
- Violent crime rate
- Air pollution
- Percent of households with severe housing problems
- Percent of the workforce that drives to work alone
- Percent of workers with a long commute who drive alone

Community Health Status Indicators

The Centers for Disease Control and Prevention's *Community Health Status Indicators* provide health profiles for all 3,143 counties in the United States. Counties are assessed using 44 metrics associated with health outcomes including health care access and quality, health behaviors, social factors, and the physical environment.

The *Community Health Status Indicators* allows for a comparison of a given county to other "peer counties." Peer counties are assigned based on 19 variables including population size, population growth, population density, household income, unemployment, percent children, percent elderly, and poverty rates.

Exhibit 21 compares Cuyahoga and Lorain counties to their respective peer counties and cities and highlights community health issues found to rank in the bottom quartile of the counties included in the analysis.

Exhibit 21: Community Health Status Indicators, 2015 (Shading indicates indicator in bottom quartile compared to peer counties)

Category	Indicator	Cuyahoga County	Lorain County
	Alzheimer's Disease Deaths		
	Cancer Deaths		
	Chronic Kidney Disease Deaths		
	Chronic Lower Respiratory Disease (CLRD) Deaths		
	Coronary Heart Disease Deaths		
Mortality	Diabetes Deaths		
	Female Life Expectancy		
	Male Life Expectancy		
	Motor Vehicle Deaths		
	Stroke Deaths		
	Unintentional Injury (including motor vehicle)		
	Adult Diabetes		
	Adult Obesity		
	Adult Overall Health Status		
	Alzheimer's Disease/Dementia		
	Cancer		
Morbidity	Gonorrhea		
	HIV		
	Older Adult Asthma		
	Older Adult Depression		
	Preterm Births		
	Syphilis		
	Cost Barrier to Care		
Health Care Access	Older Adult Preventable Hospitalizations		
and Quality	Primary Care Provider Access		
	Uninsured		
	Adult Binge Drinking		
	Adult Female Routine Pap Tests		
Health Behaviors	Adult Physical Inactivity		
	Adult Smoking		
	Teen Births		
	Children in Single-Parent Households		
	High Housing Costs		
	Inadequate Social Support		
Social Factors	On Time High School Graduation		
	Poverty		
	Unemployment		
	Violent Crime		
	Access to Parks		
	Annual Average PM2.5 Concentration		
Physical	Drinking Water Violations		
Environment	Housing Stress		
	Limited Access to Healthy Food		
	Living Near Highways		

Source: Community Health Status Indicators, 2015.

The CHSI data indicate that Alzheimer's disease, cancer, chronic lower respiratory disease, and coronary heart disease mortality rates are comparatively high to peer counties. Morbidity associated with Alzheimer's disease, gonorrhea, HIV, adult asthma, older adult depression and preterm births are comparatively high, as are older adult preventable hospitalizations. Indicators for children in single-parent households, high housing costs, poverty, unemployment, annual average particulate matter concentration, housing stress, and living near highways also benchmark unfavorably.

Ohio Department of Health

The Ohio Department of Health maintains a data warehouse that includes county-level indicators regarding mortality rates (**Exhibits 22 and 23**), cancer incidence (**Exhibit 24**), communicable disease incidence (**Exhibit 25**), and maternal and child health indicators (**Exhibit 26**).

Exhibit 22 provides age-adjusted mortality rates for selected causes of death in 2012.

Exhibit 22: Selected Causes of Death, Age-Adjusted Rates per 100,000 Population, 2012 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Measure	Cuyahoga County	Lorain County	Ohio	Healthy People 2020
Heart Disease	213.9	175.1	191.4	-
Diabetes	23.3	26.4	26.1	-
Influenza and Pneomonia	12.0	12.1	15.4	-
Suicide	9.9	11.9	12.0	10.2
Motor Vehicle Collisions	3.4	9.1	9.0	12.4
Homicide	9.2	2.9	5.4	-
Motor Vehicle Collisions (Alcohol)	1.4	5.6	3.8	-
Aortic Aneurysm	3.8	3.3	3.7	-
HIV	2.7	0.5	1.3	-
Pedestrians Killed in Traffic Collisions	0.6	0.0	0.5	1.4

Source: Ohio Department of Health, 2012.

In Cuyahoga County, age-adjusted mortality rates for heart disease, homicide, aortic aneurysm, HIV, and pedestrians killed in traffic collisions were all higher than the Ohio averages. In Lorain County, age-adjusted mortality rates for diabetes and motor vehicle collisions (with and without alcohol involved) were also higher than the Ohio averages.

Exhibit 23: Age-Adjusted Cancer Mortality Rates per 100,000 Population, 2013 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Cancer Site/Type	Cuyahoga County	Lorain County	Ohio Rate	U.S. Rate
All Sites/Types	189.9	184.5	186.6	171.2
Lung and Bronchus	52.3	55.9	55.3	47.2
Breast (Female)	24.9	23.8	23.6	21.9
Prostate	27.4	18.6	22.0	21.4
Colon and Rectum	15.6	16.7	17.0	15.5
Pancreas	12.8	12.1	11.5	10.9
Ovary	7.4	7.7	7.9	7.7
Leukemia	7.0	6.7	7.3	7.0
Non-Hodgkin Lymphoma	6.4	7.1	6.9	6.2
Liver and Intrahepatic Bile Duct	6.4	4.2	5.3	6.0
Bladder	5.0	4.5	5.0	4.4
Esophagus	4.9	4.7	5.0	4.2
Uterus	6.5	6.8	4.9	4.4
Brain and Other CNS	4.0	5.2	4.5	4.3
Kidney and Renal Pelvis	4.1	4.3	4.3	3.9
Multiple Myeloma	3.7	3.5	3.5	3.3
Melanoma of Skin	2.1	2.9	3.0	2.7
Stomach	4.4	3.2	2.9	3.4
Cervix	3.0	3.1	2.6	2.3
Oral Cavity and Pharynx	3.1	1.7	2.5	2.5
Larynx	1.5	1.1	1.3	1.1
Thyroid	0.5	0.6	0.5	0.5
Hodgkin Lymphoma	0.4	0.4	0.4	0.4
Testis	0.4	-	0.3	0.3

Source: Ohio Department of Health, 2013.

The age-adjusted stomach cancer mortality rate in Cuyahoga County was significantly higher than the Ohio average. Cancer mortality rates for breast, prostate, pancreas, uterus, liver and intrahepatic bile duct, multiple myeloma, oral cavity and pharynx, cervix, larynx, and testis cancer were also higher than the state averages. In Lorain County, age-adjusted cancer mortality rates were higher than the Ohio averages for lung and bronchus, breast, pancreas, non-Hodgkin Lymphoma, uterus, brain and other CNS, stomach, cervix, and thyroid.

Exhibit 24 presents age-adjusted cancer incidence rates in the community.

Exhibit 24: Age-Adjusted Cancer Incidence Rates per 100,000 Population, 2008-2012 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Site/Type	Cuyahoga County	Lorain County	Ohio
Total	477.9	451.6	452.5
Prostate	116.3	102.2	101.7
Breast	71.4	67.0	67.6
Lung and Bronchus	64.3	68.3	67.4
Colon and Rectum	41.0	41.2	40.6
Other Sites/Types	37.9	34.9	35.8
Uterus	35.4	20.4	28.8
Bladder	19.9	21.8	22.1
Melanoma of Skin	17.0	20.5	19.5
Non-Hodgkins Lymphoma	21.0	18.2	18.6
Kidney and Renal Pelvis	19.0	19.8	16.9
Thyroid	15.9	15.0	15.2
Pancreas	12.9	13.8	12.3
Leukemia	14.4	11.4	11.9
Oral Cavity and Pharynx	11.2	12.8	11.7
Ovary	14.5	7.1	11.3
Brain and Other CNS	7.7	5.9	7.4
Cervix	7.4	9.8	7.4
Stomach	8.4	7.7	6.8
Liver and Intrahepatic Bile Duct	8.3	6.6	6.6
Multiple Myeloma	8.3	5.0	5.9
Testis	6.3	5.7	5.2
Esophagus	5.8	4.8	5.0
Larynx	4.8	4.7	4.3
Hodgkins Lymphoma	3.1	2.6	2.6

Source: Ohio Department of Health, 2012.

The incidence rates for prostate, breast, colon and rectum, uterus, Non-Hodgkin's Lymphoma, kidney and renal pelvis, thyroid, pancreas, leukemia, ovary, brain and other CNS, stomach, liver and intrahepatic bile duct, multiple myeloma, testis, esophagus, larynx, and Hodgkin's Lymphoma in Cuyahoga County were higher than the Ohio averages. In Lorain County, age-adjusted cancer incidence rates for prostate, lung and bronchus, colon and rectum, melanoma of the skin, kidney and renal pelvis, pancreas, oral cavity and pharynx, cervix, stomach, testis, and larynx were higher than the Ohio averages.

Exhibit 25: Communicable Disease Incidence Rates per 100,000 Population, 2012 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Measure	Cuyahoga County	Lorain County	Ohio
Chlamydia	801.1	365.7	462.0
HIV	295.8	83.6	154.3
Gonorrhea	290.3	98.9	143.5
Syphilis	9.8	3.0	9.9
Varicella	4.3	6.3	7.0
Viral Meningitis	7.2	1.3	6.1
Hepatitis A, B, and C	0.8	0.3	1.9

Source: Ohio Department of Health, 2012.

Cuyahoga County has had comparatively high incidence rates of chlamydia, HIV, gonorrhea, and viral meningitis.

Exhibit 26: Maternal and Child Health Indicators, 2012
(Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

Measure	Cuyahoga County	Lorain County	Ohio	Healthy People 2020			
Mortality Rate per 1,000 Live Births							
Infant	9.4	6.8	7.7	N/A			
Neonatal	6.5	4.4	5.2	N/A			
Post-Neonatal	2.9	2.4	2.5	N/A			
% Deliveries							
Low Birth Weight	10.5	7.7	8.6	7.8			
Very Low Birth Weight	2.3	1.6	1.6	1.4			
% Preterm Births							
< 32 weeks of gestation	3.1	2.3	2.3	1.8			
32-33 weeks of gestation	2.0	1.6	1.6	1.4			
34-36 weeks of gestation	9.3	7.9	8.6	8.1			
< 37 weeks of gestation	14.4	11.7	12.6	11.4			
% Births to							
Unmarried Women 18-54 Years Old	49.1	43.2	41.3	N/A			
Women 40-54 Years Old	2.7	2.3	2.1	N/A			
Women <18 Years Old	3.7	3.0	3.0	N/A			
Teenage Pregnancies per 1,000 Births							
Births to Females 15-19 Years Old	39.3	33.8	36.0	N/A			

Source: Ohio Department of Health, 2012.

Exhibit 26 indicates that infant mortality rates, low birth weights, and preterm births are comparatively problematic in Cuyahoga County. Births to unmarried women and women 40 to 54 years old were comparatively high in Lorain County.

Behavioral Risk Factor Surveillance System

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.

BRFSS data were assessed for each ZIP code in the Fairview community and compared to the averages for the 21 counties in Northeast Ohio.²²

²² The 21 counties include Ashland, Ashtabula, Carroll, Columbiana, Crawford, Cuyahoga, Erie, Geauga, Holmes, Huron, Lake, Lorain, Mahoning, Medina, Portage, Richland, Stark, Summit, Trumbull, Tuscarawas, and Wayne

counties.

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Exhibit 27: Behavioral Risk Factor Surveillance System, Chronic Conditions, 2015
(Light grey shading indicates indicator worse than the 21-County average; Dark grey shading indicates more than 50 percent worse than the 21-County average)

County	City	ZIP Code	Total Population 18+ 2015	% Obese	% Back Pain	% Diabetes	% Asthma	% Depresssion	% High Blood Pressure	% High Cholesterol	%COPD	% Smoking
Cuyahoga	Bay Village	44140	11,662	25.8%	17.9%	9.3%	6.7%	7.7%	27.1%	23.2%	2.6%	18.7%
Cuyahoga	Berea	44017	15,461	30.0%	30.4%	11.5%	12.8%	12.8%	27.0%	19.8%	3.8%	25.6%
Cuyahoga	Brook Park	44142	15,095	31.9%	28.9%	15.5%	11.1%	12.3%	35.7%	28.2%	5.6%	24.7%
Cuyahoga	Cleveland	44102	32,395	33.9%	22.5%	13.9%	12.6%	16.1%	25.1%	19.5%	3.9%	36.1%
Cuyahoga	Cleveland	44109	29,237	34.7%	20.3%	14.6%	10.0%	11.7%	28.7%	19.6%	4.5%	34.5%
Cuyahoga	Cleveland	44111	30,291	34.1%	20.8%	14.2%	8.9%	11.3%	29.7%	19.1%	4.7%	32.5%
Cuyahoga	Cleveland	44126	13,026	30.5%	23.5%	14.1%	12.0%	14.9%	33.2%	25.2%	4.2%	24.4%
Cuyahoga	Cleveland	44129	22,258	32.2%	27.2%	14.2%	11.4%	14.5%	33.9%	22.7%	5.2%	27.1%
Cuyahoga	Cleveland	44130	41,435	30.3%	24.4%	15.5%	12.4%	13.4%	35.4%	25.0%	4.8%	24.7%
Cuyahoga	Cleveland	44134	29,841	30.9%	23.4%	13.4%	10.8%	12.9%	34.6%	24.2%	5.0%	26.6%
Cuyahoga	Cleveland	44135	19,842	33.0%	25.3%	14.4%	11.7%	14.4%	36.3%	23.1%	5.3%	31.2%
Cuyahoga	Cleveland	44144	16,673	34.3%	21.2%	14.3%	13.2%	16.3%	38.6%	22.4%	5.6%	32.4%
Cuyahoga	Lakewood	44107	41,633	31.2%	23.6%	14.2%	11.9%	14.9%	24.7%	18.2%	4.7%	30.8%
Cuyahoga	North Olmsted	44070	25,796	28.6%	24.5%	13.3%	8.6%	11.9%	29.6%	23.0%	3.4%	23.5%
Cuyahoga	Olmsted Falls	44138	18,089	28.0%	22.5%	13.6%	8.6%	11.0%	31.3%	22.2%	3.4%	20.6%
Cuyahoga	Rocky River	44116	15,879	28.1%	20.1%	12.6%	9.0%	11.0%	28.7%	24.9%	3.2%	21.0%
Cuyahoga	Westlake	44145	26,585	26.9%	21.2%	12.9%	7.1%	10.9%	28.1%	21.7%	2.9%	20.9%
Lorain	Avon	44011	16,425	28.8%	19.9%	11.8%	7.6%	9.2%	23.0%	18.2%	2.7%	20.8%
Lorain	Avon Lake	44012	17,918	27.4%	17.5%	9.9%	9.3%	10.3%	28.6%	23.1%	2.7%	21.5%
Lorain	North Ridgeville	44039	24,250	29.8%	22.6%	12.2%	9.6%	12.1%	28.6%	23.0%	4.1%	22.8%
Community T	Total		463,791	30.8%	22.9%	13.5%	10.5%	12.8%	30.2%	22.0%	4.2%	26.9%
21-County A	verage		3,454,621	31.7%	25.6%	14.0%	11.6%			24.1%	4.7%	27.5%

Source: Truven Market Expert/Behavioral Risk Factor Surveillance System, 2015.

Compared to the 21-County averages, the Fairview community compared favorably to the Ohio average for all measures. Within the Fairview community, 9 ZIP codes had higher rates of diabetes, 8 ZIP codes had higher rates of high blood pressure, and 7 ZIP codes had higher rates of obesity and asthma.

Ambulatory Care Sensitive Conditions

This section examines the frequency of discharges for Ambulatory Care Sensitive Conditions (ACSCs, frequently referred to as Prevention Quality Indicators or PQIs) throughout the community.

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." 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.

Exhibit 28 provides 2014 PQI rates (per 100,000 persons) for ZIP codes in the Fairview community – with comparisons to Ohio averages.

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²³Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.

Exhibit 28: PQI (ACSC) Rates per 100,000, 2014 (Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

County	City	ZIP Code	Diabetes Short-Term Complications	Perforated Appendix	Diabetes Long Term Complications	Chronic Obstructive Pulmonary Disease	Hypertension	Congestive Heart Failure	Low Birth Weight
Cuyahoga	Bay Village	44140	103	42	94	361	47	536	45
Cuyahoga	Berea	44017	26	38	84	668	111	434	26
Cuyahoga	Brook Park	44142	86	21	239	845	96	758	63
Cuyahoga	Cleveland	44102	238	27	254	2,119	176	1,218	84
Cuyahoga	Cleveland	44109	215	44	277	1,298	135	1,038	88
Cuyahoga	Cleveland	44111	131	32	188	1,396	109	983	83
Cuyahoga	Cleveland	44126	63	14	86	624	92	659	91
Cuyahoga	Cleveland	44129	71	44	195	800	77	920	69
Cuyahoga	Cleveland	44130	52	49	125	761	61	758	52
Cuyahoga	Cleveland	44134	52	44	144	668	49	717	66
Cuyahoga	Cleveland	44135	223	42	307	1,333	145	1,029	58
Cuyahoga	Cleveland	44144	65	28	154	928	45	748	81
Cuyahoga	Lakewood	44107	91	33	129	785	30	591	52
Cuyahoga	North Olmsted	44070	73	32	146	707	107	554	57
Cuyahoga	Olmsted Falls	44138	39	50	111	657	56	633	66
Cuyahoga	Rocky River	44116	19	28	106	426	60	665	80
Cuyahoga	Westlake	44145	30	44	132	427	105	790	53
Lorain	Avon	44011	18	56	61	303	43	303	63
Lorain	Avon Lake	44012		42	50	388	54	427	84
Lorain	North Ridgeville	44039	45	39	106	670	71	647	58
Fairview Tot	als		89	38	156	844	84	743	67
Ohio Totals			95	37	119	609	53	424	61

Source: Cleveland Clinic, 2014. Note: Rates are not age-sex adjusted.

Exhibit 28: PQI (ACSC) Rates per 100,000, 2014 (continued)
(Light grey shading indicates indicator worse than Ohio average; Dark grey shading indicates more than 50 percent worse than Ohio average)

County	City	ZIP Code	Dehydration	Bacterial Pneumonia	Urinary Tract Infection	Angina without Procedure	Uncontrolled Diabetes	Adult Asthma	Lower- Extremity Amputation Among Patients with Diabetes
Cuyahoga	Bay Village	44140	116	250	183	12	-	-	9
Cuyahoga	Berea	44017	76	304	218	11	22	31	13
Cuyahoga	Brook Park	44142	180	393	320	19	19	22	13
Cuyahoga	Cleveland	44102	150	342	244	57	28	36	10
Cuyahoga	Cleveland	44109	156	242	166	56	45	52	10
Cuyahoga	Cleveland	44111	63	244	160	27	60	35	10
Cuyahoga	Cleveland	44126	119	203	204	-	12	24	8
Cuyahoga	Cleveland	44129	127	301	261	-	7	24	18
Cuyahoga	Cleveland	44130	112	197	247	14	18	23	7
Cuyahoga	Cleveland	44134	105	163	192	15	5	39	10
Cuyahoga	Cleveland	44135	184	461	179	23	46	28	35
Cuyahoga	Cleveland	44144	120	299	141	18	18	52	6
Cuyahoga	Lakewood	44107	117	206	149	21	25	11	7
Cuyahoga	North Olmsted	44070	136	188	200	17	34	12	8
Cuyahoga	Olmsted Falls	44138	103	250	204	24	16	18	11
Cuyahoga	Rocky River	44116	74	233	217	17	-	24	-
Cuyahoga	Westlake	44145	70	277	227	21	16	40	15
Lorain	Avon	44011	62	203	102	9	17	-	-
Lorain	Avon Lake	44012	66	197	167	-	-	40	11
Lorain	North Ridgeville	44039	131	275	173	12	24	26	12
Fairview Tot	als		114	254	198	20	22	28	11
Ohio Totals			107	196	131	12	13	36	9

Source: Cleveland Clinic, 2014. Note: Rates are not age-sex adjusted.

The rates of admissions for ACSC in the Fairview community exceeded Ohio averages for all conditions except adult asthma and diabetes short term complications. Within the community, Cleveland ZIP code 44109 had higher PQI rates for every condition, compared to the Ohio averages.

Exhibit 29 provides the ratio of PQI rates in the Fairview 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.

Exhibit 29: Ratio of PQI Rates for Fairview and Ohio, 2014

Indicator	Fairview Hospital	Ohio	Ratio: Fairview/ Ohio
Congestive Heart Failure	742.9	423.8	1.8
Angina without Procedure	20.1	11.7	1.7
Uncontrolled Diabetes	22.1	13.2	1.7
Hypertension	83.5	52.6	1.6
Urinary Tract Infection	198.0	131.5	1.5
Chronic Obstructive Pulmonary Disease	843.6	608.8	1.4
Diabetes Long-Term Complications	156.2	118.8	1.3
Bacterial Pneumonia	253.6	196.2	1.3
Lower-Extremity Amputation Among Patients			
with Diabetes	10.6	8.9	1.2
Low Birth Weight	67.2	61.4	1.1
Dehydration	114.5	107.2	1.1
Perforated Appendix	37.9	36.9	1.0
Diabetes Short-Term Complications	88.9	94.7	0.9
Adult Asthma	28.0	36.0	0.8

Source: Cleveland Clinic, 2014. Note: Rates are not age-sex adjusted.

In the Fairview community, ACSC rates for congestive heart failure and hypertension were more than twice as high as the Ohio averages.

Community Need Index[™] and Food Deserts

Dignity Health Community Need Index

Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*TM that measures barriers to health care access by county/city and ZIP code. 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; and
- The percentage of the population renting houses.

The *Community Need Index*TM calculates a score for each ZIP code based on these indicators. Scores range from "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0).

Exhibit 30 presents the *Community Need Index*TM (CNI) score of each ZIP code in the Fairview community.

Exhibit 30: Community Need IndexTM Score by ZIP Code, 2015

County	City	ZIP Code	CNI Score
Cuyahoga	Cleveland	44102	5.0
Cuyahoga	Cleveland	44109	4.8
Cuyahoga	Cleveland	44135	4.4
Cuyahoga	Cleveland	44111	4.0
Cuyahoga	Cleveland	44144	4.0
Cuyahoga	Lakewood	44107	3.4
Cuyahoga	Cleveland	44130	3.0
Cuyahoga	Cleveland	44129	3.0
Cuyahoga	Cleveland	44134	2.8
Cuyahoga	Berea	44017	2.8
Cuyahoga	Brook Park	44142	2.6
Cuyahoga	North Olmsted	44070	2.4
Cuyahoga	Cleveland	44126	2.2
Lorain	Avon	44011	2.2
Cuyahoga	Westlake	44145	2.0
Cuyahoga	Rocky River	44116	1.8
Cuyahoga	Olmsted Falls	44138	1.8
Lorain	North Ridgeville	44039	1.6
Lorain	Avon Lake	44012	1.4
Cuyahoga	1.2		
Fairview Commu	3.0		
Cuyahoga Count	3.4		
Lorain County A	3.0		

Source: Dignity Health, 2015.

Exhibit 31 presents these data in a community map format.

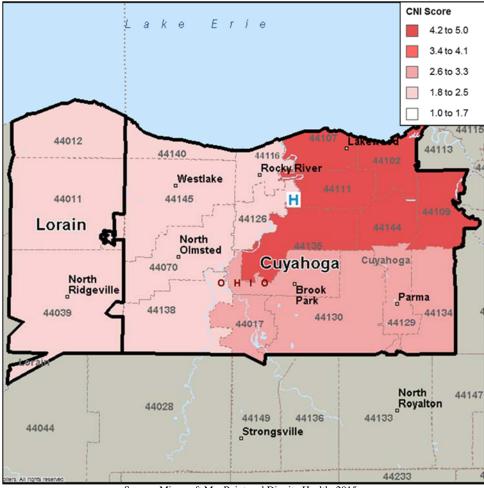


Exhibit 31: Community Need Index, 2015

Source: Microsoft MapPoint and Dignity Health, 2015.

The CNI indicates that three of the 20 ZIP codes in the Fairview community scored in the "highest need category." Cleveland ZIP code 44102 received a score of 5.0 – the highest score possible.

Food Deserts

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

Exhibit 32 illustrates the location of food deserts in the community.

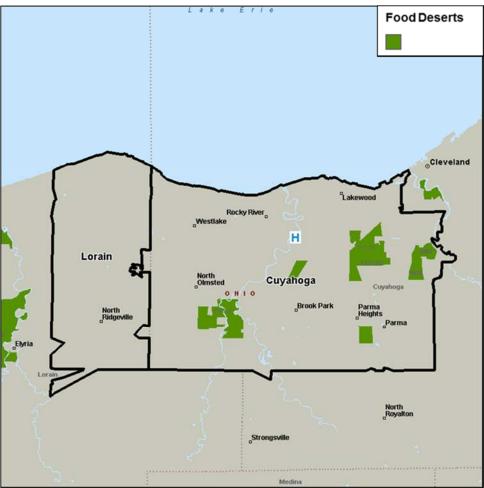


Exhibit 32: Food Deserts

Source: Microsoft MapPoint and U.S. Department of Agriculture, 2015.

Several locations within the Fairview community have been designated as food deserts, particularly in Cuyahoga County.

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. 24 Areas with a score of 62 or less are considered "medically underserved."

Populations receiving MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. If a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP 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."25

There are approximately 27 census tracts within the hospital's community that have been designated as areas where Medically Underserved Areas are present (Exhibit 33).

²⁴ Heath Resources and Services Administration. See http://www.hrsa.gov/shortage/mua/index.html

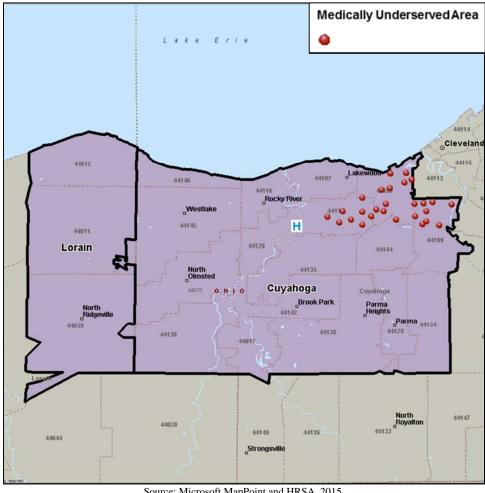


Exhibit 33: Medically Underserved Areas

Source: Microsoft MapPoint and HRSA, 2015.

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. In addition to areas and populations that can be designated as HPSAs, a health care facility can receive federal HPSA designation and an additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental, or mental health services.

HPSAs can be: "(1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility."²⁶

²⁶U.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

Exhibit 34 illustrates the locations of the federally-designated HPSAs.

HPSA - Primary Care

Lakewood

Westlake

H

North
Climsted
Cuyahoga
Brook Park
Ridgeville
Parma
Heights
Parma
Heights
Parma
Royalion
Strongsville

Medina

Exhibit 34A: Primary Care Health Professional Shortage Areas

Source: Health Resources and Services Administration, 2015.

Within the Fairview community, primary care HPSA designated census tracts are located in the northeastern part of Cuyahoga County.

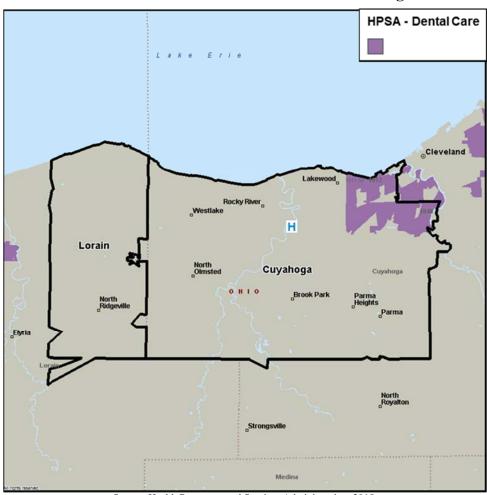


Exhibit 34B: Dental Care Health Professional Shortage Areas

Source: Health Resources and Services Administration, 2015.

Dental care HPSA designated census tracts are located in the northeastern part of Cuyahoga County.

Findings of Other Community Health Needs Assessments

Several other needs assessments and health reports conducted by hospital facilities and other organizations that provide services for the community also were reviewed. The reviewed assessments include the following:

Other Community Assessments
Akron Children's Hospital CHNA 2013
Akron General Medical Center CHNA 2013
Geauga County CHA 2011
Health Improvement Partnership- Cuyahoga CHSA 2015
Lake County Community Health Assessment 2015
Lake Health CHNA 2013
Lorain County Health CNA 2015
Medina County CHIP 2013
Mercy Allen Hospital CHNA 2013
Mercy Medical Center CHNA 2013
Mercy Regional Medical Center CHNA 2013
Portage County CHNA 2015
Southwest General Health Center 2012
St. Vincent Charity Medical Center Implementation Plan 2013
Summa Health System CHNA 2013
Summit County CHIP 2015
UH Ahuja Medical Center CHNA 2015
UH Bedford Medical Center CHNA 2015
UH Case Medical Center CHNA 2015
UH Elyria Medical Center CHNA 2015
UH Geauga Medical Center CHNA 2015
UH Geneva Medical Center CHNA 2015
UH Parma Medical Center CHNA 2015
UH Rainbow Babies & Children's Hospital CHNA 2015
UH Rehabilitation Hospital CHNA 2015
UH Richmond Medical Center CHNA 2015
UH St. John Medical Center CHNA 2015 Source: Analysis of Other CHNA Reports by Verité, 2016

Source: Analysis of Other CHNA Reports by Verité, 2016.

The significant needs identified by these reports are presented in **Exhibit 35**.

Exhibit 35: Significant Needs Identified in Other CHNAs

Significant Need	Frequency
Obesity	23
Mental/Behavioral health	22
Access to basic/primary health care	20
Cardiovascular/ heart disease	19
Diabetes	19
Drug/ substance abuse	18
Tobacco use/ smoking	18
Alcohol abuse and excessive drinking	15
Elderly care/ aging population	15
Cancer	14
Infant mortality (disparities)	14
Cost of care	11
Access to dental care	10
Access/lack of health insurance coverage	10
Poverty	10
Transportation	10
Unemployment	10
Asthma/childhood asthma	9
Respiratory diseases	9
Access to mental health services	8
Nutrition/ access to healthy food	7
Physical inactivity/lack of exercise	7
Alzheimer's disease	6
Drug/ substance abuse (youth)	6
Violence	6
Tobacco use during pregnancy	5
Access to prescription drugs/cost	4
Drug abuse- opioids/heroin	4
Drug abuse- prescriptions	4
Health disparities/ equity	4
Hypertension	4
Preventive care (immunizations, screenings, etc.)	4
Teenage pregnancy/ births	4
Access to substance abuse care	3
Low birth weight	3
Premature births	3
Pre-term births	3
Uninsured and underinsured populations	3
Violence (youth)	3

Source: Analysis of Other CHNA Reports by Verité, 2016.

A State Health Assessment also recently was published by the Ohio Department of Health.²⁷ The State Health Assessment (SHA) is a comprehensive report directed by a steering committee comprised of directors of Ohio's health-related state agencies. The Ohio Department of Health contracted with the Health Policy Institute of Ohio to facilitate preparation of the assessment. The purpose of the SHA is both to provide a template for state agencies and local partners for analysis as well as inform the identification and prioritization of community health needs for the State Health Improvement Plan (SHIP).

State-wide needs. The assessment found that Ohio performed worse than the U.S. overall on most measures of population health with many opportunities to improve both physical and mental health outcomes. For example:

- The average number of days Ohio residents experienced limited activity due to mental or physical difficulties increased 17 percent between 2013 and 2014.
- Over the same period, adult asthma, child asthma, and diabetes also increased by 10 percent.
- Drug overdose deaths increased 18 percent and were significantly higher in Ohio than the United States (24.7 per 100,000 compared to 14.6).
- Infant mortality also is a significant issue in Ohio, and is particularly problematic for black and Hispanic (or Latino) infants.
- Ohio ranks particularly poorly for the number mothers who smoke during pregnancy. Only 59 percent of black mothers in Ohio receive prenatal care in the first trimester, compared to 70.8 percent in the U.S. overall.
- Per-capita health spending has been higher in Ohio than in other states.
- The percentage of hospital inpatients with opiate-related diagnoses increased substantially from 2012 to 2014 (from 25.2 percent to 37.0).
- Ohio has experienced rates of avoidable emergency department visits for Medicare beneficiaries, admissions for pediatric asthma, and admissions for diabetes long-term complications that exceed United States averages.
- Access to mental health services and drug treatment services is particularly problematic, and a comparatively high percentage of Ohio residents live in areas underserved for dental care.
- Ohio has 9.9 public health agency staff per 100,000, a number substantially below the national average of 30.6.
- Infection rates for a number of communicable diseases exceed national averages, including chlamydia. The state's child immunization and HPV vaccination rates have been below average.
- Based on national comparisons, other concerns with children are also present in Ohio, including: childhood poverty rates, number of children in single-parent households, percent of children with adverse childhood experiences, and children exposed to secondhand smoke.
- There are also significant needs related to the physical environment in Ohio. The average amount of particulate matter and cases of lead poisoning are both higher in Ohio than the

²⁷ Available at: http://www.healthpolicyohio.org/sha-ship/

United States. Food insecurity is higher in the state as well, and Ohio residents have less access to exercise opportunities than the country on average.

The SHA reviewed 211 local health department and hospital community health assessments that covered 94 percent of counties to evaluate what the most significant needs were. That review found ten most commonly identified significant community health needs: obesity, mental health, access to health care, drug and alcohol abuse, maternal and infant health, cancer, cardiovascular disease, diabetes, tobacco, and chronic diseases.

More than 400 stakeholders provided input into the SHA. Ten priority areas were identified based on this input: obesity, access to behavioral health care, drug and alcohol abuse, mental health, employment/poverty/income, equity and disparities, access to dental care, cardiovascular disease, and nutrition.

Northeast Ohio. The northeast Ohio region also had particularly significant needs identified in the SHA. Concerns about the physical environment (air pollution and lead poisoning) are particularly prevalent in northeast Ohio. Other health assessments reviewed as part of the SHA process most frequently identified the following community health needs:

- Access to health and medical care (76 percent)
- Obesity (63 percent)
- Mental health (57 percent)
- Drug and alcohol abuse (47 percent)
- Maternal and infant health (41 percent)
- Diabetes (40 percent)
- Coverage and affordability (32 percent)
- Cardiovascular disease (29 percent)
- Cancer (29 percent)
- Tobacco use (29 percent)

Stakeholders from northeast Ohio most frequently identified the following as significant community health needs: obesity, drug and alcohol abuse, mental health, access to behavioral health care, employment/poverty/income, equity and disparities, maternal and infant health, nutrition, coverage and affordability, and diabetes.

APPENDIX D – COMMUNITY INPUT PARTICIPANTS

APPENDIX D - COMMUNITY INPUT PARTICIPANTS

Individuals from a wide variety of organizations and communities participated in the interview process (shown in **Exhibit 36**). Organizations listed in italics indicate that the interviewee has public health expertise.

Exhibit 36: Interview Participants

Organization	Description	Populations Represented
ADAMHSCC	Alcohol, drug addiction, and mental health services	Mentally ill, substance abuse
American Heart and Stroke Association	National voluntary health agency	General population
Avon Lake Fire Department	Fire Department	General population
Bay Village Fire Department	Fire Department	General population
City of Fairview Park	Mayor	General population
City of North Ridgeville	Mayor	General population
City of Rocky River	Mayor	General population
Cleveland Department of Public Health	City health department	General population
Gathering Place	Cancer support organization	General population
Cuyahoga County Board of Health	County board of health	General population
Cuyahoga County Office of Health and Human Services	County health office	General population
Cuyahoga County Office of Reentry	County re-entry services program	Formally incarcerated persons
Fairview Park Fire Department	Fire Department	General population
Greater Cleveland NAMI	Mental health agency	Mentally ill
Kamm's Corners Development Corporation	Community development organization	General population
Lorain County General Health District	County health office	General population
North Olmsted Office on Aging	Senior services	Aging population
Northeast Ohio Black Health Coalition	Non-profit addressing the health needs of the black community	Minority populations
Rocky River Fire Department	Fire Department	General population
Southern Hills Skilled Nursing & Rehab Center	Senior services and long term care	Aging population
St. Joseph Academy	Private Catholic Girls High School	Students, women
Tri-C College	Community college	General population, students

^{*}Two individuals from Greater Cleveland NAMI participated in the interview process.

APPENDIX E – ACTIONS TAKEN SINCE THE PREVIOUS CHNA

Fairview 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 2013 CHNA Implementation Strategy are described below with representative impacts.

1. Identified Need: Chronic Diseases and Health Conditions, COPD and Adult Asthma

Action: Fairview Hospital continues to provide acute inpatient care, outpatient care, and preventive education to patients with COPD and Adult Asthma. The Pulmonary Rehabilitation Program treats patients with long term needs including chronic bronchitis and emphysema. Fairview Hospital also offers smoking cessation and other programs focused on prevention and management of COPD and related diseases.

Highlighted Impact:

- A dedicated area in Fairview Hospital for Phase 2 Pulmonary Rehabilitation opened in newly developed space in 2015. Additionally, Fairview Hospital Wellness Center houses the Phase 3 Pulmonary Rehabilitation Center averaging 284 visits per month.
- The hospital provided anti-tobacco programs to schools reaching over 700 students from 2013 to June 2015.

2. Identified Need: Chronic Disease and Health Conditions, Congestive Heart Failure

Action: Fairview Hospital provides comprehensive diagnostic, medical, and surgical cardiac services. Its Heart Center treats chronic heart failure (CHF) in its communities through an outpatient Congestive Heart Failure Clinic and Community Wellness Center preventative heart clinics.

Highlighted Impact:

- The Cleveland Clinic health system reduced heart failure 30 day readmission rates from 2013 through 2015.
- Fairview Hospital registered over 7,900 patient encounters in the Chronic Heart Failure clinic from 2013 through 2015.
- Fairview Hospital's community outreach nurses provided over 7,000 blood pressure screenings from 2013 through 2015 at various community locations.

3. Identified Need: Chronic Disease and Health Conditions, Breast Cancer

Action: Fairview Hospital, an accredited Breast Health Center, continues to offer primary care, surgery services, free clinical exams and mammograms, and breast health education to women and girls in the communities it serves. Fairview Hospital continues to offer support groups and a nurse navigation program to benefit patients and their families. The hospital continues to collaborate with other nonprofit organizations to treat and raise awareness of breast cancer.

Highlighted Impact:

- Fairview Hospital provided breast health care and mammography to insured, uninsured, and underinsured women with the support of grants with National Breast Cancer Foundation, and partnerships with Breast and Cervical Cancer Project of Cuyahoga County.
- Fairview Hospital provided over 2,700 mammogram screenings 2013 2015.
- In 2014, Fairview Hospital instituted a weight loss class and support group for breast cancer survivors.

4. Identified Need: Chronic Disease and Health Conditions, Diabetes

Action: Fairview Hospital continues to provide inpatient care including dietician services to those with acute diabetic conditions. Fairview Hospital continues to work closely with Lakewood Hospital to provide early diagnostic and outreach activities in the communities they serve.

Lakewood Hospital closed in 2016, replaced with Cleveland Clinic Lakewood, a 24/7 Emergency Department and outpatient center. Fairview Hospitals continues to support diagnostic and outreach activities.

Highlighted Impact:

- Fairview Hospital inpatient diabetic education sessions totaled 983 for 2013 2015. Outpatient diabetic education sessions totaled over 6,000 per year.
- Fairview Hospital community outreach nurses provided diabetic screenings to 3,270 people in 2013-2015.

5. Identified Need: Chronic Disease and Health Conditions, Chemical Dependency and Behavior Medicine

Action: Fairview Hospital continues to work collaboratively with Lutheran Hospital, another Cleveland Clinic hospital, to help patients with behavioral medicine and chemical dependency needs through the Lutheran Hospital Adult Behavioral Medicine Center. **Highlighted Impact:**

- Fairview Hospital continues to collaborate with Lutheran Hospital and other community resource agencies such as Recovery Resources to provide comprehensive drug and alcohol treatment for affected patients.
- Fairview Hospital provided a community education program on Heroin/Opiate Crisis at Strongsville High School

6. Identified Need: Wellness

Action: Fairview Hospital continues to offer outreach programs and community health talks focused on healthy behavior choices including exercise, healthcare navigation, stress management, nutrition, and smoking cessation to promote health and wellness, increase access to healthcare resources, and reduce disease burden.

Highlighted Impact:

- Fairview Hospital's Healthy Community Initiatives collaborated with development corporations, grocers, health resource agencies, recreation centers, financial institutions and government offices to provide community health classes.
- Fairview Hospital Wellness Center held regularly scheduled fitness classes, including: Jazzercise, FitPaths, Yoga, cooking classes, Friends and Family CPR.
- The Youth Movement Contest engaged 38 schools to submit exercise videos in a wellness contest.

7. Identified Need: Access to Health Services

Action: Fairview Hospital continues to provide medically necessary services to all patients regardless of race, color, creed, gender, country of national origin, or ability to pay. Fairview 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.

Highlighted Impact:

• In 2015, Cleveland Clinic health system provided \$69.3 million in financial assistance to the communities served by its main campus, family health centers, and NEO Regional Hospitals.

Fairview 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.

Fairview Hospital has implemented a split-flow model for its Emergency Department shortening the time to physicians and overall length of stay and placing patients in areas devoted to their unique needs to improve patient satisfaction and outcomes.

Highlighted Impact:

• Since 2013, the split –flow model in Cleveland Clinic health system Emergency Departments resulted in shortened wait times for patients.

Fairview Hospital Trauma Center continues to participate in the in the Northern Ohio Trauma System (NOTS), a regional trauma network that works to best utilize the region's trauma resources and promote collaboration among area hospitals. NOTS' mission is to provide outcomes, optimizing resources, and providing education across the region. The other participating trauma centers are MetroHealth Medical Center and Hillcrest Hospital, another Cleveland Clinic hospital.

APPENDIX E – ACTIONS TAKEN SINCE THE PREVIOUS CHNA

8. Identified Need: Research

Cleveland Clinic health system conducts clinical research activities throughout the system, including regional hospitals. In 2015, Cleveland Clinic scientists conducted more than 2,000 clinical trials and generated 54 invention disclosures, 14 new licenses, and 76 patents.

Action: Clinical trials and other clinical research activities continue to occur throughout the Cleveland Clinic health system including at the community hospitals. For example, Fairview Hospital conducted a multi-year heart study of several firefighters and other community responders to help decrease their risk of heart disease and encourage healthy lifestyles. In addition, several Fairview Hospital patients enrolled in clinical trials for cancer and cardiac diseases.

Highlighted Impact:

• Since 2013, Fairview Hospital has conducted approximately 30 to 40 consecutive clinical trials. The trials include diseases of breast, lung, prostate, colon, and lymphoma.

9. Identified Need: Education

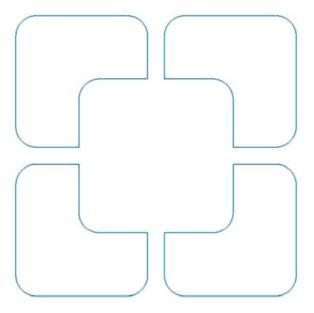
Cleveland Clinic and all regional hospitals provide education of medical professions. In 2015, Cleveland Clinic trained over 1,700 residents and fellows, and provided over 1,800 student rotations in 65 allied health education programs.

Action: Fairview Hospital continues to conduct residency-training programs in family medicine, general surgery, and internal medicine and has institutional affiliation with two medical schools providing clerkship opportunities for medical students in several specialties.

In addition, Fairview Hospital continues to provide work force development in the community through programs of Professional Education and student mentoring at primary and secondary education levels.

Highlighted Impact:

 Fairview Hospital Community Outreach partnered with John Marshall High School to enhance opportunities for distance learning classes and student internships.



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