Cleveland Clinic
Florida

Community Health Needs Assessment

2016



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EXECUTIVE SUMMARY

Introduction

This Community Health Needs Assessment (CHNA) was conducted by Cleveland Clinic Florida Hospital ("Cleveland Clinic Florida" 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.

Cleveland Clinic Florida, located in Weston, Florida is a not-for-profit, multi-specialty, academic medical center that integrates clinical and hospital care with research and education. Cleveland Clinic Florida has 240 physicians with expertise in 35 specialties. The medical campus is fully integrated and includes diagnostic centers, outpatient surgery and a 24-hour emergency department located in the state-of-the-art hospital. Cleveland Clinic Florida ranked 1st in the Miami-Ft. Lauderdale metro region and 5th in the state of Florida, moving up four spots according to U.S. News & World Report's "2016-17 Best Hospitals" metro area ranking. Additional information on the hospital and its services is available at: http://my.clevelandclinic.org/florida

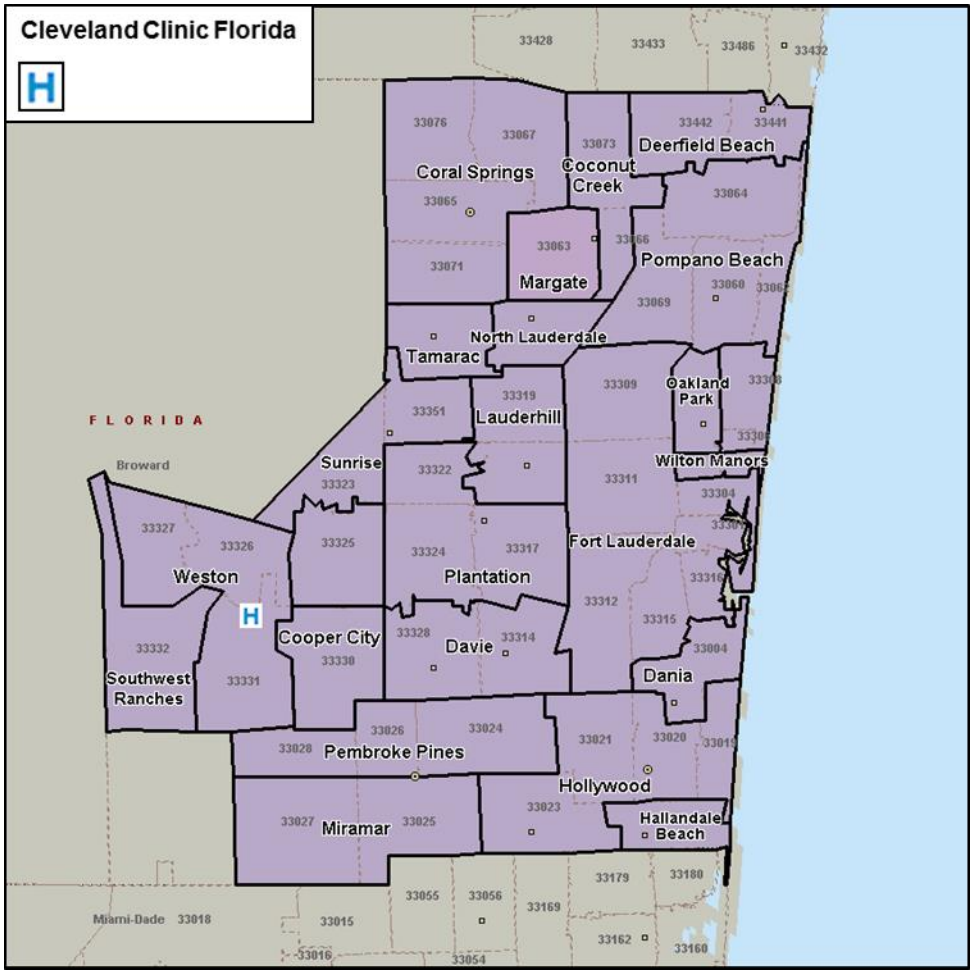
The hospital is part of the Cleveland Clinic health system, which includes an academic medical center, multiple regional hospitals, two children's hospitals, a rehabilitation hospital, and a number of other facilities and services across Northeast Ohio and Florida. Additional information about Cleveland 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, Cleveland Clinic Florida's community is defined as 53 ZIP codes in Broward County, Florida comprising over 95 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 Cleveland Clinic Florida's community in 2015 was 1,866,667.

The following map portrays the community served by Cleveland Clinic Florida.



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 Cleveland Clinic Florida. The needs are presented below in alphabetical order, along with certain highlights regarding why each issue was identified as "significant."

Access to Affordable Health Care

- Access to basic health care is challenging for some segments of the Cleveland Clinic Florida community who are unaware of how to access and use available services and who experience other access barriers including cost and inadequate transportation. The Cleveland Clinic Florida community has comparatively unfavorable socioeconomic indicators, particularly in 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, and poor mental health status were identified as prevalent in the Cleveland Clinic Florida community.

Economic Development and Community Conditions

- Several areas within the Cleveland Clinic Florida 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 and dentists. Research conducted by Cleveland Clinic, in collaboration with Cleveland Clinic Florida, has improved health for community members with heart disease, cancer and other diseases and health conditions. There is a need for more research to address these and other community health needs.

Healthcare for the Elderly

- The elderly population in the Cleveland Clinic Florida 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 Cleveland Clinic Florida community. Education and opportunities for residents regarding exercise, nutrition, smoking cessation, and immunization 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.[1] 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?

[1] Internal Revenue Code, Section 501(r).
[2] Instructions for IRS form 990 Schedule H, 2015.

- ***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)."[3] The community defined by Cleveland Clinic Florida accounts for over 95 percent of the hospital's 2015 inpatient discharges.

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

Secondary data from multiple sources were gathered and assessed. *See* Appendix B. 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 C.

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 D.

Collaborating Organizations

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

[3] 501(r) Final Rule, 2014.

Data Sources

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

Input from 12 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 cancer incidence data published by the Florida Department of Health are from 2013. Others sources incorporate data from 2011. 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.

DATA AND ANALYSIS

Definition of Community Assessed

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

On that basis, Cleveland Clinic Florida's community is comprised of 53 ZIP codes in Broward County (**Exhibit 1**) which in 2015 accounted for just above 95 percent of its inpatient discharges.

Exhibit 1: Cleveland Clinic Florida Inpatient Discharges by ZIP Code, 2015

City	ZIP Code	Inpatient Cases (2015)	Percent of Total
Weston	33326	667	11.0%
Weston	33331	406	6.7%
Davie	33325	354	5.9%
Weston	33327	292	4.8%
Plantation	33324	253	4.2%
Plantation	33322	236	3.9%
Miramar	33027	230	3.8%
Tamarac	33321	213	3.5%
Sunrise	33323	168	2.8%
Cooper City	33330	156	2.6%
Miramar	33025	154	2.5%
Pembroke Pines	33024	141	2.3%
Southwest Ranches	33332	139	2.3%
Coral Springs	33071	127	2.1%
Coral Springs	33065	126	2.1%
Davie	33328	122	2.0%
Pembroke Pines	33028	121	2.0%
Coral Springs	33076	110	1.8%
Pembroke Pines	33026	109	1.8%
Sunrise	33351	109	1.8%
Lauderhill	33319	95	1.6%
Margate	33063	94	1.6%
Plantation	33317	93	1.5%
Davie	33314	88	1.5%
Fort Lauderdale	33312	83	1.4%
Hollywood	33023	81	1.3%
Hollywood	33021	78	1.3%
Fort Lauderdale	33311	71	1.2%
Coral Springs	33067	61	1.0%
North Lauderdale	33068	56	0.9%
Pompano Beach	33062	49	0.8%
Fort Lauderdale	33309	48	0.8%
Lauderhill	33313	46	0.8%
Coconut Creek	33066	42	0.7%
Coconut Creek	33073	42	0.7%
Fort Lauderdale	33308	41	0.7%
Deerfield Beach	33442	41	0.7%
Fort Lauderdale	33301	39	0.6%
Hallandale Beach	33009	37	0.6%
Hollywood	33020	37	0.6%
Fort Lauderdale	33316	37	0.6%
Oakland Park	33334	37	0.6%
Pompano Beach	33064	33	0.5%
Hollywood	33019	30	0.5%
Pompano Beach	33060	30	0.5%
Pompano Beach	33069	29	0.5%
Fort Lauderdale	33304	26	0.4%
Fort Lauderdale	33315	23	0.4%
Wilton Manors	33305	20	0.3%
Deerfield Beach	33441	20	0.3%
Dania	33004	16	0.3%
Fort Lauderdale	33306	2	0.0%
Subtotal		5,758	**95.3%**
Other Areas		285	4.7%
Total Discharges		6,043	100.0%

Source: Analysis of OHA Discharge Data, 2014.

The total population of this community in 2015 was approximately 1.9 million persons (**Exhibit 2**).

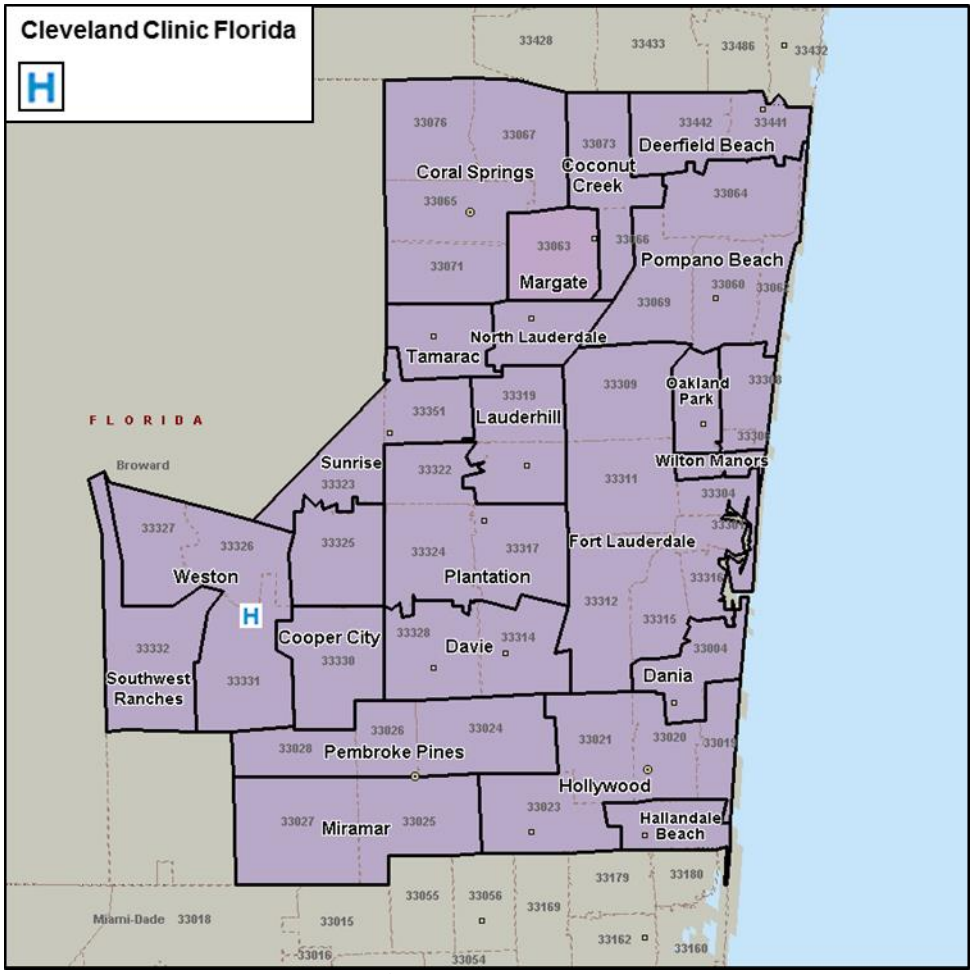
Exhibit 2: Community Population, 2015

City/Town	Total Population 2015	Percent of Total Population 2015
Dania	16,709	0.9%
Deerfield Beach	57,728	3.1%
Fort Lauderdale	810,225	43.4%
Hallandale	41,829	2.2%
Hollywood	457,818	24.5%
Pembroke Pines	29,485	1.6%
Pompano Beach	452,873	24.3%
Community Total	**1,866,667**	**100.0%**

Source: Claritas, 2015.

The hospital is located in Weston, FL (ZIP code 33331), a part of the Fort Lauderdale area. The map in **Exhibit 3** portrays the ZIP codes that comprise the Cleveland Clinic Florida community.

Exhibit 3: Cleveland Clinic Florida Community



Source: Microsoft MapPoint and Cleveland Clinic, 2015.

Secondary Data Summary

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

Demographics

Population characteristics and changes directly influence community health needs. The total population in the Cleveland Clinic Florida community is expected to increase 6.5 percent from 2015 to 2020. The populations in Pembroke Pines, Hallandale, and Hollywood are expected to increase by more than seven percent.

While the total population is expected to increase modestly, the number of persons aged 65 years and older is projected to increase by 20 percent between 2015 and 2020. The growth of older populations is likely to lead to a 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 70 percent of the population in two ZIP codes in the central area of the community (33311 and 33313) was Black. In six ZIP codes, this percentage was under 5 percent. Over forty percent of residents in seven ZIP codes were Hispanic (or Latino).

Broward County had a lower percentage of residents aged 25 years and older without a high school diploma than Florida and United States averages. Compared to Florida and the U.S., Broward County had a higher proportion of the population that is linguistically isolated.[4]

Economic Indicators

Many health needs have been associated with poverty. According to the U.S. Census, in 2014 approximately 16.7 percent of people in Florida were living in poverty. At 14.6 percent, Broward County's poverty rate was lower than the Florida poverty rate during that year. In Broward County, poverty rates have been comparatively high for Black and Hispanic (or Latino) residents. Low income census tracts are prevalent in the central portion of Cleveland Clinic Florida's community.

2014 crime rates in Broward County were above Florida averages for larceny, burglary, motor vehicle theft, and robbery.

The percentage of people uninsured has declined in recent years as employment rates have increased. Between 2010 and 2015, unemployment rates at the local (Broward County), state, and national level decreased significantly. Many receive health insurance coverage through their (or a family member's) employer. The uninsured rate might have declined more rapidly in recent years, if Florida had expanded eligibility for Medicaid as originally contemplated by the Patient Protection and Affordable Care Act (ACA, 2010). Subsequent to the ACA's passage, a June

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

2012 Supreme Court ruling provided states with discretion regarding or not to expand Medicaid eligibility. To date, Florida has been one of states that has not expanded Medicaid. As a result, Medicaid eligibility in Florida has remained very limited.

Local Health Status and Access Indicators

In the 2016 *County Health Rankings*, Broward County ranked in the bottom quartile of Florida counties for four of the 27 indicators assessed: Sexually Transmitted Infections, Inadequate Social Support, Physical Environment, and Severe Housing Problems. The county's ranking fell for 13 indicators between 2013 and 2016, particularly for various social and economic factors, quality of life, Sexually Transmitted Infections, Inadequate Social Support, and Physical Environment. The following indicators underlying the rankings are comparatively unfavorable:

- Binge plus heavy drinking
- Chlamydia rate
- High school graduation rate
- Income inequality
- Percent of female Medicare enrollees receiving mammography screenings
- Percent of households with severe housing problems
- Percent of live births with low birth weight
- Percent of the population without health insurance
- Percent of workers who commute in their car alone for more than 30 minutes
- Percent of workforce that drives alone to work
- Social associations rate

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:

- Cost barriers to health care
- High housing costs
- Housing stress
- Inadequate social support
- Morbidity associated with Alzheimer's disease, gonorrhea, HIV, adult depression, preterm births, and syphilis
- Motor vehicle deaths
- On time high school graduation rates
- Percent of population living near highways
- Poverty rates
- Rates of HIV
- The number of children living in single-parent households
- Uninsured populations

According to the Florida Department of Health, age-adjusted mortality rates for cardiovascular disease, stroke, nephritis, renal failure, heart failure, Parkinson's disease, and HIV/AIDS were all

significantly higher in Broward County than the Florida averages. Overall age-adjusted mortality and incidence rates for cancer have been slightly below average. Breast, prostate, and colorectal cancer mortality have been particularly problematic, as have stomach and cervical cancer incidence rates.

Florida Department of Health data also indicate that:

- The incidence of several communicable diseases has been significantly high in Broward County, including chlamydia, gonorrhea, HIV, AIDS, congenital and infectious syphilis, and tuberculosis.
- Low birth weights, preterm births, births to mothers with no prenatal care, births to older mothers, and fetal deaths are comparatively problematic in Broward County.

Data from the Centers for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS) indicate comparatively high rates of coronary heart disease, diabetes, binge drinking, and poor mental health days in the community.

Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (ACSCs) include thirteen 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."[5] 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.

ACSC rates in the Cleveland Clinic Florida community have exceeded the Florida averages for diabetes long-term complications, adult asthma, hypertension, and uncontrolled diabetes. The cities of Deerfield Beach and Hallandale, in particular, had ACSC rates that were higher than Florida averages for at least seven conditions.

Community Need Index

Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*™ (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

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

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 16 of the 53 ZIP codes in the Cleveland Clinic Florida community scored in the "highest need category." Fort Lauderdale ZIP code 33311 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 Cleveland Clinic Florida 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 107 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 – both 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:

- Access to basic/primary health care
- Access/lack of health insurance coverage
- Cancer
- Cost of care
- Health disparities across populations
- Health education
- Access to preventive health/ education
- Cardiovascular/ heart disease

- Cultural and diversity competency
- Elderly care & falls and fractures
- HIV/AIDS
- Infant mortality
- Obesity
- Stroke

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.

Access Issues. Interviewees cited the inability to access healthcare resources as a significant health concern. A lack of health insurance was identified as the greatest barrier to care and many interviewees brought up the statewide implications of failing to expand Medicaid in Florida, stating that more than one million people could have qualified if Medicaid had expanded. Instead, uninsured individuals continue to use the Emergency Department as a primary source of care, leaving the burden on hospitals. Furthermore, interviewees noted that many individuals who had gained health care coverage through the Affordable Care Act had chosen plans with high deductibles, making it expensive to access basic care services. Health literacy, inadequate transportation, and providers not accepting Medicaid were also mentioned as barriers to accessing care. Furthermore, interviewees believed the social determinants of health were 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. A shortage of dentists and primary care physicians who spoke multiple languages increased the challenge of accessing care for the large immigrant population that exists in Broward County.

Unhealthy Lifestyle and Related Conditions. Poor eating habits and physical inactivity were identified in the majority of interviews as significant health concerns. Unhealthy diets were attributed to limited access to healthy foods for many in lower socio-economic classes and certain cultural groups. Insufficient knowledge about nutrition was mentioned in many interviews as a contributing factor to health conditions, along with a misunderstanding of the perceived affordability of fast food. 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.

Substance Abuse. A large majority of those interviewed identified substance abuse as a significant health concern. The abuse of the synthetic stimulant 'Flakka' was viewed as an epidemic, for which Broward County was perceived as ground zero. Abuse was seen as a widespread issue affecting individuals in every age and socioeconomic class; however drug abuse in the downtown Ft. Lauderdale area was identified as being particularly high.

Interviewees also stated that a lack of detox and rehabilitation treatment centers in the community made it increasingly challenging to address the issue.

Mental Health and Access to Mental Health Services. A large majority of those interviewed identified poor mental health and challenges accessing mental health resources as a significant need in the community. Groups that were identified as particularly prone to mental health concerns were adolescents, those from low-income families, and the homeless. 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. A lack of funding was identified as the primary barrier to increased mental health resources. Long waiting lists for substance abuse rehabilitation centers were also brought up as a concern.

Maternal and Infant Health. A majority of interviewees cited the high rate of infant mortality as a serious concern within the community. A lack of access to prenatal health care services and education, especially among low-income Black women, contribute to the high mortality rates. Unhealthy lifestyles and poor management of chronic conditions such as diabetes and hypertension among pregnant women were also believed to influence these rates.

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 increasing rates of Alzheimer's disease and dementia. The growth of this population means more resources will be needed, and interviewees noted that there are not enough senior living facilities (especially for low-income), a lack of providers accepting Medicare, challenges with transportation for seniors, and isolation among this population. The transient 'snowbird' population was believed to increase the strain on the community's senior health services.

Communicable Diseases. The Cleveland Clinic Florida community was noted as having high rates of communicable diseases, including elevated rates of HIV/AIDS. Interviewees indicated that Broward County had one of the highest HIV rates in the nation and the incidence rate has been increasing year over year.

Transportation. Several interviewees identified a lack of transportation as a serious concern within the county, stating that the issue prevented individuals from accessing important community health resources. Interviewees noted that the transportation issues within the community were particularly problematic for seniors and low-income individuals.

Smoking. Several interviewees identified smoking as a significant concern within the Cleveland Clinic Florida community. High smoking rates were attributed to cultural practices and a lack of motivation among community members to change their behaviors. Interviewees also indicated that there were few smoking cessation programs available to the community.

Homelessness. Broward County was cited as having a large homeless population with a number of serious health concerns, including severe and persistent mental illness and poorly managed chronic diseases. Interviewees stated that addressing the needs of the homeless has proven difficult as the community lacks the funding and resources needed to serve this population.

Homeless individuals were also believed to engage in more risky behaviors than the general population and had elevated rates of smoking and substance abuse.

Vaccination Rates. Several interviewees indicated that vaccination rates were very low in the community served by Cleveland Clinic Florida. The failure to properly vaccinate both children and seniors was believed to put the community at risk for a number of infectious diseases.

SIGNIFICANT COMMUNITY HEALTH NEEDS

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 Cleveland Clinic Florida community who are unaware of how to access and use available services and who experience other access barriers including cost and inadequate transportation. The Cleveland Clinic Florida 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 Populations (MUPs) and Primary Care Health Professional Shortage Areas (HPSAs) are present in the community served by Cleveland Clinic Florida **(Exhibits 33 and 34)**.
- Rates for ambulatory care sensitive conditions within the Cleveland Clinic Florida community were significantly higher than the Florida 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), Broward County ranks poorly compared to peer counties for Cost Barrier to Care and Uninsured **(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 other health conditions including, in alphabetical order: cancer, chemical dependency, communicable diseases (including sexually transmitted infections), diabetes, heart disease, hypertension, obesity, poor birth outcomes, and poor mental health status were identified as prevalent in the Cleveland Clinic Florida community.

- **Cancer**
  - In Broward County, the mortality rates for breast, cervical, colorectal, pancreatic, prostate, stomach, and uterus cancer were higher than the Florida averages **(Exhibit 23)**.

  - Other, recent health assessments identified cancer as a significant concern in Broward County.
- **Chemical Dependency**
  - Interviewees identified substance abuse as a serious, widespread issue affecting individuals in every age and socioeconomic class. Abuse of the synthetic stimulant "flakka" is particularly problematic in Broward County.
  - The 2016 *Drug Abuse Trends in Broward County* report indicates that there have been sharp escalations in heroin use, treatment admissions and deaths. Cocaine-related deaths have also increased between 2014 and 2015. The availability and number of negative health outcomes related to alpha-PVP ("flakka") in Broward County outrank every other county in the nation.[6]
- **Communicable Diseases**
  - In Community Health Status Indicators, Broward County compared unfavorably to peer counties for morbidity related to gonorrhea, HIV, and syphilis **(Exhibit 21)**.
  - According to the Florida Department of Health, the age-adjusted mortality rate for HIV/AIDS in Broward County was fifty percent higher than the state average. Incidence rates for chlamydia, HIV/AIDS, gonorrhea, syphilis, and tuberculosis in Broward County were all significantly higher than the Florida averages **(Exhibits 22 and 25)**.
  - Several interviewees identified the incidence rate for HIV/AIDS as a significant health concern within the community. Broward County was cited as having one of the highest HIV incidence rates in the nation.
- **Diabetes, Heart Disease, and Hypertension**
  - The age-adjusted mortality rate for cardiovascular diseases and strokes in Broward County were higher than the Florida average **(Exhibit 22)**.
  - ACSC rates for Hypertension, Angina without Procedure, and Diabetes were significantly higher in many parts of the community than the average ACSC rates in Florida **(Exhibit 29)**.
- **Obesity**
  - Federally-designated Food Deserts are present in the community served by Cleveland Clinic Florida **(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.
- **Poor Birth Outcomes**
  - In Community Health Status Indicators, Broward County compared unfavorably to peer counties for Preterm Births **(Exhibit 21)**.
  - Data from the Florida Department of Health indicate that rates of low birth weights and preterm births in Broward County have been significantly higher than the Florida averages. The percent of mothers receiving no prenatal care in

[6] United Way of Broward County Commission on Substance Abuse, *Drug Abuse Trends in Broward County, Florida,* Annual Report: June 2016.

Broward County was also more than fifty percent higher than the Florida average **(Exhibit 26)**.
    - Many interviewees expressed concern for the high infant mortality rates among young Black women in Broward County.
- **Poor Mental Health Status**
    - Behavioral Risk Factor Surveillance System data show that residents of Broward County experience significantly more poor mental health days than the Florida average **(Exhibit 27)**.
    - Many interviewees identified mental illness and a lack of mental health services as a significant concern for all age groups within the area served by Cleveland Clinic Florida. Several interviewees cited the connection between poor mental health and negative outcomes for physical health.

Economic Development and Community Conditions

Several areas within the Cleveland Clinic Florida community lack adequate social services and experience high rates crime and adverse environmental conditions.

- Poverty rates among Black populations in Broward County are nearly twice as high as the poverty rate of White residents **(Exhibit 13)**.
- Federally-designated Low Income Areas are present in the community served by Cleveland Clinic Florida **(Exhibit 14)**.
- In Community Health Status Indicators, Broward County compared unfavorably to peer counties for High Housing Costs, Inadequate Social Support, Poverty, and Housing Stress **(Exhibit 21)**.
- According to the Community Need Index, sixteen out of the 53 ZIP codes in Cleveland Clinic Florida's community scored in the "highest need category" **(Exhibit 30)**.
- A majority of interviewees identified economic and healthcare disparities among minority residents as significant community health issues.
- Rates of larceny, burglary, motor vehicle theft, and robbery have been higher in Broward County than the Florida average **(Exhibit 18)**.
- In County Health Rankings, Broward County ranked 56th out of 67 counties, in Physical Environment and 65th in Severe Housing Problems **(Exhibit 19)**.
- Other health assessments also identified transportation and affordable housing 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. Interviewees also indicated that a large homeless population exists within Broward County.

Health Professions Education and Research

There is a need for more trained health professionals in the community, particularly primary care physicians and dentists. Research conducted by Cleveland Clinic, in collaboration with Cleveland Clinic Florida, has improved health for community members with heart disease,

cancer and other diseases and health conditions. There is a need for more research to address these and other community health needs.

- Federally-designated Medically Underserved Populations and Primary Care and Dental Health Professional Shortage Areas are present in the community served by Cleveland Clinic Florida **(Exhibits 33 and 34)**.
- Through research, Cleveland Clinic Florida has advanced knowledge and improved community health. Clinical research has been fundamental to the mission of Cleveland Clinic Florida since its establishment.
- Research conducted at Cleveland Clinic Florida involves a spectrum of efforts, from searches for genes that cause colon disease to using special implants to manage bone disorders. Overall, research here focuses on an array of conditions, including breast and colon cancer, bariatric surgery, coronary artery disease and heart failure, epilepsy and Parkinson's disease, asthma, overactive bladder, stress incontinence, acute or chronic kidney disease, and growth disorders.

Healthcare for the Elderly

The elderly population in the Cleveland Clinic Florida 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 Cleveland Clinic Florida's community is projected to increase by 6.5 percent between 2015 and 2020; the number of persons 65 years of age and older in the community is projected to increase by 20 percent over this period **(Exhibit 7)**.
- In Community Health Status Indicators (CHSI), Broward County ranks poorly compared to peer counties for morbidity related to Alzheimer's disease and Dementia **(Exhibit 21)**.
- Interviewees identified care of the elderly as a challenge in the community, including the need for additional in-home health care, services, and day care services. Concerns were also raised about the ability of seniors to find affordable housing options and the number of seniors who live alone.

Wellness

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

- Federally-designated Food Deserts are present in the community served by Cleveland Clinic Florida **(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.
- The lack of access to healthy food and a lack of nutrition-based education were believed to be two of the main reasons individuals in the community had poor diets.
- Interviewees and other recent health assessments indicated that the low vaccination rate in Broward County was a significant health concern.

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

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

Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) are established to promote access to ambulatory care in areas designated as "medically underserved." These clinics provide primary care, mental health, and dental services for lower-income members of the community. FQHCs receive enhanced reimbursement for Medicaid and Medicare services and most also receive federal grant funds under Section 330 of the Public Health Service Act. There currently are six FQHC sites operating in the Cleveland Clinic Florida community (**Exhibit 4**).

Exhibit 4: Federally Qualified Health Centers

Health Center	ZIP Code
Broward Communtiy & Family Health Centers	33069
Broward Community & Family Health Centers (Satellite)	33021
Lauderhill Community Health Center	33313
West Park Community Health Center	33023
Care Resource (Satellite)	33311
North Broward Hospital District- Health Care for the Homeless	33316

Source: Florida Association of Community Health Centers, 2016.

Hospitals

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

Exhibit 5: Hospitals

Hospital Name	Type	Beds	ZIP Code
Atlantic Shores Hospital	Psychiatric	42	33308
Broward Health- Coral Springs	Acute	200	33065
Broward Health- Imperial Point	Acute	204	33308
Broward Health Medical Center	Acute	716	33316
Broward Health- North	Acute	409	33064
Florida Medical Center- A Campus of North Shore	Acute	459	33313
Ft. Lauderdale Hospital	Psychiatric	100	33301
HealthSouth Sunrise Rehabilitation Hospital	Rehabilitation	126	33351
Holy Cross Hospital	Acute	557	33308
Kindred Hospital South Florida- Ft. Lauderdale	Acute/Long Term Care	70	33301
Kindred Hospital South Florida- Hollywood	Acute/Long Term Care	119	33020
Larkin Community Hospital Behavioral Health Services	Psychiatric	50	33021
Memorial Hospital- Miramar	Acute	178	33029
Memorial Hospital- Pembroke	Acute	301	33024
Memorial Hospital- West	Acute	384	33028
Memorial Regional Hospital	Acute	777	33021
Memorial Regional Hospital- South	Acute	267	33021
Northwest Medical Center	Acute	228	33063
Plantation General Hospital	Acute	264	33317
South Florida State Hospital	Psychiatric	350	33025
St. Anthony's Rehabilitation Hospital	Rehabilitation	26	33311
University Hospital and Medical Center	Acute	257	33321
University Pavilion Hospital	Psychiatric	60	33321
Westside Regional Medical Center	Acute	224	33324

Source: Florida 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 Cleveland Clinic Florida. United Way 2-1-1 of Broward County maintains a large, online database to help refer individuals in need to health and human services in Broward County. This is a service of the Florida Department of Social Services and is provided in partnership with the Council of Community Services, The Planning Council, and United Way chapters in Broward County. United Way 2-1-1 Broward County 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.unitedwaybroward.org/2-1-1.

APPENDIX A – 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.

APPENDIX B – SECONDARY DATA ASSESSMENT

This section presents an assessment of secondary data regarding health needs in the Cleveland Clinic Florida community.

Community Assessed

As mentioned previously and shown in **Exhibit 1**, Cleveland Clinic Florida's community is comprised of 53 ZIP codes across 7 cities and towns, which comprises Broward County, Florida.

Demographics

Population characteristics and changes directly influence community health needs. The total population in the Cleveland Clinic Florida community is expected to increase 6.5 percent from 2015 to 2020 (**Exhibit 6**).

Exhibit 6: Percent Change in Community Population by ZIP Code

City or Town	Estimated Population 2015	Projected Population 2020	Percent Change 2015-2020
Dania	16,709	17,826	6.7%
Deerfield Beach	57,728	60,916	5.5%
Fort Lauderdale	810,225	858,808	6.0%
Hallandale	41,829	45,046	7.7%
Hollywood	457,818	491,912	7.4%
Pembroke Pines	29,485	32,192	9.2%
Pompano Beach	452,873	481,579	6.3%
Total	**1,866,667**	**1,988,279**	**6.5%**

Source: Claritas, 2015.

Between 2015 and 2020, all regions in the community are projected to increase in population size. The populations in Pembroke Pines are expected to increase by approximately nine 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

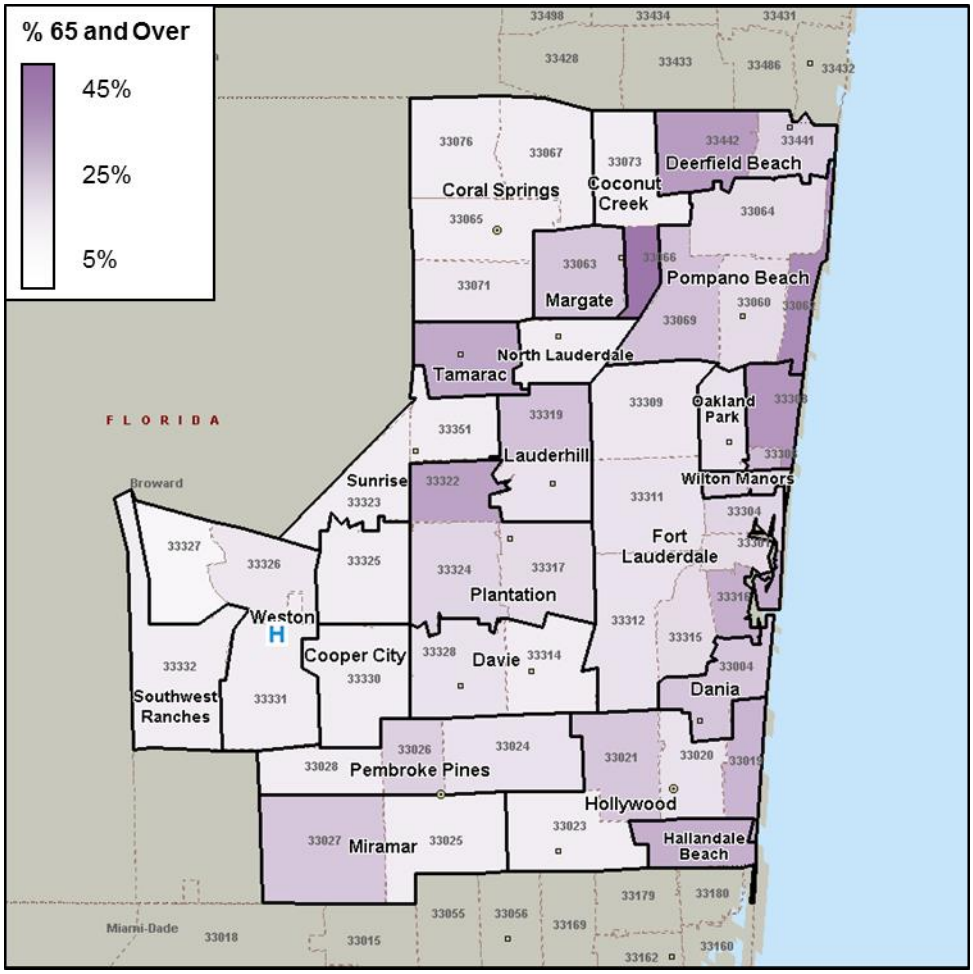
Age/Sex Cohort	Estimated Population 2015	Projected Population 2020	Percent Change 2015-2020
0-20	463,500	477,120	2.9%
Female 21-44	297,510	303,643	2.1%
Male 21-44	288,476	299,898	4.0%
45-64	528,045	560,577	6.2%
65+	289,136	347,041	20.0%
Total	**1,866,667**	**1,988,279**	**6.5%**

Source: Claritas, 2015.

The number of persons aged 65 years and older is projected to increase by 20.0 percent between 2015 and 2020. All other age groups are expected to increase more modestly in population. 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 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

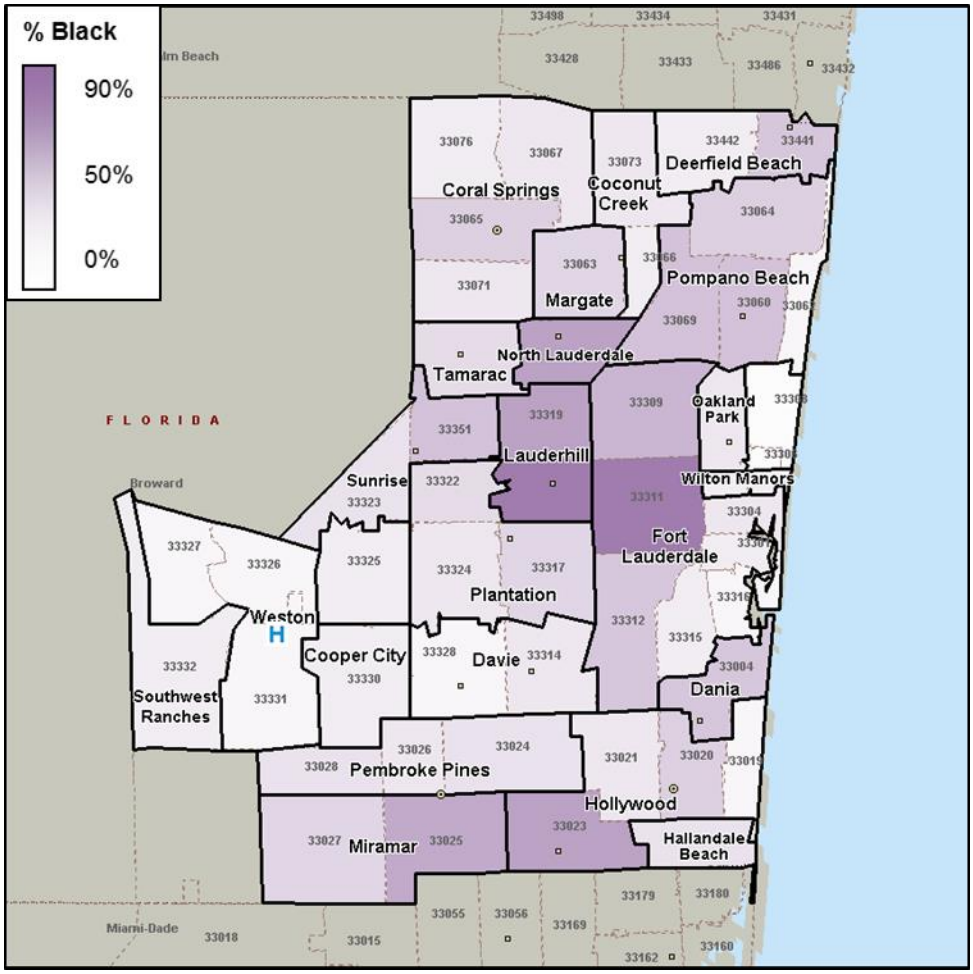


Source: Claritas, 2015.

In the community, ZIP codes 33066, 33062, 33308, and 33442 had the highest proportions of residents 65 years of age and older. ZIP code 33327 had the lowest.

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.

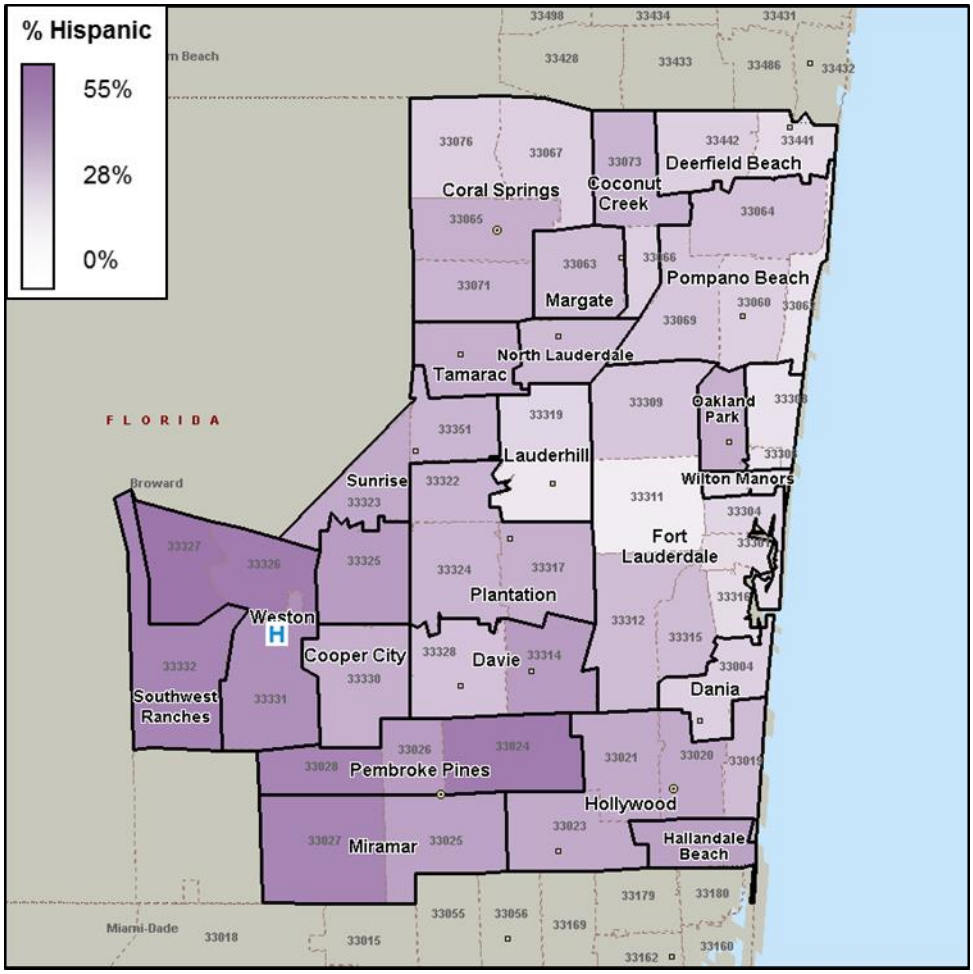
Exhibit 9: Percent of Population - Black, 2015



Source: Claritas, 2015.

Over seventy percent of residents of ZIP codes 33311 and 33313 were Black. Fewer than five percent of residents were Black in six of the community's ZIP codes (33326, 33327, 33062, 33019, 33308, and 33306).

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



Source: Claritas, 2015.

Over forty percent of residents in ZIP codes 33327, 33326, 33024, 33028, 33027, 33332, and 33331 were Hispanic (or Latino).

Data regarding residents without a high school diploma, with a disability, and who are linguistically isolated are presented in **Exhibit 11** for Broward County, Florida, and the United States.

Exhibit 11: Other Socioeconomic Indicators, 2014

Measure	Broward County	Florida	U.S.
Population 25+ without High School Diploma	12.1%	13.5%	13.7%
Population with a Disability	11.3%	13.1%	12.3%
Population Linguistically Isolated	15.1%	11.7%	8.6%

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

Exhibit 11 indicates that:

- Broward County had a lower percentage of residents aged 25 years and older without a high school diploma than the Florida and U.S. averages.
- Broward County had a lower percentage of the population with a disability compared to Florida and United States averages.
- Compared to Florida and the U.S., Broward County 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."

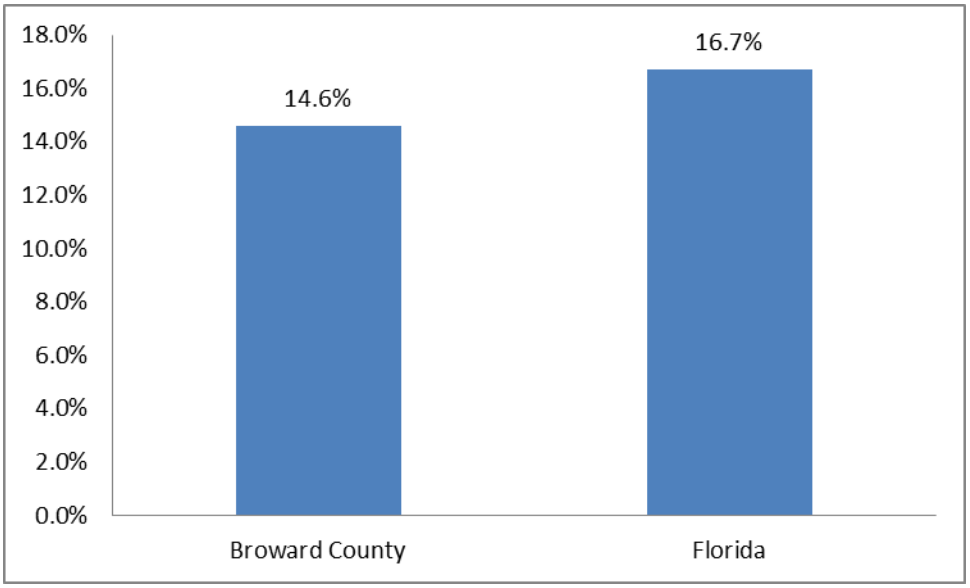
Economic indicators

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 16.7 percent of people in Florida were living in poverty. Broward County's poverty rate was lower than Florida's poverty rate during that year (**Exhibit 12**).

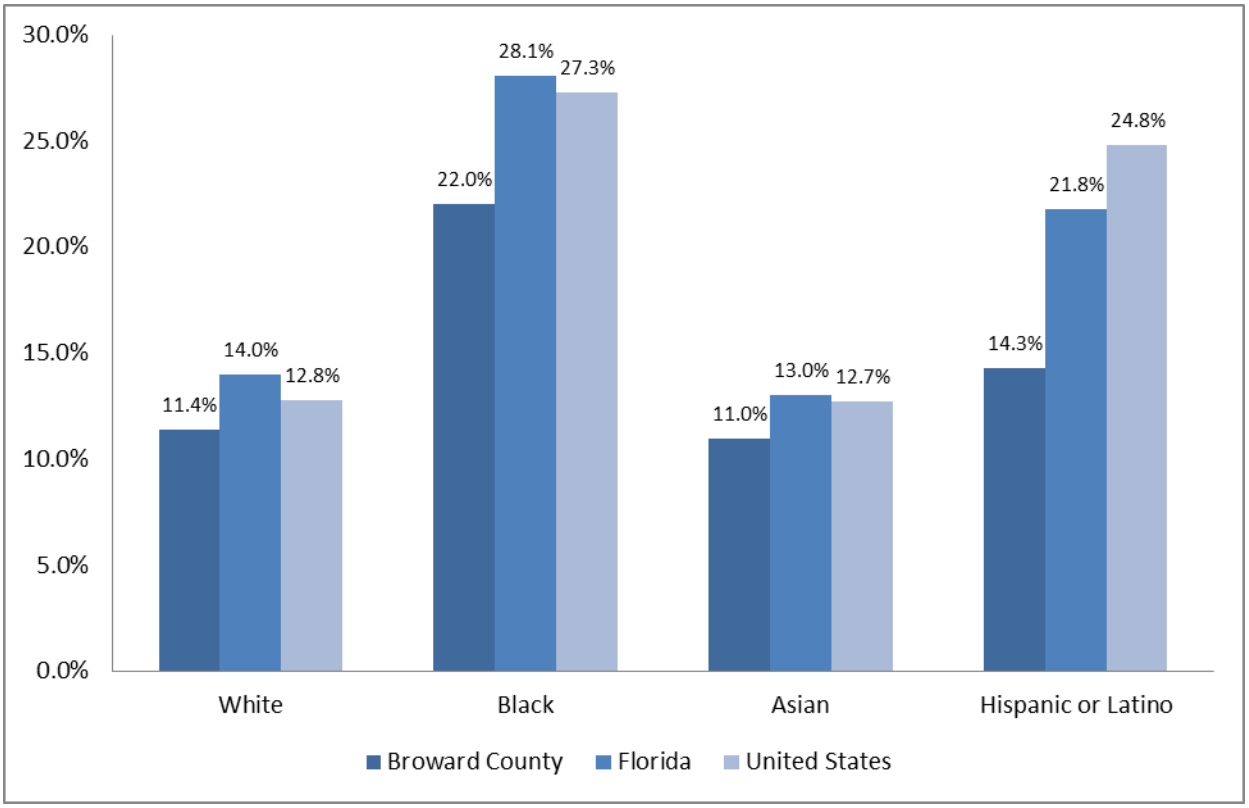
Exhibit 12: **Percent of People in Poverty, 2014**



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

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

Exhibit 13: Poverty Rates by Race and Ethnicity, 2014

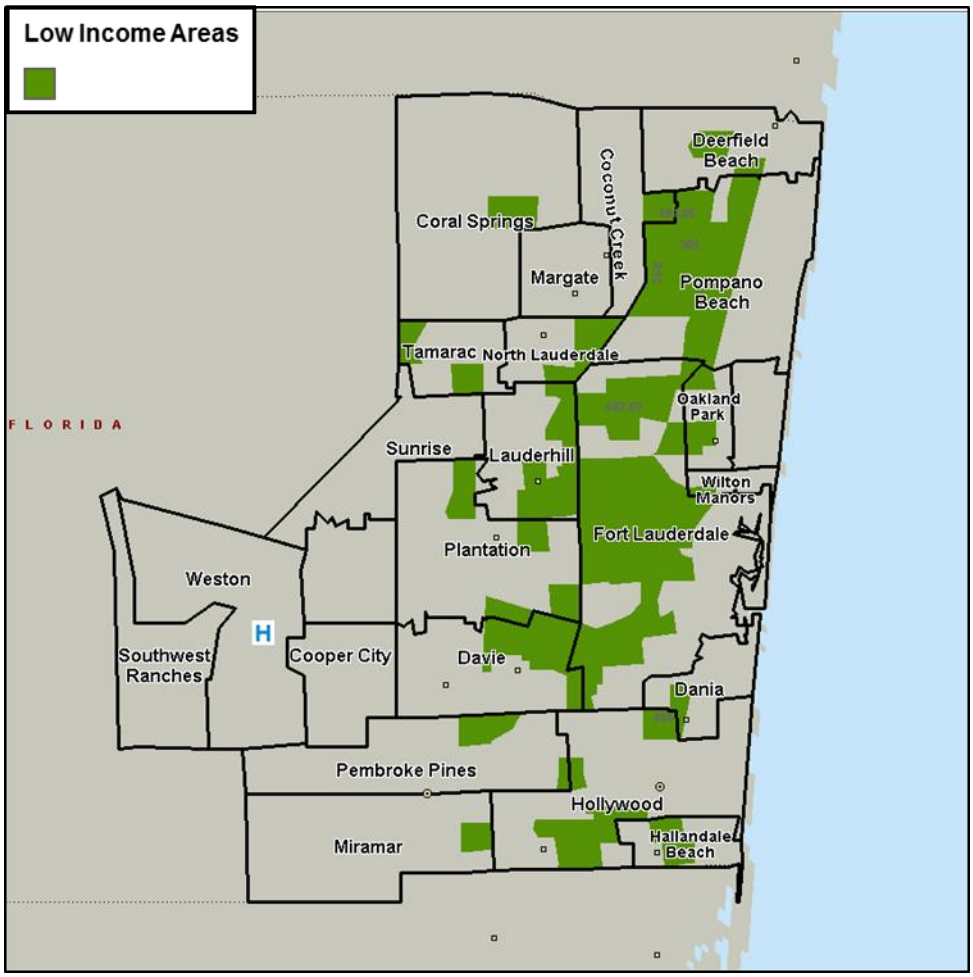


Source: U.S. Census, ACS 5-Year Estimates, 2010-2014.

Poverty rates in Broward County and Florida have been comparatively high for Black and Hispanic (or Latino) residents. The poverty rates for White, Black, Asian, and Hispanic (or Latino) residents of Broward County are below Florida and national averages.

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.

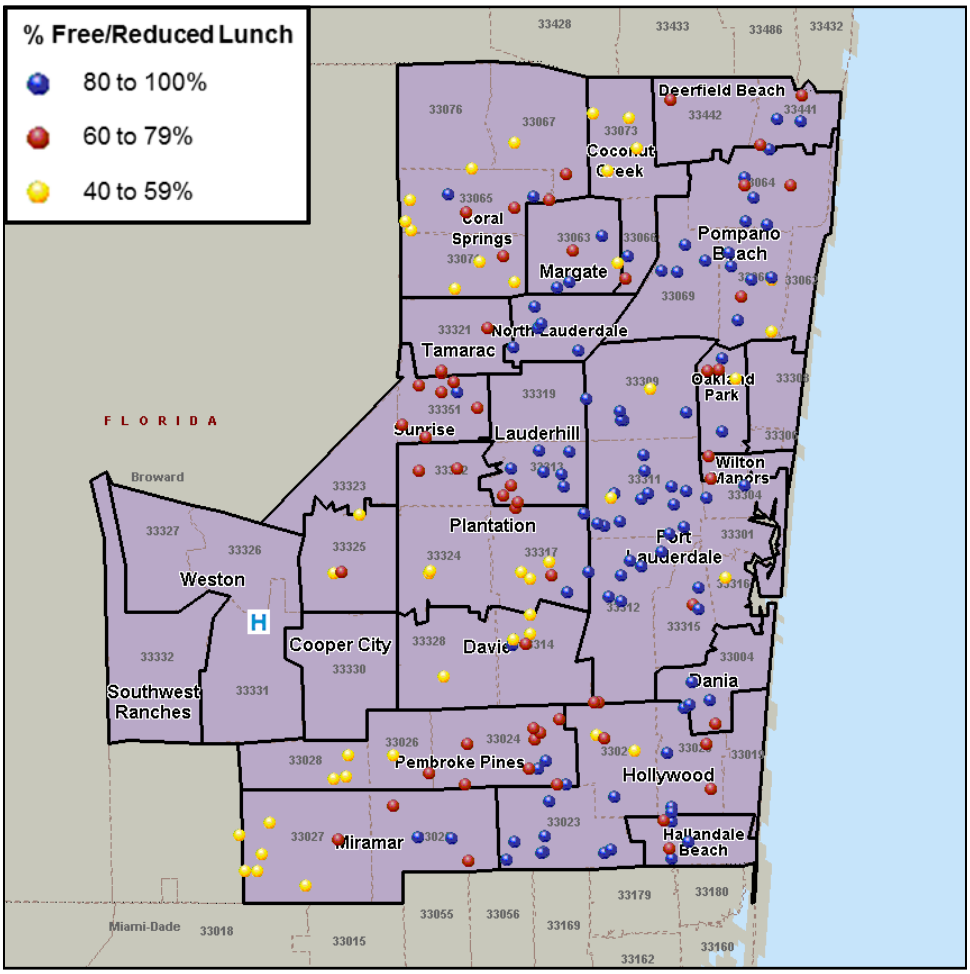
Low income census tracts have been prevalent in the central areas of Cleveland Clinic Florida's community.

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.

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



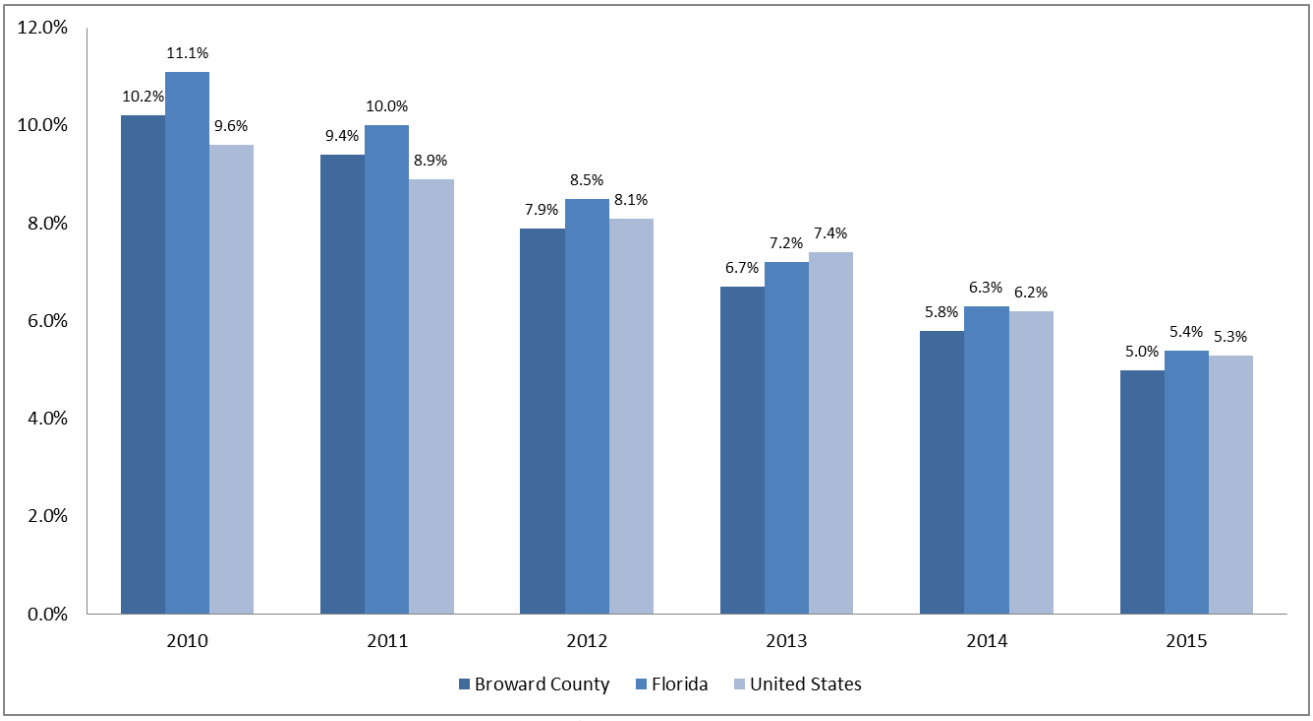
Source: Florida Department of Education, 2014.

There are 196 schools within the Cleveland Clinic Florida 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 Broward County, with Florida and national rates for comparison.

Exhibit 16: Unemployment Rates, 2010-2015



Source: Bureau of Labor Statistics, 2010-2015.

Between 2010 and 2015, unemployment rates at the local (Broward County), state, and national level decreased significantly. In 2015, the unemployment rate in Broward County was lower than both the state and national rates.

Insurance Status

Exhibit 17 presents the estimated percent of populations in the Broward County without health insurance (uninsured), by City/Town.

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

City or Town	Total Population 2015	Percent Uninsured 2015	Total Population 2020	Percent Uninsured 2020
Dania	16,709	20.8%	17,826	19.5%
Deerfield Beach	57,728	20.7%	60,916	19.6%
Fort Lauderdale	810,225	13.9%	858,808	12.8%
Hallandale	41,829	21.9%	45,046	21.0%
Hollywood	457,818	12.8%	491,912	11.7%
Pembroke Pines	29,485	4.9%	32,192	4.4%
Pompano Beach	452,873	13.8%	481,579	12.7%
Total	**1,866,667**	**13.9%**	**1,988,279**	**12.8%**

Source: Truven Market Expert, 2015.

In 2015, the average uninsured rate in the Cleveland Clinic Florida community was 13.9 percent. Dania, Deerfield Beach, and Hallandale all had uninsured rates over 20 percent. By 2020, it is projected that the uninsured rate will decrease to 12.8 percent and only Hallandale will have an uninsured rate above 20 percent.

Florida Public Policy Issues

The uninsured rate may have declined more rapidly in recent years if Florida had expanded eligibility for Medicaid as originally contemplated by the Patient Protection and Affordable Care Act (ACA, 2010). Subsequent to the ACA's passage, a June 2012 Supreme Court ruling provided states with discretion regarding or not to expand Medicaid eligibility. To date, Florida has been one of states that has not expanded Medicaid. As a result, Medicaid eligibility in Florida has remained very limited. Childless adults are ineligible. Parents are eligible if they have incomes at or below 35 percent of Federal Poverty Levels. Children in low-income households (up to 215 percent of FPL) are eligible for Medicaid benefits. In Florida, a "coverage gap" exists for approximately 750,000 uninsured adults whose incomes are too high to qualify for Medicaid, but too low to be eligible for subsided insurance through the health insurance marketplace created by the ACA.

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 Broward County and Florida.

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

Crime	Broward County	Florida
Larceny	2,474.2	**2,244.4**
Burglary	848.7	**713.1**
Domestic Violence Offenses	360.9	**557.7**
Aggravated Assault	242.8	**302.1**
Motor Vehicle Theft	227.7	**186.9**
Robbery	169.1	**118.5**
Forcible Sex Offenses	43.4	**52.2**
Murder	4.4	**5.1**

Source: FBI, 2014.

2014 crime rates in Broward County were above the Florida average for larceny, burglary, motor vehicle theft, and robbery.

Local Health Status and Access Indicators

This section assesses health status and access indicators for the Cleveland Clinic Florida community. Data sources include: (1) County Health Rankings, (2) the Centers for Disease Control's (CDC) Community Health Status Indicators, (3) the Florida 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, Florida averages). Where confidence interval data are available, cells are highlighted only if variances are unfavorable and statistically significant.

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,[7] social and economic factors, and physical environment.[8] *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 67 counties in the Florida, with 1 indicating the most favorable rankings and 67 the least favorable. The table also indicates if rankings fell between 2013 and 2016.

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

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

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

	Broward County		
	2013	2016	Rank Change
Health Outcomes	**9**	**11**	↓
Health Factors	**8**	**12**	↓
Length of Life	**8**	**5**	
Quality of Life	**17**	**31**	↓
Frequent Physical Distress	N/A	16	
Frequent Mental Distress	N/A	20	
Drug Overdose Deaths	N/A	16	
Health Behaviors	**7**	**7**	
Adult Smoking	5	7	↓
Adult Obesity	12	8	
Excessive Drinking	31	28	
Sexually Transmitted Infections	40	51	↓
Teen Births	6	5	
Clinical Care	**31**	**29**	
Primary Care Physicians	12	13	↓
Dentists	5	6	↓
Mental Health Providers	9	10	↓
Preventable Hospital Stays	28	21	
Diabetic Screening	35	23	
Social & Economic Factors	**13**	**15**	↓
Some College	5	5	
Unemployment	18	20	↓
Inadequate Social Support	45	64	↓
Injury Deaths	N/A	6	
Physical Environment	**4**	**56**	↓
Air Pollution	9	17	↓
Severe Housing Problems	N/A	65	

Source: County Health Rankings, 2016.

In 2016, Broward County ranked in the bottom quartile among Florida counties for 4 of the 27 indicators assessed, including Sexually Transmitted Infections, Inadequate Social Support, Physical Environment, and Severe Housing Problems. Between 2013 and 2016, rankings for 13 indictors fell in Broward County.

Exhibit 20 provides data for each underlying indicator of the composite categories in the County Health Rankings.[9] The exhibit also includes national averages.

[9] 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 Florida and U.S. Averages, 2016

(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Indicator Category	Data	Broward County	Florida	U.S.
Health Outcomes				
Length of Life	Years of potential life lost before age 75 per 100,000 population	5,924.8	**6,764.1**	7,700.0
Quality of Life	Percent of adults reporting fair or poor health	15.7	**18.2**	16.0
	Average number of physically unhealthy days reported in past 30 days	3.5	**3.9**	3.7
	Average number of mentally unhealthy days reported in past 30 days	3.7	**3.9**	3.7
	Percent of live births with low birthweight (<2500 grams)	9.4	**8.7**	8.0
Health Factors				
Health Behaviors				
Adult Smoking	Percent of adults that report smoking >= 100 cigarettes and currently smoking	14.5	**17.6**	18.0
Adult Obesity	Percent of adults that report a BMI >= 30	23.6	**25.5**	31.0
Food Environment Index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	7.5	**7.1**	7.2
Physical Inactivity	Percent of adults aged 20 and over reporting no leisure-time physical activity	23.9	**23.9**	28.0
Access to Exercise Opportunities	Percent of population with adequate access to locations for physical activity	99.5	**92.0**	62.0
Alcohol Impaired Driving Deaths	Percent of driving deaths with alcohol involvement	21.9	**29.1**	30.0
Excessive Drinking	Binge plus heavy drinking	18.2	**17.0**	17.0
STDs	Chlamydia rate per 100,000 population	443.4	**415.1**	287.7
Teen Births	Teen birth rate per 1,000 female population, ages 15-19	24.9	**33.5**	40.0
Clinical Care				
Uninsured	Percent of population under age 65 without health insurance	25.8	**24.3**	17.0
Primary Care Physicians	Ratio of population to primary care physicians	1358:1	**1387:1**	1990:1
Dentists	Ratio of population to dentists	1438:1	**1819:1**	2590:1
Mental Health Providers	Ratio of population to mental health providers	614:1	**689:1**	1060:1
Preventable Hospital Stays	Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	52.8	**55.4**	60.0
Diabetic Screening	Percent of diabetic Medicare enrollees that receive HbA1c monitoring	86.2	**85.5**	85.0
Mammography Screening	Percent of female Medicare enrollees, ages 67-69, that receive mammography screening	62.0	**68.0**	61.0

Source: County Health Rankings, 2016.

Exhibit 20: County Health Rankings Data Compared to Florida and U.S. Averages, 2016 (*continued*)

(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Indicator Category	Data	Broward County	Florida	U.S.
Health Factors				
Social & Economic Factors				
High School Graduation	Percent of ninth-grade cohort that graduates in four years	74.8	**75.5**	86.0
Some College	Percent of adults aged 25-44 years with some post-secondary education	66.6	**60.6**	56.0
Unemployment	Percent of population age 16+ unemployed but seeking work	5.8	**6.3**	6.0
Children in poverty	Percent of children under age 18 in poverty	20.1	**24.2**	23.0
Income Inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	4.9	**4.7**	4.4
Children in single-parent households	Percent of children that live in a household headed by single parent	38.1	**38.1**	32.0
Social Associations	Number of associations per 10,000 population	5.4	**7.3**	13.0
Violent Crime	Number of reported violent crime offenses per 100,000 population	485.0	**514.3**	199.0
Injury Deaths	Injury mortality per 100,000	56.3	**68.3**	74.0
Physical Environment				
Air Pollution	The average daily measure of fine particulate matter in micrograms per cubic meter (PM2.5) in a county	10.7	**11.4**	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	26.9	**22.5**	14.0
Drive Alone to Work	Percent of the workforce that drives alone to work	79.7	**79.6**	80.0
Long Commute- Drive Alone	Among workers who commute in their car alone, the percent that commute more than 30 minutes	43.3	**37.9**	29.0

Source: County Health Rankings, 2016

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Exhibit 20 highlights the following comparatively unfavorable indicators:

- Percent of live births with low birth weight
- Binge and heavy drinking
- Chlamydia rate
- Percent of the population without health insurance
- Percent of female Medicare enrollees receiving mammography screening
- High school graduation rate
- Income inequality rate
- Social associations rate
- Percent of households with severe housing problems
- Percent of workforce that drives alone to work
- 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 Broward County to its 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	Broward County
Mortality	Alzheimer's Disease Deaths	
	Cancer Deaths	
	Chronic Kidney Disease Deaths	
	Chronic Lower Respiratory Disease (CLRD) Deaths	
	Coronary Heart Disease Deaths	
	Diabetes Deaths	
	Female Life Expectancy	
	Male Life Expectancy	
	Motor Vehicle Deaths	
	Stroke Deaths	
	Unintentional Injury (including motor vehicle)	
Morbidity	Adult Diabetes	
	Adult Obesity	
	Adult Overall Health Status	
	Alzheimer's Disease/Dementia	
	Cancer	
	Gonorrhea	
	HIV	
	Older Adult Asthma	
	Older Adult Depression	
	Preterm Births	
	Syphilis	
Health Care Access and Quality	Cost Barrier to Care	
	Older Adult Preventable Hospitalizations	
	Primary Care Provider Access	
	Uninsured	
Health Behaviors	Adult Binge Drinking	
	Adult Female Routine Pap Tests	
	Adult Physical Inactivity	
	Adult Smoking	
	Teen Births	
Social Factors	Children in Single-Parent Households	
	High Housing Costs	
	Inadequate Social Support	
	On Time High School Graduation	
	Poverty	
	Unemployment	
	Violent Crime	
Physical Environment	Access to Parks	
	Annual Average PM2.5 Concentration	
	Drinking Water Violations	
	Housing Stress	
	Limited Access to Healthy Food	
	Living Near Highways	

Source: Community Health Status Indicators, 2015.

The CHSI data indicate that motor vehicle mortality and morbidity rates associated with Alzheimer's disease, gonorrhea, HIV, older adult depression, preterm births, and syphilis are comparatively high. Measures of cost barrier to care and uninsured are also comparatively unfavorable. Indicators for children in single-parent households, high housing costs, inadequate social support, on time high school graduation, poverty, housing stress, and living near highways also benchmark unfavorably.

Florida Department of Health

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

Exhibit 22 provides age-adjusted mortality rates for selected causes of death in 2014.

Exhibit 22: Selected Causes of Death, Age-Adjusted Rates per 100,000 Population, 2012-2014

(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Measure	Broward County	Florida
All deaths	622.2	**681.2**
Major Cardiovascular Diseases	201.3	**201.0**
Cancer	152.3	**158.1**
Heart Diseases	150.8	**154.5**
Coronary Heart Disease	93.4	**100.9**
Chronic Lower Respiratory Disease	30.2	**39.8**
Stroke	36.6	**32.1**
Heart Attack	24.6	**26.8**
Diabetes	14.1	**19.7**
Alzheimer's Disease	12.5	**17.5**
Suicide	11.3	**14.0**
Motor Vehicle Crashes	9.9	**12.2**
Chronic Liver Disease and Cirrhosis	9.3	**11.2**
Nephritis	13.5	**11.1**
Unintentional Poisoning	10.0	**11.1**
Renal Failure	13.5	**10.9**
Heart Failure	15.3	**10.6**
Unintentional Falls	5.0	**9.4**
Influenza and Pneumonia	8.3	**9.4**
Hypertension	5.9	**7.6**
Parkinson's Disease	7.2	**6.9**
Homicide	5.2	**6.3**
Alcoholic Liver Disease	4.4	**5.7**
Benign Neoplasm	4.4	**4.5**
HIV/Aids	6.8	**4.4**
Emphysema	2.3	**1.9**
Unintentional Drowning	2.2	**1.8**
Anemias	1.5	**1.3**
Asthma	1.0	**0.9**
Hodgkin's Disease	0.4	**0.3**

Source: Florida Department of Health, 2014.

In Broward County, age-adjusted mortality rates for cardiovascular disease, stroke, nephritis, renal failure, heart failure, Parkinson's disease, HIV/Aids, emphysema, unintentional drowning, anemias, asthma, and Hodgkin's disease were all higher than the Florida averages.

Exhibit 23: Age-Adjusted Cancer Mortality Rates per 100,000 Population, 2013-2015
(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

	Broward County	Florida
All Cancers Death Rate	146.7	**156.1**
Bladder	4.0	**4.4**
Breast	21.4	**19.8**
Central Nervous System	4.2	**4.3**
Cervical	3.1	**2.7**
Colorectal	14.6	**13.6**
Esophagus	2.9	**3.8**
Kidney and Renal/Pelvis	3.2	**3.5**
Leukemia	6.3	**6.4**
Liver	6.2	**6.4**
Lung	34.0	**42.1**
Lymphoid, Hematopoietic And Related Tissue	15.0	**15.3**
Non-Hodgkin's Lymphoma	5.0	**5.5**
Oral	2.5	**2.8**
Ovarian	6.0	**6.6**
Pancreatic	10.6	**10.5**
Prostate	19.1	**17.3**
Melanoma	2.2	**2.8**
Stomach	3.4	**2.8**
Uterus	2.5	**2.4**

Source: Florida Department of Health, 2015.

Cancer mortality rates for breast, cervical, colorectal, pancreatic, prostate, stomach, and uterus were higher in Broward County than the state averages.

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

Exhibit 24: Age-Adjusted Cancer Incidence Rates per 100,000 Population, 2011-2013
(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Measure	Broward County	Florida
All Cancers	326.7	**370.3**
Prostate	103.8	**108.7**
Breast	71.7	**79.0**
Lung	37.9	**54.2**
Colorectal	30.0	**32.8**
Melanoma	13.6	**18.0**
Bladder	13.2	**16.9**
Uterus	13.9	**15.8**
Non-Hodgkin's Lymphoma	12.8	**14.1**
Oral	10.4	**11.5**
Kidney and Renal/Pelvis	9.7	**11.4**
Leukemia	9.4	**10.3**
Ovarian	6.7	**7.7**
Stomach	5.2	**5.0**
Cervical	5.2	**4.9**
Brain/Central Nervous System	4.4	**4.8**

Source: Florida Department of Health, 2013.

The incidence rates for cervical and stomach in Broward County were higher than the Florida averages.

Exhibit 25: Age-Adjusted Communicable Disease Incidence Rates per 100,000 Population, 2012-2015
(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Measure	Broward County	Florida
Chlamydia	492.4	**433.8**
Gonorrhea	147.5	**112.1**
Salmonella	26.5	**32.3**
HIV	38.6	**23.4**
Congenital Syphilis	34.6	**18.8**
AIDS	22.1	**14.1**
Infectious Syphilis	16.3	**9.1**
Varicella	0.7	**3.5**
Tuberculosis	3.9	**3.2**

Source: Florida Department of Health, 2015.

Broward County had significantly higher incidence rates of HIV, congenital syphilis, AIDS, and infection syphilis than Florida averages. The county also had comparatively high incidence rates of chlamydia, gonorrhea, and tuberculosis.

Exhibit 26: Maternal and Child Health Indicators, 2013-2015
(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Measure	Broward County	Florida
Mortality Rate per 1,000 Live Births		
Infant	5.2	**6.1**
Neonatal	3.6	**4.1**
Post-Neonatal	1.6	**2.0**
% Deliveries		
Low Birth Weight	9.5%	**8.6%**
Very Low Birth Weight	1.8%	**1.6%**
% Births		
Preterm Births (< 37 weeks of gestation) (%)	10.3%	**10.0%**
Births to Mothers with No Prenatal Care (%)	2.3%	**1.5%**
Births to Unmarried Women (%)	44.5%	**47.9%**
Births to Females 15-19 Years Old	16.4	**22.0**
Births to Females 40-54 Years Old	5.1	**3.6**
Births to Females <18 Years Old	1.2	**1.7**
Fetal Deaths	7.8	**7.0**

Source: Florida Department of Health, 2015.

Exhibit 26 indicates that low birth weights, preterm births, births to mothers with no prenatal care, births to older mothers, and fetal deaths are comparatively problematic in Broward 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 Broward County and compared to Florida averages.

Exhibit 27: Behavioral Risk Factor Surveillance System, Chronic Conditions, 2015

(Light grey shading indicates indicator worse than Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

		Broward County						
	Indicator	Total Population	Non-Hispanic White	Non-Hispanic Black	Hispanic (or Latino)	< $25,000 Income	Florida	HP 2020 Goal
Health Behaviors	Heavy or binge drinking	19.0%	18.6%	16.1%	23.3%	13.3%	**17.6%**	25.4%
	Current smoker	12.1%	13.8%	12.2%	8.9%	13.6%	**16.8%**	12.0%
	Adults with a medical checkup in past year	70.0%	75.4%	68.5%	70.5%	68.0%	**70.3%**	N/A
	Adults who always, or nearly always, wear a seatbelt	91.8%	92.6%	89.7%	91.6%	85.6%	**94.2%**	N/A
Prevention Variables	Adults 50+ with sigmoidoscopy or colonoscopy in past 5 years	53.7%	51.5%	67.9%	64.7%	54.8%	**55.3%**	29.5%
	Men 50+ with PSA test in past 2 years	N/A	N/A	N/A	N/A	N/A	**72.6%**	N/A
	Women 40+ who received a mammogram in past year	49.8%	53.4%	45.1%	N/A	49.4%	**57.5%**	N/A
	Women 18+ who received a pap test in past year	56.2%	58.8%	52.8%	58.4%	60.1%	**51.4%**	N/A
Access	Unable to visit doctor due to cost	23.8%	14.5%	26.5%	28.7%	39.1%	**20.8%**	N/A
	Adults with a personal doctor	73.8%	79.9%	72.1%	69.5%	63.0%	**73.2%**	N/A
	Adults with health insurance coverage	78.7%	92.2%	65.2%	77.0%	64.4%	**77.1%**	100.0%
	Adults who visited a dentist or dental clinic in past year	N/A	N/A	N/A	N/A	N/A	**64.7%**	N/A
Health Conditions	Adults who are obese	25.8%	23.6%	34.4%	25.0%	36.6%	**26.4%**	30.5%
	Ever told have asthma	11.3%	10.8%	12.6%	13.0%	18.9%	**13.5%**	N/A
	Ever had a stroke	3.7%	3.9%	4.4%	2.4%	7.9%	**3.7%**	N/A
	Ever had corony heart disease or angina	3.5%	6.3%	3.2%	0.2%	7.1%	**5.0%**	N/A
	Ever told have diabetes	10.7%	13.7%	10.3%	8.5%	11.4%	**11.2%**	7.3%
Mental Health	Adults who always or usually receive necessary social and emotional support	N/A	N/A	N/A	N/A	N/A	**79.5%**	N/A
	Poor mental health on 14+ days in past 30 days	13.0%	11.8%	19.8%	7.9%	23.0%	**12.7%**	N/A
Overall Health	Limited by physical, mental, or emotional problems	21.0%	27.5%	19.2%	13.7%	33.8%	**21.2%**	N/A
	Reported poor or fair health	17.6%	18.5%	15.3%	19.7%	33.1%	**19.5%**	N/A

Source: Behavioral Risk Factor Surveillance System, 2015.

Compared to the Florida averages, indicators for heavy or binge drinking, adults with a medical checkup in the past year, adults who wore a seatbelt, women who received mammograms, ability to visit a doctor due to cost, and mental health in the past two weeks ranked worse in Broward County compared to Florida averages. Indicators were significantly worse for residents in Broward County who made less than $25,000 annually for nearly all indicators.

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."[10] 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 cities in the Cleveland Clinic Florida community – with comparisons to Florida averages.

[10]Agency 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 Florida average; Dark grey shading indicates more than 50 percent worse than Florida average)

Indicator	Dania	Deerfield Beach	Fort Lauderdale	Hallandale	Hollywood	Pembroke Pines	Pompano Beach	Broward County	Florida
Chronic Obstructive Pulmonary Disease	565.0	445.1	519.8	613.3	450.6	87.0	536.2	501.5	568.8
Bacterial Pneumonia	254.9	310.9	211.9	204.6	226.0	140.2	232.2	222.6	293.8
Congestive Heart Failure	211.2	260.8	160.9	281.4	201.4	36.2	192.1	182.9	281.2
Dehydration	235.9	291.4	255.4	247.6	227.5	107.4	275.9	252.2	277.4
Perforated Appendix	125.0	388.9	193.0	437.5	207.4	0.0	231.3	215.6	240.8
Urinary Tract Infection	334.6	198.3	161.1	62.0	134.3	19.9	111.1	147.3	175.7
Diabetes Long-Term Complications	68.8	44.2	88.8	91.2	76.7	37.3	92.0	84.3	78.0
Diabetes Short-Term Complications	145.6	48.0	63.9	59.7	64.8	27.1	69.9	65.2	71.1
Adult Asthma	22.1	62.3	59.2	60.5	46.2	12.0	70.6	57.7	54.2
Hypertension	65.5	68.9	73.3	98.1	48.8	20.3	49.9	61.3	52.4
Uncontrolled Diabetes	21.8	35.5	32.7	19.9	15.8	4.5	30.7	27.4	24.9
Angina without Procedure	0.0	20.9	19.6	11.4	10.2	4.5	12.4	15.0	15.6
Lower-Extremity Amputation Among Patients with Diabetes	0.0	0.0	8.1	17.1	10.7	13.6	6.5	8.3	9.9

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

The rates of admissions for ACSC in the Cleveland Clinic Florida community exceeded Florida averages in diabetes long-term complications, adult asthma, hypertension, and uncontrolled diabetes. Within the community, Deerfield Beach exceeded Florida averages for eight of the thirteen PQI measures and Hallandale exceeded Florida for seven out of thirteen.

Exhibit 29 provides the ratio of PQI rates in the Cleveland Clinic Florida community compared to the Florida 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 Cleveland Clinic Florida and Florida, 2014

Indicator	Cleveland Clinic Florida	Florida	United States	Ratio: Cleveland Clinic Florida/ Florida
Hypertension	61.3	52.4	54.3	1.2
Uncontrolled Diabetes	27.4	24.9	15.7	1.1
Diabetes Long-Term Complications	84.3	78.0	105.7	1.1
Adult Asthma	57.7	54.2	46.0	1.1
Angina without Procedure	15.0	15.6	13.3	1.0
Diabetes Short-Term Complications	65.2	71.1	63.9	0.9
Dehydration	252.2	277.4	135.7	0.9
Perforated Appendix	215.6	240.8	323.4	0.9
Chronic Obstructive Pulmonary Disease	501.5	568.8	495.7	0.9
Urinary Tract Infection	147.3	175.7	167.0	0.8
Lower-Extremity Amputation Among Patients with Diabetes	8.3	9.9	15.7	0.8
Bacterial Pneumonia	222.6	293.8	248.2	0.8
Congestive Heart Failure	182.9	281.2	321.4	0.7

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

In the Cleveland Clinic Florida community, ACSC rates for hypertension, diabetes, and asthma were higher than Florida 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*™ 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*™ 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*™ (CNI) score of each ZIP code in the Cleveland Clinic Florida community.

Exhibit 30: Community Need Index™ Score by ZIP Code, 2015

Zip Code	County	City	CNI Score
33311	Broward	Fort Lauderdale	5.0
33060	Broward	Pompano Beach	4.8
33064	Broward	Pompano Beach	4.8
33004	Broward	Dania	4.6
33069	Broward	Pompano Beach	4.6
33313	Broward	Lauderhill	4.6
33020	Broward	Hollywood	4.4
33068	Broward	North Lauderdale	4.4
33309	Broward	Fort Lauderdale	4.4
33312	Broward	Fort Lauderdale	4.4
33334	Broward	Oakland Park	4.4
33009	Broward	Hallandale Beach	4.2
33024	Broward	Pembroke Pines	4.2
33065	Broward	Coral Springs	4.2
33314	Broward	Davie	4.2
33441	Broward	Deerfield Beach	4.2
33023	Broward	Hollywood	4.0
33021	Broward	Hollywood	3.8
33063	Broward	Margate	3.8
33315	Broward	Fort Lauderdale	3.8
33319	Broward	Lauderhill	3.8
33442	Broward	Deerfield Beach	3.8
33025	Broward	Miramar	3.6
33304	Broward	Fort Lauderdale	3.6
33305	Broward	Wilton Manors	3.6
33351	Broward	Sunrise	3.6
Broward County Average			**3.6**

Source: Dignity Health, 2015.

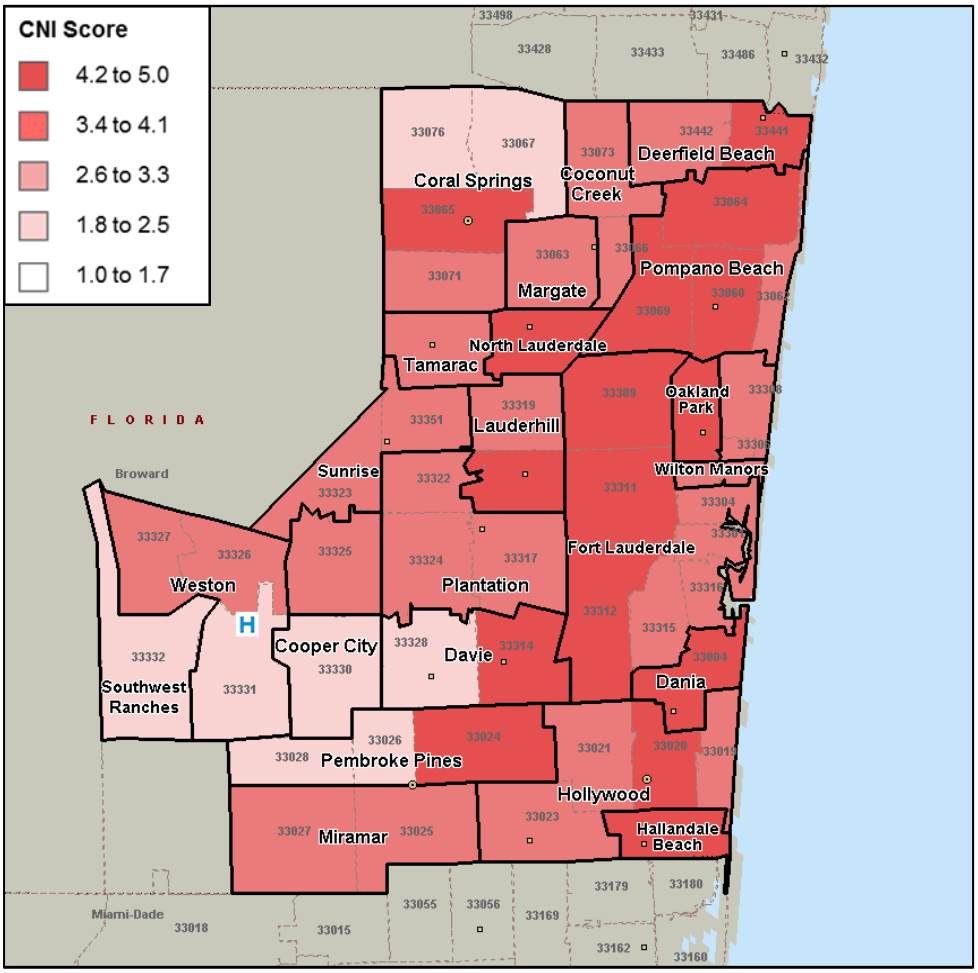
Exhibit 30: Community Need Index™ Score by ZIP Code, 2015 (*continued*)

Zip Code	County	City	CNI Score
33066	Broward	Coconut Creek	3.4
33308	Broward	Fort Lauderdale	3.4
33317	Broward	Plantation	3.4
33062	Broward	Pompano Beach	3.2
33071	Broward	Coral Springs	3.2
33301	Broward	Fort Lauderdale	3.2
33316	Broward	Fort Lauderdale	3.2
33321	Broward	Tamarac	3.2
33322	Broward	Plantation	3.2
33306	Broward	Fort Lauderdale	3.0
33324	Broward	Plantation	3.0
33019	Broward	Hollywood	2.8
33027	Broward	Miramar	2.8
33073	Broward	Coconut Creek	2.8
33323	Broward	Sunrise	2.8
33325	Broward	Davie	2.8
33326	Broward	Weston	2.8
33327	Broward	Weston	2.6
33026	Broward	Pembroke Pines	2.4
33028	Broward	Pembroke Pines	2.4
33067	Broward	Coral Springs	2.2
33328	Broward	Davie	2.2
33331	Broward	Weston	2.2
33076	Broward	Coral Springs	2.0
33330	Broward	Cooper City	2.0
33332	Broward	Southwest Ranches	2.0
Broward County Average			**3.6**

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.

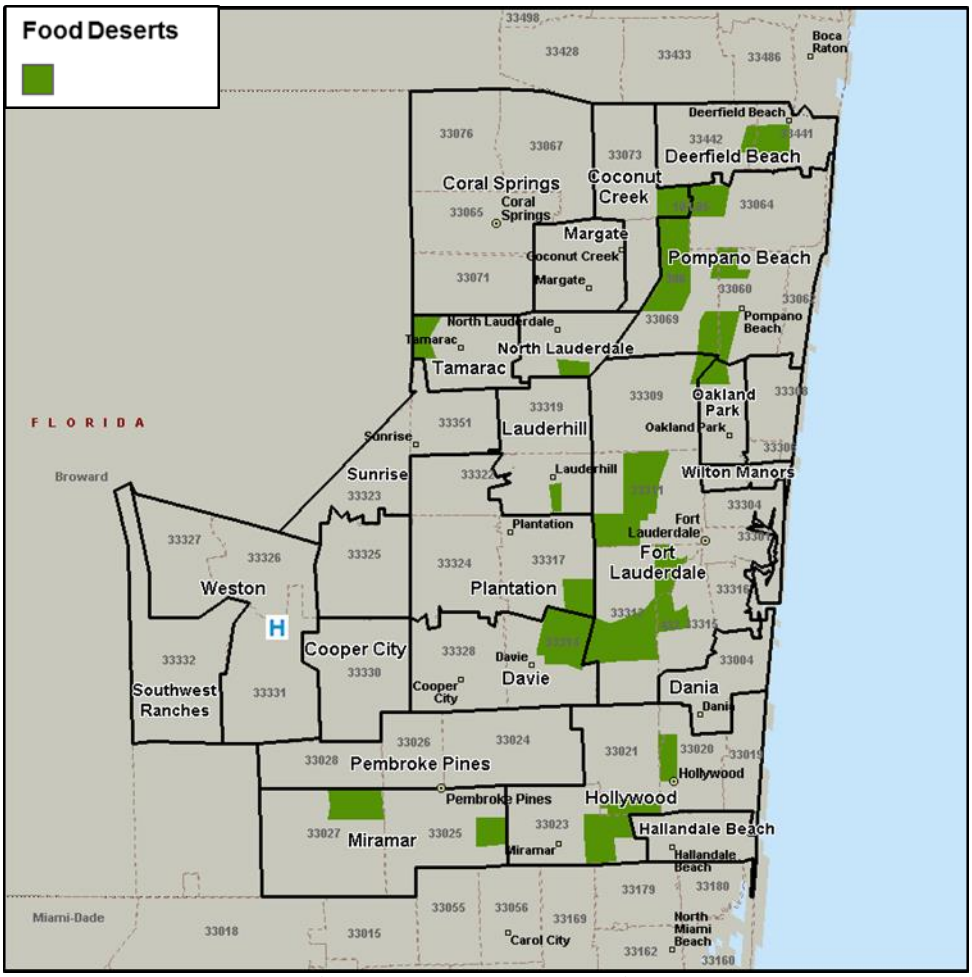
The CNI indicates that sixteen of the 53 ZIP codes in the Cleveland Clinic Florida community scored in the "highest need category." Fort Lauderdale ZIP code 33311 received a score of 5.0 – the highest score possible.

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 Cleveland Clinic Florida community have been designated as food deserts.

Medically Underserved Areas and Populations

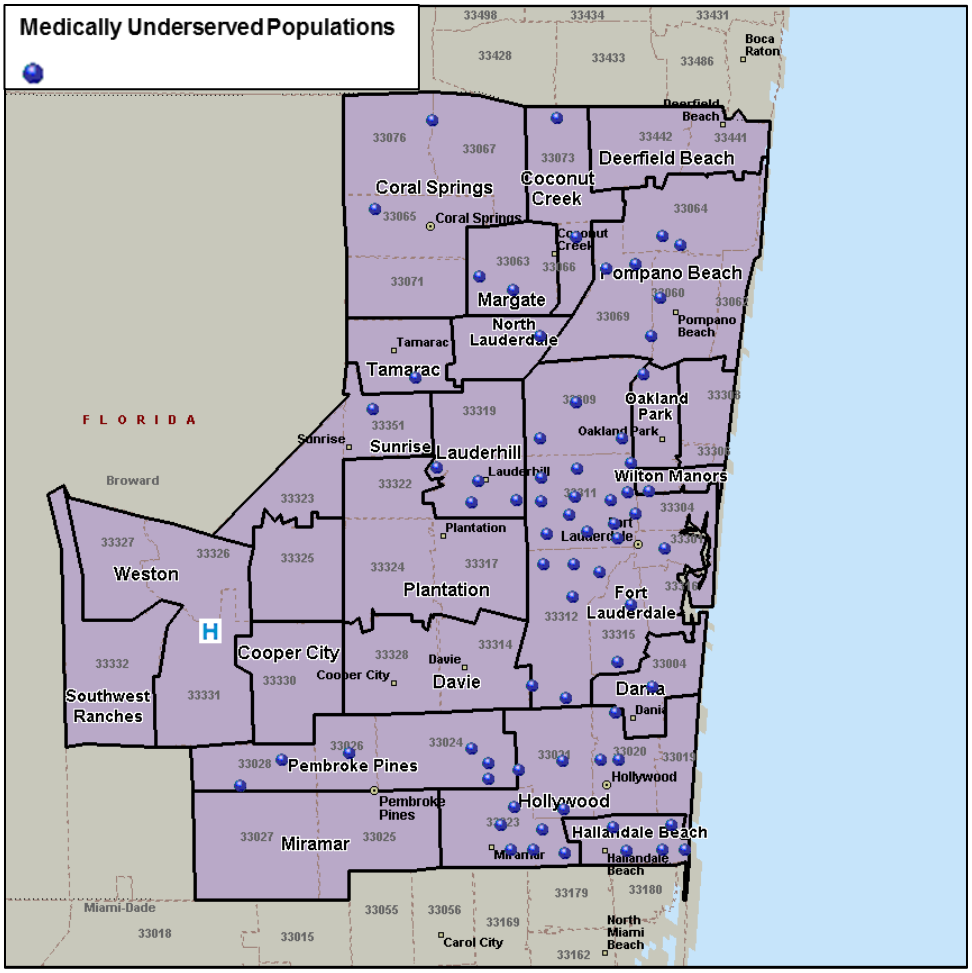
Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice." The index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.[11] 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."[12]

There are approximately 107 census tracts within the hospital's community that have been designated as areas where Medically Underserved Populations are present (**Exhibit 33**).

[11] Heath Resources and Services Administration. See http://www.hrsa.gov/shortage/mua/index.html
[12] *Ibid.*

Exhibit 33: Medically Underserved Populations



Source: Microsoft MapPoint and HRSA, 2015.

Health Professional Shortage Areas

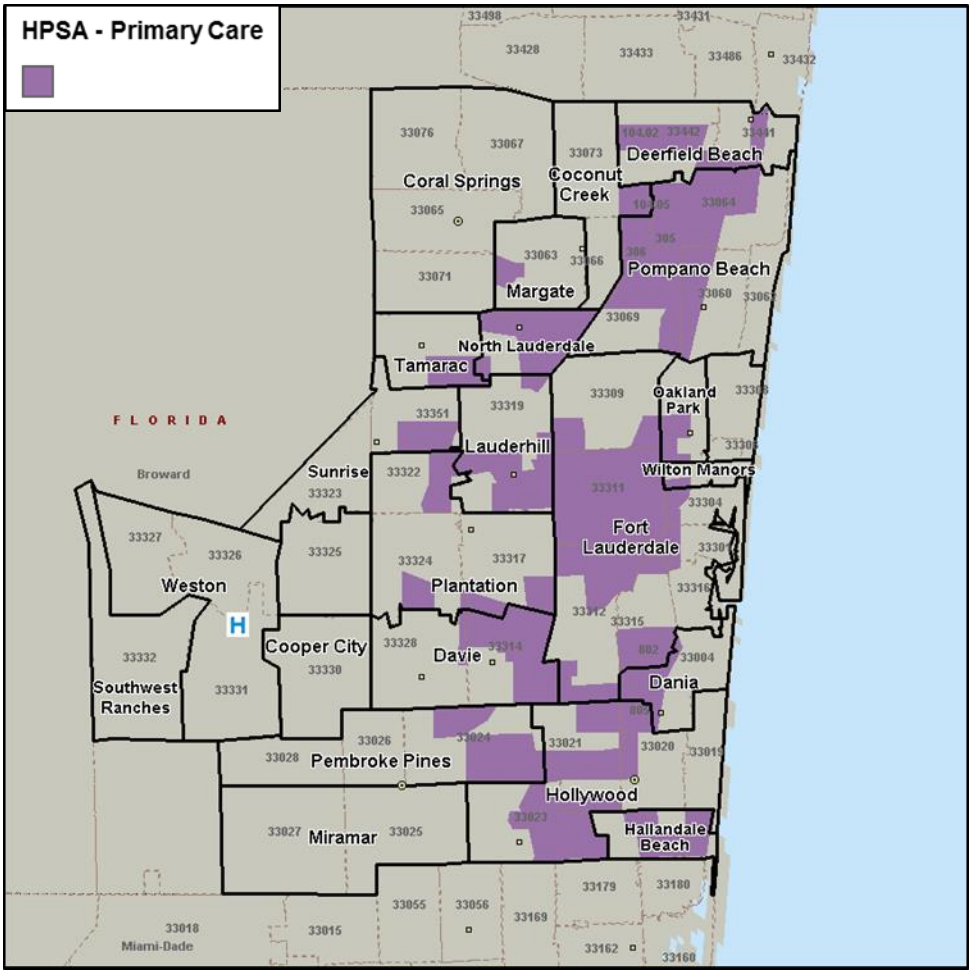
A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary medical care, dental care, or mental health care professionals is found to be present. In addition to areas and populations that can be designated as HPSAs, a health care facility can 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."[13]

[13]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 34 illustrates the locations of the federally-designated HPSAs.

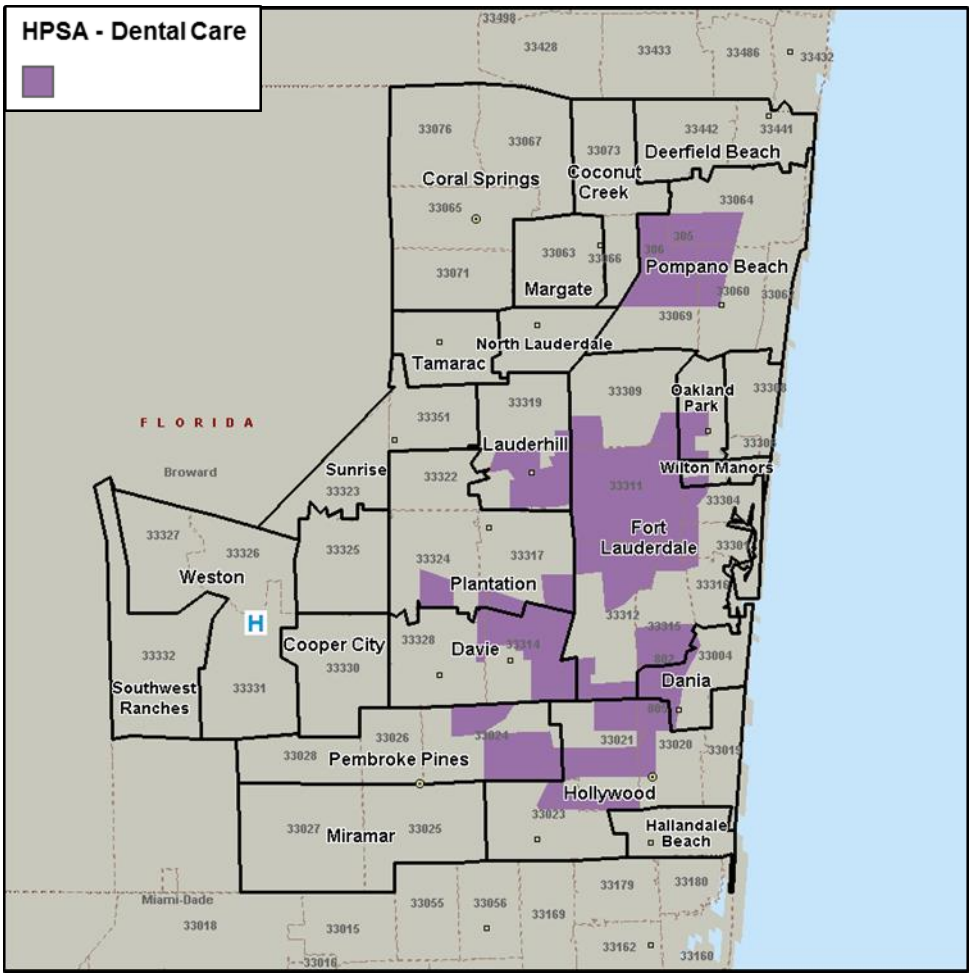
Exhibit 34A: Primary Care Health Professional Shortage Areas



Source: Health Resources and Services Administration, 2015.

Within the Cleveland Clinic Florida community, primary care HPSA designated census tracts are located throughout the central area of the community.

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 central area of the Cleveland Clinic Florida community.

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
Broward County Human Services Department CAN 2014
Holy Cross Hospital CHNA 2013
St. Anthony's Rehabilitation Hospital CHNA 2013
Broward Health 2015 CHNA
Memorial Healthcare System Community Action Plan 2015-2018
Boca Raton Regional Hospital CHNA 2012
Florida Department of Health Broward County CHA 2013
Sylvester Comprehensive Cancer Center CHNA 2013

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
Access to basic/primary health care	7
Access/lack of health insurance coverage	4
Cancer	4
Cost of care	3
Health disparities across populations	3
Health education	3
Access to preventive health/ education	2
Cardiovascular/ heart disease	2
Cultural and diversity competency	2
Elderly care & falls and fractures	2
HIV/AIDS	2
Infant mortality	2
Obesity	2
Stroke	2
Access to and management of prescription drugs	1
Access to prenatal care	1
Access to transition services	1
Affordable housing	1
Cancer- breast	1
Cancer- cervical	1
Cancer- colorectal	1
Cancer- prostate	1
Chronic conditions	1
Coordination across continuum of care	1
Diabetes	1
Hip Fractures	1
Hypertension	1
Immunizations	1
Low birth weight	1
Neurological Disorders	1
Nutrition/ access to healthy food	1
Poverty	1
Proper Utilization of Emergency Services	1
Sexually transmitted diseases	1
Transportation	1

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

APPENDIX C – 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
American Heart Association	National voluntary health agency	General population
Broward County Health Department	County health department	General population
Broward Partnership for the Homeless	Homeless assistance center and short term residential shelter	Homeless, low-income
Broward County Sheriff's Office	Department of fire rescue and emergency services	General population
Catholic Health Services	Post-acute nonprofit healthcare and social services organization	General population, low-income
Coral Springs Fire Department	City fire department	General population
Hispanic Unity of Florida	Immigrant social services organization	Minority populations
Jewish Federation of Broward County	Faith-based organization	Jewish community
South Florida Hospital & Healthcare Association	Local hospital and healthcare association	General population
Weston government	City government	General population
YMCA Weston	Youth development/health living/recreational facility	Youth, general population

* Two individuals from the Broward County Health Department were interviewed during the interview process

APPENDIX D – ACTIONS TAKEN SINCE THE PREVIOUS CHNA

Cleveland Clinic Florida 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 related action items from our 2013 CHNA Implementation Strategy are described below with representative impacts.

1. **Identified Need: Chronic Disease and Related Health Behaviors, Heart Related Diseases**

   Action: Cleveland Clinic Florida is a Primary Stroke Center and continues to provide a wide range of clinical, nutritional, and rehabilitation services to treat chronic heart-related diseases, including stroke, congestive heart failure, COPD, and hypertension.
   Highlighted Impact:
   - The Cleveland Clinic health system reduced heart failure 30 day readmission rates from 2013 through 2015.
   - Cleveland Clinic Florida continues to provide complex care for the community, including the transition from a primary stroke center to a comprehensive stroke center.
   - In 2014 and 2015, Cleveland Clinic Florida provided 28 community stroke education classes and screenings, as well as the World Stroke Day awareness initiative.

2. **Identified Need: Chronic Disease and Related Health Behaviors, Diabetes**

   Action: Cleveland Clinic Florida continues to offer inpatient and outpatient and nutrition services to patients suffering from diabetes and any diabetic complications.
   Highlighted Impact:
   Cleveland Clinic Florida educated the community on the benefits of a healthy diet to curtail diabetes and diabetic complications through screenings and health fairs provided at various Broward county locations.

3. **Identified Need: Chronic Disease and Related Health Behaviors, Obesity**

   Action: Cleveland Clinic Florida offered bariatric surgical and other clinical and nutrition services and support groups for patients to reduce the prevalence of and assist patients with obesity.
   Highlighted Impact:

- Cleveland Clinic Florida was certified as a bariatric center of excellence.
- Cleveland Clinic Florida provided monthly supports groups for obesity issues, emotional wellness and nutrition as well as weight management web chats to community members.

4. Identified Need: Chronic Disease and Related Health Behaviors, Transplantation

Action: Cleveland Clinic Florida received certificate of need approval to commence transplantation programs for kidney, liver, and heart transplantation services. These programs will continue to allow Broward County residents to receive this care close to home rather than travelling outside the South Florida region to get the care they need.

In addition to its clinical activities, Cleveland Clinic Florida continues to provide outreach programs, community health talks and farmers markets all of which focus on healthy behavior choices, promote health and wellness, increase access to healthcare resources, and reduce disease burden.

Highlighted Impact:

- Cleveland Clinic Florida performed over 150 transplants in 2015.
- The hospital provided organ donation awareness education for 25 community outreach events in 2015. Radio Public Service Announcements were issued in English and Spanish.

5. Identified Need: Sexually Transmitted Diseases

Action: Cleveland Clinic Florida continues to provide inpatient and outpatient care for patients with sexually transmitted and other infectious diseases, treats chronic infections that arise from exposure to sexually transmitted diseases (STDs), and offers health education programs and support groups in its communities. Cleveland Clinic Florida also collaborates with Broward County Department of Health and Memorial Health to promote awareness and prevention.

Highlighted Impact:

- Cleveland Clinic Florida provided STD screenings and preventive education at the hospital and various Broward County community locations.

6. Identified Need: Health Disparities

Action: Data in the 2013 Cleveland Clinic Florida CHNA indicated that certain racial and ethnic groups in the Cleveland Clinic Florida community have a higher incidence of particular diseases, especially cancer. In general, although Cleveland Clinic Florida cannot address genetic or certain other factors contributing to these disparities, the hospital can and does provide patient care on an inpatient and outpatient basis to help patients with these diseases. For example, Cleveland Clinic Florida continues to offer advanced primary, specialty and surgical services to treat various types of cancer; offers support groups, free clinical screenings and health education programs in the communities it serves; and has and will continue to collaborate with other nonprofit organizations to treat and raise awareness about cancer and its risk factors.

Highlighted Impact:

- In 2014 and 2015, Cleveland Clinic Florida provided over 60 health education programs and 20 screening events to its community members.
- The hospital partnered with the American Heart Association and the American Cancer Society to provide community education on early detection, prevention, and risk factors for heart disease, cancer, neurological conditions and other conditions and diseases.
- The Cleveland Clinic Florida cancer center offered ongoing support groups and navigation services as a resource and education center.

7. Identified Need: Access to Affordable Care

Action: Cleveland Clinic Florida continues to provide medically necessary emergency or inpatient services to all patients regardless of race, color, creed, gender, country of national origin or ability to pay.

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.

8. Identified Need: Barriers to Care Other than Affordability

Action: This issue included linguistic isolation (residents with non-English primary language who speak limited English) and the demand for more physicians in the community.

Cleveland Clinic Florida continues to offer translation and other services (e.g. signage, key documents) and many of its physicians and staff are bilingual to assist the Spanish-speaking population of Broward County properly access health care. Translation services are offered in other languages, as needed.

Cleveland Clinic Florida is an academic medical center that continues to provide medical training to medical students, interns and residents from several medical schools across Florida to provide more learning opportunities and to encourage graduates and physicians to remain in the region to continue their medical career.

Highlighted Impact:

- Cleveland Clinic Florida offered the Medical Student Elective Rotation Program to teach students essential clinical and practical skills. Participating students rotated with Cleveland Clinic Florida faculty and residents in a variety of specialties areas.

9. 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 occur throughout the Cleveland Clinic health system including at Cleveland Clinic Florida.

Highlighted Impact:

- The Maroone Cancer's Departments of Hematology and Oncology participated in clinical trials with Taussig Cancer Institute at Cleveland Clinic as well as with the National Cancer Institute. Clinical trials included areas of Brain Cancer, Breast Cancer, Gastrointestinal, Genitourinary, Head & Neck Cancer, Leukemia, Lung Cancer, Multiple Myeloma, Prostate Cancer and Solid Tumor Cancer

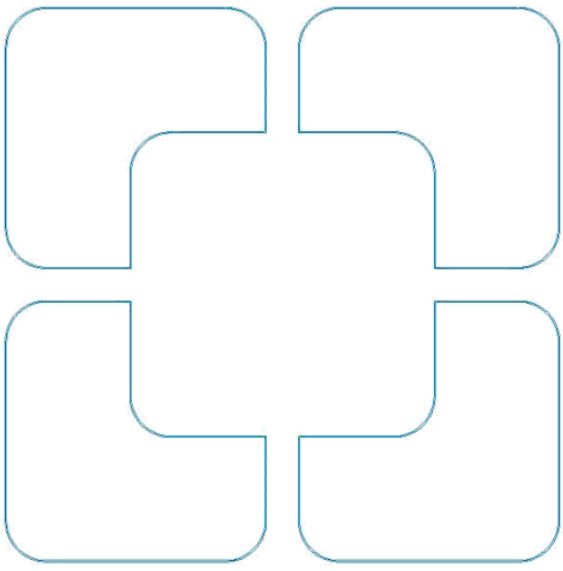
10. Identified Need: Education

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: Cleveland Clinic Florida continues to provide physician, nurse and allied health education opportunities and is affiliated with nursing and allied health schools. The hospital also provides community education programs on a variety of topics including wellness and nutrition.

Highlighted Impact:

- Cleveland Clinic Florida served as South Florida's largest non-university, physician-graduate training center.
- Cleveland Clinic Florida provided the Summer Scholar Program geared towards high school seniors and college pre-med students to provide exposure to the practice of medicine in both the hospital and clinic settings.
- Community diabetes education talks and screenings, healthcare for the elderly programs, wellness fairs and community farmers market were provided by Cleveland Clinic Florida in 2013 through 2015 at various Broward County locations.



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